



A Mosaic of Languages and Cultures

Studies Celebrating the Career of Karl J. Franklin



Edited by Kenneth A. McElhanon and Ger Reesink

A MOSAIC OF LANGUAGES AND CULTURES

STUDIES CELEBRATING THE CAREER OF KARL J. FRANKLIN

Edited by Kenneth A. McElhanon and Ger Reesink

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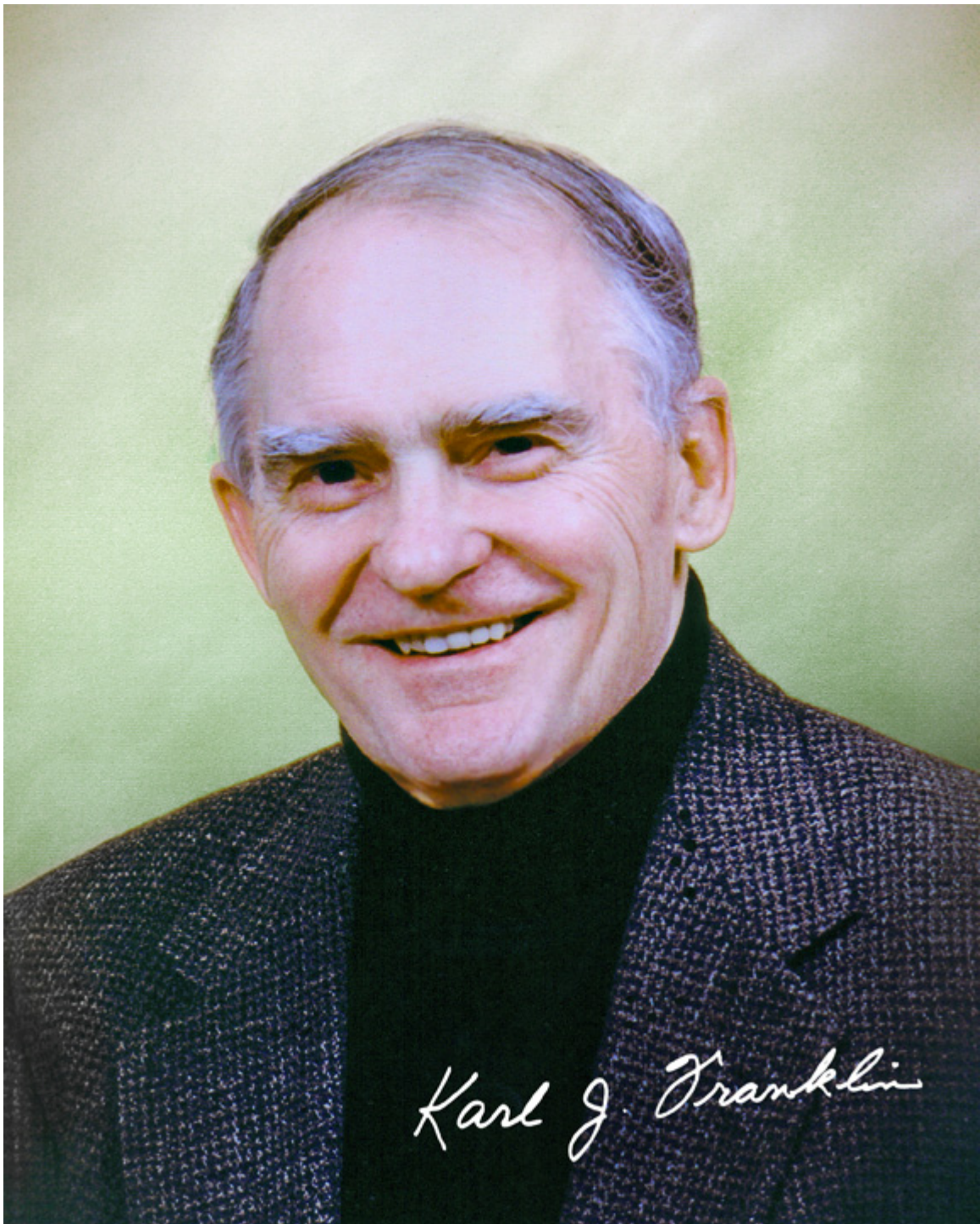
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List of Contributors

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Kirk Franklin was born and raised in Papua New Guinea where he lived with his parents, Karl and Joice Franklin, among the peoples who speak the East and West Kewa languages, which he also knows. He served as a member of SIL (PNG) 1981-90, during which time he met and married his Australian wife Christine who was an elementary school teacher with SIL. They returned to Australia where Kirk was the Director of Media for nine years followed by another nine years as the Executive Director/CEO. In January 2008 Kirk became the Executive Director/CEO/President of Wycliffe International. He has studied media-communications, Bible, leadership and intercultural studies/missiology. He and Christine live in the Melbourne area, although Kirk's work and ministry take him to places across the world. kirk franklin@wycliffe.net

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language. He has authored or coauthored some ten books and around 150 articles. A major contribution was his pioneering studies in textlinguistics and discourse, and his contribution to developing a North American approach as distinct from European approaches. Recently he has applied discourse insights to the biblical Greek and Hebrew. In reference to the latter, he has developed discourse studies as a partial anti-date for nineteenth century source criticism potentially yielding a better way to understand the tenses and moods of that language. Working with several co-authors, he is still developing some of these germinal insights. [bob longacre@sil.org](mailto:bob_longacre@sil.org)

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Ger Reesink studied psychology at the University of Utrecht before joining SIL and spending fifteen years in Papua New Guinea. He holds a Ph.D. (linguistics) from the University of Amsterdam under the late Simon C. Dik. His dissertation was a description of Usan, spoken in the Madang province of PNG. Following his affiliation with SIL, he spent more than fifteen years at Leiden University, mostly doing research on the languages of the Bird's Head of Papua province, Indonesia. Since 2002 he has been a postdoctoral researcher at the Radboud University Nijmegen, where he is involved in typological research of Papuan, Austronesian and Australian languages in order to trace the ancient history of genealogical and contact relations between languages of the Sahul continent and neighboring archipelagos. ger.reesink@hccnet.nl

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are spouses and collaborate as a research team who work in the Pacific (mostly in Papua New Guinea), Europe (mostly in Scotland, Ireland, and The Netherlands), Asia (mostly in Japan, Taiwan and Mainland China), Australia, and New Zealand. Their work has included aspects of the study of Scots as a minority language and its Ulster-Scots variant within County Donegal, Republic of Ireland, and in Northern Ireland, and also cross-border relations between the Republic and Northern Ireland as well as issues of devolution within the United Kingdom. They have also been working on Scottish Diaspora Studies, relating to Western Australia, New Zealand, and the United States. Together they are the co-editors of the “European Anthropology” Series, the Ritual Studies Monograph Series, and the Medical Anthropology Series for Carolina Academic Press and they co-edit the *Journal of Ritual Studies*. They have published widely on their findings in books and articles. Their most recent book is *Religious and ritual change: Cosmologies and histories* (Stewart and Strathern, eds.). Information about their research and publications can be found at: (www.pitt.edu/~strather). Email: strather@pitt.edu and pamjan@pitt.edu.

David Tuggy was born in Venezuela and grew up speaking English and Spanish. He and his wife Joy have worked with the Mexico Branch of SIL since 1970, assigned first to work on the Tetelcingo Nahuatl (nhg) language and then on Orizaba Nawatl (nlv). He earned a Ph.D. in linguistics in 1981 from the University of California at San Diego, with a thesis on *The transitivity-related verbal morphology of Tetelcingo Nahuatl*. He has been active in the cognitive linguistics movement, working especially within the cognitive grammar model. He has taught linguistics at a number of institutions in several countries. More information, including a CV and some publications, is available at www.sil.org/~tuggyd. email: david_tuggy@sil.org

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Introduction

Kenneth A. McElhanon

Ger Reesink

Those who read the two biographies of Karl Franklin—a family portrait by his children and an appreciation of his roles as an academician and an administrator by a colleague—will quickly appreciate the fullness that has characterized Karl’s life. We have included both perspectives because of that fullness, so that those readers who are not familiar with him can see a personal side that is not always apparent in academic settings.

A range of complimentary adjectives describe Karl—*ingenious* in his creativity, *witty*, with a humor that challenges one’s inferential power, *careful* with his choice of words, and others. He has been *thorough* and *rigorous* in his research, *insightful* in his analysis, and *articulate* and *concise* in his expression. The title of this volume was chosen to reflect how wide-ranging his research interests have been. He is not only a linguist, but also an anthropologist, sociolinguist, and creolist.

Just as Karl was encouraged to begin an academic career by Prof. Kenneth L. Pike, he in turn has encouraged so very many others to do likewise. Of his many qualities as an academician, the one that is often cited by his peers and younger colleagues is that he encouraged them to consider getting an advanced degree. Our own experience confirms that Karl has always been on the watch for others whom he could encourage to realize their full potential and make a contribution to society. Large is the number of those who are professionals in one discipline or another because of Karl’s recognition and encouragement. Those he encouraged, sponsored, or mentored represent a number of nationalities: Americans, Australians, British, Canadians, Japanese, Netherlanders, Papua New Guineans, Rwandans, and Solomon Islanders.

So it is not surprising that the contributors who honor Karl represent an international community of scholars who have researched languages and cultures across the globe and through history. The countries and languages represented in these studies are:

- Papua New Guinea: the *Alamblak*, *East Kewa*, *Folopa*, *Kalam*, *Samo*, *Bogaiya*, *Susurunga*, *Tuam*, *Tok Pisin*, and *Usan* languages
- Solomon Islands: *Pijin*
- Vanuatu: *Bislama*
- Indonesia (Province of Papua): *Asmat*
- Australia (Torres Strait): *Broken*
- Malaysia: *Bonggi*
- Vietnam: *Kháng* and *Ksingmul (Xinh-mun)*
- U. S. A.: *English*, *Hawai`i Pidgin*, and *Spanish*
- Suriname: *Suriname creoles*
- Brazil: *Mbyá Guaraní*
- Mexico: *Nawatl*
- The Netherlands: *Dutch*
- Central African Republic: *Mpyemo*
- Ancient Eastern Mediterranean: *Biblical Hebrew* and *Septuagintal Greek*

So that readers may appreciate the breadth of the contributors' experience, we have included brief biographies in the *List of Contributors*. We thank each of them for their contributions and their willingness to have their work peer-reviewed. The result is a festschrift that reflects the professionalism that has characterized Karl's academic career. In the words of Appalachian English, "It does him proud."

The volume has three sections, each with contributions listed alphabetically by the authors' names. *Studies in Language* consists of eighteen papers in phonology, grammar, semantics, dialectology, lexicography, and speech acts. These papers reflect diverse theories. *Studies in Culture* has five studies relating to cultures of Papua New Guinea. *Interdisciplinary Studies* concerns matters relating to translation.

Kenneth A. McElhanon
Ger Reesink
March 1, 2010

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Karl J. Franklin—His story

Kirk Franklin Karol Franklin Hardin

1933-1956: Childhood and early education

Karl James Franklin was born in 1933 in his grandparents' cabin at Patterson Grove Methodist campground, in rural Pennsylvania. Since it was during the Depression, the location offered affordable housing for many people. A few years later, his family moved to a farm in Bloomingdale, Pennsylvania where he spent the rest of his childhood and adolescence. The four Franklin children, Charles, Karl, Claire, and Jolene, were born within a five-year span and, since the family did not have a car or close neighbors, the children spent much of their time playing together. When Jolene was one and a half years old, she was tragically killed in an accident that deeply affected the whole family, especially his father, Harland. All of Karl's primary schooling was in a one-room schoolhouse near the farm. His mother, Viola, was a teacher (although she never taught where Karl went to school). His father, a factory worker, was also a self-taught electrician, magician and musician with an interest in languages.

Karl was an avid reader, even to the point of reading comic books, and he enjoyed going to see cowboy movies once a week. He also collected and traded Pep cereal pins, made model airplanes, and collected tin cans for the war effort. The children all played cards, checkers, and chess—his sister, Claire, says that he was so good at the latter that she refused to play with him. The kids enjoyed playing in the barn, jumping in the haymow, and climbing trees (sometimes to throw apples at siblings). Claire also recalls that even back then Karl liked to quote the nursery rhyme “Little Jack Horner” from his dad's Chinese Pidgin Poetry Book. Little did he know that Tok Pisin, a pidgin language, would become a language that he spoke on a daily basis when he later lived in Papua New Guinea (PNG). His chores on the farm included caring for the chickens,

carrying buckets of water from the spring, bringing in coal, emptying ashes, and occasionally milking the cow. He also mowed the lawn with a push mower and “liked to make the lawn a little bigger each summer.” He and Charles also had a paper route delivering the weekly paper, *Grit*. Playing sports was one of his main interests while growing up, and he particularly enjoyed baseball. While attending Huntington Mills High School, he played baseball, soccer and basketball. He also played the trumpet and could draw very well, which he did with great care for detail.

A turning point in his life occurred when a good friend returned from Korea—a different person as a result of his time there. Karl had a quick temper until his late high school conversion to Christ. He was greatly influenced by Reverend Parker Gamwell, the pastor of Bloomingdale Church and by the Sunday School teacher, Carolyn Sutliff. Reverend Gamwell was very zealous in explaining John 1:12 and what it meant to be a Christian. Finally, the meaning became clear to Karl. Even though his father thought that Karl would get over the experience, it was the major turning point of his life. Claire remembers that the difference in Karl’s life after his conversion to Christ had a great impression on her, making her want to change, too. His conversion changed his life in many ways, not the least of which was that he decided to attend a Christian college, and he ultimately chose The King’s College because it had the most sports photos in its catalogue.

Until his conversion, Karl had wanted to become an athletic coach. He was recognized as Athlete of the Year during his senior year at King’s, which, at that time, was located in Delaware. He says that he was completely naive when he left for college, but fortunately, he played baseball with some “good guys” who were very influential. As a student at King’s (1950-1954), he also met Joice Barnett while they worked together in the school kitchen. Whereas he was known as being shy and quiet, Joice was outgoing and graduated as the valedictorian of their class. He majored in psychology, and by his self-description was not an outstanding student, partly because he had to work many hours to support his education. Since he worked nights and was tired during classes, he repeatedly sat in the back seat of an early morning “Missions” class with his feet up, sleeping. Joice was also in the class, and one day the professor asked her, “Are you serious about Karl Franklin?” She replied that she was not (they were just dating at the time), to which the professor responded, “Good! The Lord has someone special for you!” Fortunately, Joice did not listen to that advice, but she and Karl still chuckle about the incident.

Both Karl and Joice were interested in Bible translation. Karl never felt that he was an evangelist or preacher, and when he heard about the Summer Institute of Linguistics and Wycliffe Bible Translators, the organizations suited his capabilities and what he was instinctively attracted to. Previously, he hadn’t known that such options existed. After graduation, he moved to Los Angeles to study for a year at the Biola School of Missionary Medicine. Attending Biola was important because he could have been drafted into the Korean War at the time. He did not ask for a deferment from the draft, but the draft board gave him a ministerial exemption anyway. In California, a former college friend and a pilot

with JAARS (then known as Jungle Aviation and Radio Service) taught him to fly a two-seater Taylor aircraft, and he was able to solo twice. Meanwhile, he and Joice continued their relationship via correspondence. In later years when he burned his old love letters so they wouldn't take up storage space, he jokingly claimed that they "self-ignited." After his time in California, he moved to Pontiac, Michigan, Joice 's hometown, and worked at General Motors until they were married on May 26, 1956.

1956–1964: The early years

Karl and Joice celebrated their honeymoon en route to their first semester of training with the Summer Institute of Linguistics at the University of Oklahoma in Norman where, among other people, they were encouraged by Ray and Ruth Nicholson, who were second semester students already assigned to The Territory of New Guinea (now part of PNG). He and Joice were accepted as members of the Summer Institute of Linguistics (now SIL International) on August 14, 1956. Soon after their acceptance, they did their "Jungle Camp" training in southern Mexico. A quote from their February 1957 newsletter indicates a motivation for their training: "Every language is a temple in which the soul of the people who speak it is enshrined" (Smith 1947). During their training in Mexico, they were also asked to consider serving among the "unreached tribes of The Territory of New Guinea."

Karl and Joice completed their second semester of SIL training in the summer of 1957, again at the University of Oklahoma. On August 17, 1957 they were assigned to serve in The Territory of New Guinea, which at that time was believed to have 521 different languages. In February 1958 they left San Francisco aboard the *SS Orcades* for the twenty-day sea voyage to Sydney, Australia. After a brief stopover in Australia (where they learned of Joice's father's sudden death back in the United States), they arrived in Lae, New Guinea on March 27, 1958.

In September 1958 they were invited to live and work among the 35,000 Kewa-speaking people. They took up residence in the Southern Highlands village of Muli in the East dialect soon afterwards and began immersing themselves in learning the unwritten language. Then in April 1959, one day before Karl's birthday, their son Kirk was born in Madang, New Guinea. In order to help pay for their stay at the rural hospital, Karl was given the task of installing doorknobs and doing other handiwork.

In 1961 Karl accepted his first leadership role at twenty-eight years of age when he became chairman of the SIL Executive Committee in New Guinea. Later that year he became Acting Director and also participated in his first linguistic workshop with the visiting Prof. Kenneth L. Pike (University of Michigan). Karl took a paper to him to ask some questions, and consequently Prof. Pike encouraged him to get further linguistic training. When Pike asked him where he would like to attend, Karl suggested SUNY-Buffalo or Cornell University with the caveat that he didn't think he would be accepted because of his mediocre

undergraduate grades. Prof. Pike, a friend of Prof. Charles Hockett, Chair of the Linguistics Department, was influential in Karl's admission to Cornell's graduate school. As a further encouragement, SIL gave him a scholarship, and he was also able to obtain a position as a teaching assistant for Prof. Hockett.

Another turning point in Karl's life was in 1962 when Joice almost died from a ruptured ectopic pregnancy. She was going into shock due to hemorrhaging, so Karl rode his motorbike to the nearest town to see the local doctor and obtain authorization for an emergency flight. The doctor would not give permission because he had not seen Joice, but Karl heard a plane at the nearby airport and frantically rode down the airstrip and under the DC-3 plane's wing to get the pilot's attention. It worked, and the pilot shouted out that he would get a plane to come. The event made Karl realize how fragile life can be, and despite it, how God can work through extraordinary circumstances. Karl had assurance that he was on the right track even when things were difficult. Having a second child, Karol, and being elected director for SIL New Guinea were other key points in Karl's life.

1964-1966: Graduate studies and early leadership roles

Karl's hard work and leadership qualities became evident early on. In 1963 he and Joice served on staff of the SIL Schools in Belgrave Heights, Australia and at the University of Oklahoma. The same year, he commenced his M.A. study program in linguistics at Cornell and received his degree in 1964 with the thesis *Kewa Clause Markers* (Franklin 1965). It was a busy year because, upon returning to New Guinea, he was elected as Associate Director, a two-year term. Meanwhile, a team from Australia took over the East Kewa language work. The Franklins' daughter, Karol, was born in Lae, New Guinea in October 1965, and six weeks later, they headed to New Zealand so that Karl could serve as principal of the inaugural SIL School. They also returned to teach at the school the following year. Harland Kerr, a colleague with whom Karl had taught and done linguistic surveys, had recommended Karl to be the school principal.

1967-1976: The Kewa, a doctorate, and the directorate

Once Karl's term as Associate Director was complete in 1967, they decided to move to the West Kewa village of Usa to focus on the West Kewa dialect. Prof. Stephen Wurm (Australian National University (ANU)), a linguist who did survey work in PNG, told Karl that he could apply for scholarships to the ANU. As a result of this contact with Professor Wurm and help from the then SIL-New Guinea director, Jim Dean, Karl began a doctoral study program in linguistics at ANU where the Franklins spent an initial three months. They returned to Canberra in 1968 for another year, and Karl received his Ph.D. in 1969. A quote from their November 1969 newsletter highlights his motivation: "I do not consecrate myself to be a missionary or a preacher; I consecrate myself to God to

do his will where I am, be it in school, office or kitchen or wherever He may, in His wisdom, send me” (Nee 1957). His family recalls that even after he obtained a Ph.D., he avoided using the title “Doctor” and preferred just to be called “Karl.” He encouraged as many people as he could to enter doctoral programs, just as Pike had encouraged him, and he also suggested that some people attend the University of Papua New Guinea. At times, though, he was criticized for over-emphasizing academics.

Once again he was asked to be principal of another SIL school, this time at the University of Queensland in Brisbane, Australia from December 1971 to February 1972. In 1971 he also took part in a significant linguistic survey of the Gulf Province of New Guinea (Franklin 1973a). The culmination of the Franklins’ and the Kewa people’s efforts was the completion of the West Kewa New Testament in 1973 (Franklin 1973b), SIL-New Guinea’s first completed New Testament. Despite numerous commitments and interruptions, the first copies came off the printing press at the SIL print shop at Ukarumpa, New Guinea on March 29, exactly 15 years after the Franklins first arrived in the country. The dedication was held at the Kewa villages of Kagua and Wabi in June 1973.

Karl was again elected to a four-year term as the SIL-New Guinea director in 1972. In a newsletter at that time, he reflected on his role: “What is an administrator? I believe that an administrator must provide the kind of leadership climate that will allow and encourage the best kind of work and example. The best kind is laid out clearly for us in the Scriptures. It is work which is highly motivated to fulfill the commission of our Lord, and it includes translation, literacy, being an ambassador, and even an administrator.”

It is significant that Papua New Guinea (PNG) became an independent nation in September, 1975 during Karl’s tenure as director. Through his many experiences in leadership, he learned that it is possible to do research and also be an administrator; they are not mutually exclusive. Beginning with his time at Cornell, he understood the importance of publishing articles. Linguists such as Prof. Kenneth Pike, Dr. Robert Longacre, Prof. Joseph Grimes, and Dr. William Merrifield (a fellow student at Cornell) had encouraged him academically. Karl saw that through administration he could do more in influencing and fostering an academic mindset, and that he could encourage more people.

Karl’s vision was to see Papua New Guineans in leadership and highly involved in Bible translation. Hence, he and other leaders decided to begin what was later known as The Easter Camp at Ukarumpa. The camp was a result of tertiary school camps that had been held in PNG for years, and through Easter Camp, he met numerous Papua New Guineans who later became influential leaders. He consequently appointed nationals to an SIL Advisory Council, a group created to give advice to SIL leadership about how to involve Papua New Guineans in Bible translation work.

His experience with other cultures has made him a different person from what he was when he first arrived in PNG. Upon his arrival, the SIL Pacific area director, Dr. Richard Pittman, warned the new orientees that they needed caution and understanding, because they would be working with people from

other countries. Karl says that after years of working with many nationalities, he is now much less American in his thinking and much less prone to excessive displays of patriotism. He learned that Americans did not always do things the best way. In fact, some of his best friends through the years have either not been American or have been Americans who were a bit radical or unusual. Most of all, Karl learned the importance of inter-cultural friendship; he was fortunate to have close Papua New Guinean and other non-American friends. He also saw a need to worship with Papua New Guineans at the nearby Aiyura National High School, where he served on the Governing Board. This was where he and Joice met and became friends with members of the Southern Highlands Club, which was comprised of members from the region where they had previously lived among the Kewa people.

1976-1979: Settling in the Dallas area

After a six and a half year term in PNG, Karl and Joice finally returned to the U.S. so that they could be closer to Kirk, who was beginning college, and so that Karl could teach at the Texas SIL School located at the International Linguistics Center in Dallas. Karl was subsequently appointed as SIL's International Linguistics Coordinator. Besides teaching at the Texas SIL School, he became an adjunct professor at the nearby University of Texas at Arlington. They also served on staff at the SIL School at the University of Oklahoma (Norman), and in 1978 at the British SIL School (Horsley's Green, England). At each SIL School, Karl's dry sense of humor became evident in classes and social events via slide shows, skits, and practical jokes (often with Joice's active participation). Also in 1978, The King's College (which had since moved from Delaware to New York) honored him as Alumnus of the Year.

1980-1991: Return to PNG and to the Kewa

In late 1979 he and Joice returned to PNG, and soon afterwards he and Robert Litteral developed a new training course for national Bible translators that continues to this day. He also organized a linguistic survey in the province of Manus. Then in 1980 he began mentoring the newly appointed Director of the PNG Bible Translation Association (BTA), David Gela. BTA was also new, the outgrowth of the original Advisory Committee that Karl had been instrumental in starting.

Once again, Karl was elected as SIL Director in PNG. He says that he always left his name on a ballot; that is, he never refused the office, but he never actually expected to be elected either. He was always ambivalent about administration and never felt that he was born to be an administrator. When asked how he handled conflict, he replied that he does not remember much about personal conflicts, and that he avoided holding grudges against anyone for disagreeing with him. Joice says that he "stuck to his guns" if he really believed

he was right. He also was able to leave problems at the office when he returned home after work.

In 1980, he and Joice taught at the Australian SIL School (at the University of New South Wales) in Sydney. Although he was unusually productive professionally, he still found time for his family and friends, as exemplified when he and Joice returned to Dallas in 1983, in part to be near Karol who was beginning college in Texas. He returned to teaching at the Texas SIL School, and in 1984 was appointed International Coordinator for Anthropology and Intercultural Community work for SIL. He also served on numerous M.A. and Ph.D. committees; many former students have expressed their appreciation for his wise counsel, advice, and encouragement toward academic excellence.

In 1986 Karl and Joice returned to PNG yet again where he was appointed as the Director's Assistant for Technical Studies. After two years, he and Joice spent periods of time with the West Kewa people to encourage them to revise the Kewa New Testament; however, they discontinued this work two years later due to lack of interest by the Kewa church leaders.

1991-2001: Roles in Australia and Texas

Karl's colleagues have commented on his ability to lead and build a team regardless of his role. He learned to plan, and had a vision for how things could be done differently. For example, he envisioned the formation of BTA, the concept of "support teams" to partner with teams doing Bible translation, and the *BIZ* information sheet for SIL-PNG, among other innovations. He realized the importance of soliciting the opinion of nationals and gained ideas from other regions where SIL worked, such as Peru, Mexico, Vietnam, and the Philippines. He also recognized that much could be learned from other mission groups.

In 1991, he and Joice moved to Australia so he could serve as principal of the South Pacific SIL School for three years. After they moved back to Dallas in 1994, he was appointed as SIL's International Training Coordinator and also resumed teaching at the University of Texas, Arlington, this time teaching a course on Papuan languages.

In 1995, he was appointed as SIL's Vice President for Academic Affairs and was elected to the Board of Wycliffe USA. In 1999, he played a significant role in establishing the Graduate Institute of Applied Linguistics (GIAL) and became its first Chairman of the Board. He is credited with naming the fledgling school. During this time, he also joined the Board of the European Training Programme, which oversees SIL training for Europe.

2002-2005: Storytelling and a return to PNG

In 2002, Karl began working on a Bible storytelling strategy for small Pacific languages because he was convinced that such people groups needed an oral approach. He also assumed the role of editor of SIL's technical publication *Word and Deed*. He and Joice returned to PNG in 2002 because West Kewa church

leaders asked them for help in revising the New Testament that was out of print. It was published and dedicated in 2004 with an estimated 2,000 Kewas in attendance. While in PNG, he taught two Bible storytelling courses in the Sepik River region. They returned to Dallas and through email continued helping some East Kewa Christians produce the East Kewa New Testament using the *Adapt It!* software. Karl and Kirk traveled to PNG for the dedication of the East Kewa New Testament in July, 2005. Notably, while in PNG, he was honored with a medal in recognition of his services to BTA at their 25th anniversary in Port Moresby, a culmination of his passion for the Kewa people and for Papua New Guineans.

2005 – Present: Continued focus

At the end of 2007, Karl completed his role as editor of SIL's *Word and Deed*, and he now is working on the storytelling approach to scriptures. He continues teaching at GIAL, mentoring SIL members interested in the storytelling approach, and serving on graduate committees. He actively corresponds with Kewa people and, through email, is involved in translation work on the West Kewa Old Testament currently being done by a local translation committee. And in his spare time, he likes to paint, read a wide range of books, write academic papers, and visit or correspond with his children and grandchildren. He also diligently exercises and may even be found once a week “at a course,” as Joice likes to explain to those searching for him when he is playing a weekly golf game.

So what are some descriptions that epitomize Karl? He enjoys idealistic satire; that is, he has a streak of idealism, but he is “realistic enough to calm it down.” He thinks of life as a charted path and is confident that it is going towards God, even when he journeys off into swamps and other places (like in *Pilgrim's Progress*). He does not like “God Talk,” and is somewhat skeptical of super-spiritual people. He enjoys the book of *Proverbs*, and ideas that have to be mulled over, which is why he likes Kewa Hidden Talk—a Kewa linguistic strategy whereby one's literal speech carries implied, rather than literal, meaning (Franklin 1975). He believes that any organization needs to continually cull and scale back; he dislikes bureaucracy. And finally, he applauds entrepreneurship and originality; he appreciates quiet mavericks and does not dismiss their creativity.

A personal note

A number of his characteristics stand out—such as his relationship with our mother and his recognition of her significant contribution to their work. Even though at times he can be a man of few words, it isn't that he does not have much to say. Instead, he chooses his words and is known for thinking before speaking. He has a close relationship with us as his children—as a mentor, role model and friend, not just as a parent, and is very involved with our spouses and children in the United States and Australia.

His desire is to be fit in body, mind and spirit; this is evident in his love of sport and commitment to regular exercise, his love of books and learning, and his faithful practice of reading the Bible and praying both alone and with family. Over the years he has participated in soccer, baseball, basketball, softball, volleyball, jogging, tennis, and golf; moreover, he is known for an ability to compete in good humor. A prolific writer, his favorite genre is that of humorous essays about his experiences and observations on life. His musings are often about simple experiences with an odd twist or unusual perspective. Over the years he has demonstrated his ability to write materials that run the gambit from scholarly research to humorous glimpses of real life. In fact, he has written a book with over 100 humorous essays of personal experiences and a storybook for his grandchildren.

Friendships with peers from both within and outside SIL have earned him deep respect from many people around the world. His colleagues and peers have noted that he is consistent, hardworking, diligent, humble, a wise counselor, concise, productive (with high quality work), forward thinking, and a strong leader. His passion for linguistics, for the Kewa people and Papua New Guineans, for his family and friends, and his unquestionable integrity make us very proud to call him our father. He continues to serve humbly, both God and others, just as he has done for many years.

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3

Karl J. Franklin: Multi-talented Academic *extraordinaire*

Robert Litteral

1956-67: Academic Beginnings

The academic life of Karl Franklin is characterized by discipline, productivity, multiple interests and leadership, all influenced by his enduring faith—and flavored by his sense of humor. Some of these characteristics would have been recognized in his undergraduate years (1950-54) at The King’s College, a small evangelical college, then near Delaware City in Delaware. There he developed his multitasking ability as he studied, worked long hours to pay his way, and was active in sports. He won the ‘Athlete of the Year’ award in his final year for his participation in soccer and baseball. One reason for attending there was that he had noticed the sports activities in a college publication. There he developed an interest in missions, took courses in missions and met Joice Barnett, who was also interested in missions, and who later became his wife. After obtaining his bachelors degree in psychology, he attended the BIOLA School of Missionary Medicine in California and received a diploma as a medical technician as further preparation for Bible translation service.

He and Joice married in 1956 and immediately set out for their linguistics training at the Summer Institute of Linguistics (SIL) at the University of Oklahoma (Norman). They completed a second course there in 1957 and went to The Territory of New Guinea (now the nation of Papua New Guinea (PNG)) in early 1958. Later that year they began the task of linguistic analysis through language and culture learning with the speakers of the eastern dialect of Kewa in the Southern Highlands District. From 1959-61 he contributed to three programs for teaching government officers about language learning which developed into

a continuing academic interest in language pedagogy. He imparted an enthusiasm for linguistics whenever he taught, the evidence of which is that one of the government officers, Tom Dutton, went on to become a professional linguist and is a contributor to this volume.

His leadership ability was recognized when in 1961 he was elected to the SIL New Guinea Executive Committee and was appointed acting director for five months. He was mentored by Prof. Kenneth L. Pike for three months in a linguistics workshop during his first field term (1958-63) and published three articles on Kewa: Franklin (1963), Franklin and Franklin (1962a, 1962b). Two of these were ethno-semantic studies of Kewa counting systems and body parts, the seeds of another enduring interest: lexicography and semantics.

On his leave he worked on his M.A. in Linguistics at Cornell University under Prof. Charles Hockett during the 1963-4 academic year and taught phonetics on a teaching fellowship. He received his degree after finishing his thesis on Kewa clause markers in 1965, part of which was published (1965). When he returned to New Guinea in 1964, he was elected to a two-year term as an associate director of SIL-New Guinea with responsibility for overseeing all the language programs. During this time he became a grammar and anthropology consultant and was also appointed as the principal of the first New Zealand SIL for the summers of 1965-67 where he also taught grammar and anthropology.

1967-73: Ph.D. and Kewa New Testament

In 1967, after he completed two years in administration, he began his studies at The Australian National University (ANU) on a three-year Ph.D. scholarship and received his degree in 1969. There he studied under Prof. Stephen Wurm and developed an enduring interest in comparative and areal linguistics. For his research he began working with the western dialect of Kewa, inasmuch as another SIL linguist had assumed the work in the eastern dialect after Karl had become assistant director in 1964.

The period from the beginning of his Ph.D. studies in 1967 until the completion of the West Kewa New Testament in 1973 was one of prodigious productivity. Not only did he complete his Ph.D. and publish most of it (1968, 1969, 1971a), he also edited his first book, *The linguistic situation in the Gulf District and adjacent areas, Papua New Guinea* (1973a), oversaw the completion of the West Kewa New Testament (1973c), and published numerous articles unrelated to his Ph.D. research (1970, 1971b, 1971c, 1972a, b, 1973b).

He was also director of the Australian SIL during the summer of 1970-71 and was elected director of SIL-New Guinea in 1972. During the translation and production of the West Kewa New Testament and cultural literacy materials he trained speakers of Kewa as equal colleagues. This was the beginning of his long-term involvement in training members of language communities. As director of the SIL-New Guinea branch he encouraged the development of training courses for Papua New Guineans in translation and writing, to the benefit of many language communities other than Kewa. While director, he mentored a Kewa,

Yapua Kirapeasi, in the production of basic educational materials. Another Kewa, Apoi Yaraepa, who went on to complete a Ph.D. in linguistics at the ANU, had this to say in appreciation, “I express my appreciation to Dr. Karl and Joice Franklin...for their encouragement. They are indeed the pioneer Kewa *wina ali-lopo* [‘man woman-both’] who have shown me the way to my people and language. The Franklins’ account of Kewa language and culture has guided my own research, so that my account of Kewapi morphosyntax hopefully compliments their account of West Kewa morphosyntax.”

1973-1976: SIL Papua New Guinea Branch Director

Karl’s vision and leadership ability began to lead the PNG branch in a new direction where Papua New Guineans were trained to take a more active role in applied linguistic work for the benefit of their own language communities. He encouraged the formation of the SIL Advisory Council in which leading Papua New Guineans advised SIL on their work in PNG. This was the forerunner to the Bible Translation Association of Papua New Guinea. As director of SIL-New Guinea during this period, and again in 1980-82, he was elected to the international boards of SIL and the Wycliffe Bible Translators (WBT).

In the early years of the SIL-New Guinea branch, a number of special workshops were run by internationally known SIL linguists such as Prof. Kenneth Pike, Dr. Sarah Gudshinsky, Dr. Robert Longacre, Prof. Joseph Grimes, and Dr. Howard McKaughan. With growing numbers of field linguists (Ordinary Working Linguistics or “OWLs”—to use Longacre’s acronym) needing assistance, a regular calendar of workshops was developed utilizing linguists within the PNG branch. During Karl’s administration the journal *Workpapers in Papua New Guinea Languages* was initiated to provide an outlet for OWLs’ data papers. This was the first of many journals he was responsible for starting.

1976-79: Initial Contributions to SIL’s International Organization

After their son Kirk finished high school and entered college in 1976, the Franklins went to the USA to be with him and settled near SIL’s new International Linguistic Center in Dallas, Texas. This was the beginning of his longtime contribution to academic development at SIL’s international level, an involvement that continues to the present. He was appointed an International Linguistics Consultant and the Linguistics Coordinator of SIL International. At this time he became the founding editor of *Notes on Linguistics*, the first of several SIL in-house publications that he eventually founded and edited. During this time he taught courses in semantics, the structure of Pacific languages, and special conference courses at SIL, Dallas and the University of Texas, Arlington (UTA) where he was an associate on the graduate faculty. He also taught grammar and field linguistics in the University of Oklahoma and British SIL courses.

1979-83: Developing Papua New Guinean Personnel and Organizations

When the University of Papua New Guinea cancelled the Lahara applied linguistic courses after 1979, Karl headed a new SIL National Translation Course that included many elements of those courses for which he taught the grammar component. During his second term as director of SIL-PNG in 1980-82, he recruited the late William Edoni, a highly qualified and experienced Papua New Guinean, to provide leadership in the area of government relations. Edoni eventually became a member of the Wycliffe Bible Translators International (WBTI) board. Karl also mentored a then recent UPNG graduate, David Gela, now a member of the WBTI board, in his leadership role as the Executive Secretary of the new Bible Translation Association of Papua New Guinea (BTA). Karl encouraged the formation of this organization in 1980 out of the SIL Advisory Committee and was honored with a medal in recognition of his contribution at the Association's 25th anniversary in 2005. Within the academic area He also created the SIL-PNG position of National Translators Advisor in 1980.

His multitasking strength continued to be evident during this period. In 1980 while director, he taught a UTA recognized course on semantics as an adjunct associate professor, and later edited a volume including many of his students' papers (1981a). He was also director of the South Pacific SIL course in Sydney, Australia in the summer of 1980-81. In 1980-81 he was project director of a sociolinguistic survey of the Manus Province in PNG. He also authored or co-authored six articles (1980, 1981b-e, 1982).

1983-86: Contributions to SIL International in Anthropology, Intercultural Work and Missiology

In mid-1983 the Franklins returned to Dallas when their daughter Karol entered college. Although Karl became an adjunct professor of linguistics at the UTA, some of his most significant contributions within SIL International were in the area of anthropology. He was appointed interim Anthropology Coordinator and was the founding editor of Notes on Anthropology. He was also appointed to the board of the International Museum of Cultures. His occasional lectures indicated a developing interest in cultural anthropology which served as a foundation for later contributions in training. His linguistics teaching included Papuan linguistics, field methods, and grammatical analysis. Others displayed confidence in his knowledge and wisdom by asking him to serve on many thesis committees.

1986-1994: Academic Administration in Papua New Guinea and Australia

The Franklins returned to Papua New Guinea in 1986 where Karl served as the Chairman of the Executive committee of SIL-PNG for four years and was appointed the Director's Assistant for Technical Studies from 1986-88. During

this time he was active as a consultant, a writer, an editor and a researcher in West Kewa. He was the editor of *Language and Linguistics in Melanesia* (the publication of the Linguistic Society of Papua New Guinea) from 1987-90 and co-authored one book and revised another on Tok Pisin (1989b, 1990a). He edited two books on anthropology and missions (1986, 1987) and one on componential analysis (1989). This period in PNG was a very productive period in terms of publications, and eleven articles and nineteen reviews on many topics revealed his fertile mind and wide ranging intellectual curiosity.

The Franklins moved to Australia in 1991 so he could assume the position of Principal of South Pacific SIL for three years. A new emphasis on training was revealed by the courses he taught which were predominately in the areas of anthropology and cross cultural training, while at the same time he maintained his contributions in linguistics. While there he interacted with La Trobe University and also taught in the Australian Linguistic Institute.

1994 to 2001: Leadership in SIL International

In 1994 the Franklins returned to the International Linguistics Center at Dallas and Karl was appointed the International Training Coordinator for SIL. In 1996 he was appointed SIL's Vice President for Academic Affairs, a position which he held until 2001. In this role he was responsible for the oversight of all international academic coordinators and departments. He was influential in the establishment of the Graduate Institute of Applied Linguistics (GIAL) and was its first board chairman from 1998-2001. This institute made possible a more comprehensive training program for language development personnel, something that was not possible with short courses or with courses in association with universities that had fundamentally different objectives from those of SIL. He was the founding editor of *TrainTracs*, an electronic news magazine about issues related to training. It was a reflection of how training had become part of the core of SIL's purpose, just as *Notes on Linguistics*, *Notes on Anthropology* and other *Notes on* journals indicated core cultural values. Later when the *Notes on* series was dropped and the topics covered by them were included in *Word and Deed*, Karl became its editor from 2004-2007.

2002 to Present: Old and New

The Franklins once again returned to PNG in 2002 to help the West Kewa church leaders revise their New Testament. The revision was completed and dedicated in 2004. Karl had been developing a new Bible story-telling strategy for the many small languages of the South Pacific where traditional Bible translation or SIL programs were unlikely to eventuate. During this time he conducted two training workshops for small languages in the Sepik region. After returning to Dallas he helped the East Kewas via e-mail to produce the New Testament in their dialect using *Adapt It* software that was originally developed in PNG. The

East Kewa New Testament was dedicated in 2005. Presently he corresponds with the West Kewas as they work on translating the Old Testament.

The Franklins returned to Dallas in 2004 where he again assumed some teaching, consulting and editing responsibilities with SIL International and GIAL and served on M.A. and Ph.D. committees at UTA and GIAL.

Franklin's Academic Impact

Karl's significant contribution in academics is due to his core values of deep faith, service to others, encouragement, team building and excellence, to his wide interests, and to his desire to make applicable for individuals and language communities the results of academic research and publications. This is revealed by observing how he "took the road less traveled," both within the larger academic community and within SIL. He didn't remain within the walls of academia but envisioned research as essential for quality application and practiced it in his teaching and writing. This is shown by the number of Kewas that he trained, the number of years that he spent in Papua New Guinea, the training programs he developed for expatriates working cross-culturally and for national members of language communities working to help their own people. In so doing he has become a good model of the SIL member as servant, as taught and modeled by its founder Cameron Townsend. In so doing he has been a significant influence in building the bridge to the contemporary SIL mission statement of assisting communities in language development.

His influence has been felt in the area of applied linguistics and language development, not only from the administrative positions he has held within the SIL organization, but also from his extensive network of long-term friendships within SIL, with the outside academic community, with Kewas, and with other Papua New Guineans. This was made possible by him and Joice living in Papua New Guinea for about twenty five years over a period of thirty-five years. As a leader Karl was visionary in that he saw the need for change in some of the ways SIL was operating. Thus he provided direction for the future where the training of nationals became prominent, and he encouraged Papua New Guineans to assume increased responsibility for functions from applied linguistics to administration that had been held traditionally only by expatriate SIL members. As a Bible translator and academic, he taught and modeled the SIL value of service, providing help for OWLs and national colleagues through teaching, training and developing a cadre of consultants.

Since the classical era of SIL the emphasis has been on linguistic products, from Bible translations to literacy materials to published papers, much like production in a manufacturing economy. The evaluation of SIL by the academic community based on publications has been important. On the contemporary scene much of SIL's academic emphasis, like a service economy, is on providing language development services through training to language communities for their own language development. In providing this academic service, the evaluation of the language community as well as the academic community is

important. Karl Franklin's academic leadership has been one of the most influential factors in developing the contemporary SIL where its relationship is one of partner instead of benefactor. In so doing he has become part of the DNA of SIL International and of linguistics in general in Papua New Guinea.

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4

A Role and Reference Grammar Account of Bonggi Adversative Constructions

Michael Boutin

ABSTRACT

In Bonggi, a Western Austronesian language of Sabah, Malaysia, most adversative constructions are formed from achievement verbs. For example, *ipuda?* ‘REALIS-extinguish’ in (a) is an achievement verb, whereas *ipudaadn* ‘REALIS-extinguish-ADVERSATIVE’ in (b) is an adversative construction that is formed from this same achievement verb.

- (a) I-puda? na lampu.
 REALIS-extinguish now lamp
 ‘The light went out.’
- (b) I-puda-adn ou lampu.
 REALIS-extinguish-ADVERSATIVE 1.SINGULAR.NOMINATIVE lamp
 ‘I had my light go out on me.’

Adversatives are peculiar both syntactically and semantically. Syntactically, they have an extra noun phrase. For example, the adversative construction in (b) has an extra noun phrase in contrast to the non-adversative construction in (a). Semantically, the subject in adversative constructions is usually adversely affected as in (b).

Some researchers have reported that the occurrence of adversative constructions in Western Austronesian languages is based on split intransitivity. They argue that adversatives can be formed from intransitive verbs whose single argument is an undergoer, but adversatives cannot be formed from intransitive verbs whose single argument is an actor. This paper shows that intransitive verbs whose single argument is an undergoer do not form a homogenous class; instead, adversative constructions are formed from a subset of intransitive verbs whose single argument is an undergoer.

1 Introduction¹

Traditional grammars classify clauses as either transitive as in (1) or intransitive as in (2).

- (1) He dropped the coconut.
 (2) The coconut fell.

This two-way distinction between transitive and intransitive clauses can be described from the point of view of syntax or semantics. From the syntactic point of view, transitive clauses such as (1) have a verb (*dropped*) and both a subject (*he*) and an object (*the coconut*), whereas intransitive clauses such as (2) have a verb (*fell*) and a subject (*the coconut*), but no object. From the semantic point of view, transitive clauses such as (1) have a predicate (DROP) and two arguments, both an actor (3SG) and an undergoer (COCONUT), whereas intransitive clauses such as (2) have a predicate (FALL) and one argument (COCONUT) which is an undergoer.²

Current linguistic theories have mechanisms for linking syntactic and semantic information. For example, in (1) the predicate (DROP) is linked to the verb (*dropped*); the actor (3SG) is linked to the subject (*he*); and the undergoer (COCONUT) is linked to the object (*the coconut*). Similarly in (2), the predicate (FALL) is linked to the verb (*fell*), and the undergoer (COCONUT) is linked to the subject (*the coconut*).

Since the 1970s, an increasing body of linguistic evidence has shown that the traditional two-way distinction between transitive and intransitive clauses is inadequate. A number of linguists have shown that intransitive clauses can be subdivided into two classes: those whose single argument is an actor such as *he* in (3), and those whose single argument is an undergoer such as *the coconut* in (2).

- (3) He swims on Monday and Friday.

While the distinction between the intransitive clauses in (2) and (3) is described above in primarily semantic terms with (2) having an undergoer as subject and (3) having an actor as subject, some linguistic theories describe the distinction between (2) and (3) in primarily syntactic terms. One such syntactic formulation which was proposed by David Perlmutter and Paul Postal (1984) is known as the Unaccusative Hypothesis.

According to the Unaccusative Hypothesis, some intransitive clauses (*unergatives*) have an initial or underlying subject, whereas other intransitive clauses (*unaccusatives*) have an initial or underlying direct object, and no initial or underlying subject. In accordance with the Unaccusative Hypothesis, (3) is an

¹I am very grateful for the comments that Paul Kroeger made on an earlier version of this paper.

²The **actor** is the entity which instigates, controls or effects the action expressed by the verb. The **undergoer** is the entity affected by the action or state expressed by the verb. Actor and undergoer are semantic macroroles. They correspond to the two primary arguments in a prototypical transitive construction. Either actor or undergoer may be the single argument of an intransitive verb (Van Valin 1993:43).

unergative clause with an underlying subject, whereas (2) is an unaccusative clause with an underlying object, but no underlying subject.

The three-way classification resulting from the subdivision of intransitive clauses into unergative and unaccusative clauses is a hallmark of Relational Grammar. Marit Vamarasi (1999) uses this distinction between unergative and unaccusative clauses to account for the occurrence of Indonesian adversative clauses such as (4).

- (4) Dia ke-jatuh-an kelapa.³
 3SG ADVER-fall-ADVER coconut
 ‘He/she had a coconut fall on him.’

Adversative constructions in Malay and Indonesian are formed by affixing the discontinuous morpheme *ke-* *-an* ‘ADVERSATIVE’ to a verbal base.⁴ Adversative constructions are so named because what the undergoer undergoes is usually harmful or unpleasant.⁵

According to Vamarasi (1999:99), unaccusative predicates such as *jatuh* ‘fall’ can be used to form adversative clauses as in (4), but unergative predicates cannot be used to form adversative clauses.⁶

This paper examines adversative constructions in Bonggi, a Western Austronesian language of Sabah, Malaysia. As in Malay and Indonesian, unergative predicates cannot be used to form adversative clauses in Bonggi. However, to say that adversative constructions in Bonggi are formed from unaccusative predicates is merely a partial truth, because only a subclass of unaccusative predicates are used to form adversative clauses. This paper shows that the distinction between unergative and unaccusative predicates cannot adequately predict which intransitive predicates form adversative clauses in Bonggi. Furthermore, this paper briefly describes how the theory of Role and Reference Grammar (RRG) predicts which predicates can form adversative clauses in Bonggi.

³The abbreviations and glossing conventions used follow the Leipzig Glossing Rules which are available at <http://www.eva.mpg.de/lingua/resources/glossing-rules.php>. Infixes are separated by angle brackets in both the text and the gloss as seen in (6). Abbreviations include: 1 first person, 3 third person, ACL accomplishment, ACT actor, ACY activity, ADVER adversative, CAU causative, GEN genitive case, INTEXP internal experience, IRR irrealis, ISA induced state of affairs, NOM nominative case, NP noun phrase, PST past, SG singular, ST state, and UND undergoer. In the English free translation, the noun phrase in bold is the subject.

⁴Blust (2003:449-451) describes reflexes of the Proto-Austronesian circumfix **ka-* *-an* ‘ADVERSATIVE’ in several languages.

⁵A second type of adversative construction in Malay is described in Chong (2005). Chong compares the transitivity of *kena* adversatives (which are illustrated below) with *di-* passives and concludes that *kena* adversatives are higher in transitivity (cf. Hopper & Thompson 1980).

Dia	kena	tipu	oleh	orang	itu.
3SG.NOM	KENA	cheat	by	person	that

‘He/she was cheated by that person.’

⁶Vamarasi (1999:32-34) actually analyzes *berenang* ‘swim’ (cf. (3)) as an unaccusative verb, because the addition of *meN-* and *-kan* to the root *renang* ‘swim’ in *me-reng-kan* results in a causative meaning. In other words, in her analysis, intransitive verbs whose single argument is an actor are treated as unaccusatives if the addition of *meN-* and *-kan* to the root results in a causative meaning. I am grateful to Paul Kroeger for pointing this out to me.

2 Introduction to RRG

2.1 Aktionsart classes

In RRG, predicates are classified according to a universal four-way semantic distinction between: (1) states, (2) accomplishments, (3) achievements, and (4) activities. These four *Aktionsart* classes correspond to major verb classes which are encoded in the verbal morphology of Bonggi.

States are static situations with no activity as in (5).

- (5) Sia ng-korikng.⁷
 3SG.NOM ST-dry
 ‘It is dry.’

Accomplishments are nonpunctual changes of state which have an endpoint as in (6).

- (6) Sia k < i > < m > orikng.⁸
 3SG.NOM < PST > < ACL > dry
 ‘It became dry.’

Achievements are punctual changes of state which have an endpoint as in (7).

- (7) Sia i-pudaʔ.⁹
 3SG.NOM REALIS-extinguish
 ‘It extinguished.’

Activities involve a participant doing something and have no clear endpoint as in (8).

- (8) Sia l < i > < m > ompud.
 3SG.NOM < PST > < ACY > ran
 ‘He/she ran.’

⁷The underlying form of the prefix is *m-* ‘ST’ which is subject to nasal assimilation as seen in (5). The underlying form of the root is /kɔriŋ/ ‘dry’. Velar nasals are represented orthographically as *ng*. Word-final nasals are preploded if the preceding vowel is non-nasalized; e.g., /m/ + /kɔriŋ/ [ŋkɔri^hŋ] ‘ST-dry’ (Boutin. To appear).

⁸The affix <in> ‘PAST/REALIS’ is sometimes realized as an infix (e.g., (6) and (8)) and other times as a prefix (e.g., (7)). The position and the shape of this inflectional morpheme is conditioned by the lexical semantics of the verb and phonological shape of the stem to which it attaches (Boutin 2009). Stative verbs are not inflected for tense or realis/irrealis (e.g., (5) and (10)). The affix <in> is glossed ‘REALIS’ when inflecting achievement verbs (e.g., (7)), and ‘PAST’ when inflecting accomplishment verbs (e.g., (6)) and activity verbs (e.g. (8)). As seen in table 4, <in> is realized as a prefix /n/ before achievement stems beginning with a vowel or an alveolar consonant, and as a prefix /i/ otherwise. If the first vowel in activity or accomplishment verb stems is /i/, then <in> is infix as /in/ after the initial consonant of the stem; otherwise, <in> is infix as /i/ after the initial consonant of the stem (cf. table 6).

⁹The symbol /ʔ/ represents a glottal stop.

The four basic *Aktionsart* classes describe basic, spontaneous situations or states of affairs; however, states of affairs can also be induced. Induced states of affairs (ISAs) are complex in that one state of affairs brings about another. For example, in (9) an activity (a person doing something) induces an accomplishment (coconut becoming dry).

- (9) Sia ng-orikng piasu.¹⁰
 3SG.NOM ISA.ACT-dry coconut
 ‘He/she dries coconuts.’

Aktionsart distinctions are fundamental features of the verbal system in all languages (Van Valin and LaPolla 1997:99). Some languages, including Bonggi, mark these verb classes overtly with some type of morphological marker. Thus, the same root can occur with different affixes which signal different *Aktionsart* classes as seen in table 1.

Table 1: Sample *Aktionsart* classes associated with root *korikng* ‘dry’

“Orthographic” form	Underlying form	Meaning	Example
ng-korikng	m- + korij	‘ST-dry’	(5)
k<om>orikng	<m> + korij*	‘ACL-dry’	(6)
ng-orikng	ŋ- + korij	‘ISA.ACT-dry’	(9)
kiring-in	korij + -on	‘dry-ISA.UND’	
po-korikng	po- + korij	‘CAU-dry’	
pi-kiring-in	po- + korij + -on	‘CAU-dry-ISA.UND’	

*As seen in table 7, the affix <m> ‘ACL’ is realized as *km-* ‘ACL’ in vowel-initial roots and roots whose initial consonant is a bilabial stop, /p/ or /b/; otherwise, <m> ‘ACL’ is inserted following the initial consonant of the root. To avoid impermissible consonant clusters, an epenthetic vowel (which is a copy of the initial vowel of the root) is inserted between the initial consonant and the /m/. In (6), *k<i><m>orikng* is the past tense form, whereas *k<om>orikng* in table 1 is the nonpast form with an epenthetic vowel.

Within the theory of RRG, predicates are classified into different *Aktionsart* classes on the basis of a series of tests which have cross-linguistic validity (Van Valin and LaPolla 1997:93ff.). The tests used to determine *Aktionsart* classes are given in table 2.

Table 2: Tests for determining *Aktionsart* classes

Criterion	States	Accomplishments	Achievements	Activities
1 Occurs with progressive	No	No	No	Yes
2 Occurs with adverbs like <i>vigorously, actively, etc.</i>	No	No	No	Yes
3 Occurs with adverbs like <i>quickly, slowly, etc.</i>	No	Yes	No	Yes
4 Occurs with X for an hour	Yes	irrelevant	No	Yes
5 Occurs with X in an hour	No	Yes	No	No

¹⁰The prefix /ŋ/ ‘ISA.ACT’ (orthographically ‘ng’) coalesces with the initial consonant of the root.

On the one hand, unergative clauses closely correspond to activities in RRG. On the other hand, unaccusative clauses are split between achievements and accomplishments in RRG. Section 3 shows that adversative constructions are formed from achievement verbs, not accomplishment verbs.

2.2 Semantic representations

In RRG, the relationship between a predicate and its arguments is expressed by **logical structures** (LSs) which provide a formal semantic representation for each verb. Logical structures consist of predicates, their arguments, and a small set of operators (Van Valin 1990:223).

Attributive statives are a subclass of stative predicates which attribute a property to an entity as in (5) and (10) and are marked by *m-* 'ST'.¹¹ Attributive stative verbs like *ng-korikng* 'ST-dry' in (5) and *ma-ramig* 'ST-cold' in (10) have a generic LS **be'** (x, [**predicate'**]). The variable 'x' represents an argument of the predicate. The generic logical structure for attributive stative verbs is shown in (11a), while the LS for the verb *ma-ramig* 'ST-cold' is shown in (11b). The semantic representation (SR) for the clause in (10) is given in (11c).¹²

(10) Sia ma-ramig.
 3SG.NOM ST-cold
 'It is cold.'

(11) a. Generic LS for attributive stative verbs: **be'** (x, [**predicate'**])
 b. LS for *ma-ramig* 'ST-cold': **be'** (x, [**cold'**])
 c. SR for (10): **be'** (3SG, [**cold'**])

There are three basic types of stative predicates as seen in table 3: (1) single argument stative predicates whose generic LS is: **predicate'** (x); (2) two argument stative predicates whose generic LS is: **predicate'** (x, y); and (3) stative predicates with two argument positions whose second argument position is filled by predicate, rather than another argument.¹³ Table 3 lists the subtypes of stative predicates that occur along with a sample logical structure for each subtype. Each subclass has a unique argument structure. For example, two argument possession stative predicates have a generic LS **have'** (x, y) with the variables 'x' and 'y' representing the arguments of the predicate (i.e., possessor and possessed item).

¹¹In (10), an epenthetic vowel (which is a copy of the initial vowel of the root) is inserted between the prefix *m-* 'ST' and the root *ramig* 'cold'.

¹²Logical structures (LSs) show the relationship between predicates and their arguments, whereas semantic representations (SRs) for a sentence include the LS of the verb, the arguments of the verb, and adjuncts including adverbials.

¹³Cf. Van Valin and LaPolla (1997:115) for a discussion of the various subclasses of stative predicates.

Table 3. Stative predicates

A. One-place stative with single argument	predicate' (x)
1. Condition	broken' (x)
2. Existence	exist' (x)
B. Two-place stative with two arguments	predicate' (x, y)
1. Possession	have' (x, y)
2. Perception	hear' (x, y)
3. Cognition	know' (x, y)
4. Desire	want' (x, y)
5. Emotion	love' (x, y)
6. Propositional attitude	consider' (x, y)
C. Two-place stative with single argument	predicate' (x, [pred'])
1. Locative	be' (x, [LOC' (y)])
2. Attribute	be' (x, [predicate'])
3. Internal experience	feel' (x, [predicate'])

Several subclasses of states are distinguished morphologically in Bonggi. Internal experience statives pertain to internal sensations. They are marked by *-an* 'INTEXP' as in (12).¹⁴ The undergoer is the experiencer of the stimulus in these verbs of sensation/affect. Internal experience statives contrast with attributive statives. The attributive stative *ma-ramig* 'ST-cold' in (10) emphasizes the stimulus and is used to describe something as being 'cold to touch', whereas the internal experience stative *rimig-adn* 'cold-INTEXP' in (12) emphasizes the experiencer and is used to describe someone as 'feeling cold' (cf. Talmy 1985:99ff.).

- (12) *Rimig-adn ou na.*
 cold-INTEXP 1SG.NOM now
 'I am feeling cold.'

States are static situations with no activity. Stative situations are basic in that the semantic structure of accomplishments and achievements is derived from states by means of the logical operators BECOME and INGR respectively.¹⁵ For example, the generic logical structure for accomplishment verbs which are derived from underlying attributive statives is shown in (13a). The LS for the accomplishment verb *k<i> <m>orikng* '<PST> <ACL> dry' in (6) is shown in (13b). The semantic representation (SR) for the clause in (6) is given in (13c).

- (13) a. Generic LS for accomplishment verbs derived from
 attributive statives: BECOME **be'** (x, [**predicate'**])
 b. LS for *k<i> <m>orikng* '<PST> <ACL> dry' in (6): BECOME **be'** (x, [**dry'**])
 c. SR for (6): BECOME **be'** (3SG, [**dry'**])

¹⁴Non-high, prestressed vowels are subject to vowel harmony with high, root vowels being the controlling vowel; e.g. /ramig/ + /an/ [rimigədn] *rimig-adn* 'cold-INTEXP' (Boutin 2002).

¹⁵Achievements are derived from states by the addition of the logical operator INGR which is an abbreviation for 'ingressive' and refers to punctual or instantaneous changes (Van Valin and LaPolla 1997:104). In early versions of RRG, achievements were derived from states by the addition of the logical operator become (e.g., Walton 1986:21, Van Valin 1990:223).

The principles for determining the number and nature of macroroles are shown in (14) (Van Valin and LaPolla 1997:152).

(14) DEFAULT MACROROLE ASSIGNMENT PRINCIPLES:

- a. Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its LS.
 1. If a verb has two or more arguments in its LS, it will take two macroroles.
 2. If a verb has one argument in its LS, it will take one macrorole.
- b. Nature: for verbs which take one macrorole,
 1. If the verb has an activity predicate in its LS, the macrorole is actor.
 2. If the verb has no activity predicate in its LS, the macrorole is undergoer.

According to principle 14.a.2, the verb *k < i > < m > orikng* ‘< PST > < ACL > dry’ in (6) has one macrorole since its logical structure in (13b) has one argument. By principle 14.b.2, the single macrorole in (6) is an undergoer since the LS in (13b) does not contain the activity predicate *do*’.

3 Adversative constructions in Bonggi

The majority of achievements are derived from condition states. Example (15) illustrates a condition state, and (16) illustrates an achievement which is derived from a condition state.

(15) Tedak na busul hu.
 rupture now boil 1SG.GEN
 ‘My boil is ruptured.’

(16) Busul hu n-tedak.
 boil 1SG.GEN REALIS-rupture
 ‘My boil ruptured.’

The generic logical structure for condition stative verbs is shown in (17a), while the generic logical structure for achievement verbs which are derived from condition states is shown in (18a). The LS for the verb *tedak* ‘rupture’ in (15) is shown in (17b), while the LS for the verb *n-tedak* ‘REALIS-rupture’ in (16) is shown in (18b). The semantic representation (SR) for the clause in (15) is given in (17c), and the SR for (16) is shown in (18c).

- (17) a. Generic LS for condition stative verbs: **predicate**' (x)
 b. LS for *tedak* ‘ruptured’: **rupture**' (x)
 c. SR for (15): **rupture**' (*busul* 1SG)¹⁶

¹⁶In a richer semantic representation, possession within NPs (e.g., *busul hu* ‘my boil’ in (15)) is represented semantically as possession within clauses as in the following: **rupture**' (**have**' [1SG, *busul*]).

- (18) a. Generic LS for achievement verbs
 derived from condition statives: INGR **predicate'** (x)
 b. LS for *n-tedak* 'REALIS-rupture': INGR **rupture'** (x)
 c. SR for (16): INGR **rupture'** (*busul* 1SG)

According to principle 14.a.2, the verbs in (15) and (16) have one macrorole since their logical structures in (17b) and (18b) have one argument. By principle 14.b.2, the single macrorole is an undergoer since the LS does not contain the activity predicate **do'**.

Clauses (19) and (20) illustrate two types of achievement verb constructions. In (19) the verb *i-puda?* 'REALIS-extinguish' is a regular achievement verb (cf. (7)), whereas in (20) the verb *i-puda-adn* 'REALIS-extinguish-ADVER' is an achievement verb in an adversative construction.

- (19) I-puda? lampu ku kerebi.
 REALIS-extinguish lamp 1SG.GEN last.night
 'My light went out last night.'
- (20) I-puda-adn ou lampu ku kerebi.¹⁷
 REALIS-extinguish-ADVER 1SG.NOM lamp 1SG.GEN last.night
 'I had my light go out (on me) last night.'

The LS for *i-puda?* 'REALIS-extinguished' in (19) is shown in (21a), and the SR for (19) in (21b). Adverbials like *kerebi* 'last night' in (19) take the LS of the core as their argument.

- (21) a. LS for *i-puda?* 'REALIS-extinguished': INGR **extinguish'** (x)
 b. SR for (19): **last.night'** [INGR **extinguish'** (*lampu* 1SG)]

Because adversatives are a type of achievement, their LS must include an achievement. Furthermore, since the LS in (21a) for the achievement verb in (19) includes an underlying condition stative predicate, the LS for the adversative in (20) must also include an underlying condition stative predicate. The LS for adversatives with an underlying condition stative predicate is seen in (22a), the LS for *i-puda-an* 'REALIS-extinguished-ADVER' in (20) is seen in (22b), and the SR for (20) in (22c).

- (22) a. LS for adversative achievements with an
 underlying condition stative predicate: **feel'** (x, [INGR **predicate'** (y)])
 b. LS for *i-puda-an* 'REALIS-extinguished-ADVER': **feel'** (x, [INGR **extinguish'** (y)])
 c. SR for (20): **last.night'** [**feel'** (1SG, [INGR **extinguish'** (*lampu* 1SG)])]

In (22a), the achievement is embedded in an internal experience stative. Internal experience statives have two argument positions 'x' and 'y', but only one argument 'x' (cf. table 3). The second argument position in (22a) is filled by a

¹⁷Final glottal stops are deleted when a suffix is added.

predicate (i.e., [INGR **predicate'** (y)]). In (22a), 'y' is an argument of the embedded predicate (i.e., **predicate'**), not an argument of **feel'**. According to principle 14.a.2, the verb in (20) has one macrorole since its logical structure in (22b) has one argument. By principle 14.b.2, the single macrorole is an undergoer since the LS does not contain the activity predicate **do'**. The LS in (22a) correctly predicts that adversative achievements have one macrorole, an undergoer.

Adversatives are peculiar both syntactically and semantically (Kuno 1973:24). Syntactically, they have an extra noun phrase. For example, the adversative construction in (20) has an extra NP in contrast to the non-adversative construction in (19). Semantically, the subject in adversative constructions is usually adversely affected as in (20) (cf. Payne 1997:208). The subject *ou* '1SG.NOM' in (20) receives nominative case.

In RRG, transitivity is defined in terms of the number of macroroles that a predicate takes, not in terms of the traditional notion of syntactic valency (cf. Kroeger 2005:70).¹⁸ Transitive verbs have two macroroles, whereas intransitive verbs have one macrorole. Adversatives have only one macrorole (an undergoer); thus, they are intransitive constructions. When compared with regular achievements, adversatives have an extra NP; however, the extra NP is an optional adjunct as illustrated by the adversative clause in (23).

- (23) *Sia baru i-piti-adn.*
 3SG.NOM recently REALIS-die-ADVER
 'He recently experienced the death of a close relative.'

While syntactic valency can be increased for adversatives, semantic valency is not increased since adversatives have only one macrorole. Non-macrorole noun phrases such as *lampu ku* 'my lamp' in (20) are optional adjuncts. They do not bear the grammatical relation subject or object. They cannot be passivized, questioned, relativized, or fronted.

A crucial component of RRG is the set of syntactic and semantic tests for determining the class membership of a verb in a particular clause. Thus, given (20), how do we know it is an achievement, not an accomplishment or some other *Aktionsart* type? According to table 2, achievements should fail the *in an hour* temporal completion test, whereas accomplishment should pass this test.

While the application of *Aktionsart* tests must be done carefully for any language, certain precautions are in order when applying the tests to Bonggi. The first problem to arise during the application of the two temporal tests is that unlike English, Bonggi has no adpositions indicating temporal duration (cf. *for in for an hour*) or temporal completion (cf. *in an hour*). Thus, the meaning of the temporal phrase *simbatu jaabm* 'one hour' must be contextually interpreted. For example, in (24) the addition of the temporal phrase *simbatu jaabm* 'one hour' to

¹⁸The principles for determining the number and nature of macroroles can be found in Van Valin (1990:227, 1993:47) and Van Valin and LaPolla (1997:152).

the accomplishment in (6) yields a temporal completion (*in an hour*) interpretation as shown by the free translation in (24).

- (24) Sia k<i> <m>orikng simbatu jaabm.
 3SG.NOM <PST> <ACL> dry one hour
 ‘It dried in an hour.’

The addition of the temporal phrase *simbatu jaabm* ‘one hour’ to the activity in (8) yields a temporal duration (*for an hour*) interpretation as shown by the free translation in (25).

- (25) Sia l<i> <m>ompud simbatu jaabm.
 3SG.NOM <PST> <ACY> run one hour
 ‘He/she ran for an hour.’

The addition of the temporal phrase *simbatu jaabm* ‘one hour’ to the achievement in (7) yields neither a temporal duration (*for an hour*) nor a temporal completion (*in an hour*) interpretation as shown in (26).

- (26) *Sia i-puda? simbatu jaabm.
 3SG.NOM REALIS-extinguish one hour
 *‘It extinguished (for an hour)/(in an hour).’

Because achievements are punctual, they are incompatible with temporal phrases referring to long periods of time (e.g., *in an hour*). Temporal phrases in achievement clauses refer either to the time until the onset of the event, or to a time period within which the event takes place. They do not refer to the temporal duration of the event itself. David Dowty (1979:63) provides the following entailment for achievements: If ϕ is an achievement verb, then $x \phi$ ed in y time does not entail x was ϕ ing during y time.

While the absence of overt adpositions increases both the complexity of the tests and the chance of error, careful analyses yield consistent results. As seen in table 4, the evidence is formidable that Bonggi adversatives are derived from achievement verbs.¹⁹

¹⁹The alternations in table 4 between *-adn*, *-odn*, *-ardn*, and *-an* are phonologically conditioned. Root-final alveolar sonorants (i.e., /r/, /l/, and /n/) metathesize when /-an/ ‘ADVER’ or /-on/ ‘ISA.UND’ is added to form a new stem (Boutin 2002, and Boutin. To appear). The mid back vowel /o/ spreads from left to right to replace the low vowel /a/ in the suffix /-an/ ‘ADVER’; e.g. /m-/ + /kotop/ + /-an/ → /mokatopon/ [mākə’toφ⁴n] ‘IRR-broken.off-ADVER’.

Table 4: Adversatives derived from achievements

Achievements	Adversatives derived from achievements			
	Meaning of achievement	m- 'IRREALIS'	in- 'REALIS'	m- 'IRREALIS'
'spilt'	m-bubus	i-bubus	m-bus-adn	i-bus-adn
'blown away'	m-palis	i-palis	m-pilis-adn	i-pilis-adn
'broken into fragments'	m-pesa?	i-pesa?	m-pesa-adn	i-pesa-adn
'extinguished'	m-puda?	i-puda?	m-puda-adn	i-puda-adn
'dead'	m-ati	m < e > ti	m-piti-adn	i-piti-adn
'split open'	mu-guab	i-guab	mu-guab-adn	i-guab-adn
'uncovered'	ma-kahas	i-kahas	ma-kahas-adn	i-kahas-adn
'snapped off'	mo-kotop	i-kotop	mo-kotop-odn	i-kotop-odn
'fall through hole'	mu-kusut	i-kusut	mu-kusut-adn	i-kusut-adn
'escape'	me-lepas	i-lepas	me-lepas-adn	i-lepas-adn
'choke'	mo-lomos	i-lomos	mo-lomos-odn	i-lomos-odn
'snap'	mo-loput	i-loput	mu-luput-adn	i-luput-adn
'fall over'	me-reba'	i-reba'	me-reba-adn	i-reba-adn
'broken loose'	mu-rupus	i-rupus	mu-rupus-adn	i-rupus-adn
'collapse'	mu-rumbak	i-rumbak	mu-rumbah-adn	i-rumbah-adn
'collide'	ma-ranggar	i-ranggar	ma-rangga-ardn	i-rangga-ardn
'finish'	m-abis	n-abis	m-ibis-adn	n-ibis-adn
'fall'	ma-dabu?	n-dabu?	mu-dubu-adn	n-dubu-adn
'become'	ma-dadi	n-dadi	mi-didi-adn	n-didi-adn
'fall out of'	me-dak	n-dedak	me-dedah-adn	n-dedah-adn
'pinched'	mi-sipit	n-sipit	mi-sipit-adn	n-sipit-adn
'enter'	mu-suak	n-suak	mu-suah-adn	n-suah-adn
'contact'	mu-suat	n-suat	mu-suat-adn	n-suat-adn
'trapped'	mu-sulukng	n-sulukng	mu-sulung-an	n-sulung-an
'disgusted with'	mu-suma	n-suma	mu-suma-an	n-suma-an
'fall into'	ma-tabukng	n-tabukng	mu-tubung-an	n-tubung-an
'stuck'	ma-tandadn	n-tandadn	ma-tanda-an	n-tanda-an
'ruptured' (e.g. tank)	me-tebadn	n-tebadn	me-teba-an	n-teba-an
'punctured'	me-tedak	n-tedak	me-tedah-adn	n-tedah-adn
'astray'	me-teirdn	n-teirdn	mi-tirn-an	n-tirn-an
'capsized'	mo-togob	n-togob	mo-togob-odn	n-togob-odn
'stranded'	mu-tumang	n-tumang	mu-tumang-an	n-tumang-an
'burnt'	mu-tukng	n-tutukng	mu-tung-an	n-tung-an

The verbs in table 4 can occur as regular achievement verbs (e.g., *m < e > ti* ' < REALIS > die' in (27) and *n-dabu?* 'REALIS-fell' in (29)) or adversatives that are derived from achievement verbs and marked by *-an* 'ADVERSATIVE' (e.g., *i-piti-adn* 'died on' in (28) and *n-dubu-adn* 'fell on' in (30)).²⁰

- (27) M < e > ti na anak nya.
 REALIS-die COMPLETIVE child 3S.GEN
 'His/her child died.'

²⁰With the exception of irrealis *mati* 'die' and realis *meti* 'died' in which the stem vowel alternates as a result of ablaut, realis and irrealis are marked by prefixes on achievement verbs.

- (28) Sia i-piti-adn anak.
 3S.NOM REALIS-die-ADVER child
 ‘He/she experienced the death of (his/her) child.’
- (29) N-dabu? na piasu.
 REALIS-fall COMPLETIVE coconut
 ‘A coconut fell.’
- (30) Sia n-dubu-adn piasu.
 3S.NOM REALIS-fall-ADVER coconut
 ‘He/she had a coconut fall (on him/her).’

Not every adversative construction has a corresponding achievement verb. Some adversatives are derived from nouns as shown in table 5.

Table 5: Adversatives derived from nouns

		Adversatives derived from nouns	
Noun	Meaning	m- ‘IRREALIS’	in- ‘REALIS’
dolok	‘rain’	mo-doloh-odn	n-doloh-odn
sidu	‘urine’	mi-sidu-adn	n-sidu-adn
busul	‘boil’	busui-idn	i-busui-idn
dusa	‘sin’	mu-dusa-adn	n-dusa-adn
togor	‘rust’	mo-togo-ordn	n-togo-ordn

The adversative verb *n-doloh-odn* ‘REALIS-rain-ADVER’ in (31) is derived from the noun *dolok* ‘rain’.

- (31) Sia n-doloh-odn.
 3S.NOM REALIS-rain-ADVER
 ‘He/she got caught in the rain.’

When *-an* ‘ADVERSATIVE’ is added to a root ending in /l/, the /l/ metathesizes with the following vowel then vocalizes to /i/ as seen in (32) (cf. *busul* ‘boil’ in table 5).

- (32) Nda? kaap s<im>idu tulakng babi, busui-idn.
 not able <ACY>urate bone pig boil-ADVER
 ‘You cannot urinate on the bones of a pig, or you will be infected with boils.’

Adversative achievements are normally inflected with irrealis or realis modality, but *busuiidn* ‘to be infected with boils’ in (32) is an exception perhaps because the root is a noun and there are no corresponding forms for induced states of affairs. Most of the achievement roots in table 4 can function as a base from which a complex state of affairs can be derived. For example, sentences

(33) and (34) illustrate induced states of affairs involving someone doing something (an activity) which results in a lamp being extinguished (an achievement). Induced states of affairs are transitive situations involving two macroroles (actor and undergoer), whereas achievements and adversative constructions are intransitive situations involving a single macrorole which is an undergoer. The actor is the subject in (33), whereas the undergoer is the subject in (34). Actor and undergoer voice options are only relevant for verbs which have two macroroles.

- (33) M-uda? ou lampu.
 ISA.AV-extinguish 1SG.NOM lamp
 'I will extinguish the lamp.'
- (34) Lampu p<i>uda? ku.
 lamp <PST>extinguish 1SG.GEN
 'The lamp was extinguished by me.'

Activity predicates cannot be used to form adversative clauses in Bonggi. This claim is comparable to Vamarasi's (1999) claim that unergative predicates cannot be used to form adversative clauses in Indonesian. None of the activity verbs in table 6 or the accomplishment verbs in table 7 correspond to any adversatives.

Table 6: Activity verbs

Ø'IRREALIS'	Meaning	< in > 'REALIS'
m-apit	'ACY-stop by'	m < i > apit/m < e > pit
m-ilakng	'ACY-lying down'	m < in > ilakng
m-udukng	'ACY-arise'	m < i > udukng
m-upug	'ACY-sit'	m < i > upug
m-uhad	'ACY-leave'	m < i > uhad
m-uli?	'ACY-return'	m < i > li'/m < in > ili'
m-usag	'ACY-stand'	m < i > usag
m-panu	'ACY-walk; go'	i-panu
d < um > ua?	'ACY-descend'	d < i > < m > ua'
l < am > alu	'ACY-pass by'	l < i > < m > alu
l < am > anggat	'ACY-ascend'	l < i > < m > anggat
l < am > anjakng	'ACY-step on'	l < i > < m > anjakng
l < im > iaag	'ACY-sail'	l < i > < m > iaag
l < om > ongi	'ACY-swim'	l < i > < m > ongi
l < om > ompud	'ACY-run'	l < i > < m > ompud
l < um > uas	'ACY-exit'	l < i > < m > uas
r < am > ahad	'ACY-go inland'	r < i > < m > ahad
r < im > iru	'ACY-swarm'	r < i > < m > iru
s < am > asa?	'ACY-pass through a field'	s < i > < m > asa'
s < em > elehei	'ACY-ascend steps'	s < i > < m > elehei
s < um > uak	'ACY-enter'	s < i > < m > uak
t < em > erana	'ACY-stop and rest'	t < i > < m > erana
t < om > olop	'ACY-dive'	t < i > < m > olop
t < im > iligud	'ACY-turn back on'	t < i > < m > iligud
t < im > indiakng	'ACY-turn at intersection'	t < i > < m > indiakng
t < om > odik	'ACY-climb hill'	t < i > < m > odik
t < um > ulak	'ACY-depart'	t < i > < m > ulak
t < um > undakng	'ACY-take for walk (child)'	t < i > < m > undakng

Table 7: Accomplishment verbs

kam-aal	'ACL-expensive'	d < am > alabm	'ACL-deep'
kam-angas	'ACL-rancid'	d < am > ama?	'ACL-dirty'
kam-ayad	'ACL-pretty'	d < om > oot	'ACL-bad'
kem-enta?	'ACL-unripe'	d < um > upakng	'ACL-foolish'
kim-ingi	'ACL-crazy'	d < um > uruk	'ACL-fast'
kim-iskidn	'ACL-poor'	g < am > arakng	'ACL-ferocious'
kom-odobm	'ACL-black'	g < im > ia	'ACL-big'
kom-omis	'ACL-sweet'	g < om > ool	'ACL-ache'
kum-ubas	'ACL-common'	k < am > abu	'ACL-faded'
kum-ulak	'ACL-young'	k < am > apal	'ACL-thick'
kum-utakng	'ACL-rotten'	k < am > arag	'ACL-wild'
kam-bagal	'ACL-huge'	k < am > asakng	'ACL-strong'
kam-bani	'ACL-brave'	k < om > orikng	'ACL-dry'
kam-bantut	'ACL-homosexual'	k < om > osog	'ACL-strong'
kam-barabm	'ACL-many'	k < om > otul	'ACL-hard'
kam-basa?	'ACL-wet'	l < om > ompukng	'ACL-fat; healthy'
kem-belati'	'ACL-inside out'	l < um > uag	'ACL-loose'
kim-biag	'ACL-satisfied; full'	l < um > umak	'ACL-soft'
kim-bisa	'ACL-powerful; deadly'	r < am > amig	'ACL-cold'
kim-bisak	'ACL-narrow; tight'	r < em > engan	'ACL-light weight'
kum-buha?	'ACL-open'	r < om > robor	'ACL-mirky'
kum-bulag	'ACL-blind'	r < om > ombu'	'ACL-healthy'
kum-butata	'ACL-blind'	r < um > uhubm	'ACL-tame'
kam-pagadn	'ACL-difficult; hard'	s < em > ega'	'ACL-red'
kam-pala	'ACL-spicy hot'	t < am > adabm	'ACL-sharp'
kam-panas	'ACL-hot'	t < em > elak	'ACL-bright'
kam-panggar	'ACL-stiff'	t < im > ihukng	'ACL-crooked'
kim-pia	'ACL-good'	t < om > odu	'ACL-calm'
kim-pintas	'ACL-easy'	t < om > ogi'	'ACL-pregnant'
kom-ponu?	'ACL-full'	t < om > ogobm	'ACL-diligent'
kum-puhu'	'ACL-short'	t < om > ook	'ACL-ripe'
kum-pusat	'ACL-pale'	t < um > ua'	'ACL-old (person)'
kum-puti'	'ACL-white'	t < um > uhal	'ACL-thin'
		t < um > umpis	'ACL-fluent'
		t < um > uug	'ACL-dry'

4 Conclusion

At least three researchers (Vamarasi [Kana] (1986, 1999) for Indonesian, Kroeger (1990) for Kimaragang, and Davies (1993, 1995) for Javanese) have reported that the occurrence of adversative constructions in Western Austronesian languages is based on split intransitivity. They argue that adversatives can be formed from unaccusative verbs (i.e., intransitive verbs whose single argument is an undergoer), but adversatives cannot be formed from unergative verbs (i.e., intransitive verbs whose single argument is an actor).

Within the theory of RRG, semantically intransitive verbs whose single argument is an undergoer do not form a homogenous class; instead, single argument intransitive verbs with an undergoer include: different subclasses of states, accomplishments, and achievements. This paper has shown that adversative constructions in Bonggi are formed from achievements, not activities or accomplishments. Since none of the activity verbs in table 6 or the accomplishment verbs in table 7 correspond to any adversatives, the evidence is overwhelming that adversatives are derived from one class of intransitive verbs; i.e., achievements.

In summary, while RRG correctly predicts which intransitive verbs (i.e., achievements) can form adversative constructions in Bonggi, an analysis solely in terms of the syntactic unaccusative/unergative distinction wrongly predicts that many intransitive verbs (i.e., accomplishments) could be used to form adversatives.

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5

Emotions in the Alamblak Lexicon

Kathleen L. Bruce and Les P. Bruce

ABSTRACT

Alamblak is spoken by people of the East Sepik Province of Papua New Guinea. Emotion concepts in Alamblak are expressed by verbs and idiomatic expressions. Fifteen terms in seven sub-domains of emotions are described here. The sub-domains include concepts similar to the English concepts 'happy', 'sad', 'shame', 'anger', 'fear', and 'desire/love'. Emotions that incorporate the concept of 'wanting' are conceptually close to the disposition of 'desire', therefore this study includes a description of four Alamblak terms in the two sub-domains of 'desire' and 'dislike/diswant'. The three terms expressing 'dislike' or 'diswant' represent a rejection of desire; they contrast with negated desire terms that express a lack of desire. Seventeen body image expressions and conventional metaphors associated with these verbs are presented in the discussions of the emotions to which they refer. The body image expressions include the body parts 'heart' and 'liver', as well as the metaphysical component 'thoughts/inner person'.

1 Introduction

This study of Alamblak emotions attempts to model emotion concepts by explications of lexical expressions in Alamblak. Cliff Goddard (1996:426), in his article "The Social Emotions of Malay (Bahasa Melayu)," remarks, "the language of emotion can be an invaluable window into culture-specific conceptualizations of social life and human nature." We hope that this preliminary study of expressions of emotions in Alamblak will contribute to the aims of cultural psychology to better understand the emotional nature of human beings.

Anna Wierzbicka (1999:292-294) proposes four universal types of emotion concepts in human societies: 'fear-like', 'anger-like', 'shame-like', and 'happy/love-like'. In other words, we should expect to find comparable concepts in all languages, even though specific emotions may not themselves be universal. A second aim of this study is to document the primary Alamblak lexicalized

expressions for emotions in these four proposed universal categories of emotions. This description will hopefully contribute to a broader study of comparative semantics in the future.

It should be emphasized that documenting comparable lexicalized concepts does not mean that they are exact equivalents to specific concepts expressed by English words of similar meaning. On the point of universals and culture-specific conceptualizations of emotions, Catherine Lutz (1985:38) warns that English emotion words, such as ‘fear’, ‘love’, ‘anger’, and ‘disgust’, “are essentially American ethno-psychological concepts,” not expressions of universal concepts of the innate human emotions. Wierzbicka, in her work, *Semantics, Culture, and Cognition: universal human concepts in culture-specific configurations*, achieves two purposes. Emotion expressions in different languages are not universal; they contrast at least in subtle ways. While they are not universal, emotion terms can be contrasted by using basic, innate concepts that are universal; these universal concepts are the semantic primitives postulated by the Natural Semantic Metalanguage (NSM) theory (Wierzbicka 1992).

This analysis of Alambalak emotion terms adapts the NSM format to represent the meanings of each expression of emotion. In practical terms this means that we aim to define each Alambalak term with an analytical explication using simpler semantic concepts to define more complex concepts. Frequently the definitions utilize concepts identified as semantic primitives in NSM theory. These are purported to be inherent concepts, basic to human thought, and therefore universal to all natural languages. That there is a set of inherently understood concepts in human language is based upon the philosophical argumentation of Leibniz (1996) that was written in 1704.

The NSM primitives that are used in the explications herein may not be universal, but they are concepts that have been documented to be lexicalized in a wide variety of languages. They are therefore concepts, among others, that are, in our opinion, less likely to skew the meanings of Alambalak concepts than other terms that could be used for an English audience. The terms one uses in an explication, however, are really secondary to the methodology used in deciphering the concepts in Alambalak in the first place.

The definitions used here, although not formulated exclusively in the NSM primitives, use a mixture of those primitives and slightly more complex components of meaning. The intention is to enhance the clarity of the meanings, while at the same time using semantically simpler terms than the terms being defined. Goddard allows for such an approach. He states,

It is not always necessary to resolve an explication right down to the level of semantic primitives. An explication can still be reductive – and still be valuable – even while containing some semantically complex terms, provided that none is more complex than the original term being defined and provided none needs to be defined in terms of the original word. (1998:61)

The results of this study draw upon fieldwork we conducted in the Alambalak area over a period of fourteen years in the 1970s and 1980s¹. Specific work on emotion terms depended on the insights of Jude Mengumari, a trained Alambalak translator. Each verb is defined taking into account (1) the typical circumstances in which Alambalak people feel specific emotions or attitudes expressed by the verb and (2) external responses of an Alambalak person that typically accompany each emotion. The determination of typical circumstances of and typical responses to emotions are given from Mengumari's perspective based on his own introspection guided by the investigative questions of Kathleen Bruce. Descriptions of emotion concepts herein are preliminary because they are limited by the introspections of one native speaker. The results, however, are fully warranted to accomplish the goals of the research. The use of an introspective method and the practice of relating emotions to cultural contexts definitely reflect a cognitive approach to emotions. We assume that emotions are cultural artifacts formed in response to thinking about things (real or imagined), embedded in culture-specific situations.

Emotion concepts in Alambalak are expressed by verbs² and body image expressions. Certain verbs expressing attitudes of desire are included here because of lexical overlap between emotions and desires.

This study also investigates possibilities of verbally intensifying lexical forms and the ways body part images relate to the seat of a particular emotions. Body part images are metaphorical means of expressing subjective feelings; they are descriptive of abstract concepts in physical terms partly as a way of portraying what is abstract, and partly because some emotions are perceived to be associated with specific bodily locations (cf. McElhanon 1975).

The Alambalak people number approximately 2000 and live in the East Sepik Province of Papua New Guinea. There are two major dialects of Alambalak (Bruce 1984:1); the Karawari dialect is described in this study.

The Alambalak people are generally a quiet, non-aggressive folk, and, for the most part, they are not demonstrative in showing their inner feelings by overt actions. However, these feelings and their symptoms and expressions do exist, and an examination of them leads the researcher to a progressive appreciation of the Alambalak person and his way of thinking.

2 Emotion Terms

This study examines seven sub-categories of emotions and attitudes. Some of the Alambalak categories are either general concepts encompassing emotions and attitudes with associated actions or they exhibit patterns of polysemy associating certain emotions, attitudes and actions. The seven categories of Alambalak terms of this study are:

¹Focused work on the semantic domain of emotions was done during a semantics course conducted by Dr. Karl Franklin in Papua New Guinea at the Ukarumpa Center of the Summer Institute of Linguistics.

²Alambalak is a verb-dominant language. Alambalak verbs express not only actions and states, but also thoughts, relationships, and qualities that are expressed by adjectives and nouns in other languages (Dixon 1977:51).

1. The realm of ‘happy-like’ emotions is a far-reaching and broad category overlapping with English concepts of ‘pride’, ‘praise’, and other similar concepts; these concepts are expressed by compounding the word *yindhör* with other verbs.
2. The ‘sad-like’ category comprises a network of emotions similar to ‘missing someone’, ‘pity’, ‘grief’ and ‘despair’.
3. The ‘shame-like’ emotion term, *yirufa*, is inclusive of the English concepts ‘shame’ and ‘embarrassment’.
4. The ‘anger-like’ emotion term *nambur* is polysemous with a sense of the action ‘fight’.
5. The ‘fear-like’ emotion term *yakrme* seems to incorporate both emotion and action resulting from the emotion.
6. The concepts similar to English ‘desire’ and ‘be pleased with’ are either polysemous in related emotion and attitude domains or are exponents of a general category comprising two basic lexical items that overlap in meaning. ‘Lust-like’ concepts involve many lexical items in Alamlak, relating the areas of ‘desire’, ‘happiness’, and ‘shame’.
7. The ‘dislike-diswant’ set of terms are antonyms of ‘desire-like’ terms, related in a similar way to the relationship of ‘like’ and ‘dislike’ in English.

Alamlak verbs potentially take an adverbial clause marker (*-kfët*) which forms a non-finite verb form, a nominalizing marker (*-neft*), or tense and person-number-gender markers. For the presentation in this paper, these markers have usually been omitted. Some emotion verbs are inherently intransitive. Others exhibit some transitive features, placing them between prototypical intransitive and transitive verbs on the transitivity scale. See the discussion of Controlled and Uncontrolled Experiencer Verbs (Bruce 1984:235-6).

One-word glosses are to be taken only as the nearest equivalent translations of the verbs in question, not as a semantic representation. They are intended to give facility to the reader in identifying an English term that represents a similar concept to the Alamlak term being discussed.

2.1 Happiness - Love

This sub-domain relates to good feelings. The range of positive emotions in Alamlak include a response to good things happening (*yindhör*) and wanting good things to happen to someone else (*dukay*).

2.1.1 *Yindhör*

Yindhör, iv., may be defined by two closely related senses that may be best regarded as one general sense, ‘feel good because of thinking that good things are happening to me and nothing bad is happening to me that one could think could happen’.

Defined in this way, this term describes contentment with one's circumstances in general as well as a response to precipitating events. This Alambalak concept seems to cover the ranges of meaning of the English 'happy' and 'pleased'. It refers to a response to good circumstances like those associated with 'happy', and it is appropriate for responses to specific events that the experiencer wanted to happen similar to those associated with 'pleased'. Compare the English concepts 'content', 'happy', and 'pleased':

'content': Someone feels good because of thinking about something good that has happened to him, resulting in the lack of desires for other things at the present (adapted from Wierzbicka 1999:55).

'happy': Feel good like people feel thinking that good things have happened to them, the kinds of things they wanted to happen, or like people feel when they think that nothing bad is happening now and because of that they do not want anything else right now (cf. Wierzbicka 1999:52 and Bruce 2003:312).

'pleased': Feel good like people who think, "something good happened that I wanted to happen" (adapted from Wierzbicka 1999:56).

Yindhor could express satisfaction with one's living environment, from low-lying hills within the sago swamp to a nearby riverside location, where good water and food are plentiful enough for one to live happily. The verb is a typical intransitive verb as in (1).

(1) tëhbëmtewër nd natpnë yindhor-wër
 strong. IMPERF.3SM therefore (lit. 'with doing that') happy- IMPERF.3SM
 'He is strong, therefore he is happy.'

An Alambalak person typically feels *yindhor* at these times:

- when receiving good news,
- when a friend comes,
- when getting a new possession,
- when one feels good about what one's son did,
- when something good happens, and
- when bad things are not happening, such as conflict, hunger and sickness.

Another situation in which one might feel *yindhor* is when one is having pleasant thoughts. Feelings in other situations may be described with *yindhor* as indicating something more than the English concept of 'happy'. In response to one accomplishing something noteworthy, *yindhor* seems to indicate 'feeling good about oneself', something like 'pride'. In response to someone else doing something well, *yindhor* seems to involve 'feeling good because someone else is good', an element of 'praise' in English (Wierzbicka 1987:198).

The socially appropriate expressions of this feeling are smiling, laughing, jumping, hitting an object like a tree, grasping the person that made you happy

and jumping up and down or lifting him up and down. One may also touch the person by holding his hand or arm.

Increased intensity of the emotion is expressed by the adverbial *masat* ‘much/more’ as in (2):

(2) *masat yindhorwër* ‘he is very happy’.

A body image expression related in meaning to *yindhor* is given in example (3):

(3) *Yima yuhr* *grhewër.*
 (his) inner person dances.IMPERF.3SM
 ‘He is feeling very excited.’

The kind of excitement referred to in example (3) could be paraphrased with the generic statement in example (2). This restatement possibility indicates that the inner self, i.e., something like the soul,³ is the seat of the emotion *yindhor*. *Yindhor* is frequently used in combination with other verbs such as *kfë* ‘say’ and *duka* ‘think’. Serial root combinations with *Yindhor* are highly productive.

2.1.2 *Dukay*

Dukay means ‘think’ in its basic, intransitive sense. By extension it may be defined as ‘feeling good about someone or something like someone who feels good about someone that he wants to do good things for, not wanting anything bad to happen to them’. This extended sense is illustrated in (4).

(4) *Anurwahn* *yifammaf* *duke-wfn*
 don’t. 2s.cry parents think-IMPERF.3D.2S
 ‘Don’t cry, (your) parents care about you.’

This emotion is experienced in the following relationships:

- with good relationships among family members,
- between close friends,
- between people and their domesticated animals, and
- between God or benevolent spirits and human beings.

The most obvious expression of this emotion is an act of doing something good for someone because you want to.

³According to our understanding of the Alamlak view of the person, the soul is differentiated from the spirit. The latter idea is expressed by the Alamlak term *yafathat*, a semantic extension of the primary meaning ‘shadow’. It is vague whether the soul is a part of the body or the spirit.

2.2 Sadness

This sub-domain relates to feelings that result from bad things happening. It encompasses a set of three words in Alamlak.

2.2.1 *Yohoaf*

Yohoaf, tv., is a generic term, superordinate for three more specific terms. The general sense is ‘feel bad because of thinking about something bad that happens’. It also has a specific sense, equivalent to ‘feel bad because of something bad about someone or something, and want to do something to make the situation better’. This sense is similar to ‘compassion’ in English. This verb is transitive in form, co-referencing the Stimulus⁴ of the emotion as the DO of the verb as in (5).

(5) *yohoaf-w-an-t*
 sad-IMPERF-1S-3SF
 ‘I feel sad (for) her.’

An Alamlak person commonly feels *yohoaf* at these times:

- when seeing a crippled person,
- when something bad happens to a loved one, a person may feel this when thinking about the loved one,
- when a person breaks a special object, he may feel this when thinking about the object,
- when a significant person leaves someone for some time, he may feel this when thinking about that person, and
- on an occasion when two brothers fight, one may feel this when thinking about them, because there is a wrong involving two brothers fighting.

In a different circumstance, such as when a person dies and the experiencer is nearby or has recently seen the deceased, it is considered a good thing to have been able to say goodbye. Therefore in this case he does not experience this type of sorrow when thinking about the deceased person.

The socially appropriate expression of this feeling is typically hanging one’s head, giving a gift to the person involved, helping the one in need, and trying to fix the broken object or situation.

2.2.2 *Dungnang*

Dungnang, iv., can be defined as ‘because of thinking about something bad that happens someone feels bad like someone who does not think he can ever feel

⁴Semantic role taken from Kroeger (2005:54)

good again'. The term is similar to 'grief' or 'despair'; it is a very heavy sadness or sorrow or a sense of being overwhelmed. This verb is intransitive in form as in (6).

- (6) *dungnang-wër*
 overwhelmed-IMPERF.3SM
 'He is overwhelmed.'

Dungnang usually occurs, however, compounded with another root (7) and (8).

- (7) *Duka-dungnang-wër*
 think-overwhelmed-IMPERF.3SM
 'He is thinking and overwhelmed.'

- (8) *Nur-dungnang-wër*
 cry-overwhelmed-IMPERF.3SM
 'He is crying in grief.'

The compound expression in (8) is used to refer to the public mourning for the dead.

An Alambalak person commonly feels this kind of grief at these times:

- when one's beloved relative dies,
- upon hearing about something very bad that happened, and
- when a child goes away for a long time, such as to boarding school

The socially appropriate expression of this feeling is typically hanging one's head, shouting aloud, sitting on the river bank in meditation while looking at the sunset, staying at the graveside, or trying to get the problem out of one's mind by getting out of the house and engaging in some activity like playing. A person who is feeling this way may visit a grave site. Even though he wants to stay longer, the time of meditation may be cut short for fear of the spirit of the dead person. A less common outward manifestation of *dungnang* is to cry.

2.2.3 *Marbir dohater*

Marbir dohater, *iv.*, is a body image expression that can be defined as 'because of thinking about something bad that happens someone feels bad like someone who does not want to think about doing anything right now'. This expression describes a state that might result from the emotional experience of *dungnang*. This idiom reflects the loss of enthusiasm for carrying on with the normal affairs of life (9).

- (9) Marbir dohater.
 heart without.IMPERF.3SM
 ‘He lacks any motivation for life.’

This expression is a near synonym of *dungnang*,

2.2.4 *Durwon*

Durwon, iv., can be defined as ‘feel bad when thinking about wanting to be with someone or thinking about something one used to have, knowing that one cannot be with that person or thing’. A person will easily be able to get over this bad feeling. *Durwon* is a mild form of sadness, like ‘missing something’ or ‘being lonesome’ in English. The core concept is the separation or loss that one feels.

An Alamlak person commonly feels *durwon* at these times:

- one’s canoe drifts away and he misses it,
- a friend or possession (not too special) is gone,
- being reminded by some memorabilia of a friend or family member who is gone,
- something like a sunset or bird’s song reminds him of a person long since dead,
- someone’s friend dies and he is not nearby to say goodbye before his friend dies, and
- waiting longingly and impatiently for someone to return.

The appropriate expression of this feeling is typically crying in a stylized way, contemplating a sunset, writing a letter to someone you miss, or sitting at the graveside.

When a friend leaves you and you feel sad, it would be common to express a farewell by vocalizing *oooo-wa!*⁵ *Wa* is a form of the word for ‘yes’.

The feeling of *durwon* is expressed by the body-part expressions in (10) and (11). These expressions, we believe, are equivalent in denotation to the lexical item *durwon*, i.e., they refer to the same emotion because their core meaning that determines reference is the same. The body image expressions possibly communicate stronger feeling.

- (10) Nanho marbir rët hanitr.
 my heart she took.3SF.3SM
 ‘She made me sad.’

This might be said when a loved friend or relative leaves.

- (11) Bi marbi-puka. ‘(I’m) heart-broken.’

⁵This expression, given in the context of farewells, is referred to as *yak-wonta*, which might be glossed as ‘to farewell someone with emotion’. A related expression, *fër-wonta* ‘move with a swinging action-with emotion’, was coined in the 1970s when the gesture of waving with the hand was adopted.

The expressions in this section form a network and express a cline of ‘sad-like’ expressions. *Yohoaf* expresses sadness due to something bad happening with a desire to help make things better. *Dungnang* is a greater sadness accompanied by a sense of not being able to get over the sadness. It possibly implies that one despairs of being able to do anything about the situation⁶. *Marbir dohater* suggests a debilitating sadness that strips one of enthusiasm or motivation to attempt to do anything. *Durwon* intersects with *dungnang* in that the latter is a hopeless feeling, whereas one can expect to get over the former even in the midst of the sadness it references.

2.3 Shame

Wierzbicka (1999:108) identifies a sub-domain which relates an experiencer’s idea that “other people can think something (either good or bad) about me.” The similar Alamblak concept relates to feelings deriving from thinking about what other people think about oneself.

2.3.1 *Yirufa*

Yirufa, iv, can be defined as ‘someone feels unpleasant like a person X feels when other people are giving attention to X when X does not want anyone to give attention to X’. A person may feel this emotion occasioned by a specific event, or it may reflect a person’s general character. *Yirufa* seem to be completely synonymous with *yimtna*, iv, an apparent loan word from the closely related Kuvenmas dialect.⁷

(12) Masat yirufek-wër⁸ ‘He is very embarrassed / shy.’

An Alamblak person commonly feels *yirufa* at these times:

- people call attention to someone,
- a man walks past a group of girls who notice him,
- someone does something wrong, and it is known publicly,
- someone is caught doing something he or she should not be doing, and
- someone is insulted.

The appropriate expressions of this feeling are typically scratching one’s head vigorously, hanging one’s head, looking away, staying in the house, and, in pre-World War II times, committing suicide. Being poorly dressed is indicative of someone whose personality is to avoid public attention.

⁶This possible implication, a suggestion of an anonymous reviewer, has been noted after comparing the contrasting elements in the meanings of *yohoaf* and *marbir dohater*. We have not had the opportunity to verify this with follow-up fieldwork.

⁷The origin of *yimtna* in the Kuvenmas dialect is unknown.

⁸The underlying present tense stem is *yirufayk*. The diphthong is manifested as a front vowel by phonological rule.

A person who is known to be *yirufa* may be metaphorically referred to as *Mañsifer* ‘He is a millipede’. This is a common metaphor used to refer either to a short-nosed person or a shy, timid person. Perhaps the millipede is associated with shyness because of the way a millipede recoils when something touches its head.

The expression *wom kmithëfer* ‘He is a person from another place’ is sometimes used to indirectly refer to how a local resident keeps his head down in public. Such a person is characteristically *yirufa*. ‘Self conscious’ or ‘embarrassed’ would be the closest English equivalents.

Yirufa is more general in meaning than either of the English terms ‘shame’ or ‘shy’. ‘Shame’ highlights that ‘the experiencer feels badly about himself because he thinks other people think something about him is bad’. ‘Shy’, on the other hand, expresses the disposition of wanting to be unnoticed, whether for something good or bad about oneself.

2.4 Anger

This concept relates to feelings derived from thinking “I don’t want things like this to happen.”

2.4.1 *Nambur*

Nambur, iv., can refer both to the emotion of anger and the action of fighting, the natural action to take following anger. The first sense can be defined as ‘someone feeling bad about something they did not want to happen, and because of that he or she wants to hurt something or someone’. The simple form of the verb is given in (13).

(13) *Nambur-wër*
angry-IMPERF.3SM. ‘He is angry.’

An Alambalak person commonly feels *nambur* at these times:

- someone gossips about him,
- someone steals from him,
- someone disobeys him,
- someone insults him, and
- he himself does something he disapproves of.

The common expression of this feeling is to slam or hit something, to cry, to shout or snap at someone, to hang one’s head, to hit a stick on the ground, to slash a tree or hit a stone with a machete, to pull out grass vigorously, or to fight with someone. *Namburet yimar* ‘an angry person’ is likely to fight or threaten to fight frequently.

The intensified form for angry is indicated by an aspect marker *bugay* ~ *buge* ‘to fruition’. Anger coming to fruition indicates a person is angry enough to start fighting.

(14) *nambur-buge-wër* ‘He is completely angry.’

Anger is described by the body part image in (15) and the metaphor in (16). These expressions are substitutable for *nambur* in the same context.

(15) *Yima yuhr kikwër*
 person soul/inner.self tied.up.IMPERF.3SM
 ‘his thoughts are /inner self is tied up.’
 ‘He is tied in knots.’

(16) *Kaht kañjë kukrwër.*
 Fire like burning.IMPERF.3SM
 ‘He is intensely angry.’

These expressions convey a feature of the emotion of anger as the Alamlak people conceptualize it. Anger affects a person such that the thoughts or inner self of a person are preoccupied with the causing situation, and the person cannot function normally (15). The metaphorical image of (16) refers to someone who feels incensed. The metaphor is based on a conceptual metaphor that anger is fire.

2.5 Fear

This category relates to feelings deriving from thinking that bad things can happen.

2.5.1 *Yakrme*

Yakrme, iv., is another word for which the distinction between an emotion and its related action is blurred. It may be glossed as ‘feeling like someone who feels something bad about something that he thinks may hurt him, and thinking that causes him to think, “I should run away.”’ The term also refers to the action of ‘running away in fear’. The first response to fear is to run, thus the extended meaning of the term. Example (17) illustrates the abstract, non-spatial sense of the word.

(17) *Metroh yuhurneft kakrmit-wër*⁹
 girls.of liking.NOM afraid-IMPERF.3SM
 ‘He is afraid of liking / lusting after girls.’

⁹The present tense stem of this conjugation begins with /k/, ends with a /t/ and has generalized the first person singular form of the vowel of the last syllable.

It is a wise man who understands the trouble that a seductive woman may bring upon him.

An Alamlak person commonly feels *yakrme* at these times:

- encountering spirits,
- encountering animals that can injure a person, like pigs, dogs and cassowaries,
- encountering an angry person or a madman,
- thinking about receiving bad news, and
- encountering fire, anger or lust.

The appropriate expression of this feeling is typically to run away. In the case of encountering spirits, one may seek company or sleep in a different house, or keep a light burning. One might also hang up tree bark or leaves to ward off evil spirits, burn incense, whistle loudly, or do a child's dance or song.

The intensified form for fear is indicated by an adverbial suffix *mif* 'truly' as in (18).

(18) *yakrme-mif-kfët* 'to be truly afraid'

The metaphors in (19)-(21) describe a person who is *yakrme* 'fearful'. As mentioned for other metaphors, these examples seem to refer to the same emotion as *yakrme* but more with more expressive imagery.

(19) *giñetm kañjë ne-wër*
 Crayfish like do-IMPERF.3SM
 'He is backing off like a crayfish.'

This image focuses on the quick backward retreat of the crayfish when it is startled. A fearful person pulls back like a crayfish. This metaphor would be used most commonly in situations in which a person refrains from doing something out of fear.

(20) *kikroht korh-n yakrme-ñeft?*
 Chicken seated-2s fear-NOM
 'You are a chicken with respect to fear?'

(21) *Yaom kañjë nohkfitir*
 Dogs like die.beat.IPST.3SM
 'He's afraid like dogs beaten to the point of death.'

The metaphor in (20) compares fearful people to chickens and the comparative statement in (21) compares them to dogs that have been beaten so much that they cower in fear at the slightest movement of the hand. These three metaphors associate a posture or withdrawing action with fear. *Yakrme* refers to both the internal emotion of fear and the flight action that people do in response to fear.

2.6 Desire - Be pleased with

This sub-domain relates to feelings that derive from thinking about having something that one wants. There are two words in this category. They overlap in meaning considerably with few distinctives. There is commonly a close association between the domains of ‘desire’ and ‘like-appreciate’ which is manifested lexically in some languages. ‘Desire’ is a domain of disposition, which is an attitude of the mind. ‘Like-appreciate’ represents a domain of positive emotion. Bruce (2003:324-325) observed this association in the Maskelyne language of Vanuatu. In Samoan ‘want’ is included in a semi-transitive class of verbs that includes verbs of communication, perception, emotion and thinking (Onishi 2001:16, quoting Mosel and Hovdhaugen 1992:730-735). All of these verbs in Samoan are thought of as relating to their object in a similar way in contrast to the transitive verbs. All of that to say that verbs of desire and positive emotions are closely related semantically, and that similarity is reflected in the syntax of Samoan.

2.6.1 *Yuhur*

Yuhur, tv., may be defined as ‘someone thinks like this: “I feel something good because I have this good thing.”’ This term is polysemous with another sense that in some contexts means simply ‘want’.

Yuhur as a transitive verb takes an object.

(22) Na mett yuhur-w-an-t
 I woman like/want-IMPERF-1S-3SF
 ‘I like/want a/the woman.’

An Alamblak person commonly feels *yuhur* at these times:

- when someone desires an attribute they admire in someone else,
- when someone likes someone else, and
- when someone likes a girl, or wants her.

In the following situations a person is expressing the mental disposition of *yuhur*:

- when a man wants new trousers,
- when a couple wants more children, and
- when someone wants an event to happen.

The appropriate expression for showing that one likes something is typically to talk about it or to look longingly at it, or to nod one’s head, smile, say “uh-huh.” This person might rub noses with a baby (*kfek-hakfë* ‘rub noses with and talk to’); this will surely bring an accusation of wanting a baby.

In the light of the close relationship of these meanings of ‘appreciation for’ and ‘desire for’, it is not surprising that expressions of appreciation for some object may be taken by a person’s host as an obligation to give the object to the appreciative person. Many cultures in Asia and the Pacific are noted for this characteristic of polite social behavior.

The intensified expression is formed with the adverbial suffix *mif* ‘truly’ as in (23).

- (23) Bro Yifemr yuhur-mif-wërnëm.
 Big Father likes-truly-IMPERF.3SM.1PL
 ‘God loves us.’

The body image concepts¹⁰ in examples (24)-(26) describe an emotion involving doing something with an object that one wants to do (cf. sense three of *love* in Bruce 2003:305). These are statements of stronger feelings and desire in the general case than those expressed by the single lexeme *yuhur*.

- (24) Yirapam nanho wafet.
 fish.meat my liver.3SF.is
 ‘I love fish meat.’ (Lit. Fish meat is my liver.)

- (25) Nanho waf-mkuyet.
 My liver-piece.is.3SF
 ‘I love it / her deeply.’ (Lit. It/she is a piece of my liver.)

Example (26) expresses the attitude that the speaker could never give away the object of his affection. It is appropriate to say this about a special possession or a child, but one would only say it in jest about his wife.

- (26) Nanho marbit korhwët rediotn / yëntn.
 My heart sits radio.in / child.3SF.in
 ‘I love the radio / little girl’. (Lit. ‘My heart is in the radio/girl.’)

Examples (27) and (28) are body image expressions built on the verbs *cut* and *shoot* that indicate an object causes a person to experience a desire for the object.

- (27) Pukwëtr rediot.
 cut.IMPERF.3SF.3SM radio.3SF
 ‘The radio is captivating his desires’. (Lit. ‘The radio cuts him.’)

¹⁰McElhanon 1977 suggests that in some languages of Papua New Guinea expressions involving a predication about a body part express concepts that are understood more literally than idiomatically. These expressions seem to formulate a concept about something psychological that happens in the locus of the physical body part. They are therefore referred to as body image concepts rather than body part idioms.

- (28) Tu-yuhur-wëtr rediot.
 shoot-like-IMPERF.3SF.3SM radio.3SF
 ‘The radio arouses his desire to have it.’ (Lit. ‘The radio shoots-likes him.’)

Yuhur and *fëhtas* are in the class of Uncontrolled Experiencer verbs in Alamlak (Bruce 1984:235-236). That is, when transitivized as in a serial construction, the experiencer, (i.e., the one feeling a desire) becomes the object of the verb, his desire being caused by some external stimulus. In (28), the radio is the causer marked as the subject of the clause, and the person affected by the radio (in desiring it) is marked as the object of the clause.

2.6.2 *Wofïn*

Wofïn, tv., means ‘want’. In some contexts, like *yuhur*, it seems to convey an emotional content.

A person can want (*wofïn*):

- things,
- people, and
- actions.

The term can also express a liking for qualities:

- attributes (*Na bro metm wofïnwa*. ‘I like fat women.’)

There are a few differences in the two words, however. *Yuhur* comes from the word *yuhr*, ‘thought, inner person’. At its core it has the component of emotional attachment, whereas *wofïn* indicates less emotional involvement, and more of a desire for or a coveting of something.

Unlike *yuhur*, *wofïn* cannot occur in a serial root construction that encodes a causer participant in the clause. Example (29) is ungrammatical. One explanation is that *wofïn* takes an Agent role in Subject position rather than an Experiencer role that *yuhur* appears to take. *Wofïn* is an act of wanting more than a feeling of emotion. Therefore the Agent cannot assume the Object position in (29) as the Experiencer can in (28). *Wofïn* fits the transitive paradigm of Alamlak verbs. Transitive verbs cannot be transitivized further by a causativizing process.

- (29) *tuh-wofïn-wëtr rediot.
 shoot-want-IMPERF.3SF.3SM radio.3SF

Alamlak expressions similar to ‘lust’ are in the domain of desire. These expressions refer to sexual desire and are used to shame and embarrass people (*yirufa*). They are also used in a figurative way to mean ‘excitement’. Apart from the generic desire terms, *yuhur* and *wofïn*, expressions specific to lustful desire are conventional metaphors.

2.6.4 *Bebina*

Bebina primarily refers to the action a crown pigeon makes, bobbing its head up and down *while* walking on the ground. This characteristic action is associated with a sexual action, and refers to a person who acts lustfully such as by running around the village looking for a partner. Thus metaphorically *bebina* may mean ‘aroused sexually’ (30).

Bebina also can refer generally to an unrestful, overactive person. The term is used to refer to children who can’t sit still and continually kick their feet or wiggle. Even in this context the metaphor is recognized as an off-color remark because of its sexual connotations.

- (30) Duwaum kañjē bebine-wër
 crown pigeon like head.bobbing-IMPERF.3SM
 ‘He is aroused.’ (lit. ‘he is bobbing like a crown pigeon.’)

Two other common expressions are based on images of the domestic dog (31) and (32).

- (31) Yiram yawr kañjē gibeft kahik-wër.
 Male dog like odor follow-IMPERF.3SM
 ‘He is aroused.’ (Lit. ‘He follows a smell like a male dog.’)

- (32) Pipiu yawyet.
 Heat dog.is.3SF
 ‘She is aroused.’ (Lit. ‘She’s a dog in heat.’)

Example (33) uses the effect of a taro leaf as an image for projecting sexual desire. It is the itching effect of the leaf that is the basis of the metaphorical extension.

- (33) Hetihdingeft fawë?
 taro.leaf eat.IMPERF.2S
 ‘You are sexually worked up!’ (Lit. ‘Are you eating the taro leaf?’)

Related words in this domain require further study include: *gigra* ‘sexual excitement’; *pipiu* ‘in heat’; *tehmihi* ‘intense sexual excitement’, ‘orgasm’; *ninia* ‘itch’. This particular domain is susceptible to euphemistic substitution due to the sexual connotations associated with it. Since *ninia* ‘itch’ has been associated figuratively with this domain, its use has been restricted in its original, basic meaning. Other words substituted for skin itching include *rinewt* ‘it itches’ and *tatatwët* ‘it hit-itches’.

2.7 Dislike, ‘Diswant’¹¹

This *domain* relates to wanting not to have or wanting something not to happen.

The concepts of dislike and diswant are most similar to concepts in the Desire domain. The Alamblak term is either general enough to encompass both Desire and Positive Emotions domains, or it is polysemous. The concept (or senses) expresses a negative desire as a rejection of; and in the case of ‘disliking’; it is clearly a negative concept of repulsion toward something, not simply the denial, viz., negation, of a liking for something.

The Alamblak verb for ‘to dislike, to diswant’, is *kur*. These senses contrast with the negatives of the verbs for ‘like’ and ‘want’, *yuhur-kah* and *wofɪn -kah*, which express the lack or denial of liking and wanting. There are also (*kur*)*masha* and *hëhrek*, which carry the meaning of ‘diswant’, but they are examples of the overlap of emotion and attitude / action, where there is much polysemy if not fuzzy borders.

2.7.1 *Kur*

Kur, tv., may be defined as ‘someone feels something about something or someone else such that he neither wants that something or someone else, nor wants to be with them’. It is therefore not the denial of a feeling or desire, but a negative feeling or desire. It is an irregular verb, the present tense form being *kokr* (34) and (35).

(34) *kokr-wa*
diswant/dislike-MPERF.1S
‘I feel negatively toward (doing something).’

(35) *kokr-want*
diswant/dislike-MPERF.1S.3SF
‘I feel negatively toward her/it.’

An Alamblak person commonly feels *kur* about the following:

- things,
- people, and
- doing something.

¹¹The term *diswant* was coined by Wierzbicka (1996:64). In her original list of 13 primitives ‘not want’ was included as one primitive rather than the general negation concept embodied in the English term *not* which was not on the list (Wierzbicka 1980:10). She was “trying to come to grips with the fact that the semantic relation between the phrases ‘I want’ and ‘I don’t want’ seems to be different from that between, say, ‘I know’ and ‘I don’t know’... ‘I don’t know’...means, roughly speaking, that ‘It is not the case that I know.’ (...) ‘I don’t want’, however (on one reading at least), does not seem to mean that ‘it is not the case that I want’ (as in ‘I don’t particularly want’); rather, it seems to mean that I positively ‘diswant’ something.” (Wierzbicka 1996:64) ‘I don’t particularly want’ something expresses a denial that I want it; ‘I don’t want’ something expresses an attitude of rejection toward that something. She recognized this concept as a basic, important human concept that was found lexicalized in many languages. She eventually decided that ‘not’ was more basic than ‘not want’ and could derive the rejection concept of ‘not want’ from the negation concept ‘not’ rather than visa-versa. ‘Diswanting’ to focus on the rejection reading of ‘not want’ in contrast to the denial reading.

The appropriate expression of this attitude is typically shaking one's head, wrinkling one's nose, raising one's shoulders, making a [p >] sound (bilabial voiceless egressive mouth air, or a squeak).

The intensified form adds the adverbial suffix *mif* 'truly' (36).

(36) Kokr-mif-wa. 'I very much don't want to.'

2.7.2 *Masha*

Masha may be defined as 'very much dislike' or 'very much wanting not to do something'. The word commonly combines with *kur* (*kurmasha*). *Mashar* is the term given to a person who refuses to do anything. One uses this expression, usually of another person, when that person

- doesn't ever want to do anything,
- has been asked repeatedly and always answers negatively, and
- is too lazy to do anything.

This term clearly refers to a volitional response. It is not used when there are extenuating circumstances for someone being unable to do something.

2.7.3 *Hëhrek*

Hëhrek may be defined as 'wanting not to do something'. It is used to refer to a person that is too lazy to work. Such a person might be

- too tired, and
- too lazy--doesn't want--to do something specific

The appropriate expression of this attitude is typically looking down, not smiling, lifting his shoulders, or shaking one's head.

Hëhrek-mbënhar is the name for such a lazy person. This title results from a curse put on a person. Technically such a person is one who has been cursed and therefore is very lethargic. This experience is therefore in its prototypical case not a volitional response to a situation, but a demeanor that a person experiences more passively than *kur*.

3 Conclusion

Fifteen terms in seven sub-domains of emotions are described here. The sub-domains include concepts similar to the English concepts 'happy', 'sad', 'shame', 'anger', 'fear', and 'desire/love'. Several of the Alamlak emotion concepts are referred to by body-part images. The body-part images for emotions utilize the heart, the thoughts/inner person, and the liver.

Yindhor ‘happiness’ and *nambur* ‘anger’ are reflected in image of the *yima yuhr* ‘thoughts’, ‘dancing’ (3) and ‘being tied up’ (15) respectively. On the positive side the thoughts are unencumbered, whereas on the negative side (‘anger’ is the antonym, not ‘sadness’) one’s thoughts are portrayed as encumbered. Happy thoughts are optimistic because of good things happening and angry thoughts are aggressive because of offenses (bad things happening). The term *yuhur* ‘desire’, ‘like’ may be a part of this complex also as it is thought to be based on the word *yuhr* ‘thought’.

All the words in the sub-domain of ‘sadness’ refer to the *marbir* ‘heart’ in their idiomatic expression. So does *yuhur* ‘desire’. These common body image expressions indicate a view that the heart is involved in yearning for something that the experiencer wishes for.

Only *yuhur* ‘desire’ uses *waft* ‘liver’ as the seat of the emotion, in addition to its usage of *marbir* ‘heart’ and its possible connection to *yima yuhr* ‘thoughts’. The liver has been noted to be widely-used throughout Papua New Guinea as a body part associated with emotions, and it occurs in Alamblak associated with the notions of desiring and liking. It is noted that *yuhur* ‘desire’ is associated with the liver, the heart, and plausibly the thoughts, all three of the body parts used in Alamblak emotions.

Kenneth McElhanon (1975, 1977) has done extensive studies on body image expressions in many languages of the New Guinea area and elsewhere. He has pointed out that expressions of this type involving body parts are not to be dismissed as simply idioms. He has determined, through extensive field work that experiences that are identified with body parts are thought to reflect a duality. There is a physical response in the locus of a body part that reflects a psychological experience in the soul of the person.

The polysemy pattern of *yuhur* was noted in section 2.6.1. This association of polysemy between the domains of Emotions and Desire, the latter being a disposition of the mind, has been referred to numerous times in the literature. Goddard (2002:24-25) discusses this same type of polysemy relationship in Yankunytjatjara and Spanish. Robert Bugenhagen (2001:76-85) discusses a great variety of body image expressions involving *mata*- ‘eye’ in the Mbula language of Papua New Guinea. Some of those meanings include a dispositional sense of thinking about someone and wanting to do something good for that person, and complex emotions that tie together wanting something and feeling something as a result.

The Alamblak case is one more example of a language with lexical concepts in the four domains ‘fear-like’—‘Something bad can/will happen’, ‘anger-like’—‘I don’t want things like this to happen’, ‘shame-like’—‘Thinking about ourselves’, and ‘happy/love-like’ feelings—‘Something good happened’. These are the domains that Wierzbicka (1999) suggested were likely domains universally found in human language.

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6

Talking about Motion and Location in Tuam

Robert D. Bugenhagen

ABSTRACT

Tuam is a dialect of the Oceanic Austronesian Saveeng language (aka Mutu-Tuam) spoken on Tuam and Umboi islands (Morobe Province, Papua New Guinea). To specify locations, an absolute spatial framework based on four wind directions may be used: *ragh* ‘southeast wind’, *yavaar* ‘northwest wind’, *kaagu* ‘north-northeast wind’, and *daudao* ‘south-southwest wind’. More commonly, however, use is made of intrinsic and anthropocentric relative spatial frameworks. The absolute framework based on wind direction exhibits a scalar restriction which the other two frameworks lack. It is only used outdoors for Figures which are relatively large in size.

A number of devices specify the directional vectors from Grounds to Figures in locative constructions: a rich set of motion predicates occurring in serialized constructions, positional verbs, prepositions, demonstratives, deictic locative adverbs, proximity adverbs, and locative nouns having inalienable genitives. Most predicates in the language have a single inherent path orientation, either towards, at, or away from a locative Ground, which severely constrains the semantic role of associated prepositional phrases and Subject arguments.

Motion verbs expressing sea travel exhibit specialized senses based on the prevailing winds, with ‘up’ as motion southeasterly and ‘down’ as motion northwesterly. Although it is possible to combine several different devices to very precisely specify a location, in normal conversation this is rare. Speakers normally use the most economical means possible.

1 Introduction

The treatment of space and motion is a topic of current linguistic interest since language seems to provide a window into the nature of human spatial thinking. Spatial thinking is fundamental to human cognition. Stephen Levinson (2003:7ff) notes that from the time of Aristotle onwards there has been a strong tradition in western philosophy emphasizing the importance of ego's human body as a reference point, yielding such directions as front, back, left, right, above, and below. Levinson questions the universality of this tradition, however, citing languages such as Tzeltal of Chiapas, Mexico and the Australian aboriginal language Guugu Yimithirr, which seem to predominantly use an absolute spatial frame of reference rather than an anthropocentric one.

Spatial frames of reference are different types of coordinate systems with respect to which certain properties of objects are gauged. Levinson (2003:35) states that there are essentially three main frames of reference in linguistic descriptions of horizontal spatial directions: intrinsic, relative, and absolute. He characterizes each of these in the following way:

- **Intrinsic**—an object-centered coordinate system, where the coordinates are determined by the inherent features, sidedness, or facets of the object to be used as the ground or relatum (2003:41).
- **Relative**—presupposes a viewpoint V (given by the location of a perceiver in any sensory modality), and a figure and a ground distinct from V. It thus offers a triangulation of three points, and utilizes coordinates fixed on V to assign directions to figure and ground. The viewer/perceiver is normally a participant in the speech event but not necessarily so (2003:43).
- **Absolute**—many languages make extensive, some almost exclusive, use of such an absolute frame of reference on the horizontal. They do so by fixing arbitrary fixed bearings—cardinal directions that can be related by the analyst to compass bearings (2003:48).

In English, a sentence like *The women are standing in front of the church* evidences use of an intrinsic spatial frame of reference. The front, being defined as the side of the church where the main entrance is, serves as a reference for locating the women. A sentence like *He is standing to the left of the tree* evidences a relative spatial framework, left and right being projected from the speaker or some other viewpoint. A sentence like *The village is located on the south side of the mountain* evidences an absolute spatial frame of reference.

This paper describes the treatment of motion and location in the Tuam dialect of the Saveeng (also known as Mutu or Mutu-Tuam) language. Although the language exhibits an absolute spatial framework based on wind directions, intrinsic and anthropocentric relative spatial frameworks are more commonly used than the absolute one.

2 Language classification and typological sketch

Saveeng/Mutu is an Oceanic Austronesian language spoken by about 4,000 people who live in the Morobe Province of Papua New Guinea on Umboi Island and the small Siassi Islands to the southeast. Malcolm Ross (1988:122) classifies it as a member of the Ngero-Vitiaz family within his North New Guinea Cluster. There are three dialects: Tuam1 (spoken on Tuam Island and in Yaagha village on Umboi Island), Malai (spoken on Malai Island), and Oov (also known as Mutu and spoken on Aramot, Mutu-Malau, Mandok, and Aronai islands). The language has a nominative-accusative case marking system, and the basic word in the clause is:

(Theme/Topic,) Subject_{NOMINATIVE}—Verb—
Object_{ACCUSATIVE}—Other Peripheral constituents

Most verbs have a prefix indicating the identity of the clausal Subject.²

	Subject	Verb	Object	Prepositional Phrase
(1)	[Yes] 3PL.NOM	[ti-velegh] ³ 3PL-mock	[ghiit] 1PL.INC.ACC	[pa uraat toit]. OBL work 1PL.INC.LOC 'They mocked us (INC) on account of our work.'
(2)	Yau 1SG.NOM	na-ghe 1SG-say/think	[pa I OBL 3SG.NOM	i-maat wa]. 3SG-die PERF 'I thought he had died.' [Subordinate clausal complement]

In noun phrases, most modifiers come after the head noun.

	N	N_ATTR	QP
(3)	[livaa female	[marani] small.one	[e = ta] one = NON.REF 'a/any/some small/young girl.'

¹Vernacular examples in this paper reflect the Tuam dialect of the language, unless noted otherwise. I would like to acknowledge the very helpful comments I received from the reviewers of this article and the editors of this volume, especially Kenneth McElhanon. And, of course, I am most thankful to the speakers of the Saveeng language, who have been gracious and very patient in sharing their language with me and my wife over these past nine years, especially the residents of Yaga village.

²Abbreviations used in the paper are as follows: 1 'first person', 2 'second person', 3 'third person', ACC 'accusative case', APPL 'applicative suffix', ASS 'associated entity', CAUSE 'causative prefix', CP 'complementizer phrase', CSB 'cosubordinate conjunction', DEM 'demonstrative', DU 'dual', EXC 'we (hearer excluded)', GEN 'genitive', INC 'we (hearer included)', LOC 'locative case', N, NP 'noun, noun phrase', N_ATTR 'attributive noun', NMZ 'nominalizing suffix', NOM 'nominative case', NON.REF 'non-referential', OBL 'oblique case', PERF 'perfect', PL 'plural', PP 'prepositional phrase', PROHIB 'prohibitive modality', PROX 'proximate deictic formative', also used as a sentence-final adverb to express a currently on-going state of affairs that is 'taking place nearby', QP 'quantifier phrase', RC 'relative clause', RED 'reduplication', SG 'singular', SV 'stem vowel', TEL 'telic conjunction', TR 'transitive suffix', REMOTE 'remote deictic formative', also used as a sentence-final adverb to express a currently on-going state of affairs that is happening 'at a relatively far away location'.

³The phonemes of the language are: /p t k b d g mb nd ŋg m n ŋ v (= [v]) s z gh (= the velar fricative [ɣ]) l r w y (= [j]) a e i o u/. Initial *ts*, in a form represented orthographically as *tsiau*, indicates a pronunciation that varies between a laminal palatalized t [tʃ], [tsʃ] and [sʃ]. Vowel length is contrastive, and is orthographically represented via a doubling of the vowel.

	N	PP _{LOCATIVE-PRONOUN}	N_ATTR	DEM
(4)	[sav-e-eŋ	[tsiau]	[tuuku]	[tane]]
	speak-SV-NMZ	1SG.LOC	short.one	this
	‘this short little speech of mine.’			

3 Specifying motion and location in Tuam

3.1 Preliminaries: terminology

Leonard Talmy states:

The spatial disposition of a focal object in a scene is largely characterized in terms of a single further object, also selected within the scene, whose location and sometimes also “geometric” properties are already known (or assumed known to an addressee) and so can function as a reference object...the first object’s site, path, or orientation is thus indicated in terms of the distance from or relation to the geometry of the second object. (2000a:182)

In talking about the linguistic encoding of location, it is common, following Talmy (2000a:184-185), to use the terms *FIGURE* and *GROUND* from Gestalt psychology to refer to the focal object and the reference object. The entity whose position is being specified is termed a *FIGURE*, while the reference entity with respect to which its position is specified is termed a *GROUND*. In an example like *The cheese is in the refrigerator*, *cheese* functions as the *FIGURE* and *refrigerator* functions as the *GROUND*.

In talking about linguistic descriptions of location, the distinction made by Marcus Kracht between “configuration” and “mode” is also helpful. Kracht characterizes these as follows:

We shall argue that locative expressions universally consist of two layers, one for the configuration and one for the mode. The configuration describes the way in which several objects are positioned with respect to each other. Configurations can be brought into correspondence with prepositions which do not indicate change of location. Examples are: at, in, on, between, in front of, etc. The mode on the other hand describes the way in which an object moves with respect to the named configuration. (2002:159)

Kracht notes that while there is no real limit to the number of possible configurations, there does seem to be a limit on the number of possible locative modes.

While there is no plausible bound on the number of configurations that a language distinguishes, the number of modes seems to be limited: there is evidence for the static, the cofinal, the cointial, the transitory and the approximative mode. (2002:159)

While accepting the notional distinction made by Kracht, I shall use slightly different terminology. The following terms for locative mode seem more transparent than Kracht’s, and are the ones used in the remainder of this paper:

1. SITE/POSITION (= STATIC MODE): the place *at which* something is asserted to be located or *in which* some event takes place
2. SOURCE (= COINITIAL MODE): the place *from which* something moves
3. GOAL (= COFINAL MODE): the place *to which* something moves
4. PATH (= TRANSITORY MODE): an intermediate place *along the way* between the source and the goal.

These modes can be graphically represented by the image-schemas in figure 1:

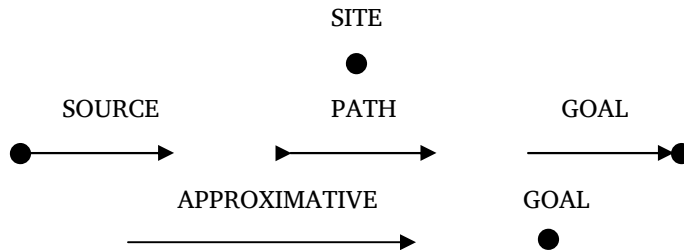


Figure 1: Locative modes

In a sentence like *I flew from Washington, D.C. to Los Angeles via Chicago*, Washington, D.C. indicates the SOURCE from which the FIGURE (=‘I’) leaves, Los Angeles indicates the ultimate GOAL, and Chicago is a PATH, an intermediate location along the way from the SOURCE to the GOAL. In the sentence *I lived in Washington, D.C. for ten years*, Washington, D.C. would be the SITE or POSITION.

Regarding the semantic constituency of locative expressions, Kracht (2002:159) states, “From a semantic and syntactical point of view a locative expression is therefore structured as follows [M [L DP]], where M is a modaliser (specifying the mode), L a localiser (specifying the configuration) and DP a determiner phrase.” He goes on to state that morphologically M and L may be expressed by distinct forms, but are frequently combined into a single unit: a case ending or an adposition (2002:160). In the following section we shall see, however, that in Tuam the M component is more typically covert, being an inherent part of the meaning of the verb.

3.2 Motion verbs and inherent directional orientation of predicates

Talmy distinguishes three common typological patterns of lexicalization for verbs of motion:

1. Motion + Co-Event: “...the verb root expresses at once both the fact of Motion and a Co-Event, usually either the manner or the cause of the Motion. A language of this type has a whole series of verbs in common use that express motion occurring in various manners or by various causes” (2000b:27).
2. Motion + Path: “In the second typological pattern for the expression of motion, the verb root expresses both the fact of Motion and the Path. If a

Co-Event of Manner or Cause is expressed in the same sentence, it must be as an independent, usually adverbial or gerundive type constituent ... [L]anguages of this type have a whole series of surface verbs that express motion along various paths” (2000b:49).

3. Motion + Figure: “In the third major typological pattern for the expression of Motion, the verb expresses the fact of Motion together with the Figure. Languages with this as their characteristic pattern have a whole series of surface verbs that express various kinds of objects or materials as moving or located” (2000b:57).

In Talmy (2000c:222), the first two types are termed respectively “satellite-framed” and “verb framed.” In satellite-framed languages, if one wants to express the path of motion, this path is given by some sort of a satellite. In verb-framed languages, if one wants to express the manner, this is done via some sort of subordinated verb construction.

Daniel Slobin (2006:65) proposes an additional, fourth typological pattern, which he terms “equipollent,” to account for languages where neither the path nor the manner constituent can plausibly be viewed as being subordinate to the other. This fourth typological pattern is divided into three subcategories:

1. serial verb languages [verb_{MANNER} + verb_{PATH}]
2. bipartite verbs [manner + path]_{VERB}
3. generic verb [coverb_{MANNER} + coverb_{PATH} + verb_{GENERIC}].

Examples of languages in each of these four typological categories are:

1. Motion + Co-Event: Germanic, Slavic, Finno-Ugric
2. Motion + Path: Romance, Semitic, Turkic, Basque, Japanese, Korean
3. Motion + Figure: Atsugewi and some other northern Hokan languages
4. Equipollent_a (serial verb): Niger-Congo, Hmong-Mien, Sino-Tibetan, Mon-Khmer, Austronesian
5. Equipollent_b (bipartite verb): Algonquian, Athabaskan
6. Equipollent_c (generic verb): the Australian language Jaminjungan

In Tuam, the locative mode/path is incorporated as a semantic component of the verb, and manner is typically expressed by a separate verb in a serialized or coordinate construction as in (5). So it would seem to be an instance of Slobin’s equipollent_a (verb serialization) category.

- (5) I-laagh rekia mon i-la i-vot tooni.
 3SG-walk quickly only 3SG-go 3SG-reach 3SG.LOC
 ‘He walked quickly over to him.’

The primary motion predicates indicating a deictic orientation are listed in table 1. Other verbs not distinguishing a deictic orientation are:

1. -ndari 'descend, go down at not so steep an angle'
2. -pul 'leave (from)'
3. -ghau 'go away (from), flee, run away (from)⁴
4. -loon 'enter, go (into), go upstream, go in an inland direction'
5. -vot 'go out (from), go downstream/ in a seawards direction, happen (to) arrive at, reach'
6. peria⁵ 'arrive at, reach'
7. -gharau 'approach, go near to'
8. -mbut 'pass through, go through (a geographic area, body of water)'
9. -vool 'cross over to the opposite side of something'
10. -taghon 'follow, go alongside something'
11. -jarui 'go, be directed towards'
12. malmali⁶ 'go directly (to), go straight to, go right away to' (i.e., with no delays or diversions)
13. -livut 'be around, go around, encircle something, surround something'

Table 1: Primary motion predicates indicating a deictic orientation

	Deictic orientation		
	not necessarily directed to either speaker or hearer	directed to speaker	directed to hearer
'go (to)'	<i>-la</i>	<i>-lam / -nima</i>	<i>-lat</i>
'ascend, rise, go up vertically (to)'	<i>-zaa</i>	<i>-zalam</i>	<i>-zalat</i>
'ascend, rise, go up at a steep angle (to)'	<i>-zala</i>		
'climb, ascend, go up at not so steep an angle)	<i>-nau</i>		
'descend, go down vertically (to)'	<i>-zi</i>	<i>-zilam</i>	<i>-zilat</i>
'descend, go down at a steep angle (to)'	<i>-zila</i>		

With the exception of *malmali*, all of these are more-or-less pure motion predicates, expressing various paths of motion and nothing else. They all have *inherent* modes (in Kracht's sense of the term) associated with them. In most

⁴*Ghau* is also the verb normally used to express the motion of vehicles like canoes, ships, cars, and planes.

⁵*Peria* is a member of a class of non-inflecting verbs. The members of this class only function predicatively, but lack the normal Subject-Indexing morphology.

⁶*Malmali*- inflects like an inalienable noun (*malmali-g*, *malmali-m*, *malmalimai*, *malmali-in*, *malmali-mim*, *malmali-zi*, but is always used predicatively).

cases, the mode is coterminal; they express motion inherently directed *towards* some locale. So they take GOAL complements. Formally, these GOAL complements may be noun phrases (6), locative prepositional phrases (7), or oblique prepositional phrases (8).

(6) Ti-gham-u gha malmali-zi ti-la ti-vot nugh tana.
 3PL-take-TR CSB go.directly-3PL.GEN 3PL.go 3PL-arrive place that
 ‘They took him and went directly to that place.’

(7) Na-zaa toози i-zi eez livuugha.
 1SG-ascend LOC.3PL 3SG-descend road middle + 3SG.GEN
 ‘I came upon them in the middle of the road.’

(8) Ti-raav ti-la ti-voov pa Margheev.
 3PL-sail 3PL-go 3PL-cross.over.to.other.side OBL N.W. New.Britain
 ‘They sailed along [from Umboi Island crossing over the ocean] and arrived at northwest New Britain on the other side [of the ocean].’

Although *-la* normally takes GOAL complements, there are a few instances of it in serialized constructions where the serialization expresses a SOURCE semantic role (as in example (24) below).

The verb *-ɲarui* expresses motion directed *towards* some locale but not yet reaching it (i.e., Kracht’s ‘approximative’ mode).

The verb *-pul* ‘leave (from)’ takes an obligatory NP complement expressing a SOURCE role, and the verb *-ghau* ‘flee, run away from, go away from’ takes an optional oblique prepositional phrase complement expressing a SOURCE role. The semantic role of the complement of the verb *-vot* varies, depending on the sense of the verb. When it has the sense ‘exit, go out from’ (also ‘go out from the center of the island towards the sea’), the complement exhibits a SOURCE role. When it has the sense ‘arrive at, reach’, the complement has a GOAL role. This second sense has the synonym *peria*. When it has the sense ‘happen’, the complement can be either BENEFACTIVE/MALEFACTIVE ‘happen to’ or CAUSAL ‘happen because of’. These could, of course, be plausibly viewed as, respectively, abstract GOALS and SOURCES. Schematic representations of the paths indicated by the primary senses of these verbs are given in figure 2.

Most of the other verbs also have an inherent locative mode/directional component as part of their meaning. Some verbs are inherently oriented *away from* a GROUND, while others are inherently oriented *towards* a GROUND. Examples of verbs inherently oriented *away from* the GROUND include: *-ɲgooz* ‘hide something from someone or something’, *-yooŋ* ‘hide, be hidden from’, *-ziir* ‘send someone away, drive away, dismiss’, *-walaav* ‘remove, take off from’, *-mus* ‘wipe something off’, *-pas* ‘take out of’, and *-san* ‘snatch away from’. Examples of verbs inherently oriented *toward* the GROUND are: *-ur* ‘put’, *-urla* ‘believe (in)’, *-gham* ‘do, cause, give, take, bring’, *-yambaar* ‘send something to someone’, and *-mbaan* ‘send someone’. Other predicates are not inherently directed either towards or away from the GROUND. Instead, their complements exhibit a SITE/POSITION

semantic role. The positional verbs discussed in the next section are canonical examples of this. But there are also activity verbs which take a SITE/POSITION complement, expressing the location where the activity takes place (9). The verb *-laagh* ‘walk’ is one such verb.

- (9) Yes *ti-laagh* [nugh loolo] / [taan].
 3PL.NOM 3PL-walk place/village inside + 3SG.GEN / land/earth
 ‘They walked [around inside the village]/[on land].’

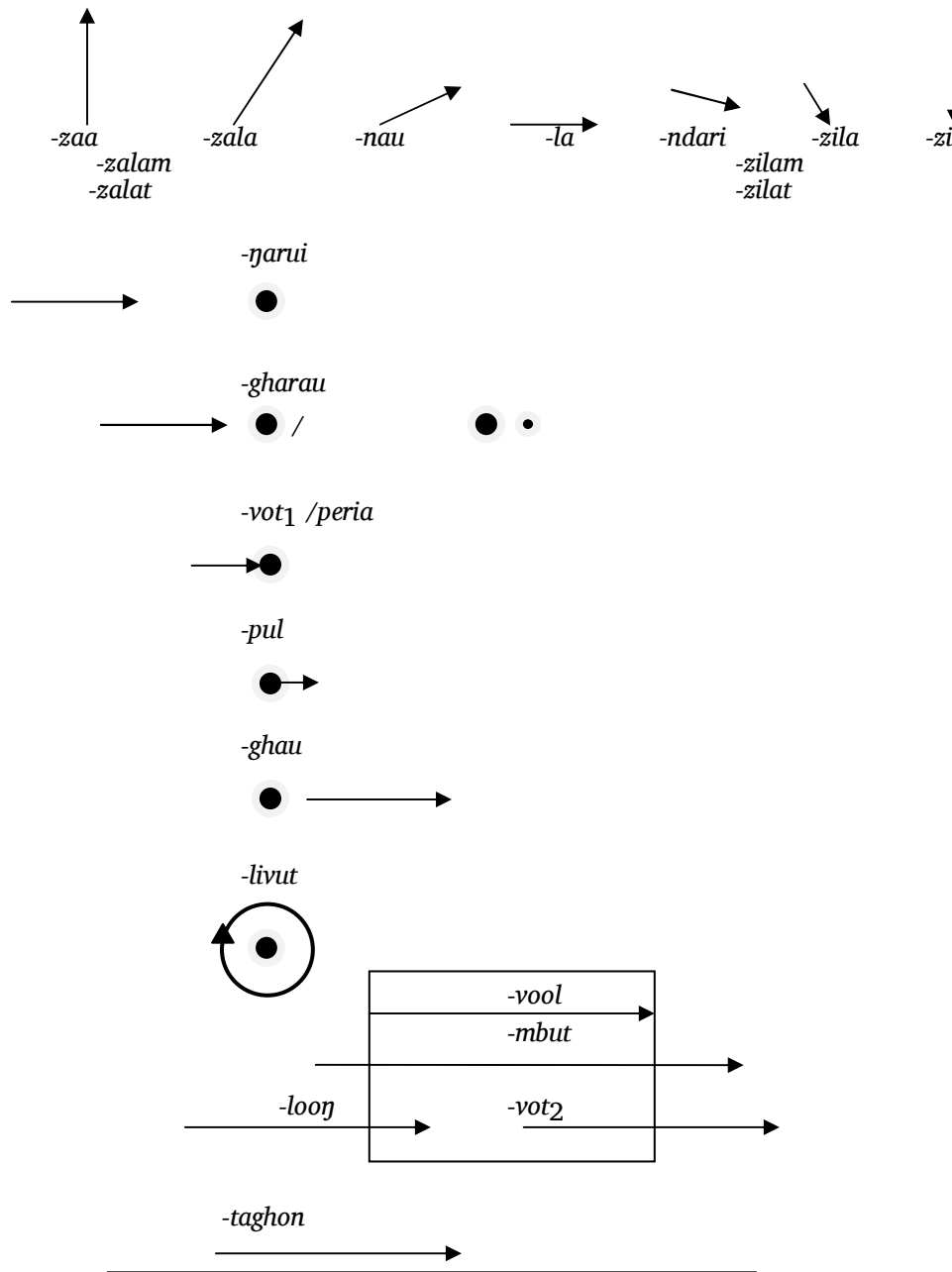


Figure 2: Schematic representations of the paths indicated by the primary motion verbs in Tuam.

Since the inherent orientation of *-laagh* is SITE/POSITION, it is impossible to construct a monoclausal utterance expressing “Person A walked to some destination B.” Instead, a serialized construction with a following motion verb must be used (10).

- (10) Ti-laagh ti-la pa ruum tooni.
 3PL-walk 3PL-go OBL house 3SG.LOC
 ‘They walked to his house.’

This matter of inherent directional orientation is quite constrained for most verbs; they only express a single locative mode. For example, in the case of a verb like *-ghau* ‘flee, go away from’, there is no way to express in a single clause an utterance like ‘They fled *to* their village.’ One must add an additional, usually serialized, clause with a motion predicate that is oriented towards a GOAL (11).

- (11) Ti-ro i ve ti-ghau ti-la pa nugh toozi.
 3PL-fear and 3PL-flee 3PL-go OBL place/village 3PL.LOC
 ‘They were afraid and fled away to their village.’

Similarly, one cannot express in a single clause “He went *from* his village to the city.” Instead, must say something like “He left his village and went to the city,” or “He was in his village and went to the city.”

With predicates expressing conveyance/transport of something, a following motion verb serialization specifies the location to which the item is being conveyed (12).

- (12) I-waz serembat anooṇa
 3SG-carry.hanging.from.head sweet.potato edible.part + 3SG.GEN
i-lam pa nughei.
 3SG-come OBL village
 ‘She carried sw. potato tubers [in a netbag hanging from her head]
 back here to the village.’

Knowing the inherent orientation of verbs is crucial for the correct interpretation of the semantic role of prepositional phrases. Because there are very few prepositions in the language, the grammatical meanings associated with the prepositions are quite generic. So the preposition, by itself, does not indicate much about the precise semantic role of the prepositional phrase. The meaning of the verb plus the semantic characteristics of the referent of the noun phrase governed by the preposition are much more important in determining the semantic role of the prepositional phrase (13)–(16), and (17).

- (13) I i-roi pa taama ve
 3SG.NOM 3SG-afraid OBL father + 3SG.GEN and
 i-ghau pani.
 3SG-flee.from 3SG.OBL
 ‘He was afraid of his father and fled from him.’ (Oblique PP = SOURCE)
- (14) Yes ti-leep pa taan ziige ite.
 3PL.NOM 3PL-be.at OBL land side + 3SG.GEN other.
 ‘They live on the other side of the area of land.’
 (Oblique PP = SITE/POSITION)
- (15) Yamru a-muul a-la pa nugh tsiam.
 2DU.NOM 2PL-return 2PL-go OBL place/village 2PL.LOC
 ‘The two of you go back to your [own] village.’ (Oblique PP = GOAL)
- (16) Patājan-i tiina i-vot pani pa mboŋ.
 be.heavy-NMZ big 3SG-happen.to 3SG.OBL OBL night
 ‘Great hardship happened to him at night.’ (An Oblique PP with an animate referent cannot encode Site or Goal. So the sense ‘arrive, reach’ is precluded for *-vot*. Here the Oblique PP *pani* = Malefactive.)
- (17) Ti-la ti-vot toozi.
 3PL-go 3PL-appear 3SG.LOC
 ‘They went [and] reached them.’ (Locative PP can only encode a SITE or a GOAL. This forces the interpretation that *-vot* must have the sense ‘arrive at, reach’).

3.2.1 Wind directions, ‘up’ and ‘down’ in sea travel, and directional axes

An additional comment is in order regarding the semantics of the motion verbs that have a vertical component in their meanings. They exhibit special senses when used in the context of sea travel.

For Tuam speakers, there are four cardinal winds: *ragh* ‘southeast wind’, *yavaar* ‘northwest wind’, *kaagu* ‘north-northeast wind’, and *daudao* ‘south-southwest wind’. Of these, the most important are *ragh* and *yavaar*. There are two primary seasons in the area. During the time of the southeast monsoon, the weather is cooler, there are strong winds, large waves on the sea, and it is quite rainy. The Tuam islanders were traditionally seafarers who went on long sea voyages for trading purposes (Harding 1967). During the *ragh* season, however, they were more or less trapped on their island until the weather calmed down. The *ragh* season is also the time when *Canarium* nuts ripen, the tasty oil of which is used the preparation of a wide range of different foods. It is also the time of the yam harvest. The *yavaar* season is much warmer, and Umboi Island blocks much of the wind for the Siassi Islanders. So the waters are calmer, and it is a good time for fishing. The transition between the *ragh* and *yavaar* seasons is the

time for planting yams, and the end of the *yavaar* season (before the yams ripen) is frequently a time when food is in short supply.

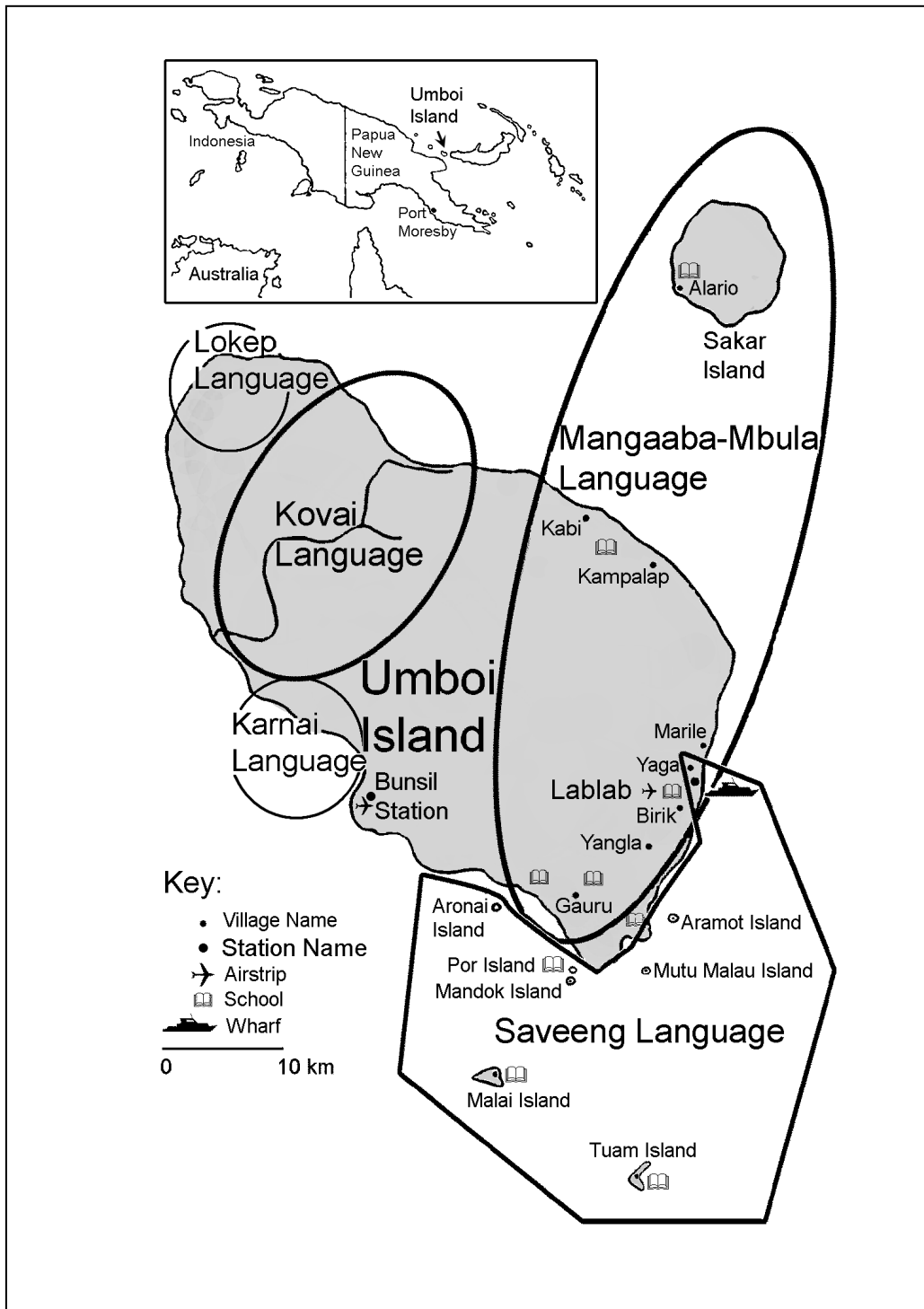
The yearly cycle between *ragh* and *yavaar* has traditionally been very important for the Tuam islanders, enabling them to go on long, circuitous (and very profitable) trading voyages. Because of the importance of the winds for their daily lives, they are highly conscious of the four wind directions.

Even though the sea surface is objectively level (for a westerner), when travelling on the sea or on level land following the coast, it is almost as if, on a broad scale, the world is viewed as a large inclined plane with the high end being in the *ragh* direction and the low end facing in the *yavaar* direction. Thus, motion having some sort of an east-southeast-southwest component is considered to be ‘up’ (i.e., the verbs *-zala* or *-nau* are used), while motion having some sort of west-northwest-north-northeast component is considered to be ‘down’ (i.e., the verbs *-zila* or *-ndari* are used). This *ragh/yavaar* distinction is the basis of one of the primary directional axes for Tuam speakers. Table 2 lists some uses of ‘up’ and ‘down’ in narratives of sea travel and may be correlated with the locations as shown on the map.

Table 2: The use of ‘up’ and ‘down’ in narratives of sea travel

Travelling From	To	‘up’ or down’
Lablab	Aramot, Mutu Malau	up
Aramot, Mutu Malau	Lablab, Yaagha	down
Mandok Is.	Aronai Is., Bunsil Station	down
Lablab	Marile, Kampalap, Kabi, Sakar Is.	down
Kampalap, Marile	Lablab	up

Map: Saveeng/Mutu Language Area



Clockwise motion paralleling the eastern coast of Umboi Island is expressed as going ‘upwards’ until one reaches the very southernmost tip of the island. From that point onwards, clockwise motion parallel to the southern coast is expressed as going ‘down’. Similarly, counterclockwise motion along the eastern and northern coast is expressed as going ‘down’ until one reaches the northwest tip of the island. From that point onwards, one goes ‘up’ until the southernmost tip is reached. This is true for travel on the sea, as well as travelling on level land following the coastline. If, however, the person walking on land and following the coastline encounters real hills or valleys, then *-zala/-nau* will be used to talk about going up, and *-zila/-ndari* will be used to talk about going down.

The view of the world reflected in such language recalls somewhat Levinson’s (2003:148) observations about the Tzeltal speakers of Chiapas, Mexico. He notes that in talking about space, they reflect a coordinate system in which their world, too, is viewed as an idealized inclined plane pointed down at 345 degrees north.

Special uses of forms expressing the notions of ‘up’ and ‘down’ are not uncommon in the Austronesian world. Françoise Ozanne-Rivierre (1997:84-85) cites data from a number of Polynesian languages in which the expression for ‘up’ is associated with ‘east’, while the expression for ‘down’ is associated with ‘west’ (85), noting Henri Lavondes’ (1983) hypothesis that this association is due to a weather pattern in which the prevailing wind is easterly. In the Taba language, which is spoken in the northern Maluku region of Indonesia, the directional for upwards movement expresses anti-clockwise southerly movement along the west coast of Makian island, while the directional for upwards movement expresses clockwise southerly movement on the east coast of the island (Bowden 1997:262-264). Tuam seems to be another instance of this association.

The Longgu language of the Solomon Islands also has a primary southeast-northwest directional axis, expressed by the two directional terms *ala’a* and *toli*. Deborah Hill (1997:106) glosses these as ‘east’ and ‘west’, however, because she says that Longgu speakers indicate that the two terms are derived from the direction of the rising and setting sun.

A second directional axis is indicated in Tuam by the remaining two wind terms: *kaagu* ‘northeast/east wind’, *daudao* ‘southwest/south wind’. Use of this axis is relatively rare, however. Much more common is the ‘entering/inland/upstream’ axis versus the ‘exiting/seawards/downstream axis’. For horizontal travel, this inland-seawards axis seems to be more salient than the northwest-southeast axis. So if it is possible to conceive of motion as somehow being directed radially inward towards the largest body of land in the area or radially outward from the center of that body of land, then the motion will be expressed using the verbs *-loon* ‘enter (an enclosed two or three dimensional space), go upstream, go inland’ and *-vot* ‘exit’ (from an enclosed two or three dimensional space), ‘go downstream, go away from land further out to sea’, even if the motion also happens to be in a southeast or northwest direction. In the Tuam language area, the large island of Umboi is clearly the focal body of land. Thus, travelling from Aramot Island, Mutu Malau Island, or Mandok Island to

Tuam Island will be expressed with the verb *-vot*, while motion from Tuam Island back to those inner islands will be expressed with *-looŋ*. Similarly, travelling from the shore of Umboi Island near Yangla village to Aramot Island will be expressed with the verb *-vot*, even though the motion is in a southeast direction.

Where motion on land is simultaneously downwards and seawards, or simultaneously upwards and inland, then there are two equally acceptable possibilities: *-vot* ‘go out’/ *-zila* ‘go down’ and *-looŋ* ‘go in’ / *-zala* ‘go up’.

A number of the papers in the volume edited by Gunter Senft (1997) demonstrate the importance of the inland/seawards distinction for Austronesian languages. Ozanne-Rivierre states (1997:84) that the spatial orientation systems of Oceanic languages commonly reflect such distinctions as: (1) inland/seaward, (2) upstream/downstream (along a river valley), (3) toward the coast/high seas, and (4) inside/outside (of a house). She notes that in many New Caledonian languages the terms for ‘up’ and ‘down’ subsume all of these categories. In Tuam, too, all four of these semantic oppositions are conflated. However, the forms expressing them, *-looŋ* and *-vot*, are distinct from those expressing ‘up’ and ‘down’. In this respect, it resembles the Longgu language of the Solomon Islands. Deborah Hill (1997:106) notes that the inland/seaward axis is expressed by the terms *longa* ‘inland’ and *asi* ‘sea’. She claims that whereas Longgu speakers make use of the ‘east-west’ axis in descriptions of locations both within and without the language area, the inland-seawards axis only applies to locations within the Longgu language area itself (1997:116).

This is definitely not the case in Tuam. Speakers of the language make use of both the southeast-northwest axis and the inland-seawards axis in descriptions of locations both within and without the language area. Thus they talk about ‘entering/approaching the shore’ (*-looŋ*) and ‘exiting/leaving from the shore’ (*-vot*) when telling stories about travelling by ship to cities like Lae, Madang, and Wewak, which are geographically quite removed from the Tuam language area. And when Tuam co-workers were translating chapter 27 in the book of *Acts* in the Bible—a detailed account of the apostle Paul’s sea voyage which ends in a disastrous shipwreck—saw maps of the Mediterranean Sea and the route of the voyage, they easily transferred their whole locative system to that new setting as they were translating.

Robert Blust (1997:39) states that the reconstructed Proto-Malayo-Polynesian system of macro-spatial orientation makes reference to two directional axes: (1) southeast-northwest monsoons and (2) land-sea. Tuam obviously reflects this system.

3.2.2 Morphosyntactic means of specifying location in Tuam

3.2.2.1 Prepositions

The most semantically generic formal means of specifying location in the language is with prepositions. An important distinction is made between

animate—especially human—locations and *inanimate* ones. Animate SITES (18) and GOALS (19) are both encoded as prepositional phrases headed by the locative preposition *to* ‘at, to, with’ or the locative pronouns (which transparently consist of *to* plus a pronominal formative).

(18) Maet i-gheen to Konili.
 money 3SG-lie LOC Konili
 ‘Konili has the money.’ (Literally, ‘The money is at/with Konili.’)

(19) Olman tana i-la to naatu, ve i-sav-ia
 adult that 3SG-go LOC child+ 3SG.GEN and 3SG-say-APPL
 sav-e-eŋ raraate mon pani.
 speak-SV-NMZ same only 3SG.OBL
 ‘That fellow went to his child and said the same thing to him.’

On their own, the locative preposition and locative pronoun never express a SOURCE semantic role (20).

(20) I i-ghau [payau/**tsiau].
 3SG.NOM 3SG-flee.away.from 1SG.OBL/**1SG.LOC
 ‘He fled away from me.’

However, in combination with the motion verb *-la* ‘go’ in serialized constructions, the combination *ila to* has the potential of expressing either GOALS (21) or SOURCES (22).

(21) I-ghur gabua tana i-la to naatu
 3SG-put thing that 3SG-go LOC child + 3SG.GEN
 gha i-baad-o.
 CSB 3SG-carry-TR
 ‘He gave that thing to his son, and he carried it.’

(22) Na-ghol taan tane i-la to yes Birik-a.
 1SG-buy land this 3SG-go LOC PL Birik-ASS
 ‘I bought this land from the people of Birik [village].’

Prepositional phrases headed by the all-purpose oblique preposition *pa* and the oblique pronouns serve as the default encoding for the vast majority of non-core arguments. They potentially encode a wide variety of semantic roles including: TIME, RECIPIENT, ADDRESSEE, BENEFACTIVE/MALEFACTIVE, INSTRUMENT, EXPERIENTIAL STIMULUS, CAUSE, and PURPOSE/‘for’, as well as more loosely associative notions like ‘concerning, regarding, about’. With regard to location, they are used with non-animate GOALS (23), and both inanimate (24) and animate (25) SOURCES.

- (23) I-la pa su to i-il aniiṅ ziiga.
 3SG-go OBL forest PURP 3SG-search.for food game + 3SG.GEN
 ‘He went to the forest to search for game to go with the food.’ (GOAL)
- (24) I-ziir zi ti-ghau pa nugh tooni.
 3PL-send.away 3PL.ACC 3PL-go.away OBL place 3SG.LOC
 ‘He sent them away from his village.’ (SOURCE)
- (25) Na-ṅguaz natu-g i-ghau pazi,
 1SG-hide.to.save child-1SG.GEN 3SG-go.away 3PL.OBL
 leso ti-rav-u sov.
 so 3PL.hit-TR PROHIB
 ‘I hid my child from them.’ (SOURCE) ‘so they would not hit him/her.’

A third, more collocationally restricted locative preposition is *ta*. It commonly governs deictic locative adverbs like *sene* ‘here’, *sena* ‘there (near the hearer)’, *sewe* ‘there (away from both speaker and hearer)’, *saṅa* ‘above here’, *siṅa* ‘below here’, as well as place names, locative nouns like *nugh* ‘place’, and temporal adverbs. Like the preposition *to*, it never encodes SOURCES; it is only used to encode SITES/POSITIONS and GOALS (26) and (27).

- (26) Ti-leep ta saṅa we.
 3PL-be.at LOC above REMOTE
 ‘They are way up there.’
- (27) U-ghē u-muul u-la ta sewe?
 2SG-want 2SG-return 2SG-go LOC over.there
 ‘Do you (SG) want to go back there?’

3.2.2.2 Positional verbs

Positional verbs (termed ‘existential verbs’ by some authors) are the primary means for asserting the locations of things. Each of them has the semantic component “X is at,” but they also have additional components which express the nature of the FIGURE—whether it is a living creature or not—and its orientation. The subjects of these verbs encode FIGURES, and their complements encode GROUNDS that functioning as SITES/POSITIONS; i.e., places where the FIGURE is located. If the GROUND’S referent is inanimate, it is expressed as either a locative object (28), or a prepositional phrase headed by the preposition *ta* (29). If the GROUND’S referent is animate, then it must be expressed by a prepositional phrase headed by the locative preposition *to* or a locative pronoun (30).

- (28) Maet eta i-ghēen ruum loolo mako.
 stone/money NON.REF 3SG-lie house inside + 3SG.GEN not
 ‘There is no money in the house.’ (Locative Object)

(29) Nugh tana i-gheen ta loloz we.
 Place that 3SG-lie LOC mountain REMOTE
 ‘That place is way up on the mountain.’

(30) ŋgar tiina i-gheen tooni.
 thinking/knowledge big.one 3SG-lie 3SG.LOC
 ‘He has a lot of knowledge.’ (lit. ‘Much thinking lies at/with him’)

The principle verbs expressing position are:

1. *-leep* ‘be at/in, live, exist’ (of people, animals, and other creatures that are thought of as being alive). It also can refer to living creatures in any posture: sitting, standing, sleeping, etc.
2. *-gheen* ‘lie’, ‘stay’, ‘be at’ (for figures that are oriented horizontally with regard to the earth’s surface and are conceived of as having tops not significantly above their bottoms). It also expresses existence for inanimate referents—money, knowledge, kerosene, trouble. It explicitly indicates that human beings or animals are lying down, sleeping, dead.
3. *-yooz* ‘stand, be at, exist’ (for referents that are conceived of as having tops that are significantly above their bottoms like trees, houses, chairs, tables, clouds, and cars). It is also used of living creatures that are standing, or who have been walking and then come to a halt and remain in a standing position. It has a number of more idiomatic uses. For example things that are put aside in reserve for some future purpose are said to ‘stand’. A talk or message which is viewed as having some sort of on-going authority is said to ‘stand’. Candidates seeking election to some office are said to ‘stand’. Advocates ‘stand’ for the people whose interests they promote.
4. *-pot* ‘exist, be at’ (of things floating on the top part—i.e., surface—of a body of water like boats and canoes, or of liquids that are in some sort of container)
5. *-tuuk* ‘hang down from’
6. *-paak* ‘be attached to, be in contact with, be touching, be flat against’ (where multiple points on the FIGURE and GROUND are in contact)

When *-leep* occurs without a locative complement, it expresses the notion of ‘live’, or the ‘state of being alive’ (31).

(31) Timbu-m i-lepleep, ma i-maat wa?
 grandrelative-2SG.GEN 3SG-live + RED or 3SG-die PERF
 ‘Is your (SG) grandfather alive, or has he died.’

-leep occurs in presentative constructions in narrative discourses, introducing key participants (32).

- (32) Nugh tana, neer ee i-lepleep, eeza Mote.
 place that man one 3SG-be.at name + 3SG.GEN Mote
 ‘In that place, there was a man named Mote.’

With the positional verbs, the GROUND may also be expressed by a serialized motion verb construction following the positional verb (33), (34), (35), and (36).

- (33) Mbiaaŋ i-la i-tuuk i-la ai booga.
 flying.fox 3SG-go 3SG-hang.from 3SG-go tree branch + 3SG.GEN
 ‘The flying fox went and hanged [upside down] from a tree branch.’

- (34) Nuz i-potpot i-la te paavo.
 squid 3SG-float + RED 3SG-go ocean surface + 3SG.GEN
 ‘The squid floats on the surface of the ocean.’

- (35) Yaa i-pot i-la tin patu-zi.
 water 3SG-be.at 3SG-go tin container-3PL.GEN
 ‘There is water in the tins.’

- (36) Boboim i-paak i-la rumei ziige.
 butterfly 3SG- 3SG-go clan.house side + 3SG.GEN
 ‘The butterfly is on the side of the clan house.’

The choice of which motion verb to use is determined to some extent by the geometry of the situation. The generic motion verb *la* ‘go’ is the unmarked choice; it can be used with almost any sort of configuration of FIGURE and GROUND.

When the FIGURE is physically touching the top of the GROUND or above the top part of the GROUND, an alternative to *la* is the compound motion verb *za-la* ‘ascend-go’. Either of the two verbs is used in conjunction with the inalienable locational noun *paavo* ‘upper surface’ (37) and (38).

- (37) i-la te paavo
 3SG-go sea/ocean upper surface + 3SG. GEN
 ‘go on/above the (surface of the) sea’

- (38) i-la/i-zala waan paavo
 3SG-go/3SG-ascend.go canoe upper surface + 3SG. GEN
 ‘go on the canoe’

If the GROUND is conceived of as a container having two or three dimensions and the FIGURE is *inside* the GROUND, then either the verb *-la* ‘go’ or the serialized sequence *-loonj -la* ‘enter - go’ is used, often with the inalienable locational noun *lolo* ‘inside’ (39), (40) and (41).

- (39) *i-la/i-looŋ* *i-la* *ruum* *lolo*
 3SG-go/3SG-enter 3SG-go house inside + 3SG.GEN
 ‘go into/enter the house’
- (40) *i-la/i-looŋ* *i-la* *waan* *lolo*
 3SG-go/3SG-enter 3SG-go canoe, boat inside + 3SG.GEN
 ‘get in the canoe, boat’
- (41) *i-la/i-looŋ* *i-la* *tamtamon* *lolo*
 3SG-go/3SG-enter 3SG-go person inside + 3SG.GEN
 ‘inside a person’ (the inside of a person is viewed as an important
 seat of the emotions)

The distinction between the use of the motion verbs *-la* ‘go’ and *-zi* ‘descend’ in locative serializations expressing SITES is somewhat difficult to pin down. Judgments by native speakers frequently vary as to which is a better choice in particular contexts. However, *zi* seems to be the preferred choice for SITES whose edges are far apart and whose boundaries are ill-defined, whereas *la* is preferred when the SITE is more compact (i.e., its edges are closer together) and has well-defined boundaries. Thus, *zi* is preferred with names of large regions like America, Jerusalem, Papua New Guinea, (which are often preceded by the noun *nugh* ‘place’), the noun *taan* ‘ground, land, earth’ (when it has the sense ‘the whole earth/ world’ or ‘a large area of land’), *sisi* ‘island’, *sambam* ‘heaven’, the noun *nugh* plus a demonstrative when it is used as an anaphoric substitute, and the deictic locative adverbs *sene* ‘here’, *sena* ‘there near you’ and *sewe* ‘over there (away from both you and me)’.

The serial verb *-la*, on the other hand, is preferred for GROUNDS that are smaller and whose boundaries are relatively well-defined. Such GROUNDS would include entities like: *rau* ‘leaf, letter’, *yaa* ‘water (i.e., a particular body of freshwater)’, river, stream’, *eez livuugha* ‘middle of the road’, *um* ‘garden’, *niima* ‘hand, arm’, *aavo* ‘mouth’, *niia* ‘position’, *ai* ‘tree, piece of wood’, *taitai* ‘cloud’, *puugh* ‘net’. *-La* is favored with locational nouns like: *ziige* ‘edge/side of something’, *naagho* ‘face/front of something’, *muuri* ‘outside/back of something’, *paavo* ‘top surface of something, area above something’, *saamba* ‘bottom surface of something, area underneath something’, *lolo* ‘inside’, *puughu* ‘base of something’. The locational noun *saamba* ‘bottom, area underneath’ is used in conjunction with the noun *sambam* ‘heaven’ in the phrase *sambam saamba* ‘underneath heaven’ to refer to: (1) the sky (location of flying birds and clouds) and (2) outer space (location of the sun, moon and stars). Even though this would seem to be a somewhat ill-defined GROUND, either the verb *-la* ‘go’ or *-zala* ‘ascend’ co-occur with it in serial constructions, because of the presence of the locational noun. *-La* is also used with nouns referring to entities that are more abstract like *tutuunŋ* ‘law’, *ngar* ‘thinking, behavior’, *saveenŋ* ‘speech, talk, words’.

3.2.2.3 Demonstratives and deictic locative adverbs

Deictic forms are very frequently used to locate the GROUND, especially when it is reasonably close to the speaker or hearer.

The deictic locative adverbs and the demonstratives evoke a relative spatial framework, locating a region in space with respect to the speaker or some other viewpoint that functions as the GROUND. Three of the adverbs are purely deictic. The adverbs and the respective demonstratives are: *sene* and *tane* ‘here, this place (near the speaker)’, *sena* and *tana* ‘there, that place (near the hearer), *sewe* and *tawe* (over there away from both the speaker and the hearer). Two of the adverbs add a vertical component: *siija* ‘below here / this place’ and *saaja* ‘above here /this place’. The remaining two, *potla* and *looja*, indicate a directional vector from the speaker/viewpoint either in a seawards direction, or in an inland direction. The importance of the inland-seaward directional axis for Oceanic languages in general has already been noted above. The deictic formative *we* (remote from speaker and hearer) can be added to *siija*, *saaja*, *looja*, and *potla* and the corresponding *e* can be added to the demonstrative *tawe* to indicate a greater degree of remoteness.

The locative adverbs occur by themselves as complements of the positional verbs (42), or as the complement of a serial verb construction following a positional verb (43).

- (42) I i-leep sene mako.
 3SG.NOM 3SG-be.at here not
 ‘He is not here.’

- (43) Ee i-leep saaja, ve ite i-leep
 One 3SG-be.at above and other 3SG-be.at
 i-zi-la siija.
 3SG-descend-go below
 ‘One was above, and the other was down below.’

When the entity serving as the GROUND is expressed by a noun phrase, then the addition of a demonstrative commonly serves to narrow down the location of the entity with respect to the deictic center (44). Many times, use of the demonstratives is accompanied with some sort of pointing gesture. Various combinations of lips, eyes, eyebrows, and the head are used to point to things relatively nearby, whereas hands are used to point to things further away.

- (44) I i-leep ruum tawe.
 3SG.NOM 3SG-be.at house that.over.there
 ‘He is at that house over there (away from both you and me).’

In addition to their extra-textual/situational usage, all three of the deictics are used textually to track referents in discourse. *Tane* is used for near anaphoric

and cataphoric reference (45), *tawe* is used for the first instance of more distal anaphoric reference with non-temporal nouns and *tana* for subsequent instances (46). *Tana* is also the demonstrative normally used with temporal nouns having anaphoric reference. In reported dialogues in narrative discourses, the three demonstratives exhibit their situational functions of referring to entities near the speaker, or the hearer, or remote from both in the situational context of the embedded dialogue.

(45) Ti-looŋ sav-e-eŋ tane le ate-zi yavyav kat.
 3PL-hear say-SV-NMZ this TEL liver-3PL.GEN hot very
 ‘When they heard this talk (refers to a quotation that immediately precedes this sentence in the discourse), they became very angry.’

(46) I-muul pa mboŋ ee-mon
 3SG-return OBL night one-only
tana, i-lam peria Tuam muul.
 that 3SG-come reach Tuam.Island again
 ‘He returned that same night; he came back to Tuam Island again.’

3.2.2.4 Proximity adverbs

With the positional verbs, it is possible to specify varying degrees of proximity of the FIGURE to the GROUND by the use of adverbs like: *tataŋan* ‘near’ (47), *soghan* ‘away from’ (48), and *malau* ‘far from’ (also ‘for a long time’). Absence of such adverbs indicates that the FIGURE is located right at the GROUND. So there are four degrees of proximity: ‘right at’, ‘near’, ‘away from’, ‘far from’.

(47) Ti-yooz tataŋan pani.
 3PL-stand near OBL-3SG
 ‘They stood near him.’

(48) A-leep soghan pani. A-gharau-u sov.
 2PL-stay away OBL-3SG 2PL-approach-TR PROHIB
 ‘Stay away from him. Don’t go near him.’

Note that when the proximity adverbs are used, the GROUND is always expressed by an oblique pronoun or oblique prepositional phrase headed by the preposition *pa*, even if the referent is animate.

A serialized construction with the verb *-gharau* ‘approach’ is an alternative means of encoding close proximity that is actually more common than the adverb *tataŋan*. Note that the GROUND is expressed by the locative Object of the serial verb (49).

(49) Rorov i-lepleep i-gharau nari.
 fish.type 3SG-be.at + RED 3SG-approach shore
 ‘The rorov fish lives near the shore.’

3.2.2.5 Locational nouns

As is the case in many Oceanic languages (Bowden 1992), to more precisely specify a directional vector from the GROUND to the FIGURE, a number of locational nouns indicating particular parts or facets of the GROUND are used. Use of such terms evokes an intrinsic frame of reference.

The locational nouns are nearly all members of the inalienable noun form class.⁷ Such nouns are normally inflected with a set of suffixes indicating the person and number of an associated genitive argument.⁸ The identity of the genitive may be further specified via the addition of preceding NP specifier (50).

(50)		NP specifier	Inalienable Head Noun
	Maet	i-gheen	[ruum
	stone/money	3SG-lie	house
			lolo].
			inside + 3SG.GEN
	'The money is inside the house.'		

The most important inalienable locational nouns in the language are the following:

1. naagho 'face, appearance, front part of something, area in front of something'
2. muuri 'area outside, behind something'
3. lolo 'area inside something, interior'
4. ziige 'side, edge, area to the side of'
5. paavo 'upper surface, area above a broad and flat entity'
6. daaba 'head, topmost part' (of heads of people and animals, tops of mountains, roof ridge, or topmost part of a house)
7. samba 'bottom surface, area underneath something'
8. puughu 'base of something, area near the base of something which has radial symmetry, with no clear front, back, or sides'
9. unduuva 'top part' (of trees)
10. mboole 'buttocks, back part of something, area behind something' (the sense 'behind' seems to apply only to houses and vehicles like canoes, cars, and planes)
11. livuugha 'middle part of something' (of tree trunks, human torsos, the area between the beginning and end of a path or road, etc.)
12. maata 'eye, area in front of something, front part or beginning of something'
13. sooso 'space between, among'

⁷One candidate for an alienable locational noun is the form *bodbodaaj* 'center, middle, between'. It takes a Locative PP complement, yielding expressions like: *bodbodaaj to uum* 'center/middle of the garden', *bodbodaaj to Margheev ve Tinduuv* 'between northwest New Britain (= *Margheev*) and southwest New Britain (= *Tinduuv*)'.

⁸Third person singular forms of inalienable nouns, however, exhibit a lengthening of the penultimate vowel of the noun rather than the addition of a suffix. Items 1-13 listed following (50) are all third person singular forms.

For two and three dimensional entities having clearly defined fronts (e.g., people, animals, houses, canoes, cars, enclosed areas with a single gate etc.), the term *naagho* indicates the front part of the entity, as well as the area extending radially outwards from the center of the entity through that front part. What constitutes the ‘front’ seems to be determined by: 1) the eyes (for people, animals, birds, and fish), 2) characteristic direction of motion (for vehicles like canoes, cars, and planes), and 3) entrances (for buildings and enclosed areas). Thus, even though crabs move sideways, their front is the part where the eyes are. Many trees are conceived of as having fronts as well, the front being the side people would normally climb up. If a tree stands at even a slight angle, the uppermost surface of the trunk would be its front. The trunks of coconut palms normally exhibit some curvature. The side near the base which is maximally concave facing upwards is the ‘front’.

To express directional orientation of FIGURES having clearly defined faces/fronTS, the nouns *naagho* ‘face, front’ and *maata* ‘eye’ are used in conjunction with motion verbs and spatial landmarks. These spatial landmarks are commonly place names (51), people’s personal names, or speech act participants (52).

- (51) Ti-pa-duduun waanj leso naagho
 3PL-CAUSE-be.correct canoe so.that front + 3SG.GEN -
i-ŋarui Malai
 3SG-go.toward Malai.
 ‘They straightened the canoe so that it was running towards Malai Island.’

- (52) Mata-zi i-lam pait.
 eye-3PL.GEN 3SG-come 1PL.INC.OBL
 ‘They are facing towards us (INC).’

Given that something has a clear front, the backside (*muuri*) is determined as the side opposite from the front. The remaining sides are termed *ziige*. The terms *naagho* and *ziige* refer to parts of the entity (53), as well as to spatial regions projecting radially outward from the center of the entity through those parts (54).

- (53) Boboim i-paak i-la rumei ziige.
 butterfly 3SG-against 3SG-go clan.house side + 3SG.GEN
 ‘A butterfly is on the side of the clan house.’ (The verb *-paak* expresses contact between surfaces/multiple points.)
- (54) Tamtamon ti-leep i-la rumei ziige.
 people 3PL-be.at 3SG-go clan.house side + 3SG.GEN
 ‘People are staying beside the clan house.’

The term *ziige* ‘side’ has both a wider and narrower sense. It refers to any side of an object (i.e., front side and back sides, as well as the left or right side) or more narrowly to just the sides other than the front and back sides. It also refers to any portion of the sides of objects that exhibit genuine radial symmetry (e.g., a drum of petrol that is standing up), as well as the area projecting away from the side. The term *puughu* ‘base’ more commonly refers to the bottom portion of vertical, radial objects that are standing. Thus, to say that something is on the ground very near a tree, with no need to be more specific, then the expression *ai puughu* ‘base of the tree’ may be used.

The term *muuri* is somewhat different, in that it does not refer to a part of an entity. It only refers to a region of space, and has two senses: ‘the region behind an entity’ (55), or ‘the region outside an entity and surrounding it’ (56). Different terms, *nduume* ‘back’ (for people) and *mboole* ‘buttocks/behind’ (for animals, houses, and vehicles) are used to refer to the hindmost part of something (57).

(55) Ra na-looŋ bob-a-aŋ tiina ee pa muri-g.
 then 1SG-hear call-SV-NMZ big one OBL behind-1SG.GEN
 ‘Then I heard a loud cry coming from behind me.’

(56) Suŋ-u-uŋ i-sov, ve tamtamon ti-vot ti-la
 pray-TR-NMZ 3SG-end and people 3PL-go.out 3P-go
 muuri.
 outside + 3SG.GEN
 ‘After the worship service ended, people [inside the church building] went outside.’

(57) Ruum toozi i-yooz ruum tsiau mboole.
 house LOC.3PL 3SG-stand house LOC.1SG behind + 3SG.GEN
 ‘Their house is behind my house.’

For trees which are conceived of as having a front, sides, and a back, the back of the tree is referred to by the expression *marmaar eez tooni* ‘road of the *marmaar* lizard’—a largish, green lizard. In order to conceal itself, the *marmaar* tends to climb up the bottom-most side of trees whose trunks are inclined.

To distinguish between the two sides of entities having fronts and backs, the expressions *ziige ila pa tapir* ‘side it.goes to right’⁹ and *ziige ila pa ŋas* ‘side it.goes to left’ can be used in a relative, or viewer-centered frame of reference. This is a means of extending intrinsic frames of reference by assigning pseudo-intrinsic facets to things which would otherwise lack them. In Tuam, the directions right and left correspond to the right and left side of the viewer as he faces the entity.

A relative frame of reference is also used to distinguish the near and far sides of things. These are indicated by the expressions *ziige ilam vene* ‘side it.comes like.this’ and *ziige ila veve* ‘side it.goes like.that.over.there’ (58).

⁹The term *tapir* ‘right’ transparently resembles the inalienable noun *tapiri* ‘power, strength’.

- (58) Ruum tooni i-yooz rumei ziige
 house LOC-3SG 3SG-stand clan.house side + 3SG.GEN
 [i-lam ve-ne] / [i-la ve-ve¹⁰].
 3SG-come like-this 3SG-go like-that.over.there
 ‘His house stands on [this side near me/us]/[the far side away from me/us] of the clan house.’

If the entity is located crosswise on a slope, it is also possible to distinguish the two sides by expressions like *ziige tau igheen siija* ‘side that lies down’ and *ziige tau igheen saanja* ‘side that lies above’. Another possibility is to use the deictic locative adverbs *potla* ‘seawards’ and *loonja* ‘inland’, i.e., *ziige tau igheen potla* ‘side that is toward the sea from here’ and *ziige tau igheen loonja* ‘inland side from here’.

A final possibility for specifying sides relies on an absolute coordinate system based on the directions of four cardinal winds: *ragh* ‘southeast wind’, *yavaar* ‘northwest wind’, *kaagu* ‘northeast/east wind’, and *daudao* ‘southwest/south wind’ (59).

- (59) Ti-leep rumei ziige ila pa daudao.
 3PL-be.at clan.house side + 3SG.GEN 3SG-go OBL southwest.wind
 ‘They are by the southwest side of the clan house.’

As was noted above, in the case of objects having radial symmetry (and thus lacking distinct fronts, backs, and sides) the term *puughu* is preferred (60).

- (60) Pelpeel i-gheen wawai puughu i-la pa ragh.
 basket 3SG-lie mango base + 3SG.GEN 3SG-go OBL southeast.wind
 ‘The basket is at the southeast side of the base of the mango tree.’

Use of these locational nouns can be further modulated by the addition of one of the proximity adverbs *tatangan* ‘near’, *soghan* ‘apart’, *malau* ‘far’, or by a serial verb construction with the verb *gharau* ‘approach’ to express decreasing degrees of proximity between the FIGURE and the GROUND as shown in table 3.

Table 3: Locational nouns modulated to indicate degrees of proximity

<i>Igheen wawai puughu</i>	‘It is right at the base of the mango tree.’
<i>Igheen tatangan pa wawai puughu.</i> / <i>Igheen igharau wawai puughu.</i>	‘It is near the base of mango tree.’
<i>Igheen soghan pa wawai puughu.</i>	‘It is somewhat away from the base of the mango tree.’
<i>Igheen malau pa wawai puughu.</i>	‘It is far from the base of the mango tree.’
<i>Igheen malau kat pa wawai puughu.</i>	‘It is very far away from the mango tree.’

¹⁰The *ve* meaning ‘that over there’ is the distal deictic *we*. Thus, *veve* seems to reflect a form *ve-we* with irregular morphophonological assimilation of /w/ to the preceding /v/.

An illustration of a maximally specified location is in (61).

- (61) I-gheen i-gharau wawai puughu i-la
 3SG-lie 3SG-approach mango base + 3SG.GEN 3SG-go
 pa ragh.
 OBL southeast.wind
 ‘It is near the base of the mango [tree on the side] toward the
 southeast.

An example like this, however, is highly artificial. Such a sentence would be produced only when speakers are confronted with a range of extremely similar locative scenarios and forced to distinguish them.

4 Spatial frames of reference

From the preceding discussion of Tuam locative expressions, it can be seen that speakers of the language make use of all three types of spatial frameworks. This accords with Senft’s (2001:545) hypothesis:

The relative, intrinsic, and absolute frames of reference can all be found and can be utilized for verbal spatial references in a given language. However, languages seem to prefer certain frames of reference in particular contexts that ask for different spatial task.

Locational nouns like *naagho* ‘front’, *ziige* ‘side’, *paavo* ‘upper surface’, and *puughu* ‘base’ evoke an intrinsic frame of reference. They indicate different parts of something which then define a spatial region which includes that part and the area projected outward from it. *Muuri* ‘area behind something’ and *saamba* ‘area underneath something’ are somewhat different, since they do not refer to actual parts of things. Instead they refer only to regions of space.

Demonstratives like *tane* ‘this one near me’, *tana* ‘that one near you’, *tawe* ‘that one away from both you and me’, and deictic locative adverbs like *sene* ‘here, this place’, *sena* ‘there, that place near you’, *sewe* ‘over there away from me and you’, *saana* ‘above here/this place’, *siina* ‘below here/ this place’, *potla* ‘in a seawards direction from here/this place’, and *loona* ‘in an inland direction from here/this place’ evoke a relative system with coordinates centered on the speaker or some other viewpoint. Similarly, with expressions like *ziige ilam vene* ‘side it.comes like.this’, *ziige ila veve* ‘side it.goes like.that.over.there’, *ziige ila pa tapir* ‘side it.goes to the.right’, and *ziige ila pa nas* ‘side it.goes to the.left’, ‘come’, ‘go’, ‘left’, and ‘right’ are defined with respect to the speaker or some other viewpoint. Use of this kind of frame of reference is very common in Tuam.

As already noted, the absolute system is based on four cardinal wind directions: *ragh* ‘wind from the southeast’, *yavaar* ‘wind from the northwest’, *kaagu* ‘wind from the northeast/east’, and *daudao* ‘wind from the southwest/south’. The motivation for highlighting the southeast and northwest winds in the lexicon is plain. Both of these winds persist for long periods of time during which villagers engage in very different sets of activities. The motivation for

lexically highlighting the other two winds is not quite as obvious, but it may well have to do with the traditional trading voyages of the Tuam villagers. One of their most important trading destinations was the island of New Britain, which is located due east from Umboi Island and northeast from Tuam Island. A *kaagu* wind makes it extremely difficult to sail to New Britain, but of course speeds one back home from New Britain to Umboi or Tuam Island. Similarly, the *daudao* wind would have been especially important when crossing over between Umboi and the mainland of the Huon peninsula to the east.

Although speakers of the language make use of all three types of spatial frameworks, the intrinsic and relative frameworks are the most common in everyday speech. As such, Tuam provides further evidence for the importance of egocentric spatial frameworks. The absolute frame of reference in Tuam that is based on wind directions is used much less frequently and exhibits scalar restrictions which the other two frames of reference lack. It is only used outdoors and at larger scales. So it would not be used inside houses or in small scale spatial contexts like distinguishing identical items on a table top. In such instances, the demonstratives, deictic locative adverbs, deictic motion verbs, and the terms *ɲas* ‘left’ and *tapir* ‘right’ would be used in expressions such as those in (62).

(62) Ugham rubruub... ‘Take the cup...

...tane.	that is near me.’
...tana.	that is near you.’
...tawe.	that is over there.’
...tau igheen ilam vene.	that is more this way.’
...tau igheen ila veve.	that is more that way.’
...tau igheen ila pa tapir.	on the right.’

The deictic locative adverbs *siɲa* and *saɲa* can be used both inside and outside houses and at small and large scales, but the directional adverbs *potla* ‘in seawards direction from here’ and *looɲa* ‘inland from here’ and the special function of the vertical motion verbs to express southeasterly or northwesterly motion only apply to outdoor, larger scale locations.

5 Economy in locative descriptions

This paper has discussed a number of different possibilities for describing location and motion in the Tuam language, which enable the speakers to state quite specifically where something is, where it is going to, or where it is coming from. In normal conversation, however, it is rarely necessary to indicate locations with such specificity. Instead, speakers typically use the most economical means possible. The most common constructions for asserting location in Tuam are:

1. position verb NP/PP (with or without demonstratives)
2. position verb (serial motion verb) (*ta*) deictic locative adverb
3. position verb [NP Locational N]
4. position verb [proximity adverb PPoblique]/[-*gharau* 'approach' NP]

Distinguishing right and left hand sides, or southeast and northeast sides is very rare in ordinary conversation. If someone is told that a knife is by the base of a tree, that is normally sufficient for him to be able to locate the knife, assuming that the tree itself is locatable.

In contrast, the elaborate motion verb system and lack of a general all-purpose motion verb, forces continual careful monitoring of direction. This can be seen in a typical example, where five different motion verbs are used in one sentence (63).

- (63) Ti-laagh ti-la le ti-nau ti-zala
 3PL-walk 3PL-go TEL 3PL-go.up.at.low.angle 3PL-ascend-go
 loloz daaba, ra ti-ndari
 mountain head + 3SG.GEN then 3PL-go.down.at.low.angle
 ti-zi-la.
 3PL-descend-go
 'They walked along and went up to the mountain, and then came
 over the top and started descending.'

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Foreground and Background in Mbyá Guaraní Clause Chaining

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ABSTRACT

Clause chaining is here characterized by the possibility of long sequences of foreground clauses with operator dependence. Foreground clauses—those which assert the “mainline” information of their discourse genre—have “quasi-coordinate” properties. In the Mbyá dialect of Guaraní, background clauses which occur as part of chains are not quasi-coordinate, nor do they have operator dependence or occur in long sequences. They have one of two syntactic functions: peripheral subordination (a type of embedding) or ad-clausal modification. Clauses within chains can be linked by switch reference or by adverbial conjunctions such as ‘purpose’, ‘sequence’ or ‘simultaneity’; those with adverbial conjunctions always have one of the background functions, but those with switch reference can have foreground function or either background function. In their sentential and discourse contexts, the functions of chained clauses manifest distinct properties in such areas as external distribution, assertion, and scope effects.

1 Introduction

Robert Van Valin (2005:183f) begins his discussion of clause combining by citing examples from Karl Franklin (1971) of switch reference in clause chains in Kewa, a language of Papua New Guinea. A clause with switch reference (SR) contains a marker indicating whether its subject is the same as, or different from, that of an adjacent (nuclear) clause. *Clause chaining is here characterized by the possibility of long sequences of foreground clauses with operator dependence.* Such foreground clauses—sequential event clauses in narrative or, more generally, clauses which assert the “mainline” information of the given discourse genre—have many of the properties of coordination. But clause chains and other sentence constructions commonly also have background clauses. These can be of two primary syntactic functions: (i) *embedded* within a matrix clause or (ii) *ad-*

clausal, modifying the nuclear clause without being embedded in it (Bickel 1993:24-36, 1998:394). Perhaps all chaining constructions permit background clauses with non-coordinate properties—John Roberts (1988:58) discusses two kinds in the Papuan language Amele. In Mbyá Guaraní, no background clauses have operator dependence, nor can they occur in long sequences. Further, all types of background clauses have non-coordinate properties, although in other respects they may resemble foreground clauses.

In this paper I show some ways these claims can be fleshed out and conclude that in Mbyá Guaraní, the foreground-background distinction is a key dimension of clause chaining.¹

2 Preliminaries

Mbyá Guaraní is agglutinative, and verbs are inflected for imperative and optative moods, but not for tense, except for an enclitic future marker *va'erã* ~ *rã*.² Zero anaphora is often used for subjects and objects, and there is a high degree of word-order flexibility. Basic constituent order is SVO in independent clauses and SOV in all types of dependent clauses. There are other typological characteristics associated with OV order, such as postpositions and markers of clause linkage which are final in dependent clauses.

2.1 Adverbial conjunctions and switch reference marking

The language has around twelve adverbial conjunctions with lexical content and enclitic phonology. These are more or less evenly divided between causal conjunctions such as *aguã* ‘purpose’ and temporal ones such as *rire* ‘sequence’ and *jave* ‘simultaneity’ (Dooley 2006, §21.1.2). Adverbial clauses—those occurring with these conjunctions—account for approximately ten percent of all clauses in the language. Dependent clauses are typically SOV and adverbial conjunctions usually come immediately after the verb as in (1):³

¹The Mbyá dialect of Guaraní belongs to the Tupí-Guaraní family of the Tupí stock (Rodrigues 1984/85). It is spoken by eight thousand or more people in southern Brazil, as well as a comparable number in eastern Paraguay and a smaller number in northern Argentina. The present study is based on fieldwork that I have carried out since 1975 at or near the Posto Indígena Rio das Cobras, Paraná, Brazil, under the auspices of the Associação Internacional de Linguística, a Brazilian affiliate of SIL Intl. For a grammatical introduction written in Portuguese, see Dooley (2006). This paper has benefitted from comments by reviewers and various SIL colleagues.

²The present paper uses a practical orthography that was developed by the Editora Nhombo'ea Guaraní. Mbyá has six vowels: a, e (written e), i, o, u, i (written y), all of which have nasal counterparts. It has fourteen consonants: p, t, k, k^w (written ku), ʔ (written ʔ), ɲ (written nh before nasal vowels or j before oral vowels), m (written mb before oral vowels), n (written nd before oral vowels), ŋ (written ng), ŋ^w (written ngu or gu), r (written r), tʃ (written x), h, and β (written v). Nasalization occurs regressively throughout a word whose final syllable is nasal, and is also regressive from any of the consonants m, n, and ŋ. Syllables are C or CV, except for contractions, such as *rã* ‘future’, which begin with a glottal stop.

³Glossing abbreviations follow the Leipzig Glossing Rules with the following additions: ANA ‘anaphor’, BDY ‘constituent boundary’, COLL ‘collective’, concess ‘concessive’, D1 ‘deictic 1 (close to speaker)’, DIM ‘diminutive’, DS ‘different subject’, HSY ‘hearsay’, INTERR ‘interrogative’, NPOSSD ‘nonpossessed’, NSPEC ‘nonspecific’, OPT ‘optative’, R ‘stem-initial morpheme’, RESP ‘response’, SEQ ‘sequence’, SIM ‘simultaneity’, SS ‘same subject’, v2 ‘supplementary verb’.

- (1) [*ava reve ij-ayvu rire*] *o-o*
 man with 3-speak SEQ 3-go
 ‘After he spoke with the man, he left.’

In (1), in the adverbial clause *ava reve ijayvu rire* ‘after he spoke with the man’, the conjunction *rire* ‘sequence’ occurs immediately after the verb *ijayvu* ‘he spoke’.

Of the dialects of Guaraní, Mbyá is the only one for which long SR chains have been reported (Dooley 1982, 1989, 1999). Clauses with the SR markers *vy* ‘same subject (SS)’ and *ramo* ~ *rã* ‘different subject (DS)’ are roughly twice as common as clauses with adverbial conjunctions as mentioned above.⁴ The syntax of SR clauses is the same as that those with adverbial conjunctions, as can be seen by comparing (1) with (2) and (3):

- (2) [*ava reve ij-ayvu vy*] *o-o*
 man with 3-speak ss 3-go
 ‘As/after/because he_i spoke with the man, he_i left.’ or ‘He_i spoke with the man, and then he_i left.’
- (3) [*ava reve ij-ayvu ramo*] *o-o*
 man with 3-speak ds 3-go
 ‘As/after/because he_i spoke with the man, he_j left.’ or ‘He_i spoke with the man, and then he_j left.’ (‘the man’ would likely be not necessarily coreferent with ‘he_j’)

In (2) and (3), the SR markers *vy* ‘SS’ and *ramo* ‘DS’ occur in the same position as the adverbial conjunction *rire* ‘sequence’ in (1). For each example, the free translation indicates two kinds of interpretations for the dependent initial clause: the first interpretation reflects an ad-clausal interpretation, the second one a “quasi-coordinate” interpretation (see §2.3). In example (1), however, only the ad-clausal interpretation is possible. Clauses with adverbial conjunctions only occur as background, but SR clauses may be either background or foreground.

In adverbial clauses, it is not uncommon for non-verbal constituents to occur between the verb and the conjunction as in (4):

- (4) [*ij-ayvu ava reve rire*] *o-o*
 3-speak man with SEQ 3-go
 ‘After he spoke with the man, he left.’

Example (4) differs from (1) only in the position of *ava reve* ‘with the man’ relative to the verb. Because of this possibility, adverbial conjunctions are analyzed as clausal enclitics rather than verbal suffixes. The same is true for SR markers:

⁴“The signalling of subject reference can be considered to be the unmarked use of SR in Mbyá, occurring in the vast majority (over ninety-eight percent) of cases; the signalling of other, semantico-pragmatic information is a marked use” which will not be discussed here (Dooley 1989:94).

- (5) [*ij-ayvu ava reve vy*] *o-o*
 3-speak **man with** SS 3-go
 ‘As/after/because he_i spoke with the man, he_i left.’ or ‘He_i spoke with the man, and then he_i left.’
- (6) [*ij-ayvu ava reve ramo*] *o-o*
 3-speak **man with** DS 3-go
 ‘As/after/because he_i spoke with the man, he_j left.’ or ‘He_i spoke with the man, and then he_j left.’

As (4), in (5) and (6) *ava reve* ‘with the man’ occurs after verb. In this also, SR clauses show the same internal syntax as clauses with adverbial conjunctions.⁵

As for (2) and (3), clauses (5) and (6) are formally ambiguous between ad-clausal modification and “quasi-coordination.” In §2.3 we examine these syntactic functions in more detail.

2.2 Postnuclear and intercalated clauses

Around five percent of adverbial and SR clauses in Mbyá Guaraní are postnuclear, as in (7) and (8):

- (7) *o-jevy-pa jevy [ava vai o-juka ma rire]*
 3-return-completely again **man angry 3-kill already** SEQ
 ‘They all returned after they had killed the wild man.’
- (8) *amboae-kue o-guerovia ete o-kua-py, [ij-apu va'e eỹ ramo]*
 other-PL 3-believe really 3-be.PL-V2 **3-lie** REL NEG DS
 ‘All the others really believed him, since he was not a liar.’

In both (7) and (8) the dependent clause occurs after its nuclear clause, which here is independent.

The nuclear clause for a postnuclear clause may itself be postnuclear as in (9):

- (9) ... (a) *o-o* (b) *tape py o-arõ vy* (c) *tape py kunha va'e o-guero-ayvu aguã*
 3-go **path in 3-wait** ss path in woman REL 3-COM-speak PURP
 ‘...they went to wait in the path in order to talk with the woman in the path.’

In (9), clause (c) is postnuclear with respect to (b), which in turn is postnuclear with respect to (a). With successive postnuclear clauses as in (9), two levels of dependence seem to be the limit.

⁵Like adverbs, postpositional phrases, and adverbial clauses, SR clauses can be nominalized by =*gua*: *apy=gua* (here=NMLZ) ‘someone who lives here’, *tekoa py=gua* (village in=NMLZ) ‘someone who lives in the village’, *xe-kyrĩ jave=gua* (1SG-small SIM=NMLZ) ‘something that happened when I was small’, *kyrĩ-i va'e nha-mo-akỹ rã=gua* (small-DIMIN REL 1PL.INCL-CAUS-wet DS=NMLZ) ‘what happens when we baptize a child’ (Dooley 2006, §19.7).

Postnuclear clauses can also be dependent on a prenuclear clause, but in this case only one postnuclear clause has been found to occur:

- (10) (a) [*kyrĩ-ve va'e jevy o-o* (b) [*poryko r-arõ vy*] *ramo*]
small-more REL again 3-go pig R-wait SS DS
- (c) *t-yke'y kuery o-jojai*
3-older.brother COLL 3-laugh.at
- ‘Because/when the younger one went again to guard the pigs, his older brothers laughed at him.’

Example (10) involves center embedding, in which one clause is medial within another: the postnuclear clause (b) ‘to guard the pigs’ is center-embedded in the prenuclear clause (a) ‘because the younger one went again’, resulting in the SS and DS markers being juxtaposed. According to Susumu Kuno (1974:118), center embedding and conjunction juxtaposition cause perceptual difficulties. This can be seen in English: it is acceptable to say [*Since [when I was leaving] she came in,*] *I decided to stay*, but not ??[*Since [when [as it turned 8 o'clock] I was leaving] she came in,*] *I decided to stay*. That is, one level of center embedding and conjunction juxtaposition is acceptable in English (and Guaraní), but not two. In Guaraní there is a further restriction: juxtaposed conjunctions must be different, whether they are SR markers, adverbial conjunctions or a combination of the two; see also example (20) below.

Often a sentence has a mixture of SR clauses and adverbial clauses as in (11):

- (11) (a) *uru yvy'ã re merami o-japukai rã je*
chicken ridge ABL apparently 3-call.out DS HSY
- (b) *ha'e katy o-o rire je* (c) *ha'e py o-vaẽ rã je*
ANA toward 3-go SEQ HSY ANA in 3-arrive DS HSY
- (d) *j-i-po-i mba'e-ve.*
NEG-3-be-NEG thing-more
- ‘It's said that (a) there seemed to be a rooster crowing on the ridge (b) and (the man) went, (c) but when he arrived there, (d) there was nothing.’

Mbyá Guaraní has clause coordination with coordinating conjunctions and with simple juxtaposition as in (12):

- (12) *ja-pytu'u rive, (ha'e) nda-ja-karu-i*
1PL.INCL-pause without.logic and NEG-1PL.INCL-eat-NEG
- ‘We only paused, (and) we didn't eat.’

SR can occur with one of the conjuncts in coordination, and SR clauses themselves can be coordinated. Since these details are not germane to this paper, they are not further discussed here (Dooley 2006, §21.1.1).

2.3 “Quasi-coordination” and syntactic functions of dependent clauses

Martin Haspelmath (1995:12-17) discusses five criteria which differentiate coordination from subordination (table 1):

Table 1: Five properties of “quasi-coordination”

criteria	coordination	subordination
clause-internal word order (intercalation)	coordinate clauses must be continuous and nonoverlapping: <i>*John, and stumbled, fell</i>	a non-coordinate clause can be intercalated within the nuclear clause: <i>John, having stumbled, fell</i>
temporal iconicity	the clauses occur in the same order as events they narrate: <i>*João fell and stumbled</i>	the clauses can occur in a different order than the events they narrate: <i>João fell after he stumbled</i>
cataphoric reference	the first clause cannot have a pronoun whose “antecedent” is in the second clause: <i>*he_i stumbled and John_i fell</i>	the first clause can have a pronoun whose “antecedent” is in the second clause: <i>After he_i stumbled, John_i fell</i>
focusability	a coordinate clause cannot occur as argument focus: <i>*It was John stumbled that he fell</i>	an embedded non-coordinate clause can occur as argument focus: <i>It was after John stumbled that he fell</i>
extraction	an interrogative expression cannot be extracted from the second clause to occur in sentence-initial position: <i>*What did John stumble and do?</i>	an interrogative expression can be extracted from the second (nuclear) clause to occur in sentence-initial position: <i>What, after John stumbled, did he do?</i>

Dependent clauses which have properties of coordination in Table 1 are called *quasi-coordinate* by Mira Bergelson and Andrej Kibrik (1995:391-394). Clauses which lack these properties, however, are not necessarily subordinate in the sense of being embedded in a clause or a phrase (Van Valin 2005:183). Balthasar Bickel (1993, 1998) considers two types of “non-coordination”: peripheral subordination (a type of embedding within a clause) and ad-clausal (or adsentential) modification. Following Van Valin's (2005) “layered structure of the clause,” as Bickel does, we can illustrate these two types as follows:

- (13) (a) **Peripheral subordination:** [_{Clause} [_{Core} *I will arrive*] *before you do*].
 (b) **Ad-clausal modification:** *Before you arrive*, [_{Clause} *I will*].

In (13) (a), the dependent clause *before you do* is embedded within the matrix clause as a modifier of the clause core *I will arrive* (the core consists of the verbal expression plus arguments (Van Valin 2005:4). In (13) (b), however, *before you arrive* is outside the clause and modifies the clause as a whole. Table 2 presents three of the syntactic functions which dependent clauses may have:⁶

⁶I prefer the term “ad-clausal (or adsentential) modification” to Bickel's (1993:25) term “adsentential subordination”, since subordination commonly means embedding in a matrix clause (Van Valin 2005:183). I also prefer Bergelson and Kibrik's term “quasi-coordination” to Bickel's “sequentialization” or Roberts' (1988) “coordination.”

Table 2: Three of the syntactic functions of dependent clauses

Syntactic functions→ Properties ↓	peripheral subordination (a type of embedding):	ad-clausal/adsentential modification:	coordination or “quasi-coordination”:
constituency	constituent of matrix clause	constituent of the sentence	constituent of the sentence
distribution	adjoined to VP or “core”	default order is prenuclear	maintains order of events
modification	closely modifies the VP or the “core” of matrix clause	modifies the nuclear clause as a whole	does not modify
intonation	included in the intonation contour of matrix clause	can have its own contour or be included in the contour of the nuclear clause	can have its own contour or be included in the contour of the nuclear clause
assertion	included in the assertion of matrix clause	pragmatically presupposed, orients (gives situational framework for) nuclear clause (and often more)	makes a free assertion (= not included in another clausal assertion)
scope effects	attracts negation and illocutionary force of main verb	outside of negation and illocutionary force of nuclear clause	outside of negation and illocutionary force of other clause
argument focus	can occur as argument focus	cannot occur as argument focus	cannot occur as argument focus

A clause may be ambiguous as to syntactic function if we only consider its internal morphosyntax (Croft 2001:323), but in its syntactic and discourse context, taking intonation also into account, the ambiguity is usually resolved.

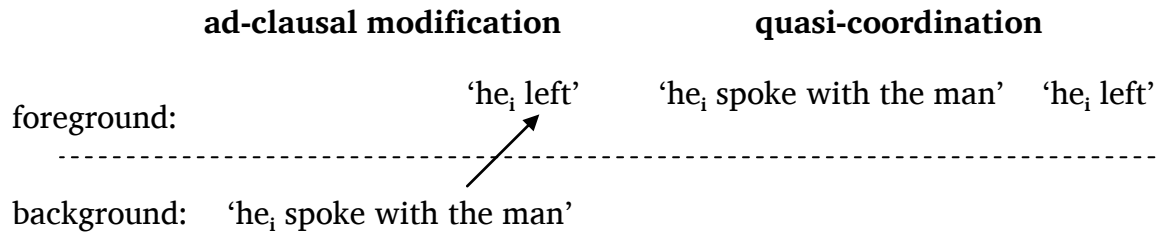
2.4 Foreground and background

In discourse, *foreground* clauses assert “mainline” information of whatever type characterizes the given discourse genre. In narrative specifically, foreground clauses assert sequential events that further the story. “Strictly speaking, only foregrounded clauses are actually narrated. Backgrounded clauses do not themselves narrate, but instead they support, amplify, or comment on the narration” (Hopper 1979:215). In non-narrative genres, foreground might be realized by such clause types as commands or descriptive statements (Hwang, to appear). Foreground in narrative is not restricted to “key” events; in (11) above, for example, all of the events are foreground, since they further the story. The examples in this paper will be largely limited to narrative.

Background clauses provide cohesion, as “linguistic means to signal coherence” (Dooley and Levinsohn 2001:27). They are not required by our characterization of chaining, but commonly occur as adjuncts in it. Whereas all foreground clauses in chaining are coordinate or quasi-coordinate, background clauses can, in principle, realize peripheral subordination, ad-clausal modification, or quasi-coordination. Swahili has a background type which may admit a quasi-coordinate interpretation (Hopper 1979: 213–215). Of Amele,

Roberts (1988:58f) discusses two types of SR background clause with non-quasi-coordinate properties. In Mbyá Guaraní, it appears that no background clause type is quasi-coordinate.

In example (2), the ambiguity which is reflected in the free translation was described in terms of the difference between ad-clausal modification or quasi-coordination: ‘**as/after/because** he_i spoke with the man he_i left’ reflects an interpretation of ad-clausal modification, whereas ‘**he_i spoke with the man and then** he_i left’ reflects quasi-coordination. But the two interpretations also differ in regard to their **foreground-background structure**:



In the first interpretation background modifies foreground, whereas the second interpretation has two foreground clauses with no modification. In information structure, ad-clausal background is *orientational*, providing “the situational and referential framework for the subsequent piece of discourse”, which may be anything from a single clause to an entire discourse unit (Bickel 1993:28). In orientation, the dependent proposition is pragmatically presupposed, i.e., easily taken for granted (Lambrecht 1994:52); clause (11) (c) ‘when he arrived (there)’ is pragmatically presupposed, being easily taken for granted from the preceding clause ‘he went (there)’. Often orientation clauses restate what was asserted in the preceding sentence.

In example (2), therefore, there is a formal ambiguity between background and foreground, between presupposition and assertion, and between various other properties in the last two columns of table 2. In the discourse context this ambiguity is often resolved. Each of the background types in Mbyá Guaraní chaining has the potential of being realized in ways that foreground cannot be.

2.5 Operator dependence

Van Valin (2005:186, 201–205) uses the term *operator dependence* when a dependent clause inherits from an independent clause its value for an operator such as tense or mood. (*Mood* here refers to the grammaticalization of illocutionary force: declarative, interrogative, imperative, etc.) In Papuan languages and commonly in others, tense or mood is affixed to the independent verb, and the verbs of dependent clauses are less finite. Since Mbyá Guaraní has zero marking for past and present, the verbs in a chain often have the same apparent form. In (2), both the verb *ij-ayvu* (3-speak) ‘he spoke’ and the verb *o-o* (3-go) ‘he went’ appear to be equally finite. But that is only because zero marking cannot be contrasted with its absence. If the example were in the

future, we would see something different:

- (14) [*ava reve ij-ayvu vy*] *o-o 'rã*
 man with 3-speak ss 3-go FUT
 ‘As/after/because he_i speaks with the man, he_i will leave.’ or ‘He_i will speak with the man and then leave.’

In (14), the dependent clause, at least with the quasi-coordinate interpretation, inherits future tense from the independent clause. With the ad-clausal interpretation, that is not as clearly the case; in fact, one possible interpretation is ‘Because he_i spoke with the man [in the past], he_i will leave’.

A similar thing is true of mood. Declarative mood is zero-marked, but other moods are not. Example (15) shows optative mood.

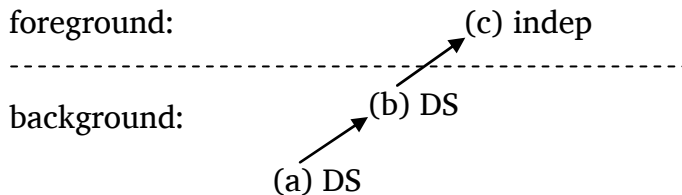
- (15) [*ava reve ij-ayvu vy*] *t-o-o*
 man with 3-speak ss OPT-3-go
 ‘As/after/because he_i speaks with the man, may he_i leave?’ or ‘May he_i speak with the man and then leave?’

In (15), when the first clause has quasi-coordinate interpretation, it inherits the optative mood, but optative is not possible with presupposition in the ad-clausal interpretation.

This means that in Mbyá Guaraní ad-clausal background clauses, including those with SR, operator dependence does not hold; such clauses can have tense and mood that is different from the independent clause, as in example (16):

- (16) (a) *ndee vaikue rã* (b) [*kunha-gue yvoty nde-r-e o-mo-mbo e'ỹ va'erã ramo*] *katu*
 2SG ugly DS woman-pl flower 2sg-r-abl 3-caus-jump neg fut ds unobstructed
 (c) *t-ere-o e-jau*
 OPT-2SG-go 2SG.IMP-go

‘(a) Since you are ugly, (b) [the women won't throw flowers at you] so (c) go take a bath!’

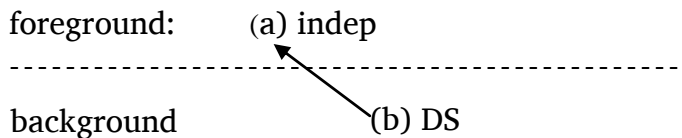


In its narrative context, example (16) was spoken to a young man by the mother of several girls (‘the women’) who were choosing their future husbands by throwing flowers at them. The mother thinks that since the young man is ugly the daughters won't throw their flowers at him, hence her imperative, ‘Go take a bath!’, which essentially means ‘Get lost!’. Clause (b) ‘the women won't throw flowers at you’ is future and declarative whereas the independent clause (c) ‘go

take a bath!’ is present and imperative. The enclitic particle *katu* ‘unobstructed’ has been moved from its normal postverbal position in the independent clause to serve as a “spacer,” signalling a major break in information structure (Dooley and Levinsohn 2001:73f and Dooley 2006, §24.4.3.2), here between background orientation and foreground. This helps to signal that clause (b) is ad-clausal orientation (reason), as (a) is also.

Example (17) shows the same kind of independent tense marking in a background clause, but with peripheral subordination instead of ad-clausal modification:

- (17) *rei tuja o-i-kuaa pota ma [ha'e va'e pyavy-ve t-a'y va'erã rã]*
 rich.man old 3-3-know try.hard already ANA REL night-same 3-son FUT DS
 ‘The old rich man watched closely to see whether (his daughter) would have a son that night.’



The bracketed SR clause here is background peripheral subordination, according to criteria of table 2, and is of a type which can be called *perceived event*.

Example (18) has peripheral subordination of a different type, *concomitant action*:

- (18) *E-ma'ẽ eme ke [xe-r-okẽ a-i-pe'a jave]!*
 2SG.IMP-look NEG.IMP IMP 1SG-R-door 1SG-3-open SIM
 ‘Don't look when I open my door!’

In (18), the imperative mood marked in the nuclear clause is not attracted to the background clause.

We have seen, then, that although foreground clauses in Mbyá Guaraní have operator dependence, background clauses in ad-clausal modification or peripheral subordination do not. This is similar to what happens in Papuan languages. In Amele, “In an SR medial clause chain the tense/mood operator is marked only on the final clause in the chain but the scope of the operator applies to all the clauses in the chain.... In contrast, subordinate clauses can be marked independently for tense and mood....” (Roberts 1988:51). However, the two “subordinate”—apparently ad-clausal—background types which Roberts (1988:58f) cites in Amele—conditional and apprehensional—have an adverbial morpheme. In Mbyá Guaraní, SR background clauses are often identical with foreground clauses in their internal form.

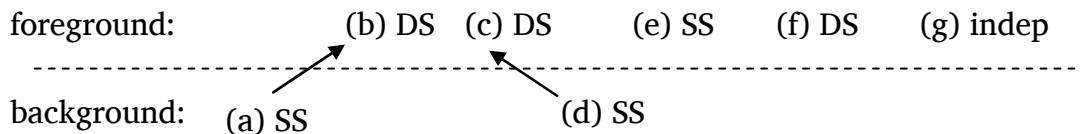
3 Further types of background

Thus far, we have observed orientation background in the ad-clausal modification function and, in the peripheral modification function, the two types of perceived event and concomitant action. It is not unusual for clause chains to occur with more than one type of background:

- (19) (a) *Kunhataĩ i-porã va'e o-u vy ma*
 maiden 3-pretty REL 3-come SS BDY
- (b) *“Mba'exa ta xe-ngana?” he'i ng-uu pe ramo*
 what.sort about.to 1SG-win 3.say 3.REFL-father DAT DS
- (c) [*“Peva'e” he'i* (d) [*Pyxaĩ re o-ma'ẽ vy*] *ramo*]
 that 3.say name ABL 3-look SS DS
- (e) *kunhataĩ o-u vy* (f) *o-i-kuavã Pyxaĩ ramo*
 maiden 3-come SS 3-3-embrace name DS
- (g) *t-yke'y kuery i-vai gu-yvy pe*
 3-older.brother COLL 3-angry 3.REFL-younger.brother DAT

‘(a) When the pretty maiden arrived (b) and asked her father, “Who will win me (to be his wife)?” (c) and he said, “That one,” (d) looking at Pyxaĩ, (e) the maiden came (f) and embraced Pyxaĩ (g) and his older brothers got very angry at him.’

Clause (a) is orientation, repeating the last clause of the preceding sentence. In example (19) as in (16), there is an enclitic particle *ma* ‘boundary’ as a spacer between this background orientation and foreground:



The postnuclear clause (d) ‘looking at Pyxaĩ’ is another example of concomitant action in peripheral subordination, since it directly modifies the predication of its matrix clause (c) ‘he said, “That one”’.

Example (20), from which (9) was excerpted, shows two types of peripheral subordination:

(20) (a) *ha'e o-o jave*
ANA 3-go SIM

(b) [[*t-yke'y kuery o-exa gu-yvy*
3-older.brother COLL 3-see 3.REFL-younger.brother

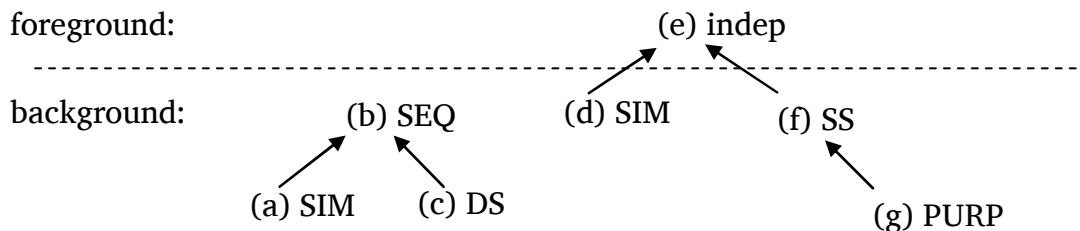
(c) [*o-jekuaa ramo] rire] je*
3-appear DS SEQ HSY

(d) *kuaray mbyte rai-i jave* (e) *o-o*
sun middle almost-DIM SIM 3-go

(f) *tape py o-arõ vy* (g) *tape py kunha va'e o-guero-ayvu aguã.*
path in 3-wait SS path in woman REL 3-COM-speak PURP

‘(b) [[After his older brothers saw their younger brother (c) [appearing]]
(a) when he left, (d) when it was almost midday (e) they went (f) [to wait
in the path (g) [to talk with the woman in the path]].’

foreground:



This chain has just one foreground clause, (e) ‘they went’, which is preceded by two juxtaposed temporal orientations: (a)—(c) ‘after his older brothers saw their younger brother leaving’ (ending with *rire* ‘sequence’), and (d) ‘when it was almost midday’ (ending with *jave* ‘simultaneity’). In between these two orientations, which are in some sense semantically parallel, the enclitic particle *je* ‘hearsay’ occurs as a spacer. There are three postnuclear clauses: (c) ‘appearing’ is a perceived event and the two *purpose* clauses (f) and (g). Both of these background types typically occur in postnuclear position, being peripheral subordination rather than the ad-clausal orientation that occurs in (a), (b) and (d). Another example of the purpose type of peripheral subordination is found in (10) (b).

Example (20) shows something that we have already observed, that adverbial clauses with lexical conjunctions (‘sequence’, ‘simultaneity’, ‘purpose’, etc.) occur along with SR clauses in chaining. Moreover, clauses with adverbial conjunctions are always background, whereas SR clauses may be background or foreground.⁷

Yet another peripheral subordination background type occurs in (21):

⁷In addition to their use as clause subordinators, both SR markers and adverbial conjunctions frequently occur in sentence-initial connectives. In that construction, which we will not examine here, the markers generally signal a more abstract discourse connection (Dooley 1986, 1992).

- (21) *guyrapa, hu'y guive ogue-reko katu-pa* [o-kyje vy]
 bow arrow also 3-have unobstructed-completely 3-be.afraid ss
 ‘...they got their bows and arrows all ready **because they were afraid.**’

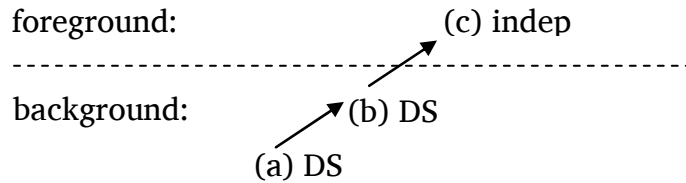
This is *reason* background, which is typically postnuclear. According to the criteria of table 2, it is peripheral subordination.

Example (22) has a sequence of two prenuclear background clauses:

- (22) (a) ... *xe-r-u-a py re-vaẽ rã* (b) *i-vai ramo ma*
 1SG-R-father-NOM in 2SG-arrive DS 3-angry DS BDY

- (c) *e-mombe'u eme a-ju-a-gue.*
 2SG.IMP-tell NEG.IMP 1SG-come-NOM-PAST

‘(b)...if my father is angry (a) when you get to his place, (c) don't tell him that I came.’



Both (a) and (b) are orientational, but whereas (a) has temporal and locational orientation, (b) is *conditional*. Clause (a) is background primarily for (b) and only indirectly for (c). Just as peripheral subordination background tends to be postnuclear, orientation—including condition—tends to be prenuclear.

4 Tests for quasi-coordination

§2.3 provided five tests for quasi-coordination from Haspelmath (1995:12-17). Here we apply those tests to clause types which we have identified as background. One additional test is given: concession.

4.1 Intercalation

Whereas in Papuan languages of SR clauses cannot occur intercalated within the nuclear clause (Roberts 1988:54f), in Mbyá Guaraní it is not uncommon for an adverbial or SR clause to occur between the subject and predicate of the nuclear clause, as in (23) and (24):

- (23) *ha'e va'e-kue jagua je [Vera o-o roxaro py jave] o-o h-exe-ve*
 ANA REL-PAST dog HSY name 3-go field in SIM 3-go 3-with-more
 ‘That dog, it is said, when Verá goes to the field, goes with him.’ (Verá is a masculine name.)

- (24) *xe-r-o* [**oky rã**] *o-tyky-pa*
 1SG-R-house **rain DS** 3-drip-completely
 ‘My house, when it rains, leaks completely.’

In (23), ‘when Verá goes to the field’ occurs between the subject ‘that dog’ and the predicate ‘goes with him’; in (24), ‘when it rains’ occurs between the subject ‘my house’ and the predicate ‘leaks completely’. This positioning has the same “spacer” function as enclitic particles in previous examples; here, the subject is signalled as a marked topic.

The only clauses which can occur intercalated in the way we see in (23) and (24) are background clauses of ad-clausal modification and orientation. Extraction obeys the same restriction (§4.5).

4.2 Temporal iconicity

In (7), repeated below, we observed that with the adverbial conjunction *rire* ‘sequence’, clause ordering can be different from the temporal order of events:

- (7) *o-jevy-pa* *jevy* [**ava vai o-juka ma rire**]
 3-return-completely again **man angry 3-kill already SEQ**
 ‘They all returned after they had killed the wild man.’

The order of these clauses makes no difference to their temporal interpretation:

- (7') [**ava vai o-juka ma rire**] *o-jevy-pa* *jevy*
 man angry 3-kill already SEQ 3-return-completely again
 ‘After they had killed the wild man they all returned.’

Whereas in (7') the dependent clause ‘after they had killed the wild man’ is unambiguously interpreted as ad-clausal modification and orientation, in (7) the same clause can be interpreted as that but is more likely to be interpreted as peripheral subordination and temporal modification. If there is an intonation break as in (7''), however, making this clause a “tail” or afterthought expression, the interpretation of ad-clausal modification and orientation becomes more likely:

- (7'') *o-jevy-pa* *jevy*, [**ava vai o-juka ma rire**]
 3-return-completely again **man angry 3-kill already SEQ**
 ‘They all returned, after they had killed the wild man.’

Similar comments can be made about SR clauses, as in (25), (25') and (25''):

(25) *o-o-ve jevy [o-karu-pa ma vy]*
 3-go-more again 3-eat-completely already ss
 ‘He went off again after he finished eating.’

(25') [*o-karu-pa ma vy*] *o-o-ve jevy*
 3-eat-completely already ss 3-go-more again
 ‘After he finished eating he went off again.’

(25'') *o-o-ve jevy, [o-karu-pa ma vy]*
 3-go-more again 3-eat-completely already ss
 ‘He went off again, after he finished eating.’

Of the types of peripheral subordination that we earlier encountered—perceived event in (17) and (20), concomitant action in (18) and (19), reason in (21), and purpose in (10) and (20)—the default postnuclear position does not conflict with temporal iconicity: purpose clauses are future with respect to the nuclear clause, while the other three types are simultaneous with it. However, these are all embedded in the matrix clause as peripheral subordination, so that they can occur in prenuclear position as argument focus (§4.4) as in (26):

(26) [*t-embí-u ere-jogua aguã e'ỹ*] *ri ty'y ere-reko?*
 NPOSSD-NOM-eat 2SG-buy PURP NEG RESP surprise 2SG-have
 ‘Isn't it in order to buy food that you have [money]?’

Here, the content of the focused purpose clause ‘buy food’ is future in relation to the independent clause ‘you have [money]’, which is in the present. Therefore, they can violate temporal iconicity just as temporal modification does in (7') and (25').

All types of clauses with peripheral subordination can occur as argument focus and violate temporal iconicity. In (7'') and (25'') we saw that ad-clausal modification (orientation) clauses can also violate temporal iconicity. That is, temporal iconicity can be violated by all types of background clauses.

4.3 Cataphoric reference

In (27), the anaphoric pronoun *ha'e* in the first clause has its antecedent in the second clause: *guyvy* ‘their younger brother’:

(27) (a) *ha'e_i o-o jave* (b) *t-yke'y kuery o-exa gu-yvy_i...*
 ANA 3-go SIM 3-older.brother COLL 3-see 3.REFL-younger.brother
 ‘While **he_i** was going, his older brothers saw **their younger brother_i**...’

In (28) (a), there are two zero cataphoric references:

- (28) (a) \emptyset_i *o-mo-ngarai-pa* \emptyset_j *ma* *vy* (b) *huvixa_i* *o-mbo-joja* *gu-a'y* *kuery_j*
 3-CAUS-baptized-completely already SS leader 3-CAUS-lean 3.REFL-son COLL
 ‘After **he_i** had baptized **all of them_j**, **the leader_i** gathered **his_i followers_j**’ (lit., ‘his_i sons_j’).

In (28), both the subject ‘the leader’ and the object ‘his sons/followers’ are cataphoric “antecedents”. So both in (27) with an adverbial conjunction and in (28) with a SR marker there is cataphoric reference; this does not happen in coordinate or quasi-coordinate clauses (Haspelmath 1995:14). Both of the (a) clauses are background, specifically ad-clausal temporal orientation, whose content is presupposed from the preceding context.

4.4 Focusability

In (26) we observed a peripherally subordinate clause in argument focus. Mbyá Guaraní has several *focalizers*, which follow expressions with argument focus and attach the nuclear accent of the utterance (Dooley 2006, §§21.2.1.10, 24.4.3.1). Among these is the element *mae* (*ma-ae*) ‘already-exactly’ ‘only’, which is often followed—as here—by an enclitic particle serving as spacer:

- (29) (a) [*xe-r-u* *o-vaē* *ma* *rire*] *mae* *rã* (b) *a-guata*
 1SG-R-father 3-arrive already SEQ **already.exactly** FUT 1SG-travel
 ‘It will only be after my father arrives that I will travel.’

- (30) (a) [*a-pyrõ* *rai-i* *ma* *ramo*] *mae* *ma*
 1SG-step almost-DIM already DS **already.exactly** BDY
 (b) *o-nha* *o-o-vy* *jai* *re*
 3-run 3-go-v2 underbrush ABL

‘It was only after I had almost stepped on (the snake) that he went off to the underbrush.’

Both in (29) with *rire* ‘sequence’ and in (30) with *ramo* ‘DS’ the focalizer *mae* makes it clear that the dependent clause is argument focus.

According to Haspelmath (1995:15), subordinate (embedded) but not coordinate clauses may occur in argument focus. This is because an expression in argument focus needs to be part of potential focus domain of the main clause (Van Valin 2005:275). In (29) and (30), the (a) clauses are formally ambiguous between peripheral subordination and ad-clausal modification (orientation) (§2.3). It is as peripheral subordination that they occur in argument focus (‘I will travel [**after my father arrives**]’), rather than as ad-clausal modification (‘[**After my father arrives**], I will travel’).

4.5 Extraction

As John Ross (1967) observes in his “coordinate structure constraint,” “coordinate structures severely restrict the possibility of extraction”—the occurrence in initial position of an interrogative expression whose *in situ* position is within a noninitial clause (Haspelmath 1995:16). Examples of extraction include (31) and (32):

- (31) *Mba'e pa [ava o-u ramo] ja-j-apo 'rã?*
 what Q man 3-COME DS 1 + 2-3-make FUT
 ‘What, when the man comes, will we do?’

- (32) *Mava'e tu [nha-vaẽ ramo] nhane-mo-ngaru 'rã?*
 who brusqueness 1 + 2-arrive DS 1 + 2-CAUS-eat FUT
 ‘Who, when we arrive, will feed us?’

In both (31) and (32) the initial interrogative expression is extracted from the final nuclear clause. Following this expression, which is argument focus, occur an enclitic particle in spacer position (*pa* ‘question particle’ or *tu* ‘brusqueness’) and a SR clause. This SR clause—‘when the man comes’ in (31) and ‘when we arrive’ (32) is background but formally ambiguous between embedding (peripheral subordination) and ad-clausal modification (orientation). They are here interpreted as ad-clausal modification (orientation) since, in the context, their content is presupposed. This is a form of intercalation (§4.1).

4.6 Concession

According to William Croft (2001:344), “coordinate constructions do not indicate concessive relations.” In Mbyá Guaraní, concessive relations can be indicated with the adverbial conjunctions *teĩ* (with actions) or *va'eri* (with states) as in example (33), or with SR markers followed by the concessive particle *jepe* as (34) in and (35):

- (33) [*nd-a-i-kuaa porã-i va'eri*] *a-mombe'u 'rã ta'vy*
 NEG-1SG-3-know well-NEG CONCESS 1SG-tell FUT brusqueness
 ‘Although I don't know it very well, I'll tell it.’

- (34) [*peẽ kuery ore-r-eve nda-pe-o-i vy jepe*]
 2PL COLL 1PL.EXCL-R-with NEG-2PL-go-NEG SS CONCESS

pend-exarai eme ke ore-re
 2PL-forget NEG.IMP IMP 1PL.EXCL-ABL
 ‘Even though you (pl.) don't go (with us), don't forget us.’

- (35) [pe-raa nhuã my pe-mbo-'a rã jepe] xe-vy ha'eve-pa rei
 2PL-take trap in 2PL-CAUS-fall DS CONCESS 1SG-DAT good-completely uniformly
 'Even though you take (my son) and put him in jail, it will be perfectly fine with me.'

Dependent clauses of *concession*, which can occur postnuclear as well, are a type of ad-clausal modification according to criteria of table 2. They are similar to condition, hence can be considered as another subtype of orientation.

5 Long sequences

According to our characterization of clause chaining, foreground clauses will at times occur in long sequences, sometimes including adjunct background clauses. Example (19) has a sequence of five foreground clauses. In Amele, “it is not unusual to find up to twenty clauses in a text linked by clause-chaining” (Roberts 1988:48), but in Mbyá Guaraní it is unusual to find more than eight. This seems to be a stylistic rather than grammatical limit. Chaining in Panare or Eñepa has an even more stringent limit: “chains of four or more medial clauses are nonexistent in the corpus” (Payne 1991:248).

Background clauses are, in my data, limited to sequences of one or two. Sequences of two occur in examples (10) (prenuclear + postnuclear), (16) (prenuclear + prenuclear), and (20) (postnuclear + prenuclear and postnuclear + postnuclear). In these sequences, all the prenuclear background clauses are ad-clausal modification (orientation) and all the postnuclear ones are peripheral modification. Background clauses do not occur in sequences longer than two.

This difference seems to be based, in part, on the fact that each addition background clause, whether in peripheral subordination or ad-clausal modification, increases the structural depth of the sentence, presumably adding to the processing cost. Figure 1 is for ad-clausal modification (cf. Van Valin 2005:193):

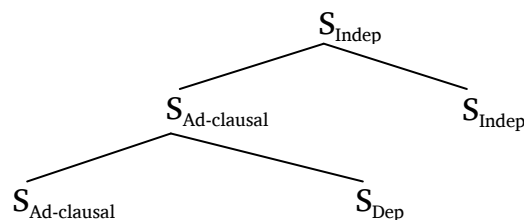


Figure 1: Ad-clausal modification

Coordination or quasi-coordination (figure 2), however, simply extends a flat structure without increasing structural depth (Roberts 1997:183):

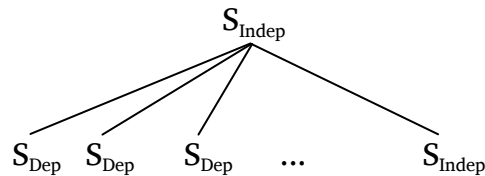


Figure 2: Coordination or “quasi-coordination”

For chaining constructions, “the possibility of long sequences” should go beyond what is possible with non-quasi-coordinate clauses: sequences of three or more foreground clauses should occur.⁸

6 Concluding remarks

In this paper I have sketched evidence indicating that in Mbyá Guaraní, the foreground-background distinction is a key dimension of clause chaining. In the first place, chaining is characterized by two properties of foreground clauses—operator dependence and the possibility of long sequences—while background clauses are simply possible as adjuncts and have neither of those properties. Further, whereas foreground clauses exhibit quasi-coordinate properties, background clauses, of whatever type they may be, fail to exhibit some of these properties in certain contexts. The major background types are as follows:

- (i) peripheral subordination (a type of embedding): purpose, reason, perceived event, concomitant action, temporal modification; postnuclear order is default
- (ii) ad-clausal modification (non-embedding): orientation (temporal, situational, conditional, concessive, etc.); prenuclear order is default

Chaining in Mbyá Guaraní commonly uses clauses with SR marking and others with adverbial conjunctions, with no apparent difference in internal syntax. But whereas SR clauses can occur as either foreground or background, clauses with adverbial conjunctions only occur as background.

In internal morphosyntax, SR clauses do not distinguish between foreground and background or the two background functions, nor do clauses with adverbial conjunctions distinguish between the two background functions. However, in their sentential and discourse contexts, chained clauses manifest distinct properties in such areas as external distribution, assertion, and scope effects which commonly indicate their function.

⁸Nedjalkov (1995:109) requires that “converbs” of the narrative (coordinative) type be able to express “three or more completed actions in succession that advance the narration.”

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8

The Dialects of Koiari Revisited

Tom Dutton

ABSTRACT

In this paper an earlier account of the dialect situation in Koiari based on lexicostatistic evidence is revised after the data used for the earlier account is re-examined from a comparative historical point of view. Although the basic picture remains the same the new analysis reveals a greater level of complexity at the subdialect level. The socio-historical implications of this revised account are at odds with traditional oral ones of the origin and movement history of many of the villages surveyed. Some reasons for the discrepancy between the former and the latter are discussed but further fieldwork would be required to try to clarify the apparent differences between them.¹

1 Introduction

Koiari is a small Papuan language spoken inland of Port Moresby, Papua New Guinea. When first surveyed by me in 1966 there were estimated to be approximately 1800 speakers, although there are now likely to be many fewer than this as the younger generations have learned and use English and/or Tok Pisin as socially more useful languages in an urban context.

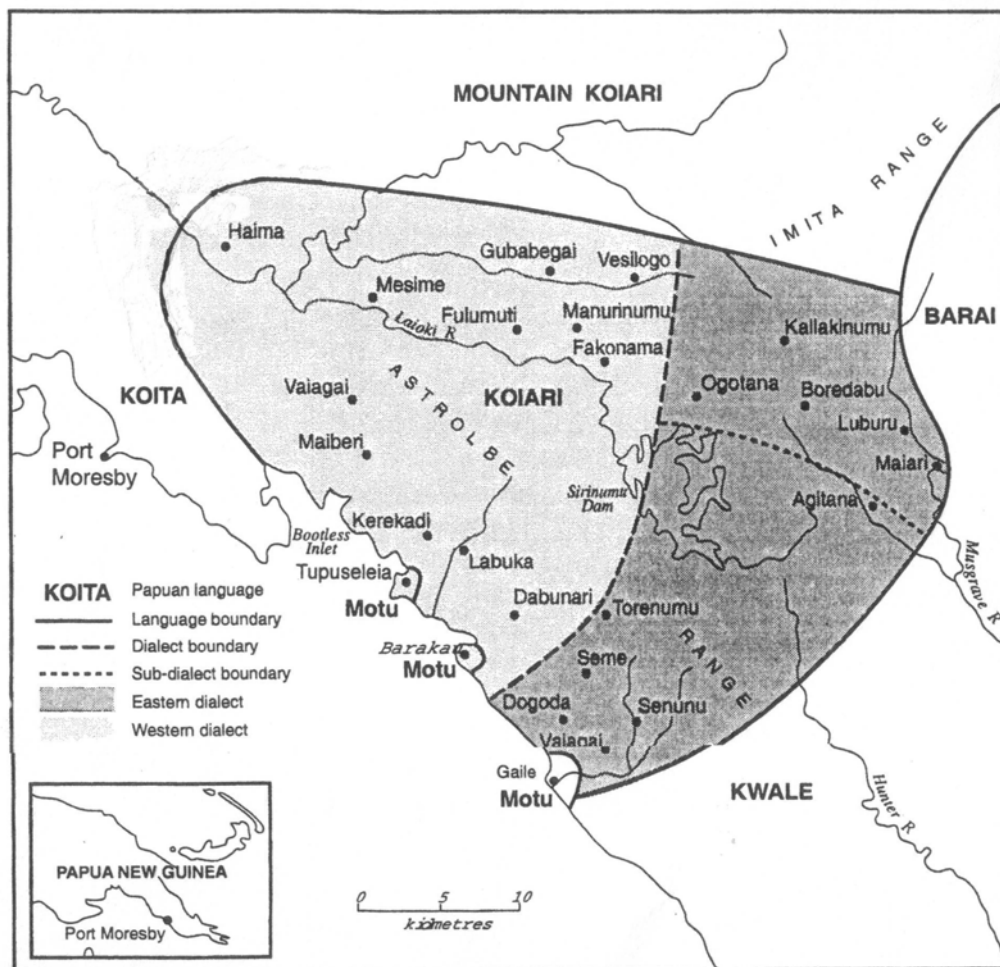
In Dutton (1969:37-45) I described the Koiari language as consisting of two dialects, an Eastern and a Western one, with the Eastern one further divisible into North-Eastern (centred on Kailakinumu) and South-Eastern (including the villages of Agitana, Dagoda, Senunu and Futinumumu) subdialects—see map 1.²

¹I would like to dedicate this paper to my friend and first teacher of linguistics, Karl Franklin. Karl was one of a small group of Summer Institute of Linguistics members who were engaged by the Administration in Papua and New Guinea to conduct a training course in linguistics and how to learn unwritten languages for Administration field officers in early 1960. I was one of the lucky ones to be chosen to attend that course and to meet Karl and his wife Joice. We have remained friends ever since.

²The keen observer will note that this map does not include Boteka that was included in the map in Dutton (1969:22). That is because it is basically a Koita village and should not have been included in the Koiari language area.

These divisions were based on the comparison of percentages of apparent cognates in “basic” vocabulary word lists³ collected from twelve villages across the geographic spread of the language.⁴ At that time no comparative phonological or grammatical evidence was taken into account in defining these dialects. It is the purpose of this paper to rectify that situation. Unfortunately, only comparative phonological evidence can be considered, as no comparative grammatical evidence was obtained during the survey upon which the 1969 publication was based—basic vocabulary word lists collected, by their very nature, do not contain relevant comparative grammatical information, and none has been collected subsequently.⁵

Map 1: Dialects and sub-dialects of Koiari



³For further details of the lexicostatistical method used and its underlying assumptions see Dutton (1969:5-8).

⁴These vocabulary lists were collected using S. A. Wurm's modified TRIPP list described in Dutton (1969:5).

⁵It is known, however, that there is little grammatical variation across the language. Some communalects do vary in having different sets of possessive case suffixes but these and other aspects of Koiari grammar need to be studied separately to get an accurate picture of dialectal variation.

2 Comparative phonological evidence

This study is based on the unpublished basic vocabulary lists used for Dutton (1969). Nominally these lists contain up to 292 items. In practice, however, words were not elicited for every item for various reasons,⁶ and in five cases regrettably only partial lists were collected.⁷ A study of all the lists shows, however, that all communalects have a set of five vowels (a, e, i, o u), a selection of the following consonants: stops (t, k, b, d, g), fricatives (ɣ, f, s, h, v), nasals (m, n), a vibrant (r), and a semivowel (y). Furthermore, each of the five vowels correspond regularly and identically in cognates in all the communalects surveyed, as well as the stops, nasals, the vibrant, and semivowel, as an inspection of the items published in appendix 1 herein shows. That is, vowel a corresponds with a in all communalects and so on for each of the other sounds just listed. Consequently there is no dialect diagnostic value in these sounds. Fricative correspondences, on the other hand, vary and provide the best evidence of dialectal differences. There are eighty-eight cognate sets involving fricatives in the word lists used for this study. These are given in appendix 1. Correspondences between the fricatives in these sets are given in appendix 2 where *v, *ɣ, *h and *s are used to represent dialect level proto sounds in the conventional, comparative, historical, linguistic way. As Koiari is both a suffixing and an open syllable language, there are no correspondence sets of final consonants.⁸ All other correspondences are either word, root (in the case of verbs) or suffix initial or medial. Abbreviations of village names surveyed and used in appendix 2 and the table 1 are as follows:

Agi	Agitana	Lab	Labuka
Dag	Dagoda	Mes	Mesime
Fak	Fakonama	Mok	Mokonumu
Ful	Fulimuti	Sen	Senunu
Fut	Futinumumu	Vai	Vaivai
Kai	Kailakinumu	Ves	Vesilogo

To simplify reference to the correspondence sets in appendix 2, the sets are re-presented in table 1 in a condensed form using the following conventions:

1. Where there is only an odd variant this is ignored. For example, in the Dagoda column for initial *ɣ all the correspondences are zero except for one v. This v is ignored for the purposes of the construction of table 1.

⁶For example, time available, suitability of the item for lexicostatistic purposes.

⁷Full lists were collected from the villages of Kailakinumu, Dagoda, Fakonama Labuka, Senunu (though not recorded on tape), and Vesilogo. Partial lists were collected from the villages of Agitana, Fulumuti, Haima (not recorded on tape), Vaivai, and Mesime. Copies of the tape recorded lists are available from the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC), Melbourne.

⁸As I note in Dutton (2003:337, fn.1) there are only two morphemes in the language that could possibly be regarded as prefixes. For further details of the grammar of Koiari see Dutton (2003: 333-424).

2. Where there are two or more variants, the lesser variants are enclosed in round brackets and separated by a slash. So, for example, in the Futinumu column of * γ reflexes in initial position, the entry \emptyset (v/γ) is to be read as follows: the most common variant is \emptyset but there are also v and γ variants, but the v variants outnumber the γ ones.
3. Where there are equal or near equal numbers of variants, all are given and separated by a slash. For example, in the Senunu column of * s reflexes in medial position the entry **h/s/** \emptyset means that there are approximately equal numbers of **h**, **s**, and \emptyset variants.

Table 1: A condensed view of the fricatives correspondences in appendix 2

	Kai	Agi	Sen	Dag	Fut	Mok	Fak	Ves	Lab	Vai	Mes	Ful
*v												
Initial	v	v	v	v	v	v	v	v	v	v	v	v
Medial	v	v	v	v	v	v	v	v	v	v	v	v
*γ												
Initial	v	v	\emptyset	\emptyset	$\emptyset(v/\gamma)$	γ	$v(\gamma)$	v	γ	\emptyset/γ	v/γ	h
Medial	v	v	$\emptyset/\gamma/v$	\emptyset/γ	$\emptyset(\gamma/v)$	$\emptyset(v/\gamma)$	$v(\gamma)$	$\emptyset(v)$	γ	\emptyset	\emptyset	\emptyset
*h												
Initial	h	f	f(s/h)	f(s/h)	h/f	f(h)	f(h)	f	h	f	f	f
Medial	h	h	h(f)	$\emptyset(h/f)$	$\emptyset(h/f)$	h	h	h(f)	h	h(f)	h(f)	h(f)
*s												
Initial	h(s)	s	s	s	s	s	s	s	s	s	s	s
Medial	h	h(s)	h/s/ \emptyset	s/ \emptyset	s/ \emptyset	s(h)	s(h)	s(f)	s(\emptyset)	s	s	s

3 Discussion

A study of table 1 shows that:

1. As already noted, all correspondence sets show some variation in the reflexes that occur, several (particularly Senunu, Dagoda, Futinumu, and Mokonama) quite a deal, especially in their reflexes of * γ and *h. While some of this variation may be due to recognition errors introduced at the time of collection of the word lists, most, if not all, are undoubtedly the result of dialect borrowing. Such a claim would also seem to be supported by items 13 ‘palm (of hand)’, 14 ‘back (of hand)’, 61 ‘look for’, 71 ‘pain’, and 72 ‘thin’ where there are two sets of cognates per item distributed over different sets of villages, and item 48 ‘butterfly’ where the word *afoka*~*yahoka* in Senunu, Dagoda, Futinumu and Labuka appears to be a metathesised form of *avako* given for other villages. Dialect borrowing is also not surprising given the social situation in Koiari, where villagers traditionally lived in small isolated villages (of no more than 60 residents or so), composed of different ‘sections’ (or groups)⁹ with names generally derived from some prominent geographic feature in the area, e.g., Haveri,

⁹The anthropologist Williams (1932:55) introduced the term “section” as he felt that the word “clan” did not adequately capture the nature of Koiari social organisation. He suggested “group” as an alternative.

from Havenumu near Iawarere (or Jawarere).¹⁰ Similarly because villages were small, there was considerable intermarriage between them. Following World War II, many villages moved to more accessible positions close to the roads that were gradually developed in the Port Moresby area. Thus Kailakinumu is a composite village of three formerly independent, though interrelated, villages composed of the following groups—the Hogeri (pronounced Sogeri by coastal people), Haveri and Yaritari—who combined to form a larger village on the road linking Sogeri to the Upper Musgrave River.

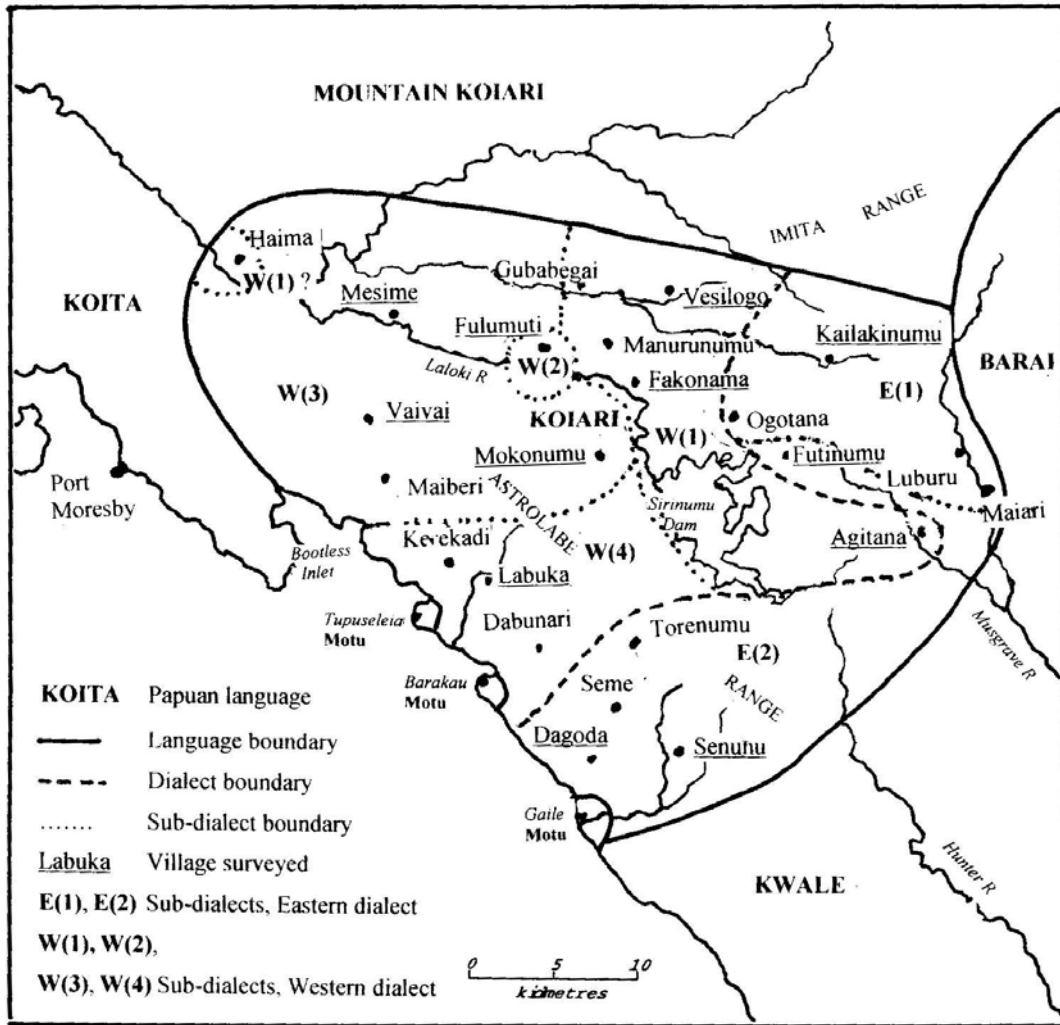
2. There are six contrasting sets in this display. Four are very obvious, two less so. The four obvious sets are:
 - (a) the Kailakinumu set which contrasts with all other sets in having coalesced *v and *γ (where both are reflected as v) as well as *h and *s (where both are reflected as h) (ignoring two occurrences of s which are assumed to occur in borrowed items).
 - (b) the Agitana, Fakonama and Vesilogo sets which contrast with other sets in having coalesced *v and *γ (where both are reflected as v), as in the Kailakinumu set, but have reflexes of *h as f initially and h medially and of *s as s both initially and medially (assuming that the few occurrences of h and f are indicative of dialect borrowings).
 - (c) the Labuka set which contrasts with all other sets in having all proto sounds reflected by their corresponding recorded sounds, that is, *v is reflected as v, *γ as γ, *h as h and *s as s (assuming that the one ∅ reflex of s represents dialect borrowing).
 - (d) the Fulumuti set which contrasts with all other sets in having h and ∅ reflexes of *γ in initial and medial positions respectively although seven other communalects also have ∅ as a reflex of *γ in medial position.

The less clearly contrasting sets are the Senunu-Dagoda-Futinumu ones and the Mokonama-Vaivai-Mesime ones. In the first case, the Senunu, Dagoda and Futinumu sets have ∅ as their reflex of *γ in initial position and equally frequently occurring reflexes of s and ∅ of *s (excluding Senunu which also has h). Reflexes of *γ medially and of *h (initially and medially) and *s (medially) are mixed. Further evidence that these villages represent a single phonological unit is that, as noted in Dutton (1969:41), these villages “tend to ‘drop’ fricatives, which then produces a change in vowel quality, particularly where fricatives are omitted between /a/ and /e/. Here there is an assimilation of these vowels into one single one /æ/, phonetically [æ].” In the second of the less clear cases are the Mokonama, Vaivai and Mesime sets which have ∅ as their reflex of *γ medially (assuming that the Mokonama v and γ represent dialect borrowings) and mixed reflexes of *γ initially.

¹⁰The suffix *-numu* is derived from Koiari *numuta* ‘mountain’. It is also used to denote the top of a tree.

Thus, it would appear that there are six dialects corresponding to each of these contrasting correspondence sets, with four quite distinct and two much less so—see map 2.

Map 2: Revised dialects and sub-dialects of Koiari



The four distinct dialects are:

1. one centred on Kailakinumu,
2. a second including Agitana, Fakonama and Vesilogo (which seems at one time to have been closely associated with the Kailakinumu dialect given they share the innovation of both *v and *γ being reflected as v with it),
3. a third around Labuka and
4. a fourth around Fulumuti.

The less distinct dialects are

1. one including Senunu, Dagoda and Futinumu and
2. one including Mokonama, Vaivai and Mesime.

These latter two show evidence of considerable dialect borrowing, although it is not possible from this evidence to determine the source and/or direction of such borrowing. Nor does the lexical evidence noted above help. Thus there are three items where different villages have different lexical items for the same meaning.

Consider lexical items 13 ‘palm (of hand)’ and 14 ‘back (of hand)’ for example. Here Kailakinumu, Agitana, Dagoda Futinumu, and Fulumuti have *uhu-* ‘palm of hand’ while Mokonama, Fakonama, Vesilogo, Labuka, Vaivai, and Mesime have *foto-* which is the word for ‘back (of hand)’ in Kailakinumu and Dagoda. For item 48 ‘butterfly’ Kailakinumu, Agitana, Mokonama, Fakonama, Vesilogo have *avako* while Senunu, Dagoda, Futinumu and Labuka have *afoka* or *yahoka* which appear to be derived from *avako* by metathesis. For item 61 ‘look for’ Kailakinumu, Agitana, Fakonama, Vesilogo, Vaivai and Mesime have *voho~ofo~vohi* while Senunu, Dagoda, Futinumu and Labuka have *sau-*. This array does not give a consistent picture either within itself or in relation to the six proposed dialects just listed; rather the picture is one of borrowing from different sources.

Given then that there are six (phonologically based) dialects the question arises: How do these results fit with those suggested by a lexico-statistic analysis? The following observations are pertinent:

1. Apart from one village—Agitana—there is a good fit between two of the phonologically based dialects (hereafter p-dialects) and two of the lexicostatistically based sub-dialects, notably, the Kailakinumu and the Futinumu-Senunu-Dagoda ones. Thus the Kailakinumu p-dialect coincides exactly with the lexico-statically determined North-Eastern sub-dialect of the Eastern dialect. The Futinumu-Senunu-Dagoda p-dialect coincides with the South-Eastern sub-dialect of the Eastern dialect, except for Agitana which the phonological evidence suggests belongs, not to this p-dialect, but to the Agitana-Fakonama-Vesilogo one, notwithstanding an earlier apparent close association with the Kailakinumu dialect noted above. Given that both phonological evidence and lexicostatistic evidence support an Eastern dialect (with slightly altered membership) that leaves the remaining four p-dialects as members of the Western dialect.
2. In my lexicostatistical study I claimed (Dutton 1969:41) that the Western dialect was the larger of the two Koiari lexicostatistically based dialects in terms of area and population, but that the Eastern was lexically the more diverse. While this may be true lexically, the phonological evidence presents a different picture. Thus, it suggests that the Western dialect is the more diverse, incorporating four p-dialects, two of which show evidence of considerable dialect borrowing. What is surprising also, from

a geographical point of view, is that Agitana is phonologically grouped with the lexicostatistically determined Western dialect villages of Vesilogo and Fakonama, despite it and the other villages of this dialect sharing a coalescence of reflexes of *v and * γ (as v) with the Kailakinumu p-dialect, and despite it being a considerable distance away from its other p-dialect villages of Veilogo and Fakonama in the headwaters of the Musgrave River. Taken together with the other evidence of distribution and borrowing, this would seem to suggest that the Western dialect villages have been in closer contact with one another, presumably through intermarriage, than the Eastern ones.¹¹

3. Dialect borrowing has clearly occurred at both lexical and phonological levels. This is not surprising. It simply reflects past marital patterns and changed or changing residential ones.

4 Conclusion

Given the above commentary, the dialect situation in Koiari needs to be adjusted to read:

Koiari consists of two dialects, an Eastern and a Western one. The Eastern one consists of two sub-dialects, a North-Eastern one centred on Kailakinumu and a South-Eastern one including the villages of Futinumu, Senunu and Dagoda. The Western one consists of four sub-dialects, a North-Western one spoken in the villages of Vesilogo, Fakonama and Agitana (and associated hamlets), a Laloki one spoken in Fulumuti, a Plains one spoken in Vaivai, Mesime and Mokonumu (and associated hamlets), and a Coastal one spoken in Labuka (and associated hamlets).

In Dutton (1969:43-44) I claimed that those Koiari living in the Laloki valley and on the coastal plain had moved down from different parts of the Sogeri Plateau relatively recently, giving the impression of a general east-west direction of migration. This claim was not based on the linguistic evidence *per se* but on informant testimony of traditional stories of where they came from and who they are related to. Clearly, if these claims were true, one would expect to find linguistic relationships, such as sub-dialectal ones, for example, to support them. Curiously we do not. Thus, the Mesime claim to have moved down to their 1966 position from around the present day village of Defo near the junction of the Ower's Corner road and the Sogeri Road. Yet, they do not show any connection with the North-West sub-dialect (which includes Vesilogo, Fakonama and Agitana). Instead, they belong in the Coastal sub-dialect containing Vaivai and Mokonumu, a village that is admittedly still on the plateau but nowhere near where the Mesime claim to have migrated down from. Similarly, the Fulumuti are said to be a mixture of Koiari, Omani and Korohi sections (who lived near Rouna Falls). Yet, Fulumuti is an isolate which shows no close phonological connections with other sub-dialects on the Sogeri Plateau. And again, Labuka and the associated hamlets Dabunari and Kerekadi are said to have moved down

¹¹Unfortunately I have no sociological data to support or deny this suggestion.

from the south-west rim of the Sogeri Plateau some time before European contact. Yet, they group as the independent and isolated Coastal sub-dialect with no connection to any other sub-dialect on the plateau. The only sub-dialect that contains villages that trace their movement down over the rim of the plateau is the South-East one. Interestingly, it is also the only one that has a village member, Futinumu, still on the plateau. The reasons for the above observed mismatch between the sub-dialectal nature of Koiari and the oral history claims of the Koari are unclear. To try to unravel the complexities of this is something that would take considerable fieldwork, if indeed it were ever possible to unravel it, something I am sadly no longer in any position to attempt.

Appendix 1: Koiari fricatives comparative word list

The following symbols and conventions are used in this list:

:	When it follows a vowel, it indicates that the vowel is long.
~	When between two forms, it indicates that they are variants.
?	Indicates that no form was elicited for this item.
empty space	The elicited form is not cognate.
SAW 6 etc.	Indicates item 6 etc. in S. A. Wurm's modified TRIPP list.
hyphens	Indicates suffix and compound noun divisions.
separate alignment	Indicates where there are two cognate sets for the one meaning (as in item 61).

1. 'woman' (SAW 2)

Kailaki	mavi
Agitana	mavi
Senunu	mai
Dagoda	mai
Futinumumu	mayi
Mokonumumu	mai
Fakonama	mayi
Vesilogo	mai
Labuka	mayi
Vaivai	mai
Mesime	mai
Fulimuti	mai

Dagoda	ami(taha)
Futinumumu	ɣami
Mokonumumu	ami
Fakonama	ɣami
Vesilogo	vami
Labuka	ɣami
Vaivai	ɣami
Mesime	vami
Fulimuti	hami

2. 'old (man)' (SAW 3)

Kailaki	yohi
Agitana	yohi
Senunu	yohi
Dagoda	
Futinumumu	yohi
Mokonumumu	yohi
Fakonama	yohi
Vesilogo	yofi
Labuka	yohi
Vaivai	yofi
Mesime	yofi
Fulimuti	yofi

4. 'cousin' (SAW 11c)

Kailaki	kahi-de
Agitana	kahi-de
Senunu	
Dagoda	
Futinumumu	kahi-de
Mokonumumu	
Fakonama	
Vesilogo	
Labuka	
Vaivai	
Mesime	
Fulimuti	

3. 'young boy' (SAW 6)

Kailaki	vami
Agitana	vami
Senunu	

5. 'sib., ss, ygr' (SAW 12a)

Kailaki	vovo-ka
Agitana	vov-e
Senunu	
Dagoda	oɣ-e
Futinumumu	ɣov-e
Mokonumumu	vo-e
Fakonama	ɣov-e

Vesilogo	voi-e	Mesime	fomo (? cf.
Labuka	γoγo	homo	'chest hair')
Vaivai	γo-e	Fulimuti	homo
Mesime	γo-e		
Fulimuti	γo-e		
6. 'he, she, it' (SAW 17)			
Kailaki	ahu	Kailaki	ihi-kone
Agitana	?	Agitana	ihi-kode
Senunu	au	Senunu	ihi-kode
Dagoda	au	Dagoda	ihi-kone
Futinumumu	au	Futinumumu	ihi-kone
Mokonumumu	ahu	Mokonumumu	ihi-kone
Fakonama	ahu	Fakonama	ihi-kone
Vesilogo	ahu	Vesilogo	ihi-kone
Labuka	au	Labuka	ihi-kone
Vaivai	ahu	Vaivai	ihi-kone
Mesime	ahu	Mesime	ihi-kone
Fulimuti	ahu	Fulimuti	ifi-kone
7. 'all' (SAW 24)			
Kailaki	nunuta	Kailaki	evi-ye
Agitana	nuhuta	Agitana	evi-ye
Senunu	nuhuta	Senunu	ei-ye
Dagoda		Dagoda	ei-ye
Futinumumu		Futinumumu	ei-ye
Mokonumumu		Mokonumumu	ei-ye
Fakonama		Fakonama	ei-ye
Vesilogo		Vesilogo	ei-ye
Labuka		Labuka	eyi-ye
Vaivai		Vaivai	ei-ye
Mesime		Mesime	ei-ye
Fulimuti		Fulimuti	ei-ye
8. 'hair (of head)' (SAW 26)			
Kailaki	homo	Kailaki	
Agitana	fomo	Agitana	
Senunu	homu	Senunu	aefa-ne
Dagoda	somu	Dagoda	afa-ne
Futinumumu	homo	Futinumumu	eaha-ne
Mokonumumu	homo	Mokonumumu	aiahaia-ne
Fakonama	homo	Fakonama	vaiaha-ne
Vesilogo	fomo	Vesilogo	aiaha-ne
Labuka	homo	Labuka	γaeha-re
Vaivai	fomo (? cf.	Vaivai	aiaha-ne
homo 'chest hair')		Mesime	vaiaha-ne
		Fulimuti	
9. 'ear' (SAW 30)			
10. 'tooth' (SAW 31)			
11. 'jaw' (SAW 33)			

12. 'mouth' (SAW 36)

Kailaki	aua-ve
Agitana	ava-e
Senunu	ava-e
Dagoda	ava-e
Futinumumu	a:-ve
Mokonumu	auva-e
Fakonama	auva-e
Vesilogo	auva-e
Labuka	ava-ye
Vaivai	auva-ve
Mesime	auva-ve
Fulimuti	auva-ve

13. 'palm (of hand)' (SAW 40a)

Kailaki	(ada) uhu-ve
Agitana	(ada) uhu-ve
Senunu	
Dagoda	(ada) u:-ve
Futinumumu	(ada) u:-ve
Mokonumu	(ada) uhu-ke ~foto-ke
Fakonama	(ada) hoto-ke
Vesilogo	(ada) foto-ke
Labuka	(ada) hoto-ke
Vaivai	(ada) foto-ke
Mesime	(ada) foto-ke
Fulimuti	(ada) uhu-ke

14. 'back (of hand)' (SAW 40b)

Kailaki	(ada) hoto-ve
Agitana	?
Senunu	?
Dagoda	(ada) hota
Futinumumu	
Mokonumu	
Fakonama	
Vesilogo	
Labuka	
Vaivai	
Mesime	
Fulimuti	(ada) foto-ke

15. 'finger' (SAW 41)

Kailaki	gohi-niho-ve
Agitana	nihu-ve

Senunu	gohi-ve
Dagoda	nibo-ve
Futinumumu	gobi-nehu-ke
Mokonumu	gobi-nihu-ke
Fakonama	gobi-nihu-ke
Vesilogo	gobi-nihu-ke
Labuka	gobi-ke
Vaivai	gobi-nihu-ke
Mesime	gobi-nihu-ke
Fulimuti	gobi-nihu-ke

16. 'buttocks' (SAW 48)

Kailaki	dehi-ye
Agitana	Senunu
Dagoda	deita-e
Futinumumu	
Mokonumu	
Fakonama	
Vesilogo	dehi-ye
Labuka	dehi-ye
Vaivai	dehi-ye
Mesime	dehi-ye
Fulimuti	defita-ke

17 'leg' (SAW 49)

Kailaki	vahi-ke
Agitana	vahi-ke
Senunu	vahi-ke
Dagoda	
Futinumumu	vai-ke
Mokonumu	vasi-ke
Fakonama	vasi-ke
Vesilogo	
Labuka	
Vaivai	vasi-ke
Mesime	vasi-ke
Fulimuti	vasi-ke

18. 'thigh' (SAW 50)

Kailaki	beha-de
Agitana	
Senunu	
Dagoda	
Futinumumu	
Mokonumu	beha-de
Fakonama	beha-de

Vesilogo	beheda-ne	Mesime	tao-ke
Labuka	beha-de	Fulimuti	tao-ke
Vaivai	behada-ne		
Mesime	behada-ne		
Fulimuti	behada-ne		
19. 'knee' (SAW 51)		22. 'fat (n.)' (SAW 56)	
Kailaki	koha komoko-ve	Kailaki	vui-ke
Agitana		Agitana	vui-ke
Senunu		Senunu	vui-ke
Dagoda		Dagoda	vui-ke
Futinumumu		Futinumumu	vui-ke
Mokonumumu	kofa-ke	Mokonumumu	vui-ke
Fakonama		Fakonama	vui-ke
Vesilogo	kofa-ke	Vesilogo	vui-ke
Labuka	koha-ke	Labuka	vui-ke
Vaivai	koha-ke	Vaivai	vui-ke
Mesime		Mesime	vui-ke
Fulimuti		Fulimuti	vui-ke
20 'skin' (SAW 53)		23. 'bone' (SAW 57)	
Kailaki	vate-ke	Kailaki	ita-he
Agitana	vate-ke	Agitana	ita-he
Senunu	vate-ke	Senunu	
Dagoda	vate-ke	Dagoda	ita-e
Futinumumu	vate-ke	Futinumumu	ita-ge
Mokonumumu	vate-ke	Mokonumumu	ita-he
Fakonama	vate-ke	Fakonama	ita-he
Vesilogo	vate-ke	Vesilogo	eita-he
Labuka	vate-ke	Labuka	ita-e
Vaivai	vate-ke	Vaivai	ita-hane
Mesime	vate-ke	Mesime	ita-he
Fulimuti		Fulimuti	ita-hane
21. 'blood' (SAW 55)		24. 'sun' (SAW 63)	
Kailaki	tavo-ke	Kailaki	vani
Agitana	tavo-ke	Agitana	vani
Senunu	tayo-ke	Senunu	vani
Dagoda	tao-ke	Dagoda	vani
Futinumumu	tao-ke	Futinumumu	vani
Mokonumumu	tao-ke	Mokonumumu	vani
Fakonama	tavo-ke	Fakonama	vani
~ tayo-ke (?)		Vesilogo	vani
Vesilogo	tao-ke	Labuka	vani
Labuka	tayo-ke	Vaivai	vani
Vaivai	tao-ke	Mesime	vani
		Fulimuti	vani

25. 'sky' (SAW66)

Kailaki	va
Agitana	va
Senunu	va
Dagoda	va
Futinumumu	va
Mokonumumu	va
Fakonama	va
Vesilogo	va
Labuka	va-hata
Vaivai	va-hata
Mesime	va-fata
Fulimuti	va-fata

26. 'rain' (SAW 69)

Kailaki	veni
Agitana	veni
Senunu	veni
Dagoda	veni
Futinumumu	veni
Mokonumumu	
Fakonama	
Vesilogo	
Labuka	
Vaivai	
Mesime	
Fulimuti	

27. 'night' (SAW 70)

Kailaki	vaubu
Agitana	
Senunu	va:bu
Dagoda	vaubu
Futinumumu	vaubu
Mokonumumu	vaubu
Fakonama	vaubu
Vesilogo	
Labuka	vaubu
Vaivai	vaubu
Mesime	vaubu
Fulimuti	vaubu

28. 'morning' (SAW 72)

Kailaki	vararati
Agitana	vararati
Senunu	varara

Dagoda	vararata
Futinumumu	va:rati
Mokonumumu	vararati
Fakonama	vararata
Vesilogo	vararata
Labuka	vararata
Vaivai	vararata
Mesime	vararata
Fulimuti	vararata

29. 'evening' (SAW73)

Kailaki	vamaba
Agitana	vafota
Senunu	vahote
Dagoda	vahota
Futinumumu	vafota
Mokonumumu	vahota
Fakonama	vahota
Vesilogo	vahota
Labuka	vahota
Vaivai	vahota
Mesime	vahota
Fulimuti	vahota

30. 'ground' (SAW 77)

Kailaki	vata
Agitana	vata
Senunu	vata
Dagoda	vata
Futinumumu	vata
Mokonumumu	vata
Fakonama	vata
Vesilogo	vata
Labuka	vata
Vaivai	vata
Mesime	vata
Fulimuti	vata

31. 'sand' (SAW79)

Kailaki	heu
Agitana	sivuta
Senunu	
Dagoda	
Futinumumu	
Mokonumumu	
Fakonama	sagita
Vesilogo	saguta

- | | | | |
|----------|--------|--|--|
| Labuka | | | |
| Vaivai | siguta | | |
| Mesime | sagita | | |
| Fulimuti | sagita | | |
32. 'fence' (SAW 83)
- | | | | |
|------------|------|--|--|
| Kailaki | vara | | |
| Agitana | vara | | |
| Senunu | ? | | |
| Dagoda | ara | | |
| Futinumumu | ara | | |
| Mokonumu | ɣara | | |
| Fakonama | vara | | |
| Vesilogo | ara | | |
| Labuka | ɣara | | |
| Vaivai | ara | | |
| Mesime | vara | | |
| Fulimuti | hara | | |
33. 'wind' (SAW 84)
- | | | | |
|------------|-------------|--|--|
| Kailaki | hihi | | |
| Agitana | fi: | | |
| Senunu | fifi | | |
| Dagoda | fi: | | |
| Futinumumu | fi: | | |
| Mokonumu | fifi | | |
| Fakonama | fifi | | |
| Vesilogo | fifi | | |
| Labuka | hi: | | |
| Vaivai | fifi ~ fifi | | |
| Mesime | fifi | | |
| Fulimuti | fifi | | |
34. 'fire (smoke)' (SAW 87)
- | | | | |
|------------|------|--|--|
| Kailaki | vene | | |
| Agitana | vene | | |
| Senunu | vene | | |
| Dagoda | vene | | |
| Futinumumu | vene | | |
| Mokonumu | vene | | |
| Fakonama | vene | | |
| Vesilogo | vene | | |
| Labuka | vene | | |
| Vaivai | vene | | |
| Mesime | vene | | |
| Fulimuti | vene | | |
35. 'ashes' (SAW 88)
- | | | | |
|------------|-------|--|--|
| Kailaki | utuvu | | |
| Agitana | utuvu | | |
| Senunu | utuvu | | |
| Dagoda | utuvu | | |
| Futinumumu | utuvu | | |
| Mokonumu | utuva | | |
| Fakonama | utuvo | | |
| Vesilogo | utuvo | | |
| Labuka | utovo | | |
| Vaivai | utovo | | |
| Mesime | utovo | | |
| Fulimuti | utovo | | |
36. 'trunk of tree' (SAW 91)
- | | | | |
|------------|--------------|--|--|
| Kailaki | idi hataka | | |
| Agitana | | | |
| Senunu | | | |
| Dagoda | | | |
| Futinumumu | | | |
| Mokonumu | | | |
| Fakonama | | | |
| Vesilogo | idi hata | | |
| Labuka | | | |
| Vaivai | idi fatanaka | | |
| Mesime | | | |
| Fulimuti | idi fatanaka | | |
37. 'fruit' (SAW 97)
- | | | | |
|------------|---------|--|--|
| Kailaki | taha-ka | | |
| Agitana | taha-ka | | |
| Senunu | taha-ka | | |
| Dagoda | ta: | | |
| Futinumumu | taha-ka | | |
| Mokonumu | ta:-ka | | |
| Fakonama | taha | | |
| Vesilogo | taha | | |
| Labuka | ta:-ka | | |
| Vaivai | taha-ka | | |
| Mesime | ? | | |
| Fulimuti | taha-ka | | |
38. 'taro' (SAW 100)
- | | | | |
|---------|------|--|--|
| Kailaki | vadu | | |
| Agitana | vadu | | |
| Senunu | vadu | | |

- | | | | |
|------------|------|----------|-----|
| Dagoda | vadu | Vesilogo | ufi |
| Futinumumu | vadu | Labuka | γui |
| Mokonumu | vadu | Vaivai | uhi |
| Fakonama | vadu | Mesime | ? |
| Vesilogo | vadu | Fulimuti | uhi |
| Labuka | vadu | | |
| Vaivai | vadu | | |
| Mesime | ? | | |
| Fulimuti | vadu | | |
39. 'yam' (SAW 101a)
- | | | | |
|------------|--------|--|--|
| Kailaki | vabahu | | |
| Agitana | vabahu | | |
| Senunu | ? | | |
| Dagoda | abau | | |
| Futinumumu | abau | | |
| Mokonumu | γabahu | | |
| Fakonama | vabahu | | |
| Vesilogo | vabahu | | |
| Labuka | γabahu | | |
| Vaivai | ? | | |
| Mesime | ? | | |
| Fulimuti | habahu | | |
40. 'yam' (SAW 101b - maho)
- | | | | |
|------------|------|--|--|
| Kailaki | hago | | |
| Agitana | | | |
| Senunu | sago | | |
| Dagoda | | | |
| Futinumumu | | | |
| Mokonumu | | | |
| Fakonama | | | |
| Vesilogo | sago | | |
| Labuka | | | |
| Vaivai | | | |
| Mesime | | | |
| Fulimuti | | | |
41. 'banana' (SAW 102)
- | | | | |
|------------|------|--|--|
| Kailaki | uhi | | |
| Agitana | uhi | | |
| Senunu | vuhi | | |
| Dagoda | ui | | |
| Futinumumu | ui | | |
| Mokonumu | ufi | | |
| Fakonama | ufi | | |
42. 'pandanus' (SAW 104)
- | | | | |
|------------|------|--|--|
| Kailaki | vani | | |
| Agitana | vani | | |
| Senunu | | | |
| Dagoda | | | |
| Futinumumu | | | |
| Mokonumu | γani | | |
| Fakonama | vai | | |
| Vesilogo | ani | | |
| Labuka | | | |
| Vaivai | ani | | |
| Mesime | vani | | |
| Fulimuti | hani | | |
43. 'betel nut' (SAW 105)
- | | | | |
|------------|------|--|--|
| Kailaki | hava | | |
| Agitana | fava | | |
| Senunu | faya | | |
| Dagoda | fa: | | |
| Futinumumu | fa: | | |
| Mokonumu | faya | | |
| Fakonama | fava | | |
| Vesilogo | fava | | |
| Labuka | haya | | |
| Vaivai | fa: | | |
| Mesime | ? | | |
| Fulimuti | fa: | | |
44. 'tanget' (Cordyline fruticosa) (SAW 106)
- | | | | |
|------------|------|--|--|
| Kailaki | vabe | | |
| Agitana | vabe | | |
| Senunu | | | |
| Dagoda | vabe | | |
| Futinumumu | vabe | | |
| Mokonumu | vabe | | |
| Fakonama | vabe | | |
| Vesilogo | vabe | | |
| Labuka | vabe | | |
| Vaivai | vabe | | |

- | | | | |
|----------|------|--|--|
| Mesime | ? | | |
| Fulimuti | vabe | | |
45. 'salt' (SAW 107)
- | | | | |
|------------|-----|--|--|
| Kailaki | eve | | |
| Agitana | eve | | |
| Senunu | eve | | |
| Dagoda | eve | | |
| Futinumumu | eve | | |
| Mokonumumu | eve | | |
| Fakonama | eve | | |
| Vesilogo | eve | | |
| Labuka | eve | | |
| Vaivai | eve | | |
| Mesime | eve | | |
| Fulimuti | eve | | |
46. 'pig' (SAW 109)
- | | | | |
|------------|-----|--|--|
| Kailaki | oho | | |
| Agitana | oho | | |
| Senunu | oho | | |
| Dagoda | vo: | | |
| Futinumumu | o: | | |
| Mokonumumu | oho | | |
| Fakonama | oho | | |
| Vesilogo | ofu | | |
| Labuka | oho | | |
| Vaivai | oho | | |
| Mesime | ? | | |
| Fulimuti | oho | | |
47. 'fur' (SAW 111) 'feather' (SAW 113)
- | | | | |
|------------|------------|--|--|
| Kailaki | homo-ka | | |
| Agitana | fomo | | |
| Senunu | homu | | |
| Dagoda | somu | | |
| Futinumumu | homo | | |
| Mokonumumu | fomo | | |
| Fakonama | homo | | |
| Vesilogo | fomo | | |
| Labuka | homo | | |
| Vaivai | homo~ fomo | | |
| Mesime | ? | | |
| Fulimuti | homo~fomo | | |
48. 'butterfly' (SAW 121)
- | | | | |
|------------|--------------|--|--|
| Kailaki | avako | | |
| Agitana | vavako | | |
| Senunu | afoka | | |
| | (metathesis) | | |
| Dagoda | afoka | | |
| | (metathesis) | | |
| Futinumumu | afoka | | |
| | (metathesis) | | |
| Mokonumumu | avako | | |
| Fakonama | avako | | |
| Vesilogo | avako | | |
| Labuka | γahoka | | |
| | (metathesis) | | |
| Vaivai | ? | | |
| Mesime | ? | | |
| Fulimuti | ? | | |
49. 'string, rope' (SAW 125)
- | | | | |
|------------|-------------|--|--|
| Kailaki | vote | | |
| Agitana | vote | | |
| Senunu | ote | | |
| Dagoda | ote | | |
| Futinumumu | ote | | |
| Mokonumumu | γote | | |
| Fakonama | γote ~ vote | | |
| Vesilogo | vote | | |
| Labuka | γote | | |
| Vaivai | ote | | |
| Mesime | vote | | |
| Fulimuti | hote | | |
- 50 'sick' (SAW 135)
- | | | | |
|------------|-------------|--|--|
| Kailaki | | | |
| Agitana | | | |
| Senunu | | | |
| Dagoda | | | |
| Futinumumu | | | |
| Mokonumumu | fufu-vanu | | |
| Fakonama | fufu-vanu | | |
| Vesilogo | fufu-vanu | | |
| Labuka | huhu-vanu | | |
| Vaivai | fufu-vanu | | |
| | ~ huhu-vanu | | |
| Mesime | fufu-vanu | | |
| Fulimuti | fufu-vanu | | |

51. 'hungry' (SAW 136)

Kailaki	vavi
Agitana	vavi
Senunu	vavi
Dagoda	vavi
Futinumumu	vavi
Mokonumumu	vaiva
Fakonama	vaiva
Vesilogo	vaiva
Labuka	
Vaivai	?
Mesime	?
Fulimuti	vai

52. 'quick' (SAW 147)

Kailaki	soreka
Agitana	
Senunu	
Dagoda	
Futinumumu	
Mokonumumu	soraka
Fakonama	soreka
Vesilogo	soreka
Labuka	soraka
Vaivai	soreka
Mesime	?
Fulimuti	soreka

53. 'old (house)' (SAW 148)

Kailaki	subuta
Agitana	
Senunu	
Dagoda	
Futinumumu	subita
Mokonumumu	subuta
Fakonama	subita
Vesilogo	subita
Labuka	subita
Vaivai	subuta
Mesime	?
Fulimuti	subuta

54. 'new (house)' (SAW 149)

Kailaki	ihava
Agitana	isava
Senunu	

Dagoda	isaya
Futinumumu	isava
Mokonumumu	isava
Fakonama	isaeva
Vesilogo	isae
Labuka	isaye
Vaivai	isae
Mesime	?
Fulimuti	isae

55. 'left hand' (SAW 152)

Kailaki	vagada
Agitana	vageda
Senunu	vageda
Dagoda	
Futinumumu	vageda
Mokonumumu	veteta
Fakonama	veteta
Vesilogo	vagade
Labuka	vageda
Vaivai	vayade
Mesime	
Fulimuti	

56. 'speak' (SAW 157c)

Kailaki	voto-vanu
Agitana	?
Senunu	?
Dagoda	oto-vanu
Futinumumu	?
Mokonumumu	γoto-vanu
Fakonama	voto-vanu
Vesilogo	voto-vanu
Labuka	γoto-vanu
Vaivai	?
Mesime	?
Fulimuti	?

57. 'hit' (SAW 165)

Kailaki	vama
Agitana	vama
Senunu	ama
Dagoda	ama
Futinumumu	ama
Mokonumumu	γama
Fakonama	γama

Vesilogo	vama	Mesime	?
Labuka	ɣama	Fulimuti	?
Vaivai	ɣama		
Mesime	vama		
Fulimuti	hama		
58. 'hear' (SAW 172)			
Kailaki	uhia-manu		
Agitana	?		
Senunu	uia-manu		
Dagoda	uia-manu		
Futinumumu	uia-manu		
Mokonumumu	uhia-manu		
Fakonama	uhia-manu		
Vesilogo	ufia-manu		
Labuka	uhia-manu		
Vaivai	?		
Mesime	?		
Fulimuti	?		
59. 'blow (fire)' (SAW 176)			
Kailaki	uhito-vahi-		
Agitana	uhito-ha-		
Senunu	fui-		
Dagoda	hui-		
Futinumumu	u-hanu		
Mokonumumu	?		
Fakonama	ufu-vanu		
Vesilogo	ufa-nu		
Labuka	hui-van		
Vaivai	?		
Mesime	?		
Fulimuti	?		
60. 'afraid' (SAW 179)			
Kailaki	hivi		
Agitana	si:		
Senunu	sivo		
Dagoda	sigo		
Futinumumu	si:		
Mokonumumu	?		
Fakonama	siɣo		
Vesilogo	sivo		
Labuka	sigo		
Vaivai	?		
61. 'look for' (SAW 184)			
Kailaki	vohi-		
Agitana	voho-		
Senunu	sau-		
Dagoda	sau-		
Futinumumu	sao-		
Mokonumumu	?		
Fakonama	voho-		
Vesilogo	ofo-		
Labuka	sau-		
Vaivai	oho		
Mesime	vohi-		
Fulimuti	?		
62. 'come' (SAW 188)			
Kailaki	orovo-		
Agitana	orovo-		
Senunu	orovc-		
Dagoda	orovo-		
Futinumumu	oroɣo-		
Mokonumumu	?		
Fakonama	orovo-		
Vesilogo	orovo-		
Labuka	royo-		
Vaivai	?		
Mesime	?		
Fulimuti	?		
63. 'go up' (SAW 189)			
Kailaki	vadi-		
Agitana	vadi-		
Senunu	adi-		
Dagoda	adi-		
Futinumumu	adi-		
Mokonumumu	?		
Fakonama	vadi-		
Vesilogo	vadi-		
Labuka	ɣadi-		
Vaivai	?		
Mesime	?		
Fulimuti	?		

64. 'go down' (SAW 190)

Kailaki	vor-
Agitana	vor-
Senunu	
Dagoda	
Futinumumu	
Mokonumu	?
Fakonama	vor-
Vesilogo	vor-
Labuka	γoro-
Vaivai	?
Mesime	?
Fulimuti	?

65. 'turn around, spin' (SAW 191)

Kailaki	vobara-
Agitana	vobara-
Senunu	ora-
Dagoda	?
Futinumumu	vobara-
Mokonumu	?
Fakonama	vobara-
Vesilogo	vobara-
Labuka	
Vaivai	?
Mesime	?
Fulimuti	?

66. 'shoot' (SAW 198)

Kailaki	bidi-vanu
Agitana	bidi-vanu
Senunu	bidi-vanu
Dagoda	pidi-vanu
Futinumumu	pidi-vanu
Mokonumu	?
Fakonama	bidi-vanu
Vesilogo	bidi-vanu
Labuka	pidi-vanu
Vaivai	?
Mesime	?
Fulimuti	?

67. 'bite' (SAW 199)

Kailaki	uva-vanu
Agitana	
Senunu	

Dagoda	
Futinumumu	
Mokonumu	?
Fakonama	uva-vanu
Vesilogo	uva-vanu
Labuka	
Vaivai	?
Mesime	?
Fulimuti	?

68. 'chop' (SAW 202)

Kailaki	aha-
Agitana	aha-
Senunu	
Dagoda	
Futinumumu	a:-
Mokonumu	?
Fakonama	aha-
Vesilogo	aha-
Labuka	
Vaivai	?
Mesime	?
Fulimuti	?

69. 'split (wood)' (SAW 203)

Kailaki	haki-
Agitana	faki-
Senunu	?
Dagoda	faki-
Futinumumu	haki-
Mokonumu	?
Fakonama	faki- ~ haki-
Vesilogo	faki-
Labuka	haki-
Vaivai	?
Mesime	?
Fulimuti	?

70. 'name' (SAW 204)

Kailaki	ihi
Agitana	ihi
Senunu	sika
Dagoda	isi
Futinumumu	isi
Mokonumu	ihi
Fakonama	ihi

Vesilogo	ifi	Mesime	rodo-honu
Labuka	isi	Fulimuti	?
Vaivai	?		
Mesime	?		
Fulimuti	?		
71. 'pain' (SAW 205)		74. 'other' (SAW 216)	
Kailaki	vani-	Kailaki	vaita
Agitana	vani-	Agitana	vaita
Senunu	?	Senunu	aita
Dagoda	ani	Dagoda	
Futinumumu	ani	Futinumumu	
Mokonumumu	?	Mokonumumu	?
Fakonama	fufu-	Fakonama	vaita
Vesilogo	fufu-	Vesilogo	vaita
Labuka	huhu-	Labuka	ɣata
Vaivai	?	Vaivai	?
Mesime	fufu-	Mesime	?
Fulimuti	?	Fulimuti	?
72. 'thin' (SAW 207)		75. 'heavy' (SAW 217)	
Kailaki	aheka	Kailaki	ehu-
Agitana	?	Agitana	?
Senunu	?	Senunu	euta-
Dagoda		Dagoda	yeuta-
Futinumumu	aeka	Futinumumu	euta-
Mokonumumu	?	Mokonumumu	?
Fakonama	fanafana	Fakonama	esu-
Vesilogo	fanafana	Vesilogo	isu-
Labuka	hanahana	Labuka	eu-
Vaivai	?	Vaivai	isu-
Mesime		Mesime	esu-
Fulimuti	?	Fulimuti	?
73. 'dry (creek)' (SAW 215b)		76. 'swell up' (SAW 220)	
Kailaki	rodo-hunu	Kailaki	hurarahu-
Agitana	rodo-honu	Agitana	?
Senunu	?	Senunu	urara-
Dagoda	odo-unu	Dagoda	irora-
Futinumumu	lodo-unu	Futinumumu	irera-
Mokonumumu	?	Mokonumumu	?
Fakonama	rodo-honu	Fakonama	furaraha-
Vesilogo	rodo-hunu	Vesilogo	furarahu-
Labuka	ɣodo-unu	Labuka	uraya-
Vaivai	?	Vaivai	?
		Mesime	?
		Fulimuti	?

77. 'dig (hole)' (SAW 224)

Kailaki	roho-
Agitana	?
Senunu	
Dagoda	roho-
Futinumumu	roho-
Mokonumu	?
Fakonama	rohi-
Vesilogo	roho-
Labuka	roho-
Vaivai	?
Mesime	?
Fulimuti	?

78. 'sweat' (SAW 225)

Kailaki	huhune-vanu
Agitana	?
Senunu	hune-vanu
Dagoda	
Futinumumu	sune-vanu
Mokonumu	?
Fakonama	fufune-vanu
Vesilogo	fufune-vanu
Labuka	huina-vanu
Vaivai	?
Mesime	?
Fulimuti	?

79. 'what' (SAW 233)

Kailaki	vadibe ~vadube
Agitana	?
Senunu	vadu
Dagoda	vadu
Futinumumu	vada
Mokonumu	?
Fakonama	vadibe
Vesilogo	vadibe
Labuka	vadu
Vaivai	?
Mesime	?
Fulimuti	?

80. 'where at?' (SAW 234)

Kailaki	ore-he
Agitana	?
Senunu	ore-he

Dagoda	ore-he
Futinumumu	ore:
Mokonumu	?
Fakonama	bare-he
Vesilogo	bare-he
Labuka	ore:
Vaivai	?
Mesime	?
Fulimuti	?

81. 'when' (SAW 235)

Kailaki	vahute-he
Agitana	?
Senunu	vaute-e
Dagoda	vaute-e
Futinumumu	vaute-e
Mokonumu	?
Fakonama	veute-he
Vesilogo	veute-he
Labuka	vaute-va
Vaivai	?
Mesime	?
Fulimuti	?

82. 'together with' (SAW 280)

Kailaki	vore
Agitana	?
Senunu	?
Dagoda	
Futinumumu	vore
Mokonumu	?
Fakonama	vore
Vesilogo	?
Labuka	γore
Vaivai	?
Mesime	?
Fulimuti	?

83. 'fight' (SAW 281)

Kailaki	varaha-
Agitana	?
Senunu	araya-
Dagoda	araia-
Futinumumu	araia-
Mokonumu	?
Fakonama	varaha-
Vesilogo	varaha-

Labuka	ɣararu-	Dagoda	veite ~ vehite
Vaivai	?	Futinumumu	veite
Mesime	?	Mokonumumu	veite
Fulimuti	?	Fakonama	veote
		Vesilogo	veite
84. 'sharp (point)' (SAW 282a)		Labuka	veite
Kailaki	veitoka	Vaivai	?
Agitana	?	Mesime	veite
Senunu	vetoka	Fulimuti	?
Dagoda	feitoka		
Futinumumu	veitoka	87. 'wife's brother' (SAW -)	
Mokonumumu	?	Kailaki	hiba
Fakonama	veito	Agitana	?
Vesilogo	veitoka	Senunu	?
Labuka	hetoka	Dagoda	siba
Vaivai	?	Futinumumu	?
Mesime	?	Mokonumumu	?
Fulimuti	?	Fakonama	?
		Vesilogo	?
85. 'sharp (blade)' (SAW 282b)		Labuka	?
Kailaki	vanika	Vaivai	?
Agitana	?	Mesime	?
Senunu	?	Fulimuti	?
Dagoda	anika		
Futinumumu	vanika ~ ɣanika	88. 'axe' (SAW -)	
Mokonumumu	?	Kailaki	vuma
Fakonama	vanika	Agitana	?
Vesilogo	anika	Senunu	?
Labuka	ɣanika	Dagoda	?
Vaivai	?	Futinumumu	?
Mesime	?	Mokonumumu	?
Fulimuti	?	Fakonama	vuma
		Vesilogo	?
86. 'not' (SAW 292)		Labuka	?
Kailaki	vehite	Vaivai	uma
Agitana	?	Mesime	uma
Senunu	weise	Fulimuti	huma

Appendix 2: Koiari fricative correspondences

*v

	Kai	Agi	Sen	Dag	Fut	Mok	Fak	Ves	Lab	Vai	Mes	Ful	Item/s
<i>Initial</i>	v	v	v	v	v	v	v	v	v	v	v	v	20, 22, 24, 25, 28, 29, 30, 34
	v	v	v	v	v								26
	v		v	v	v	v	v		v	v	v	v	27
	v	v	v	v	v	v	v	v	v	v	?	v	38
	v	v		v	v	v	v	v	v	v	?	v	44
	v	v	v	v	v	v	v	v		?	?	v	51
	v	v	v		v	v	v	v	v	v			55
	v	v				?	v	∅		∅	v	?	61 (vohi-)
	v	?	v	v	v	?	v	v	v	?	?	?	79, 81
	v	?	v	v	v	v	v	v	v	?	v	?	86
<i>Medial</i>	∅	v	v	v	∅	v	v	v	v	v	v	v	12
	v	v	v	v	v	v	v	v	v	v	v	v	35
	v	v	v	v	v	v	v	v	v	v	v	v	45
	v	v	v	v	v	v	v	v		?	?		51
	v	v	v	v	v	?	v	v	v	?	?	?	66
	v					?	v	v		?	?	?	67

*γ

	Kai	Agi	Sen	Dag	Fut	Mok	Fak	Ves	Lab	Vai	Mes	Ful	Item/s
<i>Initial</i>	v	v		∅	γ	∅	γ	v	γ	γ	v	h	3
	v	v		∅	γ	v	γ	v	γ	γ	γ	γ	5
	v	v	?	∅	∅	γ	v	∅	γ	∅	v	h	32
	v	v	?	∅	∅	γ	v	v	γ	?	?	h	39
	v	v				γ	v	∅		∅	v	h	42
	v	v	∅	∅	∅	γ	γ/v	v	γ	∅	v	h	49
	v	?	?	∅	?	γ	v	v	γ	?	?	?	56
	v	v	∅	∅	∅	γ	γ	v	γ	γ	v	h	57
	v	v	∅	∅	∅	?	v	v	γ	?	?	?	63
	v	v				?	v	v	γ	?	?	?	64
	v	v	∅	?	v	?	v	v		?	?	?	65
	v	v	?	∅	∅	?				?		?	71
	v	v	∅			?	v	v	γ	?	?	?	74
	v	?	?		v	?	v	?	γ	?	?	?	82
	v	?	∅	∅	∅	?	v	v	γ	?	?	?	83
	v	?	v	f	v	?	v	v	h	?	?	?	84
	v	?	?	∅	v/γ	?	v	∅	γ	?	?	?	85
	v	?	?	?	?	?	v	?	?	∅	∅	h	88

<i>Medial</i>	v	∅	∅	γ	∅	γ	∅	γ	∅	∅	∅	1
	v	v		γ	v	∅	v	∅	γ	∅	∅	5
	v	v	∅	∅	∅	∅	∅	∅	γ	∅	∅	10
	v	v	γ	∅	∅	∅	v/γ?	∅	γ	∅	∅	21
	v	v	γ	∅	∅	γ	v	v	γ	∅	?	43
	v	v				v	v	v		?	?	48
	v	v		γ	v	v	v	∅	γ	∅	?	54
	v	v	v	v	γ	?	v	v	γ	?	?	62

***h**

	Kai	Agi	Sen	Dag	Fut	Mok	Fak	Ves	Lab	Vai	Mes	Ful	Item/s
<i>Initial</i>	h	f	h	s	h	h	h	f	h	f/h	f/h	h	8
						f	h	f	h	f	f		13
	h	?	?	h								f	14
	h	f	f	f	f	f	f	f	h	f	f	f	33
	h							h		f		f	36
	h	f	f	f	f	f	f	f	h	f	?	f	43
	h	f	h	s	h	f	h	f	h	h/f	?	h/f	47
						f	f	f	h	f/h	f	f	50
	h	f	?	f	h	?	f/h	f	h	?	?	?	69
							f	f	h	?	f	?	71
							f	f	h				72 (fanafana)
	h	?	∅	∅	∅	?	f	f	∅	?	?	?	76

<i>Medial</i>	h	h	h		h	h	h	f	h	f	f	f	2
	h	h			h								4
	h	?	∅	∅	∅	h	h	h	∅	h	h	h	6
	n	h	h										7
	h	h	h	h	h	h	h	h	h	h	h	f	9
			f	f	h	h	h	h	h	h	h		11
	h	h		∅	∅	h						h	13
	h	h		b	h	h	h			h	h	h	15
	h			∅				h	h	h	h	f	16
	h					h	h	h	h	h	h	h	18
	h					f		f	h	h			19
	h	h		∅	g	h	h	h	∅	h	h	h	23
		f	h	h	f	h	h	h	h	h	h	h	29
	h	∅	h	∅	∅	h	h	f	∅	h/f	f	f	33
	h	h	h	∅	h	∅	h	h	∅	h	?	h	37
	h	h	?	∅	∅	h	h	h	h	?	?	h	39
	h	h	h	∅	∅	f	f	f	∅	h	?	h	41
	h	h	h	∅	∅	h	h	f	h	h	?	h	46
			f	f	f				h				48 (metathesis)
						f	f	f	h	f/h	f	f	50
	h	?	∅	∅	∅	h	h	f	h	?	?	?	58
	h	h	f	h	∅	?	f	f	h	?	?	?	59
	h	h			∅	?	h	h		?	?	?	68
							f	f	h		f		71
	h	?	?		∅	?				?		?	72 (aheka)
							f	f	h				72 (fanafana)
	h	h	?	∅	∅	?	h	h	∅	?	h	?	73
	h	?		h	h	?	h	h	h	?	?	?	77
	h	?	h	h	∅	?	h	h	∅	?	?	?	80

***s**

	Kai	Agi	Sen	Dag	Fut	Mok	Fak	Ves	Lab	Vai	Mes	Ful	Item/s
<i>Initial</i>	h	s					s	s		s	s	s	31
	h		s					s					40
	s					s	s	s	s	s	?	s	52
	s				s	s	s	s	s	s	?	s	53
	h	s	s	s	s	?	s	s	s	?	?	?	60
			s	s	s	?			s			?	61 (sau-)
	h	?	?	s	?	?	?	?	?	?	?	?	87
<i>Medial</i>	h	h	h		∅	s	s			s	s	s	17
	h	s		s	s	s	s	s	s	s	?	s	54
	h	h	s	s	s	h	h	f	s	?	?	?	70
	h	?	∅	∅	∅	?	s	s	∅	s	s	?	75

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9

The Kháng Language of Vietnam in Comparison to Ksingmul (Xinh-mun)

Jerold A. Edmondson

ABSTRACT

This paper compares two minority languages from northern Vietnam about which very little is known. The aim here is preliminary documentation of some of the very basic features. The Kháng data are based on my own field study and those from Ksingmul and Bumang are taken from sources which are in Russian and Chinese respectively. I have included a relatively rich lexical sample of Kháng and compared items to Ksingmul, Bumang, and other relevant languages. The paper closes with a plot of the tone trajectories of Kháng.

1 Introduction and background

Vietnam is a multilingual, multiethnic country with 53 minority nationalities as well as the Kinh (Vietnamese) majority (cf. Jerold Edmondson and Kenneth Gregerson (2007)).¹ Minority ethnicities make up about ten percent of an overall population of eighty-six million (2008 est. by www.airninja.com). The linguistic families resident in Vietnam are: MON-KHMER (Vietnamese, Mường, Khmu (Km), Ksingmul (Ks), Kháng (Kh), Bahnaric languages, and many others), TAI and KADAI (Tày, Black Thái and White Thái, and perhaps twenty more), SINO-TIBETAN (Chinese of various types, and several Tibeto-Burman languages), and AUSTRONESIAN (Cham and many in the southern Highlands).²

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²In Vietnam the large SW Tai groups are called Thái in Vietnamese to distinguish them from the large Central Tai groups, which are referred to as Tày and Nùng and who live to the north and east of the Red River.

The linguistic features of these families differ in many ways, but differences of word structure are diagnostic in most cases. For Mon-Khmer languages, word shapes have (or had) a sequence format of weak-syllable (with reduction of vocalic and prosodic features) + strong-syllable (with maximum vowel and prosody differences), which James Matisoff (1973) called *sesquisyllabic*, as if the family preferred a unit of a syllable-and-a-half. A good example of sesquisyllabism is the ethnonym of the Khmu people, which differs across different varieties and styles of this large ethnicity. A common form is /kəm.mú?/, or phonetically [kəm.mú?] ~ [kəm.mú?] ~ [kəm.mú?] (cf. Jan-Olaf Svantesson (1989) as well as Svantesson and Karlsson (2004)). Svantesson and Karlsson report that Northern Khmu possesses about one hundred different possible minor syllables, e.g., /pn p pl pr t tm tn t tl tr c cm cn c cl cr k km kn kl kr .../. Vocabulary in Tai languages is mostly monosyllabic. Clusters with second element /l r/ are assumed but are now rapidly disappearing. Chinese was once monosyllabic but has become disyllabic today; it does not allow clusters; and finally, Austronesian languages are polysyllabic in word shape. As will be shown below, the Tai Branch has had considerable influence on Kháng, some influence on Ksingmul, and less on Khmu. Indeed, the contact situation between Khmuic and Tai languages has been intense for the last thousand years or so.

Among the Tai Branch, the languages with which the Kháng and Ksingmul have had extensive contact are Black Thái and White Thái. According to Fang Kuei Li (1977), the Black Thái and White Thái languages belong to the Southwestern Tai Subbranch. These people are large in population (1.1 million) and are comparatively recent immigrants (AD 1100 from China) to northwest Vietnam, where the indigenous Kháng and Ksingmul had once been settled. Such SW Tai languages all have five or six tone categories, possess long vowels in open syllables, and have long or short syllables (including reflexes of proto-diphthongs /ia wa ua/) in closed syllables, i.e., those ending in /-p -t -k -m -n -ŋ -w -j/ (cf. Michel Ferlus (2008)). Also see Li (1977) for information about the Tai proto-tone categories *A, *B, *C, *DS, and *DL.

This paper is devoted to exemplifying the main linguistic features of Kháng and comparing them to Ksingmul. We will also give some initial evidence regarding the origin of tonality in Kháng and present preliminary findings that both of these are members of the Khmuic Subbranch, though a detailed study of tonality and affiliation cannot be attempted here. This statement of the lexical features of the Kháng of Vietnam does not as yet permit firm conclusions without the study of more Kháng locations and speakers. An important point of comparison to my study is that of Dao Jie (2006, 2007), who has recently reported on the Bumang (Bm), a group that is descended of 19th century Kháng immigrants from Vietnam now residing in Jinping County just over the international frontier in China.³

³I am indebted to Prof. Eugene Chan 陳西林 of Hong Kong who informed me of Professor Dao Jie 刁洁 of Yunnan University of Nationalities, Kunming and of her work on the *Bumang* 布芒 of Jinping County 金平县 Mianla Xiazhai and Mianla Shangzhai 勐拉地区曼仗下寨和曼仗上寨两个村子. Though this group is officially regarded as Tai, they speak a variety of Kháng.

The Kháng language is spoken in NW Vietnam, mostly along the course of the Black River (Sông Đà) in and around Thuận Châu, Quỳnh Nhai, and Mường La Districts of Sơn La Province as well as in and around Phong Thổ, Mường Lay, Mường Tè, Tuần Giáo, and Than Uyên Districts of Lai Châu Province. They had an official population of 10,272 in 1999. In Vietnam the Kháng people are treated as a distinct ethnicity but are related to the Ksingmul (Xinh-Mul/Mun), who live just south of Điện Biên and elsewhere along the course of the Black River (cf. maps 1a-d and Pram et al. (1990)).

The field study for this paper was undertaken in 1996 with consultant help of Mr. Hoàng Văn Ế of Bản Ná Lai village, Than Uyên District (cf. map 1c).⁴ In this and adjacent areas of Vietnam's Black River we saw many Khmu as well as White Thái and Black Thái settlements. For that reason, our speaker and the Kháng and Ksingmul languages and cultures generally have experienced much influence from SW Tai peoples in regard to native dress, cultural values, and linguistic features. Specifically, the clothing of the Bumang, Kháng, and Ksingmul women are identical to those of Black Thái and White Thái women (long black skirt with a long sleeved blouse and eight silver buttons from navel to neckline). In regard to language, Kháng and Ksingmul use mostly White/Black Thái numerals, e.g., *hok*⁴⁴ 'six', *tɕɛt*^{24?} 'seven', *kvu*¹² 'nine', as well some distinctive SW Tai higher numerals, *sau*⁵¹ 'twenty' and *hɔi*²¹ 'hundred' that are not found in Central and Northern Tai varieties. They also use some Tai animal names, *?bu.poi*⁴⁴ for the barking deer (*Muntiacus muntjak*) and *?bu.piŋ*⁴⁴ for the wet leech (*Rhyncobdellida*). There are also a few examples of Tai loans for body parts, metals (gold, silver, iron, and copper), meat, tree, cave, etc. (cf. below for details). But the Kháng and Ksingmul were not always under the influence of powerful Thái neighbors.

The origins of these ethnicities are still somewhat nebulous, but genetic studies (cf. Reddy et al. 2007) support the claim that the Khasi-khmuic group arose in Meghalaya State, India, about 25k-40k year BP (before the present). Genetic mutations of the Khasi-Khmu DNA showed about twenty-five percent new haplogroups (M48, M49, M50, M31c and M33b), which has not been reported so far from any of the Northeast Indian groups except Garo, a Tibeto-Burman language. Garo, a Tibeto-Burman speaking group which has M48 and M33b with a combined frequency of about seven percent. Thus, from the composition of both the mtDNA (mitochondrial, maternally inherited) and Y chromosome (found only in males, paternally inherited) haplogroups in the Austro-Asiatic Khasi, as a whole, suggests a distinct origin and a separate migration from the Tibeto-Burman groups of this region. If this view is correct and if Kháng and Ksingmul are, indeed, Khmuic languages, then Kháng and Ksingmul are descended from those Khasi-Khmuic (Khs-Km) clades who trekked from NE India, across Myanmar, Thailand, and Laos to northern Vietnam. Map 2, from Kumar et al. (2007), shows a possible scenario. But to understand their

⁴In map 1(c) Than Uyên District belongs to Lào Cai Province, where it was located until the recent change in provincial boundaries. Than Uyên is now a part of Lai Châu Province.

current situation we need to return to NW Vietnam and the history of the Black Thái and White Thái in NW Vietnam.

Maps 1: (a) Provinces of northern Vietnam, (b) Lai Châu, (c) Lào Cai, and (d) Sơn La, showing approximate locations in 1b, 1c, & 1d of the Kháng (purple) and Ksingmul (Xinh-mun) populations (red), according to *Các dân tộc ít người ở Việt Nam* (1978).

Maps from <http://www.angelfire.com/co/hongnam/vnmap.html>

(a) Provinces of northern Vietnam



(b) Lai Châu



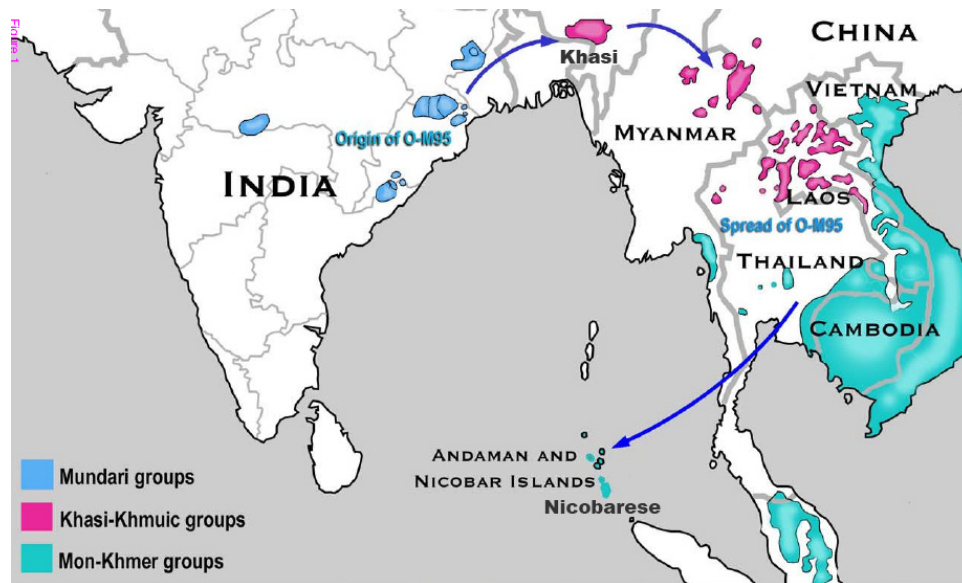
(c) Lào Cai



(d) Sơn La



Map 2: present-day distribution of Austro-Asiatic groups and the schematic representation of the routes of migration of the different Austro-Asiatic linguistic subgroups of India (modified from van Driem 2001)



According to *Các dân tộc ít người ở Việt Nam* (1978:145–146) and Cầm Trọng (1978:15–18, 1992) the Thái precursors were settled along the Sino-Vietnamese border.⁵ During the reign of Lý Thái Tổ (AD 1010) it was reported that in NW Vietnam there were two states called Đàng and Lâm Tây; other materials from AD 1067 mention the groups by name, Ngưu Hồng and Ai Lao. The first of these, Ngưu Hồng, is identified in later sources as denoting a Thái ethnicity. From such old chronicles it is presumed that by the eleventh or twelfth century Thái pioneers had entered Vietnam. In the thirteenth century they settled along the Sông Đà (Black River), fragmenting the autochthonous people and language groups including the Khmu, Ksingmul, Kháng, Mảng, and La Ha into scattered settlements. The Thái advanced west-to-east in each of the following centuries: in the Trần Dynasty (AD 1225-1400) they reached Thuận Châu (cf. map 1d); by the fifteenth century, Mộc Châu (cf. map 1d); by the nineteenth century they were as far east as Tuyên Quang Province (cf. map 1a).

In those early times, the Tai people groups had the custom of calling neighboring ethnicities, especially Mon-Khmer groups, by the terms *Kha* or *Xá* usually accompanied by another descriptor (cf. Frank Proschan (1996)). Georges Condominas says of it:

This word (*cha* in White Tay language) is the origin of *xá* in Vietnamese, which like its equivalent *kha* in Lao and Siamese languages... can be either translated as 'slave' or 'mountain tribe,' according to the context. (1990:53)

⁵They are described in the Hanshu Zhang Qian Chapter 漢書張騫 as farming wet paddies, using hydrological management of water resources with great skill, decorating their bodies with tattoos, cutting their hair short, and living in stilted houses. They were called 滇越 *Dianyue*.

Thus, from that time the Ksingmul have been called *Xá Puộc*, perhaps a derivative form of White Thái *Pộ* or Black Thái *Pua* meaning ‘people’. The autonym of this group is *Ksing-mul* ‘people of the mountains’. The Kháng of differing locations have differing names. Their autonyms are *Mơ Kháng*, *Mkhang*, *Ma-háng*, or *Mơ Háng*, often with an added *Ái*, *Hốc*, *Béng* or *Cọi*.⁶ As for exonyms, the Kháng in Thuận-châu are called *Xá Kha* or White Kha (to distinguish them from the *Black Kha* or *Khơ Mú*). In Chiềng-Ởn they are called *Xá Dón* (*Dón* is also used for the White Thái). In Mường La District on the Nậm Mu River in Sơn La Province, they are called the *Xá Tú Lãng* ‘Nose-drinking Kha’ for their custom of imbibing alcohol through the nares (cf. *Các dân tộc ít người ở Việt Nam* (1978:108, 118)) and Nghiêm Vạn Đặng et al. (1972:168–169). The Khmu of Thuận-châu call them *Kháng Pua*.

2 The languages

Little on the language of the Kháng has appeared in print to date, aside from work in Chinese on Bumang by Dao Jie (2006, 2007). In this paper I will compare Kháng and Bumang to Ksingmul and Khmu. Kháng possesses word structure that shows only vestiges of the original sesquisyllabic pattern. It has also little left of the original morphological system, the syllable codas have simplified considerably, and six tones have developed trajectories that can be described as: High, Mid, Low-Rising, Mid-Rising, High-Falling, and Low-Falling. These features of the phonology contrast with those of the more preservative Ksingmul (though in the Peiros database there are some Ksingmul forms with tone marking) and all the more so with the archaisms of Khmu.

According to Đặng et al. (1972:254ff), there are major types of Ksingmul, called *Ksingmul Nghệt* (from Nà Nghệt Village, Xiêng Khọ District, Sầm Nứa Province, Laos), *Ksingmul Dạ* (from Chiềng On Village, Yên Châu District, Sơn La Province, Vietnam), and *Ksingmul Đồng*. Of these three, Ksingmul Nghệt retains the most sesquisyllabic structures, the most infixes, and many more word forms shared in common with Khmu (cf. Pram et al. (1990:13)). Ksingmul data in Pram et al. (1990) is of the Ksingmul Dạ type and was elicited from four speakers (two men; two women; 21-44 years of age). Pram et al. (1990:17) report the following set of initials of the main syllable /p t t̚ k ? ?b ?d fi (p^h h^h k^h) s h v z ʒ~ɟ m n ɲ ŋ l/. Kháng has a similar inventory, though aspirates are rare. In regard to the codas of strong syllables, there are great differences between Ksingmul and Kháng (cf. §3 for more data on this feature).

⁶It is noteworthy that there are about 200 speakers in China’s Jinping County, who call themselves [bu²⁴ maŋ²⁴], in Chinese *Bumang* 布芒 and they speak a language that differs only a little from my Kháng data. They are called locally 曼仗 or *Màn Zhàng Dǎi*, and make up the smallest of the four Daic people groups of Jinping County. The Dai term *màn zhàng* means ‘Elephant Village’. It is said 165 years ago they escaped servitude among the White Thái of the Mường Lay area, Lai Châu Province, Vietnam.

2.1 Sesquisyllabic word structure

Many lexical items in my data set appear only in monosyllabic forms. Still, one productive set of sesquisyllabic vocabulary are animal names in which the classifier with reduced vowel occurs, though there may originally have been sesquisyllabic word forms for the head nouns without classifier (1):

- (1) a. ʔbu.mot³³ ‘ant’ (<Tai mot^{D25}, Ks səlmə:c)
 c. ʔbu.sən⁴⁴ ‘bear’ (Bm sən⁵⁵, PKhm hual
 Ks su:l)
 e. ʔbu.hak³³ ‘buffalo’ (Km tra:k, təhra:k,
 Khs shynreh)
 g. ʔbu.na³³ ‘centipede’ (PKhmu *ʔi:p, Ks təkət)
 i. ʔbu.lak²⁴/ka.ʔak²⁴ ‘crow’ (Km klʔa:k, Ks ʔá:k)
 k. ʔbu.poi³³ ‘muntjac’ ProtoKhmuic *puas)
 m. ʔbu.kap³³ ‘duck’ (Ks ka:p)
 o. ʔbu.nak³³ ‘otter’ (<Tai naak^{DL})
 q. ʔbu.ʔək³³ ‘pig’ (Bm ək²⁴)
 s. saŋ.ʔo⁴⁴ ‘bumblebee’
 u. ʔbu.piŋ⁴⁴ ‘wet leech’ (Ks pli:n)
 w. ze²⁴⁷ ‘chicken’ (Bm jia³³, Ks ʔe:l)
 y. ze²⁴⁷ pan⁴⁴ ‘hen’ (Ks ʔe:l me:)
 aa. ma²⁴⁷ ‘snake’ (Bm ma³³, PKhmuic *mar,
 Ks mal)
 cc. meŋ.kieŋ²⁴⁷ ‘a fly’
 ee. tɕe⁴⁴ ‘louse’ (PKhmu *seʔ, Km seʔ, Ks tɕe:j)
 gg. pa²⁴⁷ ‘male animal’
 ii. puam⁴⁴ ‘dry leech’ (PKhmu *pə-luam)
 b. ʔbu.ŋeɸ³³ ‘bat’ (Ks⁷ ɲe:p)
 d. ʔbu.tɕim²⁴⁷ ‘bird’ (PKhmu *si:m, Km⁸ sí:m;
 Ks ke:m)
 f. ʔbu.miu²⁴⁷ ‘cat’
 h. ʔbu.ku⁴⁴ ‘cow’ (Bm ku⁵⁵)
 j. ʔbu.sak²¹ ‘sambar deer’ (PKhmu *jak,
 Km təjɑ:k, Ks kəza:k)
 l. ʔbu.tɕua⁴⁴ ‘dog’ (PKhmuic *sə, Khs ksew,
 Ks tɕo; Km sɔʔ)
 n. ʔbu.ka⁴⁴ ‘fish’ (Ks ka; Km káʔ)
 p. ʔbu.ʔbɔ³³ ‘pangolin’
 r. ʔbu.huai⁵¹ ‘tiger’ (Bm huai⁵¹, PKhmu
 *wa:j, Km rəwa:j)
 t. saŋ.kiu⁵¹ ‘dragonfly’ (Bm ʔbu²¹xet²⁴)
 v. ha³³ ‘rat’ (PKhm *keneʔ, Bm ha⁵⁵, Ks
 khəne:)
 x. ze²⁴⁷ pa³³ ‘rooster’ (Bm jia³³, Ks ʔe:l phu)
 z. ʔdak²⁴⁷ ‘frog’ (Ks kədɯk)
 bb. kot³³ ‘shrimp’ (Ks ku:k-kuk)
 dd. ma.vuŋ⁵¹ ‘mosquito’
 ff. ma.tit³³ ‘flea’
 hh. me²⁴⁷ ‘female animal’
 jj. tɕim²⁴⁷ʔbo⁴⁴ ‘owl’ (Bm tsim²⁴bu⁵⁵)

There are also some names of natural phenomenon with sesquisyllabic word structure but many of these are also monosyllables. Some items in Kháng are also not clear cognates with corresponding etyma in related languages; e.g., *kam*⁵¹ ‘gold’, *ɲuən*⁵¹ ‘silver’ and *tɕŋ*⁵¹ ‘copper’ resemble Chinese by way of Tai. So, for example, ‘gold’ in the Khmu etymology is given as *ri:l, exemplified by Vietnam Khmu *sri:l*; ‘silver’ is *mu:l, as in Vietnamese Khmu as *kmui:l*, and ‘copper’ as *la:t as in Vietnam Khmu *la:t*. The etymon for ‘moon’ is also listed in the Khmu etymology database with a separate etymon for Kháng ‘moon’ *khieŋ*³⁵, in which the /k^h/ has been influenced by the North Vietnamese pronunciation of this sound as [x-], here palatalized to [ç-] (etymology unknown). Other examples needing deeper study are: star, sky, salt,

⁷Ksingmul data taken from Pram et al. (1990).

⁸Khmu data taken from Preamsirat (1993) and Khmu etymology compiled by Ilya Peiros in <http://starling.rinet.ru/cgi-bin/response.cgi?root=config&morpho=0&basename=\data\aes\kmuet&first=21> Tai data from Li (1977) and Wang (1984).

- (2) a. sa.kən⁵¹ 'star' (Bm lə²¹ŋäi⁵¹kən⁵¹, Km srmen)
 c. ma.ɕiej³³ 'moon' (PKhmu *kiʔ,
 Bm ŋai⁵⁵ se⁵⁵ Kh khiej³⁵, Ks blah, ki³³)
 e. ko⁴⁴ 'forest' (Bm luŋ⁵⁵ ko³³, Ks koh)
 g. ŋən⁴⁴ /nuo 'fire' (Bm ŋän⁵⁵, Ks həŋo:ŋ)
 i. lik⁴⁴ 'iron' (Bm luk²¹ < Tai, Ks ket)
 k. kam⁵¹ 'gold' (Bm kām⁵¹ < Tai, Ks tho:ŋ)
 m. ʔəm²⁴⁷ 'water' (Bm ɔm²⁴, PKhmu *ʔom)
 o. mok³³ 'cloud' (Ks mo:k)
 q. nan.la³³ 'lightning' (PKhmu *lar Ks la:l)
 s. ŋai.ŋi⁴⁴ 'sun' (Bm ŋai⁵⁵ ŋi⁵⁵, Ks kəŋje)
 u. lien²⁴⁷ 'salt' (Bm len²⁴, Ks le:l)
- b. sa.ʔu³³ 'sky' (Bm sa³³ u³³, Ks kətu:l)
 d. tie⁴⁴ 'earth' (PKhmu *teʔ, Bm tie⁵⁵, Ks
 məŋ, Ks pəteʔ, Khs pyrthei)
 f. sai⁵¹ 'sand' (Ks sai:j)
 h. ʔbua²⁴⁷ 'ashes' (PKhmu *bəh, Ks ʔəbəh)
 j. təŋ⁵¹ 'copper' (Bm təŋ⁵¹ < Tai, Ks ʔbli:w)
 l. ŋuən⁵¹ 'silver' (Bm ŋuən⁵¹, Ks ŋon < Tai)
 n. me³³ ʔəm²⁴⁷ 'river' (Bm mɛ²⁴)
 p. ɕu.tə³³ 'thunder' (PKhmu *kír, həN, Km ŋhkír)
 r. hua²⁴⁷ 'wind' (Bm hua²¹, PKhmu *rəj, həN-)
 t. ŋi⁴⁴ 'sunshine'
 v. tham²⁴⁷ 'cave' (Bm ŋuəp²¹)

2.2 Clusters

The Khmu language has a large inventory of clustered initial consonants. Premsrirat (1993:23–24) documents cluster types $C_1 C_2$, where C_2 can be [h r l] for the initials [p t c k], and for [k] C_2 can be [w] as well. Ksingmul ranks second in preserving clusters and Ksingmul Nghêt has them more than other places studied so far. Clusters often result when the vowel of weak first syllable, usually [ə] is syncopied. Kháng has the fewest cluster combinations. There is evidence that Kháng once had a more developed set of clusters [pl kl bl], though most of these have simplified to unclustered [p k b]. In some places, such as Chiềng Bôm Village (CB) of Thuận-châu District original clusters are still preserved (cf. (Đặng et al. 1972:162–164)); Bumang also has no clusters:

- (3) a. k(l)ia⁴⁴ 'rain' (Bm kea⁵⁵, PKhmu *maʔ, Ks ʔəmĩə)
 b. klək 'squirrel' (PKhmu *rɔ:k, Km phrɔ:k, Ks phələ:k)
 c. k(l)ak²¹ 'head' (Bm kak²¹, Ks ʔəlu:)
 d. (k)mie⁴⁴ 'sugarcane', (Km kəlmeʔ, Ks ʔəmi:)
 e. p(l)e⁴⁴ 'fruit' (Bm pɛ⁵⁵, PKhmu *leʔ, Kh pleʔ)
 f. blom 'pickled fish'

2.3 Vietnamese influence

Northern Vietnam has undergone a change from [j] to [z] and this feature seems to have diffused to many of the minority languages as well, as in *zak*⁴⁴ 'feces' (Bm jək²¹, Ks ʔak, Km ʔiək). There are quite a number of examples in which Kháng shows the Vietnamese influenced [z-], whereas Bumang of Jinping, China shows the original [j-].

2.4 Tai Borrowings

2.4.1 Lexical borrowings

The level of borrowing has only marginally impacted the core vocabulary. Some examples are:

- (4) a. nuu^{24?} ‘meat’ (Bm nuu²⁴ < Tai, Ks ksoŋ) b. pi⁴⁴ ‘year’ (pi < Tai, Ks həwa:ŋ)
 c. ʔban^{24?} ‘village’ (Bm ban²⁴ < Tai) d. mai²¹ ‘tree’ (Bm lăm⁵¹, PTai *mwai^{C2})
 e. kun⁴⁴ ‘person’ (Bm kɔn⁵¹ < Tai)

2.4.2 Original [r] -> [h]

There are a few lexical items that may have been influenced by Tai languages. While more study is necessary, this change is a characteristic feature of Tai languages of this area, e.g., ‘dry field’ in Central Thai *raai*^{A2} vs. *haai*^{A2} in Black Thái and White Thái. Notice that this change has also impacted Ksingmul somewhat as well.

- (5) a. huŋ⁵¹ ‘teeth’ (Bm həŋ⁵¹, Km rá:ŋ hra:ŋ, Ks həzəŋ)
 b. hiəŋ⁵¹ ‘intestine’ (Bm həŋ⁵¹, Km ríəŋ, Ks ɣəŋ)
 c. haŋ⁴⁴ ‘dry’ (hǎŋ⁵⁵, PKhmu *ro:ŋ, Km sro:ŋ)
 d. hie⁵¹ ‘ginger’ (Km rwé?)
 e. huai⁵¹ ‘tiger’ (Bm huai⁵¹, Km rwa:j, Ks həwa:j)

There is also evidence of the change [p^h-] -> [f-] in SW Tai languages of this area. It is reinforced by the same rule in Vietnamese. In Kháng this change affects some of the native Khmuic vocabulary, as for example, in the case of *faj*⁵¹ ‘thigh’, which in Ksingmul is *kəpa:n* and also Kháng *fai*^{24?} ‘cloth’, Bumang *phai*²⁴ ‘cotton’.

(6) Humans and Body Parts

- | | |
|---|---|
| a. kɔn ⁵¹ ‘body’ (Bm kɔn ⁵¹) | b. mə ^{24?} ‘woman’ (Bm mə ²⁴) |
| c. ʔdɔŋ ⁴⁴ k(l)ak ²¹ ‘hair of the head’ (Km glo) | d. loŋ.ŋai ⁴⁴ ‘eye’ (Bm ŋai ⁵⁵ , Ks mat) |
| e. muih ³³ ‘nose’ (Bm muih ³³ , Km mu, Ks moh) | f. ʔdɔŋ ⁴⁴ mum ⁴⁴ ‘beard’ (Bm mum ⁵⁵) |
| g. ʔdɔŋ ⁴⁴ ‘egg’ (Ks kloŋ, Km kdoŋ) | h. k(l)ɔ ^{24?} /zuŋ ⁴⁴ (CB) ‘foot’, Km kan, |
| i. kun ⁴⁴ ‘buttocks’ (Bm moŋ ⁵⁵) | j. ŋai ⁴⁴ ‘face’ (Bm ŋai ⁵⁵ , Ks mat) |
| k. sap ⁴⁴ ‘elbow’ | l. tɔk ³³ ‘ear’ (Bm tɔ ²¹ , Ks həlto:l) |
| m. kəvuŋ ⁴⁴ ‘chin’ (Bm bɔŋ ⁵⁵ vəŋ ⁵⁵ , Ks ʔəwa:n) | n. tak ³³ ‘tongue’ (Bm tak ²¹ , Ks həlta:k) |
| o. lieŋ ⁴⁴ ‘shoulder’ (Bm ŋəm ³³ deŋ ⁵⁵) | p. na.ʔuk ⁴⁴ ‘chest, breast’ (Ks kəʔok) |
| q. məŋ.se ⁴⁴ ‘back’ (Bm uŋ ⁵⁵ pəp ²¹) | r. pui ³³ ‘navel’ (Bm pui ³³ , Ks lu:j) |
| s. k(l)uom ⁴⁴ ‘liver’ (Bm kɔm ⁵⁵ , Ks təlo:m) | t. pɔt ^{24?} ‘lungs’ (Ks ple:) |
| u. ʔəŋ ⁴⁴ ‘bone’ (Bm kɔŋ ²¹ səp ²¹ , Km suwəŋ, Ks laŋ) | v. ʔəŋ ⁴⁴ fuuk ⁵¹ ‘rib’ (Km thrwak) |
| w. nəm ^{24?} ‘blood’ (Bm nəm ²⁴ , Ks miom) | x. ʔda ^{24?} ‘gallbladder’ (Bm da ²⁴) |
| y. ʔɔm.ŋai ⁴⁴ ‘tears’ (Bm ɔm ²⁴ ŋai ⁵⁵) | z. ʔɔm.num ^{24?} ‘urine’ (Bm num ²⁴ , PKhmu
*nu:m, Ks kəltu:t Km ʔɔm.nu:m) |
| aa. koi ⁴⁴ ‘horn’ (Bm koi ⁴⁴ , Ks kəlgan) | bb. ta ⁵¹ ‘tail’ (PKhmu *taʔ, Ks həlta:) |

cc. fan⁵¹ ‘thigh’ (Ks kəpa:n)
 ee. kən⁴⁴ ‘wife’ (Bm mɛ²⁴kən⁵⁵)
 gg. tɛu⁴⁴ ‘grandchild’ (Bm sɛm⁵⁵)
 ii. kun³³ kən⁴⁴ (Ks kɔ:n khoon) ‘daughter’
 kk. ?di⁵¹ ‘father’s older brother’
 mm. za³³ ‘father’s mother’
 oo. mɛ²⁴ ‘mother’ (Bm mɛ²⁴)
 qq. ?oi³³ kən⁴⁴ ‘sister younger’ (Bm mɛ²⁴oi⁵⁵)
 ss. ?oi³³ kun⁴⁴ ‘brother younger’ (Bm pa²⁴oi⁵⁵)
 uu. nuŋ⁴⁴ ‘skin’ (Bm nuŋ⁵⁵)

dd. le⁴⁴ ‘husband’ (Bm pa²⁴li⁵⁵, Ks ?əli:)
 ff. su³³se⁴⁴ ‘child’ (CB kuon)
 hh. ?da³³ti⁴⁴ ‘hand’ (Bm ti⁵⁵)
 jj. ?u²⁴ ‘father’ (Bm məm⁵⁵)
 ll. ?bɔ²⁴ ‘father’s younger brother’
 nn. nai²⁴ ‘mother’s mother’
 pp. ?i⁵¹ ‘sister older’ (Bm ai²⁴)
 rr. ?ai⁵¹ ‘brother older’ (Bm ai²⁴duŋ⁵⁵)
 tt. ?ɔm. ?dum⁴⁴ ‘pus’ (Bm dum⁵⁵)

(7) Space and Time

a. tuŋ⁵¹ ‘above’
 b. ?bəŋ.nəŋ⁴⁴ ‘inside’
 e. ?bəŋ.ve⁴⁴ ‘left’ (Ks luŋ wi)
 g. mu²¹ ‘day’ (Bm mə²¹, Ks mu)
 i. mu⁵¹ mu^p⁴⁴ ‘tomorrow’ (Ks mu gum)
 k. pi⁴⁴ laŋ³³ he⁴⁴ ‘this year’

b. ?boŋ⁴⁴ ‘below’
 c. ?bəŋ. ?do²⁴ ‘outside’
 f. ?bəŋ.tam⁴⁴ ‘right’ (luŋ me:ŋ)
 h. mu⁵¹ ŋɛ³³ ‘yesterday’ (Ks mu kik)
 j. laŋ³³ mom⁵¹ ‘last year’ (Ks həwa:ŋ mom)
 l. laŋ³³ mia²⁴ ‘new/next year’ (Ks pi ná:)

(8) Descriptions

a. hai²¹ ‘bad’ (Ks ?uəj)
 c. kua²⁴ ‘old’ (Bm. kua²⁴)
 e. ?ba²⁴ ‘sour’ (Bm ba²⁴, Ks kəwak)
 g. tɛ²⁴ ‘insipid’ (Ks ?ba:m)
 i. həm²⁴ ‘fragrant’ (Bm həm²⁴ < Tai *hɔ:m^{A1})
 k. ?buk⁴⁴ ‘white’ (Ks luək)
 m. sɔ²⁴ ‘red’ (Bm ɔ²⁴, Ks kə?et)
 o. zau⁵¹ ‘high, tall’ (Bm jau⁵¹, Ks kəzo:ŋ)
 q. zan⁴⁴ ‘lightweight’ (Bm jan³³, Ks həlza:l)
 s. ?em²⁴ ‘early’
 u. zin⁵¹ ‘dark’
 w. zu²⁴ ‘far’ (Bm ju²⁴)
 y. ?am⁴⁴ ‘good’
 aa. ?bot³³ ‘near’
 cc. zum⁴⁴ ‘sharp’
 ee. ?dap³³ ‘hot’ (Bm un²⁴)

b. mia²⁴ ‘new’ (Bm mia²⁴, Ks həme:)
 d. ɕia²⁴ ‘sweet’ (Bm sia²⁴, Ks pəse:)
 f. tɛaŋ⁴⁴ ‘bitter’ (Bm tsəŋ⁴⁴, Ks tsuŋ)
 h. kin⁵¹ ‘salty’ (Bm ze²⁴, Ks ?beh)
 j. ?da¹² ‘black’ (Bm da¹², Ks ?ok)
 l. ?ɛ³³ ‘yellow’ (Bm ?ɛ³³, Ks luəŋ < Tai)
 n. ?duŋ⁴⁴ ‘big’ (Bm duŋ⁵⁵)
 p. ki³³ ‘low’ (Ks tiəp)
 r. tam⁴⁴ ‘heavy’ (Bm təm⁵⁵)
 t. ?aŋ⁴⁴ ‘cold’
 v. həŋ⁴⁴ ‘dry’
 x. məi⁴⁴ ‘fat’
 z. kəp³³ ‘narrow, tight’ (Bm kəp²¹)
 bb. so²⁴ ‘raw’
 dd. tɛap⁴⁴ ‘sticky’
 ff. kui²¹ ‘smelly’ (Ks pɔ:t)

(9) Material culture

a. ɲa⁴⁴ ‘house’ (Bm ɲa⁵⁵, Ks zioŋ)
 c. təŋ⁵¹ ‘bracelet’ (Bm dəm⁵⁵ təŋ⁵¹)
 e. həp²⁴ ‘carrying pole’ (< Tai)
 g. tu²⁴ ‘chopsticks’

b. ?boŋ.tɛn²⁴ ‘bowl’ (Ks ?do:j)
 d. fai²⁴ ‘cloth’ (Bm phai²⁴ ‘cotton’)
 f. kun⁴⁴ ‘skirt’
 h. ha¹² ‘alcoholic beverage’

(10) Food and Plants

a. kɔ.zum⁴⁴ ‘glutinous rice’ (Bm kɔ⁵¹jum⁵⁵ Ks kəlon)
 c. ?dat⁴⁴ ‘grass’ (Bm bət²⁴, Ks guək)
 e. za⁴⁴ ‘medicine’ (Bm ja⁴⁴)
 g. məi⁵¹ ‘tree’ (< Tai, Ks kə?uŋ)
 i. ?ba³³ ‘bamboo’ (Bm va³³)
 m. pe³³ ?ə²⁴ ‘pumpkin’ (Ks ?biəbək ?u)
 o. kam.hok⁴⁴ ‘rice chaff inedible’
 q. pe³³ xua⁴⁴ ‘eggplant’

b. nuə²⁴ ‘meat’ (< Tai, Ks ksoŋ)
 d. kəŋ⁴⁴ ‘cogongrass’ (Bm kəŋ⁵⁵, Ks ŋe:l)
 f. la⁴⁴ ‘leaf’ (Bm na⁵⁵ Ks ?bu:u)
 h. nun³³ ‘cotton’ (Bm phai²⁴, Ks ɲuəŋ)
 j. thua²⁴ ‘bean’ (Bm thua²⁴)
 n. hau⁵⁵ ?bɔn²⁴/kuai (CB) ‘taro’ (Bm hɔ⁵⁵)
 p. təŋ⁵¹ ke⁵¹ ‘moss’
 r. ?bak⁴⁴ ‘flower’ (Bm ba²⁴)

s. xa²⁴⁷ ‘galangal’ (< Tai)
 u. pe³³ kien³³ ‘melon’
 w. ʔdɔŋ.wɔ⁴⁴ ‘rice spike’
 y. tɕa²¹ ‘thorn’ (Bm tsa³³)
 aa. lɔŋ⁴⁴ ‘greens’

t. hie⁵¹ ‘ginger’
 v. hɔm²⁴⁷ ‘onion’
 x. keŋ²⁴⁷ ‘soup’
 z. məi⁵¹ ‘tree’

(11) Pronouns

a. ʔda⁴⁴ ‘I’ (Bm da⁵⁵, Ks ʔaŋ)
 c. mə.ke⁴⁴ ‘you pl.’ (Ks lok kwɪh)
 e. nɔ²⁴⁷ ‘we excl.’ (Bm nɔ²⁴, Ks ʔéé)
 g. kɔn⁵¹ ‘they’ (Bm ki⁵⁵)

b. mi⁴⁴ ‘you sg.’ (Bm mi⁴⁴, Ks mih)
 d. zia⁴⁴ ‘we incl.’ (Ks zii)
 f. ke⁴⁴ ‘he, she, it’ (Bm ki⁵⁵, Ks ʔuɪn)

(12) Numerals

a. lo²⁴⁷ ‘1’ (Bm lu²⁴; Ks met)
 c. fia²⁴⁷ ‘3’ (Bm pia²⁴; Ks saam)
 e. ha³³ ‘5’ (Bm səŋ⁵⁵; Ks haa)
 g. tɕet⁴⁴ ‘7’ (Bm tset²⁴; Ks tɕet)
 i. kəu²⁴⁷ ‘9’ (Bm kəu¹²; Ks kaw)
 k. sip⁴⁴ səŋ⁴⁴ ‘12’ (Bm sip²⁴ səŋ⁵⁵ Ks sip səŋ)
 m. lo²⁴⁷ fɔi⁵¹ ‘100’ (Ks met fɔoŋ)

b. ʔbua²⁴⁷ ‘2’ (Bm bua²⁴; Ks səŋ)
 d. fɔn⁴⁴ ‘4’ (Bm pɔn⁵⁵; Ks sii)
 f. hok⁴⁴ ‘6’ (Bm hok²⁴; Ks hok)
 h. pət²⁴ ‘8’ (Bm pət²⁴; Ks pɛt)
 j. sip⁴⁴ ‘10’ (Bm sip²⁴; Ks sip)
 l. sau⁵¹ ‘20’ (Bm sau⁵¹; Ks saw)
 n. lo²⁴⁷ pan⁵¹ ‘1000’ (Bm lu²⁴ pən⁵¹ Ks met phan)

(13) Verbs

a. hɛ⁴⁴ ‘accept’
 c. sum.ʔɔm²⁴⁷ ‘bathe’ (Ks ʔu:m)
 e. ʔe²⁴⁷ ‘burn’
 g. hiu²⁴⁷ ‘carry hanging’ (< Tai, Ks deel)
 i. ʔum⁴⁴ ‘come’ (Bm um⁵⁵, Ks ʔo:m)
 k. koŋ⁴⁴ ‘crow (chicken)’ (Ks keel)
 m. ɲat⁴⁴ ‘die’ (Bm ɲət²¹, Ks siən)
 o. ti²⁴⁷ ‘fall down’ (Ks tɕəgəm)
 q. zə¹²⁷ ‘go’ (Bm zu¹², Ks zuu)
 s. tɛm²⁴⁷ ‘kill’ (Ks pəsoən)
 u. pɔk²⁴⁷ ‘peel’
 w. kɔn³³ vat⁴⁴ ‘pull grass’
 y. zaŋ²¹ ‘rest’ (Bm jǎŋ⁵¹)
 aa. ɲun⁴⁴ ‘sit’ (Bm ɲon⁴⁴, Ks kliən)
 cc. kut²⁴⁷ ‘scrape’ (Ks lo:t)
 ee. zɛŋ⁴⁴ ‘stand’ (Bm jɛŋ⁵⁵, Ks tsal)
 gg. pua²⁴⁷ ‘fly’ (PKhmu tɪ:r, Bm bua²⁴, Ks pal)
 ii. tiək³³ ‘lie down’
 ll. taŋ⁴⁴ ‘roast’ (Bm saŋ⁵⁵, Ks zuŋ)

b. ho²¹ ‘bark’
 d. ʔak⁴⁴ ‘bite’ (Ks ʔak)
 f. sə²¹ ‘buy’ (Bm su²¹ < Tai)
 h. ʔbək²⁴⁷ ‘carry on shoulder’ (< Tai)
 j. tɛ.tu²⁴⁷ ‘cook’
 l. tat⁴⁴ ‘cut with scissors’
 n. tu²⁴⁷ ‘eat’ (Bm tu²⁴, Ks ka:)
 p. tuk.ʔdɛ⁴⁴ ‘give’ (PKhmu *dɛ)
 r. teu⁵¹ ‘hide’ (Ks kətɪwɪl)
 t. mɔn⁴⁴ ‘know’ (PKhmu *nə:ŋ, Ks zuə)
 v. lak⁴⁴ ‘pull’ (Bm it²⁴ Ks laak)
 x. tɕə²⁴⁷ ‘remember’ (Ks kətsuh)
 z. ʔum⁴⁴ ‘return’ (Bm um⁵⁵, Ks ʔo:m)
 bb. lɛm²⁴⁷ ‘sleep’ (Bm lɛm²⁴)
 dd. ʔdai²¹ ‘run’
 ff. sun⁴⁴ ‘vomit’ (Bm sən⁵⁵, PKhmu *hial, Km hial)
 hh. he.kit⁴⁴ ‘forget’
 jj. kiu²⁴⁷ ‘mow’ (Ks kiəw < Tai)
 mm. ku⁵¹ ‘wait’ (Bm ku⁵¹, PKhmu *kɔʔ, Km kɔʔ)

3 Kháng/Bumang syllables and tone

Kháng has word structure that is very similar to Tai languages. Syllable codas must be taken from the set /-i -u -m -n -ŋ -p -t -k/. Ksingmul includes these as well as /-l -h/, e.g., *lul* ‘thunder’, *la:l* ‘lightning’ and *koh* ‘forest’.

Kháng possesses clusters in initial word initial position in some places /kl-/, but no longer in the speech of my consultant. Ksingmul demonstrates a much richer collection of clusters, i.e., /bl- kl- k^hl- kn- k^hŋ- ks- ʔmb- t^hl-/ as in *bluəŋ* ‘rainbow’, *ble:l* ‘hail’, *klo:* ‘muscle’, *k^hliŋ* ‘tripod’, *kəsap kne:* ‘bicep’ (possibly from *k^həne:* ‘rat’),⁹ *k^hno:n* ‘square-shaped basket’, *ksiŋ* ‘person’, *ʔmbuəp* ‘loofah gourd’, and *t^hlum* ‘hoe’.

The Kháng language has developed six tones. In Kháng the low tones 21 and 12 appear to be somewhat rarer than in Bumang. Those syllables with the 24? tone category are considerably shortened in duration by the glottal closure. Significantly, Tai loan words in the C1 tone category are assigned to the 24? tone category in Kháng and those in the C2 category to the 21. The C category in Tai language is associated in many places with a slow glottal closure at the end of these tone shapes.

Figure 1 presents Kháng tone trajectories. As can be seen in this plot of *tī*⁵¹ ‘tail’ at 46 semitones and falls to 38 semitones; *pur*⁴⁴ ‘navel’ traces a level course at 42 semitones; *tī*^{24?} ‘banana’ in the compound *pε*⁴⁴*tī*^{24?} may have been elevated by the preceding 44 tone and rises here from 41 semitones to nearly 44 semitones; *tɔ*³³ ‘ear’ has nearly level course at 40 semitones; *mei*²¹ ‘tree’ (Tai loan) starts at 41 semitones and falls to 34 semitones (I have included only the vocal part of the syllable to better match the other members of this paradigm); and finally, *ha*¹² ‘alcohol’, which begins at 38 semitones and rises to 39 semitones. This plot was made by compositing three repetitions of each of the lexical items that eliminated idiosyncratic and retain common data points over the syllable. All syllables used are long or diphthongal. Note the shorter duration of the 24? shapes.

⁹Cf. English muscle from L. *musculus* ‘a muscle’, lit. ‘little mouse’.

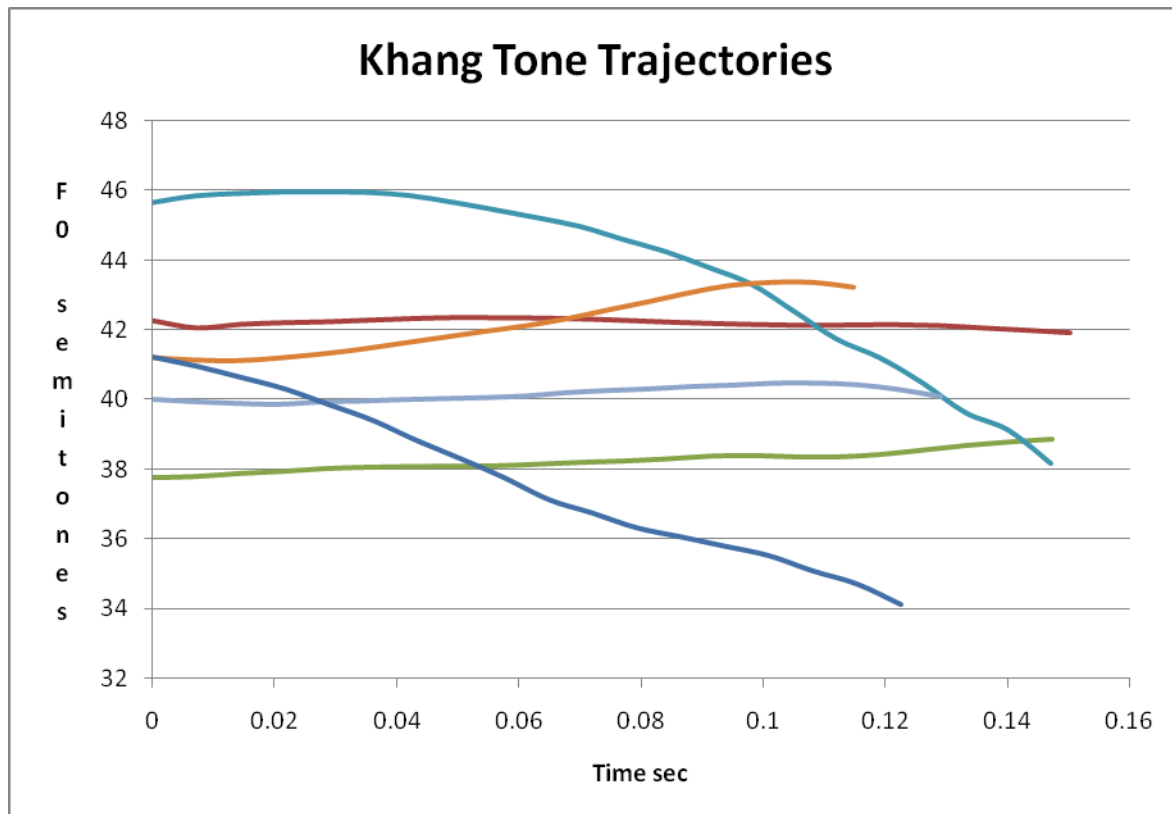


Figure 1: Khang tone trajectories

Since Kháng has a system of six tones, one wonders where they may have come from, since this number equals that in the language of the national majority. Vietnamese also has six tones. On the basis of comparative evidence Vietnamese is thought to have become tonal from the pitch-altering effects of consonants at the beginnings and endings of syllables in an earlier stage of the language. Andre Haudricourt (1954) solved the riddle of how this took place. He divided the six tones of N. Vietnamese into a three-by-two matrix. He assumed there were two distinct changes in the historical development of tone in Vietnamese. He reasoned that the small raising/lowering influence of final consonants had caused the end of the syllable to go up in pitch or descend in pitch. Stop consonants such as /p t k ?/ cause a rise, whereas other consonants such as /s h/ cause a fall. If there was no final consonant and only an open syllable, then the pitch remained more or less in the middle range. At a later time the initial consonants impacted a system with three new tonal contrasts. If the initial consonant was voiceless, then it either raised the overall pitch of the syllable; if the initial consonant was voiced, then it lowered the overall pitch of the syllable. It is this second process that Svantesson (1989) and Svantesson and Karlsson (2004) found to engender high or low tones in some types of Khmu in Thailand. The question is whether consonant-induced *tonogenesis*, as is found in the history of Thai Khmu, is also evidenced in Kháng/Bumang as determined from the reconstructed form found in Peiros' Etymological Database of Khmu.

In (14) I compare Kháng with Ksingmul, Khmu, and the reconstructed parent language:

(14)	Gloss	Kháng/Bumang	Ksingmul	Khmu	PKhmu
	a. fish	ka ⁴⁴	ka:	ká?	*ka?
	b. dog	tɕua ⁴⁴	tɕo:	só?	*sɔ?
	c. fruit	ple ⁴⁴	ple:	ple?	*p-le?
	d. louse	tɕe ⁴⁴	tɕe:j	se?	*se?
	e. rain	k(l)ia ⁴⁴	?əmĩə	kəma?	*kə-ma?
	f. earth	tie ⁴⁴	kəte	pəte?	*pə-te?
	g. leaf	la ⁴⁴	na	hla?	*hə-la?
	h. husband	le ⁴⁴	kəli:	gli?	*g-le?
	i. sugarcane	(k)mie ⁴⁴	?əmi:	kəlme?	---
	j. liver	k(l)uom	təlo:m	tlo:m	*təlo:m
	k. bear	sɔn ⁴⁴	su:l	hual	*hual
	l. four	fɔn ⁴⁴ /pɔn ⁵⁵	---		*puan
	m. leech, dry	pum ⁴⁴	plo:m	pluəm	*pə-luam
	n. bone	?əŋ ⁴⁴	laŋ	cə?a:ŋ	*cə-?a:ŋ-

As this list demonstrates, many items originally ending with /-ʔ/ in the parent language are manifested with tone 44. Examples (14) j-n show that other sonorant codas also show 44 tone values. Members of (14) appear to begin with voiceless consonants and these contrast to some degree with the tonal category 24ʔ, which may include items originally with voiced initials. At this point, however, other factors come into play. There does not seem at this juncture to be a pattern among the remaining tones. So for the moment we must say we have a few leads but no solid account of the tonogenesis of Kháng.

4 Comparison of Kháng, Bumang, Ksingmul, and Khmu

The Khmuic etymological database by Peiros, which contain example data from Cuang, Kabit, Khmu, Ksingmul, a few Kháng examples, and Mrabri, allows us to make some initial comparisons. It appears that the lexical support for Kháng and Bumang belonging to Khmuic is strong. The etyma *mar ‘snake’, cf. Kháng/Bumang *ma*^{24ʔ} and Ksingmul *mal* as well as *hual ‘bear’, cf. Kháng *sɔn*⁴⁴/Bumang *sɔn*⁵⁵; Ksingmul *su:l*; and Khmu *hual* are not found in other members of the Austro-Asiatic family. There are many other etyma—blood, bone, urine, egg, crow (n), fruit, tongue, horn, bird, dog, buffalo, tiger, louse, dry, and that liver can be closely related to Khmuic. In some cases their etyma may also related to other subgroupings. So, for the moment, we will need to wait until we have more data before the pathway is clearer.

5 Conclusion

While only little of the internal secrets of Kháng have been revealed thus far, it does seem clear that it is a language that shares much in common with Ksingmul and less, but still unmistakable, connections with Khmu.

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10

Trying to Persuade: Speech Acts in the Persuasive Discourse of Intermediate Spanish Learners

Karol J. Hardin

ABSTRACT

This article examines the types of speech acts produced by intermediate Spanish learners as well as their selection of pragmalinguistic forms to communicate these acts. In contrast to much of the research on speech acts and pragmatics in interlanguage which has emphasized learner errors in comparison to native speakers, this study primarily examines what learners are *able* to produce, and it does so in the specific context of persuasive discourse. The college students in this investigation responded orally to two situations that involved an attempt to get a lazy spouse to do some work and to offer advice for finding a new girlfriend after a break-up. The student monologues in the first situation were compared with those of five native speakers to determine similarities and differences in preference for and production of speech acts. The results support existing second language acquisition research on pragmatic developmental patterns and suggest some principal lexical and pragmatic learner strategies for speech act production. Moreover, we analyze speech act realization as it pertains to three goals of persuasive discourse, thereby demonstrating how this subset of intermediate learners was beginning to understand the use of certain constructs to persuade in Spanish.

1 Introduction

Persuasive discourse is defined by Robin Lakoff (1982) as the nonreciprocal “attempt or intention of one party to change the behavior, feelings, intentions, or viewpoint of another by communicative means.” Advertising, propaganda, political rhetoric, and religious sermons are obvious examples of persuasive discourse; however, persuasion may also occur in conversation. The purpose of this study is to provide a qualitative and descriptive analysis of examples of persuasive discourse in the interlanguage of intermediate-level Spanish learners. I primarily focus on the types of speech acts produced by learners in the context

of persuasive discourse, as well as on their selection of linguistic forms and strategies to communicate these acts. My general goal is to understand how Spanish learners might attempt persuasion.

Following Cicero's classical oration and Aristotle's ethos, Hugh Rank (1988:10) suggests a basic persuasive formula for advertisements, political speech and other types of persuasive discourse. His five components are (a) attention-getting, (b) confidence-building, (c) desire-stimulating, (d) urgency-stressing, and (e) response-seeking. Combining both Rank's (1988) and Geoffrey Leech's (1966) findings, Hardin (2001) examines persuasive discourse in Spanish language advertising and finds that *memorability* (making the audience remember the message), *force* (emotional and logical appeals and the strength of a message), and *participation* (the desire for a response or audience/hearer involvement) are primary persuasive goals.

In contrast to much of the research on speech acts and pragmatics in interlanguage, which has emphasized learner errors in comparison to "native speakers" (NS as compared with "non-native speakers" NNS), the bulk of this paper examines what learners are *able* to produce. The speech act repertoire of learners in this particular investigation is considered to be representative of a subset of intermediate college Spanish learners. Part of the motivation in studying interlanguage speech acts is to ascertain how to help learners avoid being impolite or rude, since pragmatic errors tend to be more offensive than grammatical errors. This study adds a new dimension by examining interlanguage persuasion while lending support to some current theories of pragmatic development in Spanish second language acquisition.

2 Background literature

Pragmatics may be defined as "the study of the relationship between language, its communication, and its contextualized use" (Koike 1996). Little is known about how second language (L2) pragmatic knowledge is acquired (Kasper and Rose 2002), and even less is known about the interlanguage pragmatic knowledge of Spanish learners. Larry Selinker (1972) proposes the theory of interlanguage, observing that learners often attempt to communicate in ways that are not consistent with NS' performance in the same linguistic situation. That is, learners effectively create their own language (interlanguage) in order to communicate. Studies have demonstrated that interlanguage is its own complex, yet often predictable, system (Long 1983, Pica 1983, Swain and Harley 1984). Furthermore, a knowledge of the target language's grammar does not guarantee an equivalent level of pragmatic knowledge (Kasper and Rose 2002).

Combining the two areas of study, Gabriele Kasper (1998:184) defines interlanguage pragmatics as "the study of nonnative speaker's comprehension, production, and acquisition of linguistic action in L2, or... 'how to do things with words' (Austin [1962]) in a second language." Shoshana Blum-Kulka and Gabriele Kasper (1993), Gabriele Kasper and Richard Schmidt (1996), and Kathleen Bardovi-Harlig (1999), among others, have contributed significantly to the research corpus

on interlanguage pragmatics. While earlier interlanguage pragmatics studies tended to focus on learner deficiencies as compared to NS ‘perfection,’ an approach that may lead to the so-called Comparative Fallacy (Bley-Vroman 1983, Kasper 1997), subsequent studies have included NS for comparative purposes, but not for the sole purpose of highlighting learners’ shortcomings.

Pragmatic competence may be defined as the ability to understand and effectively produce a speech act. Kasper and Dahl (1991), and more recently Kasper and Rose (2002), provide a useful overview of research methodology in interlanguage pragmatics. Data elicitation methods have ranged from rating tasks and multiple choice questionnaires to discourse completion, closed or open role play, and observation of authentic discourse. Nevertheless, there has been considerable discussion as to whether or not pragmatic competence can even be taught (Tateyama, et al. 1997, Kasper and Rose 2002, Martinez-Flor 2003.) Instead, some researchers argue that pragmatic development is best achieved in the target culture, such as in study abroad programs (Barron 2001, Cenoz 2007). This is still under discussion since there are few longitudinal studies examining the degree to which pragmatic competence develops in such programs. Moreover, Jasone Cenoz points out that even highly educated second language users are not confident in their language use. Unfortunately, the reality for most foreign language learners is that the majority of their teaching occurs in the classroom and that they may never achieve native pragmatic competence. Given the current situation for second language acquisition, studies of learners in classroom settings (such as the present one) contribute to our nascent understanding of pragmatic competence and development in interlanguage.

Certain types of speech acts have been studied in Spanish interlanguage (Haverkate 1993, Koike 1994, 1996), although not as extensively as in English. Speech acts are frames with a conventional meaning or intent, such as requests, orders, or apologies (Goffman 1974). Although there is some disagreement about how to determine the exact illocutionary force of speech acts, Nira Reiss (1985), drawing from the work of Searle, outlined five major categories of illocutionary acts. Some of the illocutionary forces within each of Searle’s five major categories are presented in table 1 (adapted from Reiss 1985, Searle 1969) with their correspondent explicit verbs.

Table 1: Illocutionary categories and forces	
ASSERTIVES:	decir, insistir, jurar (que), quejarse de say, insist, swear (that), complain
PERFORMATIVES:	nombrar, definir, renunciarse, nominar, bendecir name, define, resign, nominate, bless
COMMISSIVES:	prometer, ofrecer, permitir, negar, aceptar, amenazar promise, offer, permit, deny, accept, threaten
DIRECTIVES:	mandar, pedir, sugerir, preguntar, advertir, aconsejar command, ask (for), suggest, ask, warn, advise
EXPRESSIVES:	agradecer, felicitar, saludar, disculparse thank, congratulate, greet, apologize

Assertives are acts that may express any proposition and that do not call on any obligation from the speaker or hearer (Haverkate 1984). Directives, however, place the hearer under obligation to perform an act. Commissives are typically “speaker-centered” and their illocutionary point is to place the speaker under the commitment to perform an act that will benefit the hearer, whereas expressives are acts that establish a particular interpersonal relation between the speaker and the hearer. Finally, performatives involve a proposition in which the verb names the action taking place, as in *christen*, *baptize*, and *declare war*.

Cross-linguistic pragmatic studies involving discourse completion tasks suggest that pragmatic adjustments have to be made between languages in formation of speech acts (Blum-Kulka 1989). Specifically, languages differ in the way they judge the social appropriateness of conventional indirectness (Koike 1996, Borderia-Garcia 2006). Furthermore, research combining speech acts and second language acquisition has tended to emphasize comprehension rather than production of speech acts and has primarily focused on requests, apologies, and refusals.

Directives are commonly used in Spanish persuasive discourse (Hardin 2001) and may be either direct or indirect in force. The illocutionary force of a directive may be softened through mitigation and pragmatic strategies that distance or “defocalize” the speaker from his/her deictic center (Haverkate 1984, Koike 1992). Indirectness requires the addressee to infer meaning and rely on shared knowledge between the speaker and himself. As an example of indirectness in Spanish, Dale Koike (1989) posited a continuum for politeness based on directness/indirectness. The directives in table 2 exemplify a few ways in which a Spanish speaker may try to persuade using directives. Moreover, since persuasion may involve Face Threatening Acts (Brown and Levinson 1987), the speaker must use appropriate politeness strategies to achieve the desired message. Certain forms or constructions are conventionalized; that is, they are customarily used to perform specific speech acts. However, when the hearer must work out or infer the intended meaning using shared knowledge, conversational maxims (Grice 1975), or other contextual information, the speech act is not conventionalized. For example, the illocutionary force of the hint in table 2 is only clear because of the context (used as a directive). In another situation, the assertion could be the mere observation that everyone is indeed being very quiet.

Table 2: Continuum of politeness in Spanish		
Less polite	Hable	(command)
	Speak/Talk	
	Necesita hablar	(assertion)
	You need to speak/talk	
	Sugiero que hable	(suggestion)
	I suggest that you speak/talk	
	¿Puede hablar?	(request)
More polite	Can you speak/talk?	
	Todo el mundo está callado	(hint)
	Everyone is quiet	
	∅	(avoidance)

Finally, let us summarize some of what we know from research on pragmatic development in interlanguage. Gabriele Kasper and Kenneth Rose (2002:307) outline several developmental patterns. These include a tendency for beginning learners to “rely on pregrammaticalized productions, routine, formulae, and repetition, which gradually give way to an expansion of their pragmatic repertoire and overgeneralization of one form for a range of different functions.” They also note that even beginners are capable of controlling some difficult pragmatic areas, even though the learners’ pragmatic ability at a given stage in their interlanguage may not be adequately presented by a particular task or setting. They present a tentative developmental sequence for second language (L2) requests summarized as follows (2002:140):

1. Pre-basic - Highly context-dependent, no syntax or relational goals.
2. Formulaic - Reliance on unanalyzed formulas and imperatives.
3. Unpacking - Formulas are incorporated into productive language use; shift to conventional indirectness.
4. Pragmatic expansion - Addition of new forms to pragmalinguistic repertoire, increased use of mitigation, more complex syntax.
5. Fine-tuning - Fine-tuning of requestive force to participants, goals, and contexts.

Roger Andersen and Yasuhiro Shirai (1996) posit that when L2 learners acquire a linguistic category, they will first acquire the prototypical elements and eventually extend their learning to more marginal elements. Shoshana Blum-Kulka and Elite Olshtain (1986) present evidence of what they term the “waffle phenomenon;” that is, learners tend to produce longer requests than NS and oversupply politeness markers and syntactic downgraders. On the other hand, Nessa Wolfson (1989) examines sociopragmatic error in ESL learners’ responses to compliments. She argues that compliments are used by NS of American English as a means of establishing and maintaining solidarity and notes that many negotiating sequences among natives are long and elaborate, while those of NNS are typically short in comparison. Learners often fail to take up a compliment, preferring to give no response at all. By failing to conform to NS compliment norms, learners deprive themselves of the opportunities to establish friendships with NS and thereby of the input they need. Blum-Kulka, et al. (1989) also describe a pattern of development of pragmatic competence. Two crucial factors were the learner’s linguistic proficiency and transfer. They found that learners perform in accordance with the sociolinguistic rules of their native language, but that transfer only occurs when learners have sufficient L2 resources to make it possible.

Finally, with some exceptions (Bardovi-Harlig and Hardford, 2005), interlanguage studies of a particular discourse genre of Spanish generally refer to classical genres such as narrative, expository, and conversation. However I want to examine the array of speech acts with respect to a specific discursive purpose in interlanguage, that of persuasion. That is, I do not examine the

discourse genre per se, but rather the speech acts and pragmatic strategies employed to attain the goal of persuasion.

3 Methodology

In light of these and other studies on pragmatics in interlanguage, this investigation considers speech act production to ascertain how intermediate Spanish learners may communicate efforts “to change someone else’s behavior, feelings, intentions, or viewpoint” (Lakoff 1982). The study analyzes the illocutionary force of speech acts in closed role plays involving persuasive monologues of intermediate-level Spanish learners. While role plays have inherent limitations, they are an easy and useful way to collect spoken conversational data, the type of data sought in this study. The following questions were addressed:

1. *Which speech acts were most reflective of the type of persuasive discourse found in the students’ interlanguage?*
2. *How were these speech acts realized?*
3. *How did the students’ monologues in the first situation differ from those of natives?* The comparison between NS and Spanish learners was not to identify how learners fell short in pragmatic competence or proficiency, but to identify patterns and tendencies within each group as separate entities. I wanted to observe what native speech would be like, given the same situation.
4. *Did the learners’ speech acts include persuasive goals?* That is, did they include strategies found in Spanish persuasive discourse, to however varying degrees? Although the situations prompted persuasive devices, I wanted to see if learners in fact used such devices.

The participants included ten intermediate Spanish students at a large public research university in the Southwest. The students responded orally to two situations. Situation 1 was administered at midterm to ten volunteers from an intermediate class but did not count as a grade. Students were recruited from the investigator’s intermediate Spanish classes with the caveat that there would not be any remuneration, effect on the student’s grade, nor obligation to participate. The participants’ consent was both informed and voluntary. Furthermore, they were self-selected from intermediate classes so there was no control for proficiency level. Since the researcher had listened to their spoken Spanish during each class for two months, the investigator was familiar with their overall proficiency level. Prior to speaking, participants filled out a questionnaire regarding their amount and degree of exposure to Spanish. Participants were given as much time as they needed to audio record their monologues and were encouraged to elaborate as much as possible. For situation 1, the instructor gave participants written copies of the closed role play and then the instructor left the

room before the students began speaking in order to encourage less inhibited speech. They were allowed as much time as desired to think before speaking. Five native volunteers who were involved in teaching college Spanish also participated in the same task. These volunteers were colleagues native to Ecuador, Colombia, Cuba, and Mexico (Mexico City) who had received all but their graduate education in their respective countries of origin. The investigator was present for these monologues, hence the contexts were not identical for NS and NNS. Situation 1 was presented as follows (in written form in English):

Imagine that you are married and that your spouse does nothing around the house and is your basic “couch potato,” besides having other character flaws. Complaining freely, tell your spouse what you want him/her to do differently and give him/her suggestions for change.

Situation 2 was administered to students as part of the final departmental oral exam for a third semester Spanish class. The exam took place in a language laboratory in which all students were able to record themselves talking at the same time. The situation was provided in written form on the test paper and was then read aloud by the instructor. Students were given thirty seconds to plan what they would say and were then given one minute to talk. They were allowed to look at the test paper throughout the exam. Only responses from the original student participants at midterm were used for the second situation, again after receiving informed consent. Situation 2 was presented as follows:

Your friend X just told you his girlfriend left him. Talk to him about his situation, including:

- (a) appropriate expressions of surprise, doubt, or anger.
- (b) two or more recommendations on where to find a new girlfriend.
- (c) advice on changes in his behavior or appearance.

The recorded responses to the two situations were transcribed and compared for similarities and differences in preference for and production of speech acts. The analysis consisted of an inventory of the type of speech acts present in each monologue and a description of the strategies employed by each speaker in attempting to communicate each speech act. Preferences for speech acts were determined, based upon the presence or absence of a particular act within a given response. In other words, an act might occur more than once in a given discourse but only be counted as one context. The students' monologues from the first situation were also compared with those of five NS from Latin America to determine similarities and differences in their attempts at persuasion. Again, the intent was to see how each group communicated, rather than to highlight the learners' deficiencies. Preferences for particular speech acts, pragmatic mismatches between the attempted speech act and actual utterance, and general tendencies were noted.

Specification of speech acts in situation 2 was based upon both the researcher's and a second rater's criteria. The second rater, a doctoral candidate

writing a dissertation on pragmatics in Spanish, classified all directives as suggestions; however, these were further divided into recommendations and advice by the researcher. Borderia-Garcia (2006) outlines the inherent difficulty in distinguishing between advice, suggestions, and recommendations. For an analysis of the three speech acts, see table 3.

4 Data analysis

4.1 Situation 1

Situation 1 required a minimum response containing at least three acts: a complaint, a request/order, and a suggestion. Since elaboration was allowed and encouraged, the participants' monologues understandably tended to be longer and more creative than those of situation 2. Furthermore, unlike situation 2, situation 1 was worded in such a way that it evoked negative feelings toward the imaginary hearer (spouse).

The overall preference for each type of speech act appears in table 3. Individual preferences are illustrated in table 4.

Table 3 Preference for speech acts in situation 1

NNS Preference (n = 10)	NS Preference (n = 5)
complaint (10)	complaint (5)
recommendation (9)	recommendation (4)
order (4)	order (1)
suggestion (4)	suggestion (2)
insult (3)	insult (4)
ultimatum (3)	ultimatum (3)
promise (3)	promise (0)
plea (3)	plea (0)
offer (2)	offer (2)
exclamation (2)	exclamation (1)

Table 4 Distribution of speech acts for situation 1

Part	Com	Rec	Ord	Pro	Ins	Ult	Off	Ex	Plea	Sug	Tot
A	X	X	X		X			X	X		6
C	X	X	X		X	X	X				6
JR	X	X		X				X	X	X	6
J*	X	X			X	X	X				5
L*	X	X	X		X	X					5
T	X	X		X			X			X	5
K*	X	X			X	X		X			5
D	X	X			X					X	4
AD	X	X	X							X	4
R*	X	X					X			X	4
M	X	X							X		3
JG	X	X		X							3
V	X	X				X					3
TG	X		X			X					3
N*	X				X					X	3

Key: Par = participant, Com = complaint, Rec = recommendation, Ord = order, Pro = promise, Ins = insult, Ult = ultimatum, Off = offer, Ex = exclamation, Plea = plea, Sug = suggestion, Tot = total, *Indicates a NS.

The distribution of speech acts was similar for both NS and NNS, but there did not appear to be any correlation between the number of speech acts in a group (or individual's) repertoire and the level of proficiency (among learners, C and V were most proficient, and A, D, and AD were least proficient).¹ Furthermore, both NS and most NNS began with attention-getting vocatives. Nevertheless, a number of tendencies or strategies were noted. Complaints by NNS contained short, repeated phrases and included expression of feelings with the verb *gustar* 'to be pleasing to'. Lexical problems often interfered with effective communication of the speakers' intent, and repetition seemed to be the result of transfer, as in the adverbial series in (2).² One learner managed to mitigate her complaint by prefacing it with, "I love you very much, but...."

NNS' complaints were expressed in declarative sentences (1a, b).

(1) NNS Declarative

- a. No me gusta que tú no hagas la cena o limpias--limpies la casa. (AD)
'It doesn't please me that you don't make dinner or clean [sic]—clean the house.'
- b. Nunca, nunca, nunca haces la cama. Nunca cuidas las--los niños. Y nunca haces las vasijas. (V)
'You never, never, never make the bed. You never look after the [sic]—the children. And you never do the dishes' [sic].

¹Letters correspond to the participants.

²Translations reflect what the participants actually said, not what is grammatically or lexically correct. [Sic] is used to indicate ungrammaticality in Spanish when it may not be apparent in the English translation.

NS' complaints did not include *gustar* and were conveyed via declarative complaints, interrogative suggestions, or hedging (2)–(4). NS also used subject pronouns for emphasis or contrast in short series of sentences (5).

(2) NS Declarative

- a. Me parece que es injusto que tú estás solamente todo el día aquí. (L)
 'It seems to me that it is unfair that you are just here all day.'
 b. Entonces para mí es muy difícil tener que estar pensando en dos personas. (R)
 'So for me it is very difficult to have to be thinking about two people.'

(3) NS Interrogative

- ¡Por Dios! ¿No puedes levantarte de ese sofá y hacer algo? (K)
 'For God's sake! Can't you get up from the sofa and do something?'

(4) NS Hedging / indirectness

- Ya sabes que quiero hablar contigo porque pues, yo veo que no haces nada o haces muy poco durante el día. (R)
 'You already know that I want to talk with you because, well, I see that you don't do anything or you do very little during the day.'

(5) NS Use of pronouns

- Yo trabajo. Yo estudio. Yo cocino. Yo limpio la casa. Yo hago todo. (L)
I work. I study. I cook. I clean the house. I do everything.'

Not surprisingly, NNS relied upon formulaic phrases for recommendations such as *quiero que* 'I want (that)', *necesitas* 'you need', and *tienes que* 'you have to' (6), whereas the overall effect or force of indirect commands by NS was more direct and emphatic (8). Orders were problematic for NNS, because they were sometimes rendered ineffective or incomprehensible due to lexical and grammatical difficulties; nevertheless, most attempts at direct orders were effective (7).

(6) NNS formulaic phrases

- Quiero que tú sacar los muebles y lavar los platos y hacer muchas cosas que yo he hecho durante el tiempo que nosotros he sido casarse—casado. (T)
 'I want that you to take out the [sic] furniture and wash the dishes and to do many things that I have done during the time that we have been marry—married.'

(7) NNS orders

- ¡Levántate de la sofá y ayúdame! (TG)
 'Get up from the [sic] sofa and help me!'

(8) NS indirect commands

Yo creo que es hora de que te levantes de ese sofá y te pongas a trabajar. (L)
 'I think it is time for you to get up from that couch and get to work.'

NNS strategies for insults were variable according to proficiency level, as illustrated in (9a–c). *D* produced an indirect insult that was too vague for the situation; whereas, pragmalinguistic transfer was evident in the repetition in *A*'s insult not found in this corpus of NS Spanish. Only *C* was able to convey a pragmatically and grammatically successful insult. Based on his pre-test language questionnaire, he also had the most exposure to Spanish of all the participants. NS' pragmatic repertoire allowed them to use analogies, figures of speech, humor, and embedded insults to control illocutionary force, as depicted in (10).

(9) NNS

- a. Y cuando una persona no produce mucho...ah...este persona no es bueno en el mundo. (D)
 'And when a person doesn't produce much...ah...this [sic] person isn't good in the world.'
- b. Necesitas hacer más, más, más en la casa. (A)
 'You need to do more, more, more at home.'
- c. Eres bien floja y nunca haces nada más te quedas ahí en el sofá y nomás miras la televisión todo el [expletive] día...Todas, you know, tus novelas y "Dos mujeres, un camino" con Eric Estrada. (C)
 'You are very lazy (slack) and never do anything but you stay there on the couch and just watch television all the [expletive] day...All, *you know*, your soap operas and "Two women, one road" with Eric Estrada.'

(10) NS

Es muy difícil ser romántico con una persona que luce como una ballena. Así que...aparte me tengo miedo de que si caes arriba me vas a partir los huesos... (J)
 'It is very difficult to be romantic with a person that shines/stands out like a whale. So that...besides, I'm afraid that if you fall on top of me you're going to break my bones.'

NNS declarations and ultimatums were less forceful often due to a lack of specific vocabulary or vagueness, as in (11a). This may also be why some learners rambled and "waffled" in (11b), an interlanguage characteristic according to Blum-Kulka and Olshtain (1986).

(11) NNS

- a. ¿Y sabes qué? Vamos a esperar un mes y si no te mejoras en un mes, entonces vamos a hablar otra vez. ¿Está bueno? O.K. (C)
 'And you know what? We're going to wait a month and if you don't improve in a month, then we're going to talk again. Is that good [sic]? O.K.'

- b. Si tú no puedes hacer más cosas del casa—para la casa como hacer la cena, sacar la basura--cosas pequeñas como eso para tener una buena casa, voy a tener que hacer algo diferente con Ud.—con tú... (V)
 ‘If you can’t do more things in the [sic] house—for the house like making dinner, taking out the garbage—little things like that to have a good house, I’m going to have to do something different with you [formal]—with you [informal]’...

A sample of NS declarations and ultimatums is given in (12a). Among learners, C and V also were able to produce the ultimatums in (12b).

(12) NS

- a. Vamos a ir a la corte y lo primero que voy a decir al juez es que tú estás fingiendo o sea que estás—o mejor dicho que estás siendo como eres un parásito de mí, de mi trabajo y de mi preocupación y de todo. (L)
 ‘We’re going to go to court and the first thing that I’m going to say to the judge is that you’re pretending or rather that you’re—or better said that you’re being like you’re a parasite on me, on my work, and on my concerns and on everything.’
- b. Si tú no puedes hacer más cosas del casa...voy a tener que hacer algo diferente...como no darte dinero....
 ‘If you can’t do more things in the [sic] house,...I’m going to have to do something different...like not giving you money.’

Pleading and promises only occurred in NNS discourse. Once again, NNS relied on formulas (“si-clauses,” *gustar* expressions, explicit verb forms, and *por favor*).

Not surprisingly, NS conveyed illocutionary force at both ends of the spectrum. On the one hand, they provided the forceful complaints, directives, and insults, but they also softened complaints and directives at times. Their monologues were long, contained few pauses and repetitions (except for emphasis), and reflected a wide variety of vocabulary and expressions. Their monologues were also authoritative and contained few formulas or explicit expressions of feeling. In fact, even offers were contextually more like concessions.

4.2 Situation 2

Situation 2 was designed to evoke sympathy toward the hearer (friend) and required a minimum response of a reaction, two recommendations/suggestions, and a piece of advice/suggestion. Since recommendations, suggestions, and advice may overlap in meaning, it was difficult in some cases to distinguish between the three. Searle (1969) calls this group *advisories* and notes that advice is considered to be of benefit to the hearer rather than speaker and that it tells what is best for the hearer. The speaker may hope for a future act on the part of the hearer. Some synonyms for *advise* that do not apply to *suggest or recommend* include *admonish*, *offer an opinion*, *encourage*, *caution*, and *warn*. On the other hand, *recommend* and

suggest do not generally include a negative connotation and may be of benefit to both the hearer and speaker. Finally, a suggestion involves the expectation of a future act on the part of the hearer, and it may be tentative. Meanings unique to *suggest* (rather than *recommend* or *advise*) include *propose*, *move*, *submit*, and *advance*. So the three speech acts differ slightly in degree of intensity. *Recommendations* require the least action of the three speech acts, *advice* has the possibility of stronger negative connotations, and *suggestions* may be less assertive/forceful than advice. Unlike Ana Borderia-Garcia (2006), I propose three different speech acts and classify them as such. Based on Searle's note and some synonymous meanings, advice, suggestions, and recommendations were classified according to the criteria in table 5. As previously mentioned, the three acts overlap in function, and therefore the classification is tentative.

Table 5: Criteria for three directives

Advice	Suggestion	Recommendation
Speaker must have right to give advice		
closest to requiring hearer action		furthest from requiring action
of benefit to Hearer	of benefit to Hearer/Speaker	primarily benefit Hearer but may also benefit Speaker
strongest illocutionary force	may be tentative	
may include negative connotation		

Situation 2 reflected the following overall distribution of speech acts (n = 10): reactions (9), advice (7), consolation (6), suggestion (6), insult (4), assertion (3), condolence (3), recommendation (2), order (1), and request (1). The exact breakdown for individual participants is depicted in table 6. Note that the high and low ends of the distribution reflect the highest and lowest proficiency levels among the students. C was the most proficient speaker, whereas A had great difficulty and struggled with oral (and written) production.

Table 6 Distribution of speech acts for situation 2

Part	Reac	Sug	Rec	Adv	Cond	Cons	Ins	Ass	Req	Ord	Tot
A		X		X							2
M			X		X			X			3
D	X	X					X				3
V	X			X			X				3
TG	X			X		X				X	4
JR	X	X		X		X					4
JG	X			X		X	X	X			5
AD	X	X		X	X	X					5
T	X	X	X		X	X					5
C	X	X		X		X	X	X	X		7

Key: Part = participant, Reac = reaction, Sug = suggestion, Rec = recommendation, Adv = advice, Cond = condolence, Cons = consolation, Ins = insult, Ass = assertion, Req = request, Ord = order, Tot = total.

In general, responses to situation 2 included brief and evaluative reactions of surprise, pity, or identification as in (13). Even though lexical errors were common and changed the meaning of the reactions, as in (14), so that they sounded semantically odd, the intent of reacting was communicated in all cases.

(13) Ay, ¡qué lástima! (TG)
‘Oh, what a pity!’

(14) ¡Me sorprende mucho que Cristina te debaje! (T)
‘It surprises me very much that Cristina is leaving [sic] you!’

Condolences were all expressed with the fixed expression *lo siento* ‘I’m sorry’, as in *José, José, ilo siento!* “José, José! I’m sorry!” Expressions of consolation were offered as assertions with the verb *poder* ‘to be able’, as in “you *can* find another girlfriend soon,” or reminders that there were more “fish in the sea.” Consolation was also indicated by evaluative assertions such as (15).

(15) Es más mejor que tú no estabas con ella. (JR)
‘It is more better [sic] that you weren’t with her’.

Speakers who expressed overt suggestions with the verb *sugerir* ‘to suggest’ or recommendations with the verb *recomendar* ‘to recommend’ demonstrated an awareness of mood and attempted to select the subjunctive (16). A few learners made impersonal recommendations without use of the explicit verb as shown in (17).

(16) Pero sugiero que tú cambie su apariencia en la manera—en la manera... (T)
‘But I suggest that you change [sic] your appearance in the way—in the way...’

(17) Primero, en las tiendas es un bueno lugar porque todos personas necesitan comida. (M)
‘First, at the stores is a good place because all [sic] people need food.’

When making recommendations (as defined in this study), learners were the least direct. They attempted indirectness by avoiding personal reference (18).

(18) Ah...buenas lugares por conocer nuevas mujeres son...el mercado y el bibliotec. (T)
‘Uh...good [sic] places to [sic] meet new women are...the market and the library’ [sic].

One strategy for communicating advice occurred with the so-called “if clauses” (19). Another involved overt advice with the verb *aconsejar* ‘to advise’ (20). Again, explicit expression of the speech act seemed to trigger the speakers’

awareness of mood, even though learners did not necessarily select the correct person or number.

- (19) Y si fuera tú, yo acons--yo vestería--se--te vestería más mejor. (AD)
 ‘And if I were you, I would advi—I would dress [sic]—oneself—I would dress yourself more better.’
- (20) Yo aconsejo que tú no se quedes en el...ah...te quedes en la casa por mucho tiempo porque es--es mal. (AD)
 ‘I advise you to not stay [sic] en the...uh...stay in the house for a long time because it’s—it’s badly.’

Other strategies for conveying advice included *necesitar* ‘to need’ and *tener que* ‘to have to’. These could arguably be interpreted as suggestions; however, advice seemed to be the intent in several cases, given the situation, the equal status of the speaker and imaginary hearer, and the fact that the speech acts were not tentative. The participants may have employed formulas for indirect commands because they lacked the skills necessary to express advice to a close friend.

- (21) Si quieres otra novia, necesitas cambiar todos tus...ahm...mandatos y todos tus formas. (V)
 ‘If you want another girlfriend, you need to change all your...um...orders and all [sic] your ways.’
- (22) Pero tienes que ir a—tienes que ir a las clubs... (JG)
 ‘But you have to go to—you have to go to the [sic] clubs...’

As anticipated, overt expression of subject pronouns, particularly first person, was most common in speech acts of advice due to use of the performative verb. Insults of the hearer’s clothing and *machismo* were also substituted for advice on changes necessary in the hearer’s behavior or clothing, perhaps due to avoidance as in (23) and (24).

- (23) Yo creo que nada más te necesitas hacer es cambiar como te vistes porque...(C)
 ‘I think that the only thing you need to do is change how you dress because...’
- (24) Mira, tú—tú siempre hag—hagas—haces...ahm...algo con machí—muchísi—con machísimo. (V)
 ‘Look, you—you always d—do [sic]—do...um...something with mach—muchis—machismo.’

Only four assertions occurred that did not pertain to one of the above categories. Of these, two included the verb *dudar* ‘to doubt’. These could contextually be interpreted as reasons or support for prior advice (25).

(25) No dudo que es posible porque, I mean, estuvo ahí, you know, y estaban que—ya hace años que están...este...novia y novios. (C)

‘I don’t doubt that it’s possible because, *I mean*, you were there, *you know*, and they were that—already for years that you’ve been...um...girlfriend and boyfriends.’

Requests were for information about what had happened and why the hypothetical couple had broken up and generally demonstrated positive politeness through identification with the hearer (26).

(26) Pos, ¿qué pasó? I mean, dígame. I mean qué—yo no sé, porque estaba bien enojada contigo, ¿o qué? I mean, ¿Qué pasó? (C)

‘Well, what happened? *I mean* tell me. *I mean* what—I don’t know, because she’s so angry with you, or what? *I mean*, what happened?’

Finally, some examples of orders were probably intended to be advice. Instead, the speaker was more direct and than was warranted by the situation and command forms were attempted (27).

(27) Y—y gastes mucho dinero sobre ella. (TG)

‘And—and spend [sic] a lot of money over her.’

A few individuals were unique in some way in their strategies for communicating particular acts. *JG*, for example, demonstrated more verbal control than other learners and was the only speaker who employed the past tense in her reaction. She also selected *ir* ‘to go’ instead of *poder* ‘to be able to’ in her expressions of consolation (despite grammatical difficulties). Finally, she was able to support her advice with reasons (28) and (29).

(28) Me sorprendió muchísimo las noticias de—de tú...y tu novia

‘The news of—of you...and your girlfriend surprised [sic] me a lot.’

(29) Pero, tienes que ir a—tienes que ir a las clubs, a las organizaci3n de servicio porque—por eso. Y si ella est3 en una organizaci3n de servicio, ella es muy cariñosa y muy—y muy amable.

‘But, you have to go to—you have to go to the [sic] clubs, to the service organizations [sic] because—that’s why. And if she is in a service organization, she is very affectionate and very—and very nice.’

Another speaker with some unique strategies compared to the rest of the participants was *C*. Although he was considerably gifted at “waffling,” *C* also effectively used positive politeness to convey intimacy by means of flattery, as in (30), and offers.

(30) Hay muchos...este...mujeres aquí que, you know, que yo creo que lo gustan. I mean, si tienen alguien como Ud. I mean, tú eres un bien, you know, joven.

‘There are many [sic]...um...women here that, *you know*, that I think like you [sic]. *I mean* if they have someone like you [formal]. *I mean*, you are a [sic] very *you know*, young.’³

Learner A was at the other end of the proficiency spectrum, yet still unique in his strategies for communication. His message lacked content because of a low proficiency level and difficulty with grammar and lexical items. Instead he chose simple vocabulary and formulas. Nevertheless, he *was* able to provide a basic reason for his advice (31).

(31) Si—si yo—si yo...ah...fuera...Si yo fue tú...ah...José, yo...ah...daría flores a t—a su porque ella es una--una mujer...ah...muy, muy...ah...bonita y ..ah...me gusta mucho.

‘If—if I—if I...uh...were...If I was you...uh...José, I...uh...would give flowers to y—to your [formal] because she is a—a very, very...uh...pretty woman and...uh...I like her a lot.’

4.3 Comparison of Situations

In comparing the two situations in this study, it was evident that the type of activity or test determined the type of discourse and repertoire of speech acts. Situation 1 (the couch potato spouse) allowed for greater elaboration due to the lack of time restraints and instructions to elaborate as much as possible. It also differed from situation 2 (loss of girlfriend) in that participants were volunteers and were not being graded on their performance. Furthermore, while both situations were in informal contexts, situation 1 encouraged more illocutionary force or directness than situation 2. Situation 2 was designed to evoke sympathy for the hearer and therefore less force/directness.

Given these facts, responses to situation 1 were understandably more elaborate and creative overall. Nevertheless, it was surprising that four out of ten participants actually did better on the second situation (less hesitation and repetition, more information and normative grammar), in which they had only one minute to speak. A comparison of individuals’ performance in both situations appears in table 7. The first four speakers below possibly performed better on situation 2 due to the effect of time and practice in between mid- and final semester. Another possible reason is that the pressure of an actual timed test forced them to quickly and efficiently communicate their intent. Since the second task was more defined, speaker C was less prone to ramble. Speaker D was also unique in that his level of directness in responses was the opposite of what was required. Instead, he was *more* forceful and direct in situation 2.

³Other possible interpretations for this sentence are ‘you are a very young’ or ‘you are a good [sic] young (person).’

Table 7 Comparison of individual performance

Participant	Situation 1 (Couch Potato)	Situation 2 (Girlfriend)
JG	Less information	More information, animated, clear
M	Same length, repetitive, less fluid	More fluid, less repetition
D	Less forceful / direct, stumbling, repetitive, unclear	More forceful and direct, clear
C	Extremely repetitive, rambling; long, but little information	Fewer pauses, less English, more comprehensible
A	Animated, variety of speech acts, few pauses, longer	Little information, repetition, 12 pauses, difficulty with formulas
V	More information, less repetitive	Less information, more repetitive, more stumbling
JR	More information, fluid	Fell apart at end of response. Several long pauses
T	Same amount of information	More repetitive, same amount of information
TG	Less stumbling, otherwise the same	More stumbling
AD	Fewer pauses, same amount of information	More pauses, same amount of information

5 Conclusions

Returning to the research questions posed at the beginning of the study, the data suggest the following questions:

1. *Which speech acts were most reflective of the type of persuasive discourse found in the students' interlanguage?*

For situation 1, complaints, recommendations, orders and suggestions were the preferred speech acts, in that order. In situation 2, reactions, advice, consolation, suggestion and insults were preferred.⁴ Thus, this subset of intermediate Spanish learners preferred the above speech acts in their attempts to persuade in informal contexts (with a spouse or good friend).

⁴Reactions and consolation were part of the situation, but were not necessarily attempts to persuade.

2. How were these speech acts realized?

Table 8 summarizes some principal learner strategies in forming speech acts. These strategies reflect various principles proposed in Second Language Acquisition research. Specifically, Roger Andersen's (1984) "One to One Principle" may be extended to reflect learners' selection of just one (explicit) verb to express a given speech act.⁵ Simplification may also account for this selection and for participants' reliance upon formulas. Simplification and substitution perhaps account for the less specific vocabulary evident in NNS speech. Substitution or avoidance of particular speech acts may also be due to the learners' lack of skill or explicit training, for example, in how to form appropriate advice, insults, or indirect commands. Moreover, learners tended to avoid or substitute for the level of directness appropriate for each context, either because they were unaware or because they lacked the necessary skills to do so (see Koike 1994). Blum-Kulka and Olshtain's (1986) "waffle phenomenon" seems to be one explanation for the longer, and often rambling, speech acts of a few speakers. Pragmalinguistic error, for example in reactions, appeared due to the learners' limited level of Spanish proficiency. Finally, some lexical transfer may have occurred, for instance in adverbial series like those of English, and direct translations of vocabulary from English to Spanish.

Table 8 Learners' overall pragmatic strategies

Strategies	Example
One to One matching	Selection of explicit speech act verbs <i>Recomiendo que tú buscas--busques para un novia nueva.</i> <u>I recommend</u> that you look for—look for for [sic] a new girlfriend.
Simplification	Reliance upon formulas, less specific vocabulary <i>Y cuando una persona no produce mucho, <u>este persona no es bueno en el mundo.</u></i> And when a person doesn't produce much, <u>this [sic] person isn't good [sic] in the world.</u>
Substitution	Selection of more/less direct illocutionary force <i>Tienes que vestir más bueno.</i> You need to dress more better. [attempted advice; substituted conventionally indirect command]

⁵The principle that describes the expectation on the part of learners that each verb morpheme they learn will have one and only one meaning and function.

Avoidance	<p>Omission of speech acts whose formulas were unfamiliar</p> <p><i>Tu ropa es muy viejo--vieja y todo.</i></p> <p>Your clothing is very old [sic]—old and everything. [insult instead of advice, vagueness]</p>
“Waffle Phenomenon”	<p>Longer and often rambling expression of a particular act</p> <p><i>Sí tú no puedes hacer más cosas del casa--para la casa como hacer la cena, sacar la basura--cosas pequeñas como eso para tener una buena casa, voy a tener que hacer algo diferente con Ud.</i></p> <p>If you can't do more things for the [sic] house—for the house like making dinner, taking out the garbage—little things like that to have a good house, I'm going to have to do something different with you.</p>
Lexical transfer	<p>Adverbial series, direct translations</p> <p><i><u>Nunca, nunca, nunca</u> haces la cama.</i></p> <p>You <u>never, never, never</u> make the bed.</p>
Developmental sequence (Kasper & Rose, 2002)	<p>Stage 2 (formulas and imperatives) - <u>most common</u></p> <p>Stage 3 (conventional indirectness) - <u>common</u></p> <p>indirect directives, mitigation with <i>por favor</i></p> <p>Stage 4 (mitigation, more complex syntax) - <u>occasional</u> hedged complaint, impersonal recommendations</p> <p>topicalization, 'if clauses'</p>

Table 9 illustrates general lexical and pragmatic tendencies that NNS displayed in their persuasive discourse for both situations.

Table 9 Lexical and pragmatic realization of speech acts by NNS

	<u>Situation 1</u>		<u>Situation 2</u>	
	Lexical	Pragmatic	Lexical	Pragmatic
Assertives: Reaction			dudar que que + adjective es + adjective	mood awareness brief, evaluative
Directives: Order		explicit commands		probably intended as advice
Recommendation	necesitar tener que por favor recomendar que querer que	assertions/ indirect commands mitigation mood awareness	necesitar tener que recomendar que	assertions/ indirect commands mood awareness
Suggestion	sugerir que	mood awareness	sugerir que	mood awareness
Advice			aconsejar que “if” clauses	mood awareness
Request				for information
Ultimatum		nonspecific, waffling		
Expressives: Complaint	no gustar	brief phrases, negative assertions		
Insult	nunca	indirect, vague		of clothing, machismo
Consolation			poder	assertions of ability “more fish in the sea”
Condolence			lo siento	brief, evaluative

3. How did the students' persuasive monologues (in the first situation) differ from those of natives?

Aside from discourse features and the amount of information provided, control of illocutionary force and the level of directness were the primary differences between NS and NNS. Explicit speech acts were commonly employed by NNS whereas NS utilized a wide spectrum of strategies. The number of

speech acts does not necessarily indicate the level of proficiency, though, since some NS produced fewer speech acts than NNS. Nevertheless, in situation 2, speakers who produced the greatest and least number of different types of speech acts reflected the ends of the spectrum of proficiency. The least proficient NNS produced the least speech acts, and the most proficient NNS provided the most speech acts.

4. Did the learners use persuasive language?

That is, did they include strategies found in Spanish persuasive discourse, to however varying degrees? I found that NNS, like NS, included components of *memorability* (making the audience remember the message), *force* (emotional and logical appeals and the strength of a message), and *participation* (the desire for a response or audience/hearer involvement) in ways exemplified in table 10.

Table 10 Goals of persuasion in NNS speech acts.

	Situation 1	Situation 2
Memorability:	attention-getters, vocatives, insults, exclamations (ultimatums), (offers)*	evaluative reactions
Force:	positive politeness, complaints, orders, suggestions, recommendations, advice, reasons for advice, ultimatums, pleas, insults, offers	positive politeness, evaluative reactions, suggestions, recommendations, advice, (condolence, consolation) insults, assertions, order
Participation:	orders, ultimatums, (suggestions), (recommendations), (advice), (offers), (pleas)	positive politeness, requests for information, order, (suggestions), (recommendations), (advice), (consolation)

* Parentheses indicate optionality. For example, for some speech acts it is felicitous for the hearer to opt not to participate.

The results suggest that these intermediate learners were indeed beginning to understand how to persuade in Spanish. In general, they were able to communicate the intent of speech acts necessary in a given situation, although these were not always expressed in pragmatically correct ways for Spanish. The learners' speech acts were reflective of persuasive discourse in that they appealed to the basic components of persuasion: memorability, force, and participation (Hardin 2001, Rank 1988, Leech, 1966).

Much of L2 pragmalinguistic error resulted from two problems: lexical error and difficulty in controlling the force of the message. The data therefore suggest the importance of vocabulary instruction at this level so that learners have resources to clearly communicate their intent. In teaching college Spanish, it

may be useful to include pragmatic instruction, for example, regarding different levels of directness and how to express speech acts in ways other than overtly using the verb indicating the speech act. Furthermore, it is evident that the type of test helps determine the type of language elicited and the range of speech acts, and not always in ways we expect. (Contrary to expectations, some students actually performed better in situation 2, which was timed, than in situation 1.)

Some of the limitations of this study were the relatively small number of participants and the fact that defining and interpreting speech acts is not an exact science. Ideally, an actual conversation would have transpired rather than just the speaker's monologue, the negotiating sequences could also have been analyzed, and triangulation of data collecting methods would have been possible. It would also have been more revealing to compare the data with that of students at more advanced proficiency levels or to do individual longitudinal studies, but such was beyond the scope of this investigation.

It seems necessary to stress once again the importance of realistic expectations for students at this level. Although the intermediate stages of interlanguage can be frustrating for instructors, the results are encouraging because intermediate learners are indeed developing pragmatic awareness and skills to communicate their persuasive intent. Consider, for example, these learners' emerging awareness of mood with explicit speech act verbs such as *aconsejar* 'to advise', *sugerir* 'to suggest', and *recomendar* 'to recommend', and their ability to communicate basic speech acts in persuasive discourse. Although use of these verbs may be less common among NS, this emerging contextual awareness is a necessary step toward eventually learning more sophisticated and indirect pragmatic strategies. A few speakers even attempted indirectness and mitigation. Moreover, learners did in fact attempt (and often achieve) persuasive speech acts. It should encourage foreign language educators to recognize and emphasize what students are *able* to do rather than how far they are from attaining near-native proficiency.

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11

Successive African and European Contributions to Suriname Creole Lexicons

George Huttar

ABSTRACT

The creoles of Suriname include lexical items from many distinct, identifiable African and European (as well as Amerindian) sources. Among African languages, slave trade records indicate the predominance of Bantu (e.g., Kikongo) and Gbe speakers in the late 17th century, of Gbe speakers in the early 18th century, of Akan speakers in the 1720s and 1730s, and “Upper Guinea” (and to a lesser extent Bantu) speakers thereafter. Assuming this extralinguistically established chronology, this paper tests, for the Suriname creoles generally, but with particular reference to Ndyuka, Huttar’s (2003) claim that “If more than one substrate is involved in the formation of a creole, and one of them precedes the other in the history of the creole, then more basic lexemes are more likely to derive their form from the earlier substrate than are less basic lexemes.”

In a parallel fashion, using what extralinguistic history tells us about the relative chronology of English and Dutch input into Suriname creoles, this paper tests Huttar’s (2003) further claim that “If more than one superstrate is involved in the formation of a creole, and one of them precedes the other in the history of the creole, then more basic lexemes are more likely to derive their form from the earlier superstrate than are less basic lexemes.” The same procedure is applied to the more controversial question of the relative chronology of English and Portuguese input into Suriname creoles. For both African and European languages, the operationalization of the concept “more basic” used for these tests is that proposed in Huttar (2003).

The results provide moderate support for the hypothesis about successive substrate contributions, and stronger support for that about successive superstrate contributions. They also indicate some pre-English Portuguese input into the Suriname creoles, though not about whether such took place in Africa, in the Caribbean, or in Suriname. In addition, they shed light on respective semantic domains in which various substrate and superstrate languages, and substrate vs. superstrate languages, can be expected to make their greatest respective contributions.

The paper also briefly proposes the application of the procedure to Pacific creoles, such as Tok Pisin and Bislama, and conjectures what we are likely to find with respect to the contributions of German or French, respectively, and English in these two languages.

Pidgins and creoles constitute only one of the many areas, both synchronic and diachronic, in which Karl Franklin has contributed to our understanding of languages and cultures, and language and culture (see, e.g., Franklin 1979). In pidgin and creole studies, as in other fields, his creativity and intellectual rigor have been applied mostly to languages and cultures of the Pacific, particularly to those in and around Papua New Guinea—a natural and appropriate focus, given his experience and responsibilities in that part of the world. What follows, then, with its focus on languages of the Atlantic, relates only in general terms to matters touched on in his published work. But given Franklin's catholicity of interests, I offer it in the hope that even here he will find something of interest. And our understanding of contact languages would be advanced if he were to go so far as to test the following ideas, developed in the context of West Atlantic plantation and Maroon¹ cultures, against the substantially different sociohistorical context of Tok Pisin.

The creoles of Suriname include lexical items from many distinct, identifiable, African and European (as well as Amerindian) sources. Among African languages, slave trade records indicate the predominance of speakers of different languages, from different families of languages, at successive periods throughout the slave trade:

- (1) Numerically dominant language groups among slaves to Suriname.
 - late 17th century: Bantu (e.g., Kikongo) and Gbe
 - early 18th century: Gbe
 - 1720's and 1730's: Akan
 - thereafter: "Upper Guinea" (Atlantic, Mande, and Kru language families, all within Niger-Congo); to a lesser extent, Bantu

Assuming this extralinguistically established chronology, this paper tests, for Ndyuka specifically, Huttar's (2003:123) claim in (2)²:

- (2) If more than one substrate is involved in the formation of a creole, and one of them precedes the other in the history of the creole, then more basic lexemes are more likely to derive their form from the earlier substrate than are less basic lexemes.

In a parallel fashion, using what extralinguistic history tells us about the relative chronology of English and Dutch input into Suriname creoles, this paper tests Huttar's (2003:123) further claim in (3):

¹Maroon refers to escaped African slaves of the Caribbean and the Guianas, and their descendants.

²I use *substrate* to refer to the primary languages of socially subordinate groups in language contact situations, *superstrate* to refer to the primary languages of socially dominant groups in language contact situations, and *adstrate* to refer to the primary languages of other groups not in a strongly dominant or subordinate social position relative to the group whose language is under discussion. For creole languages of Suriname, for example, slaves' African languages are substrates, slave-owners' European languages are superstrates, and some local Amerindian languages are adstrates.

- (3) If more than one superstrate is involved in the formation of a creole, and one of them precedes the other in the history of the creole, then more basic lexemes are more likely to derive their form from the earlier superstrate than are less basic lexemes.

The results of this test are briefly applied to the more controversial question of the relative chronology of English and Portuguese input into Suriname creoles.³

It may be helpful to make clear at the outset that the operative term modifying *lexemes* in hypotheses (2) and (3) is not *basic*, but *more basic* (and, by extension, its counterpart *less basic*). Its use makes a claim not about a given lexeme in isolation, but a given lexeme compared with another lexeme in the same language. In testing the two above hypotheses I am using the operationalization of *more basic* developed in Huttar (2003). That operationalization is defined partly in terms of criteria specific to particular semantic domains (e.g., kin, color, body parts), and partly in terms of generic criteria applicable to any domain. These definitions of *more basic* for specific domains are explained in (4) and (5) below.

The two hypotheses are here evaluated only within specific semantic domains, not across domains: within one domain, such as color or body parts, does comparison of the sources of more basic and less basic lexemes confirm or disconfirm these hypotheses? That is, are lexemes derived from a sub- or superstrate involved earlier in the history of a creole more basic than those derived from a sub- or superstrate involved later in the history of that creole?

It is also probably worth mentioning at the outset that we are here looking only at relationships among substrate-derived lexemes, and those among superstrate-derived lexemes. We are not considering the relationship between substrate-derived lexemes on the one hand and superstrate-derived lexemes on the other. For that relationship, we already have fairly convincing evidence that lexemes for more basic concepts are more likely to be derived from superstrate sources than are lexemes for less basic concepts (see, e.g., Huttar 1994).

The data on African-derived lexemes in Ndyuka are those brought together in Huttar (2009), where numbers of lexemes from Bantu, Gbe, Akan, and other sources are reported, but with little attention to specific items or their relative basicness. In this paper these lexemes are examined in detail with regard to the relative basicness of lexemes from various African sources. Such an investigation should eventually include looking at which semantic domains are contributed to by which sources; but here I limit myself to comparing African sources only within some specific domains.

In making this comparison I have followed the grouping according to the chronology of slave imports into Suriname given in (1). Thus, on the one hand Gbe and Akan, though both are language groups within Kwa, are treated

³The matter of debate is to what extent Portuguese input into Suriname creoles occurred before English input—for example, through a Portuguese-based pidgin used in slave-holding forts of the West African coast—and to what extent this Portuguese input occurred in Suriname, after the earliest English input there. See the last six papers in Huber and Parkvall (1999) for extended discussion.

separately, with other Kwa languages omitted entirely. On the other hand, Mande, Atlantic, and Kru languages are treated together in the regional grouping “Upper Guinea,” a region from which slaves were brought to Suriname in the same general period.

The operationalization of the key variable, “more basic,”⁴ in Huttar (2003:135) included both criteria that are specific to particular semantic domains and criteria that apply to all domains, as listed in (4) and (5):

(4) Domain-specific criteria

- “more widely attested color terms are more basic than less widely attested ones”;
- “consanguineal kin are more basic than affinal kin”; “close kin are more basic than distant kin”;
- “unmarked members of property (‘adjectival’) pairs are more basic than marked members”;
- “external body parts more basic than internal parts; parts above the waist more basic than those below; those in front more basic than those in back; more public parts more basic than those more private, parts of the face more basic than other body parts; etc.”

(5) General criteria

- “more generic concepts [are] more basic than more specific concepts” and “‘public’ concepts [are] more basic than ‘private’ ones”—a generalization of one of the criteria given for body-part terms.
- It was also noted that “degree of basicness in many cases [is] culturally defined, with culturally more salient concepts more basic than less salient ones.”⁵

It turns out that the domain-specific criteria are of little use in testing the hypothesis about various African substrates. For color terms, although some Ndyuka lexemes (e.g., *taya* ‘yellow’) may well be of African origin, no specific African etymon has been identified for any. For kin terms, the possibly African-derived terms each have possible sources from several different genetic or areal groups of African languages. For pairs of “property items” (roughly, adjectives or stative verbs), no pair has been identified in Ndyuka with both members derived from African sources.

For body-part terms, things are only a bit more interesting. There are seventeen Ndyuka lexemes that can be associated with African sources; but for seven of these, there are reasonably plausible etyma from more than one language group. To take one example, Parkvall (1999, following Huttar [1985:56]) mentions possible Kwa (Yoruba, Baule), Bantu (Kikongo) and “Upper Guinea” (the Mande language Mandingo and the Atlantic language Wolof)

⁴This operationalized notion “more basic” shares some similarities with, but differs significantly from, uses of “basic” in, e.g., Berlin and Kay (1969), Berlin, et al. (1973), Rosch, et al. (1976) and Berlin (1992). See Huttar (2003).

⁵On saliency, see references mentioned in the previous footnote.

etyma for *buba* ‘skin’. Such a variety of genetic or areal groups as possible sources makes it difficult to use such an item to test our hypotheses about lexemes that have entered a language before or after others.

The remaining ten body part terms are given in (6), with the language groups in roughly chronological order. They provide little in support of, or as counterexamples to, our hypotheses. The terms for body parts above the waist are restricted to part of the earliest layer, Bantu, while the terms for those below the waist are from Gbe, Kwa, and Upper Guinea. This does fit the claim that terms for parts above the waist, being more basic than those for parts below the waist, would enter the language first—but only if we take the Gbe input to be after the Bantu input, rather than simultaneous with it. The slave trade data allow for both possibilities. Similarly, the Gbe origin of the term for the most private part listed, *popoi* ‘vagina’, fits the criterion about terms for more private body parts entering the language later only if we take the Gbe input to be later than the Bantu input. On the other hand, the criterion of external parts before internal is contradicted by the occurrence of the only internal part, the terms for ‘brain’, being from the earliest, Bantu, stratum—again, if we take the significant Bantu input to have occurred only in the earlier period of Bantu numerical dominance.

(6) Body part terms

Bantu

<i>kumba</i> ‘navel’	cf. Kikongo <i>ŋkumba</i> ‘navel’
<i>mapaapi</i> ‘wing’	cf. Kikongo <i>mapâpi</i> ‘wings’
<i>mazonzon</i> ‘brain’	cf. Kikongo <i>tóonzo</i> ‘brain’
<i>tonton</i> ‘brain’	cf. Kikongo <i>tóonzo</i> ‘brain’
<i>tutu</i> ‘horn’	cf. Kikongo <i>túutu</i> ‘bamboo, tube, pipe, flute’

Gbe

<i>asakpa</i> ‘thighbone’	cf. Fon <i>àsá</i> ‘thigh’, <i>kplá</i> ‘pocket’
<i>gogo</i> ‘buttocks’	cf. Ewe <i>gogo</i> ‘buttocks’
<i>popoi</i> ‘vagina’	cf. Ewe <i>φoφoli</i> ‘navel’

Kwa

<i>dyonku</i> ‘hip’	cf. Twi <i>ad̄zonku</i> ‘hip’
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Upper Guinea: Mande

<i>agana</i> ‘thigh’	cf. Bisa <i>gan</i> ‘leg’
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What about the general criteria in (5)? The second one—that terms for more public concepts are more basic, and hence likely to stabilize in a creole earlier than terms for more private concepts—has been discussed above with reference to body-part terms. For the first general criterion—that terms for more generic concepts are more basic and hence likely to stabilize in a creole earlier than terms for more specific concepts—the ten body-part terms in (6) have nothing to tell us, as there is no clear case among them of two terms for concepts in a generic-specific relationship. The third item under the generic criteria in (5) says, perhaps too cautiously, that “more basic” is “in many cases” culturally defined, in terms of what is salient in a particular culture. I would now venture

that more basic is culturally defined or constructed in all cases, with the additional observation that in some cases, such as body parts on the front of the human body being more basic than those on the back, this definition of relative salience is probably the same in all cultures.⁶ But whether it is a matter of many cases or of all cases, this general criterion remains unfalsifiable, unless we have some other way to determine cultural salience of concepts than the sources of the respective lexemes expressing each concept. In the present case, the relative salience in the Ndyuka culture of the concepts represented by the ten body-part terms in (6), we have no such independent measure.

What would such an indication of cultural salience look like? A measure fairly well developed among cultural anthropologists is “free listing,” in which respondents are asked to name, for example, all the different body parts they can think of, or all the kinds of trees in their area. Aggregating the responses of all the subjects gives measures of frequency (which terms occur in the lists of the most subjects?) and priority (which terms are recalled more readily by subjects, in that they occur earliest in subjects’ lists?), both of which are taken to be positively correlated with cultural salience. (For a summary of these and related measures, see Thompson and Juan 2006.) Another measure would be the relative frequency of concepts and lexemes within the inventory of proverbs of Ndyuka or some other culture, and the relative frequency of specific proverbs in actual use in the community. The measure of relative cultural salience remains for now mostly unexplored for creole-speaking societies, and it is not my purpose to remedy that situation here, noting it as a desideratum for future research—in the Pacific and elsewhere—and a rich source of dissertation topics for students of creole linguistics and anthropology.

For a domain potentially much richer in concepts related to each other as more generic and more specific, we turn to that of animal names. And indeed there is a fairly consistent pattern of more generic terms being derived from superstrate languages and more specific terms from substrate (and adstrate) languages (Huttar 1994). But when it comes to two different groups of African source languages, it turns out that there are no clear cases of such relationships between lexemes in Ndyuka, among the nine names for mammals, nine for birds, seven for reptiles, or thirteen for invertebrates.

There is, however, one case of strong cultural salience that we should not ignore: that of *anainsi*, the generic name for spider and the name of the spider trickster-hero of many traditional tales. The word is almost certainly from an Akan or closely related language, not from Gbe or Bantu. Given the strong salience of the concept, then why does Ndyuka label it with a term from a later source, Akan, rather than from earlier Bantu or Gbe? Do we have here a counterexample to the hypothesis that terms for more basic concepts—in particular, culturally more salient concepts—derive from earlier substrate sources? Actually not, for the spider as trickster-hero, while an important part of Akan culture, is not a feature of the cultural area where Bantu languages such as

⁶A related position has been taken by Witkowski and Brown (1983:570), who treat “over-all salience of referents” as determined by two factors: “cultural importance” and “natural salience.”

Kikongo were spoken. Put another way, we have a case here of Witkowski and Brown's (1983) notion of diachronic reversal of relative markedness, in which changes in the importance of certain concepts in a culture (such as through the introduction of new crops or domesticated animals from outside) go hand in hand with changes in the markedness of the terms referring to those concepts. Presumably the cultural salience of the spider as trickster-hero increased drastically in Ndyuka society when a significant number of former slaves of Akan background joined that society.

So far, our results regarding the hypothesis (2) about successive substrates are rather meager. For the superstrate side of the story, the picture is somewhat brighter. We start again with the domain-specific criteria in (4). Some Ndyuka color terms from English and Dutch are given in (7) (from Huttar 1994):

(7) Ndyuka color terms from English and Dutch

more basic	
↑	{ <i>baaka</i> 'black, dark-colored' < E <i>black</i>
	{ <i>weti</i> 'white, light-colored' < E <i>white</i> (< D <i>wit</i> ?)
	<i>lebi</i> 'red' (cf. <i>lebi</i> 'liver') < E <i>red</i>
	{ <i>donu</i> 'yellow' < E <i>dun</i>
	{ <i>guun</i> 'green' < D <i>groen</i>
	<i>baau</i> 'blue' < D <i>blauw</i>
↓	<i>sukaati</i> 'tan, purple' < D <i>chocolaat</i>
less basic	

The three most basic terms—i.e., the three expressing color concepts that have been demonstrated to be the most widely attested in the world's languages—either have unequivocally English origins, or either English or Dutch. (The concepts referred to by the fourth and fifth terms, *donu* 'yellow' and *guun* 'green', are considered equally basic, as are those referred to by the first two terms.) The terms of clear Dutch origin are all for less widely attested colors than the first three. Given that English input into Ndyuka clearly preceded Dutch input, this result confirms our hypothesis that terms for more basic concepts are more likely to come from the earlier superstrate.

Ndyuka kin terms from English and Dutch are given in (8) (from Huttar 1994):

(8) Ndyuka kin terms from English and Dutch

- baala* 'brother/male cousin' < E *brother*
- sis*a 'sister/female cousin' < E *sister*
- uman* 'wife; woman' < E *woman*
- man* 'husband; man; person' < E *man* or D *man*
- swagi* 'spouse's sibling; sibling's spouse' < D *zwager* 'brother-in-law'

All the terms in this list for consanguineal kin—that is, kin by blood—are from English. The only term unequivocally of Dutch origin, *swagi* 'spouse's

sibling’, sibling’s spouse’ is for affinal kin, or kin by marriage, more distant from ego than the term for an affinal kin from English, *uman* ‘wife’. Since consanguineal kin terms are more basic than affinal ones, and close kin terms more basic than distant ones, again we find that terms for more basic concepts are more likely to come from the earlier superstrate, English.

For property items—adjectives or stative verbs—our hypothesis predicts that if we have a pair of graded antonyms in which one term is from English and the other from Dutch, the unmarked term will be from English. Of the many pairs of graded antonymous “property items” (to avoid the terms “adjective” and “stative verb”) in Ndyuka, the few for which one term is unequivocally from English and the other from Dutch are shown in (9). I have treated the more frequently occurring member of each pair (in a corpus of 106,000 words in a variety of genres) as the unmarked member, although the same result would be obtained by using the current consensus on marked and unmarked adjective pairs in English.⁷ The frequencies, shown in parentheses in (9), reflect occurrences in verbal, adjectival, and adverbial functions, but not in nominal function.

(9) Pairs of graded antonyms with one member from English and one from Dutch

unmarked	marked
(35) <i>dee</i> ‘dry’ < E <i>dry</i>	(16) <i>nati</i> ‘wet’ < D <i>nat</i>
(20) <i>hei</i> ‘high’ < E <i>high</i>	(3) <i>lagi</i> ‘low’ < D <i>laag</i>
(8) <i>ibi</i> ~ <i>hebi</i> ‘heavy’ < E <i>heavy</i>	(1) <i>lekiti</i> ‘lightweight’ < D <i>licht</i>
(17) <i>taanga</i> ‘strong’ < E <i>strong</i>	(13) <i>swaki</i> ‘weak’ < D <i>zwak</i>
(8) <i>taanga</i> ‘difficult’ < E <i>strong</i>	(1) <i>makiliki</i> ‘easy’ < D <i>makkelijk</i>

The numbers are few, but they are all in the direction predicted, with the English term unmarked, the Dutch term marked.

For reasons of space, I do not deal here with body-part terms from English and Dutch, nor generic-specific relationships among English-derived and Dutch-derived terms. Rather, let us use the above modest confirmation of hypothesis (3) about successive superstrates to consider briefly the timing of the Portuguese input into Ndyuka (and Suriname creoles as a group). Note that we are now reversing the direction of our reasoning. On the basis of our knowledge that English input into Suriname creoles preceded Dutch input, we have found evidence to support the hypothesis that more basic lexemes—i.e., expressions for more basic concepts—tend to come from the earlier superstrate. Now, assuming that hypothesis, we are looking to see if Portuguese-derived lexemes are used for more basic, or for less basic, concepts.

Continuing with the last domain just examined, pairs of graded antonyms, we note lexemes of Portuguese origin in (10), which includes in parentheses the number of occurrences of the respective lexemes in running Ndyuka text. The first two of them, for ‘good-bad’ and ‘old-young’, show Portuguese as the source

⁷For a critique of simple reliance on frequency as a measure of markedness, see Beck 2002:22-23.

of the more basic member of graded antonymous pairs. This result supports the notion of Portuguese input into Suriname creoles before English input.

- (10) Pairs of graded antonyms with one member from Portuguese
- | | | | | |
|---------------------------|---|------------------|--|--------------------------------------|
| unmarked | < | P | marked | |
| (330) <i>bun</i> ‘good’ | | <i>bom</i> | (169) <i>ogii</i> ‘dangerous, naughty’ | < E <i>ugly</i> |
| | | | (45) <i>á bun</i> ‘not good’ | [<i>á</i> ‘NEG’ + <i>bun</i>] |
| | | | (39) <i>takuu</i> ‘bad, evil’ | < African? |
| (23) <i>gaandi</i> ‘old’ | < | P <i>grande</i> | (18) <i>yonku(u)</i> , <i>yongu</i> ‘young’ | < E <i>young</i> or
D <i>jong</i> |
| (198) <i>gaan</i> ‘large’ | < | ?P <i>grande</i> | } {(112) <i>pikin</i> ‘small’ < P <i>pequeno</i> | |
| (143) <i>bigi</i> ‘large’ | < | E <i>big</i> | } {(6) <i>nyoni</i> ‘small’ < E <i>young</i> | |

The third concept pair, referring to size gradations, is more complicated, as the relationships of antonymy between the various terms for ‘large’ and those for ‘small’ are not clear (hence the ‘curly braces’).⁸ We may note that the Portuguese-derived *gaan* (but cf. E *grand*) is more frequent (with certain or possible uses as intensifier excluded) than the English-derived *bigi*, while the same relationship, but to a much greater degree, holds for the relative frequency of *pikin* (with uses as noun and adverb excluded) and *nyoni*. This again suggests some pre-English Portuguese input.

The other domain for which we consider Portuguese-derived lexemes is that of kin terms. These are given in (11)—compare (8) for the English- and Dutch-derived terms. In the lists in (8) and (11) together we see that the closest, hence most basic, consanguineal kin term in these lists is from Portuguese: *pikin* ‘child’.⁹ Of the affinal terms, Portuguese-derived *muyee* ‘wife’ and English-derived *man* ‘husband’ are equally basic, but it is worth noting that the former is exclusively a kin term in Ndyuka, while the latter may be a kin term only by extension from *man* ‘man’. There is at least a hint here of pre-English Portuguese input. The final two items, for great grandparents and great great grandparents, are included for completeness’s sake; but I have nothing to say about them, especially since there are unconfirmed rumors of possible African etyma.

- (11) Ndyuka kin terms from Portuguese
- mai* ‘mother-in-law/daughter-in-law’ < *mãe* ‘mother’
 - pai* ‘father-in-law/son-in-law’ < *pai* ‘father’
 - tiyu* ‘uncle’ < *tio* ‘uncle’
 - tiya* ‘aunt’ < *tia* ‘aunt’
 - pikin* ‘child’ < *pequenino* ‘small child’
 - muyee* ‘wife’ < *mulher* ‘woman’

⁸It is, however, reasonable to treat *gaan* and *pikin* as a pair, since they are among the very few Ndyuka lexemes that function as adjectives (as constituents of NPs) but not as verbs. *Bigi* and *nyoni*, both occurring in verbal as well as adjectival position, would then legitimately be construed as another pair.

⁹Equally close, so equally basic, are the concepts ‘father’ and ‘mother’. But the origins of the Ndyuka terms for these concepts are not clear: they could very well be African, but various European sources cannot be entirely ruled out.

If Hypotheses (1) and (2) have any usefulness in explaining, or at least generalizing on, the distribution of various super- and substrate contributions to the lexicons of the creoles of Suriname, it is worth asking whether they also have something to contribute in our understanding of creoles elsewhere, such as in the South Pacific. Tok Pisin, with both German and English in its history, and Bislama, with French and English, are two such languages where these hypotheses could and should be tested. Meanwhile, for the creoles of Suriname, the results provide slight support for the hypothesis in (2) about successive substrate contributions, and stronger support for the hypothesis in (3) about successive superstrate contributions. They also indicate some pre-English Portuguese input into the Suriname creoles, though not about whether such took place in Africa, in the Caribbean, or in Suriname.

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12

An Ancient Love Poem: the Book of Canticles

Robert E. Longacre

ABSTRACT

Rejecting the allegorical interpretation of this book in favor of a view that this is a song of human love in a theistic context, the article goes on to consider two background problems: (1) Are there two or three main participants, and settles on two, King Solomon and the Shulammitte. (2) Is the book one unified poem or a collection of love lyrics? In settling on the first alternative, recognition is given to the overall chiasmic structure of the book in which the passage 4:16–5:1—the lyrical depiction of the consummation of the marriage—is the key to the chiasm. Dialogue and dramatic features are then noted with the endearing terms of address and Hebrew pronouns (masculine versus feminine forms of ‘you’). Providing the main clues as to speaker and addressee identification, these features also provide clues to the progress of the drama, e.g., the use of the term ‘my bride’ in and around the depiction of the consummation of the marriage. Lyric features, that often run riot, are noted. Special attention is given to the embedded hortatory discourse in the last chapter of the book—a hortatory appeal in which the bride passionately implores of Solomon an exclusive commitment which he can not make in view of his other wives and concubines!

1 Introduction

The Biblical book of Canticles, variously called the Song of Songs or the Song of Solomon, has been subjected to two broad lines of interpretation:

- (1) A mystical and allegorical interpretation according to which Israel’s God Yahweh is the lover and Israel is the beloved (Rabbinic exegesis), or, in Christian exegesis, Christ and His Church, or simply Christ and the believer. Thus, St. Bernard of Clairvaux in the twelfth century preached some 150 sermons from the Canticles but never completed the series before his death.
- (2) An interpretation of the book as a song of human love in a theistic

context. This piece of discourse analysis follows the second line of interpretation, but does not entirely disregard the first (see the conclusion).

Since the poem is dramatic in form, interpreters have differed as to whether it is intended to portray two *dramatis personae* or three. According to the latter view, the poem presents a love triangle in which King Solomon and a peasant lover vie for the affections of a country girl identified simply as the “Shulammitite.” According to the two-participant view, which is held by most commentators, there are but two main participants, Solomon and the Shulammitite, but the poem is cast into a pastoral setting (cf. some English Renaissance poetry)¹ To this latter view I adhere in that I think that the positing of a third participant creates more problems than it solves.

A third and very crucial problem has to do with whether the book is meant to be a unified composition or whether it is simply a collection of love lyrics. Scholarly opinion leans towards the latter with the proviso that the collection is carefully edited and has a unity even as a collection. I am arguing in this paper that the poem has a progress of sorts which is akin to narration without being a narrative poem as such. I believe that quasi-narrative progress evidences its unity.

The poem is an excellent example of Biblical Hebrew lyric poetry—one could almost say a “Biblical Hebrew pastoral”—with a dramatic overlay—without being a drama in the sense of being written to be acted. Clearly, however, this composition is predominantly a lyric poem whatever its dramatic and narrative overtones. But in making these various claims it is appropriate to examine the texture of the various parts of the poem.

2 Dramatic features

Examples clearly occur of dialogue paragraphs, such as the Question-Answer pair in 1:7-11. The Shulammitite asks where her pastoral king lover pastures his flock and where he rests at noon, and receives the answer that she need only follow the footsteps of the flock and feed her kids besides the shepherds’ tents. Her lover further extends his answer by complimenting the woman on her beauty and suggesting that he will give her “earrings of gold with studs of silver.” A similar question and answer pair is found in 5:9-17 where the woman’s friends ask her, “What is your beloved more than other lovers, most beautiful of women...?” and are answered by her passionate lyric outburst concerning the physical charms of her lover. Most of the exchanges are not so direct in terms of adjacency pairs (i.e., question + answer, proposal + response, and remark + evaluation), but often involve a remark by one participant

¹It is helpful to quote Webster’s unabridged dictionary regarding Renaissance poetry at this point: “a literary work (as a poem or play) dealing with the life of shepherds or rural life generally in a usually artificial manner and frequently archaic style, typically drawing a conventionalized contrast between the innocence and serenity of the simple life and the misery and corruption of the city and especially court life...”

followed by, in effect, a counter-remark which does not directly speak to the point raised by the former, as in 1:12-15, where the woman describes her lover as “a sachet of myrrh lodging between her breasts,” and he counters this remark by simply saying, “You are lovely, my darling.” Occasionally, a remark is followed by its evaluation, as in 2:1-2, where the woman compares herself to certain wildflowers of the region, and the man evaluates this by upgrading the description: “As a lily among thorns so is my darling among the maidens.” In these and other ways I analyze the dialogues according to the apparatus of dialogue found in Longacre (1996:123-151).

Speaker identification *in* the dialogue passages depends mainly on the identification of the addressee. Thus the object suffix *-cha* signifies a male addressee and in this poem usually implies a female speaker. Similarly, the suffix *-ch* signifies a female addressee and in this poem usually implies a male speaker. With indication of third person plural subjects, the presence of the background chorus is indicated, i.e., the friends or the “daughters of Jerusalem,” whatever the addressee. In 5:1, where the addressees are plural—“friends” and “lovers”—we presumably hear the voice of the well-wishing friends to the couple in the marriage chamber as they consummate their marriage: “Eat. O friends. Drink and get satiated, O lovers.” Formulas of quotation which identify the speaker are rare but occur on occasion. Thus, in 5:2 the woman reports, “The voice of my beloved; he’s knocking,” followed by his words, “Open to me....”

The endearing terms used by one to the other or by one in speaking of the other are of interest in following the quasi-narrative progress noticeable within the text but also serve a further function of participant identification. The man, Solomon, addresses the Shulammitte by a variety of terms: *ra<eyatiy* ‘my darling’, *vapatiy* ‘my beautiful one’, *yonatiy* ‘my dove’, *tammatiy* ‘my perfect one’, and more rarely, *dodiy* ‘my beloved/lover’. In the passage which represents the consummation of the marriage, he addresses her as *kalla* ‘bride’, *ahotiy kalla* ‘my sister and bride’ (Canticles, JPS Bible and Pope 1977:148), and *ahotiy ra<eyatiy* ‘my sister, my darling’. Here the special terms of address are part of the identification of the passage as depicting a wedding night. The groom’s referring to his wife as “sister” is apparently not unusual in both Arabic and Hebrew. The woman, the Shulammitte, addresses the man quite regularly as *dodiy* ‘lover, beloved’ with two exceptions: *dodiy ke<iy* ‘my beloved, my friend’ and once by his name Solomon in 8:12. The use of the proper name in the latter passage rather than a term of endearment may possibly mirror a certain exasperation with her royal lover at this point of the poem.

3 Lyrical structure and other features

In the lyric passages of the poem verbless clauses dominate with # marking. If necessary, there is a missing copula (i.e., a form of the verb ‘be’). Participles also figure in these passages, while the finite forms of the verb, the so-called perfect *qtl* and imperfect *yqtl* are less common. These features add up to the typical structure

of exposition/description in Biblical Hebrew; over such features there is an overlay of figures of speech such as simile, metaphor, metonymy, and the like, which are the stuff of which lyrics are made. In the extended lyric section of 5:10-17 the woman describes her lover, where most of the clauses are verbless, but with eight participles occurring as well. A similar passage is 7:2-8, where the man praises the woman in a sequence of verbless clauses but with perfects *qtl*'s in the first and next to the last clauses. Three participles occur in this passage. In contrast to these, the beautiful "spring" lyric in 2:11-13 is a chain of clauses with perfects *qtl*'s—perhaps presenting spring as a *fait accompli*! The exotic symbolism of the poem runs riot in the sections where the two participants are describing each other, in the portraiture of the wedding night, and in the final section—the note of frustration with which the poem ends. For translation of this poem qua poem I cite with great appreciation its translation into English by Marcia Falk (1993).

The narrative structure of certain parts of the poem emerges locally in paragraphs which are characterized by sequence. Thus, 3:1-4 is a narrative sequence paragraph in which the woman recounts either her awakening in the night to seek her lover or her dreaming that she did so. This passage has a series of perfects *qtl*'s for its backbone (basic feature). This would be highly unlikely in Biblical Hebrew narrative prose where a consecutive form of the verb *wyyqtl* figures very regularly as the special narrative tense, and sequences of narrative perfects are more rare. It is interesting to note, however, that narratives with perfects as backbones are occasionally found in the poetry of the Psalms and are characteristic of narrative in modern Hebrew. A similar such sequence of perfect forms is found in 5:1 followed by a long narrative sequence paragraph in 5:2-7 complicated, however, by an embedded dialogue in the first two verses. Still other sequence paragraphs occur which are not narrative. Some of the latter employ an imperfect *yqtl* backbone which is either jussive or cohortative, thus making them hortatory in thrust. This is clear in 7:10-12 which begins with an imperative, then shifts to imperfect forms *yqtl*'s that are either cohortative or promissory. In 8:1-3 a contrary-to-fact sequence paragraph with an imperfect backbone begins with the words, "Oh that you were as my brother...[then I would do so and so]."

Although command forms occur and determine paragraphs here and there which can properly be called hortatory, neither a hortatory template nor a hortatory backbone² occurs until the didactic peak of the discourse in 8:6-12; this is discussed in the final section of the paper. Thus, commands such as 1:4 "Take me away with you, let's hurry," and 1:7 "Tell me where you make your flocks to rest at noon," with its answering: "Go forth after the footsteps of the flock and feed your kids beside the shepherds tents," and 2:13 "Arise come, my darling; my beautiful one, come with me"—all belong to the category of tryst-making, probably to be loosely paraphrased as "Let's go somewhere/do

²The hortatory template is a set of notions on which many hortatory text are built: (1) the authority of the person giving the exhortation; (2) the situation out of which the exhortation arises; (3) the hortatory forms themselves—commands, suggestions, petitions; and (4) the motivation, i.e., warnings, promises, need. The command elements in (3) form the 'backbone' and irreducible minimum of a hortatory discourse. Prayers are a very similar structure where petition is found rather than command.

something together” as is also the recurring motif which is first found in 2:10, “Turn, be like the gazelle or young stag on the mountains.” Consider also the ardor expressed in 6:5 “Turn away your eyes from me, for they have overcome me.” Note also the bride’s addressing the north and south winds in 4:16 as discussed below—addressing inanimate objects with command forms is a rhetorical feature called *apostrophe* and is certainly a feature of lyric poetry rather than of sober discourse. Best wishes from well-meaning friends in 5:1 also employ command forms. In all these examples we don’t find serious calls to behavioral change as are found in true hortatory discourse. The one serious imperative with a call to Solomon for a behavioral change, i.e., to commitment, is found in 8:6 to be discussed below. Here a hortatory discourse is apparently intended. A somewhat puzzling imperative is found in 2:15: “Catch us the foxes, those little foxes that ruin the vineyards, for our vineyards are in bloom.” Is this a literal call to extirpate foxes from the vineyards, or is a metaphorical call to remove obstacles from the developing relationship? The latter is plausible in view of the symbolic use of vineyard twice in the poem.

4 The quasi-narrative progress

Much of my argument for the unity and narrative progress of the poem hinges on the centrality of what I call Act 5, the Wedding 3:6-5:1. And within this, section 4:8-5:1 appears to be especially pivotal. As G. Lloyd Carr (1984:53, fin) points out, these verses are “almost the exact center of the hook,” with 52 verses preceding this passage and 55 verses following it. Furthermore, in this passage, and only in this passage, is the woman called ‘my bride’ (six times) by the man. She is presented as a locked garden in 4:12-15 (*virgo intacta*) into which her lover on invitation comes, while the friends outside the bridal chamber cheer them on. The centrality of this passage, with the woman pictured as coming as a virgin to her marriage bed, leads me to interpret all scenes of previous love-making as incomplete and to interpret the asseverative refrain in 2:7 and 3:5 (and even its later repetition in 8:4 in a contrafactual paragraph) accordingly. Thus, we may call the representation of the wedding and the wedding night the action peak of the narration. To this we can add 8:5-10 as the didactic peak of the book—thus adding a further feature found in many narratives. Having made these claims, however, it is only honest to admit that the sequentiality of the scenes preceding and following the peaks is somewhat weak.

The introductory passage 1:1-4 is simply an ardent expression of the woman of her attraction to the man. The first extensive dialogue, getting acquainted, is given in 1:5-11, followed by a more intimate extended dialogue in 1:12-2:7. This ends up with the couple in a rural, but royal, banqueting house, where the woman cries out, “Strengthen me with raisins, refresh me with apples, for I am sick of love” (2:6) followed by “His left hand is under my head and his right hand embraces me”. This is followed by the first occurrence of the refrain in the form of an asseveration oath, “I charge you, daughters of Jerusalem by the gazelles and by the does of the field, that you do not arouse, do not awaken love

until it pleases [to do it].” These words might be a call to recognize the seriousness of her aroused state (‘Hey, don’t get into this unless you really mean it!’) or simply a call ‘Don’t interrupt us now!’ (so translated in Today’s English Version). But our interpretation of the narrative progress of the poem probably precludes the latter. This is followed by another dialogue 2:8-17, reported by the woman, in which he comes to see her and takes her with him to enjoy a landscape bursting with spring. This is followed by a monologue (3:1-4) by the woman in which she reports getting up by night to look for her lover, finding him, and bringing him to her home. This recountal, which may be a dream sequence, ends again (3:5) with the asseverative refrain noticed above. Now all is set for the representation of the marriage and its consummation.

The account of the royal nuptials begins with a description (3:6-11) of King Solomon’s palanquin coming up from the desert surrounded by his bodyguard. This description ends (3:11) with “Come out, you daughters of Zion, and look at King Solomon wearing the crown, the crown with which his mother crowned him on the day of his wedding, the day his heart rejoiced.” Notice that this passage represents Solomon as getting married—and to whom would he marry except to the woman featured in the poem?

Chapter 4 is largely concerned with Solomon’s praise of his love’s physical beauty: eyes, hair, teeth, lips, temples, neck, and breasts (4:1-5), ending with the words, “Until the day break and the shadows flee, I will go to the mountain of myrrh, and to the hill of incense. All beautiful you are, my darling; there is no flaw in you.” But they are not yet settling in for the night; Solomon calls on her to journey to the region of Lebanon and Sirion together with him. So the scene of the lovemaking is varied, and, as we have mentioned before, for the first time in 4:8 the term “bride” is used. In the following passage (4:9-15), Solomon’s praise of his bride’s physical beauty resumes. In 4:12-15 the bride is compared to an enclosed garden (the most straightforward interpretation is that the bride is still a virgin at this stage) with the same image extended in the next sentence: “a spring enclosed, a sealed fountain.” In 4:13-14 is a list of the trees, shrubs, flowers, and spices that are found in the garden, culminating in 4:15, “You are a garden fountain, a well of living water, and flowing down from Lebanon [presumably a symbol of coolness and freshness].” The extravaganza of plants, trees, and their aromatic products many of which are from distant countries—clearly runs beyond the plausible boundaries of a garden in Palestine. We deal here with an extended figure of speech, “a fantasy garden” as John Snaith (1993:68) characterizes it. The bride does not answer the man directly but rather calls on the winds to carry the fragrance out and attract her lover to come into the enclosed garden (4:16):

“Awake, north wind, come south wind,
Blow upon my garden.
Let its fragrance spread,
Let my lover come into his garden,
And eat its pleasant fruits.”

In 5:1 the lover speaks out:

“I have come into my garden, my sister, bride,
I have gathered my myrrh with my spices.
I have eaten my honeycomb with my honey.
I have drunk my wine and my milk.”

At this point the friends of the couple add their good wishes:

“Eat, O friends; drink and get satiated, O lovers.”

Carr (1984:127) points out that these two verses, 4:16 and 5:1, “form the exact middle of the Hebrew text” with 111 lines of text preceding them and 111 lines of text following them. Thus, the invitation of the bride to the bridegroom and his acceptance of the invitation—the consummation of the marriage—form the inner heart of the whole composition!

After this, three more episodes follow. The first is possibly a dream sequence in which the lover comes and calls for her by night, but on her tardy and slow getting up to meet him, goes away, and she comes out to seek him, gets treated a bit roughly by the night watchmen, and finally, when challenged by her friends as to what is so special about her lover, launches into a long passage praising him and affirming again the integrity of their relationship (5:2-6:3).

In the ensuing episode (6:4-7:11), the man begins the dialogue by praising again her beauty, then goes on to say that although there are sixty queens, eighty concubines, and virgins without number, his doe, his perfect one, is unique, and when the queens and concubines saw her, they said, “Who is this, coming forth like the dawn, beautiful as the moon, pure as the sun, majestic as a battle host [New International Version: ‘stars in procession’].” Be all this as it may, possibly the mention of the numerous other women in Solomon’s life, foreshadows the hopeless longing of this his latest love for a full commitment to her. The woman (presumably the speaker in 6:11 and 12) counters with the remark that she had gone down to see the new growth of the valley when Solomon swept by in his chariot and bore her off, leaving the friends crying out “Come back, come back, O Shulammitte, come back, come back that we may gaze on you,” to which Solomon retorts, “Why will you gaze on the Shulammitte as the dance of Mahanaim?” [whatever that may have meant].

From here on the dialogue consists of another stretch of extravagant praise of the woman by Solomon (with mention of previously unmentioned parts—the thighs, the navel, and the belly) ending with the words in 7:7, where he compares her stature to a palm tree and her breasts to clusters of grapes, followed by his expression of intent, “Let me climb the palm tree, let me take hold of its fruit.” When he compares her palate to the best wine, the woman chimes in, “Let it be as wine going straight to my beloved, flowing gently over lips and teeth.” Again she finds solace in affirming their relationship in 7:10 “I am my beloved’s and his desire is towards me.”

Finally, in the exchange in 7:12-8:4 the royal lover and his bride address each other obliquely as he invites her to go again with him to the countryside, to lodge there, to get up early and see the buds and the blooms, with the assurance,

“There will I give you my love” [7:13]. Never answering his invitation directly, the woman answers with the contra-factual sequence paragraph already mentioned above, saying, in effect, how she wished that he were like her brother—to whom she had easy access at all times. She would find him in the street, kiss him, bring him into her mother’s house, and they would embrace each other until she would cry out again the asseverative formula charging the daughters of Jerusalem “to not arouse, not awaken love, until it desires” [8:4].

Now all is in place for the Shulammitte’s final monologue [8:5-12], which is the didactic peak of the book. As such, it breaks the smooth sequence of the rising-falling action summarized in, e. g., the Freytag Pyramid. So important is this point that I reproduce here both the Freytag Pyramid (diagram 1) and its modification by the introduction of a didactic peak (diagram 2) as suggested in a previous article (Longacre 2006).

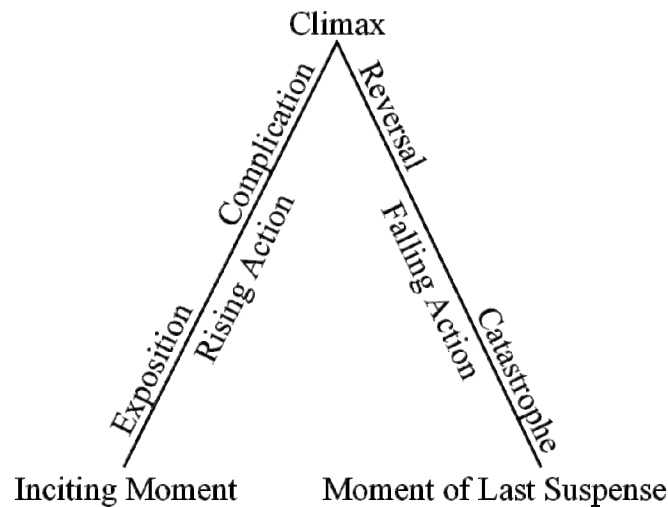


Diagram 1: The Freytag Pyramid

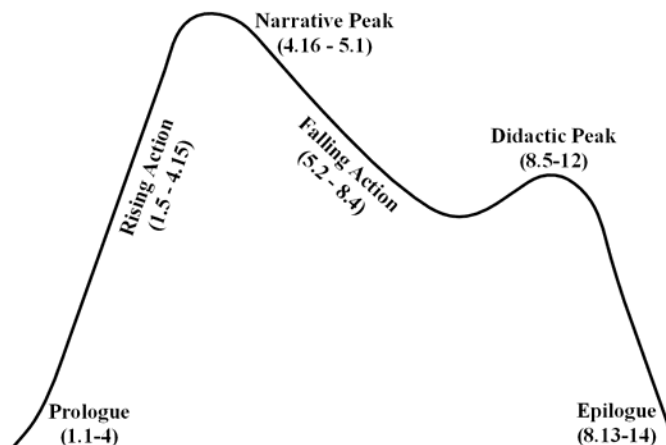


Diagram 2: The Freytag Pyramid adapted to show the profile of Canticles

The hortatory discourse itself structures as a reason paragraph with exhortation sandwiched in between motivations. But first of all, note the preceding word (8:5) from the chorus of friends, “Who is this coming up from the wilderness, leaning on her beloved?” The two are on public display as a loving couple. Nevertheless, the words of the Shulammitte which follow reflect a certain dissatisfaction on her part. First of all, she resorts to motivation for her coming plea by reminding her royal consort of some obscure incident of having aroused him “under the apple tree” where he was conceived and born (8:5). Then in 8:6-7 follows the plea itself expressed in one imperative, “Place me as a seal over your heart, as a seal over your arm.”—expressing a desire to possess him to the exclusion of other women. She attaches the reasons that love/jealousy is as strong as death and Sheol, that the flame of love is a burning fire, a mighty flame [possibly “a flame of Yahweh”]. She goes on to say, “Many waters cannot quench love, rivers cannot wash it away.” She even asserts that such true love is worth all that a man has, “If a man were to give all the substance of his house for love, it would utterly be scorned.”

Then another piece of subtle motivation follows; she speaks of her little sister which has no breasts as yet, asking what they will do for her “in the day that she is spoken for?” In an obscure passage she asserts that if her sister is a wall, they will build towers of silver on her, and if she is a door, they will enclose her in cedar. But this is just a ploy for reminding Solomon that she herself has been as a wall and her breast like towers so that he found contentment in her.

Then a note of gentle assertion (8:11-12)—perhaps a further motivation in the sense of warning: Solomon has his big vineyard down at Baal Hanlon, a vineyard let out to tenants each of whom was to bring a thousand pieces of silver. “All right, Solomon, you can have your thousands of shekels of rent money, and the two hundred for common workmen, but my vineyard is my own concern to dispose of as I please.” It is plain from 1:6 that her ‘vineyard’ refers here to her self and her beauty. Three first person singular forms reinforce the bride’s proprietorship over her own *body*: *my* vineyard (which is) to *me* (*is*) before *me*.” And it may even be that the reference to Solomon’s vineyard at Baal Ramon is a veiled reference to his harem—against which she balances herself and what she can and has given him.

Nevertheless, be all this as it may, the last two verses of the poem reflect a mutual longing for each other; he asks to hear her voice again (8:13), and she for him to come bounding to her “like a gazelle or young stag on the spice-laden mountains” (8: 14).

One final note. If, as the text indicates, Solomon marries the Shulammitte, he apparently does not add her to his harem. Presumably he keeps her in her rural surrounding and comes to see her—at least for a time! Is the ‘Song of Songs’ written to celebrate the one true, and in a sense, hopeless love of Solomon’s life? This possibility can be held open, even if we reject the Solomonic authorship as such.

5 Some conclusions

Perhaps one of the abiding values of this poem is the insistence that after the physical attraction and exploring of each other's bodies has run its course, the stubborn and irrepressible desire of the heart for mutual commitment and faithfulness cannot be ignored. There ought to be enough sermonic material here to feed the mills of the moralist! Are we indirectly being told that faithfulness in a monogamous union is not simply a restriction to be obeyed but a joyful and ungrudging commitment which has its own peculiar rewards?

Finally, even as we reject the allegorical interpretation of this book and St. Bernard's 150 sermons on Canticles,³ we can recognize in the book the presence of a powerful *symbol*. A *symbol* does not require minute matching of every physical feature and action with some eternal and abiding counterpart as is done in allegory. Rather, it simply affirms that human love as God has intended it finds its ultimate fulfillment in eternity where people no longer marry or are given in marriage. The reality will outrun and eclipse that which symbolizes it here. St. Paul, in Ephesians 5:22-33, develops this mystery of Christ and the Church. And St. John represents the eternal union of Christ and his Church as "the marriage supper of the Lamb" in Revelation 19:7-9. Even the New Jerusalem descending out of heaven from God is termed in Revelation 21:9 as "the bride, the Lamb's wife."

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³A contemporary allegorical exegesis of the Canticles is incorporated in the headings (from Witness Lee) in the Holy Bible Recovery Version (2003).

The Semantics of Three Mpyemo Prepositions

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Paul Murrell

ABSTRACT

This paper is about three prepositions *to*, *ri*, and *ti* in Mpyemo (Bantu of the Central African Republic). All of them go with nouns to form prepositional phrases. In addition, both *ti* and *ri* also function in the tense-aspect-mode system of verbs, while *ri* functions at clause and sentence levels. To study their meaning, we need to look at the whole clause, at the semantics of the verb in the clause, and at the nature of the nouns in the landmarks of the prepositional phrases. In particular we need to distinguish between transitive, and intransitive motion verbs, non-motion verbs, and the verb ‘be’. The *to*+noun prepositional phrases function with various kinds of verbs in the place slot of the clause, and the idea of container is crucial. The *ri* +noun prepositional phrases function with various verbs in the place slot of the clause, within verb structures to mark imperfective aspect, and the ideas of boundary and neighbourhood are crucial. The *ti* functions within a verb structure to mark immediate past, or at clause level to introduce a conditional or a an adverbial *when*-clause. *Ti* and *ri* are very close to a complementary distribution.

1 Introduction

This paper is about the semantics of three prepositions *to*, *ri*, *ti*,¹ in Mpyemo (Bantu).² All of *to*, *ri*, and *ti* can precede noun or nominal *landmarks*

¹The data corpus consists of seventeen texts, the majority of which have been collected by Brad Festen, with additional texts collected by Jo and Paul Murrell from 2002 to 2007. The majority are folktales of the Mpyemo people of Central Africa. Several texts, however, may be categorized as “real-life” experience and hortatory texts. One of the texts was a translation, and examples from this source are marked as such. Each example in the text is referenced to this data corpus by a text name and line number. Additional data have been provided by elicitation from a mother-tongue speaker and by reference to semantic domains within the Mpyemo dictionary (in progress).

²Mpyemo is spoken by 29,000 people (*Ethnologue* reference MCX; Gordon 2005). An estimated 25,000 speakers live in the Central African Republic (CAR), although there are small populations (4,000) in S. E. Cameroon and the Republic of the Congo (*Ethnologue*). They live mainly along the road from Nola (CAR) to Yokadouma (Cameroon), but may be found also in the areas around the towns of Bamba, Salo and Bayanga. Mpyemo is classified by Malcolm Guthrie (1948) as a Bantu language, group A.86c. There are two main dialects, Jasua and Bidjuki. Jasua is the most widely spoken and is well understood by others.

(LMs)³ to form *prepositional phrases* (PPs).⁴ These PPs then in turn function in clauses headed by verbs. In addition, both *ri* and *ti* can function in the tense-aspect-mode (TAM) systems of verbs. Furthermore, *ti* can also introduce certain adverbial clauses.

In order to gain a useful understanding of the semantics and function of the prepositions, there is a need to study the relationship between the process invoked by the verb itself and the LM entity of the PP that comes in the clause with it.⁵ And sometimes, even the very nature of the LM entity and its boundaries is important.

In this respect, we anticipate the result by giving the following vital semantic contrasts:

1. *to* looks on its LM as a container, but
2. *ri* looks on its LM with regard to its boundary, and to its immediate neighbourhood.
3. *ti* also looks on its LM with regard to its boundary.

These statements are of course, mere hypotheses at this point, and it is the task of this paper to test and confirm them with appropriate data from the language. However, these hypotheses do affect the way this paper is organised.

Both the *to*+LM and *ri*+LM type PPs co-occur with a very wide variety of verbs, especially motion verbs, so that the prepositions *to* and *ri* share many common environments, and it is interesting to study how they function contrastively in these environments. On the other hand, the *ti*+LM type of PP co-occurs with only a few verbs. In fact, the data show that *ri* and *ti* are almost in complementary distribution (within semantic, not phonological environments).

Clauses that have *to* and *ri* functioning in PPs can be headed up by a wide variety of verbs. Different kinds of verbs give rise to different processes, and these various processes will affect the LM entities in the PPs in different ways. Specifically, there is a crucial distinction between motion verbs and non-motion verbs. For the purposes of this paper, we understand that:

³Abbreviations used in the paper are as follows: ADJ 'adjective', COMP 'complement', DEF 'definite', EMPH 'emphatic', FUT 'future tense', ICM 'idealised cognitive model', IMPERF 'imperfective aspect', IMPPST 'immediate past tense', INAN 'inanimate', IND OBJ 'indirect object', HAB 'habitual (aspect)', LM 'landmark', LOC locational', N 'noun', NCI 'noun class 1', and similarly for NC2, NC3, ..., OBJ 'object of a verb or of a preposition', PERF 'perfect aspect', POSS 'possessive', PP 'prepositional phrase', PST 'past tense', PRES 'present tense', PREP 'preposition', REL 'relative pronoun', SPG 'source-path-goal image schema', SUB 'subordinate', SUBJ 'subject of a verb', and TAM 'tense-aspect-mode system of the verb'.

⁴When a relationship is profiled, varying degrees of prominence are conferred on the participants. The most prominent participant, called the *trajector* (TR) is the entity construed as being located, evaluated or described. Impressionistically, it can be characterized as the primary focus within the profiled relationship. Often some other participant is made prominent as a secondary focus. If so, this is called a *landmark* (LM) (Langacker 2008:70).

⁵Langacker (1987:292) has some important insights in this connection. I quote: "There is no claim [in Langacker's view of meaning] that the composite structure is fully compositional or derives in any mechanical way from the semantic specifications of its components.... The meaning of a complex expression is not its composite semantic structure alone, but includes as well separately the symbolized semantic structures of its components and the relation that each of these bears to the composite whole.... The composite structure is a unified seamless conceptualization that includes the full content of the expression. The components structures represent limited 'chunks' of this content dissociated from the whole for coding purposes."

1. A motion verb is any verb that describes a situation that has a *mover*, where a mover is defined as any entity that has physical or fictive motion with regard to a landmark (LM). There are intransitive motion verbs, and for these the mover is the *subject* of the verb, and there are transitive motion verbs, and for these the mover is the *object* of the verb.
2. A non-motion verb is any verb that describes a situation that does not have any mover (mover defined as above).

Where there is a mover, we need to look at the motion of the mover, and we do this by using the source-path-goal image schema (SPG). And, depending on the verb chosen for the clause, we can have the focus on any one of the three elements of this schema, i.e., goal focus (SPG), source focus (SPG), or even path focus (SPG), where the underline denotes focus. The SPG schema is relevant for all motion verbs, but not for non-motion verbs, because they have no mover.

2 The preposition *to*, its *to* + LM PPs, and their function within the clause

The preposition *to* in the *to* + LM PP invokes the LM entity as a container, and we need to consider separately the cases where the verb of the clause is a motion verb, and those where it is a non-motion verb

2.1 Motion verbs

Motion verbs describe a process in which there is a translatory motion by some mover relative to a LM entity, and that mover follows a trajectory which we can characterise by the SPG schema. Non-motion verbs describe a process for which there is no such mover.

For motion verbs we need to distinguish between intransitive motion verbs and transitive motion verbs. We now deal with these two types of motion verbs in turn.

2.1.1 Intransitive verbs of motion

For intransitive verbs of motion, the subject itself is the mover, and that mover follows a trajectory characterised by the SPG schema, with a focus on the goal (SPG) or on the source (SPG).

2.1.1.1 Intransitive motion with goal focus, (SPG).

Most intransitive verbs of motion have a goal focus. Here the subject-mover moves towards a LM-goal which is the object of the preposition in the PP: *to* + LM as in (1) to (3).

(1) The verb *ke* ‘go’ with SPG schema

Mya mi kuli nyè nɛ “ Ngwom ‘ am go
0- mi 0- kuli nyè nɛ 0- Ngwom am go
 NC1a woman of NC1a tortoise 3sg SUBJ PST that/to/with NC1a husband 1sg POSS sub

áá kɛ to digi . “
áá kɛ to digi

3sg perfect go INTO forest

‘Tortoise’s wife said, “My husband, he has gone INTO the forest.”’ (Nkoe 3.1)

(2) The verb *ni* ‘enter’, with SPG schema

Dala , nkoe à kwang ‘ ndo , à ni to digi ,
dala 0- nkoe à kwang ndo à ni to digi
 thus NC1a warthog 3sg PST leave thus 3sg PST enter INTO forest

‘So, Warthog left like that, he entered INTO the forest, he will go to go and seek Tortoise’s stone.’ (Nkoe 4.23)

2.1.1.2 Intransitive motion with source focus, (SPG)

(3) the verb *dogo* ‘come out’ with SPG schema,

kuli , mɛ dogo to alondi tɛtɛgi
kuli mɛ dogo to alondi tɛtɛgi
 tortoise 3sg come.out FROM hole slowly

‘Tortoise came out FROM the hole slowly.’ (Kuli 4.23)

Here the LM of *to* is *alondi* ‘hole’. It is the source of the trajectory that is followed by the mover. The trajectory of the *dogo* ‘come-out’ motion starts from within the hole (which is the LM of the preposition) and crosses the boundary of the LM on its way out. So the source of the trajectory is within the interior of the LM, and clearly we have source focus.

It is clear that the translation of the preposition *to* depends on the main verb in the clause; it is ‘into’ with verbs ‘go, enter’, and ‘from’ with the verb ‘come out’.

2.1.2 Transitive verbs of motion

Transitive verbs of motion are considerably more complex than the intransitives. For the transitives, the subject of the verb is the *causer* of the motion, not the mover. It is the object of the verb that is the mover, and that mover will follow a trajectory with either the SPG or the SPG schema.

We need to further distinguish between motion verbs which are inherently transitive, and motion verbs which are causative counterparts of some intransitive motion verb. For the latter, we need to distinguish further between causatives which are expressed by an intransitive root plus a causative suffix, and those which are one member of an intransitive-causative doublet.

2.1.2.1 Inherently transitive motion verbs

The transitive motion verb *dwi* ‘remove’ is an inherently transitive motion verb, and the mover has a source focus with regard to the SPG schema. The LM is the abstract noun *aswe* ‘death’. The source of the motion is within the interior of the LM, and the mover comes *out of* the LM interior. Note in (4) that the preposition *to* is translated as ‘from’.

(4)

ɔ bɛɛ nkuli mi nkyambe yɔ dwi bena to aswe .
ɔ bɛɛ nkuli mi nkyambe yɔ dwi bena to a- swe
 2sg see strength of God it perfect remove 1pl INCL FROM NC5 rest
 ‘You see God’s power it removed us FROM death.’ (Geoffroy 1.23)

In (5) the inherently transitive verb *wa* ‘put’ with SPG schema has the mover as the object of the verb; that’s what gets ‘put’ (here, ‘the swallow’). The mover follows a trajectory that has an endpoint or goal within the LM (‘the bag’). This trajectory has two sub-trajectories, the first profiling the subject holding on to the mover, and the second profiling the motion of the mover after the subject has released the mover and that motion continues until the mover lands inside the LM (‘the bag’).

(5)

Ntang à nɔ abambo .
*0- ntang à nɔ a- *bambo*
 NC1a palm rat 3sg PST take NC5 swallow
Nkyimo bé gyo pea go , à wa abambo to komo
*0- nkyimo bé gyo pea go à wa a- *bambo to 0- komo*
 NC9 time 3pl PST.REL arrive there SUB 3sg PST put NC5 swallow INTO NC7 bag,
yɛ
y- ɛ
 NC7.3sg.POSS
 ‘The palm rat takes the swallow. When they arrive there, he puts the swallow INTO his bag.’
 (Ntang 1.11-12)

Morphologically marked causative verbs of motion consist of an intransitive root followed by a causative suffix *kɛ* ‘causative’ as in (6) with the causative motion verb *kendi* ‘cause to go’ with the SPG schema. The goal of the motion is within the stomach, i.e., within the LM of *to*, and the mover goes into the LM.

(6)

a ɛ minɔ Gyelo kendi to mo yɛ
a ɛ minɔ Gyelo kɛ-ndi to mo yɛ
 3sg PST swallow Gyelo go-CAUSATIVE INTO stomach 3sg.POSS. NC5
 ‘He had swallowed Gyelo, he caused her to go INTO his stomach.’ (Kuli 1.17)

The causative motion verb may also be the causative member of an intransitive-causative pair. This is illustrated in (7) where the verb *dogi* ‘cause to come out’ is the causative member of the intransitive-causative pair: *dogo* ‘come out’ – *dogi* ‘cause to come out’. The SPG schema is invoked. The source of motion of the mover, the money, is within the LM of the preposition *to* which is *kɔmɔ yɛ* ‘his bag’, i.e., the money moves from within his bag.

(7)

<i>a dogi</i>	<i>bikoe to kɔmɔ yɛ</i>
<i>a dogi</i>	<i>bikoei to kɔmɔ yɛ</i>
3sg cause.come.out	money FROM bag his

‘He took money FROM (out of) his bag.’

2.2 Non-motion verbs

By a non-motion verb, we mean any verb which does not invoke a mover in the situation the verb describes. Non-motion verbs include non-motion processual verbs, the verb ‘be’, and the verb ‘have’. The SPG schema is irrelevant here, since there is no mover. For clauses with non-motion verbs, the situation described by the verb is localised within the interior of the LM by the *to* + LM prepositional phrase.

2.2.1 With the verb ‘be’

The verb ‘be’ in Mpyemo can take two forms, either zero, or the form *di* ‘be’, which introduces a relative clause.

2.2.1.1 The verb ‘be’ as a zero verb

The verb ‘be’ as zero can be a purely locational verb in various different domains. In (8) the location is in physical space, namely, a container.

(8)

<i>kyeɔng’ i</i>	<i>to kɔmɔ</i>
<i>kyeɔng’ i</i>	<i>bo kɔmɔ</i>
NC9.knife 3sg.INAN	IN bag

The knife is IN the bag.

In (9) the location is a geographical area.

(9)

<i>simo mesala i</i>	<i>to</i>	<i>centrafrique ndi</i>
<i>simo mesala i</i>	<i>to</i>	<i>centrafrique-ndi</i>
same NC6.work	<u>3sgINAN</u>	IN Central Africa also

‘This same work is IN Central Africa.’ (Dinɔ ram 2.9)

In (10) the location is a domain of social grouping.

(10)

mε to abumbo bε tubo dino ra nε SIL
mε to abumbo bε tubo dino ra nε SIL
 1sg IN NC5.group 3pl.REL call NC5.name NC5.DEF COMP
 ‘I am IN a group, which they call its name SIL.’ (Dino ram 2.6)

2.2.1.2 The verb *di* ‘that + be’

The verb *di* ‘that + be’ introduces a relative clause which is followed by *to* + LM PP which locates a thing within the interior of the LM. In (11) the location is a physical container.

(11)

gwola sago di to mo yɔ go
gwola sago di to mo yɔ go
 vomit NC5.thing that.is IN NC9.stomach NC9.2sg.POSS sub
 ‘Vomit what is IN your stomach.’ (Kuli 1.26)

2.2.2 Non-motion action verbs

Here the *to* phrase locates the process of a non-motion action verb with reference to either space or time. In (12) the non-motion action verb is *byela* ‘find’, and the LM is in physical space.

(12)

Nu alung bori bε byela kekεε momorom nyε lumɔ mori menyɔgi
nu a- lung bo- ri bε byela kekεε mo- morom nyε lumɔ mori menyɔgi
 certain NC5 day NC2 person 3pl find child little man REL shoot at person corn beer
nii go to digi .
nii go to digi
 this (further) sub IN forest
 ‘One day, they found the boy who stabbed the drunk man IN the forest.’ (Tumbo 8.1)

In (13) the non-motion action verb is *kwelaa* ‘write’ (passive), and the LM is in a ‘kind of information’ space.

(13)

i kwelaa to mponga nε ge
i Kwela- a- to mponga nε ge
 3sg.INAN write-PASSIVE IN NC7.law COMP QUESTION
 ‘How is it written IN the law?’ (samaria 2.2)

The verbs *tinda* ‘move along’ and *sa* ‘do’ in (14) and (15) refer to LMs in temporal space.

(14)

to sio yigo hoo tinda
to sio yigo hoo Tinda
 IN NC7 year this move.along
 ‘DURING this year, we have moved along.’

(15)

to yigi yo go sa dala
to yigi yo go sa dala
 IN life your SUB do thus
 ‘IN your life, do the same.’

3 The preposition *ri*, its *ri* + LM PPs, and their function within the clause

The *ri* in a *ri* + LM PP invokes the LM entity as an entity with a boundary, and the idea of closeness to the boundary is important as it leads to the idea of immediate neighbourhood. Furthermore, for a few verbs, the idea of complete coverage of the boundary is also relevant. Again we need to consider separately the cases where the verb of the clause is a motion verb or a non-motion verb.

Motion verbs describe situations where there is a mover, and so we need again to invoke the SPG schema to characterise the motion. And as before, any one of the three elements in that schema can be in focus. But, what is different here for motion verbs in clauses with *ri* + LM PPs is that, as the mover moves relative to the LM boundary, it will interact in different ways with that boundary, depending on properties of both the LM entity and the mover. In particular, the question of the *penetrability* of the LM boundary by the mover will be found to be relevant. Such considerations did not arise in the treatment of the preposition *to*.

In our treatment of *ri* we need first to consider certain properties of the LM entity, and only then can we consider how the *ri* + LM PP functions in the clause. Thus the first question to ask is, “What kinds of lexical items can follow *ri* to make up a *ri* + LM PP?” We need to remember that when we are dealing with *ri* + LM in a clause headed by a motion verb, the properties of the boundary of the LM will be important. Furthermore, remember that for *ri* the LM is NOT functioning as a container, unlike the LM for *to* + LM PPs. Clearly, different nouns will refer to objects with boundaries that have different properties.

From text we find that the following kinds of nouns and nominals can refer to the LM:

- common nouns (including body part nouns); e.g., *digi* ‘forest’, *təgo* ‘ground’, *du* ‘fire’, *bipendi bile* ‘root of a tree’,
- body part nouns; e.g., *mbə* ‘arm’, *nyoli* ‘body’, *lo* ‘head’, *numbi* ‘mouth’, *mpombi* ‘face’, *mbea* ‘side’, *kəng* ‘back’,
- place nouns; e.g., *bandi* ‘place’, *nkye* ‘path’,

- time nouns; e.g., *melemo* ‘morning, fire’, *bulo* ‘night’, *nkanga kamɔ* ‘hour ten’ (i.e., 10 pm),
- relational nouns; e.g., *te* ‘middle of’,
- abstract nouns; *lubi* ‘matter’, *aswe* ‘death’, *aso* ‘friendship’, and
- nominalisations (nominalised verbs); e.g., *mpula* ‘return’.

The following properties of the LM entity are relevant:

- The *dimensionality* of the LM entity
Does it have ZERO dimensions (a point), ONE dimension (line), TWO dimensions (a surface or an area), or THREE dimensions (a volume)?
- The *orientation* of the LM entity
If flat, is it horizontal, vertical or rotated?
- The *boundaries* of the LM entity, and especially their *penetrability*
If the verb in the clause is a motion verb of some sort, with a mover, then, if the entity is an area (2D), or a volume (3D), are its boundaries PENETRABLE by the relevant mover, or are they IMPENETRABLE? Clearly, if there is no mover, then this consideration is irrelevant.
- Time word LMs and their scale *sensitivity*
For time word LMs, how is precision of the timing dependent on the scale sensitivity of that time word? (e.g., ‘morning’ which is scale INsensitive, versus ‘at ten o’clock’ which implies something much more precise, i.e., which is scale sensitive).⁶

3.1 Motion verbs and *ri*

There are both intransitive and transitive motion verbs. Intransitive motion verbs have the subject itself as mover as in *bilɔ* ‘fall’. Transitive motion verbs, are verbs like *bemɔ* ‘throw’, *myaa* ‘throw’, *lung* ‘plunge’, *lumɔ* ‘shoot at’, *wa* ‘put’, and *dui* ‘remove’.

For the transitive verbs, the subject-trajector causes an entity, the mover, to move, and there are both single trajectory motions and two sub-trajectory motions. In the latter, the first sub-trajectory profiles the subject holding the mover and imparting momentum to it, and then the second sub-trajectory profiles the movement of the mover under that momentum from the point at which the subject releases it until it reaches its goal.

For both transitive and intransitive motion verbs, the mover eventually is in motion towards a goal or target (SPG), or away from a source (SPG). We now have to ask ourselves questions on the nature of the goal or target LM in the first case, or of the nature of the source LM in the second case. In the first case of motion towards a goal, we have to ask ourselves whether the LM entity has an

⁶Concerning scale sensitivity, (Langacker 1987:118) writes, “One might suppose that variation in scale is always freely permitted with relational predications and requires no special statements. This is too simple for it is easy to conceive of predicates conventionally restricted to relationships whose scale falls within a certain range.”

IMpenetrable boundary that prevents further motion by the mover, or a penetrable one. So we split these up into two subcases.

3.1.1 Motion verbs with mover going towards an impenetrable LM boundary

Example (16) shows the intransitive motion verb *bilɔ* ‘fall’ with the SPG schema. The boy has been hit hard by a hostile man, and he falls onto the ground. The impenetrability of the LM boundary is due to the relative properties of the ground (hard) and the boy’s body (soft). The motion ends at the LM boundary.

(16)

A bilɔ ri mɛtɛgɔ ,
a bilɔ ri mɛ- tɛgɔ
 3sg fall ONTO NC6 earth
 ‘He (the boy) falls ONTO the ground.’ (Tumbo 2:3)

3.1.1.1 Intransitive motions where the closeness of the source or goal to the LM boundary is relevant

We have already noted that with preposition *ri* the idea of closeness to the boundary is important, illustrated here by (17) and (18).

Example (17) has the intransitive motion verb *nkye* ‘come’ and the SPG schema. The LM boundary here is a surface, ‘the side of the body’, and the subject-mover gets to a point almost in contact with that surface.

(17)

à nkye ri mbea nɛ nyoli mi Gyɛɔ .
à nkye ri mbea nɛ nyoli mi Gyɛɔ
 3sg. PST come ABOUT side COMP body of Gyelo
 ‘He came ALONGSIDE Gyelo’s body.’ (Kpagara 2.27)

Example (18) has the intransitive motion verb *dogɔ* ‘come out’ and the SPG schema. Note that the motion verb *dogɔ* ‘come out’ is embedded in a relative clause. The mover is the grey gazelle, the subject of the relative clause.

(18)

hɛ̃ bɛɛ kubi nyé dogɔ beɔ ri sɔgi mpɔmbi .
hɛ̃ bɛɛ 0- kubi nyé dogɔ beɔ ri sɔgi 0- mpɔmbi
 1pl PST see NC1 grey gazelle 3sg. REL come out 1pl OBJ IN before NC9 face
 ‘We see a grey gazelle who comes out right IN front of our faces’, i.e., ‘We see a grey gazelle which comes out right in front of us.’ (Kubi 1.4)

Example (19) has the transitive motion verb *bemɛ* ‘throw’, the SPG schema, and two sub-trajectors. The speaker is a hunter who has just caught a gazelle. He has picked up the gazelle and thrown it onto the ground. Clearly the ground is not penetrable to the body of the gazelle. The motion has two sub-trajectories,

where the first sub-trajectory profiles the subject holding onto the gazelle and imparting momentum to it, and second sub-trajectory profiles the gazelle falling to the ground. The motion ends with the gazelle in contact with the ground LM, hence the translation of *ri* as ‘onto’. The goal is ON the boundary itself.

(19)

mɛ bɛmɔ nyɛ ri mɛtɛgɔ
mɛ bɛmɔ nyɛ ri mɛ- tɛgɔ
 1ps pst throw 3ps OBJ ONTO NC6 earth
 ‘I throw him (the gazelle) ONTO the ground.’ (Kubi 1.8)

3.1.2 Motion verbs with mover and PENETRABLE LM:

Next we deal with the cases where the goal-LM has a boundary that is penetrable by the mover. The motion is directed TOWARDS the LM area, i.e., towards a GOAL, and the mover *penetrates* the boundary of the LM entity. Such situations presuppose that the mover starts its motion at a point OUTSIDE the LM area. In (20) and (21) the verbs are transitive verbs of motion, and the object of the verb is the mover.

Example (20) has the transitive motion verb *lung* ‘plunge’, the SPG schema, and two sub-trajectories. The subject has taken a person’s body and thrown it away (*lung* ‘plunge’) into the forest. The boundaries of the LM, the forest, are penetrable to the mover which is the human body that has been thrown. The goal, the endpoint of the trajectory, is beyond the LM boundary.

(20)

a lung nyoli nyɛ ri digi .
a lung nyoli nyɛ ri digi
 3sg plunge body 3sg. POSS INTO forest
 ‘He threw away (plunged) his body INTO the forest.’ (Tumbo 4.3)

Example (21) has the transitive motion verb *lumɔ* ‘shoot at’, the SPG schema, and two sub-trajectories. The verb is a kind of transitive motion verb. There is motion here, but mover is neither the subject nor the object. We can see what the mover is by looking at the preceding context: he hid his knife in its sheath, he began to chase that drunken man. The mover here is the thrown knife, and a moving knife can easily penetrate the back of the drunken man, a human person. We have a SPG schema, and the goal is on the other side of the boundary of the LM, i.e., the skin of the body is the LM.

(21)

a lumɔ nyɛ ri kɔŋg
a lumɔ nyɛ ri kɔŋg
 3sg shoot at 3sg.OBJ INTO back
 he shoot:at him INTO back (with a knife)
 literally he shoots at him INTO his back.
 free: ‘He shoots (the knife) INTO the drunken man’s back.’ (Tumbo 4.2)

3.1.3 Movers which are directed AWAY FROM the LM (i.e., from a SOURCE)

Next we deal with movers that are directed AWAY FROM the LM entity, i.e., from a source. The LM itself could be a point, a surface, or a container. If the source is a container, then the origin of the motion would be a point INSIDE the container LM. And again, the penetrability of the boundary of the container would be important.

Example (22) has the transitive motion verb *dagi* ‘snatch’, the SPG schema, and a single trajectory.

(22)

<i>nkoe</i>	<i>aa</i>	<i>dagi</i>	<i>Gyelo</i>	<i>ri</i>	<i>mεbo</i>	<i>mi</i>	<i>kuli</i>
<i>nkoe</i>	<i>aa</i>	<i>dagi</i>	<i>Gyelo</i>	<i>ri</i>	<i>mεbo</i>	<i>mi</i>	<i>kuli</i>

warthog 3sg.PERF. snatch *Gyelo* FROM NC6.arm OF NC1.tortoise
 ‘Warthog has snatched Gyelo FROM within the arms of tortoise.’ (Kuli 1.28)

Example (23) has the transitive motion verb *dui* ‘remove’, the SPG schema, and a single trajectory. Here again we have a boundary invoked with the usage of *ri*. The boundary is between death and life. The *ri* + death PP means that the immediate neighbourhood of death. The speaker is saying to the hearer that he (the hearer) has taken the child from the immediate neighbourhood of death right back into the realm of life. The speaker has not meant that the child has actually been removed across the boundary from death back into the realm of life. In fact, the preceding context tells us that the child had not previously died.

(23)

<i>aa</i>	<i>dui</i>	<i>mən’</i>	<i>am</i>	<i>mεbo</i>	<i>ri</i>	<i>asoe</i>
<i>aa</i>	<i>dui</i>	<i>mən’</i>	<i>am</i>	<i>mεbo</i>	<i>ri</i>	<i>asoe</i>

2sg.PERF remove NC1.child NC1.1sg.POSSNC6.arm FROM death
 ‘You have removed my child FROM death.’ (Kpagara 2.45)

Concerning the semantics of *dui* glossed here as ‘remove’, there are examples of the use of this verb in the purely physical domain. For example, in the butchering of an animal for food, we have *dui kondɔ* ‘remove skin’ meaning ‘to skin an animal’ and *dui biwiɔ* ‘remove bones’ meaning to ‘take the bones out of a piece of meat’.

3.2 Actions localised over the boundary of the LM

Here we deal with actions that are localised over the boundary of the LM entity. Such actions need to be distinguished from the kind of actions that we dealt with in (1) to (8), and (17) to (24). Those actions were directed either towards or away from the LM entity and were by no means localised over the LM boundary. Here, if the LM entity is physical, then there are various different possibilities for the dimensionality of that boundary. Thus, that boundary could be a surface (2D) or a line (1D). The idea of closeness or contact (i.e., the logical limit of closeness) is still maintained. Again the *ri* does not regard the LM as a

container in the usual sense; it is the boundary of the LM entity that is important, and not the idea that that entity can contain or enclose something.

3.2.1 Action verbs involving a motion over a surface, i.e., a 2D LM

In (24) the trajector is the whole action of ‘I wipe you’ and is shown in the data inside the box. The *ri*+LM prepositional phrase, shown in data with simple underline, both localizes and qualifies this action. The boundary of the LM is what is invoked, it is the addressee’s face and is a two dimensional surface. There is actual contact between trajector and LM. The action takes place all over the face of the addressee, so the idea of completeness is also invoked.

(24)

trajector					
<i>mē</i>	<i>tindala</i>	<i>wɔ</i>	<i>ri</i>	<i>mpɔmbi</i>	
<i>mē</i>	<i>tindala</i>	<i>wɔ</i>	<i>ri</i>	<i>0- mpɔmbi</i>	
1sg	PRES	wipe	2sg	OBJ	<u>ABOUT</u> <u>NC9</u> <u>FACE</u>

‘I wipe your face.’ (Nkyambe 1.21)
 (more literally: I wipe you, ON the face)

3.2.2. Action verbs involving a motion along a line

In (25) the participant is a young man who has no legs, and so he needs to borrow some. The trajector is the action of ‘coming to borrow legs’ and is shown inside the box in the data. The LM here is *nkye* ‘path’, i.e., a line. The *ri* + LM prepositional phrase localizes the action of coming to borrow legs. He expects to borrow legs from somebody somewhere on his journey along the path from his own village to Gyelo’s village.

(25)

trajector														
<i>Á</i>	<i>nkye</i>	<i>wing’</i>	<i>mεko</i>	<i>ri</i>	<i>nkye nε</i>	<i>à</i>	<i>nkye</i>	<i>da</i>	<i>angwangyo</i>					
<i>à</i>	<i>nkye</i>	<i>wing’</i>	<i>mε- ko</i>	<i>ri</i>	<i>nkye nε</i>	<i>à</i>	<i>nkye</i>	<i>da</i>	<i>a- ngwangyo</i>					
3sg	PST	come	borrow	NC6	foot	<u>ABOUT</u>	<u>path</u>	that/to/with	3sg	PST	come	thus	NC5	engagement

da mi Gyεb
da mi Gyεb
 village of Gyelo
 ‘He came to borrow legs ON the way in order to come thus to get engaged at Gyelo’s village.’
 (Kpagara 2.7)

3.3 Action verbs involving an action localised close to a boundary

Here we deal with actions that are localised in the sense that the action itself occurs in the close vicinity of the LM boundary. There is a similarity here with the situations of §3.2 which involved motions in contact with the boundary, because, as noted above, contact is the logical limit of close vicinity. However,

unlike the actions of §3.2 which all involved some sort of motion, here we are not dealing with motion verbs at all.

Example (26) uses the verb *bugi* ‘break’ in a clause with a *ri*+LM PP. The action of breaking occurs in the close vicinity of an LM boundary. Note that no mover moves, neither towards the LM, nor away from it. Nor does anything move localised on the LM boundary.

The speaker is describing a night-time journey in the woods that he took once. It was dark and they couldn’t see everything clearly, but at one point in the journey, they did hear a tree breaking behind them. The clause which follows that of (26) explicitly tells us that they did not know where exactly it was that the tree fell. It was dark and they couldn’t see. But later still (27), the speaker reports that next morning, in the daylight, they actually saw the fallen tree itself. It was then that they realised with certainty that the tree had indeed fallen right at the place where they had just passed through the night before. So indeed the idea that the preposition *ri* means closeness to a boundary is important here. Note that subsequently in the conclusion of the whole story the narrator reports the incident as being a narrow escape.

(26)

Hε ke məməna , ya le bɔɛ , hε gwogo
hε ke məməna y-a le- bɔɛ hε gwogo
 1pl go little It-NEG Minus stay:long:time 1pl hear

trajector

<i>Le</i>	<i>i</i>	<i>bugi</i>	<i>ri</i>	<i>kɔŋ</i>	<i>yɔŋ</i>
<i>0- le</i>	<i>i</i>	<i>bugi</i>	<i>ri</i>	<i>kɔŋ</i>	<i>yɔŋ</i>
NC7-tree	it	break	AT	back	1pl.POSS

‘We go a little way, we hadn’t yet been a long time, we hear a tree it broke AT our back.’
 (Geoffroy 1.14)

(27)

le ningo i bugi ri bandi hε bε go .
0- le ningo i bugi ri 0- bandi hε bε go
 NC7 tree that it break AT NC7 place 1pl be SUB

‘That tree, it broke AT the place where we had been.’ (Geoffroy 1.17)

Let us now summarise what we have learned about the function of the preposition *ri*. We have given evidence that when the preposition *ri* is used, we are thinking of some relationship with respect to the boundary of the LM entity. In §3.1 we dealt with motion verbs describing actions with a mover that had a translatory path with respect to the LM boundary; i.e., the mover moved either towards or away from that boundary. In §3.2 we dealt with actions that were localised on the LM boundary itself. And in §3.3 we dealt with actions which were localised as being close to the LM boundary.

3.4 The *ri* + LM PP and the verb ‘be’

The verb ‘be’ in Mpyemo can be expressed by *bε* as in (28).

(28)

<i>Nu</i>	<i>alung</i>	<i>gɔ</i>	,	<i>i</i>		<i>bε</i>	<i>nε</i>		<i>nu</i>	<i>ngogo</i>	<i>ri</i>	
<i>nu</i>	<i>a-</i>	<i>lung</i>	<i>gɔ</i>	<i>i</i>		<i>bε</i>	<i>nε</i>		<i>nu</i>	<i>0-</i>	<i>ngogo</i>	<i>ri</i>
certain	NC5	day	SUB	3sg	INAN	PST	be	COMP	certain	NC7	king	<u>AT</u>

dali

d- **ali*

NC5 village

‘Another day, there was a certain king AT that village.’ (Ntang 2.11)

In (29) the verb ‘be’ is expressed by zero, and the preceding is “So that’s why it is, a long time ago he (warthog) entered into the forest....” There is a warthog who is looking for something on the ground, and he is walking around with his head down, and his nose almost touching the ground. Hence, the description in the data has the PP: *ri mεtεgɔ* ‘on the ground’ or perhaps ‘about the ground’, where the preposition *ri* here expresses the relationship of closeness to the boundary, i.e., the ground or earth.

(29)

<i>do</i>	<i>rε</i>	<i>i</i>	<i>ndi</i>	<i>da</i>	<i>ri</i>	<i>mεtεgɔ</i>	<i>NYEEE ...</i>	<i>kolo</i>	<i>bε</i>	<i>nε</i>	
<i>0-</i>	<i>do</i>	<i>r-</i>	<i>i</i>	<i>ndi</i>	<i>da</i>	<i>ri</i>	<i>mε-</i>	<i>tεgɔ</i>	<i>kolo</i>	<i>bε</i>	<i>nε</i>
NC7	nose	NC5-POSS	it	again, too	thus	ON	<u>NC6 earth</u>		for	be	that/to/with

naa wεgaa akɔgi mi kuli .

naa wεgaa a- *kɔgi* *mi* *0-* *kuli*

look look for NC5 stone of NC1a tortoise

‘His (warthog’s) nose also is there ON the ground “Nyeee” [ideophone], so that he seeks Tortoise’s stone.’ (Nkoe 4.24)

3.5 The *ri* + LM PP and verb *nε* ‘have’

The ‘have’ relationship in Mpyemo is expressed by use of the particle *nε* ‘have’, functioning in a verbal slot in the clause. Example (30) has a clause with the main verb ‘have’ and with a *ri* + LM PP slot in it. The arm or hand here is the LM, and this presumably is a surface with which the machete has close contact, because in the story the subsequent context tells us that the narrator finished up with his hand badly cut by the sharp machete.

(30)

<i>mē</i>	<i>nε</i>	<i>wolaa</i>	<i>bunɔ</i>	<i>yam</i>	<i>ri</i>	<i>mbo</i>	.		
<i>mē</i>	<i>nε</i>	<i>wolaa</i>	<i>0-</i>	<i>bunɔ</i>	<i>yam</i>	<i>ri</i>	<i>m-</i>	<i>bo</i>	
1sg	PRES	have	sharp	NC7	machete	1sg	POSS	<u>IN</u>	<u>NC9 arm</u>

‘I have my sharp machete IN my hand.’ (Kubi 1.6)

3.6 The relational-word + *ri* + LM construction

Up to now, we have been dealing with clauses which are headed by verbs with a *ri* + LM PP as a complement or adjunct. However, occasionally, we come across an instance of a construction which can be represented by a relational-word + *ri* + LM, in which there is a relational word that is not a verb, but rather either a relational noun like *te* ‘middle’ or an adverb like *si* ‘down’.

3.6.1 With a relational noun like *te* ‘middle’

Note that the relational noun *te* ‘middle’ is a dependent word which introduces a part-whole relationship, and asks the question: “What is the whole?” or “What am I part of (or middle of)?” In other words, it needs a complement. And the answer is given by the LM of the preposition *ri*, as in the following phrases: *te ri nkye* (‘middle PREP path’) ‘the middle of the path’, and *te ri bulo* (‘middle PREP night’) ‘the middle of the night’. In example (31) the phrase (shown underlined) is in the spatial domain as a spatial adjunct.

(31)

Á kε tee ... á gyo te ri nkye go , áá kwa abagi
á kε tee á gyo te ri nkye go áá kwa a- bagi
 3sg.PST go so much 3sg PST arrive middle PREP path SUB 3sg. PERF uproot NC5 divide
 ‘He went until...he arrived in the middle of the path, unexpectedly he has come across a divide (in the path).’ (Nkyambe 1.7)

In example (32) the phrase (shown underlined) is in the time domain as a temporal adjunct.

(32)

Gyo te ri bulo , mpoε wε , áá nɔ
gyo te ri 0- bulo mpoε wε , áá nɔ
 arrive middle PREP NC7 nighttime brother-in-law 3sg. POSS 3sg. PERF take
kyεɔŋ’ , áá kε kyεgo kying yε
0- kyεɔŋ’ áá kε kyεgo 0- kying yε
 NC7 knife 3sg PERF go cut NC7 neck 3sg.INAN.OBJ
 ‘The middle of the night came, his brother in law took a knife, he went to cut his neck.’
 (Nkyambe 1.15)

3.6.2 With an adverb like *si* ‘down’.

First, an example showing the use of *si* ‘down’ as an adverb, modifying a verb.

(33)

kε gya si .
kε gya si
 go lie down
 ‘Go and lie down.’

In the following example (34), the same adverb *si* ‘down’ apparently fills the main verb slot of a clause. However, the verb ‘be’, realised by zero (see examples (8), (9), (10) in 2.2.1.1), is present, as can be seen by the translation of (34).

In (34) we have taken the trajector to be the verb phrase *bóó-si-nyε* ‘3sg.PERF.SUBJ- down- 3sg.OBJ’; we have marked this trajector with a box in the data, and the *ri*+LM PP is shown with a plain underline. The LM itself is the person’s body, which is a surface, and the bees and wasps are all over that person’s body. There is contact and completeness of coverage here.

(34)

<i>Biselo</i>	<i>ne</i>	<i>bεanyɔgwo</i>	trajector				<i>ri</i>	<i>nyoli</i>
<i>bi- selo ne</i>	<i>bε- anyɔgwo</i>	<i>bóó</i>	<i>si</i>	<i>nyε</i>	<i>ri</i>	<i>nyoli</i>		
NC8 wasp	that/to/with	NC2 bee	3pl PERF	down	3sg OBJ	<u>ABOUT</u>	<u>body</u>	

‘The wasps and bees, they have come down AROUND his body.’ (Nkyambe 1.34).
(In fact, they are down all over his body).

3.7 *Ri*+LM PPs in the time margins of a clause

Here the *ri*+LM PP is functioning in the time margin of the clause. The LM itself can be either a time word or a nominalised verb.

3.7.1 With the time word melema ‘morning’ as the LM of *ri*

(35)

<i>Mεno</i>	<i>ri</i>	<u><i>melema</i></u>	,	<i>bena</i>	<i>bula</i>	.
<i>mεno</i>	<i>ri</i>	<u>0- <i>melema</i></u>		<i>bena</i>	<i>bula</i>	
tomorrow	<u>in</u>	<u>NC7 morning</u>		1pl incl	return	

‘Tomorrow morning we return.’ (Geoffroy 1.9)

3.7.2 With a nominalised verb as the head of the LM of *ri*

In (36) the LM of *ri* is *mpula yong* ‘return our’, in which *mpula* is a nominalisation of the verb ‘to return’.

(36)

<i>Gyɔɔ</i>	<i>melema</i>	<i>ri</i>	<u><i>mpula</i></u>	<u><i>yong</i></u>	<i>gɔ</i>	,	<i>bandi</i>	<i>hε</i>	<i>dyc</i>	<i>si</i>	<i>tego</i>	,
<i>gyɔɔ</i>	0- <i>melema</i>	<i>ri</i>	<u>0- <i>mpula</i></u>	<u><i>yong</i></u>	<i>gɔ</i>		0- <i>bandi</i>	<i>hε</i>	<i>dyc</i>	<i>si</i>	<i>tego</i>	
come	NC7 morning	<u>ON</u>	<u>NC9 return</u>	<u>1pl POSS</u>	sub		NC7 place	1pl	stay	down	there	

<i>bilang</i>	<i>bidumo</i>	<i>yɔ</i>	<i>duma</i>	<i>ndi</i>	<i>wa</i>	<i>ri</i>	<i>bandi</i>	<i>hε</i>	<i>dyc</i>	
<i>bi- lang</i>	<i>bi- dumo</i>	<i>yɔ</i>	<i>duma</i>	<i>ndi</i>	<i>wa</i>	<i>ri</i>	0- <i>bandi</i>	<i>hε</i>	<i>dyc</i>	
NC8 branch	NC8 baobab tree	it	perfect	fall	again, too	there	in	NC7 place	1pl	stay

si *tego*
si *tego*
down there

‘Come the morning, ON our return, the place where we sat down, the baobab branches fell (again) there in the place where we sat.’ (Geoffroy 1.17)

3.8 *Ri* in the domain of the TAM system of the verb

Here we are dealing with the particle *ri* functioning within the verb morphology itself to mark tense-aspect. The particle *ri*, in various combinations within the verb structure, expresses the imperfective, the inceptive and the habitual. Clearly, the habitual is understood as a variant of the imperfective.

3.8.1. *The imperfective*

The imperfective itself is expressed with

1. *ri* + verb, or
2. *ri* + verbal nominalisation, or
3. *ri* + *sa* + verbal nominalisation (where *sa* is the verb ‘to do’).

3.8.1.1 *Imperfective of a state*

(37)

Morom a ri wogala dala ,
morom a ri wogala dala
 man 3sg IMPERF be stupid thus
 ‘The man, was being stupid like that.’ (Tumbo 3.1)

(38)

nkya kang ī ri sa mε
nkya 0- kang ī ri sa mε
 hunger NC7 tobacco 3sg INAN PRES IMPERF do 1sg OBJ
 ‘Tobacco hunger is doing me (i.e., ‘I need a smoke) (Nkyambe 1.37)

3.8.1.2 *Imperfective of an action ri + verb*

(39)

à ri gyembo
à ri gyembo
 3sg. PST IMPERF sing
 ‘He was singing.’ (Nkyambe 1.63)

3.8.1.3 *Imperfective of a process ri + verb*

(40)

buɔn ī ri belo
buɔn ī ri beɔ
 machete 3sg INAN IMPERF become:red
 ‘The machete, it was becoming red.’ (Kpagara 2.19)

3.8.1.4 Imperfective of *ri* + *sa* + nominalised verb

In (41) there is a nominalised verb *mεkɔɔ* ‘grinding’ following the *ri* + *sa*.

(41)

à ri sa mεkɔɔ .
à ri sa mε- kɔɔ
 3sg PST IMPERF do NC6 grinding
 She was grinding.’ (Nkoe 4.2)

In (42) the inceptive imperfective is expressed as *mi* + *ri* + *nominalised:verb*. It means ‘to begin an imperfective process that then persists for some time’.

(42)

à mi ri gwɔ .
à mi ri 0- gwɔ
 3sg. PST of IN NC1a sleep
 ‘He was beginning to sleep.’ (Nkyambe 1.41.)
 (i.e., ‘He has fallen asleep and is sleeping’)

In (43) the habitual imperfective is expressed with *ri* + verb.

(43)

màà ri de taa
màà ri de taa
 1sg NEG HAB eat goat
 ‘I don’t (habitually) eat goat.’ (Nkyambe 1.29.)
 (nb. *de* ‘eat’ is a verb, not a nominalisation)

3.9 Contrast between *to* and *ri* in PPs

In (44) we see the important contrast between *to* and *ri* when these prepositions are used to make up PPs. Note the difference in the meanings of the clauses in (44) and (45). In the situation of the clause in (45), there were lots of worms, all over the meat, not just one. This shows clearly that for the usage of *ri*, the boundary of the LM is invoked, and that there is near complete coverage of and contact with that boundary.

(44)

mɔɔ byela binyamɔ to tiri
mɔɔ byela binyamɔ to tiri
 1sg.PERF find worms IN meat
 ‘I have found worms IN the meat’ (elicited data)
 (i.e., inside the meat, container invoked.)

(45)

mɔɔ byela binyamɔ ri tiri
mɔɔ byela binyamɔ ri tiri
 1sg.PERF find worms ON meat

'I have found worms ALL over the meat.' (elicited data)

(i.e., all over the surface of the meat, boundary, contact, and completeness invoked.)

4 The preposition *ti* and its functions

The preposition *ti* has usages in three different domains:

1. in domain of location of a situation in space: physical location space, time space or thought space
2. in the topicality domain of certain adverbial clauses, specifically 'if' and 'when' clauses
3. in the domain of the TAM system on the verb.

4.1 Domain of location of a situation in various spaces

The preposition *ti* means location of a situation with respect to the boundary of an LM in various spaces. The space can be a purely positional, or a location in time, or, more abstractly, a location in thought.

For *ti* + LM PPs, just as for *ri* + LM PPs, the LM is not regarded as a container. Note here the contrast between *ti* and *ri* both of which invoke the boundary, as against *to* which always invokes a container.

4.1.1 Location in physical space and *ti*

When used in the domain of physical location space, the preposition *ti* has the meaning of 'about' or 'over', or perhaps more loosely 'on', in the purely situational sense with no connotation whatever of 'weight-bearing'. In this respect *ti* contrasts with *kolɔ*, which often does have a sense of weight-bearing in its usage.

(46)

kyɛŋ' nyɛ bɔɔ ti bobogo yɛ go
0- kyɛŋ' nyɛ bɔɔ ti bobogo y- go
 NC5 knife 3sg OBJ wear ABOUT waist NC3-POSS SUB

'The knife that he wore ROUND his waist.' (Tumbo 3.1)

In (47) the physical location space invokes the boundary of the LM, and complete coverage.

(47)

ti ɔ *bɛ* *mori* *mɛnyɔgi* *nii* *gɔ* , *bɔng* ‘ *i* *sa* *wɔ*
ti ɔ *bɛ* *mori* *mɛnyɔgi* *nii* *gɔ* 0- *bɔng* *i* *sa* *wɔ*
if/when 2sg 3pl person corn beer this (further) SUB NC7 fear it do, make 2sg OBJ

trajector

<i>kɔb</i>	<i>nkyia</i>	<i>yɔ</i>	<i>lonɔ</i>	<i>nyɛ</i>	<i>ti</i>	<i>nyoli</i>	<i>kɛng</i>	<i>ngwola</i>	<i>taa</i>	<i>nyɔ</i>				
<i>kɔb</i>	0-	<i>nkyia</i>	<i>yɔ</i>	<i>lonɔ</i>	<i>nyɛ</i>	<i>ti</i>	<i>nyoli</i>	<i>kɛng</i>	<i>ngwola</i>	<i>taa</i>	<i>nyɔ</i>			
for	NC7	blood	it	PERF	fill	3sg	OBJ	OVER	body	so much	like	goat	3sg	EMPH

bɔ *kyɛgɔ* *kying* ‘ *yɛ* *gɔ*
bɛ ɔ *kyɛgɔ* *kying* *yɛ* *gɔ*
3pl - PERF cut neck 3sg INAN OBJ SUB

‘If you saw this drunk man, you will be afraid because blood, it was filling (covering) him, ALL over his body so much, like a goat which has had its throat cut.’ (Tumbo 6.1.) The underlined part of the data could be translated as ‘The blood, it has filled (covered) him, all over his body so much like a goat which has had its throat cut.’

Here, the LM in the *ti* + LM PP is the surface of the body of the man, i.e., the boundary of that body. So the blood has ‘filled’ or ‘covered’ all over the surface of that body. The blood has contact all over the whole boundary of the LM (body). The verb ‘fill’ makes specific, the full extent of the coverage. In Mpyemo, this word for ‘fill’ does not necessarily mean that a 3D volume has to be filled which seems to be the sense which the word ‘fill’ is usually understood in English.

4.1.2. Location of a situation in time space and ti

(48)

Ti *mɛmpula* *mɛ* *a* *boma* *nɛ* *nu* *kɛkɛɛ* *momorom* *nyɛ*
ti *mɛmpula* *mɛ* *a* *boma* *nɛ* *nu* *kɛkɛɛ* *mo-* *morom* *nyɛ*
if/when return 3sgPOSS.NC6 3sg see (reflex) that/to/with certain child little man REL

duɔ *bɛ* *kali* *wɛ*
duɔ *bɛ* *kali* *wɛ*
come.out with sister 3sgPOSS.NC1

‘On his return, he meets a boy who comes out with his sister.’ (Tumbo 1.4.) (i.e., during the time of his return, he meets...)

4.1.3 Location of a situation in thought space

(49)

trajector

<i>bingyena</i>	<i>biɛ</i>	<i>i</i>	<i>duma</i>	<i>ti</i>	<i>kyɛng</i>			
<i>bi-</i>	<i>ngyena</i>	<i>biɛ</i>	<i>l</i>	<i>duma</i>	<i>ti</i>	0-	<i>kyɛng</i>	
NC8	thought	3sg	POSS	it	fall	ON	NC5	knife

‘His thought, it fell ON the knife.’ (Tumbo 3.1) (i.e., ‘He thought ABOUT the knife.’)

4.2 *Ti* in the domain of certain adverbial clauses

The preposition *ti* introduces three different kinds of adverbial clauses in Mpyemo, specifically: hypothetical if-clauses, factual if-clauses, and when-clauses. These clauses are all in the domain of topicality. And in this usage the *ti* always comes clause initially. There are, of course, other adverbial clauses that are not introduced by *ti*.

4.2.1 *Ti* and hypothetical conditionals: *Ti ne*

Hypothetical conditionals always come sentence initially, and they are introduced by *ti ne*, and further distinguished by having a PERFECT pronoun on the verb of the conditional clause.

(50)

<i>ti</i>	<i>ne</i>	<i>áá</i>	<i>gyæ to</i>	<i>song</i>	<i>gɔ à</i>	<i>na ba</i>	<i>mɔɔ ni</i>
<i>ti</i>	<i>ne</i>	<i>áá</i>	<i>gyæ to</i>	0- <i>song</i>	<i>gɔ à</i>	<i>na- ba</i>	<i>mɔɔ ni</i>
<u>if</u>	COMP	3sg PERF	reply in	NC7 tomb	SUB 3sg PST	FUT marry	child this

'If she replies from her tomb, he will marry this child.' (Ntang 2.14.)

4.2.2 *Ti* and factual conditionals, *ti* but no *ne*

We have found only one example of factual conditionals in the text corpus so far (51). The distinguishing feature of a factual conditional (for what it is worth with just one example) is that the verb of the conditional clause is preceded by a subject pronoun in the PRESENT tense. Also, in the one example that we have, the if-clause occurs sentence finally, but it is difficult to say that this could be a distinguishing feature from just one example.

The context in (51) is that the boy, as the speaker, has just heard from his interlocutor that the latter claimed to be a man. So when the boy himself says *ti ɔ mori* 'if you are a person', he is merely confirming what his has just heard from his interlocutor. (We might even have translated this particular conditional clause as 'since you are a person' or even 'since I now know that you are a person'.)

(51)

<i>Mo-morom</i>	<i>nii</i>	<i>nyɛ̀</i>	<i>ne</i>	,	"	<i>ho</i>	!
<i>mo-</i>	<i>morom</i>	<i>nii</i>	<i>nyɛ̀</i>	<i>ne</i>		<i>ho</i>	
little man	this (further)	3sg subj	PST that/to/with			Oh!	

<i>mē</i>	<i>tindala</i>	<i>wɔ</i>	<i>ri</i>	<i>mpɔmbi</i>	<i>gɔ</i>	,	<i>ti</i>	<i>ḡ</i>	<i>mori</i>	.	"
<i>mē</i>	<i>tindala</i>	<i>wɔ</i>	<i>ri</i>	0- <i>mpɔmbi</i>	<i>gɔ</i>		<i>ti</i>	<i>ḡ</i>	<i>mori</i>		
1sg PRES	wipe	2sg obj	about	NC9 face	SUB		<u>if</u>	<u>2sg PRES</u>	<u>person</u>		

'This boy said, "Oh! I'll wipe your face if you are a person."' (Nkyambe 1.20-1.21.)

4.2.3 *Ti* and when adverbial clauses

These adverbial clauses are introduced by clause initial *ti* (but with no *nε*), and have the further distinguishing feature that the verb of the clause is preceded by a subject relative pronoun.

(52)

ti *ɔ* *gyo* *da* *go* *mpoe* *wɔ* *go* , *bideɔ* *bē* *na* *gyambo*
ti *ɔ* *gyo* *da* *go* *mpoe* *wɔ* *go* *bideɔ* *bē* *na-* *gyambo*
when 2sg REL arrive thus SUB brother-in-law 2sg OBJ SUB food 3pl PST FUT cook
yo *go* , *wēɛ* *de* .
yo *go* *wēɛ* *de*
2sg OBJ SUB 2sg NEG IMPERATIVE eat

'He said to this young man, "When you arrive at the village/house of your brother in law, the food they will cook for you, don't eat [it]." (Nkyambe 1.24.)

Example (53) has a sentence FINAL when clause (given underlined in the free translation). However, this clause still is introduced by *ti* clause initially.

(53)

Brad *ɔ* *laε* *nε* *mε* *laε* *wɔ* *nu* *sago* *yo* *gyɔɔ* *mε* *ti* *mε* *kε*
brad *ɔ* *laε* *nε* *mε* *laε* *wɔ* *nu* 0- *sago* *y* *ɔ* *gyɔɔ* *mε* *ti* *mε* *kε*
Brad 2sg tell COMP 1sg tell 2sg OBJ certain NC5 thing it PERF come 1sg when 1sg go
digi , *gye* *bea* , *gye* *nyoa* , *i* *gyɔɔ* *mε* *pea* *ri* *kɛni* *yam*
0- *digi* *gye* *bea* *gye* *nyoa* *i* *gyɔɔ* *mε* *pea* *ri* 0- *kɛni* *yam*
NC7 forest or bad or good it come 1sg OBJ there on NC5 journey 1sg.POSS
go .
go
SUB

'Brad, you tell me to tell you about something which happened to me when I went to the forest, either bad or good, which happened to me there on my journey.' (Geoffroy 1.1)

4.3 *Ti* in the domain of the TAM system of the verb

Ti can be used to mark 'immediate past' tense on a main verb. As such it functions as part of the TAM system of the verb.

In (54), the *ti* is immediately preceded by a subject pronoun in the PAST, (not perfect, and not relative) and immediately followed by the verb of the clause. The position of the *ti* and its syntactic environment distinguishes it as an immediate past usage.

(54)

Mɛ ti laɛ wɔ nɛ , ngwom ' am go , áá kɛ kɛ
mɛ ti laɛ wɔ nɛ , ngwom am go áá kɛ kɛ
 1sg PST IMM PST tell 2sg OBJ that/to/with husband 1sg POSS SUB 3sg PERF go go

bɛɛ biɔɔɔ biɛ
bɛɛ bi- ɔɔɔ bi-ɛ
 see NC8 trap NC8-POSS

'I just told you that my husband, he has gone to go and see his traps.' (Nkoe 4.10)

5 Summary and conclusions

In this paper, the meanings of three Mpyemo prepositions *to*, *ri*, and *ti* have been analysed according to the methodology of cognitive linguistics. The preposition *to* functions quite distinctively from the other two, in that it alone invokes its LM as a container. The PPs with *to* can occur in clauses with a wide variety of verbs, both motion and non-motion. The prepositions *ri* and *ti* both invoke their LM with regard to its boundary, and in this respect their meanings are strongly distinguished from that of *to*. As far as the relationship between them is concerned, *ri* and *ti* are almost in complementary distribution with semantic environments. Details of this complementary distribution are:

1. While *ri* + LM PPs are found in clauses with a wide variety of verbs, including motion verbs, non-motion action verbs, the copula and the verb 'have', *ti* + LM PPs can only occur in clauses which describe a situation localised over a boundary.
2. *ri* marks aspect in the TAM systems of verb, while *ti* marks immediate past tense.
3. *ti* is used to introduce certain adverbial clauses but *ri* is never used to introduce clauses of any kind.

A cognitive linguistic analysis has enabled us to gain an understanding of the meanings of these three prepositions, which meanings would never have been revealed by traditional English translations. In fact, it was often found that such translations were very misleading. Table 1 provides a summary of the results of the total analysis. Each column of this table gives the information on the functions of one of the prepositions. In the lower rows of the table, starting immediately below the blank row about a third of the way down, there is a listing of each of the functions of each preposition. The numbers within parentheses that appear at the end of each entry in this listing are the numbers of subsections within the paper where the corresponding function is dealt with in detail.

Table 1. Table of the contrasts of the functions of the three prepositions *to*, *ri*, and *ti* in Mpyemo.

<i>to</i>	<i>ri</i>	<i>ti</i>
KINDS of NOUNS as LMS for <i>to</i>	KINDS of NOUNS as LMS for <i>ri</i>	KINDS of NOUNS as LMS for <i>ti</i>
	common nouns	common nouns
place nouns (area, volume)	place nouns	place nouns
time	time nouns	time nouns
abstract nouns	abstract nouns	
	nominalised verbs	nominalised verbs
KINDS of VERBS heading clauses with <i>to</i>+LM PPS	KINDS of VERBS heading clauses with <i>ri</i>+LM PPS	KINDS of VERBS heading clauses with <i>ti</i>+LM PPS
motion verbs intransitive SPG or SPG transitive SPG or SPG	motion verbs, impenetrable LM, intransitive, SPG (2.1.1) transitive	
	motion verbs, penetrable LM, transitive SPG (2.1.2))	
	motion verbs <u>localised over</u> boundary of LM (2.2)	situations <u>localised over</u> boundary of LM (3.1)
non-motion verbs (no mover)	action verbs (no mover) <u>near</u> boundary of LM (2.3)	
copula, verb 'be' (no mover)	copula, verb 'be'(no mover) (2.4) verb 'have' (no mover) (2.5)	
	<i>ri</i> with non-verbal relation words (2.6)	
	<i>ri</i> in the domain of the TAM system of verb (2.8)	<i>ti</i> in the domain of the TAM system of verb (3.5)
	imperfectives (aspect) habituals (aspect)	immediate past (tense)
	In time margins of a clause (2.7)	location of situation in time space (3.2)
		ADVERBIAL CLAUSES introduced by <i>ti</i> . (3.4)
		Adverbial clauses with PERF verb(hypothetic if's)(3.4.1)
		Adverbial clauses with PRES verb (factual if's)(3.4.2)
		Adverbial clauses with REL verb(when clauses)(3.4.3)
focus on containerhood	focus on boundaries	

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Unmarked Transitive Verbs in Melanesian Pidgin

John Lynch

ABSTRACT

Although all four major varieties of Melanesian Pidgin mark transitivity by a verbal suffix of the form <-Vm>, there is a small group of verbs in each of them which are unmarked when used transitively—more in Bislama and Broken than in Tok Pisin and Pijin. I will show that there are different kinds of explanations for different cases of zero-marking involving the origin, function, or form of the verb.

1 Introduction

The term Melanesian Pidgin is normally understood as including Tok Pisin, Pijin, and Bislama, the officially designated or de facto national languages of Papua New Guinea, Solomon Islands, and Vanuatu respectively. There is, however, a strong case on the grounds of lexical and grammatical similarity, as well as history, for including Broken, the creole spoken in the islands of the Torres Strait, under this umbrella (see, for example, Keesing 1988:8, Shnukal 1988:3, and Lee 1998). The degree of mutual intelligibility between any of the first three mentioned above is such that it is difficult to determine whether we are dealing with one or several languages; if they are distinct languages, they are very closely related and exhibit very similar structural patterns. Indeed, Terry Crowley (pers. comm.) felt that the real difficulty in “counting” languages here is not so much based on problems of mutual intelligibility, but on the fact that three distinct standard varieties, each with their own names, have emerged.

Broken, however, would appear to be more different from the other three, but nevertheless closely related.¹

One area of similarity between all four varieties is the marking of transitivity by a verbal suffix. However, there is a small group of verbs in each variety which do not take this suffix, but are unmarked when used transitively. The number of such verbs is significantly higher in Bislama and Broken than in Tok Pisin and Pijin. In this paper, I focus heavily on Bislama, partly because I am more familiar with it and partly because there are more published data available on Bislama than on Broken. I will first look briefly at the history of transitive marking in Melanesian Pidgin, and then deal with the morphologically unmarked transitives in Bislama and, to a lesser extent, the other three languages. I will show that there are different kinds of explanations for different cases of zero-marking, involving the origin, function, or form of the verbs so marked.

2 Morphologically marked transitives

The standard strategy in modern Melanesian Pidgin for transitivising intransitive, stative, or nominal roots is to add the suffix {-em}. The two Bislama examples in (1) and (2) illustrate this:²

(1) Trak ia i no save stat.
 vehicle DEM PRED NEG HAB start
 ‘This car won’t start.’

(2) Mi no save stat-em trak ia.
 I NEG HAB start-TR vehicle DEM
 ‘I can’t start this car.’

That this process is fully productive can be seen from its use with verbs fairly recently borrowed from English and not always phonologically fully integrated into the language, such as Bislama *oganaes-em* ‘organize’, *faks-em* ‘fax’, *diskraeb-em* ‘describe’, and so on. It also occurs in nonce-forms—English verbs used in Bislama discourse by English-educated Ni-Vanuatu, like *initiate-em*, *regulate-em*, or *redirect-em* (where I have spelled the verbs according to English orthography to show their “nonce-ness”).

The systematic marking of transitivity by this suffix, however, is a relatively late development in the history of Melanesian Pidgin. Crowley was earlier (1990: 286–297) of the view that, in Early Melanesian Pidgin, there was no

¹I am pleased to be able to offer this paper in honor of Karl Franklin, whose work over many years on the languages of Papua New Guinea—including Tok Pisin—has been most influential. I am grateful to Robert Early, Jane Kanas, Jeff Siegel, Anna Shnukal, and the late Terry Crowley for comments on an earlier version of this paper.

²The suffix {-em} is probably the base form in all modern varieties except Tok Pisin, where it is {-im}; its allomorphs are described later in this section. The form was, however, probably originally *-im* (Crowley 1990:298). Data are drawn largely from Mihalic (1971) and Mühlhäusler (1985) for Tok Pisin, Simons and Young (1978) and Jourdan (2002) for Pijin, Camden (1996) and Crowley (1990, 1995, 2003, 2004, nd) for Bislama, and Shnukal (1988) and Lee (1998) for Broken. Abbreviations follow the Leipzig Glossing Rules except that HAB marks habitual and PRED the predicate marker.

transitive suffix, though more recently (n.d.) he argues, on the basis of some kind of continuity between early Bislama and New South Wales Pidgin, that there was probably at least *some* transitive marking at the beginning, albeit unsystematic and fairly infrequent. A transitive verb root was originally normally followed directly by the nominal or pronominal object. The 3SG (object) pronoun was *im* or *em*, but this was a free morpheme. Because of the frequency of occurrence of 3SG pronoun objects, the structure VERB + *im/em* was a very common one, and gradually the *im/em* became attracted to the verb root as a marker of transitivity. However, “for much of the period between the 1870s and the turn of the [twentieth] century, written sources point to a considerable amount of freedom as to whether a transitive verb with a following object would carry the transitive suffix or not” (Crowley 1990:287). His examination of written sources from this period shows dramatically increasing use of the suffix in Bislama, as illustrated in table 1, and we can probably assume a similar situation for the other languages. (See also Crowley n.d. for a detailed discussion of these developments, albeit with a slight difference of interpretation, as mentioned above.)

Table 1: Transitive marking on Bislama verbs

	-Ø (%)	{-em} (%)
1840-1870	97	3
1870-1885	73	27
1885-1900	41	59
1900-1918	23	77

In modern Melanesian Pidgin, the vast majority of transitive verbs are now marked as transitive by the suffix {-em}, which has a number of phonologically conditioned allomorphs, though the allomorphs, and the conditioning, vary slightly from one variety to another. When a verb ends in a consonant,

1. in Tok Pisin, the suffix is universally *-im*;
2. in Pijin, the suffix is *-im* when the vowel of the preceding syllable is high and *-em* when it is not;
3. in Bislama, the suffix is *-im* when the vowel of the preceding syllable is *i*, *-um* when the vowel of the preceding syllable is *u*, and *-em* elsewhere;³ and
4. in Broken, the underlying form of the transitive suffix is *-em*, though in the western dialect it is *-im* if the vowel of the preceding syllable is high; thus western Broken has the same vowel harmony rule as Pijin, while eastern Broken behaves like Tok Pisin in having only a single allomorph of this suffix. However, the most common surface form deletes the *m*: *-e* in the east, *-e* or *-i* in the west. Ernest Lee (1998) says that “Shnukal does

³A single exception in Bislama is *luk-im* ‘see’ (for expected *luk-um*), which alternates with the more frequent zero-marked transitive form *luk*. Despite suggestions that it is a fairly recent loan from Tok Pisin or Pijin, Crowley (1990:291) says that “*lukim* has an unbroken history in Bislama going back to the late nineteenth century”.

not (as best I can determine) distinguish between the use of the normal reduced form and the full form, but it appears from the many examples in her dictionary that the full form is somewhat regularly [sic] used when there is no overt object following the verb”, and my reading of the data in Anna Shnukal (1988) would confirm this. Thus the data in (3) and (4):

- (3) Kесе diswan ya!
 catch:TR this here
 ‘Take hold of this one!’

but

- (4) Kesem pas!
 catch:TR first
 ‘Hold this for a moment!’

Wanem yu kesem?
 what you.SG catch:TR
 ‘What did you catch?’

Crowley (2004:79) notes that *-e* also appears as an allomorph in Bislama, and makes the following comment: “In very fast colloquial speech, especially among younger speakers of Bislama, the transitive suffix in many contexts optionally loses its final *m*.” We thus encounter variations such as *taetem* and *taete* ‘tighten’, or *boelem* and *boele* ‘boil’.

When the verb ends in a vowel, there is more variability. Sometimes, the suffix is simply *-m*, especially if the verb-final vowel is the same as a vowel in one of the allomorphs of the suffix. After *a*, there is often an intrusive *r* between the *a* and the suffix, though this is less frequent and more optional in Tok Pisin and Pijin than in Bislama.⁴ In Broken, the suffix appears as *-wem* after *o*, and in Bislama *-im* is used after *u*.

The examples in table 2 show an intransitive, stative, or nominal root plus the transitive suffix; blanks indicate no cognate form.

⁴Jeff Siegel (pers. comm.) points out that the etymological sources of *a*-final verbs end in underlying *r* in English, which surfaces in prevocalic position even in British English (‘hammer it’); and thus the explanation for the allomorph *-rem/-rim* may have something to do with this *r*. There appears to be no *a*-final verb in Bislama which does not have an English origin; the closest may be *kolta* ‘bitumen’, *koltarem* ‘seal (a road)’, whose English source (*coal tar*) is never used verbally (Crowley, pers. comm.).

Table 2: Comparison of roots plus the transitive suffix

Tok Pisin	Pijin	Bislama	Broken	
<i>stil-im</i>	<i>stil-im</i>	<i>stil-im</i>	<i>stil-e(m)</i>	'steal'
<i>kuk-im</i>	<i>kuk-im</i>	<i>kuk-um</i>	<i>kuk-e(m)</i>	'cook'
<i>stret-im</i>	<i>stret-em</i>	<i>stret-em</i>	<i>stret-e(m)</i>	'straighten'
<i>kot-im</i>	<i>kot-em</i>	<i>kot-em</i>		'take to court'
<i>stat-im</i>	<i>stat-em</i>	<i>stat-em</i>	<i>stat-e(m)</i>	'start'
<i>rere-im</i>	<i>rere-m</i>	<i>rere-m</i>		'prepare'
<i>hama-(r)im</i>	<i>hama-(r)em</i>	<i>hama-rem</i>	<i>ama-re(m)</i>	'hammer'

In addition, there are a number of inherently transitive verbs which incorporate the same suffix with the same allomorphic variation, even though there is no intransitive equivalent. In these examples in table 3, and also those in table 4, the hyphen indicates an etymological rather than a synchronic morpheme break.

Table 3: Inherently transitive verbs plus the transitive suffix

Tok Pisin	Pijin	Bislama	Broken		
<i>giv-im</i>	<i>giv-im</i>	<i>giv-im</i>	<i>gib-e(m)</i>	<i>*giv/ *gib</i>	'give'
<i>put-im</i>	<i>put-im</i>	<i>put-um</i>	<i>put-e(m)</i>	<i>*put</i>	'put'
<i>mek-im</i>	<i>mek-em</i>	<i>mek-em</i>	<i>mek-e(m)</i>	<i>*mek</i>	'make'
<i>hol-im</i>	<i>hol-em</i>	<i>hol-em</i>		<i>*hol</i>	'hold'
<i>kat-im</i>	<i>kat-em</i>	<i>kat-em</i>	<i>kat-e(m)</i>	<i>*kat</i>	'cut'*

**Kat* occurs in Broken with the stative/passive meaning 'be cut', but not in the other three languages.

There are also some verbs in each variety in which the transitive suffix is followed by morphemes such as *-ap* 'up', *-daon* 'out', or *-aot* 'out', and which presumably originated as compounds, though they are now treated as involving affixation. Tok Pisin and Broken often then add a second transitive suffix after these suffixes; in Broken, the first suffix is *-m*, the second *-e(m)*. Note the examples in table 4:

Table 4: Verbs with transitive suffix plus directional morphemes

Tok Pisin	Pijin	Bislama	Broken	
<i>pul-im-ap-im</i>	<i>fil-im-ap</i>	<i>ful-um-ap</i>	<i>pul-m-ap-e(m)</i>	'fill'
<i>lipt-im-ap-im</i>	<i>lift-im-ap</i>	<i>left-em-ap</i>	<i>lek-m-ap-e(m)</i>	'lift'
<i>pain-im-aot-im</i>	<i>faend-em-aot</i>	<i>faen-em-aot</i>		'find out'*
<i>sa-m-ap-im</i>	<i>so-em-ap</i>	<i>so-m-ap</i>	<i>so-m-ap-e(m)</i>	'sew'

*Broken *painaut* has no suffix.

3 Syntactic transitive marking

Crowley (1990) and Bill Camden (1996) have drawn attention to a pseudo-transitive construction in Bislama in which the verb is unsuffixed and the object is marked by the general oblique preposition *long*. Discussing these structures, Crowley says:

long is also very widely used as a pseudo-transitivizer in Bislama, allowing a noun phrase to be introduced into the pragmatically salient position immediately after the verb, although the verb remains formally intransitive. For instance, the intransitive verb *oda* ‘put an order’ can take an ‘object’ which is introduced by the preposition *long*. Thus:

Yu oda finis? ‘Have you ordered?’
Mi oda long jikinjips. ‘I have ordered a chicken and chips.’

Some verbs have the option of taking an object introduced by *long*, or by forming a genuinely transitive verb by adding the transitive suffix *-em*. ... However, there are other intransitive verbs which do not have this option, and can only be ‘transitivized’ by means of this prepositional construction (1990:295-296)

Thus, alongside the suffixed transitive verbs in (5) we have the unsuffixed verbs + *long* in (6); examples are from Camden (1996:343):

- (5) Hem i wantem mared-em wan woman Pama.
 he PRED want:TR marry-TR one woman Paama
 ‘He wanted to marry a woman from Paama.’

Hem i kis-im woman ia.
 he PRED kiss-TR woman DEM
 ‘He kissed the woman.’

Ol kwaea oli welkam-em mifala daon long sanbij.
 PL choir PRED welcome-TR us:EXCL down OBL each
 ‘The choirs welcomed us down on the beach.’

- (6) Hem i wantem mared long wan woman Pama.
 he PRED want:TR marry OBL one woman Paama
 ‘He wanted to marry a woman from Paama.’

Hem i kis long woman ia.
 he PRED kiss OBL woman DEM
 ‘He kissed the woman.’

Ol kwaea oli welkam long mifala daon long sanbij.
 PL choir PRED welcome OBL us:EXCL down OBL beach
 ‘The choirs welcomed us down on the beach.’

I would agree with Camden and Crowley here that transitivity is still marked—syntactically rather than morphologically. Similar structures are

reported for the other varieties (Mihalic 1971:24, Simons and Young 1978:100, Shnukal 1988), but they are much less frequent than in Bislama.⁵

4 True zero marking in Bislama

There are, however, a number of verbs in each variety which *can* be used transitively without a transitive suffix and without marking the object NP with *long*. The Bislama examples in (7) and (8) illustrate what I am talking about here:

- (7) Mi no save!
I NEG know
'I don't know!'

Pikinini blong mi i no kakae.
child POSS I PRED NEG eat
'My child didn't eat.'

- (8) Mi no save nem blong hem.
I NEG know name POSS him/her
'I don't know his/her name.'

Pikinini blong mi i no kakae mit.
child POSS I PRED NEG eat meat
'My child didn't eat (the/any) meat.'

In these examples, the verbs *save* 'know' and *kakae* 'eat' are unchanged, whether used intransitively as in (7) or transitively as in (8). Such verbs form the subject matter of this paper.

Some of these verbs *may* take transitive marking. The Bislama verb *singaot* 'call, invite', for example, can occur transitively as *singaot*, *singaot-em*, and *singaot long*. The examples in (9) are from Camden (1996:340–341):

- (9) Hem i singaot man ia ...
s/he PRED call man DEM
'S/he called to the man ...'

Hem i singaot-em man ia ...
s/he PRED call-TR man DEM
'S/he called to the man ...', 'S/he invited the man ...'

⁵Crowley (1990:297) suggests that the widespread use of VERB + *long* as an alternative to VERB + {-em} in Bislama may be due to substrate influence. There is a similar structure in many Vanuatu languages, and the "widespread distribution [of this structure] in the languages of Vanuatu at least gave Bislama a second option for the promotion of noun phrases into pragmatic salience".

Hem i singaot long man ia ...
 s/he PRED call OBL man DEM
 ‘S/he called to the man ...’, ‘S/he invited the man ...’

Verbs which behave like *singaot* will be included in this category of zero-marked transitives, since they *may* occur with zero marking. They differ from verbs like *mared*, *kis*, and *welkam* illustrated in (5) and (6) above, which take either the suffix {-em} or the construction with *long*, but which may not occur with strict zero-marking:

(10) *Hem i wantem mared wan woman Pama.
 he PRED want:TR marry one woman Paama

*Hem i kis woman ia.
 he PRED kiss woman DEM

*Ol kwaea oli welkam mifala ...
 PL choir PRED welcome us:EXCLUSIVE

Bislama verbs which must (like *save*) or may (like *singaot*) take zero marking fall into a number of different categories. I will describe these here, and make comparisons with other varieties of Melanesian Pidgin in the next section.

4.1 Verbs with cognate objects

Probably the largest category of zero-marked verbs in Bislama consists of those with “cognate objects”. In using this term to describe a category of verbs in Bislama, Crowley says:

Verbs with cognate objects ... are structurally midway between transitives and intransitives. Formally, these verbs are intransitive in that there is never any formal marking of transitivity and the verb can be used on its own with no following object. However, these verbs do allow a following noun phrase of a strictly defined type (but never a pronominal object) to occur after the verb. This following noun phrase can never be fronted to the head of the clause for focus as is possible with a genuine object. Thus, for example, *toktok* ‘speak’ cannot ordinarily take an object, except where there is a following noun phrase expressing the name of a particular language. (1995:20)

And he gives the example *Hem i save toktok Franis* ‘He can speak French’.

These verbs in fact can be divided into two groups: those which are used transitively *only* in this construction, and those which take zero-marking with certain types of objects but {-em} with other types of objects, or with somewhat different meanings, or both.

The verbs in table 5 can only be used with zero marking when used transitively, and can be followed by only certain kinds of objects (given here in parentheses after the gloss):

Table 5: Bislama transitive verbs with zero marking and restricted objects

<i>se</i>	‘say (direct quote, or ‘what?’)’	<i>Hem i se wanem?</i> ‘What did he say?’
<i>toktok</i>	‘speak (a language)’	<i>Hem i save toktok Franis.</i> ‘He can speak French.’
<i>spik</i>	‘speak (a language)’	<i>Hem i save spik Bislama.</i> ‘She can speak Bislama.’
<i>skul</i>	‘be educated (in a language)’	<i>Hem i skul Inglis.</i> ‘She was educated in English.’
<i>pispis</i>	‘urinate (abnormal discharge)’	<i>Hem i pispis blad.</i> ‘He is urinating blood.’
<i>sitsit</i>	‘defecate (abnormal discharge)’	<i>Hem i sitsit wota.</i> ‘She has diarrhea.’
<i>danis</i>	‘dance (a certain kind of dance)’	<i>Oli danis kastom.</i> ‘They did a traditional dance.’

The set of verbs in table 6 can be used with (a) zero marking with certain objects, but (b) take {-em} with other objects:

Table 6: Bislama verbs with object sensitive zero marking and {-em}

<i>blo</i>	‘blow (on), (musical instrument)’	(a) <i>Hem i blo pupu</i> ‘He blew a conch shell.’ (b) <i>Hem i bloem das</i> ‘He blew the dust (away).’
<i>plei</i>	‘play (game, instrument)’	(a) <i>Hem i plei ragbi</i> ‘He played rugby.’ (b) <i>Hem i plem kaset</i> ‘She played a cassette.’
<i>dro</i>	‘draw (an object)’	(a) <i>Hem i dro pijin</i> ‘She drew a bird.’ (b) <i>Mi droem pija</i> ‘I drew a picture.’
<i>kaon</i>	‘borrow (money)’	(a) <i>Mi save kaon 1000 vatu?</i> ‘Can I borrow 1000 vatu?’ (b) <i>Mi kaonem basket ia</i> ‘I bought the bike on credit.’
<i>spet</i>	‘spit (abnormal discharge)’	(a) <i>Hem i spet blad</i> ‘He was spitting blood.’ (b) <i>Hem i spetemaot loli</i> ‘She spat out the lolly.’
<i>pul</i>	‘row (a canoe)’	(a) <i>Hem i pul kenu</i> ‘She rowed the canoe.’ (b) <i>Hem i pulum rop</i> ‘He pulled (on) the rope.’

Cognate object constructions differ from ordinary transitive constructions in that the NP cannot be fronted; thus while *Mi no save kakae raes* ‘I don’t eat rice’ has the object-fronted option *Raes mi no save kakae* ‘Rice, I don’t eat it’. *Mi no save toktok Franis* ‘I don’t speak French’ cannot undergo object-fronting to produce **Franis mi no save toktok*.

There may well be a substrate explanation for this. Oceanic languages generally overtly mark transitivity with a suffix, as in the example in (11) from Gela, a Solomon Islands language (Crowley 2002:532):

- (11) U inu-vi-a na beti.
 1SG drink-TR-it ART water
 'I will drink the water.'

However, they also have a structure involving a generic object, which is incorporated into the verb phrase; the transitive suffix is *not* used, and the article, if the language has articles, as Gela does, is also deleted. Thus the example in (12):

- (12) U inu beti.
 1SG drink water
 'I will drink water.'

While the Melanesian Pidgin cognate object construction is not exactly the same as the Oceanic generic object construction, they are similar; and they are also similar in that object-fronting is prohibited in both cases. This may partly explain why these verbs are zero-marked when used transitively. Crowley (pers. comm.) also feels that there are likely to be similar cognate object patterns in Vanuatu languages which could be taken as the basis for such patterns; e.g., Paamese *Inau na-selu:s Franis* 'I speak French', where *selu:s* 'speak' is an intransitive verb that is followed by a non-frontable "object" NP. Whatever the explanation, it appears that verbs which take cognate objects are zero-marked in Bislama.

There is another set of verbs where the zero-marked construction, though syntactically formally transitive, has passive or stative semantics, while the morphologically marked verb has active semantics (13):

- | | | | | |
|------|-------|----------------|---------------------------|---|
| (13) | fulap | 'filled, full' | Dram i fulap oel | 'The drum is full of oil.' |
| | | | cf. Hem i fulumap dram | 'He filled the drum.' |
| | saen | 'be signed' | Mesej i saen daerekta | 'The message is signed by
the director.' |
| | | | cf. Hem i saenem mesej ia | 'She signed the message.' |
| | smel | 'smell of' | Hem i smel fis | 'He smells of fish.' |
| | | | cf. Hem i smelem fis | 'She smelled the fish.' |

Note in this connection *faen* 'to be fined' (*Mi faen 1000 vatu* 'I was fined 1000 vatu'), though there is no corresponding transitive form *faenem*.⁶

4.2 Vowel-final verbs from languages other than English

Although there are quite a large number of nouns in Bislama which are derived from languages other than English, there are only a very small number of verbs in this category. Many of these take no suffix, though some may, or must, be used in the *long*-construction. All Bislama verbs of non-English origin which can be used

⁶There is an unrelated homophone *faenem* 'to find'.

transitively are listed in table 7, which also shows how transitivity is marked, and the immediate source of the word.⁷

Table 7: Verbs of non-English origin in Bislama

Non-transitive form	Transitive form	Source
Morphologically unmarked transitives		
<i>avans</i> ‘salary advance, loan’	<i>avans long</i> ‘borrow’	French <i>avance</i>
<i>kale</i> ‘wedge, chock’	<i>debi long</i> ‘charge goods to account’	French <i>débit</i>
<i>kakae</i> ‘eat’	<i>kale (long)</i> ‘to wedge, chock’	French <i>caler</i>
<i>kalipet</i> ‘trip, somersault’	<i>kakae</i> ‘eat’	Polynesian <i>kaikai</i> ⁸
<i>kano</i> ‘direct hit, good shot’	<i>kalipet long</i> ‘trip (someone)’	French <i>galipette</i>
	<i>kano long</i> ‘push out of the way’	French <i>canon</i>
	<i>profite long</i> ‘take advantage of, exploit’	French <i>profiter</i>
<i>rato</i> ‘a rake’	<i>rato long</i> ‘to rake’	French <i>râteau</i>
<i>sude</i> ‘patch for tyre’	<i>sude long</i> ‘weld, pour molten metal’	French <i>souder</i>
Morphologically marked transitives		
<i>busong</i> ‘cork, stopper, plug’	<i>busongem</i> ‘plug up’	French <i>bouchon</i>
<i>glis</i> ‘slip, slide, skid’	<i>glisim</i> ‘catch side on’	French <i>glisser</i>
<i>kao</i> ‘knocked out’	<i>kawem</i> ‘knock unconscious’	French <i>K.O.</i>
<i>skoj</i> ‘sticky tape’	<i>skojem</i> ‘tape with sticky tape’	French <i>scotch</i>
<i>sude</i> ‘patch for tyre’	<i>sudarem</i> ‘solder’	French <i>souder</i>
	<i>tusum</i> ‘touch’	French <i>toucher</i>
	<i>tapem</i> ‘type’	French <i>taper</i>

It is possible that the verb *save* ‘know’ also belongs to the above list. However, although it ultimately comes from Portuguese *sabir*, it seems to derive more immediately from an early Pidgin/English *savvy*, so in that sense is probably no more “foreign” than other English-derived lexical items.

It seems clear from an examination of table 7 that, in general, vowel-final verbs of non-English origin do not take the transitive suffix, whereas consonant-final verbs do. This, however, is not a general phonological/morphophonemic feature of Bislama verbs. Vowel-final verbs of English origin generally *do* take the transitive suffix; note the examples in table 8.

⁷Although *kao* ‘knocked out’ and *skoj* ‘sticky tape’ are ultimately of English origin, they have come into Bislama via French. *Tapem* ‘type’ may be a pronunciation variant of the English-derived homonym *taepem*, or may derive from French *taper*.

⁸In discussing the cognate Tok Pisin verb *kaikai*, Ross (1992:366) suggests Tuamotuan or New Zealand Māori as possible sources, but notes also that “since speakers of a number of Polynesian languages were involved in the early history of Pacific Pidgin, it is quite possible that this item has multiple sources”.

Table 8: Bislama verbs of English origin lacking the transitive suffix

intransitive	transitive	
<i>dro</i>	<i>droem</i>	‘draw’
<i>plei</i>	<i>plem</i>	‘play’
	<i>boroem</i>	‘borrow’
<i>alao</i>	<i>alaoem</i>	‘allow’
<i>jiki</i>	<i>jikim</i>	‘cheek’
<i>pe</i>	<i>pem</i>	‘buy’
<i>skru</i>	<i>skruim</i>	‘screw’
<i>hama</i>	<i>hamarem</i>	‘hammer’

Why should vowel-final verbs of non-English origin have a propensity towards zero-marking? Perhaps a more interesting question is, “Why should speakers of Bislama ‘know’ (or ‘have known’) which verbs are of English origin and which are not, and discriminate between them in the matter of overt transitive-marking?” One possible answer may have to do with the fact that the suffix itself has an English origin, deriving ultimately from *him* via an intermediate earlier 3SG object pronoun *im* (Crowley 1990:286). Both 3SG and 3PL pronouns reduce phonologically to *Vm* in colloquial English (usually written as ‘*im*’ and ‘*em*’), and English-speakers would frequently have uttered such phrases as *kill ‘im*, *wash ‘em*, etc. On the other hand, these collocations are less likely with non-English verbs, which may be a partial explanation.

4.3 Historically bimorphemic verbs

Many verbs which are historically bimorphemic either never take the transitive suffix or do so optionally. In the first category we find *lego* ‘leave, release’, *tingbaot* ‘think about, remember’, *tekewe* ‘remove’, *tingse* ‘express an opinion’, and *tokbaot* ‘discuss’; while in the second we find *belao* ‘bail (a canoe)’, *lukaot* ‘look after, look for’, *selaot* ‘remove (copra from coconut shell)’, *seraot* ‘share distribute’, and *singaot* ‘call’.

Although I showed in table 4 above that some verbs with “adverbial” suffixes (like *-ap* and *-daon*) do take transitive suffixes *between* the root and the suffix, there are others which do not, or sometimes do not, and still others which do take the transitive suffix after the adverbial. It appears that, with some verbs of this type, there are a number of options, and thus potential confusion as to where the suffix should go, if it occurs at all. Further, different languages behave differently with respect to the “same” verbs. Compare the examples in (14):

- (14) Bislama *ful-um-ap* Tok Pisin *pul-im-ap-im* ‘fill’
 Bislama *bel-aot(-em)* Pijin *bel-em-aot* ‘bail’

There is another set of zero-marked bimorphemic verbs which is worth mentioning here (15). Crowley (1990:289) lists the following (I have added hyphens to indicate an etymological morpheme break):

- | | |
|-------------------|----------------------------|
| (15) giv-han long | ‘help’ |
| sek-han long | ‘shake hands’ |
| tek-pat long | ‘participate in’ |
| mek-ful long | ‘ridicule’ |
| mek-save long | ‘teach (someone) a lesson’ |
| mek-rere long | ‘prepare’ |

The first element in each case is a transitive verb which, when it occurs alone, must take the suffix (thus *givim* ‘give’, *sekem* ‘shake’, *tekem* ‘take’, and *mekem* ‘make’). In most of the examples above, the second element is a noun; however, in *meksave* and *mekrere* the second element is a verb, and in the latter the normal transitive form of *rere* ‘(be) ready’ is *rerem* ‘prepare’. Again, we find a tendency for {-em} to be lost in a compound verb.

4.4 Other verbs

The three categories discussed above cover most zero-marked verbs in Bislama. The residue consists of the examples in (16):

- | | |
|---------------------------------------|---------|
| (16) <i>brum</i> , also <i>brumum</i> | ‘sweep’ |
| <i>dring</i> , also <i>dringim</i> | ‘drink’ |
| <i>gat</i> | ‘have’ |
| <i>klaem</i> , also <i>klaemem</i> | ‘climb’ |
| <i>klem</i> , also <i>klemem</i> | ‘claim’ |
| <i>luk</i> , also <i>lukim</i> | ‘see’ |

It may not be coincidental that three of these six verbs end in *m*, and that the transitive suffix is disfavoured as a result of dissimilation: i.e., there was a tendency for verbs of the type *brum* ‘sweep’ to remain *brum* and to resist adding the suffix. Some confirmation of this may come from the behaviour of prepositions in Bislama. When a noun phrase which is part of a prepositional phrase is fronted, an anaphoric pronoun is left behind following the preposition as exemplified by the data in boldface in (17):

- (17) Trak blong yu nao mi mestem ki **blong** **hem.**
 car POSS you TOPIC I misplace key POSS it
 ‘It is your car that I have misplaced the key of.’

Yad blong mi nao bae mi wokem fanis raon **long** **hem.**
 yard POSS me TOPIC FUT I make fence round OBL it
 ‘As for my yard, I’ll make a fence around it.’

With regard to the *m*-final prepositions *from* ‘cause’ and *wetem* ‘accompaniment, instrument’, however, the pronominal trace occurs if the

reference is animate but not if it is inanimate. Compare the boldface data in the examples in (18):

(18) Man ia nao mi kam **from** **hem**.
 man DEM TOPIC I come CAUSE him
 ‘That’s the person I have come for.’

Samting ia nao mi kam **from**.
 thing DEM TOPIC I come CAUSE
 ‘That’s what I have come for.’

There may well have been a tendency for *m*-final verbs and prepositions not to be followed by either the transitive suffix or the near-homophonous 3SG pronoun. On the other hand, there are again exceptions: *m*-final verbs which do regularly take the suffix, like *sem-em* ‘shame, embarrass’, *ram-em* ‘pack down’, *kom-em* ‘comb’, and the like.

The remaining verbs in (16)—*dring*, *gat*, and *luk*—do not admit of any phonological explanation that I am aware of, and note that *dring* and *luk* at least do occasionally occur with the suffix.

5 The other languages

In this section, I look rather more briefly at zero-marking of transitive verbs in the other Melanesian Pidgin varieties.

5.1 Tok Pisin and Pijin

As far as I can ascertain, Tok Pisin and Pijin show much less zero-marking than does Bislama. Most of the verbs cited above for Bislama have cognates in these two languages (apart, obviously, from the French-derived ones), but most of these seem to take the transitive suffix when used transitively. In table 9 I list probably all verbs which never or only sometimes take the transitive suffix; a question mark indicates that no information is available on the transitive use of that verb in the sources I consulted.

Table 9: Tok Pisin and Pijin verbs that rarely, if ever, take the transitive suffix

Tok Pisin	Pijin	
<i>dring</i> , also <i>dringim</i>	[only <i>dringim</i>]	‘drink’
<i>gat</i>	[only <i>garem</i>]	‘have’
<i>kaikai</i> *	[only <i>kaikaim</i>]	‘eat’
<i>koap</i>	<i>goap</i>	‘climb, copulate’
	<i>lego long</i>	‘leave’
<i>pekpek</i>	?	‘excrete (abnormal discharge)’
<i>pilai</i>	<i>plei</i>	‘play (game, instrument)’
<i>pispis</i>	?	‘urinate (abnormal discharge)’
<i>save long</i>	<i>save long</i>	‘know’
	<i>se</i>	‘say’
<i>tekewe</i> , also <i>tekeweim</i>	<i>tekawe</i>	‘remove’
	<i>tingse</i>	‘express opinion’

* Tok Pisin does, however, have *kaikai-m* with the meaning ‘bite’.

It will be noted that all of these have cognates in Bislama which are also zero-marked. However, the overall number of zero-marked verbs is considerably smaller. In particular,

1. there are very few cognate object verbs in comparison to Bislama (only Tok Pisin *pekpek*, *pilai*, and *pispis* in the list above with the Pijin equivalents);
2. virtually all historically bimorphemic verbs take the transitive suffix, some taking it twice;
3. there is no evidence that *m*-final verbs behave any differently from other verbs.

Kaikai and *save* do behave like the vowel-final verbs of non-English origin in Bislama, but these are only two cases, and it is difficult to base any hypothesis on these. Thus about the only thing that can be said about these two languages is that basically all the verbs which are zero-marked are also zero-marked in Bislama.

5.2 Broken

Broken, on the other hand, has quite a number of zero-marked transitive verbs. Shnukal (1988:38) says that, with five exceptions, Broken verbs “derived from Meriam Mir, Kala Lagaw Ya, Portuguese or a Pacific language do not take the transitive/causative suffix; they have the same form in their transitive and intransitive senses”.⁹ These include the examples in (19):

⁹The two indigenous languages spoken in the Torres Strait Islands are Meriam Mir and Kala Lagaw Ya.

(19)	<i>derser</i>	‘prepare’	< Meriam Mir <i>dirsir</i>
	<i>ewer</i>	‘weave’	< Meriam Mir <i>ewerer</i>
	<i>gapalan</i>	‘flatter’	< Kalaw Lagaw Ya <i>gaabupalan</i>
	<i>kaikai</i>	‘eat’	< Polynesian (see above)
	<i>makan</i>	‘eat’	< Malay <i>makan</i>
	<i>mudhar</i>	‘weave’	< Kalaw Lagaw Ya <i>mudhar</i>
	<i>sabe</i>	‘know’	< Portuguese (but see discussion in §4.2 above)
	<i>takar</i>	‘smoke (fish)’	< Meriam Mir <i>takar</i>
	<i>yawo</i>	‘farewell’	< Kalaw Lagaw Ya <i>yawo</i>

The five exceptions are supplied in (20):

(20)	<i>gelar-e(m)</i>	‘declare off limits’	< Meriam Mir <i>gelar</i>
	<i>mabus-e(m)</i>	‘mash’	< Meriam Mir and/or Kala Lagaw Ya <i>mabus</i>
	<i>maid-e(m)</i>	‘poison with sorcery’	< Meriam Mir <i>maid</i>
	<i>paspas-e(m)</i>	‘wrinkle’	< Meriam Mir <i>paspas</i>
	<i>ther-e(m)</i>	‘burn’	< Kala Lagaw Ya <i>thira</i>

This is somewhat reminiscent of Bislama where, however, it seems that a non-English verb had to be vowel-final in order to receive, or retain, zero-marking.

A number of other zero-marked verbs, as in (21), are cognate with zero-marked verbs in Bislama (and in some cases Tok Pisin and/or Pijin as well):

(21)	<i>dring</i>	‘drink’	<i>luk</i>	‘see’
	<i>dro</i>	‘draw’	<i>sekan</i>	‘greet’
	<i>lego</i>	‘leave’	<i>spik</i>	‘say’
	<i>lugaut</i>	‘look after’		

However, there are quite a number of other verbs of English origin which are also zero-marked in Broken but whose Bislama cognates (where they occur) are not zero-marked. These include those given in (22):

(22)	<i>ala</i>	‘shout’	<i>kaba</i>	‘cover’
	<i>anastan</i>	‘understand’	<i>krosa</i>	‘crochet’
	<i>ansa</i>	‘answer’	<i>lesen</i>	‘listen’
	<i>bagarap</i>	‘damage’	<i>mare</i>	‘marry’
	<i>baptaiz</i>	‘baptise’	<i>piget</i>	‘forget’
	<i>boda</i>	‘pester’	<i>pota</i>	‘photograph’
	<i>bon</i>	‘give birth to’	<i>smok</i>	‘smoke (cigarette)’
	<i>boro</i>	‘borrow’	<i>sweya</i>	‘swear at’
	<i>eksplein</i>	‘explain’	<i>yan</i>	‘tell a story to’
	<i>geman</i>	‘deceive’		

There are a couple of possible explanations for the larger number of zero-marked verbs in Broken. The first is phonological. In Broken, the suffix reduces to

a single vowel in certain syntactic contexts as described above. It is fairly easy to visualize this vowel then being lost, especially when occurring after another vowel. For example, if original **kaba-em* ‘cover’ or **boro-em* ‘borrow’ reduced first to **kaba-e* and **boro-e*, it is not unlikely that the final unstressed vowel would delete in this context. In languages which always retain the *m* of the suffix, however, this would protect the final vowel of the root from deletion.¹⁰ This would explain a good number of the verbs in (22). However, there are still a number of consonant-final verbs on that list, like *geman* ‘deceive’, *marret* ‘marry’, and *luk* ‘see’. I have no phonological explanation to offer in this case.

The second possible explanation is sociolinguistic. While significant numbers of speakers of Tok Pisin, Pijin, and Bislama speak these varieties as their first language, the vast majority are second-language speakers. In addition, the large majority of people in these three countries rarely use English—certainly not on a day-to-day basis—and many would not even hear much English being spoken. These statements are not true of Broken, however. First, nearly all speakers of Broken speak it as a first language: “On nine of [the Torres Strait] islands, as well as in the Cape York Torres Strait Islander community of Bamaga, the two traditional languages have been replaced almost entirely by an English-based creole, now the first language of four generations of Islanders” (Shnukal 1988:3). Second, many of these people use English on a much more regular basis than do Papua New Guineans, Solomon Islanders, or Ni-Vanuatu (Shnukal 1988:7–10) and, being citizens of Australia, would be exposed to much more English in their daily lives. Shnukal informs me (pers. comm.) that, although new verbs entering Broken from English regularly take the suffix, speakers who have learned such words in a predominantly English setting generally use them without the suffix. Given that there is much greater opportunity for English to influence not only the vocabulary but also the structure of Broken, erosion of a non-English feature like transitive suffixation may well be due—at least in part—to this greater use of and exposure to English.

6 Discussion

A number of points emerge from the data presented in this paper, though no completely satisfying explanations can be given.

It is clear from the work of Crowley (1990, nd) that the original situation in Early Melanesian Pidgin was that transitive verbs were generally zero-marked (though there was already a little overt transitive-marking), and that the suffix progressively came to be attached to more and more transitive verbs. It seems to me that this process is virtually complete in Tok Pisin and Pijin, but significantly less so in Bislama and especially Broken. While exposure to English *might* be a possible explanation for this phenomenon in Broken, it would not explain the disparities between Bislama on the one hand and Tok Pisin and Pijin on the other.

¹⁰We would, of course, need to check historical documents to see whether these verbs did take the suffix in an earlier stage of Broken, and have subsequently lost it, or whether they have always been zero-marked, in which case this explanation may be less satisfactory.

Also, as Crowley (nd) points out, transitive marking is not nearly as frequent and common a feature of Vanuatu languages as it is of Oceanic languages further to the west, and thus there *may* be some substrate influence involved here. Indeed, this may go partway to explaining why so many Bislama verbs may optionally take the suffix when cognates in other languages obligatorily do so.

There is some evidence that verbs of non-English origin are more likely to be zero-marked than those of English origin. This appears to be true of Broken and, with vowel-final verbs, of Bislama as well. Bislama is also the main exponent of the “cognate object” construction in which transitive verbs taking certain categories of objects are zero-marked, though there are a few cases of this in other languages. Again, this may have a substrate explanation.

There is also some evidence that bimorphemic verbs presented a problem: whether to add two suffixes (like Tok Pisin *pul-im-ap-im* ‘fill’); whether to add one and, if so, where (compare Bislama *bel-aot-em* with Pijin *bel-em-aot* ‘bail’); or whether to have the verb unmarked (like Bislama *ting-baot*).

None of these explanations, however, explains the fact that a few verbs in at least two of these languages—like *dring* ‘drink’, *luk* ‘see’, *gat* ‘have’—are zero-marked when used transitively. The phenomenon of zero-marked transitives thus continues to remain a partial enigma.

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15

Prototype Semantics and the Emergence of Motor Vehicle Categories

Kenneth A. McElhanon

The entrants to the Chicago *Times-Herald* horseless-carriage race on Thanksgiving Day, 1895 were “the most astounding assortment of mechanical monstrosities.”

Hiram Percy Maxim, 1962:51

ABSTRACT

This article is in response to Anna Wierzbicka’s criticism that “the notion of prototype has to prove its usefulness through semantic description, or through semantic theorizing” (1990:305). I claim that the development of motor vehicle categories exemplifies the power of prototype imagery. The first era in the history of motor vehicles—an era of under-determination—was characterized by “technological anarchy” as some two-thousand makers produced one or more motor vehicles. This was followed by the decade of the 1890s which saw the emergence of prototypes for motor carriages as well as motorcycles. By the start of the twentieth century, the wide variation that characterized the 1890s had passed from the scene, and carriages with gasoline engines at the front and forward-facing passengers dominated. There is no more certain indication that a prototype existed than that of the steamers and electrics being superficially redesigned to conform to the prototype of the front-engine, gasoline driven carriage. This was done by both those who built steam driven and battery driven vehicles, and later by English three-wheelers. Further support for the value of prototype theory is drawn from the development of subcategories, when imitations of the anomalous Willys JEEP gave rise to the subcategory of SUVs. The strength of the prototype of the SUV was verified by the way in which the anomalous Hummer conformed to the image of the SUV rather than giving rise to a new subcategory of super cars.

1 Introduction

In 1990 Anna Wierzbicka challenged claims made with regard to prototype theory and demanded that “the notion of prototype has to prove its usefulness through semantic description, or through semantic theorizing” (1990:305), a demand made notwithstanding Eleanor Rosch’s (1978:28) presentation of prototype semantics as “explaining the categories found in a culture and coded by the language of that culture at a particular point in time...”¹

In this study I suggest that the history of how we got from the first attempts to build motorized road vehicles—“that astonishing assortment of mechanical monstrosities”—to what we currently recognize as the prototypical automobile constitutes a broadly based case study that demonstrates the efficacy of prototype semantic theory. I present a representative selection of the varieties of motorized road vehicles that I regard as sufficient to demonstrate the usefulness of prototype semantic theory and to meet Wierzbicka’s demand.²

These motor vehicles provide a significant test of the concepts associated with prototype semantic theory for a number of reasons.

- *Prototype* may be defined as a conceptual abstraction that underlies the exemplars of a category. It is grounded in the perception of basic-level images.³ Moreover, it entails that there be more than one exemplar in a category.⁴ Solitary exemplars—individual such as Henry Kissinger (cf. Lakoff 1974) or an anomaly (e.g., the post-WWII Jeep)—are not subject to prototype analysis. Rather, until the category is expanded with additional exemplars, it is often best described by analogical thought such as metaphor.
- In the early stages, carriage bodies were custom produced, often from wood, by artisans and craftsmen who frequently had already been crafting custom carriages to be drawn by horses. It was a period of experimentation as the craftsmen reconfigured the components of the carriages to achieve a maximal integration of the motor and to meet the requirements of transporting passengers and/or cargo. Only a small number of motorized road carriages were independent creations.

¹Throughout his career, Karl Franklin has researched the nexus of language and culture and has encouraged others to do likewise. Recently he wrote of how the Kewa people created metaphors to identify automobile parts (Franklin 2003), and so I write this essay in appreciation of his friendship and encouragement over many decades.

²In most cases I could illustrate a point with multiple exemplars. Moreover, I make no pretense of presenting a comprehensive survey of all motorized road carriages. Georgano’s *Complete encyclopedia of motorcars 1885 to the present* (i.e., 1968) incorporates over four thousand makes of cars, but in so doing he excluded hundreds of one-only specials. Bailey (1971:52) reports that a late 1890s issue of *The Horseless Age* notes that more than three hundred companies or individuals had been engaged in making motorized road carriages.

³Richardson, et al. write, “Cognitive linguistics and experimental psychology have produced tantalizing hints that a substantial portion of language is encoded in the mind in the form of spatial representations that are grounded in perception and action” (2001:845).

⁴Rosch points out that a prototype requires two or more representatives: “To speak of a prototype at all is simply a convenient grammatical fiction; what is really referred to are judgments of degree of prototypicality. Only in some artificial categories is there by definition a literal single prototype.... For natural-language categories, to speak of a single entity that is the prototype is either a gross misunderstanding of the empirical data or a covert theory of mental representation” (1978:40).

- Motor vehicles represent a comparatively recent phenomenon with a rapid differentiation of its categories. Moreover, the contexts and conditions in which motor vehicles were invented and developed are well documented.

2 The dawn of motorized road vehicles

Although it could be argued that the age of motorized road vehicles dawned in the early nineteenth century with the development of steam engine technology and its application to the propulsion of road carriages, most historians choose to date it towards the latter part of that century when a number of inventions and discoveries enabled designers considerably more freedom in crafting a road carriage.

In the nineteenth century when oil was distilled to get kerosene for lighting, a highly volatile, liquid by-product—a *coal tar distillate* now known as *gasoline* or *petrol*—was discarded as useless. What is important was that it was available when the need arose for a liquid with an explosive power sufficient to power engines. In 1876-77 there were two significant inventions. The first was Gottlieb Daimler's invention of the carburetor for vaporizing gasoline and mixing it with air. The second was Nicolaus Otto's invention of the first practical, four-stroke, internal combustion engine. The most inventive individual was Karl Benz who has been credited for a number of collateral inventions: a battery-powered ignition system that enabled fuel to be ignited inside an engine rather than from the outside by a flame, the spark plug, the clutch and differential gear shift (1885). The carburetor and electric spark plug gave mobility to what had been a fixed internal combustion engine.⁵ Furthermore, the greater power of gasoline meant that much less fuel needed to be carried along with the now mobile engine.

In the late 1880s, a Frenchman, Leon Serpollet, invented a compact flash boiler which gave new life to the steam carriage. Its use of oil as the fuel, rather than coal, gave it greater efficiency and obviated the need for a stoker. Because it required much less hot water under pressure than did the older boilers, it was very compact and much safer. The net result was that the power unit had space requirements comparable to those of the gasoline engine.

For the first time road carriage designers had powerful, compact, and mobile engines to propel their road carriages, and the search was on to design the most efficient and user-friendly horseless carriage. They were faced with adapting engines to fit previously horse-drawn buggies, buckboards, carriages, or wagons. Accordingly, their work was largely experimental. Their search is illustrative of how prototypicality emerges and categories develop.

⁵The world's first successful combustion engine was produced in 1860 by the Frenchman Étienne Lenoir. Its main drawback was that its coal gas and air mixture had to be ignited from outside the cylinder. All forms of external ignition were regarded as unsafe, and in 1875 the Joint Congressional Committee on the Horseless Carriage recommended congressional control over the development and use of all sources of gasoline and similar explosive elements because "the discovery in which we are dealing involves forces of nature too dangerous to fit into any of our usual concepts" (Bailey 1971:50-51).

3 The age of under-differentiation

With reference to the period 1905-1912, T. R. Nicholson writes,

Public taste was not yet so standardized that the products of such concerns [i.e., small-scale companies that produced a myriad of vehicles] could not be of unusual design in some respects.... [T]his was a time of considerable variety and interest, in spite of the basic and accelerating tendency for design to settle down. It was a highly transitional period between the fascinating technological anarchy of the previous age [1863-1904, see Nicholson 1970] and the conformity of the next [1913-1923, see Nicholson 1972]. (1971:10-12)

His reference to the “technological anarchy of the previous age” undoubtedly relates to the fact that in the United States almost two thousand separate concerns produced one or more motor vehicles. After the turmoil of this period subsided, only about one hundred companies were still in business in 1920 and only forty-four in 1929.⁶

No one could foresee what would happen when horses were replaced with other sources of power, and no one had a clear image of what a motorized road carriage should look like. Nicholson (1971:5) notes, “While general trends were in certain directions, experiment was the rule: this was a period of exploration in a new medium, of settling down. Anything went, in the metaphorical if not always in the literal sense.”

These entrepreneurs produced a wide variety of specimens, not clearly differentiated in terms of categories: *tricycles*, also known as *tricars*, *velocipedes*, or *autocars*; four-wheeled *horseless carriages*, also known as *motorwagons*, *QuadriCycles*, or *QuadCars*. Many had mixed characteristics and so could be regarded as “blends,” or “cross-overs.” The wide variety of carriage designs and the indecisiveness in naming them demonstrate a stage of road carriage development prior to the differentiation that led to our familiar categories of automobiles and motorcycles. So it is not surprising that the development of both our automobiles and motorcycles may be traced back to this group of undifferentiated motorized road carriages.

My focus is on those features that are central to the imaging of motorized road vehicles. This imaging is considered with reference to a given vehicle’s profile and also to salient features, such as the replacement of a tiller by a steering wheel in the case of horseless carriages and the loss of pedals in the case of motorcycles.⁷ It is important to note that trends developed slowly so that there were always some manufacturers who continued to produce outmoded designs.

G. N. Georgano, in deliberating over which vehicles to include in *The Complete Encyclopedia of Motorcars 1885 to the Present*, writes of the difficulty in

⁶Source is the Motor Vehicle Manufacturers Association of the U.S., Inc. Copyright 1994. Grolier Electronic Publishing, Inc.

⁷This focus does not mean that human bodily interaction is unimportant. On the contrary, it is, as evidenced by the abandonment of some configurations, such as Copeland’s steam-driven American Star bicycle (fig. 6), which must have been difficult to control, and the 1901 Sunbeam Mabley with its unusual wheel and passenger placement (fig. 39).

distinguishing between a tricycle and a three-wheeled car. He cites the 1885 De Dion Bouton (fig. 1) as “obviously of the motorcycle family,” and mentions that after 1903, a “race” of carriages of motorcycle descent appeared which gradually took on the appearance of a tandem car on three wheels (1968:11–12). Motorcycle characteristics, in contrast to motorcar characteristics, were said to include a cycle-like frame instead of a chassis, a driver’s saddle instead of a seat, handlebars instead of a steering wheel, and a wickerwork passenger seat. He writes, “With makes such as the Riley, it is almost impossible to decide at what point they became cars” (1968:11–12). Perhaps he had in mind the 1905 Riley Tricar (fig. 2), although much earlier, in 1869, a very similar tricar was built by Léon Bollée (fig. 3). He includes the more car-like road carriages, while excluding those “which never progressed beyond saddle, handlebars, and wickerwork....” (1968:11–12). I have already noted that the same class of vehicles was called “QuadriCycles” and “QuadCars.”

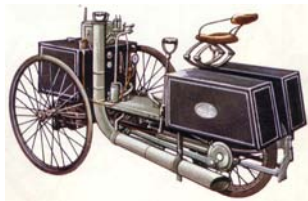


Fig. 1: 1885 De Dion Bouton—
Nicholson 1970, plate 3

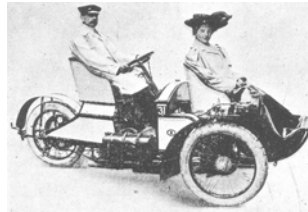


Fig. 2: 1905 Riley
TriCar—Clymer 1957:18



Fig. 3: 1869 Léon Bollée
Tricar—Clymer 1957:7.

On the one hand, many designers of motorized carriages of that era simply adapted a motor to an existing carriage frame, e.g., the 1886 Daimler Motor Carriage (fig. 4). Michael Sedgwick (1962:11) regards it as “no more than a beefed-up horse carriage with an engine sticking up out of the rear floor.” For steering it retained the pivoting carriage axle. A belt drive ran from the engine to the rear wheels with two speeds, depending on the tightness of the belts.

On the other hand, Benz designed his 1885 Patent-Motorwagon as an entity (fig. 5). It seated two people, but had very few of the features which came to be typical of cars in the early twentieth-century. Not only did he build it with only three wheels, he also used the wire-spoke wheels associated with bicycles rather than the wooden spoke wheels associated with horse-drawn carriages and wagons.⁸

⁸Coleman (1971:15–26) cites Siegfried Marcus as “driving around in a cart powered by a two-stroke engine” in 1865 and having built the first motor car in 1875. The conflict is that Coleman says that the 1875 car had a four-stroke internal combustion engine, but then he attributes the discovery of the four-stroke engine to Otto [in 1876], who “turned away from steam to develop an internal combustion engine which ran on coal gas” (1971:16). Coleman concedes it to be true to regard Benz as the “father of the automobile industry” because “his thinking was in terms of a marketable product” (1971:18).

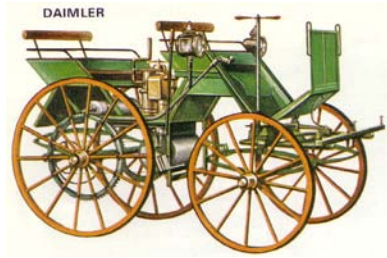


Fig. 4: 1886 Daimler Motor Carriage—
Nicholson 1970, plate 4

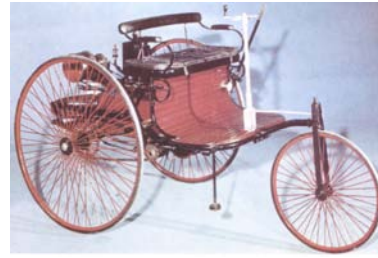


Fig. 5: Benz 1885 Patent Motorwagon—
Roberts 1978:32

Other designs of three-wheeled carriages with the third wheel in front include Copeland’s first attempt at motorized travel in the early 1880s when he fitted a small steam boiler to an American Star “ordinary bicycle” (fig. 6), with the wheel differential of the traditional British penny-farthing bicycle, but with the wheels reversed. One can only wonder about its road-handling ability. By 1888 he had reduced the wheel differential in the Copeland Tricycle (fig. 7), and the 1895 Knight nearly eliminated it (fig. 8).



Fig. 6: 1883 American Star—Stein 1961:27



Fig. 7: 1888 Copeland Tricycle—Bailey 1971:45



Fig. 8: 1895 Knight carriage—
Nicholson 1970, plate 12

In contrast to Benz, some designers positioned the third wheel at the back of carriage—the 1896 Pennington Autocar (fig. 9) and the 1896 Léon Bollée tandem Tricar (fig. 10).



Fig. 9: 1896 Pennington Autocar—
Nicholson 1970, plate 16

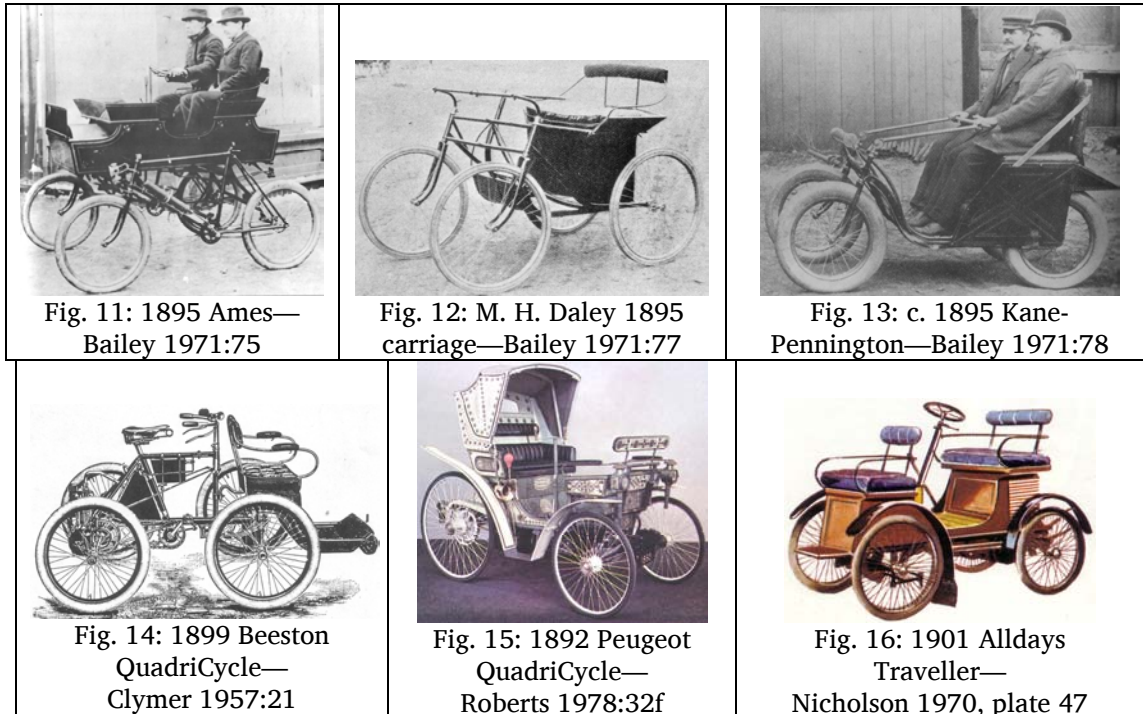


Fig. 10: 1896 Léon Bollée tandem Tricar—
Sedgwick 1981:20

Some other early attempts at designing a four-wheel motor vehicle consisted of utilizing two bicycle frames with varying degrees of modification to the frames. The 1895 Ames-Bailey attached two bicycle frames to the bottom of a carriage with little modification to the frames (fig. 11). Even the sprockets and

chains of the bicycles were retained. Compare the 1895 M. H. Daley carriage (fig. 12), which retained the frames and the forks, but positioned the bottom of the carriage at the level of the wheels' hubs. The designer incorporated a handle bar which extended the full width of the carriage, but dismissed most of the remaining bicycle-like components. The Kane-Pennington carriage that was entered in the 1895 Chicago Times Herald race retained much of the two bicycle frames it incorporated and provided skirts to cover the rear wheels (fig. 13). Note the forks and the tubular handlebar-like extension.

A clear similarity with bicycles is also evident in the 1899 Beeston QuadriCycle (fig. 14), which retained the pedals to supply power along with the engine, a common practice. In 1893 Peugeot built a more sophisticated QuadriCycle apparently modeled after the horse-drawn Phaeton carriage. Although it retained the wire wheels of the cycle family, it lacked most of the bicycle-like characteristics of its predecessors (fig. 15). By 1899, the only bicycle characteristic of the Alldays Traveller was the wire wheels. In all other respects it resembled a carriage (fig. 16).

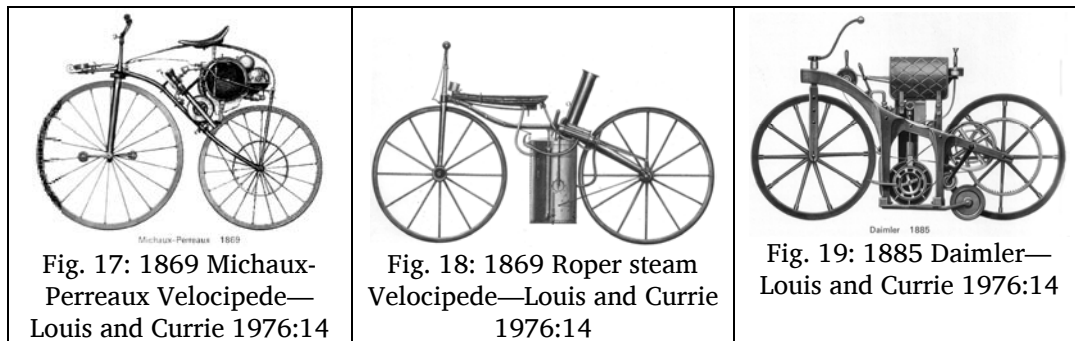


4 Emergence of a prototype of the motorcycle

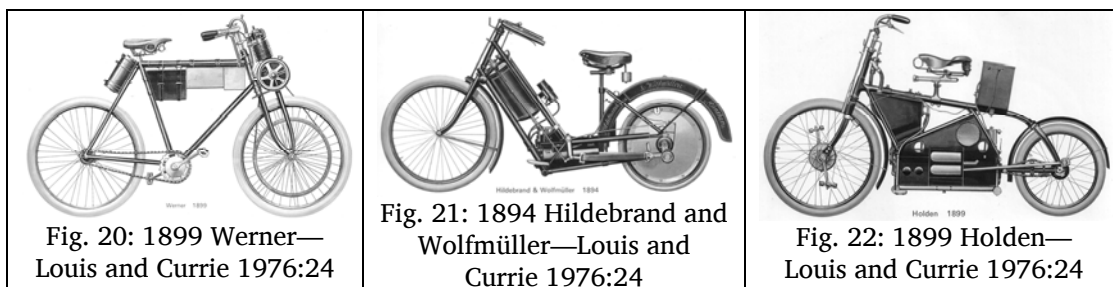
Although there were at least three motorized cycles which could be regarded as forerunners of the two-wheel motorcycle, the line of descent from these, if any, passes through the three-wheeled cycles which were competing in the late 1880s with the quadricycles. The early attempts were isolated experiments in fitting a steam engine to bicycles, and it was not until the late 1890s, after the internal combustion engine had been successfully adapted to the tricycles and

quadricycles, that two-wheel motorcycles emerged as a distinct subcategory with prototype imagery.

L. Scott Bailey (1971:35) reports that during the 1860’s a demand grew for steam-driven bicycles and tricycles, and eventually these formed a distinct category known as *Velocipedes* ‘fast foot’ in contrast to the more common four-wheel steam buggies, carriages, and wagons. In response to this demand, in 1869, Pierre and Earnest Michaux in France (fig. 17) and S. H. Roper in the United States (fig. 18) attached small steam engines in different positions to bicycle frames.⁹ In 1885 Daimler constructed a two-wheeled cycle with small, side-mounted stabilizing wheels (fig. 19), similar to our training wheels.



Until the beginning of the twentieth century, cycle enthusiasts innovated and placed the new, lightweight engines in all sorts of imaginable places resulting in what Richard Hough and L. J. K. Setright (1966:15) call “an astonishingly haphazard variety of designs.” Most such early cycles retained the pedals, a fact that may have contributed to the flexibility in its placement. The 1899 Werner (fig. 20) demonstrates such flexibility with the pedals supplying power to the rear wheel and an auxiliary engine mounted in front of the frame and below the handle bars supplying power to the front wheel. Through the 1890s, however, a number of designers produced cycles which were not substantially different from the 1885 Daimler. Note the conformity of the 1894 Hildebrand and Wolfmüller (fig. 21), and the 1899 Holden (fig. 22).



In 1901 the Werner brothers produced a design (fig. 23) which relied solely on engine power and exhibited such outstanding handling and balance that it

⁹Oliver and Berkebile (1968:24) note that the Roper frame, held in the Smithsonian Institute, shows signs of having been forged expressly for this vehicle.

was a resounding success (Louis and Currie 1976:11). It set the standard that other manufacturers emulated, e.g., the 1902 Humber (fig. 24) and the 1911 Douglas (fig. 25).

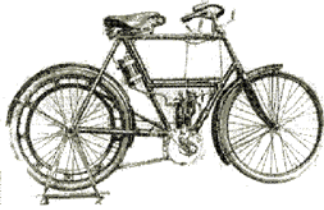


Fig. 23: 1901 Werner—
Louis and Currie 1976:14

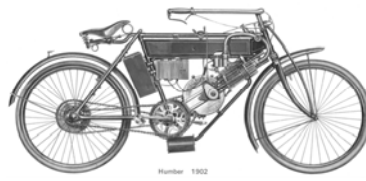


Fig. 24: 1902 Humber—
Louis and Currie 1976:25

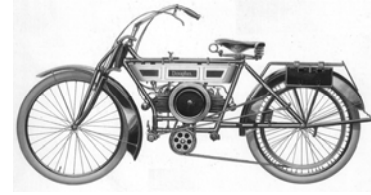


Fig. 25: 1911 Douglas—
Louis and Currie 1976:38

The result was the emergence of a prototype image for motorcycles. Henceforth, the majority of motorcycles located the engine in a low, central position on the frame above the main drive sprocket, so that the power could be transferred to a rear wheel sprocket by means of a chain. The image persists to this day, and it may be reasonably said that since the beginning of the twentieth century the motorcycle has only changed incrementally as manufacturers improved the basic design.

5 The age of technological anarchy in the design of motorcars

I have already noted that Nicholson (1971:10–12) refers to the time prior to 1905 as the age of “technological anarchy,” which I attribute to designers having lacked any prototype image that could serve as a standard upon which to base their designs.

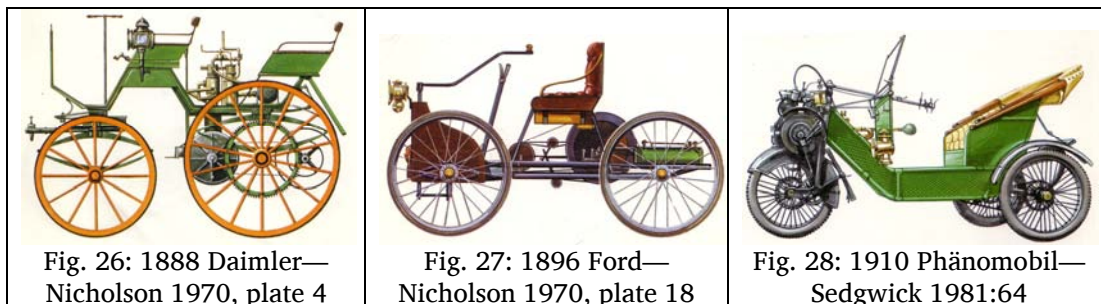
No one knew where the power source could be safely located—at the rear, up front, or slung under the middle of the carriage. Neither was there any assurance as to how the power could best be transmitted from the motor to the wheels—by chains, belts, or by a direct drive. In the late 1880s and early 1890s the designers of motorized passenger carriages usually positioned the engine amidships and below the vehicle’s floor in line with the axles, so that power could be transferred most efficiently to the wheels by means of belts or chains. Alternatively they placed the engine behind the carriage just above the axle which also allowed an easy connection with the rear wheels.

The designers had differences of opinion regarding which kind of wheels would best suit the carriage—wheels with wire spokes such as those of bicycles, or with wooden spokes such as those of wagons—and what kind of tires would be most suitable—pneumatic, solid rubber, or wooden wheels clad with steel. Moreover, how many wheels were needed—four, such as those of the buggies, carriages, and carts, or could they get by on just three? What about suspension? Many of the early motorized road carriages had curved iron springs just like those used on horse drawn coach (Sutton 1990:6). And most important, where

could passengers be seated, and might one of the passengers also serve as the operator?

5.1 Motor and drive train placement

Most early horseless carriages were rear-wheel driven, by chains or belts connected to the motor. This virtually required the motors to be located centrally, beneath the carriage as in the 1888 Daimler (fig. 26), or behind the seat(s) as in the 1896 Ford (fig. 27). The front-wheel drive 1910 Phänomobil's (fig. 28) location of the motor mounted in an elevated position above the front wheel certainly contributed instability to the vehicle, and Nicholson (1971:10) regards it as “one of the strangest creations to emerge from any car factory anywhere”—yet the company survived for twenty years.



5.2 Passenger placement

Benz' 1885 Patent Motorwagon (fig. 5) had a very basic, single bench seat. Some thirteen years later, the stylish 1898 Gräf had what in comparison must have been a very comfortable bench seat (fig. 29).

The problem that designers faced was how might additional passengers sit. Should they sit sideways facing each other behind the operator as in the 1901 Albion (fig. 30), sit in tandem in a smaller front seat facing forwards as in the 1905 Peugeot (fig. 31), or sit facing the operator as in the 1900 De Dion-Bouton (fig. 32). This style, known as the *vis-à-vis* seating arrangement, enjoyed short-lived popularity and was used by a number of manufacturers through the 1890s. The reverse seating, i.e., with two seats centrally located back-to-back, known as the *dos-à-dos*, was featured with the 1901 Arrol-Johnston (fig. 33). Although both styles faded in popularity around the beginning of the twentieth century, one may reasonably suggest on the basis of their short-lived popularity that people were beginning to develop a prototype image for the personal motor vehicle.



Fig. 29: 1898 Gräf—
Nicholson 1970, plate 28



Fig. 30: Albion—
Nicholson 1970, plate 49



Fig. 31: 1905 Peugeot—
History of the Motor Car 1970:78



Fig. 32: 1900 De Dion-Bouton—
Sedgwick 1981 :24



Fig. 33: 1901 Arrol-Johnston—
Nicholson 1970, plate 50

Other innovative placements of an additional seat were those of the forward-facing, rear “spider” seat of the 1892 Keller-Dagenhardt (fig. 34) and the flimsy seat located in a low, frontal position—the “mother-in-law seat”—of the 1886 Peugeot QuadriCycle (fig. 35). With its position well beyond the front wheels it afforded little protection for the passenger. Such an exposed frontal seating persisted for years, but was associated more commonly with vehicles that had tandem seating such as the 1896 Léon Bollée Tricar (fig. 10).



Fig. 34: 1892 Keller-Dagenhardt Carriage—
Bailey 1971:66

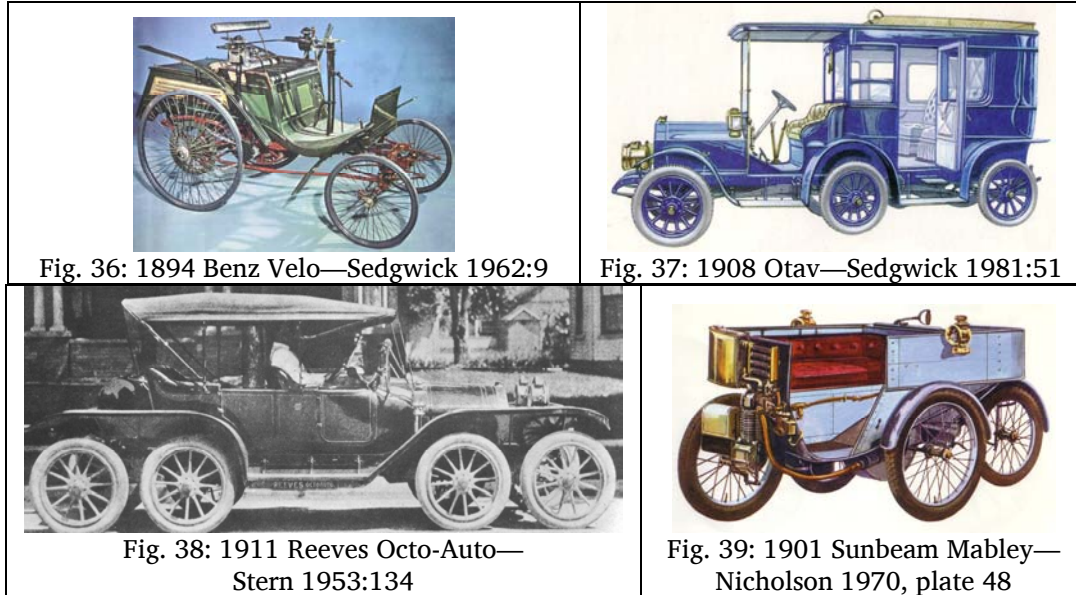


Fig. 35: 1886 Peugeot QuadriCycle—
Stein 1961:36

5.3 Number of wheels and their placement

How many wheels might a horseless carriage have? Three as with the 1885 Benz Patent Motorwagon (fig. 5), the four of the 1894 Benz Velo (fig. 36), the six of the 1908 Otav (fig. 37), or eight as with the 1911 Reeves Octo-Auto (fig. 38). There were always the truly innovative designers whose oddities had a very short-lived existence, such as the very unusual “plus-sign” wheel placement of the English 1901 Sunbeam Mabley (fig. 39) that entailed unique, in-line passenger seats facing both sides. The front seats required entry from the left in

front of the wheel, and the rear seats required entry from the right behind the wheel. Needless to say, this design did not achieve widespread acceptance, and only 130 units were produced.



What is the significance for semantic theory of this diversity in the forms of early motorized road vehicles? I suggest that this diversity may be best explained in terms of prototype semantic theory on the basis that in the latter half of the nineteenth century the designers of motorized road vehicles lacked any basic-level imagery that could serve as a prototype. The category was abstract and under-differentiated in comparison to present day categories.

If we superimpose the images of the earliest representatives of motorized road carriages, the amount of overlap would be insufficient for us to form an adequate image of a motorized carriage. I will return to this point later when considering the SUV subcategory and raise the issue of image strength and stability with regard to a prototype.

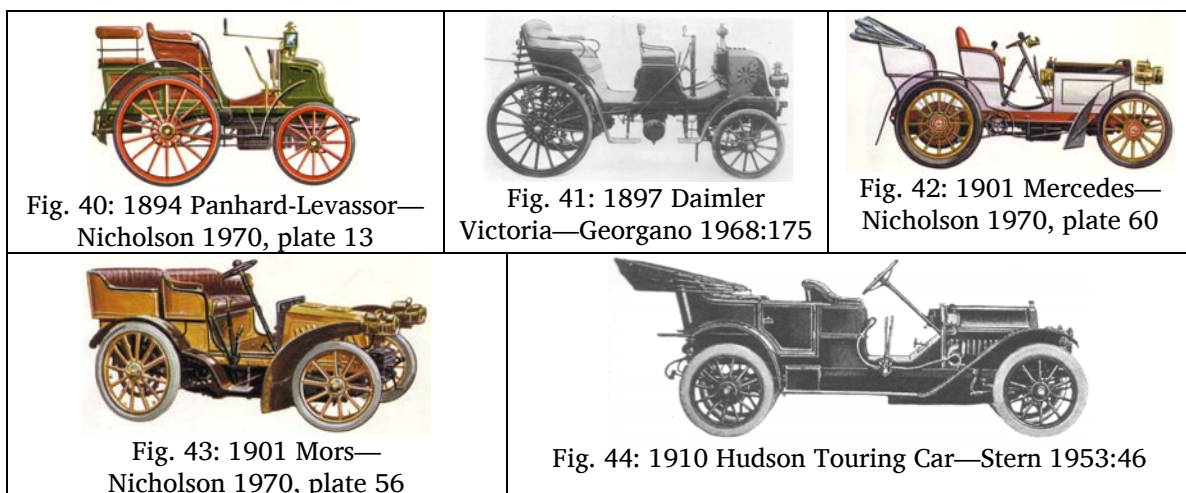
6 The emerging prototype for the automobile

By the mid-1890s a number of significant trends had developed in motor carriage design. First, the front and rear wheels became equally sized and lost the look of horse-drawn carriages which had larger rear wheels. Secondly, designers began to substitute wooden spokes for wire spokes. Thirdly, the tiller was giving way to the steering wheel. Many of the carriages had the engine located either behind or below the main bench seat. Seating for additional passengers was generally located forward and positioned slightly above the front wheels. All that was to begin to change due to a major innovation in 1894.

In 1894 the Frenchman Emile Levassor produced a totally new design when he placed a Daimler engine (for which he had the French rights) at the front of the carriage, located the clutch and gearbox centrally underneath the body, and positioned a differential between the rear wheels. This was essentially the configuration which has been dominant through most of the twentieth century, until the recent trend to front-wheel drive. With his partner, Louis-René Panhard, he produced the 1894 Panhard-Levassor (fig. 40).

The most distinctive feature of the front-engine Panhard-Levassor model is the lack of a secondary seat above the engine-radiator compartment. This was a clear indication that the compartment contained a gasoline-powered engine and a radiator. Furthermore, when secondary seating was added, it was added as a rear seat immediately behind the driver's seat. The result was that the prototype of four-passenger, front-engine cars emerged rather quickly. George Oliver writes, "The Panhard layout immediately influenced the appearance of those makes that followed it and gradually a distinctive type evolved, with front-mounted, enclosed engine behind which driver and passenger, or passengers, sat, far above the ground" (1981:30). Examples include the German 1897 Daimler Victoria (fig. 41) and the Austrian 1898 Gräf, which had a single seat and an exposed engine and radiator (fig. 29).

One of the most influential events in the emergence of a prototype image, especially in North America, was the New York Auto Show of November, 1901 when two European trends were introduced. The first was the European-styled touring car as exemplified by the German-built, 1901 Mercedes (fig. 42) and the French-built, 1901 Mors (fig. 43). This design was widely accepted and emulated, as exemplified ten years later by the 1910 Hudson Touring Car (fig. 44).



At the beginning of the 20th century, the wide variation that characterized the 1890s had passed from the scene, and carriages with engines mounted at the front and passengers facing forward dominated. Paul Wilson writes,

The shift in public taste [in America] in favor of the front-engined look occurred with startling rapidity. At the beginning of 1900 there were no front-engined cars being built in America, and motorists showed either apathy or active dislike for their appearance. At the end of 1901, however, opinion was almost unanimously in favor of front-engined style, and many people expressed distaste for the old forms. (1976:20–24)

Moreover, the new century marked a turning point in the way that people thought of, and categorized, their motor vehicles. Before 1900, the automobile was known as a *carriage*, and the mechanical aspect of the automobile was unemphasized and hidden. After 1900, the term *carriage* was replaced by *machine* and the size of the hood was important. Kimes and Clark (1989:1066) describe this trend as one of moving from the “buggy type to automobile.” The front-end engine with the large hood became for motorists the symbol of power that had once belonged to the team of horses, and Americans fell in love with the “beastly mechanism” of the automobile (Wilson 1976:24–25).

7 Conforming to the prototype of a front-engine motorcar

There is no greater indication that a prototype image has emerged than when marginal or atypical exemplars are reshaped to conform to a more central exemplar. In the development of motor vehicle categories we see this in how the early steam-driven carriages and the “electrics” (i.e., battery-driven) took on the shape of a front-engine, gasoline-driven carriage.¹⁰

Many designers resisted making substantive changes to the basic configuration of the engine-under-seat chassis. But, because the front-engine carriage was becoming widely accepted, they decided to create the appearance of a front-engine carriage by adding a false hood. This trend was exemplified in the changes from the 1900 Packard Model B (fig. 45) with a 76 inch wheelbase and an almost nonexistent hood to the 1903 Packard Model F (fig. 46) with an 88 inch wheelbase and an elongated sloping hood. Both models retained the engine-under-seat chassis, and it was not until the 1904 model that Packard actually moved the engine to the front.

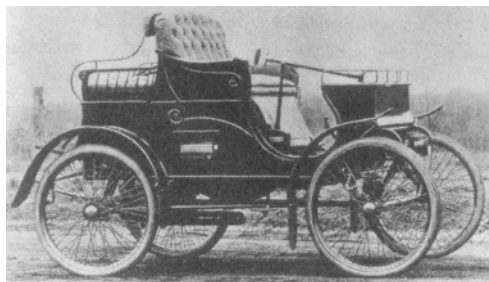


Fig. 45: 1900 Packard Model B—
Kimes and Clark 1989:1065

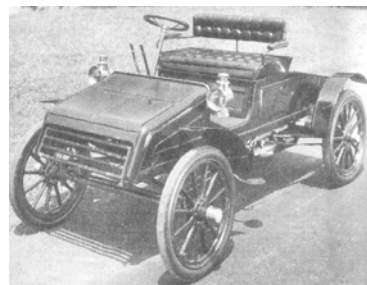
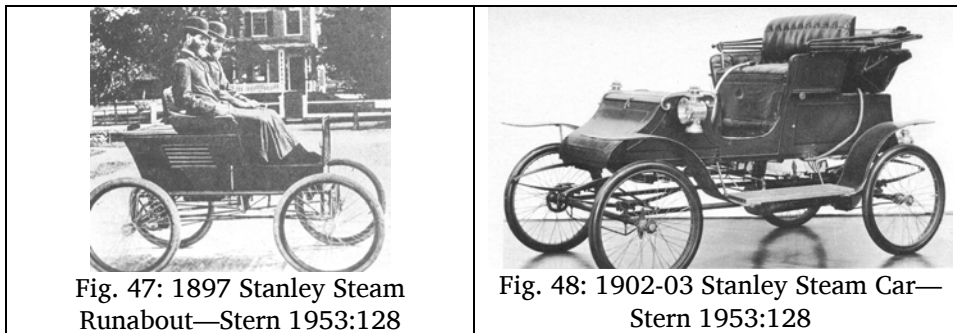


Fig. 46: 1903 Packard Model F—
Kimes and Clark 1989:1066

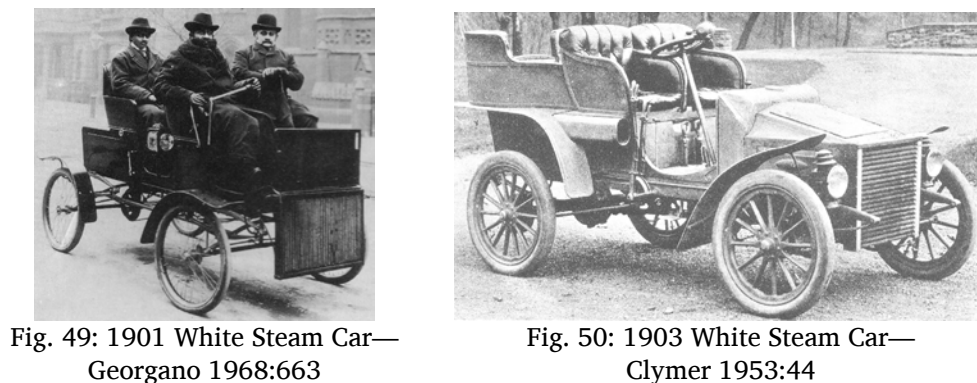
¹⁰William Morrison invented the automobile storage battery in 1891 and the electric automobile a year later.

7.1 The conformity of the steam-powered carriages

Further evidence that a prototype image for motor vehicles had developed during the decade of the 1890s is found in how the designers of a new generation of steam-powered carriages in the twentieth century went to great lengths to make them look like their gasoline-powered counterparts. Compare the 1897 Stanley Steamer Runabout (fig. 47), which had the engine and boiler mounted behind the seat and had only a simple dash board at the front, with the 1902-3 Stanley Steam Car (fig. 48), which had the boiler relocated in a compartment at the front. The result was that the reconfigured 1902-03 model bore a stronger resemblance to a gasoline powered carriage.



An even more dramatic redesign is that from the 1901 to the 1903 White steamers. The 1901 model (fig. 49) had the engine and boiler compartment behind the seat, a very minimal dashboard at the front, and tiller steering. Its profile was very reminiscent of the horse-drawn buggy. The 1903 model (fig. 50) had a very different profile. The engine was relocated below the rear seat, and the condenser was placed in an elongated front compartment with a long sloping hood. It had seating for four passengers in what has become the traditional front-rear seating configuration, and a steering wheel. Its profile was very similar to those of the contemporary gasoline powered carriages. Wilson (1976) attributes this radical redesign of the White to the fact that the designers of steamer-powered vehicles were joining the trend toward the European-styled, front-engine cars featured at the 1901 New York Auto Show that was dominated by the highly influential 1901 Mercedes (fig. 42).



The Stanley Steamers company continued to produce steam-powered cars which closely modeled the gasoline-powered counter-parts right up into the 1920s. Although they located the engines at the rear of the carriage, they conformed to the emerging prototype by having a false engine compartment at the front. Note the profiles of the 1909 Stanley runabout with the boiler up front and a rear mounted engine (fig. 51) and the 1920 Model 735 with the elongated hood (fig. 52). “By 1920 Stanleys had a flat radiator and from the outside resembled a gasoline car completely, even to a [false] radiator fill cap. But underneath the boiler was still up front, and the engine still driving direct on the rear axle” (Kimes and Clark 1989:1331).



Fig. 51: 1909 Stanley Steamer Runabout—Sedgwick 1981:59

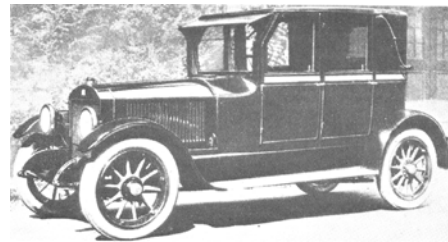


Fig. 52: 1920 Stanley Steamer model 735—Georgano 1968:588

7.2 The conformity of the electric carriages

Although carriages powered by batteries had considerably greater flexibility in body design, their styles were consistent with those of vehicles powered by gasoline and steam. The batteries could be placed almost anywhere that steam or gasoline engines could. If the batteries were placed under the floor of the carriage, where many of the early gasoline powered vehicles had the engine, and if the gasoline powered carriage had the engine enclosed, the two carriages looked very much alike. The 1899 Baker Electric (fig. 53) is of this type. The 1904 Columbia (fig. 54) had a profile much like the gasoline-powered carriages with the engine at the front. Clearly the gasoline-powered carriages were setting the trend for automobile design. This conformity persisted right up to the demise of the electrics. The 1922 Chelsea Electric Coupe (fig. 55) even had a “simulated radiator in a front grill assembly” (Shackett 1979:15).

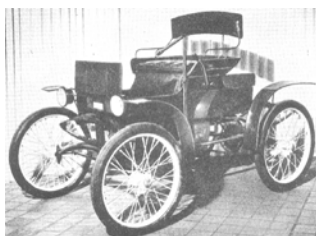


Fig. 53: 1899 Baker Electric—Clymer 1953:100

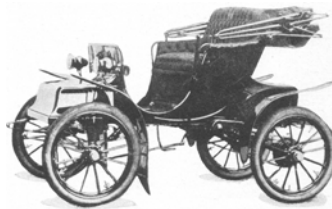


Fig. 54: 1904 Columbia Electric Runabout—Stern 1953:127



Fig. 55: 1922 Chelsea Electric Coupe—Georgano 1968:134

Electric carriages were popular with women because they often had difficulty in hand-cranking the gasoline powered cars, and were especially popular in New York and other Eastern cities, where short trips across town were the norm. Shortly after the invention of the electric starter in 1911, the gasoline-powered vehicles quickly supplanted the electrics.

7.3 The conformity of the three-wheelers

As we have seen, three wheelers from the late 1800s, particularly during the decade of the 1890s, had the third wheel in the rear (figures 1–3, 9–10). This typical configuration persisted into the mid-twentieth century and is represented by the Messerschmitt vehicles of the 1950s which feature tandem seating not unlike the early three-wheelers. There is little change from the 1953 Messerschmitt KR-175 (fig. 56) to the 1964 Messerschmitt KR-200 Roadster (fig. 57).



Fig. 56: 1953 Messerschmitt KR-175—
<http://microcarmuseum.com/tour/messerschmitt-kr175.html>.
 Accessed 06/05/2009.



Fig. 57: 1964 Messerschmitt KR-200 Roadster—
<http://www.microcarmuseum.com/tour/messerschmitt-kr200-roadst.html>.
 Accessed 06/05/2009.

Although the 1957 Reliant Regal Mk III and the 1963 Bond Estate have the third wheel in the front, their front ends with false fenders resemble the profiles of automobiles with four wheels (fig. 58). This conformity clearly highlights the observation that the prototype image of an automobile was that of a four wheel vehicle.



Fig. 58: 1957 Reliant Regal Mk III and 1963 Bond Estate—
http://www.jaylenosgarage.com/your_garage/cars/2528.shtml.
 Accessed 06/05/2009.

8 Anomalies as nascent categories

The history of the automobile is replete with anomalies, as independent entrepreneurs experimented with a wide variety of novel designs in the hope of capturing the consumers' interests. Such one-of-a-kind novelties contribute little, if anything, to our understanding of how categories emerge unless they catch the imagination of other designers who produce similar models. Too often they reflect nothing more than the creative thought of aspiring entrepreneurs seeking to design unique, but marketable, vehicles. That such one-of-a-kind novelties were not embraced by the consumers simply illustrates that their novelty exceeded the acceptable limits of the prototype image.

What is of greater importance to our understanding of the role of prototype imaging in the development of categories are those vehicles, which began as somewhat anomalous, but succeeded in so meeting the needs of the populace that other manufactures designed and manufactured similar models. It is in this similarity that we can recognize an emergence of a prototype image that eventually serves as the basis for a new subcategory.

8.1 Mass production and the emergence of the subcategory *raceabout, runabout, or speedster*

One of the most important developments was that of mass production. I have noted that early motorized carriages were generally fitted with bodies custom-built by craftsmen who had been in the horse-drawn carriage trade. Floyd Clymer (1953:147) reports, "Many bodymakers offered their own custom-built jobs complete and ready to attach to their own chassis, while others offered them in knockdown form."

Henry Ford is famous for introducing assembly line manufacturing, and in time such manufacturing reduced the number of artisans building individual bodies. The sheer volume of Ford Model Ts built during the nineteen years from

1909-1927 was staggering. In comparison to the few thousand vehicles built by Rolls-Royce, the Ford Company built an astounding 15,456,868 Model Ts (Stein 1961:165). Indeed, by the mid-1920s Ford had built half of the vehicles being driven in North America.

His marketing of the Model T chassis presents a case study of how a subcategory may emerge from individual efforts at designing a satisfying body style. Of particular relevance to prototype imaging is Ford's practice of selling to the general public new, stripped-down chassis which could be fitted with almost any shape of body (fig. 59). One has little difficulty in recognizing the Model T profile in the body style of the 1910 Ford Runabout (fig. 60).

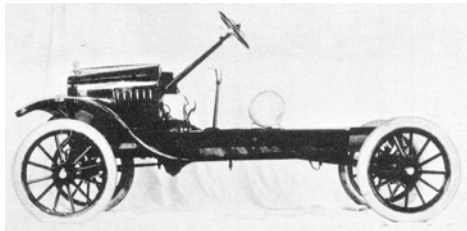


Fig. 59: Ford Model T Chassis—
Sutton 1990:47

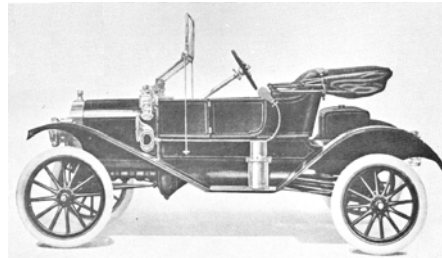


Fig. 60: 1910 Ford Runabout—
Sutton 1990:24

Clymer (1953:147) notes regarding the Model T, “Other bodymakers went after the business of the Model T owner who was interested in disguising his car. While every owner knew that the Model T had economy and endurance, some owners wanted to dress up their car to make it look like something more than just an ordinary Model T.” Bob Stubenrauch (1973:95) notes of the 1915 Ford Model T Speedster, “It should be stated immediately that Ford built no true production speedster or raceabout-bodied Model T’s.” Consequently, Stubenrauch calls it a “barnbuilt Ford.” The customers would buy a factory-new chassis and remove the fenders, the running boards, and the windshield. Then they would lower the silhouette by moving the gas tank from underneath the seat to behind it so that the seat could be dropped. Next they would rake the steering to fit the lowered seat, fit a custom made aluminum body, and change the suspension because the bouncy traverse springs made the vehicle uncontrollable at high speed. The very fact that these individuals did not replicate the trial and error experimentation of their nineteenth century predecessors who created what Hiram Percy Maxim (1962:51) regards as “mechanical monstrosities” suggests that they had recourse to prototype images. As individual consumers bought the chassis and then designed their own body styles, they were expressing their own image of what a vehicle ought to look like. When enough people built similar models the outcome was the emergence of a new subcategory, the “Run-abouts.”

8.2 The short-lived subcategory of the High-wheelers

In 1901 the Holsman company began production of a vehicle that would meet the needs of mid-Western farmers, exemplified by the 1903 Holsman (fig. 61). It was joined in 1905 by a major competitor, International Harvester, which produced the *Auto Buggy*, “designed to look as much as possible like a horse drawn buggy” (Gibbins and Ewens 1978:28). IH’s vehicle was designed primarily for carrying produce (fig. 62), but it also accommodated an added back seat which was handy for taking the family on outings (fig. 63). It’s design was adopted by a number of small manufacturers, and the production of a number of models that were similar in many respects led to the emergence of a prototype image for the subcategory of passenger carriages known as High-wheelers (with wheels 44-48 inches high). The 1907 Kiblingen Highwheeler was clearly better appointed and more comfortable than its predecessors (fig. 64).

The high-wheelers, in general, represented independently designed specialty wagons rather than simply adaptations of existing horse-drawn wagons. To meet the needs of farmers it had first to have an adequate road clearance for traveling over the deeply rutted country roads and second to carry farm produce as well as the farmer’s family. What drove them into bankruptcy was the Ford Motor Company retailing the stripped-down Model T chassis in 1909, with 30 inch wheels, that could be custom-designed to satisfy the individual farmers. The Holsman Company went into liquidation in 1910 and in the following year International Harvester closed its passenger division.



Fig. 61: 1903 Holsman—
<http://www.flickr.com/search/?q=03%20holsman&w=28826708%40N03>.
 Accessed 06/05/2009.

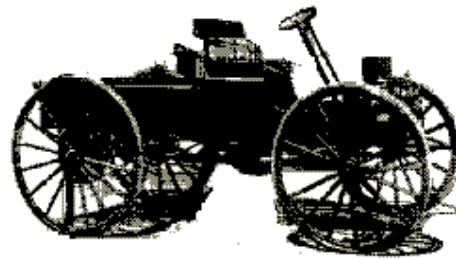


Fig. 62: 1905 International Harvester Auto Buggy—
 Gibbins and Ewens 1978:29

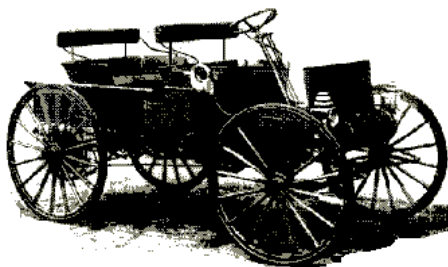


Fig. 63: 1905 IH with back seat—
 Gibbins and Ewens 1978:29



Fig. 64: Kiblingen Highwheeler—
 Stein 1961: 52

8.3 The Willys Jeep—an anomaly that gave rise to the SUV category

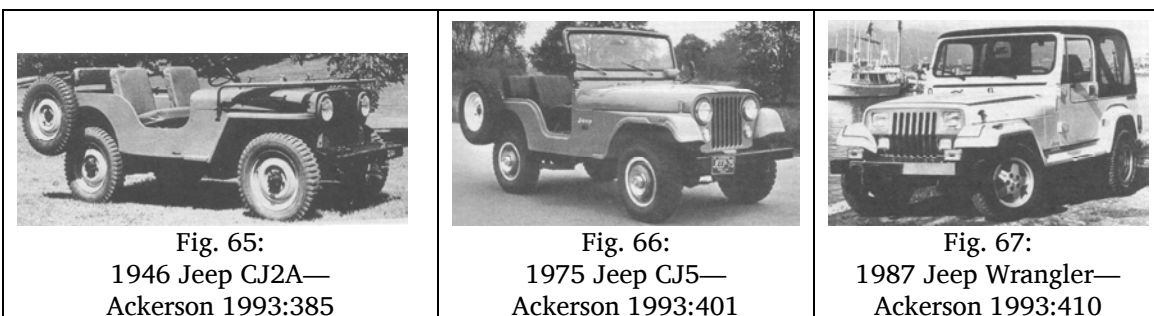
The subcategory of SUVs may be traced back to the Willys Jeep (from *GP* for the World War II American *General Purpose Vehicle*). That both the high-wheelers and the Willys Jeep met specific needs not met by other vehicles enabled them to survive. The Jeep gained renown during World War II as a vehicle that could go almost anywhere. Its off-the-road capability was legendary, and as the war closed it was adapted for civilian use. It was fitted with a special power take-off which could be used for almost any agricultural task.

This [1946 CJ] Jeep (fig. 65) was the first vehicle to combine the functions of passenger transport, light truck, tractor, and power source.... On farmland it could travel with the same ease as the wartime MB [Jeep]. It could also plough, haul loads of hay bales or grain, pull a harrow, thresh, fill a silo—in fact do just about any agricultural task by itself, or as a tractor or power source. (Clayton 1982:63).

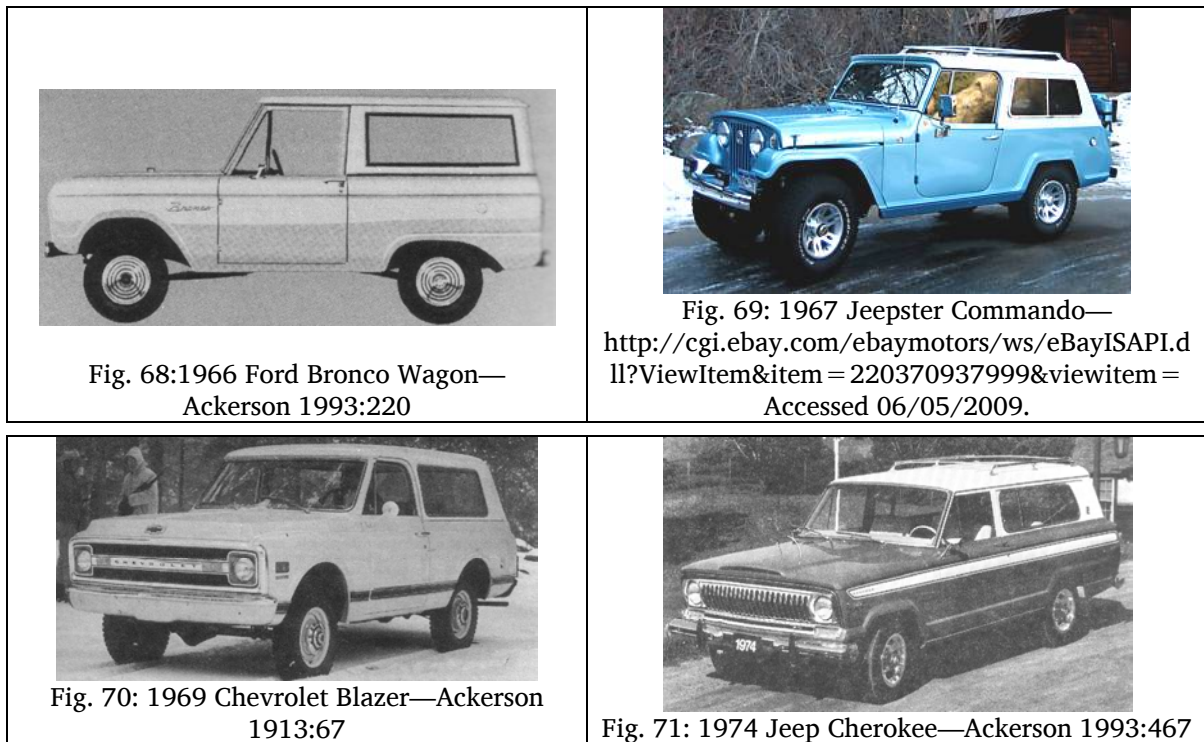
Furthermore, that each of these anomalous vehicles gave rise to a subcategory informs us about the role of prototypicality in the emergence of subcategorization. In both cases the initial offering of a new design for a vehicle was emulated by other companies. Whether or not the resultant category survived depended more often than not on purely economic factors related to competition in the marketplace.

In contrast to the demise of the high-wheelers in the face of competition with the Ford Model T, the Jeep had no serious competition for more than a decade, so that when such competition arose, the Jeep was thoroughly entrenched. The result was that as other companies emulated the design of the Jeep there arose the category of SUVs that has grown and expanded over a period of almost fifty years.

In the late 1940s and early 1950s, an American folk classification of vehicles included just three broad subcategories: *cars*, *trucks*, and the *Jeep*. While the first two categories had a wide range of representative models, the Jeep virtually stood alone, a true anomaly, and it remained so, without any serious competition, for more than a decade. Its military origins remained evident through the 1970s and early 1980s, as exemplified by the 1975 Jeep CJ5 (fig. 66), and were mitigated only slightly in its successor, the Jeep Wrangler series (fig. 67).



Subsequent competitors to the Jeep that contributed to the emergent prototype for SUVs included the 1961 International Scout. In 1965 the Scout was significantly restyled to resemble a passenger sedan. Ford’s entry into the market in 1966 with the Ford Bronco Wagon (fig. 68) induced Jeep to introduce the 1967 Jeepster Commando (fig. 69), and in 1969 Chevrolet joined the field with the Blazer (fig. 70). Jeep took on all the competition with serious intent in 1974 with the introduction of the Cherokee (fig. 71).¹¹

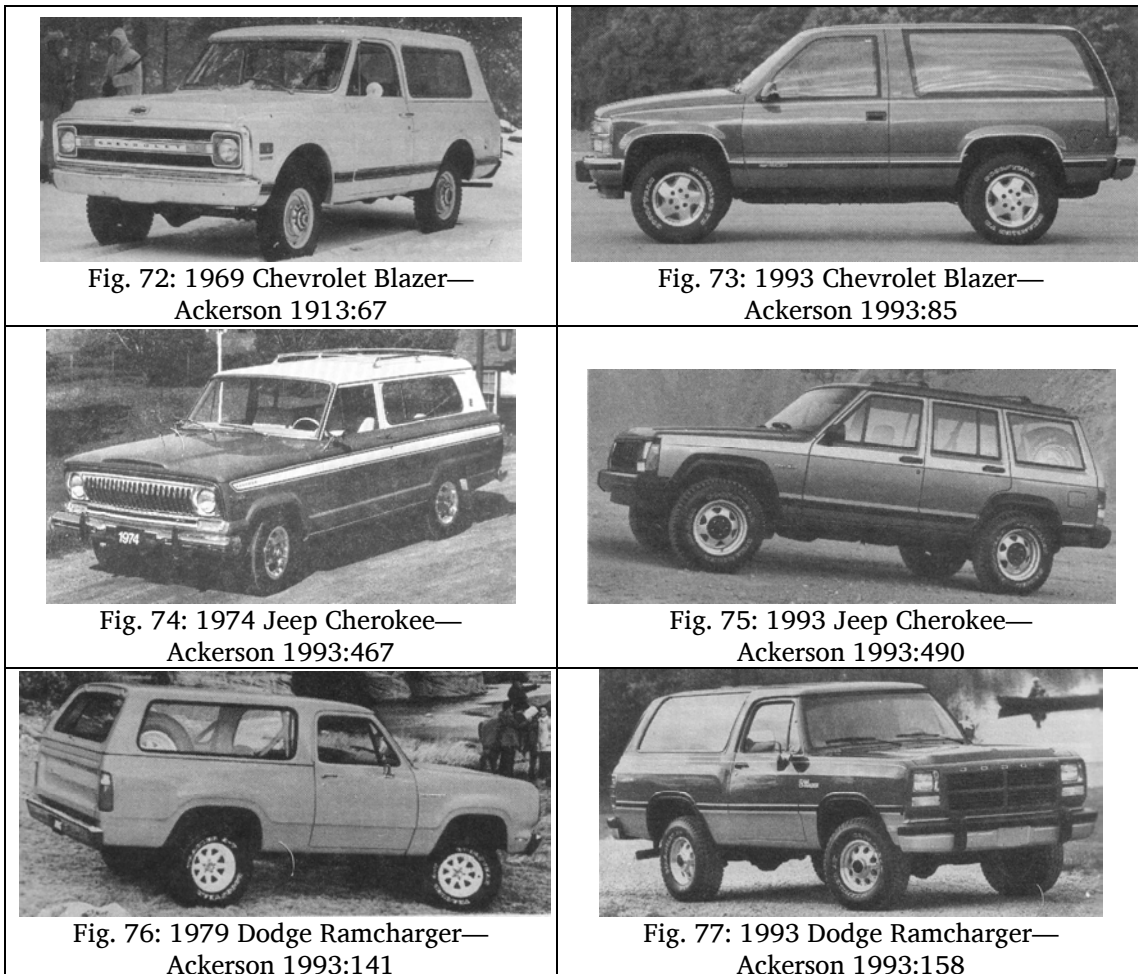


It is illuminating to compare the early experiments in designing satisfactory motorized road carriages in the late 1800s and early 1900s with the more sophisticated approaches in designing vehicles in the 1960s that eventually led to the emergence of the SUV subcategory. I have noted that the “technological anarchy” for that early period as reported by Nicholson (1971:10–12) may be attributed to the fact that the designers had no prototype image that could serve as a standard upon which to base their designs. By the 1960s, however, designers not only had strong prototype images for the various categories and subcategories of vehicles, but they also had a paragon for the emerging SUV subcategory in the highly popular CJ Jeep. Thus, in contrast to the extreme diversity in the designs for motorized road carriages produced at the end of the nineteenth century, we find that the designs for the emerging subcategory of SUVs during the 1960s exhibited technological sophistication and homogeneity emerged very quickly.

¹¹The first vehicle styled after the Jeep was the British-built 1948 Land Rover which had much the same measurements as the Jeep. In 1970 it was joined by the more luxurious Range Rover. The Rover vehicles, however, were not widely marketed in the U.S. and so provided no real competition for the Jeep nor contributed significantly to the emergent prototype for American SUVs.

This homogeneity is clearly evident in a comparison of the photos of 1992/3 models with their counterparts of twenty-five to thirty years earlier. Compare the 1969 and 1993 Chevrolet Blazer (fig. 72 and 73), the 1974 and 1993 Jeep Cherokee (fig. 74 and 75), and the 1979 and 1993 Dodge Ramcharger (fig. 76 and 77). If one were to superimpose these images, the amount of image overlap would be astounding in comparison to that which would be attained by superimposing the images of the motorized road carriages of the late 1800s.

I suggest that these differences between the performance of the nineteenth century designers and those in the post-WWII era may be accounted for by the concept of “prototype strength”—that there is strength in numbers, in the similarity in shapes, and in the identifiability of averaged shapes (Rosch 1978). If a putative category has only a few representatives that are widely divergent in their shapes, as was the case for motorized road carriages at the end of the nineteenth century, it is unlikely that such a collection would easily yield a prototype image upon which a basic-level category may be based. On the other hand, if a putative category has a large number of representatives and there is a great similarity in their shapes, then it is highly likely that a prototype image will emerge and serve as the basis for a category. Simply stated, the latter designers had a firmly entrenched prototype.



8.4 The Hummer—an anomaly that became an SUV

That the prototype for an SUV is firmly entrenched is evident in light of the introduction in 1991 of another anomaly, the Hummer 1 (fig. 78). During the Gulf War the capabilities of the military Humvee (from HMMWV—High Mobility Multi-Purpose Wheeled Vehicle) became widely recognized, and its manufacturer, AM General, decided to market it in 1992. AM General's decision is directly analogous with that of Willys to market the CJ Jeep following World War II. There is, however, a significant difference. Whereas the Willys Jeep found a ready market niche and had no competition, the Hummer H1 faced a daunting array of SUV competitors.

The introduction of the H1 was analogous with that of the CJ Jeep in another way. Both were essentially military versions in civilian dress. The H1, however, in comparison with SUVs, was clearly the ugly duckling of vehicles. It was a behemoth, and at nearly 7,000 lbs was far larger than the typical SUV and earned the nicknamed “The Giant.” During the next eleven years fewer than 10,000 were sold. In 1999 General Motors acquired the Hummer name, along with marketing and distribution rights. In 2002 the introduction of the Hummer H2 (fig. 79) was the first of two size reductions, with some body re-sculpturing, that culminated in the H3 in 2005 (fig. 80).

The first adjustment resulted in building the H2 on an SUV chassis—that of the GM Chevrolet Tahoe. Its weight was reduced to 6,400 lbs., and it was just short of seventeen feet in length. Its body had softer edges, and it came with options such as a leather interior and a premium audio system. The second adjustment with the H3 shortened it by another foot and a half and cut the weight by a ton. The H3 shares the GMT-355 platform with two “siblings”—the mid-size Chevrolet Colorado and GMC Canyon pickups. It now conforms to the profile of a mid-size SUV—clear evidence that an SUV prototype image motivated the changes. In this case, the prototype strength of the SUV subcategory mitigated the Hummer becoming the basis of a new subcategory of super vehicles.



Fig. 78: 1991 Hummer 1



Fig. 79: 2002 Hummer H2—
http://en.wikipedia.org/wiki/File:Hummer_H2_.jpg
Accessed 06/05/2009



9 Concluding remarks

In response to Wierzbicka's assertion that "the notion of prototype has to prove its usefulness through semantic description, or through semantic theorizing" (1990:305), I have demonstrated that the notion of prototype does indeed illuminate the conceptual development of motor vehicle categories. First, I note that the early stage of the era of motorized road carriages was characterized by under-differentiation. Enterprising entrepreneurs experimented with the number of wheels required for a stable vehicle, with various configurations of engine-drive placement, and with differing seating arrangements for the driver and passengers. This under-determination was reflected in indecisive designations of road carriages as *tricycles* vs. *tricars* and *quadracycles* vs. *quadcars*.

Significant designs that contributed to the emergence of a prototype around the beginning of the twentieth century were first, Levassor's placement of the engine at the front of the carriage with the clutch and gearbox located centrally underneath the body, and second, the body shape of the 1901 Mercedes with the driver and passengers in two rows of seats facing forward. In a short span of time, the wide variation in the design of motorized land carriages that characterized the nineteenth century was replaced with a firmly entrenched prototype of the automobile, one that has persisted to this day.

With regard to prototype theory, I make the modest suggestion of the concept of "prototype strength"—that there is strength in numbers and that the greater the similarity in shapes and identifiability of averaged shapes, the greater is the strength of a prototype. I suggest that the concept of prototype strength accounts for the "technological anarchy" that characterized the designs of motorized road carriages late in the nineteenth century and the technological sophistication that characterized the designs of SUVs in the 1960s.

I also suggest that the conformity of the shapes of the steam and electric-powered carriages, and of the three-wheelers, to that of the gasoline-powered carriages suggests that the prototype image of the latter served as the standard to which the former groups conformed. Finally, I suggest that this process of prototype imaging was confirmed by the history of the Jeep and the emergence

of the SUV category, along with the redesigning of the Hummer to conform to the SUV prototype.

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16

Helter skelter and ñugl ñagl: English and Kalam Rhyming Jingles and the Psychic Unity of Mankind

Andrew Pawley

ABSTRACT

There was a time, way back in the *Naked Chef* days, when all that mockney cockney, luvvly jubbly stuff just made you want to give Jamie Oliver a damned good slap.

(Michelle Rowe,
Weekend Australian Review,
September 13, 2008)

Kalam, a Trans New Guinea (TNG) language of Madang Province, Papua New Guinea, has at least 60 “rhyming jingles,” expressions similar to English *higgledy piggledy* and *dilly dally*. A rhyming jingle consists of two phonological words, the base and the rhyme, which differ in the form of first syllable, and together form a single grammatical word. Kalam rhyming jingles fall into several phonological types, chiefly those where, in the rhyme, (1) only the first consonant changes, e.g., *gadal badal*, *jnow bnow*, *slom dlom*, (2) only the first vowel changes, e.g., *gtiŋ gtoŋ*, *ñugl ñagl*, *nugsum nagsum*, and (3) the first CV changes, e.g., *gogeb mageb*, *kosi masi*, *ñugog pagog*. Such expressions are widespread among TNG languages as well as occurring in many other languages around the world. After examining the phonology, semantics and grammar of the Kalam expressions, I will try to place them in comparative perspective, asking what the occurrence of such similar patterns in unrelated languages tells us about the psychic unity of Mankind?

1 Introduction

English discourse is peppered with expressions of the type of *helter skelter*, *hocus pocus*, *nitty gritty*, *dilly dally*, *tittle-tattle* and *topsy-turvy*, often referred to as

“rhyming jingles” (or simply “jingles”).¹ The term *jingle* is an old one, but the OED definition applies it to rhymes in general, but in specific cases it is chiefly used to refer to expressions such as the above.

- **jingle 3.** a. of prose or verse: To sound with alliteration, rhymes or the like (1670). b. To play with words for the sake of sound; to rhyme (1642).

The relevant part of the entry in the Macquarie Dictionary (Delbridge 1981) runs as follows:

- **jingle verb 4.** to make rhymes. **noun 8.** a musical succession of like sounds, as in rhyme or alliteration. **9.** a piece of such verse. **10.** a simple, repetitious, catchy rhyme set to music, especially for advertising.

Macquarie defines *rhyme* as follows:

- **rhyme noun 1.** agreement in the terminal sounds of lines in verse or of words. **2.** a word agreeing with another in terminal sound.

Rhyming jingles have sometimes been called “Siamese expressions” and sometimes have been subsumed under broader terms such as “expressives” and “ideophones.” Joel Bradshaw (2006:53) notes that “ideophone” has recently (December 2004) been added to *Wikipedia*, which gives the following definition:

- **Ideophones** are word utilizing sound symbolism to express aspects of events that can be experienced by the senses, like smell, color, shape, sound, action or movement. Ideophones are attested in all languages of the world; however, languages vary in the extent to which they make use of them.

However, I do not think sound symbolism is a central feature of rhyming jingles.

Typical jingles consist of two phonological words that are identical in form, except for one or more elements in the first syllable. In most cases, at least one of the words has no meaning by itself and occurs only as part of a rhyming jingle. Many rhyming jingles have been part of the language for centuries and new ones are constantly coming into currency. More than 150 such expressions appear in the *Oxford English Dictionary* I have collected another 60 or so and have found additional examples on the Web, chiefly at www.trussel.com/flipflop.htm.

There is something playful and more than faintly ridiculous about rhyming jingles, but they are best used sparingly, like spices. No doubt this is why

¹I am delighted to contribute to a festschrift for Karl Franklin, whose diverse contributions to New Guinea linguistics have greatly enriched the field. It is something of a shock to realise that more than 40 years have passed since we first met and almost 40 since I had the pleasure of being an examiner for Karl’s PhD thesis on Kewa grammar. For helpful comments and information on this paper I am indebted to participants in the Papuanists’ workshop held in Sydney, July 2006, and in an earlier seminar presentation at ANU. David Nash subsequently alerted me to relevant material on the Web.

Michelle Rowe, the reviewer quoted above, coined her own pair of jingles to censure the youthful Jamie Oliver for an over-use of playful speech devices in his early TV cooking programs. True, they helped him achieve an I-don't-take-all-this-too-seriously style of presentation that was part of his appeal, but the seasoning was a bit too rich for the reviewer's taste.

This paper takes a serious look at the linguistic properties of rhyming jingles, first in English and then in Kalam, a language spoken by about 20,000 people living in the Bismarck and Schrader Ranges in SW Madang Province, Papua New Guinea. It is one of some 400 languages that belong to the Trans New Guinea (TNG) family, which dominates much of interior New Guinea.² I began doing fieldwork in the Kalam speech community as a graduate student in the 1960s. At that time I had not come across rhyming jingles in any language other than English, and, in my naïvite, was surprised to find that Kalam has many such expressions and indeed that they fall into three main phonological types that closely parallel the main types found in English.

In following sections I will compare the phonological characteristics of English and Kalam rhyming jingles and, more briefly, their semantics and grammar, and then ask why such similar patterns occur in languages that are not demonstrably related. Given that Kalam and English belong to language families that have probably been separate for more than 50,000 years, it is unlikely that we have any hope of establishing a common historical origin for the resemblances between their rhyming jingles.³ A functional or neurological explanation must be sought.

2 English rhyming jingles

2.1 Phonology

2.1.1 Features common to typical rhyming jingles

English has a range of phonologically diverse expressions that have claims to be called rhyming jingles. We may begin by recognizing a prototypical class, which has the following characteristics:

1. The jingle consists of two phonological words that are identical in form except for one or more elements in the first syllable. The first phonological word will be referred to as the base and the second as the rhyming word or rhyme.
2. The number of syllables in each word may be one, two or three.

²There are some 20,000 speakers of Kalam living in the Bismarck and Schrader Ranges, Madang Province. They are traditionally subsistence farmers who cultivate a range of root crops and keep pigs. The first semiregular contacts of Kalam people with Westerners took place in the 1950s and the language was unwritten until the 1960s.

³Humans first entered Sahul (the Australia-New Guinea continent) more than 40,000 years ago. It is likely that some of the so-called 'Papuan' language families of New Guinea and Island Melanesia are descended from languages that go back to this early settlement.

3. Each word carries one primary stress, which is always on the first syllable.
4. If the base has two or three syllables, the second and third syllables are exactly duplicated in the rhyme.
5. The first syllables of the base and the rhyme are always alike either in the first vowel or the first consonant, but not both.
6. The first syllable of the base may begin with a consonant or a vowel.
7. The first syllable of the rhyme begins with a consonant.
8. Consonant clusters are not allowed in the first syllable of the base but are allowed in the rhyme.

2.1.2 *The main phonological types*

Typical rhyming jingles fall into two main phonological types, A and B, according to the change made in the first syllable of the rhyming word. Both types A and B are highly productive.⁴ In type A: *helter skelter*, *argy bargy*, the onset of the rhyme differs from that of the base. There are two main subtypes, differing as follows:

1. In type A(i) the onset of the base is a single consonant. This consonant is replaced in the rhyme by a different consonant e.g., *raggle taggle*, *hob nob*, or by a consonant cluster, e.g., *helter skelter*.
2. In type A(ii) the base begins with a vowel. In the corresponding syllable of the rhyme a consonant precedes this vowel, e.g., *argy bargy*, *airy fairy*.

2.1.2.1 *Type A jingles*

A fairly extensive, but far from exhaustive, list of type A(i) jingles is given in table 1. Here and in later tables, the dates of first recorded occurrences are given where they are known.

⁴I will not consider here the type of *stick shmick!* and *farmer shmarrer!* (which I understand has entered English from Yiddish) because its phonological constraints and patterns of use and semantics seem to be somewhat different from typical jingles.

Table 1: Some English jingles of type A(i)

<i>bees' knees</i>	<i>n.</i> (?20 th c.)	<i>hurry scurry</i>	<i>v.</i> (1732)
<i>big wig</i>	<i>n.</i> (?20 th c.)	<i>humpty dumpty</i>	<i>n.</i> (1698)
<i>culture vulture</i>	<i>n.</i> (?20 th c.)	<i>jeepers creepers</i>	<i>interj.</i> (? 20 th c.)
<i>fuddy duddy</i>	<i>n.</i> (c. 1900)	<i>lippety clippety</i>	<i>adv.</i> (? 19 th C.)
<i>fuzzy wuzzy</i>	<i>n.</i> (1890)	<i>miminy piminy</i>	<i>adj.</i> (1815)
<i>hanky panky</i>	<i>n.</i> (1841)	<i>mumbo jumbo</i>	<i>n.</i> (1738)
<i>harum scarum</i>	<i>adj.</i> (1674)	<i>namby pamby</i>	(1745)
<i>heebie jeebie(s)</i>	<i>n.</i> (1927)	<i>nit wit</i>	<i>n.</i>
<i>hells bells</i>	<i>interj.</i>	<i>nitty gritty</i>	<i>n.</i> (1579)
<i>helter skelter</i>	<i>adv.</i> (1593)	<i>pell mell</i>	<i>adv.</i> (1579)
<i>heyday</i>	<i>n.</i> (1751)	<i>rag-tag</i>	<i>n.</i> (1820)
<i>hirdy girdy</i>	<i>n.</i> (Scots, c. 1500)	<i>raggle taggle</i>	<i>adj.</i>
<i>hob nob</i>	<i>v.</i> (1763)	<i>razzledazzle</i>	(1890 <i>n.</i>)
<i>hocus pocus</i>	<i>n.</i> (1624)	<i>rinky dinky</i>	<i>adj.</i> (1870)
<i>hobson jobson</i>		<i>roly poly</i>	<i>adj., n.</i> (1601)
<i>hotch potch</i> <i>hodge podge</i>	<i>n.</i> (1503)	<i>rootin tootin</i>	<i>adj.</i>
<i>hoddy doddy</i>	(1553)	<i>rum tum</i>	? <i>adj.</i> (1876)
<i>hoddy noddy</i>	(c. 1600)	<i>rumbletumble</i>	? <i>adj.</i> (1801)
<i>hogen mogen</i> <i>hogan mogan n.</i>	(1713). <i>adj.</i> (1705)	<i>rumpy pumpy</i>	<i>n.</i>
<i>hoker moker</i>	<i>adj.</i> obs. for <i>hugger mugger</i> (1526)	<i>silly billy</i>	<i>n.</i> (ca 1790)
<i>hoity toity</i>	<i>adj.</i> (1657)	<i>sin bin</i>	<i>n.</i> (20 th c.)
<i>holus bolus</i>	<i>adv.</i> (1847)	<i>superduper</i>	<i>adj.</i> (20 th c.)
<i>hokey pokey</i>	<i>n.</i> (20 th c.)	<i>tag rag</i>	(1582) <i>n</i> *
<i>holy moly</i>	<i>interj.</i> (20 th c.)	<i>teeny weeny,</i> = <i>teensy weensy</i>	<i>adj., n.</i>
<i>hubbub</i>	<i>n.</i> (1555)	<i>tutti frutti</i>	(20 th c.)
<i>hubble bubble</i>	(1634)	<i>walkie talkie</i>	<i>n.</i> (20 th c.)
<i>hugger mugger</i>	<i>v.</i> (late ME), <i>adj.</i> (1674)	<i>what-not</i>	<i>n.</i> (1540)
<i>huff snuff</i>	<i>n.</i> (1583)	<i>willy nilly</i>	<i>adv.</i> (1608)
<i>humdrum</i>	<i>adj.</i> (1553)	<i>wing ding</i>	<i>adj.</i> (? 20 th c.)
<i>hurly burly</i>	<i>n. & adv.</i>	<i>zoot suit</i>	<i>n.</i> (? 20 th c.)

*a. = *rif fraff*, b. tags and rags of dress, all dressed in rags. *adj.* c. pell mell.

Certain additional phonological preferences apply to Type A(i) jingles.

1. Phonological words are usually disyllabic.
2. The preferred first consonant in the base is /h/. Of the 60 expressions listed in Table 1, 27 have initial /h/.
3. The rhyme seldom begins with a fricative and never with /h/.
4. If the base begins with a voiceless fricative it is usually followed by a stronger consonant, e.g., f > d, f > w, j > kr, s > b, s > d, or by a consonant cluster, e.g., *harum scarum*, *helter skelter*, *hurry scurry*, *huff snuff*.
5. If the base begins with /h/ and the rhyme with /s/, the /s/ is likely to introduce a consonant cluster, usually /sk/.

Type A(ii) is productive but has fewer members than A(i). Examples that have been noted are given in table 2.

Table 2: Some English jingles of type A(ii)

<i>airy fairy</i>	<i>adj.</i>	<i>even steven(s)</i>	<i>adj.</i>
<i>argle bargle</i>	<i>n. (1589)</i>	<i>itsy bitsy</i>	<i>adj.</i>
<i>argy bargy</i>	<i>n.</i>	<i>itty bitty</i>	<i>adj.</i>
<i>arty farty</i>	<i>adj.</i>	<i>okey dokey</i>	<i>interj.</i>

2.1.2.2 Type B: dilly dally

This type, illustrated in table 3, conforms to the following rules:

1. The first vowel changes in the rhyming word.
2. The base as well as the rhyme must always begin with a consonant. Thus **illy dally*, **dilly ally* and **illy ally* are unacceptable.
3. The first vowel in the base is always the lax high front unrounded vowel /ɪ/. Thus, while *flip flop* occurs, **flop flip* and **flap flop* are not possible jingles.
4. The first vowel in the rhyming word must be either the low front vowel /æ/, or the low back rounded vowel /ɔ /, or their dialectal equivalents. Thus, **flip flep*, **flip flupp*, **flip floop*, and **flip flope* are not possible jingles.

Table 3: Some English jingles of type B

<i>chit chat</i>	<i>n.</i> (1710)	<i>rickety rackets</i>	<i>adj.</i> (1893)
<i>chitter chatter</i>	<i>n.</i> (1712)	<i>riff raff</i>	<i>n.</i> (1470)
<i>crick crack</i>	<i>n.</i> (1565)	<i>ship-shape</i>	<i>adj.</i> (1678)
<i>dibbly dobbly</i>	<i>n.</i> (20 c.)	<i>shilly shally</i>	<i>adv.</i> (1678), <i>adj.</i> (1734)
<i>dilly dally</i>	<i>v.</i> (1741)	<i>snipper snapper</i>	<i>n.</i> (1590)
<i>ding dong</i>	<i>n.</i> (1560)	<i>splish splash</i>	<i>n.</i> (1720)
<i>fiddle faddle</i>	<i>n.</i> (1577)	<i>swish swash</i>	<i>n.</i> (1547)
<i>flim flam</i>	<i>n.</i> (1538)	<i>tick tack</i>	<i>n.</i> (1549)
<i>flip flap</i>	<i>adv.</i> (1529), <i>n.</i> (1678)	<i>tick tock</i>	<i>n.</i> (1848)
<i>flip flop</i>	<i>v. & n.</i>	<i>tingle tangle</i>	<i>n.</i> (1693)
<i>hippity hoppity</i>	<i>adv.</i>	<i>tittle tattle</i>	<i>n. & v.</i> (1529)
<i>jim jam</i>	<i>n.</i> (1550)	<i>whim wham</i>	<i>n.</i> (1529)
<i>jingle jangle</i>	<i>n.</i> (1640)	<i>wiggle waggle</i>	<i>n.</i> (1825)
<i>knick knack</i>	<i>n.</i> (1618)	<i>wishy washy</i>	<i>adj.</i> (1693)
<i>mish mash</i>	<i>n.</i> (1450)	<i>zig zag</i>	<i>v. & adj.</i> (1712)
<i>ning nong</i>	<i>n.</i> (20 th c.)		

In many cases one or both of the phonological words used in a jingle are playful creations, formed by altering a standard word in ways additional to the systematic alterations that characterize each of Types A-H. Most often the alterations involve adding a final syllable. The addition is often -y or ends in y, e.g., *bargy* in *argy bargy*, *bitsy* in *itsy bitsy*, *shally* in *shilly shally* (*shall* as in *shall I* or *shan't I?*) and both *wish* and *wash* in *wishy washy*, and both *walk* and *talk* in *walkie-talkie*.

There are other types of rhyming jingles, all bearing a family resemblance to typical rhyming jingles.

2.1.2.3 Type C: jiggery pokery

This type resembles jingles of Types A and B in that the base and the rhyme have the same number of syllables and identical prosody, but it has certain distinctive features. The phonological characteristics of Type C jingles are:

1. The first syllable of the base is replaced in the rhyming word by a syllable with a different onset and vowel. That is, only the non-initial syllables rhyme.
2. In the case of two syllable words, the rhyme may be only in the vowel of the final syllable. This vowel is usually the tense high front unrounded vowel /i/.

3. The final consonant (if any) in the first syllable need not be identical to that of the rhyming word.

Type C is much less productive than A and B. Table 4 records the few examples that have been noted.

Table 4: Some English jingles of type C

<i>arsy versy</i>	<i>adv.</i> (1539)	<i>topsy turvy</i>	<i>adj.</i> (1528)
<i>hunky dory</i>	<i>adv.</i> (?20th c.)	<i>upsy daisy</i>	<i>interj.</i>
<i>jiggery pokery</i>	<i>n.</i> (1896)	<i>whippersnapper</i>	<i>n.</i> (1674)
<i>knickerbocker</i>	<i>n.</i> (19 th c.)		

I will touch only briefly on the following additional types, D-G.

2.1.2.4 Type D: bric-a-brac, chock-a-block, chug-a-lug, ding-a-ling, rub-a-dub

Similar to type B but the base and rhyme each consists of one syllable and begins with a consonant, and they are linked by an unstressed mid central vowel.

2.1.2.5 Type E: bumpety-bump, clickety-click, clickety-clack, yakkety-yak, gobbledy-gook

This type has a three syllable base with a one syllable rhyming word. The rhyme copies the first syllable of the base or differs only in the vowel.

2.1.2.6 Type F: spic and span, dribs and drabs, flotsam and jetsam

Similar to types B or C, but the base and rhyme are joined by *and*, so the expression is grammatically three words.

2.1.2.7 Type G: abra cadabra

Similar to type A but the base has two syllables and the rhyming word has three.

2.2 Grammar

Together the base and the rhyming word form a single grammatical word (a phrasal word) belonging to one or another major part of speech: noun, adverb, verb or adjective. Many are nouns, e.g., *riff raff*, *argy bargy*, *hanky panky*, *hodge podge*, *tittle tattle*. Many are adjectives, e.g., *arty farty*, *harum scarum*, *itsy bitsy*, *wishy washy*. Many are interjections, e.g., *ding dong*, *okey dokey*, *holy moly*, *upsy daisy*. Some are adverbs, e.g., *hippety hoppity*, *crick crack*, *ding dong*. A few are verbs, e.g., *dilly dally*, *zig zag*. A good many can belong to more than one part of

speech, e.g., *crick crack* (n., adv. & interj.), *fiddle faddle* (n. & interj.), *flip flop*, (v. & n.).

2.3 Semantics and symbolism

It is difficult to make overarching generalizations about the semantics of rhyming jingles. The most general tendency, almost a categorical rule, is that at least one of the phonological words has no meaning by itself. Often neither word has meaning by itself, as, for example, *helter skelter*, *hodge podge*, *holus bolus*, *jiggery pokery*, and *shilly shally*. (Some of these words are however derived by distorting existing words. Thus *holus* is a play on *whole*, and *shilly shally* is said to be a play on something like *will he or shall he?*, applied to an indecisive public figure). Otherwise, the meaningless element may be the base, as *dilly*, *hob*, *mish* and *razzle*, in *dilly dally*, *hob nob*, *mish mash*, and *razzle dazzle*, or (less often) the rhyme, as *tag*, *swash* and *jangle* in *rag tag*, *swish swash*, and *jingle jangle* (here *tag* and *jangle* are not used on their literal senses). In a fairly small minority of jingles both the words have meaning, e.g., *flip flop*, *nit wit* and *wiggle waggle*, although the meaning of the whole is seldom, if ever, fully predictable from the parts.

Particular sets of jingles share certain characteristic semantic features:

1. There is a class of onomatopoeic jingles that denote a sequence of sounds, in most cases sharp or resonating sounds, e.g., including *chitter chatter*, *crick crack*, *ding dong*, *flip flap*, *jingle jangle*, *splish splash*, *tick tock*. These jingles are all of type B, where the base and the rhyme differ in the stressed vowel. The sound symbolism here is perhaps that the successive sounds are not represented as exact repetitions but as varying slightly.
2. There is a set of adjectives and nouns that have in common the idea of disorderliness, e.g., *harum scarum*, *hodge podge*, *helter skelter*, *hurly burly*, *mish mash*, *pell mell*.
3. There is a class of jingles that refer to uneven or modulated movement, e.g., *zig zag*, *wiggle waggle*, *hippety hoppity*, *dibbly dobbly* and perhaps *flip flop*, *helter skelter* and *hurly burly*.
4. Certain adjectival and nominal jingles indicate a sort of weakness of character or behaviour. Some imply a lack of genuine substance or firmness, e.g., *airy fairy*, *arty farty*, *namby pamby*, *shilly shally*, *wishy washy*, while others denote stupidity (*nit wit*, *ning nong*) or people of low status or bad behaviour (*riff raff*, *hoi polloi*).
5. In a small class of nouns the jingle refers to speech or actions intended to deceive or obscure: *hocus pocus*, *mumbo jumbo*, *jiggery pokery*.

3 Kalam rhyming jingles

More than sixty rhyming jingles are recorded in the Kalam dictionary (Pawley and Bulmer 2003), and new jingles are occasionally coined.

3.1 Phonology

3.1.1 Background notes on Kalam phonology

Before I describe the phonological characteristics of Kalam jingles, the reader needs to become acquainted with certain features of the Kalam sound system and the orthography used here. The orthography is that used in the dictionary (Pawley and Bulmer 2003) and is a modified version of that devised by Biggs (1963) and Pawley (1966). The orthography is essentially phonemic, but because of the phonetic complexity of the Kalam sound system, the phonemic representation is not a straightforward indication of pronunciation. Kalam has 16 consonant phonemes as given in table 5.

Table 5: Kalam consonant phonemes

	bilabial	alveolar	palatal	velar
nasals	m	n	ɲ	ŋ
oral obstruents	p	t, s	c	k
prenasalised obstruents	b	d	j	g
retroflex lateral		ɭ		
semivowels	w		y	

Certain consonants are phonetically complex or have two or more distinct allophones, as indicated in table 6.

Table 6: Phonetic realizations of obstruents

	p	t	s	c	k	b	d	j	g
Initial	ϕ	t	s	tj	k	mb	nd	ɲtj	ŋg
Medial	β	r	s	tj	ɣ	mb	nd	ɲdj	ŋg
final	p, b, β	r	s	tj	k	mp	nt	ɲtj	ŋk

3.1.2 Vowels

There are five contrasting vowels, written /a e i o u/, which in most contexts are pronounced [a e i o u]. All five vowels are phonetically long and carry word stress.

Kalam also has predictable vowels, which are not written in the Pawley and Bulmer phonemic orthography. A short vowel is inserted between successive

consonants within a phonological word. The predictable vowel, which may be regarded as a slow transition between consonants, is usually a high central [ɨ], though after palatal consonants it is [i] and after /w/ it is [u]. In certain contexts it may be a short copy of the stressed vowel in the following syllable. It can be compared to the vowel that occurs before /l/ and /r/ in some English speaker's pronunciations of *film*, *athlete* and *farm*, or between /w/ and /n/ in some speakers' pronunciation of *known*, *shown*, *blown*. More generally, it can be compared to the predictable vowel that is standard between the final two consonants in *apple*, *fiddle*, *atom*, *horses* and *kisses* and between the verb-final consonant and *n* in *didn't*, *hadn't*, *hasn't* and *shouldn't*.

Words consisting of a consonant alone, e.g., *b* 'man', *d* 'hold', *g* 'do', *m* 'taro', also have a release vowel when spoken in isolation or followed by a word beginning with a consonant. When the #C# word is followed by a vowel, the release vowel is absent.

When two grammatical words are spoken as a single phonological word a transition vowel is often inserted at the grammatical word boundary, e.g., *yb* 'name' + *nad* 'your' is typically pronounced [yimbina.nt], not as [yimpna.nt].

Predictable vowels carry word stress if they occur in stressable positions (see 3.1.4).

3.1.3 Phonotactic patterns

Syllable structure in Kalam is maximally CVC, and minimally V. An initial syllable may consist of phonemic V, VC or CV or CVC, or of C (phonetically CV).

A word may consist of any combination of syllables, except that (a) no word can consist of a vowel alone and (b) no word can end in a, e or o. Thus a word may consist entirely of consonant-only syllables, having the shape C, CC, CCC, and so on. Words containing up to seven successive consonants have been recorded. Some examples of words consisting of consonants alone are *b* [mbə] 'man', *bg* [mbiŋk] 'cinders', *ccp* [tyityip] 'goshawk', *glmd* [ŋgɨimint] 'newly initiated boy', *wjblp* [wundyimbɨip] 'bird' (in the ritual "Pandanus language"), *ddbɭŋ* [ndindimbɨɭŋ] 'k.o. fern', *pkŋkŋŋ* [ɸiɣiniɣiniŋ] 'while I was hitting', and *tbtɔkl* [timbɨrindiɣil] 'pointed, trimmed'.

3.1.4 Stress placement

Word stress is predictable. Every phonological word has at least one word stress, and many have multiple stresses, in accordance with the following rules:

- i. Stress the final syllable of all words (including monosyllables).
- ii. Stress all full (non-predictable) vowels.
- iii. Stress an initial syllable, provided it is not followed by a stressed vowel.

3.1.5 *The three phonological types of Kalam rhyming jingles*

Rhyming jingles in Kalam exhibit the same general phonological characteristics as those defining English prototypical jingles listed in (1) above, with one exception: primary stress is not confined to the first syllable because in Kalam all phonemic vowels carry primary stress.

Furthermore, there is a remarkable parallelism between English and Kalam in the main phonological types. Three productive phonological types occur in Kalam. These correspond closely to types A-C in English and are also labeled A-C.

3.1.5.1 *Type A: gadal badal*

The onset to the first syllable of the rhyming word differs from that of the base. There are two subtypes A(i) and A(ii). In type A (i) the base begins with a consonant. That consonant is replaced in the rhyme by a different consonant or by a consonant cluster. In type A(ii) the base begins with a vowel. In the rhyme a consonant precedes that vowel, e.g., *ask mask* [asik + masik].

Besides the phonological constraints that are diagnostic of type A jingles, there are certain additional constraints or preferences that apply quite widely to this class:

1. The base never begins with a labial consonant.
2. The preference is for at least one voiced consonant to occur in the base.
3. The rhyme almost always begins with a bilabial, either *m* and *w*.
4. At least one consonant in the rhyme must be voiced (if it is a voiced obstruent it must contain a phonetic nasal).

It turns out that features (1)-(4) also apply to the other two major types of jingle in Kalam, except that (2) does not apply to type B.

It should be noted that most rhyming jingles are “verb adjuncts,” a word class which only occurs paired with a verb root to form a complex predicate. The adjunct precedes the verb. Table 7 gives examples of type A.

Table 7: Some Kalam jingles of type A

Subtype (i)	
<i>cegi wegi nη-</i>	‘keep looking back’ (<i>nη-</i> ‘perceive, know, see, look, etc., <i>cegi nη-</i> ‘look back’)
<i>cnaη mnaη g-</i>	‘wear strings of beads that cross the chest and back diagonally’
<i>coley boley ag-</i>	‘stammer, stutter, speak with a defect’ (<i>ag-</i> ‘say, make a sound’)
<i>gadal badal g-</i>	‘1. lay things criss-cross. 2. place things higgledy-piggledy, in a disorderly manner’
<i>gley wley g-</i>	rattle, clatter’
<i>gdey bdey g-</i>	‘be uprooted, topple over’
<i>glow wlow g-</i>	(G)syn.(K) <i>gley wley g-</i>
<i>godey bodey g-</i>	‘1. swing around like a propellor. 2. lurch and fall over, as a bird when shot on a branch’ (sense 2 possibly = <i>gdey bdey</i>)
<i>gsey bsey g-</i>	‘1. scurry along. 2. (of a group) make a lot of noise when going along’
<i>jnow bnow g-</i>	‘shake s.th.’
<i>joley boley (mnm) ag-</i>	‘stammer, stutter, speak with a defect’ syn. <i>coley boley</i>
<i>kopay mopay g-</i>	‘(of a devastating storm) blow, rage’
<i>smay wmay g-</i>	‘be dizzy’
<i>smeη kmeη g-</i>	= <i>someη komeη g-</i> ‘swing back and forth (e.g., holding vines)’
Subtype (ii)	
<i>adk madk g-</i>	‘turn s.th. over, reverse s.th.’
<i>ask mask g-</i>	‘avoid or prohibit (taboo) s.th., because of ritual restrictions’

3.1.5.2 Type B: *ñugl ñagl*

The first vowel changes in the rhyming word. There are certain additional constraints that apply quite widely to type B jingles:

1. The base begins with a consonant other than a bilabial.
2. Unlike English, the first vowel in the Kalam base is not restricted to /i/. There is, however, a preference for a high vowel to lower vowel sequence (the first vowel in the rhyme is usually /a/). Put another way, the shift is from a less resonant to a more resonant vowel.

Table 8 gives examples of type B.⁵

Table 8: Some Kalam jingles of type B

<i>gigu ag-</i>	‘make successive sharp resonating sounds: rattle, ring, jingle, tap, knock’
<i>gtij gtoŋ g-</i>	‘make a din or racket’
<i>guñm gañm g-</i>	‘make curative magic with the herb <i>guñm</i> ’
<i>gutgat g-</i>	‘1. be sodden, soggy, 2. be oily, greasy’
<i>nuwsn nawsn tk-</i>	‘clean the face thoroughly with leaves or cloth’ syn. <i>nawsn tk-</i>
<i>kalkol g-</i>	‘1. (of string) be tangled. 2 (of surface) be smeared’
<i>ñugl ñagl ag-</i>	‘resound, of the evening chorus of insects, frogs, etc. in the grasslands’
<i>ygl wgl tb-</i>	‘be a clear day’
<i>ygn wgn ag-</i>	‘keep repeating oneself, go on and on’

3.1.5.3 Type C: *kosi masi*

The syllable of the rhyme differs from the first syllable of the base both in the first consonant and the first vowel phoneme (if any). (Bear in mind that in word-internal phonemic CC clusters a short predictable vowel separates the two consonants.) The constraints (1)-(4) that apply to type A also apply to type C and are repeated here for convenience:

1. The base never begins with a labial consonant.
2. The rhyme almost always begins with a bilabial, *b*, *m* or *w*.
3. At least one consonant in the rhyme must be voiced (if it is a voiced obstruent it must contain a phonetic nasal).
4. The preference is for at least one voiced consonant to occur in the base. There are few exceptions, e.g., *kopay mopay, kosi masi*.

In the case of type C jingles, there is one exception to constraint (2), namely, *kosb asb* [kosimp + asimp], but here it is noteworthy that the final element of the base is a prenasalised bilabial stop [mb].

There is an additional strong preference in type C, namely:

⁵A jingle such as *ygl wgl* or *ygn wgn*, whose initial elements are written here as /w/ and /y/, may be treated either as type A, B, or C, depending on the analysis of the initial element. In word initial position, /w/ and /y/ are realized as [wu] and [yi], respectively. Thus *ygl wgl* is pronounced [yɪngilwungil]. One can treat [yi] and [wu] as vowels /i/ and /u/ with predictable semi-vowel onsets or as consonants /y/ and /w/ with predictable vowel release. In some phonological processes /y/ and /w/ pattern like consonants. In the case of rhyming jingles it probably makes more sense to treat initial [wu] and [yi] as realizing vowels /u/ and /i/ or as realizing a CV sequence /wu/ and /yi/.

5. The first syllable in the rhyme is more resonant than that of the base. In most cases the increased resonance is carried by the vowel. If the first syllable of the base is CV, the vowel is always a mid or high vowel, never /a/. The corresponding vowel in the rhyme is almost always /a/. In the few cases where the base begins with a vowel this vowel is /a/ but the corresponding syllable in the rhyme has as its onset a bilabial resonant /n/ or /w/ and its nucleus is either /a/ or /o/.

Table 9 gives examples of type C.

Table 9: Some Kalam jingles of type C

Subtype (i). Base begins with a consonant	
<i>cckol mackol g-</i>	'1. twist s.th. over and over. 2. (bird) keep swerving, twisting and turning to avoid a pursuer (<i>cckol g-</i> , to twist s.th.)'
<i>gogeb mageb g-</i>	'be twisted, crooked'
<i>gotmat g-</i>	'shake the head from side to side'
<i>guskol maskol g-</i>	'make a mess, scatter things everywhere'
<i>jspok maspok g- = jspk maspk g -</i>	'crush, break into small pieces'
<i>kosb asb g-</i>	'dribble or foam at the mouth'
<i>kosi masi g-</i>	'1. be stacked, laid one on top of another. 2. stack things. cf. <i>kosi g-</i> be stacked'
<i>kocmac g-</i>	'crush or screwup (in the hand)'
<i>kluk malk asɲ mosɲ g- syn. kluk mask g-</i>	'become ritually contaminated by killing a game mammal, dog or cassowary'
<i>lñu mañu g-</i>	'feel uncomfortable (of the skin)'
<i>wlk malk g-</i>	'become ritually contaminated by crossing the path of someone who is contaminated'
<i>ygl wgl tb-</i>	'be a clear day'
<i>ygn wgn ag-</i>	'keep repeating oneself, go on and on'
<i>ytuk matk g-</i>	'pay no heed, ignore advice'
Subtype (ii). Base begins with a vowel	
<i>ask mosk g-</i>	'avoid, prohibit s.th.'
<i>asɲ mosɲ g-</i>	'be ritually contaminated'
<i>ykmak g-</i>	'follow a winding course'
<i>yswas g-</i>	'sulk, be in a bad mood'

Jingles of types A(i), B, and C are numerous in Kalam but there are only a few examples of type A(ii).

3.1.6 Other kinds of rhyming expressions

In Kalam, as in English, there are other sorts of rhyming expressions that do not conform to the canonical pattern of rhyming jingles.

3.1.6.1 Type D

The base is a reduplicated form consisting of identical CVC syllables. The rhyme is identical except that the vowel differs from that of the base. That is, base and rhyming word show consonant rhyme.

<i>becbec bacbac</i>	‘headdress circlets (of possum fur, etc.)’
<i>tubtub toktok</i>	‘small portable possessions, one’s knick-knacks’
<i>tubtub towtow</i>	‘resounding, of axes in the distance’

3.1.6.2 Type E

The base is a two syllable form CVCVC with non-identical vowels. Base and rhyme show full consonant rhyme, and rhyme in one of the two vowels.

<i>kuyan kuyon g-</i>	‘go up and down, fluctuate in condition’
<i>kodaŋ kodoŋ g-</i>	‘move back and forth, hither and thither’

3.2 Grammar

Almost all Kalam jingles belong to one of two major parts of speech: verb adjuncts and nouns.

3.2.1 Verb adjuncts

About 75 per cent of jingles are verb adjuncts. Verb adjuncts are an open class of non-inflecting roots or bases that occur only (or usually) before a verb, forming a complex predicate. The verb that most often partners these verb adjuncts is *g-* ‘do, make, happen’, but various other verbs also take verb adjuncts, such as *ag-* ‘say, make sound’, *ay-* ‘put, become’, *ŋŋ-* ‘see, look, know’, and *tk-* ‘sever’. Jingles belonging to the verb adjunct class were listed in tables 7-9, together with the verb root that is their usual partner.

3.2.2 Nouns

The following is a fairly complete list of recorded rhyming jingles that are nouns.

3.2.2.1 Type A

<i>dagol bagol</i>	‘kind of edible mushroom (<i>bag</i>) taxon’
<i>kawel mawel</i>	‘enemy’ (<i>kawel</i> ‘enemy’)
<i>slom dlom</i>	‘runny mucus’ (<i>slom</i> ‘mucus’)
<i>yala wala (mnm)</i>	‘mixed language’ (<i>mnm</i> ‘language’)

3.2.2.2 Type B

<i>gup-ss gap-ss</i>	‘dew’ (cf. <i>ss</i> ‘urine’)
<i>kitañ poptañ</i>	‘kind of groundsel-like weed’
<i>nugsum nagsum</i>	‘kind of vine’

3.2.2.3 Type C

<i>bglaj kawljaj</i>	‘dark red clouds at dawn/dusk’
<i>kuli pali</i>	‘type of beads worn across the chest’
<i>ñugog pagog</i>	‘Grey Wagtail, a bird that dives into streams’
<i>todi madi</i>	‘generic for unfamiliar birds resembling Whistlers’
<i>yukab aykab</i>	‘fine spray rising from a waterfall’

3.2.3 Adjectives

Although the class of adjectives includes many fully reduplicated forms, only one adjectival rhyming jingle has been recorded—*tmey wmey* ‘bad’ was given as an example of a non-standard usage that some boys made up as a word-play variant of the standard adjective *tmey* ‘bad’.

3.2.4 Verb series

Only one jingle made up of a series of verb roots has been recorded:

<i>kluk malk g-</i>	‘become ritually contaminated by killing a game mammal etc.’ (<i>kluk-</i> ‘(of a ritually contaminated person) pollute s.o. by contact’, <i>malk-</i> ‘cross-cross, interlace, twist together’, <i>g-</i> ‘do’)
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There are however several other cases where the base is a verb root and the rhyme is a verb adjunct, e.g., *adk madk (g-)*, *ask mask g-*.

3.3 Semantics and symbolism

A very few jingles are onomatopoeic as given in table 10.

Table 10: Onomatopoeic jingles

<i>gigu ag-</i>	‘make successive sharp resonating sounds: rattle, ring, jingle, tap, knock’
<i>gley wley g-</i>	‘rattle, clatter’
<i>gtiŋ gtoŋ g-</i>	‘make a din or racket’
<i>ñugl ñagl ag-</i>	‘resound, of the evening chorus of insects, frogs, etc. in the grasslands’ (Ti dialect, = <i>ñugi ñagi</i> in Etp dialect)
<i>tubtub towtow ag-</i>	‘resound, ring out, thud, of the distant sound of axes chopping trees’

Some others are sound symbolic in other ways. It can be argued that in many jingles the sound symbolism comes from a combination of reduplication, indicating multiple movements or entities, and change in the first syllable of the rhyme, indicating irregular manner of movement (table 11) or abrupt change in position (table 12).

Table 11: Jingles of irregular manner of movement or change in direction

<i>adk madk g-</i>	‘turn sth. over, reverse sth.’
<i>cegi wegi nŋ-</i>	‘keep looking back’ (<i>nŋ-</i> ‘perceive, see, look’, etc., <i>cegi nŋ-</i> ‘look back’)
<i>cnarŋ mnarŋ g-</i>	‘wear strings of beads diagonally cross the chest and back’
<i>gadal badal g-</i>	‘1. lay things criss-cross. 2. place things higgledy-piggledy, in a disorderly manner’
<i>gdey bdey g-</i>	‘be uprooted, topple over’
<i>cckol mackol g-</i>	‘1. twist s.th. over and over. 2. (bird) keep swerving, twisting and turning to avoid a pursuer’ (<i>cckol g-</i> ‘to twist s.th.’)
<i>gogeb mageb g-</i>	‘be twisted, crooked’
<i>ykmak g-</i>	‘follow a winding course’
<i>godey bodey g-</i>	‘1. swing around like a propellor. 2. lurch and fall over, as a bird when shot on a branch’ (sense 2 possibly = <i>gdey bdey</i>)
<i>gsey bsey g-</i>	‘scurry along’
<i>jnow bnow g-</i>	‘shake s.th.’
<i>kopay mopay g-</i>	‘(of a devastating storm) blow, rage’
<i>smay wmay g-</i>	‘be dizzy’
<i>smeŋ kmeŋ g-</i> , = <i>someŋ komeŋ g-</i>	‘swing back and forth (e.g., holding vines)’

Table 12: Jingles indicating disorderliness and breaking

<i>guskol maskol g-</i>	‘make a mess, scatter things everywhere’
<i>jspok maspok g-</i> , = <i>jspk maspk g-</i>	‘crush, break into small pieces’
<i>kocmac g-</i>	‘crush or screw up (in the hand)’
<i>coley boley ag-</i>	‘stammer, stutter, speak with a defect’ (i.e., “broken speech” (<i>ag-</i> ‘say, make a sound’))
<i>joley boley (mnm) ag-</i>	‘stammer, stutter, speak with a defect’ syn. <i>coley boley</i>

4 Are rhyming jingles universal? A brief note on other Trans New Guinea languages and other language families

As dictionaries exist for scarcely five percent of the languages in the Trans New Guinea (TNG) family, anyone trying to survey the distribution of lexical types in this family is severely handicapped. However, a cursory survey indicates that rhyming jingles occur in a number of languages across subgroups that are genealogically diverse and (in some cases) geographically widely separated, e.g., Korafe of the Binandere group (Cindy Farr, p.c.), Kâte (Flierl and Strauss 1977) and Selepet (McElhanon and McElhanon 1970) of the Finisterre-Huon group, Koromu of the Madang group (Carol Priestley, pc), Ku Waru of the Chimbu-Wahgi group (Alan Rumsey, pc), Kewa of the Engan group (Karl Franklin, pc), and Grand Dani of the Dani group (Province of Papua, Indonesia). They are absent or very rare in some TNG languages, e.g., Apali (aka Emerum) of the South Adelbert branch of the Madang group (Martha Wade, pc).

Such a wide distribution is consistent with the hypothesis that rhyming jingles were present in Proto TNG. However, other possibilities must be considered, namely, (a) areal diffusion, and (b) parallel development. If rhyming jingles turn out to be a near universal, it will be hard to rule out (b).

Rhyming jingles (of one or more types) abound in many languages of mainland SE Asia, including Thai and Lao (Chapman 1995), Austro-Asiatic languages such as Vietnamese (Nguyen 1997:47), Mlabri of N. Thailand (Rischel 1995), and the Hmong languages of South China (Paul Sidwell, pc). They occur in Sinhalese (D. Chandralal, pc) and in at least some Malayo-Polynesian languages of Indonesia (Mark Donohue, pc).

Although rhyming jingles occur in many language groups and regions of the world, it seems they are absent from some. For example, jingles are common in Germanic languages, but it seems they are virtually absent in French. They appear to be absent in Australian languages. And although sub-Saharan African languages abound in ideophones, none of the many descriptions in the collection edited by Voeltz and Kiliam-Hatz (2004) mention rhyming jingles.

Spotty though the distributional data are, we can conclude that rhyming jingles are not universal in the sense of being present in every language, but have arisen independently in many different languages. It follows that they must reflect certain universal properties of the human mind which apply to the processing of sounds and to the pairing of sounds with meaning.

5 What do rhyming jingles tell us about the psychic unity of Mankind?

Can we draw any conclusions more specific than those given in the preceding paragraph? Why have rhyming jingles been invented independently by many different speech communities?

An obvious first observation is that there is a sense of fun associated with them. They are a form of word play. But what makes jingles fun? The key notions, perhaps, are repetition, rhythm and rhyme, mutation, nonsense and absurdity. No doubt sound symbolism is sometimes in there too, but as this term covers a wide range of associations and is in effect a cover term for some of the factors we are considering, it is too general to be a very useful explanatory notion.

Rhyming jingles are word internal verse: at once reduplication and rhyme. The two phonological words are (at least in the case of prototypical jingles) full reduplications, matching in the number and the form of syllables and in prosodic structure, except that in the first syllable the match is imperfect. This reduplication gives the words a rhythmic, musical effect, reflected in the name “jingle.”

The significance of rhyme is that it involves a mutation, a small alteration in the reduplication, and as such it draws our attention to the form of the words being used. Like rhyme in general, the mutations in jingles are highly patterned and familiar, but because they are word-internal mutations, the rhyme is more immediate, and less subtle, more obviously playful, than the effect of rhyme in verse. Heightening the sense of playfulness, and adding a tinge of absurdity, is the fact that one or both of the phonological words is often a nonsense word.

The main phonological types of rhyming jingles, A, B and C, are very similar in English and Kalam. That is to say, the same kinds of alternations between base and rhyme occur: the rhyme may show a change in the first consonant, or in the first vowel, or, less commonly, in the entire first syllable. There are also more particular similarities in the properties of the variable consonants or vowels. In Kalam, it seems that the principle of weaker to stronger, usually an increase in resonance, applies to the progression from base to rhyme in all three types. That is to say, the variable consonant or vowel in the rhyme is generally more resonant than the corresponding segment in the base. In English, this principle clearly applies to type B jingles. However, it is not obvious that it applies consistently to types A and C. In type A it does seem to apply to bases whose onset is /h/ or a voiceless fricative.

All in all, rhyming jingles tell us quite a bit about how people the world over perceive and manipulate patterns of sound. They recognize rhyming and non-rhyming syllables. They manipulate words so that they match in prosodic features. They manipulate syllable onsets to create rhymes. They manipulate individual consonant and vowel phones according to distinctive acoustic features. And people find it pleasurable to play these phonological games.

The capacity to perform and enjoy these creative uses of sound patterns presumably goes back to quite an early stage in the evolution of human

language. The development of this capacity must have been part and parcel of the development of the properties of phonological systems that are shared by all modern human languages.

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A Preliminary Analysis of East Kewa Tone

Malcolm Ross

ABSTRACT

This paper provides a preliminary analysis of the tone system in East Kewa. The domain of tone in East Kewa is the morpheme, but like other New Guinea Highlands languages tone sandhi applies such that the tone of each morpheme affects the tone of the following morpheme. Like languages elsewhere in the world, East Kewa nouns display a larger paradigm of tone choices than do its verb roots. Verb words, however, are made up of a verb root and a desinence, each with their own tone, and the combination of the two tones brings complications of its own.

1 Introduction

These notes are the beginnings of a description of tone in East Kewa (Engan family, Trans New Guinea, located in the Southern Highlands Province of Papua New Guinea). This preliminary analysis would have been more difficult, had it not been helped on its way by the account of tone in West Kewa by Karl and Joice Franklin (Franklin 1971, Franklin and Franklin 1962, 1978), but there are apparently quite complex differences of detail between the tone systems of the two dialects and no attempt is made here to say anything about these differences.¹

Mark Donohue (1997) divides New Guinea tone systems into three broad types, each rather diverse and divided from each other only by fuzzy boundaries:

1. *syllable-level tone*: the system “assign[s] a separate tone to each syllable in a word”;
2. *word-level tone*: “the domain of each tone is the word as a whole”;

¹It is a pleasure to offer this paper in honour of Karl Franklin, whom I admire both as a scholar and as a brother.

3. *pitch accent*: “there is one simply designated syllable that determines the shape of the pitch pattern on the rest of the word.”

On this categorisation East Kewa is a word tone language, although, as noted in §5, this is something of an oversimplification. In this respect it seems to be fairly typical of Papua New Guinea Highlands languages of the Trans New Guinea family (Ross 2005).

In the analysis of East Kewa tone a distinction between lexical tone (i.e., word tone) and utterance tone is necessary. Lexical tone is the tone melody which a lexical item bears in the lexicon. Utterance tone consists of the tones which occur in the utterance as a result of tone-altering rules that apply to lexical items in context. A full description of utterance tone would also include the contribution of intonation.

The preliminary and partial analysis presented below is based on elicited data from a single informant, Apoi Yarapea of Mugumapu village, who holds a Ph.D. in linguistics and also helped to establish the tonal contrasts and to categorise the data. The recorded items were analysed with the help of the software application Praat.

Two systems are used to represent tone in this paper. Phonemic lexical tones are usually written as H (high) and L (low). M is used for phonetic mid tone in certain cases where H and L are neutralised. High tone is also written with an acute accent, low tone with no accent. In general, H, L and M are used to represent tone patterns in the abstract, and the acute accent is used orthographically. No attempt is made to represent lexical and utterance tone differently, as it is generally clear from context which is intended.

2 Non-tonal phonological basics

2.1 The phonological word

A phonological word consists of a simple or compound lexical word plus any enclitics (1).

- (1) a. né=me (FREE:1SG=ERG) ‘I’
 b. sú ‘ground’ + yaa ‘sky’ < súyaa ‘earth and sky’

2.2 Interaction of prosody and vowel length

The minimal word is a monosyllable of two moras. In a curious asymmetry, there are five underlyingly monomoraic vowels /i e a o u/ and one invariably bimoraic vowel /aa/. However, when a phonological word is monosyllabic, its vowel spans two moras, and the distinction in length between /i e a o u/ and /aa/ is neutralised.

Bimoraic /aa/ is always low central, and is lower than /a/ when the latter is lengthened in a monosyllable.

A long vowel is written as a sequence of two like vowels. This allows a ‘contour’ tone, i.e., HL or LH, to be written using only the acute accent. Bimoraic /aa/ and lengthened /a/ are not distinguished orthographically, as more work is needed to check the distinction between them in individual items.

3 Tones and their manifestation

3.1 Tone and the phonological word

It is helpful to distinguish between a *tone melody*, whose domain is the phonological word, and a *tone*, whose domain is the syllable. Thus *kódo* ‘scar’ has an HL melody consisting of two tones, H on the first syllable, L on the second. In a monosyllable, both tones occur in sequence on the single phonetically lengthened vowel: *yáα* ‘bird’. In a trisyllable, on the other hand, the HL melody is spread across the three syllables. In *léмого* ‘pupil of eye’ the first syllable has H tone, the last L, whilst the middle syllable is usually M.

The Franklins suggest that West Kewa has four tone melodies, H, L, HL, and LH. The HL and LH melodies are imposed on the single syllable of a monosyllable and across the syllables of a polysyllabic phonological word. This analysis works well for East Kewa if it is restricted to root forms, but not when it is applied to verb + desinence combinations, each of which is a phonological word, since some such combinations in verb class 2 have an LHL melody.

3.2 Tone cues

The hearer identifies H and L tones from pitch movement cues. Utterance-initial tone is generally neutralised to mid tone, but in East Kewa, neutralisation of H is sometimes only at the beginning of a syllable, so that there is a distinction between *ipú* ‘3SG free pronoun’ and *ípú* ‘3DL free pronoun’.² The first syllable of *ipú* begins at mid-level but rises to H, whereas the first syllable of *ípú* does not rise.³

The initial mid-level sets a benchmark pitch. Thus when one of the adverbs *(k)abala* ‘yesterday’ or *(k)ábálá* ‘before, first’,⁴ occurs at the beginning of an utterance, the former is roughly MML, the latter MMH.

I write “roughly” in the previous paragraph for two reasons. First, a phonological word is stressed on its first syllable, with secondary stress on alternate following syllables.⁵ The tone on intervening unstressed syllables

²In West Kewa, utterance-initial syllables are mid tone (Franklin and Franklin 1978:18, 28), and there is no distinction between the pronouns, where both are *nipú* (Franklin 1971:34).

³Where items differing only in tone melody are elicited in contrasting pairs, there also seem to be instances in table 2 where initial H tone is not neutralised. However, there is one instance where elicited *ki* hand (toneless) seems to have initial H, and it may be that utterance-initial H (as opposed to MH over the first syllable) also represents neutralization.

⁴Forms with and without initial *k*- occur. The difference appears to be dialectal.

⁵There are exceptions to this generalisation, at least among verbs, but I do not have enough relevant data to sort them out.

appears to be indeterminate. Second, a variety of local phonetic factors influence syllable pitch, among them syllable-initial consonants.⁶

Once a benchmark pitch is set, the cue for pitch recognition is relative pitch. Table 1 shows approximate pitch relativities. Because these are relativities, a long straight line simply says that both syllables have the same pitch: it says nothing about absolute level.

Table 1: Pitch cues for tones

	within a word	Across a word boundary	utterance finally
HH	___ or _—	___ or _— or —_	___
HL	—_	—_	—_
LL	___	___	—_
LH	_—	_—	n/a

Certain comments and generalizations can be made about table 1:

1. A sequence of like tones has roughly the same pitch, with three exceptions:
 - a. in an HH sequence,
 - i. word-internally the second H may be higher than the first; this seems to be an instance of upstep, i.e., an additional way of signaling H;
 - ii. across a word boundary one H may be higher than the other: the higher H seems to mark focus (cf. 6);
 - b. in an utterance-final LL sequence the second L is lower than the first and functions as a boundary tone.
2. There are two degrees of fall, which are in contrast only utterance-finally, distinguishing HL from LL; but the distinction is normally redundant since the height of the first tone of the sequence has been established and the second is L regardless of the degree of fall.
3. There is no ambiguity in the system provided that the height of the first tone of the sequence has been established (e.g., within a word HH and LH may both be marked by a rise, but its function in both cases is to mark the second tone as H).
4. Utterance-final LH does not occur in my data set.

Example (2) contains a sequence of H tones across word boundaries, and *máá* ‘taro’ is higher than both the preceding and the following high-tone syllables. As indicated in the generalization (1a–ii), this is apparently because the speaker treats it as the focus item of the utterance. If this is so, then it is an instance of an intonation feature superimposed on lexical tone.

⁶For example, the Franklins comment regarding West Kewa that in an HH or LL sequence across either /p/ [ɸ] or /r/ [r] the first tone displays a slight rise–fall (Franklin and Franklin 1978:18).

- (2) kábólá mǎá áda-wa
 First taro see-3S.NRPAST
 ‘First I saw the taro.’

Citation-form utterances (both declarative and polar-interrogative) display falling pitch movement, i.e., the benchmark around which H and L vary falls, especially after the focus. This appears to represent declination, marking the final part of an intonation unit. If the utterance is broken into two parts as in (3), where there is a pause between subject + ERG and the predicate, then *póná-ámé* begins at a somewhat higher pitch than it would otherwise, representing a the start of a new intonation unit.

- (3) ímú = mí póná-ámé
 FREE:3P = ERG cut-3P.NRPAST
 ‘They cut (it).’

Pitch rises and falls between tones are generally manifested phonetically within the second of a sequence of two unlike tones. Thus on an LH sequence, the pitch rise occurs in the course of the syllable on which H occurs (or on an intervening unstressed syllable). Towards the end of an utterance, however, a HL sequence may show an anticipatory drop during the syllable on which H falls. Systemically this is perhaps attributable to intonation rather than to tone.⁷ Table 1 shows a curious asymmetry in the interaction between tone and intonation. Most of my examples have apparently declarative intonation. One would expect a final L boundary tone. This occurs in utterance-final HL and LL sequences (LL sequences displaying a fall which does not occur elsewhere), but it does *not* occur in utterance-final HH sequences. On the other hand, focus may be marked by an additional rise in HH sequences, as shown in (2), but apparently not in any sequence which includes a low tone.⁸

4 Lexical tone-melody classes

The tone-melody classes of nouns, personal pronouns and verbs are considered in the three subsections below.

⁷The Franklins make the following generalisations involving mid tone, but these follow from the description here, which does not require M tone other than utterance-initially since tones are cued by relative pitch differences:

1. a phonemic H between two L is mid, i.e., LHL < [LML].
2. a phonemic L between two H is mid, i.e., HLH < [HMH].
3. a syllable between an H and L is mid, i.e., HXL < [HML].

⁸A huge amount of work remains to be done on Kewa intonation. For example, citation forms of yes–no questions show the same tones as their declarative counterparts, but with an increased pitch range.

4.1 Tone-melody classes of nouns

Table 2 displays the nouns for which I have adequate tonal data. They are arranged vertically in five tone-melody classes numbered 0, 1, 2, 3 and 4. The table has eight columns, the fourth to the eighth showing the tone melodies manifested by each item in five different contexts. Some items show unexplained discrepancies; these may reflect incorrect analysis or glitches in elicitation.

The fourth and fifth columns of table 2 show respectively the melodies of lone citation forms and of instances occurring initially in longer utterances. The two melodies match except in the case of class 1, where the citation melody is M, the utterance-initial melody MH. This is unsurprising, since both contexts are utterance-initial, but the lone citation forms make up the whole utterance and are thus also utterance-final. Class 1 nouns have a floating H tone (see below) which docks on the final syllable if the word occurs at the end of an intonation unit.

I stated above that tone on utterance-initial syllables is neutralised to M. However, certain nouns in table 2 display HL in the fourth and/or fifth column where ML is expected. It is tempting to dismiss this as noise and to label all examples as ML, but this would not be true to the data, and it is too early in the process of analysis to be sure that the contrast is not significant. The fact that ML and HL both occur in classes 0 and 4 suggests that there is no contrast, but the consistent difference between *ki* HL ‘hand’ and *ki* ML ‘key’ in elicited sentence pairs suggests that there is. However, elicitation of *ki* ‘hand’ and *ki* ‘key’ outside of paired sentences does not obviously display this contrast, and it may result from the fact that ‘hand’ was elicited first in each pair, and the lower onset of ‘key’ reflects declination.

I have recorded citation forms, including probable minimal tonal pairs, for many more nouns than are shown in table 2, but the neutralisation of citation forms renders these partially unusable. Classes 0, 3 and 4 all have ML (or HL) as citation forms. Only classes 1 and 2 are recognisable from the citation form alone (as M and MH respectively).

Table 2: Tone-melody classes of nouns

Class	noun	gloss	citation melody	utterance-initial melody	utterance-medial melody /H ₋	utterance-medial melody /L ₋	verb-initial melody
0	aa	'man'	ML	ML	H	L	assim
	ki	'hand'	ML	HL	H	L	assim
	maa	'taro'	ML	ML	H	L	assim
	pada	'room'	ML	ML	H	L	assim
1	aa	'leg'	M	MH	HL	L	H?
	adasa	'game meat'	M	MH	HL	L	H
	ada	'house'	ML	MH	HL	L	H
	kapaa	'egg'	M	MH ^a	H(L) ^b	L	H
	mapua	'dream'	M	MH ^a	HL	L	H
	karia	'bamboo cane'	M	MH	HL	L	H
	maa	'neck'	M	MH	HL	L	H
	taga	'ashes'	M	M(H)	H(L) ^b	L	H
	rogoma	'clay'	?	MH	H(L) ^b	L(H)	H
	rapalo	'arrow'	?	MH	HL	LH	H
	papa	'kin term'	M	MH	HL	L(H)	H? ^c
	tapa	'platform'	M	MH	HL	LH	assim
	yasa	'mushroom'	ML	ML	HL	LH	assim
2	e	'garden'	MH	MH	LH	LH	assim (= H)
	kaai	'banana'	MH	MH	LH	LH	assim (= H)
	kau	'lizard'	MH	MH	LH	LH	assim (= H)
	puti	'mushroom type'	MH	MH	LH	LH	assim (= H)
	popo	'steam'	MH	MH	LH	LH	assim (= H)
	yasa	'song'	MH	MH	LH	LH	assim (= H)
3	kabu	'digging stick'	ML	ML	LH	HL	assim
4	yaa	'bird'	ML	ML	HL	HL	assim (= L)
	ki	'key'	HL	ML	HL	HL	assim (= L)
	kau	'owl'	HL	HL	HL	HL	assim (= L)
	kodo	'scar'	ML	ML	HL	HL	assim (= L)
	lemogo	'pupil of eye'	MLL		HL	HL	assim (= L)

^aUtterance-initial there is a ML fall on second syllable, but the following verb is H. The fall seems to represent an intonation unit boundary (declination), as there is a pause before the verb.

^bL is imperceptible, perhaps because it merges with following H.

^cVerb-initial H is sufficiently high to contrast with the syllables that follow it, but it is lower than final

If a word is utterance-medial, its tone melody in classes 0, 1 and 3 varies according to the final tone of the previous word. The sixth and seventh columns of table 2 show the tone melodies that occur when the word is preceded by, respectively, a high and a low tone. Where the second tone of HL or LH is parenthesised, this indicates that it is difficult to tell whether the tone is present or not.

In the elicitation frames (examples below) a noun is always followed by a verb. The eighth column shows the word-initial tone of a verb following each class of noun.⁹ Following a class 1 noun, the verb-initial tone is always high. In the other classes it assimilates to the final tone of the noun.

Table 3 summarises the tone classes displayed by the nouns listed in table 2 and discussed below. Each class, except class 0, is equated with the underlying

⁹I don't know whether the word-initial tone of a word other than a verb is affected in the same way.

tone melody indicated in the first and second columns. Class 0 is underlyingly toneless. The raised H of class 1 denotes a floating high tone.

Table 3: Summary of tone-melody classes of nouns (see table 2)

Class		citation melody	utterance-initial melody	utterance-medial melody /H_	utterance-medial melody /L_	verb-initial melody
0	toneless	ML	ML, HL	H	L	assim
1 = L ^H	low	M	MH	HL	L(H)	H
2 = LH	rising	MH	MH	LH	LH	assim (= H)
3 = H	high	ML	ML	LH	HL	assim
4 = HL	falling	ML, HL	ML, HL	HL	HL	assim (= L)

Examples of the five classes are:

- Class 0: *pada* (no tone) ‘room’
- Class 1: *yasa* (L^H) ‘mushroom’
- Class 2: *yasa* (LH) ‘song’
- Class 3: *kabu* (H) ‘digging stick’
- Class 4: *kodo* (HL) ‘scar’

The behaviour of the toneless class 0 *pada* ‘room’ is illustrated in (4). Both syllables of *pada* assume the final tone of the preceding word (and the first syllable of the following verb, *adawa* ‘I saw’, also assimilates to the final tone of *pada*).

(4) Class 0: *pada*

a. *ábálá pádá áda = wa*
 first room see-1S.NRPAST
 ‘I saw the room first.’

b. *abala pada ada = wa*
 yesterday room see-1S.NRPAST
 ‘I saw the room yesterday.’

In class 1 (= low), the underlying L melody remains after a preceding L tone, but becomes HL after a preceding H, i.e., the first tone agrees with the final tone of the preceding word, illustrated by *ada* ‘house’ in (5). However, as indicated in the first column, the underlying melody of this class is not simply L, but apparently L^H, i.e., there is a floating H tone. This H manifests itself in the utterance-initial melody MH and in the first tone of the following verb. It also occurs sporadically on the final syllable of the noun itself.¹⁰

¹⁰It is not yet clear whether this sporadic appearance is conditioned in some way.

(5) Class 1: *ada*

a. *ábálá* **úda** *úda = wa*
 first house see-1S.NRPAST
 'I saw the house first.'

b. *abala* **ada** *úda = wa*
 yesterday house see-1S.NRPAST
 'I saw the house yesterday.'

Examples (6) and (7), respectively, show how in classes 2 (LH) and 4 (HL) the underlying contour tone remains unaffected by the preceding tone. The LH tone is apparently resistant to perturbation in East Kewa in all contexts. The first syllable of the following verb again assimilates to the final tone of the noun, as in classes 0 and 3.

(6) Class 2: *kaai*

a. *ábálá* **kaaí** *úda = wa*
 first banana see-1S.NRPAST
 'I saw the banana first.'

b. *abala* **kaaí** *úda = wa*
 yesterday banana see-1S.NRPAST
 'I saw the banana yesterday.'

(7) Class 4: *kodo*

a. *ábálá* **kódo** *ada = wa*
 first scar see-1S.NRPAST
 'I saw the scar first.'

b. *abala* **kódo** *ada = wa*
 yesterday scar see-1S.NRPAST
 'I saw the scar yesterday.'

Class 3 (apparently high) has at present only one member, *kabu* 'digging stick' (8), and is therefore suspect. It is also suspect in terms of its tonal behaviour, as its word-initial tone is the *opposite* of the preceding trigger, LH after a preceding H tone, HL after a preceding L. This would, if correct, confound any claim that synchronic tone perturbation is simple assimilation. However, the following verb has the tone predicted by the tone of *ábálá/abala*, as in class 0.

(8) Class 3: *kabu*

a. *ábálá* **kabú** *áda = wa*
 first digging.stick see-1S.NRPAST
 'I saw the mushroom first.'

- b. abala **kábu** ada = wa
 yesterday digging.stick see-1S.NRPAST
 ‘I saw the digging stick yesterday.’

I have observed above that, just as the tone of a noun may be affected by the last tone of the previous word, so the first tone of the following verb usually matches (is usually assimilated to) the last tone of the preceding word. This is indicated by ‘assim’ in tables 2 and 3. The one class where assimilation does not occur is class 1. Here, the following verb always has initial H, attributed to the floating H tone of nouns in this class (9).

(9) Class 1: rapalo

- a. ábálá **rápalo** áda = wa
 first arrow see-1S.NRPAST
 ‘I saw the arrow first.’

- b. abala **rapalo** áda = wa
 yesterday arrow see-1S.NRPAST
 ‘I saw the arrow yesterday.’

There are two unexplained cases listed under class 1 in table 2, *tapa* ‘platform’ and *yasa* ‘mushroom’. They have class 1 behaviour but cause assimilation of the following tone (i.e., they seem to reflect an underlying L melody but with no floating H). They do not appear to be elicitation errors, and may prove to reflect yet another class of noun.

4.2 Personal pronouns

As I noted in the discussion of the tonal behaviour of nouns, the tone of (at least) the first syllable of a verb is determined by the preceding word. In many of the utterances I have elicited (and not infrequently in text), the preceding word is a personal pronoun. These are listed in table 4.

Table 4: Personal pronouns

person	SINGULAR	DUAL	PLURAL
1	né	sáá	náá
2	ne	ípi	ími
3	ipú	ípú	ímú

There are two tonal minimal pairs among the pronouns: *né* 1s vs. *ne* 2s, and *ipú* 3S vs. *ípú* 3D.

A personal pronoun subject is followed by the ‘ergative’ enclitic =*me* if the verb is transitive. The enclitic becomes =*mi* if the final vowel of the pronoun is /i/ or /u/, i.e., after *ipú*, *ípi*, *ípú*, *ími* or *ímú*. The enclitic is

lexically toneless and acquires the tone of the last syllable of the pronoun. Because the first, and sometimes also the second, syllable of an utterance-initial pronoun is neutralised to mid tone, it is sometimes only the tone of the ergative clitic which disambiguates the members of a tonal minimal pair. That is, *né=me* (1S=ERG) is manifested as *nemé*, and *ne=me* (2S=ERG) as *neme*.

There is a further complication with regard to *ípi* (2D) and *ími* (2P) to which I return in §4.3.

4.3 Tone-melody classes of verbs

Unlike nouns, verb words in East Kewa usually consist of a root and a desinence. This raises a question. Does a verb word have a single tone melody? Or do verb root and desinence have separate melodies which combine to form a compound melody across the verb word? The compound-melody alternative provides a simpler analysis, and I assume it in the description below, returning to a discussion of the two alternatives in §4.4, where melody classes of verbs are compared with those of nouns.

The analysis in this section is based on elicited paradigms with the near past and present progressive desinences shown in table 5. Two sets of desinences are shown for each tense. The second set in each case is used with verbs with a mono- or disyllabic root ending in /aa/. Note that trisyllabic roots in /aa/ like *pogolaa* ‘jump’ take the default desinences. Syllables marked with a grave accent are always L and never perturbed to H.

Table 5: Verbal desinences

person and number	NEAR PAST		PRESENT PROGRESSIVE	
	default	after -aa	default	after -aa
1S	-wa	-ripu	-lo	-to
2S	-e	-ripi	-le	-te
3S	-a	-ripa	-la	-ta
1D	-apa	-pa	-lepà	-tepà
2/3D	-ape	-pe	-lepè	-tepè
1P	-ama	-rima	-lemà	-temà
2/3P	-ame	-rimi	-lemè	-temè

Verb roots are set out in tone melody classes in table 6 in a format similar to that used for nouns in table 2. The three classes correspond in their tonal behaviour to noun melody classes 0, 1 and 2, except for the fact that verb root class 1 is simply L: it shows no sign of a floating H tone. Classes 0b, 1b and 2b are verb roots ending in /-aa/ which take the special desinence sets shown in table 5. The first six columns of table 6 correspond

with columns in table 2, with the important difference that the hyphen in the middle of the tone melodies in the fifth and sixth columns marks the boundary between root and desinence. Parentheses in the tone melodies of the desinences take account of the fact, seen in table 5, that some desinences have one syllable, others two. The melodies of disyllabic desinences include the parenthesised tones; the melodies of monosyllabic desinences exclude them.

Table 6: Tone-melody classes of verb roots and desinences

Class	verb	gloss	citation melody	utterance-medial melody/H ₋	utterance-medial melody /L ₋	FREE:2D/P
0a	pona	‘cut’	HL	HH-HH	LL-L(L)	L
	na	‘eat’	M	H-H(L)	L-L(L)	L
	epa	‘come’	HL	HH-H	LL-L	?
	la	‘speak’	HL	H-H	L-L	?
	tya	‘hit’	HL	H-H	L-L	?
0b	waraa	‘touch’	ML	HH-HL	LL-LL	L
1a	ada	‘see’	M	HL-L(L)	LL-L(L)	L
	ruma	‘climb up’	M	HL-L(L)	LL-L(L)	L
	kala	‘give’	M	HL-L	LL-L	?
	pea	‘do’	M	HL-L	LL-L	?
	ria	‘carry’	M	HL-L	LL-L	?
	koda	‘enter’	HL	HL-L	LL-L	?
1b	aa	‘stand’	M	HL-LL	L-LL	?
	pogolaa	‘jump’	M	HLL-LL	LLL-LL	H
	rumaa	‘share out’	ML	HL-L(L)	LL-L(L)	H
2a	rubaa	‘throw out’	ML	LH-(H)L	LH-(H)L	L
	reera	‘cry’	LH	LL-H	LH-H	?
2b	rogaa	‘tie’	M	LH-LL	LH-HL	?

The column headed ‘FREE:2D/P’ in table 6 makes reference to a feature for which I have no explanation. In table 4 above, the second person dual and plural free pronouns are shown as *ipi* and *imi* respectively. Because their second tone is L, this provides the contextual tone for the following word, which in (10a) is the class 1a verb *ruma* ‘climb’. Preceding certain verbs of class 1b, however, the tone melody of these pronouns shifts from HL to H, and they become *ípi* and *ímí*, inducing the tone pattern expected after a contextual H. This is illustrated in (10b), where the class 1b verb is *rúmaa* ‘share out’.

- (10) a. *ípi* = mi *ruma* = ape
 FREE:2D = ERG climb-2D.NRPAST
 ‘You two climbed (it).’

- b. ípí = mí rúmaa = pe
 FREE:2D = ERG shared-2D.NRPAST
 ‘You two shared (it).’

Table 7 is a summary of the tone classes displayed by the verbs listed in table 6.¹¹ There are several features in table 7 of which I am not yet able to give a coherent account. This is partly because I have not yet collected enough paradigms, partly because some have gaps because crucial disyllabic desinences have not been collected. The gaps are indicated by ‘?’ in table 6. This is important in the cases of class 0, which is apparently divided into two subclasses by the tonal behaviour of its desinences, and of class 2, where no pattern can yet be recognised in the tonal behaviour of desinences.

Table 7: Summary of tone-melody classes of verb roots and desinences (cf. table 6)

Class		citation melody	utterance-medial melody /H_	utterance-medial melody /L_	FREE: 2D/P
0a	toneless	HL	(H)H-HH, (H)H-H(L)	(L)L-L(L)	L, ?
0b			HH-HL	LL-LL	L
1a = L	low	M	HL-L(L)	LL-L(L)	L, ?
1b			HL-L(L)	LL-L(L)	H, ?
2a = LH	rising	LH	LH-(H)L	LH-(H)L	L, ?
2b			LH-LL	LH-HL	?

Table 7 also shows the default behaviour of desinences. Their first or only syllable is assimilated to the tone of the final root syllable, and their second syllable, if any, is low. This default behaviour resembles that of a class 1 (low) noun. However, there are two kinds of deviation from default behaviour.

Firstly, as noted in table 6, among the paradigms collected thus far just one class 0 verb, *pona* ‘cut’, assimilates both syllables of its desinences, except those with fixed L, to H if the root-final syllable is H. Contrast (11a), with an -HH desinence, with (11b), where the final desinence is one the tone of which always remains low (table 5).

- (11) a. ímú = mí póná-ámé
 FREE:3P = ERG cut-3P.NRPAST
 ‘They cut (it).’

¹¹Class 0 is the Franklins’ underlying H, Class 1 is their underlying L, Class 2 their underlying LH.

- b. ímú = mí póná-léme
 FREE:3P = ERG cut-3P.PRES
 ‘They are cutting (it).’

Note, however, that in other class 0 verbs for which relevant data have been collected a disyllabic desinence ends in a L tone as expected (see 13a).¹²

The second deviation from default (low) behaviour is that certain class 2 verbs do not assimilate the first or only syllable of a singular desinence to H when we might expect them to. Usually, the first syllable of a desinence has the same tone as the final syllable of the root, as in (12a), where *ná* ‘eat’ is a class 0 verb, but the class 2 verbs *ruba* ‘throw out’ and *rogaá* ‘tie’ take a desinence with L tone despite root-final H, as in (12b). The patterning here is not yet clear.

- (12) a. né = mé ná = wá
 FREE:IS = ERG eat-1S.NRPAST
 ‘I ate (it).’

- b. né = mé rubá = wa
 FREE:IS = ERG throw.out-1S.NRPAST
 ‘I threw (it) out.’

4.4 Comparing the tone-melody classes of nouns and verbs

I have assumed in §4.3 that verb root and desinence have separate melodies which combine to form a compound melody across the verb word, avoiding the alternative possibility that a verb word has a single tone melody. The description shows that with certain exceptions desinences have their own melody corresponding roughly to that of class 1 (L) nouns. However, the non-singular present progressive desinences in table 5 display a final L which defies perturbation. This pattern has no parallel in the tonal behaviours of nouns, but it appears to represent a desinence-specific tone melody.

If the available tone melodies of East Kewa are treated as a system, then there are also systemic grounds for analysing verb roots as having separate tone melodies. The tone-melody classes of nouns in table 3 and of verb roots in table 7 are numbered in the same way in order to facilitate comparison, and table 8 displays the two sets side by side. There are no verb classes 3 and 4, i.e., no classes corresponding to the high and falling classes of nouns. The missing classes correspond to the two noun classes which have a HL melody when the final syllable of the previous word is L. As a consequence all verbs have initial L when the preceding word ends in L.¹³

¹²The Franklins (1978: 35–37) treat the latter as a separate verb class (underlying HL), but its tonal assimilation is not parallel to that of nouns in HL.

¹³This apparent fact may be somehow related to the tonal behaviour of FREE:2D/P pronouns when they co-occur with (some?) Class 1b verbs (§4.3), but how they may be related is not clear.

Table 8: Comparison of tone-melody classes of nouns and verb roots

Class	underlying tone?	Utterance-medial melodies:			
		Noun classes		Verb classes	
		/H_	/L_	/H_	/L_
0	toneless	H	L	(H)H-HH, (H)H-H(L)	(L)L-L(L)
1	L	HL	L	HL-L(L)	LL-L(L)
2	LH	LH	LH	LH-(H)L	LH-(H)L
3	H	H	HL	—	—
4	HL	HL	HL	—	—

Although the parallel between noun and verb root classes is thus incomplete, it is more convincing that the parallel between noun melodies and whole verb words. This is because verb words of class 2 have an LHL tone melody, and three-tone melodies have not been found among nouns.¹⁴ Further, verb words with an HL melody display different mappings of tone to syllable. In class 0 we find HHL and HHH, as in *wáráá-rípa* in (13a), but in class 1 HLL and HLLL, as in *rúma-leme* in (13b).

- (13) a. ipú = mí wáráá-rípa
 FREE:3S = ERG touch-3S.NRPAST
 ‘S/he touched (it).’
- b. ímú = mí rúma-leme
 FREE:3P = ERG climb-3P.PRES
 ‘They are climbing (it).’

If these are both manifestations of a single HL melody, then a diacritic feature must be introduced into the analysis to account for the different mappings of the melody onto sequences of four syllables. If roots and desinences are understood each to have their own melody, this complication does not arise.

5 Conclusions

Perhaps the most obvious conclusion to be drawn about East Kewa tone is that there is much more to be learned. Phonologists will probably find my account unnecessarily conservative. This is partly a reflection of the paucity of my data and of a desire not to extrapolate to analytic decisions that might not apply to a larger data set, and partly a reflection of the fact that I am not a phonologist.

¹⁴There are also HLH examples in the Franklins’ materials.

Certain things seem clear, however. The domain of tone in East Kewa is not the word, but the morpheme. This is also true of other Trans New Guinea languages of the Highlands of Papua New Guinea, although there are substantial differences of detail between the tone system of, say, Fore and the tone system of East Kewa (Ross 2005). East Kewa (and other Highlands languages too) displays a quantitative difference between the paradigm of tones available to nouns and the paradigm available to verb roots. The paradigm of verb-root tones is smaller than the paradigm of noun tones, and this seems to reflect a tendency across those of the world's languages in which the tonal domain is the morpheme and in which the verb displays greater affixation than the noun (Larry Hyman, pers. comm., 6 November 2004). This tendency is also manifested in Niger-Congo languages and in Tokyo Japanese,¹⁵ and reflects the larger tendency for verbs to have larger paradigms than nouns (Rhodes 1987).

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¹⁵Tokyo Japanese is usually classified as a pitch-accent language (rather than a tone language), but, as Hyman (2006) argues, pitch accent languages do not form a coherent category. Tokyo Japanese can readily be analysed as a tone language in which the tonal domain is the morpheme, albeit with a tonal organisation quite different from that of Kewa.

18

Function Becomes Meaning: The Case of Nawatl *tla-*

David Tuggy

ABSTRACT

The Nawatl prefix *tla-* is one of a series of pronominal prefixes which indicate the person, number, and honorific status of a verbal object. Its basic function or meaning is to indicate a non-human object which, for one reason or another, is left unspecified. Non-specification is useful for a number of communicative purposes, some of them opposed to each other. For instance, it can be used to mark either an insignificant object or an object which is so obvious that it does not need to be specified. It can mark an object too holy to mention, or one too gross to mention.

In an impressive series of semantic extensions, *tla-* has come to designate a normal object, then a normal kind of action or process, or a general or widespread object, then a general action or process, and even a general subject. With such meanings it is sometimes used with intransitive verbs which do not accept other object prefixes. It also has come to function as a postpositional object, and as a nominal possessor.

In all of these morpho-semantic developments, specific cases which can be understood in more than one way are seen to play an important part, and meaning, usage and grammar clearly proceed hand-in-hand, each influencing the other.

1 Functional explanation

Scott DeLancey (1995, see also 1997) has claimed that a major difference between formalist and functionalist linguistics is that formalists don't really want to know "why?" about many phenomena where to functionalists that is the really interesting question. Perhaps it would be more accurate to suggest that the two schools differ in what kinds of answers to the question they find most interesting, where they expect to find them and thus where they prefer to look for them.

There are of course different kinds of formalist theories. In some older structuralists' view the question "Why?" does indeed seem to have been irrelevant. Thus Martin Joos (1957:v) represents Bloomfield's view as being that statement is all that is needed, and: "If the facts have been fully stated, it is perverse or childish to demand an explanation into the bargain." In the Chomskian tradition "explanatory adequacy" is an important concept (Chomsky 1964), but explanations tend to be sought wholly within the language system, particularly in the postulated hard-wiring of a black-box "language faculty" in the brain, and any phenomena that are not explainable in that way tend to be thought linguistically uninteresting.

Functionalists, DeLancey suggests, rather seek explanations in other areas. He speaks of two great engines of explanation which functionalists first look to: *motivation* and *diachrony*. Motivation is functionalism in the purest sense: language is (obviously enough) the activity of people trying to communicate with each other, and much of language can be explained from that fact. Grammar is a tool adapted to its use, and its form follows its function. The other explanatory engine beloved of functionalists is diachrony, which closely involves the ideas of automatization or entrenchment, and grammaticalization.

We can paraphrase by saying that the two major answers to the question "Why do we talk the way we do?" are (1) "It's useful" (motivation) and (2) "That's the way we've done it before" (diachrony).¹ Of course, it's useful to do it the way we've done it before, so diachrony itself is motivated. And we generally started doing it that way because it was useful, and that original usefulness generally continues on for some time, so motivation and diachrony are anything but contradictory to or exclusive of each other. Rather, diachrony should be seen as involving cycles of motivated changes followed by consolidation and habit-formation, after which the newly entrenched structure can become the basis for a new extension.

DeLancey suggests thinking of a language as a collection of tools and raw materials which one can use for communication. For a particular conversational or communicative purpose it is always possible to construct a new tool, but it is

¹A third answer, surprisingly relevant in many cases but awkward if not impossible of accommodation or expression in most theories, would be, (3) "Because it was fun." A fourth, again more relevant than most theories would allow, is (4) "By accident." Fun may well itself have some sort of usefulness (although such explanations of it tend to be no fun), and allowing a certain amount of slop (accidents) also serves a useful function.

difficult and costly. It is much handier to grab a preassembled tool off the rack, and use it, even if it was designed for something a little different. You use a Phillips screwdriver on a Torx screw, rather than building a Torx screwdriver from scratch. Or you may use something for a quite different purpose than it was originally designed for; using a screwdriver to pry a paint can open,² or to stick a hole in a carton.

A refinement of the model is necessary, however, and that is to conceive of these tools as self-adaptive. Using a Phillips screwdriver to drive Torx screws will tend to alter its shape so that it will be perfectly appropriate for Torx screws as well, and this without necessarily losing its fitness for Phillips screws in the process. You can, if you like, think of the phonological form as the handle by which you can grab hold of this super-screwdriver, and the business end is what interacts with other meanings and forms. Some tools seem to be content to last their lifespan with only one basic kind of function and thus only one kind of tool head; others seem to sprout a large number of different tool heads on the same handle, like a Swiss Army knife. As you might expect, since it is usage that develops these new toolheads, it is the more frequently used tools that tend to have the most of them. (And, of course, since the multi-purpose tools will be useful in more situations, they tend to be used more.) This kind of process is the major producer of polysemy, and we can expect grammatical morphemes and constructions, since they are so common, to be among the most fiercely polysemic structures in a language.

This conception stands the old performance/competence distinction on its head. As often presented and understood, competence was the core of language, and performance was peripheral, only fitfully and imperfectly reflecting the pristine and platonically perfect beauty of competence. The largest effect performance might be expected to have on competence (other than filling in the lexicon, which is fairly negligible or at best uninteresting) would be to clue a child's competence in to which way it ought to flip the switches on whatever parameters the black box would allow to be set; aside from that you are better off as a linguist to ignore performance and concentrate on competence instead. Of course, this has the great practical advantage of allowing troublesome data to be dismissed as matters of performance (and therefore inconsequential) instead of matters of competence (and therefore of great linguistic import).

In contrast, in functionalist models, it is precisely performance, that is usage, that determines what shape the language, including the grammar, takes. The functional tools which constitute the competence of language speakers are formed, refined, and elaborated precisely through using them to perform particular tasks; and those tasks motivate the shapes the tools assume.

²This analogy was suggested by Matthew Dryer.

As a sort of case study of the results of this sort of process, I'd like to present one of the Swiss Army knife forms just mentioned, the Nawatl unspecified object marker *tla-*.³

2 How and why to avoid specifying an object

Nawatl, like English and just about every other language, has many handy tools in the form of transitive verbs, verbs which make room for and expect a second important participant, i.e., they have an object besides their subject. It is not uncommon to find, in the process of communication, a situation which such a verb would fit very nicely except that for one reason or another we would just as soon not specify the object.

Languages deal with this functional pressure in various ways. In English we usually just go ahead and use the transitive verb without an object. Instead of saying *Adam ate the apple*, we simply say *Adam ate*. If we do this often enough (i.e., given persistent performance of this sort), that portion of our linguistic competence which constitutes our knowledge of the meaning and syntactic frame of the verb *eat* changes, lessening the salience of the thing eaten and adding to the repertoire the capability of easily appearing without an object. You could, if your language had one, use an antipassive affix or construction, that would signal that you had chosen to use *eat* without specifying its object. Another possibility might be to get a different verb, one which would have a similar meaning but not expect an object. With this technique you might say something like *Adam lunched (at 11 o'clock)*. A fourth possibility would be to use a "cognate object," one which does not specify any more than is already known from the meaning of the verb: using this tool one could say *Adam ate food*. A fifth strategy would be to use an object whose meaning consists in not saying what it is. Thus one could say *Adam ate something*. A parallel to this last strategy is the normal way to achieve this function in Nawatl; instead of a separate word Nawatl uses the prefix *tla-*, which may often be translated as 'something' or 'stuff'.

Nawatl has a whole paradigm of object prefixes, which appear between a subject prefix and the transitive verb stem; *tla-* is one of those prefixes. Some examples with the verb stem *kuā* 'eat' are in (1a-d).⁴

³The data presented are from the author's investigation of Orizaba Nawatl. This is a variant or dialect of Aztec; it is spelled in this article with a *w* instead of in the traditional form ("Nahuatl" or "náhuatl") to follow the most widely used orthography for this dialect. Similar data are easily found in other variants.

⁴The following abbreviations are used: 3ps = 'third person singular (subject)' hum = 'human', obj = 'object', rdp = 'reduplication', refl = 'reflexive', subj = 'subject', unspec = 'unspecified object'.

- (1a) **ni-k-kuā** ‘I eat it’
I-it-eat
- (b) **∅-mo-kuā** ‘it is eaten (lit. it eats itself)’
3ps-refl-eat
- (c) **ti-tla-kuā-h** ‘we eat (food/something)’
we-unspec-eat-pl
- (d) **tē-kuā-ni** ‘wild animal (lit. people-eater)’
unspec.hum-eat-nominalizer

Among these object prefixes *tla-* is especially closely related to the less freely productive *tē-* ‘people/someone’, i.e., ‘unspecified human object’ and the almost moribund *ne-* ‘unspecified reflexive/reciprocal’.

So using *tla-* instead of some other object prefix lets Nawatl speakers avoid specifying the object of a transitive verb stem, just like our English pattern of using transitive verbs with no object lets us do. But why do we, or the Nawatl speakers, want to leave the object unspecified? It might be for any of various reasons.

We might not know exactly what was eaten; and that might be because of something about the object itself (perhaps it was something too small to see from where we were, or perhaps it is something so dispersed and varied as to be hard to specify as a single thing, etc.). Perhaps it just isn’t important to us what it was. We and our addressee may already both know what it is, or it might be so easy to figure out that we’d just as soon not specify. We might want to hang on to the information until later, perhaps to introduce it at a point in the discourse where it will have more impact. We might just as soon our addressee didn’t know what the object was. It might be something that it would scare us, or gross us out, to mention. It might be any of these reasons, or a combination of them.

Since *tla-* performs all these functions, Nawatl speakers have gotten used to having it do so. That is, the motivated historical use of *tla-* for these purposes has, through the diachronic processes of entrenchment and routinization, established different versions of *tla-* which are exactly adapted to such uses. The screwdriver has turned into a Swiss Army knife. Let’s look at some of the specifics.

3 The schematic ‘unspecified object’ sense of *-tla*

Sometimes when *tla-* is used it is difficult or impossible to specify any one of these particular motivations. For instance, in example (2) *ō-ni-tla-kowa-to* means ‘I went and bought something’ or ‘I went shopping’.

- (2) **ō-ni-tla-kowa-to** ‘I bought something/
past-I-unspec-buy-went and did I went shopping’

The speaker might be avoiding telling what was bought for any of the reasons mentioned above, or any other you can think of:⁵ the form itself doesn't bring with it any strong expectations that it be one and not another. The most likely reading will be what we will discuss below as the "normal object" sense of *tla-*, a sense paraphrasable as 'the usual'. With this reading it might be best to translate the verb as 'I went and did the shopping'. But even so the *tla-* construction is presumably chosen because the speaker considers more specific information about what was bought (from among the normal possibilities) to be insignificant, or non-desirable for any of the other reasons mentioned.

Note that we are here discussing things more from the hearer's perspective. The speaker presumably knows at some level what he is trying to accomplish by not specifying the object, but the hearer, at least unless there is something else in the larger context to guide him, does not. Of course, this usage is possible because of the pattern of former usage, it results from the fact that *tla-kowa* is used for non-specification of the object for different reasons on different occasions, some of them never made clear to the hearer. The meaning that most strongly gets entrenched from this process is the abstract or *schematic* meaning, the generalization that includes all the rest, i.e., the meaning that simply is 'unspecified object'. And just as varied meaning produces this sort of structure, the structure in turn sanctions further such varied meaning; a speaker can use *tla-* for any of the reasons we mentioned and be reasonably certain he will be understood, or at least not badly misunderstood.

This can be diagrammed as in figure 1. In the style of Ronald Langacker's Cognitive grammar model (1987), the generalization or schema is represented in the top box, with its subcases or *elaborations* in lower boxes, and with arrows representing the schematicity relationship from the schema to the specific cases. Here we represent the schema as more strongly *entrenched* than the subcases, by boldfacing the box enclosing it. The handle of our Swiss army knife, the phonological structure, is connected by links of varying entrenchment to the different senses. For the sake of simplicity (and since all the diagrams are also of meanings of *tla-*), I do not include this phonological structure in other diagrams in this paper.

⁵Presumably the speaker at least at one time knew what he bought, so the motivation from the speaker's ignorance is less likely in this particular form; but he may well no longer remember what it was, and of course for non-1st person forms ignorance might well be expected.

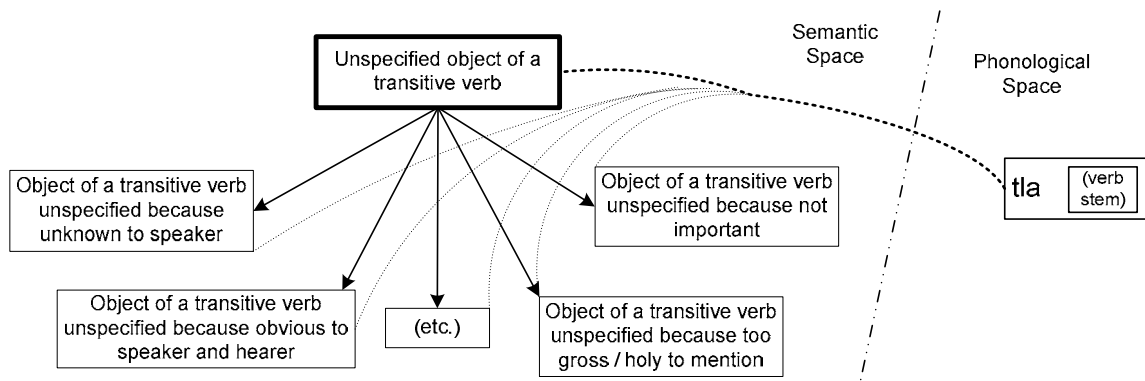


Figure 1.

The effect of usage on this structure is that, as any particular subcase is used by a speaker, or understood by a hearer, that particular subcase is entrenched just a little more, becoming just that much more firmly habitualized, and so is its connection to the phonological structure. However, it is in the nature of things that activating a subcase activates secondarily any schemas which closely dominate it; thus any case of activating, say, the ‘object unspecified because unimportant’ sense will entrench that sense but will also activate the superordinate ‘unspecified object’ sense, entrenching it and its connection to the phonological structure, to a somewhat lesser degree. Since, however, that schematic sense will be activated when other subcases are used as well, and since it may sometimes be used by itself, it is likely to be extremely well entrenched, more so than many of its more elaborated subcases.

We will not examine all these subcases individually in this paper: we will concentrate on some of the most prominent of their derivatives. I will make just one comment about how two of them interact. The ‘obvious object’ meaning includes as a subcase ‘obvious in the current discourse context’, and can thus be used for objects very high in topicality. This is particularly common in procedural texts. On the other hand, *tla-* can also mean ‘object unimportant in the discourse context’ which of course implies that the object is low in topicality. This interesting paradox can be paralleled in intransitive usage in English as well. For example, the verb *bake* may be used intransitively in a recipe: *bake at 350° for 45 minutes*. In this case the object of *bake* is the topic of the recipe, and thus need not be specified. On the other hand *bake* may be used intransitively in a sentence like *She told me she had been baking when the telephone rang*, where the speaker may not know, and in any case presumably does not care to specify, what she had been baking (perhaps because it is irrelevant to the topic).

4 The ‘normal object’ sense of *-tla*

Not all verbs are as flexible as *kowa* in the range of meanings they allow to *tla-*. *Tla-kuā* ‘eat’ in (1c), for instance, specifies pretty strongly that what is eaten is the normal or expected object for the verb, i.e., food. If it were reported to me

that Adam was eating, and it should turn out that the speaker knew he was eating worms or paper, I would be startled, but I don't think I'd accuse the speaker of lying to me. In Nawatl it would be more nearly a lie to say *tla-kuā* in such a situation.

This is extremely similar to the typical case of *tla-kowa* mentioned in (2), where the object is the normal thing one would shop for. This can be left unspecified because both speaker and hearer know well enough what it is. We can view it then as sanctioned by the 'unspecified because obvious' subcase of the unspecified object schema. Note that there is probably some sanction from the meaning 'unspecified because unimportant' as well—it is obvious what sort of thing one is likely to shop for or to eat, but what is obvious is a general class rather than any specific item, and there is here a refusal to specify anything within that class, presumably because it is unimportant.

There are very many other cases where this 'normal object' sense is strongly expected rather than simply being one of a number of equally possible interpretations. And in some of them the nature of the object is specified quite closely in the process. Thus *ni-tla-tzakua* (3) and its opposite *ni-tla-tlapowa* (4) take the windows or doors of a house or shop, or the gate of a corral, as their objects. In both cases the range of objects is restricted to many less than the number of things that can actually be opened or closed. Even greater restrictions show up, almost amounting to specific designation, in *ni-tla-sowa* [I-unspec-spread] 'I make the bed (i.e., spread the blankets on it)' (5) or its reduplicated form *ni-tla-soh-sowa* [I-unspec-rdp-spread] 'I lay out the clothes (to dry)' (6). Similarly *ni-tla-tla-witeki* [I-rdp-unspec-strike] means 'I knock (at the door)' (7), and so forth.

- | | | |
|-----|--|--|
| (3) | ni-tla-tzakua
I-normal.obj-close | 'I close up the house/shop/corral,
close the windows/doors/gates' |
| (4) | ni-tla-tlapowa
I-normal.obj-open | 'I open up the house/shop/corral,
open the windows/doors/gates' |
| (5) | ni-tla-sowa
I-normal.obj-spread | 'I make the bed' |
| (6) | ni-tla-soh-sowa
I-normal.obj-rdp-spread | 'I spread the wash out (to dry)' |
| (7) | ni-tla-tla-witeki
I-rdp-normal.obj-strike.a.blow | 'I knock (at the door)' |

Of course what counts as being "normal" is very much a cultural question. In the American (U.S.A.) culture one might wonder what would be the expected object of a verb like *heat* or *grind coarsely*, but to one who knows the importance to Nawatl culture of corn and the food products made from it, it should not be surprising that *ni-tla-totōnia* [I-unspec-heat] means 'I (re)heat tortillas' (8), or that *ni-tla-payana* [I-unspec-grind.coarsely] means 'I grind corn coarsely' (9). The effect that *tla-* has on *kow-ia* [buy-applicative] 'buy for someone' (10) is also somewhat surprising to us, but much more natural to the members of the Nawatl

culture, for whom the buying of clothing for a godchild is a highly significant event.

- | | | |
|------|---|---|
| (8) | ni-tla-totōnia
I-normal.obj-heat | ‘I (re)heat tortillas, [in Rafael Delgado] I dry flower bulbs, [in e.g., Oztotitla] I dry coffee’ |
| (9) | ni-tla-payana
I-normal.obj-grind
coarsely | ‘I grind corn coarsely’ |
| (10) | ni-k-tla-kow-ia
I-him-normal.obj-
buy-applicative | ‘I buy a wedding/baptismal garment for him/her (a godchild)’ |
| (11) | ni-k-tla-tolo-ltia
I-him-normal.obj-
swallow-causative | ‘I administer the Host to him’ |
| (12) | ni-tla-kix-tia
I-normal.obj-emerge-
causative | ‘I dig up flower bulbs (with a shovel)’ |

Even within the Orizaba Nawatl speaking area there are cultural differences that find reflections in the usages of *tla-*. In the town of Rafael Delgado many people raise flowers, particularly gladiolas and Easter lilies, and there are many forms with *tla-* having to do with that enterprise, including another meaning for *ni-tla-totōnia* [I-unspec-heat], namely ‘I dry flower bulbs (in the sun)’ (8), or *ni-tla-kix-tia* [I-unspec-emerge-caus] ‘I dig up flower bulbs (with a shovel)’ (12), and so forth. For towns like Oztotitla that raise coffee instead, *ni-tla-totōnia* (8) has a third meaning, namely, ‘I dry coffee (in the sun)’. To make things more complicated, of course, speakers from one town are likely to have as part of their linguistic system the usages from neighboring towns, as well as their own, appropriately identified as such, of course.

These usages of *tla-* are tied in to the previously described network in quite complex ways. As already mentioned, some are pretty straightforward elaborations of the ‘object unspecified because obvious’ sense, with or without some influence from the ‘unspecified because unimportant’ notion. But some are so specific that it is hard to take them as subcases of the ‘unspecified object’ sense any more at all: it is hard to equate something as specific as “clothes” or ‘the Host in Mass’ (11) with the notion ‘unspecified object’. Schemas should also be posited for the meanings ‘corn’ and (in Rafael Delgado) ‘flower bulbs’, since there are whole families of forms with those meanings. The forms having to do with administering the Mass (11) and with the godparental relationship (10) probably receive some sanction from the positive end of the “tabu” sense, i.e., the ‘too holy to mention lightly’ sense. Some of these relationships are diagrammed in figure 2.

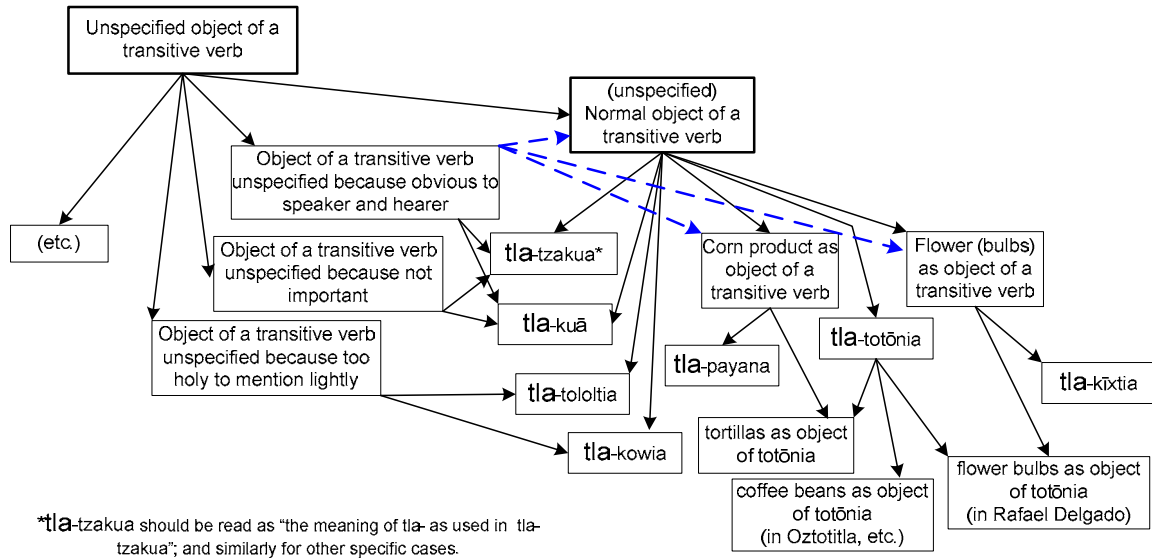


Figure 2.

Figure 3a represents a very common and very important configuration, in which one cognitive structure is compared with or extended to another. This relationship is represented graphically by the dotted arrow of similarity or partial schematicity. When this happens, as Langacker illustrates repeatedly (e.g., 1987:74, 382–386), it is natural that a schema be extracted which embodies what is common to (and in that sense is fully similar, though not identical, to) the two compared structures. Of course if such a schema already exists, the process will further entrench it as part of the structure of the language in question. Such a schema is by definition a superordinate structure, and the compared structures are subcases in the category it defines. Although most of them are not represented in figure 1, we may be sure that speakers have made many comparisons among the subcases represented there, in the process of extracting and establishing the schema that categorizes them. The dotted arrow in figure 2 from the notion of an obvious object to that of a normal object, represents such a comparison and extension, within the category of unspecified objects defined by the highest-level schema represented.

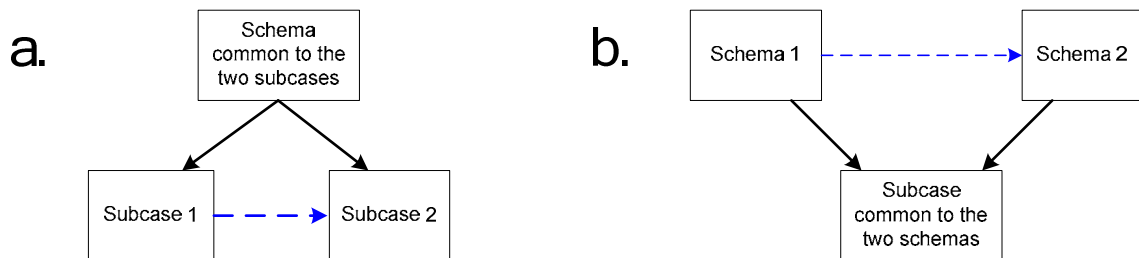


Figure 3.

Less frequently described, perhaps, but no less important to language, is the configuration in Figure 3b, in which the extension of one schema to another⁶ is mediated, prompted, and enhanced by the existence of a common subcase or subcases. This configuration can be found repeatedly in figure 2 (and figures 4 and 5). I am claiming by it that the existence of subcases which can be analyzed under both schemas in question is crucially involved in the new schemas becoming established (new senses developing) historically, as well as in the synchronic coherence of the category in question, namely, the meaning(s) of the prefix *tla-*.

5 The ‘canonical action’ and ‘customary action’ senses of *-tla*

Very closely tied to the ‘normal object’ sense of *tla-* is a sense of canonical or normal action. More often than not, when a normal object is expected, it is also expected more or less strongly that the activity designated by the verb will be done to that object in the normal way. Sometimes that seems to go without saying, but other times it seems to need specifying. We saw something of the sort with *tla-kix-tia* ‘dig up flower bulbs with a shovel’: not just a normal object, but a normal way of doing the verb on that object was specified. (*Tla-kix-tia* contrasts with *tla-wiwitla* [normal.obj-yank.up] ‘pull up flower bulbs by hand’.) *Tla-payana* brings some degree of expectation (much less now than it was years ago) that the grinding will be done with a *metlapil* (‘long cylindrical grinding stone’ held by the ends) on a *metate* (‘stationary grindstone’). Other forms make this expectation stronger, to the point where in some cases it seems to be the primary meaning of *tla-*.

This becomes especially clear with verb stems which expect a human object, and if an unspecified object was desired, you would expect *tē-* ‘someone/people (unspecified human object)’ to be used. Some of these verbs can take *tla-* instead of *tē-*, and the meaning is more ‘do the verb (in the normal way)’ than ‘do the verb to someone’. See the examples in (13a-c), (14a-c), and (15a-c):

- | | | |
|-------|---|--------------------------------------|
| (13a) | ni-k-avisarowa
I-him-warn/announce.to | ‘I announce to him’ |
| (b) | ni-tē-avisarowa
I-unspec.hum-warn/announce.to | ‘I announce (to people, to someone)’ |
| (c) | ni-tla-avisarowa
I-normal.action-warn/announce.to | ‘I do announcing (for the town)’ |

⁶All linguistic structures, according to Cognitive grammar, are schematic in some degree. That is, they are patterns, not totally specific occurrences. Practically, it makes little sense to talk of a schema unless a subcase is in mind (or a subcase unless a schema is in mind), but the subcases are by nature themselves schemas covering a range of yet more specific subcases.

- (14a) **ni-k-mik-tia** ‘I kill him’
I-him-die-causative
- (b) **ni-tē-mik-tia** ‘I kill (someone, people)’
I-unspec.hum-die-causative
- (c) **ni-tla-mik-tia** ‘I murder, am a murderer’
I-unspec-die-causative
- (15a) **ni-k-nankilia** ‘I answer him, talk back to him’
I-him-reply.to
- (b) **ni-tē-nankilia** ‘I answer, talk back (to people,
I-unspec.hum-reply.to to someone)’
- (c) **ni-tla-nankilia** ‘I reply (in a conversation)’
I-normal.action-reply.to

A strongly attested sub-type of this meaning is the meaning ‘do customarily/characteristically/professionally’; the example *ni-tla-mik-tia* ‘I am a murderer’ in (14c) is an example, and there are many others. A number of deverbals denoting professionals who do the verb thus come to have *tla-* on them: (16d) is an example.

- (16a) **ni-k-pah-tia** ‘I heal him, treat him
I-him-medicine-verbalizer (medically)’
- (b) **ni-tē-pah-tia** ‘I heal (people, someone)’
I-unspec.hum-medicine-verbalizer
- (c) **ni-tla-pah-tia** ‘I do healing, I am a doctor’
I-normal.action-medicine-verbalizer
- (d) **tla-pah-ti-h** ‘healer, doctor’
normal.action-medicine-verbalizer-
nominalizer

To the extent that *tla-* in these constructions means ‘do characteristically/professionally’ rather than ‘do to something/things/stuff’, it ceases to be an object marking prefix, and becomes more adverbial. Yet it usually retains its detransitivizing function. We can say that in this regard it shows itself to have been originally designed for avoiding specifying the object. Nevertheless, in a few cases it allows a different object marker to be used along with it. Nawatl has quite complex patterns of double-object formations which ease this transition, which we don’t have time to go into, but consider (17), where the incorporated object *ā* ‘water’ is apparently the object of the transitive (‘not, as expected’, intransitive) complex verb stem *tla-kui* ‘take up (in the normal/expected way)’.

- (17) **n-ā-tla-kui** ‘I get water (from the river/reservoir, with a bucket)’
 I-water-normal.action-
 take.up

6 The meteorological or ‘general action/occurrence’ sense of *-tla*

Sometimes in *tla-* constructions of these types the subject may be something quite generalized or widespread, like the weather, rather than localized in any specific person or thing. We have already seen that *tla-kuā* [unspec-eat] can be used with human, or indeed any animate object, with the meaning ‘eat (food)’. It also is used conventionally of a freeze destroying plants, as in (18). Similarly *tla-totōnia*, which we have seen meaning ‘reheat tortillas’ or ‘dry coffee beans or flower bulbs’ (8), can also just mean ‘be hot’ as in (19).

- (18) **∅-tla-kuā** ‘it (a freeze) destroys the crops’
 3ps-general.action-eat
- (19) **∅-tla-totōnia** ‘it (the weather) is hot’
 3ps-general.action-heat

One can see the *tla-* in the first case as still meaning ‘expected object’; in the second it might still also be ‘unspecified object’ with probably a ‘generalized object’ nuance; i.e., it might mean ‘it heats everything/all kinds of things up’. But it could also be taken as having ‘canonical action’ or ‘generalized action’ meanings as well or instead. And some such meaning is necessary to account for the usage of *tla-* with intransitive stems of various sorts, again with a meteorological or ‘generalized occurrence’ sort of reading, as in examples (20a-c)-(25).

- (20a) **ni-k-kawa** ‘I leave, abandon it’
 I-it-leave
- (b) **ni-mo-kawa** ‘I calm down’
 I-refl-leave
- (c) **∅-tla-mo-kawa** ‘it (the weather) calms
 3ps-general.occurrence-refl-leave down’
- (21) **∅-tla-nēsi** ‘it dawns’
 3ps-general.occurrence-appear
- (22) **∅-tla-tikuīni** ‘it thunders’
 3ps-general.occurrence-
 make.concussive.noise
- (23) **∅-tla-se-se-ya** ‘it (the weather) is cold’
 3ps-general.occurrence-rdp-cold-inchoative

- (24) **∅-tla-xoxowi-ya** ‘the sky turns blue/the earth turns green’
3ps-general.occurrence-grue-
inchoative
- (25) **∅-tla-tlasoh-ti** ‘there is scarcity/famine/dearth’
3ps-general.occurrence-dear-
inchoative

7 The ‘unspecified subject’ sense of *-tla*

Many of these ‘general occurrence’ cases could also be thought of as ‘general’ or ‘unspecified subject’ cases. Thus *tla-nēsi* in (21) could be thought of as ‘things (all over) appear’; (24) could be ‘things turn green’, and (25) could be ‘things become dear/scarce’. There are a few examples where this meaning is clearer, where the action is not so generalized, but the subject of the intransitive verb is unspecified. Examples (26)-(28a-c) illustrate this.

- (26) **(∅-)tla-aki** ‘it (stuff) fits’
(3ps-)unspec.subj-fit
- (27) **(∅-)tla-kalaki** ‘lots of stuff comes/goes in’
(3ps-)unspec.subj-enter
- (28a) **ni-k-itta** ‘I see it’
I-it-see
- (b) **ni-mo-tta** ‘I look (good/bad), am seen’ (also ‘I see myself’)
I-refl-see
- (c) **(∅-)tla-mo-tta** ‘there is light, things are/become visible’
(3ps-)unspec.subj-refl-see

Some of the relationships we have discussed, tying these construals of *tla-* with those we have seen before, are diagrammed in figure 4. Note again the multiple instances of the configuration diagrammed in figure 3b; it is the shared sub-cases that may first prompt, and certainly continue to mediate, the extensions to the relatively new or unusual meanings.

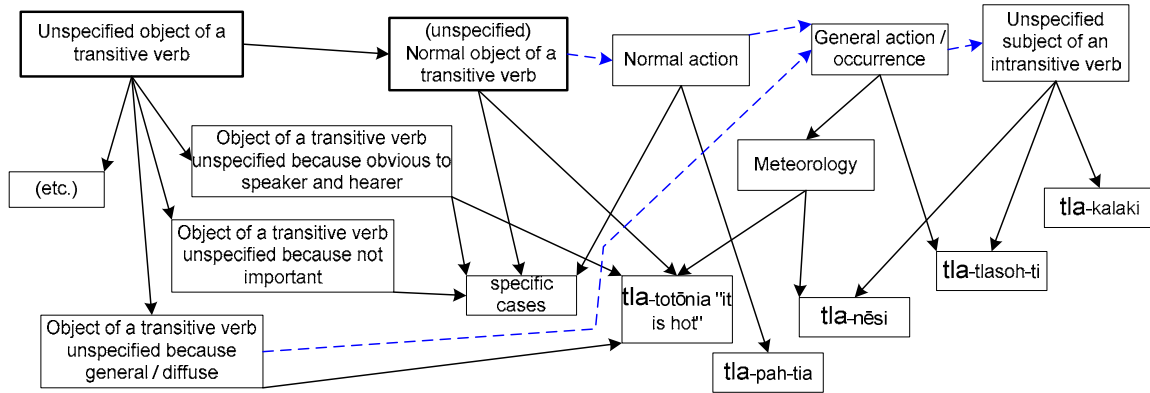


Figure 4.

8 Non-verbal usages of *-tla*

Nawatl allows *tla-* to function as a prefix on certain non-verbal stems as well. Perhaps the most natural, and certainly the most prevalent and nearly productive, of these usages is as object of a postposition, as in examples (29a-b) and (30a-b). *Tē-*, by the way, also occurs in this kind of construction, as in example (31), and *ne-* also does so marginally, but none of the other verbal object prefixes do. (Postpositional objects, other than *tla-*, *tē-* and *ne-*, are cognate rather with possessive prefixes.) *Tla-* also occasionally occurs on nouns, as in example (32)—(*tē-* is much more frequent in this usage), and it also appears on a good many adjectives, as in examples (33) and (34). On the nouns it seems to be an extension from the postpositional use, and to have a sort of ‘unspecified possessor’ sense.⁷ On the adjectives it seems rather to be an extension from the ‘unspecified subject’ sense.

- | | | |
|-------|---|------------------------------------|
| (29a) | no-ihti-k
me/my-belly-locative | ‘inside me’ |
| (b) | tla-ihti-k
unspec-belly-locative | ‘inside (adv.), on the inside’ |
| (30a) | no-kuitla-pah
me/my-excrement-on | ‘behind me, in back of me’ |
| (b) | tla-kuitla-pah
unspec-excrement-on | ‘back, behind (adv.), at the back’ |
| (31) | tē-kuitla-pah
unspec.hum-excrement-on | ‘behind (the) people/someone’ |

⁷Unlike normal possessors, it co-occurs with the absolutive suffix.

- (32) **tla-ten-tli** ‘the edge/rim (of something)’
 unspec.possr-lip/edge/rim-absolutive
- (33) **tla-kual-tzin** ‘(it’s) pretty (here)’
 unspec.subj-good-diminutive
- (34) **tla-weli-k** ‘(everything’s) delicious’
 unspec.subj-delicious-adjective

Figure 5 gives a diagrammatic overview of some of the relationships we have alluded to. Once again, the occurrence of multiple common subcases (i.e., multiple cases of the configuration diagrammed in figure 3b) is crucial for the establishment and coherence of the different extended meanings of *tla-*.

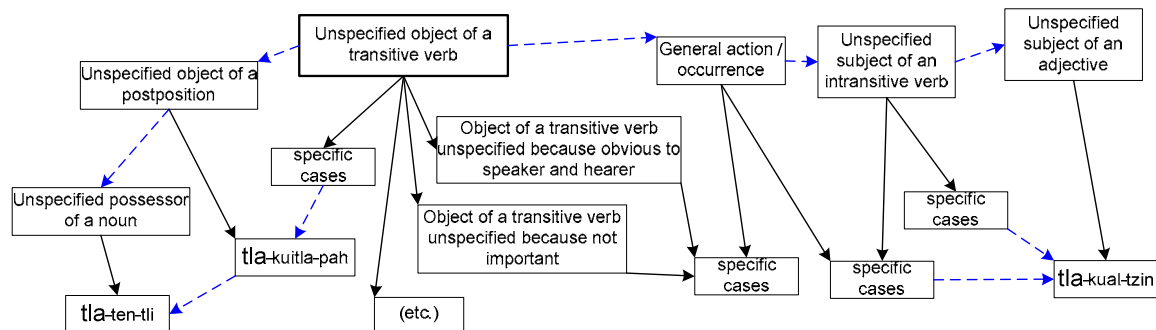


Figure 5.

9 Summary and conclusion

It should be clear why *tla-* can be compared to a Swiss army knife. It is a sort of do-everything tool with a whole repertoire of standard functions. To return to our original question: “Why does *tla-* have this extremely complex, less than fully predictable pattern of polysemy?” In DeLancey’s terms: motivation and diachrony give us the answer: Nawatl speakers over many centuries made useful choices, using *tla-* for functions it had not previously performed, and those choices established new patterns, which in turn served as the bases for further extensions. The results of this process we now see before us.

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19

Does the Use of Money Affect Results in Experimental Games? Comparing Cash and Betel Nut in Dictator and Ultimatum Games on New Ireland

Alexander H. Bolyanatz

ABSTRACT

Karl Franklin began working in Papua New Guinea in 1958 at a time when cash was a relatively new medium of exchange in the Highlands of the then-Territory of Papua New Guinea. Contemporary cross-cultural work in experimental economics relies on the use of cash, although there has been little effort to determine whether the use of an introduced medium such as cash produces results that are more a function of cash than of decision-making modules and strategies. This chapter is an account of such an effort. I administered two experimental games—Dictator and Ultimatum—among Sursurunga speakers of the province of New Ireland, Papua New Guinea, using both cash and betel nut. The results suggest that cash, at least on New Ireland, can be used in experimental games such as Dictator and Ultimatum—which, by their nature, are intended to illuminate deeply-rooted exchange strategies—without significantly affecting the outcomes.

1 Introduction

In August 2003, I conducted research using the experimental games known as the Dictator Game (DG) and the Strategic Method Ultimatum Game (SMUG) among Sursurunga speakers of New Ireland Province, Papua New Guinea.¹ I carried out each pair of games with cash and another pair of the same two games with betel nut (*Areca catechu*),² an everyday item of exchange throughout much of the region.

There are about 3,500 people who speak Sursurunga (an Austronesian language) and live toward the southern end of the island of New Ireland. Most of them live in a string of nineteen nucleated villages along the east coast and its immediate hinterlands.³ Toward the middle of these nineteen villages is a location called Tekedan ('the end of the water'), which is home to 157 people⁴ and is one of the primary research sites. Further down the coast is Samo, the other primary research site and home to 441 people (see map).⁵ The Sursurunga are organized along the lines of named matrilineal clans and unnamed matrilineages. Marriage is governed by a prescriptive rule of matrimoiety exogamy. As an outcome of new residential patterns that emerged in the aftermath of World War II and a greater Australian colonial presence, each village has a main matriclan that is most prominent, such that there is a very rough one clan-one village association. There are, however, many villages that have more in common with certain other villages through enatic ties as well as marriage. Tekedan and Samo are two such villages in that, while they are separated by approximately 21 kilometers, the number of people who visit back and forth between the two is not insignificant.⁶

¹I began field research on New Ireland in November 1989, making subsequent trips in 1998, 2002, 2003, and 2005.

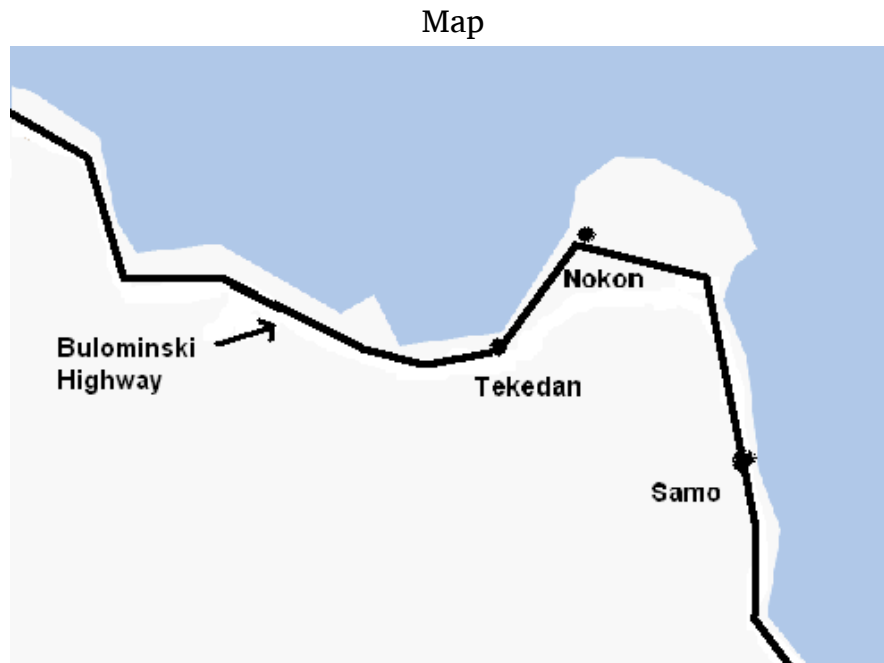
²*Betel nut* is in fact a misnomer in two ways. First, it does not refer to a nut at all, but to the husked fruit of the areca palm. Second, *betel* is actually the name of a vine belonging to the genus *Piper* (to which the peppers that played a role in east-west trade a millennium ago also belong). Piper leaves and seeds are chewed with the areca "nut." Many people in Southeast Asia and parts of Oceania chew areca and betel, along with powdered lime (which, as a base, neutralizes the acidity of the areca fruit). In combination, the triad is known as betel nut, (a conventional shorthand that I will use throughout to refer to the areca fruit) and the effects are akin to low-level alcohol intake.

³See Bolyanatz 2000 and Jackson 1995 for a more detailed discussion of the Sursurunga area as well as the ethnography of the people who live there.

⁴This population measure includes those who typically live elsewhere much of the year, including students and those whose employment takes them to other parts of the country.

⁵For a more general map of the area go to <http://www.multimap.com/map/browse.cgi?X=16500000&Y=-7500000&width=500&height=300&client=public&gride=&gridn=&sec=0&coordsys=mercator&addr1=&addr2=&addr3=&pc=&advanced=&local=&scale=20000000>.

⁶This connection between the two villages is not always a pleasant one. When Tovina, a leader who spent much of his adult life at Tekedan (but was born in Samo) died in 1998, the two villages vied with each other in efforts to trump the other's claim on Tovina's burial site. In the end, Tovina was buried at Samo, to the chagrin of many at Tekedan. I offer this anecdote as an indication that friendliness between the two villages is not necessarily the norm—only that such squabbles show the ties between them.



Matrilineal descent is also the template for the system of mortuary feasts conducted in honor of the dead (see Jackson 1995 and Bolyanatz 2000). In brief, when a person dies, the opposite matrimoiety provides gifts to the family of the deceased, and performs a number of the responsibilities associated with burial. Later (sometimes months, sometimes years, depending on a number of variables), a subsequent feast is sponsored by the lineage of the deceased—with strong clan and some matrimoiety support—in which the gifts and services given at the burial are reciprocated. At these feasts, much pork is consumed, and outside of the occasional hunter bringing home a boar⁷ from the forest, pork is almost never⁸ consumed except in mortuary circumstances (which would include smaller scale feasts when the belongings of the deceased are burned, or when the cemetery is cleaned and weeded).

Most of the everyday diet is locally grown in swiddens and consists of sweet potato (varieties of *Ipomoea batatas*), manioc (*Manihot esculenta*), yams (*Dioscorea esculenta*), and taro (*Colocasia esculenta*) cooked with greens in a potage made of the cream of shredded coconut meat. Bananas and other fruits supplement the diet, along with occasional portions of fish or shellfish. A third of the calories consumed locally come from purchased foods, of which rice is by far the most common.

The Boluminski Highway (the official name of the East Coast Road, named after an early twentieth-century German colonial administrator) bisects most of the nineteen Sursurunga villages on the east coast. In the past ten to fifteen

⁷It is almost always a boar that is hunted. Local methods of pig husbandry rely on wild boars to inseminate village sows. Pigs of both sexes are allowed to forage for food in the bush throughout the day. Sows deliver in or around the village, and the piglets learn quickly to stay near food sources—either their mother or the humans who tend her. Males are castrated so that they do not “go wild” and will return to the village with the females each evening.

⁸Below, I do give one example of a rare instance of pork consumed under non-mortuary circumstances.

years repairs to bridges have made passage north to Namatanai, a small town seventy kilometers away from Tekedan, relatively easy, and many people travel to Namatanai several times per year (a roundtrip from Tekedan is ten to twelve Papua New Guinea kina (K10–12) [about US\$ 2.50–3.00], depending upon the vehicle).

Namatanai serves as the source⁹ of many things for the Sursurunga area, some of the more locally important being newspapers, motor fuel, alcohol, clothing and other manufactured items, and food. Although the ease with which Namatanai can be reached has improved in the past decade, the economy in the area has declined so that the availability of goods is severely limited. Perhaps the most striking evidence of this decline is that there are far fewer items available for purchase at Namatanai (where I typically purchase supplies), both in absolute terms (lots of empty shelf space) as well as in terms of variety (for example, only one brand of rice, canned beef, or fish, whereas there were choices of up to four brands of each in the past). The single biggest reason for this decline has been the devaluation of the kina, the national currency. In 1992, the kina was worth approximately US\$ 1.05; today, a kina, which first began to float in 1994, is roughly a third of that value. The decrease in the value of the kina has resulted in a move away from wage work, as the numbers in table 1 show. In short, while the ease of travel to Namatanai has contributed to its growth as a regional center in many ways, peoples' economic reliance upon the services of Namatanai has decreased in the past decade.

Table 1: Reduction in Wage Labor in New Ireland Province, 1990–2000 (Source: Papua New Guinea National Census)

Census Year	Total Rural Population	Engaged in Non-Monetary Activities	Money Sector Activities	Not Stated
1990	54,635	32,808 (60.0%)	21,573 (39.5%)	252 (0.5%)
2000	73,433	60,207 (82.0%)	11,824 (16.1%)	1,402 (1.9%)

2 Research methods

The Ultimatum Game and the Dictator Game are among the most extensively used games that contribute to the investigation of economic decision-making (see Fehr and Gächter 2000, Gintis 2003, Boyd, *et al.* 2003, Henrich, *et al.* 2004, and Henrich, *et al.* 2006). These games use real money that players can keep. Players are informed that they have a partner, but the partners do not know each other. Anonymity and confidentiality are, therefore, assured. A specific amount of money—the “stake”—is provided to the pair, but is placed in the hands of only one of the partners (“Player 1”). Player 1 has the obligation to

⁹Sometimes the town of Namatanai is an indirect source of pork, as when local trade storeowners buy products at Namatanai for later resale in the villages.

divide the money with the partner (“Player 2”). Both Ultimatum and Dictator begin under these circumstances; the rules for each game vary beyond this.

Ultimatum is a one-shot, no-negotiation game. A Player 1 offers (confidentially) a percentage of the stake, which can range from zero percent to one-hundred percent, to (an anonymous) Player 2 in what is, in fact, a take-it-or-leave-it ultimatum. Player 2 then has the option of (confidentially) accepting or rejecting (the anonymous) Player 1’s division of the money. If Player 2 accepts the offer, then each player receives what is due according to the accepted offer. If, on the other hand, Player 2 rejects the offer—that is, Player 2 does not accept the way Player 1 has allocated the stake, then both players get nothing.

Both Players 1 and 2 know all of the information. That is, Player 2 knows the amount of the stake, and that there is no negotiation. Furthermore, Player 1 knows that Player 2’s rejection of an offer means that neither will take home anything.

If both players were to behave as rational maximizers, then the results of the game would be predictable on the basis of easy calculations: Player 1 would offer the smallest non-zero amount allowed (that is, ten percent of the stake), and Player 2 would accept any amount over zero. In fact, however, this does not happen. In the conventional version of Ultimatum, Player 2 is asked, “Would you accept an offer of x [whatever the amount of the offer from Player 1]?” In the Strategy Method version of Ultimatum, Player 2 is asked to make a series of decisions prior to hearing the offer of Player 1. In the version I employed for the Sursurunga, Player 2 is asked the following sequence of questions:

- “Would you accept zero percent of the stake?”
- “Would you accept ten percent of the stake?”
- “Would you accept twenty percent of the stake?”
- “Would you accept thirty percent of the stake?” (and so on through one-hundred percent)

Players were then paid (or not) according to how they matched up with the randomly selected, anonymous partner. For example, if a Player 1 offered forty percent of the stake and was randomly paired with a Player 2 who had indicated an acceptance of forty percent, then each would be correspondingly paid.

Dictator is the same as Ultimatum, but Player 2 has no agency, and receives whatever Player 1 dictates. As in Ultimatum, Player 1 in Dictator knows all the information, including the fact that any amount may be offered, and that Player 2 has no say.

Before playing the games, I provided group and, later, individual instructions to players in order to confirm that they understood the game. The stake—consistent with the stakes used in other settings (Henrich, *et al.* 2006)—was roughly equivalent to a day’s wage. In order to facilitate easy calculations, I used ten kina as the stake for cash games and ten betel nuts in the games for betel nut.

While conducting these games, I did not use a random sample of subjects, finding that a convenience sample was the most suitable in this situation. A

week prior to playing the games, I had announced that I would be doing some work that would involve paying people for their help, and that I would need many people. There were two reasons for this approach. The first is that at Tekedan, I was able to recruit everyone who was willing to play. Because fewer than 60 adults from Tekedan chose to participate, I supplemented with people who had heard the news and were interested from the nearby villages of Himaul and Nokon. I used the same approach at Samo (a larger village). Efforts to recruit equal numbers of men and women were thwarted by a large number of women agreeing to participate and later dropping out, even though they thereby waived their rights to the show-up fee of two kina (and two betel nuts).¹⁰

The procedure was as follows: After the group presentation, I asked people if they had any questions as they entered the test area. After answering any questions, for each person, I gave three examples, then moved to three tests, in which people were required to answer correctly. I then provided one more hypothetical example (a kind of “final exam”), and asked the player what the outcome would be. If she answered correctly, I believed that she had grasped the game, and entered “1” on my data sheet in the “# of examples” column.¹¹ As expected, some people required additional examples. For some people, the reiteration of examples became quite tedious, and in those instances where people seemed both to understand fully and to become exasperated with the repetition, I simply quit giving examples.

Since I kept track of how many training examples I used for each person, I am able to determine whether the intensity/duration of the training process had any effect on the way people responded in the games. Taking all of the offers from Player 1s in both the Ultimatum and Dictator games and applying the Pearson correlation test¹² to the number of additional test examples given to each person, I found that there was no statistically significant relationship ($r = -0.1683$). I also tested Player 2 responses in the same way. For all Player 2s, I correlated the number of additional test examples given to each person and the minimum acceptable offer (MAO). MAO was determined in the following way. If a Player 2 rejected offers of zero, ten, and twenty percent of the stake, but accepted thirty percent, then that person’s MAO is thirty. As for the Player 1 data, I used the Pearson test and found that the amount of teaching/training had no significant effect on responses ($r = -0.0847$). There is no evidence, then, that

¹⁰In a debriefing session with my research assistant, Ishmael Penias, we puzzled over the high dropout rate among women. Only one man left the game, and by Penias’s count, approximately sixteen women abandoned the project. In the end, we concluded that women were simply too busy to be able to invest the required hours. Men, on the other hand, have much more time on their hands.

¹¹In other words, even a person who is listed as having undergone one example will have had the benefit of the group teaching, three examples in which I tell the outcomes, and four examples in which they successfully tell me the outcome.

¹²For those readers unfamiliar with this statistical test, a short description is in order. The Pearson test is a measure of the degree to which two variables co-vary with each other. For example, among a group of students, we would expect that the number of hours studied prior to an exam would co-vary with the scores on the exam—that is, those who studied fewer hours end up with lower scores. Pearson scores range from +1.0 (a perfect positive correlation) to -1.0 (a perfect negative correlation). A negative correlation occurs when the increase of one variable matches the decrease in another. For example, as people increase in age, their short-term memory abilities decrease. A Pearson score of zero indicates the absence of any relationship between the variables under consideration. Pearson scores of 0, +1, or -1 are rare in the behavioral sciences, but scores near zero indicate that any apparent relationship between variables is spurious.

the reduced amount of “teaching” to those who seemed exasperated by the process had any effect on the outcome.

As noted above, the protocols for these experiments call for the stake to be approximately one day’s wage. For the cash games, I used ten kina. Ten kina is a rather good day’s wage in the region, and while it is above the average daily wage (which would be around K4 to K8), the ease of using ten K1 coins for the games outweighed other considerations. With regard to the experiments using betel, I estimated the average daily betel nut consumption ranges. These vary much more widely than the daily monetary wage, with the minimum of a handful (four or five nuts) to up to thirty being consumed per day by those who use it. Not all people use betel nut, but those who do not use it often keep some handy for exchange with friends and kin who do. I considered using twenty as the stake, but my local research assistant (who himself is a heavy user) said twenty were too many.

3 Results

I conducted four sets of games: cash DG, cash SMUG, betel nut DG and betel nut SMUG. Below are the results of each game.

3.1 Player 1 results

3.1.1 Cash results

3.1.1.1 Cash DG

Thirty people served as Player 1 in cash DG. As shown in figure 1, the modal offer was five kina—a 50–50 split. As will be discussed below, this is not a remarkable result.

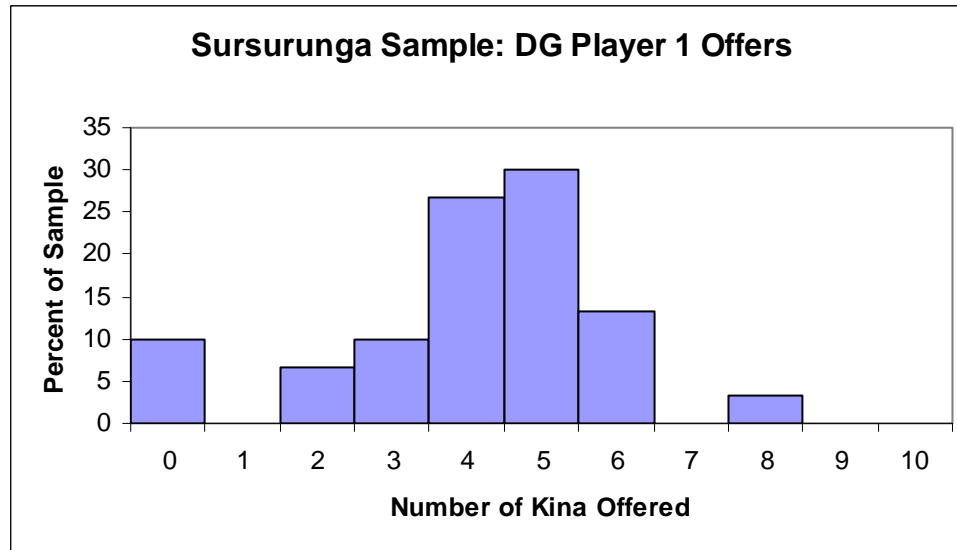


Figure 1 (N = 30; 12 females, 18 males)

The Pearson correlations in table 2 are between Player 1 DG offers and age in years, sex (males = 0, females = 1), education in years, and cash income in kina earned over the previous year. There are no statistically significant variables other than sex that correspond to the cash Dictator results, and this is almost certainly due to the fact that the three people who offered zero were all women.

**Table 2: Pearson Correlations:
Player 1 Cash DG Offers and Demographic Variables**

	<i>Age</i>	<i>Sex</i>	<i>Education</i>	<i>Income</i>
DG Offer	-0.12945	-0.36547*	0.177623	0.080884

*p < 0.05

3.1.1.2 Cash SMUG

As with DG, the modal offer on the part of Player 1s was five kina. Not surprisingly, Player 1s gave more knowing that Player 2s could reject low offers. The mean cash offer for DG Player 1s was 3.97 kina, while the offers by SMUG Player 1s was 5.13 (see figure 2).

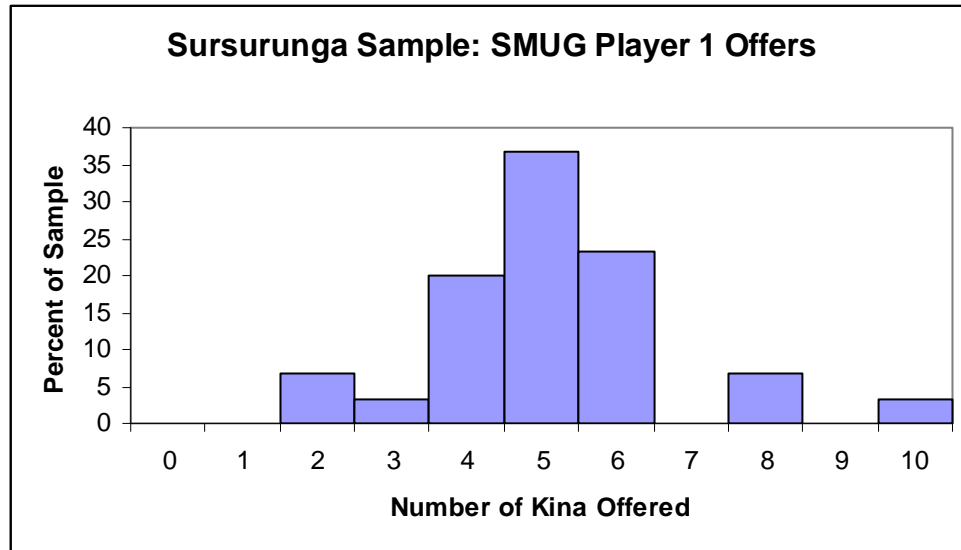


Figure 2 (N = 30; 12 females, 18 males)

Unlike the results for DG, there are no correlations between Player 1 SMUG offers and other variables (see table 3):

Table 3: Pearson Correlations: Player 1 Cash SMUG Offers and Demographic Variables

	<i>Age</i>	<i>Sex</i>	<i>Education</i>	<i>Income</i>
SMUG Offer	-0.0431	0.105941	-0.11218	0.127951

3.1.1.3 Cash DG and Cash SMUG compared

Figure 3 shows that Player 1s from both Cash DG and Cash SMUG had modal offers of five kina.

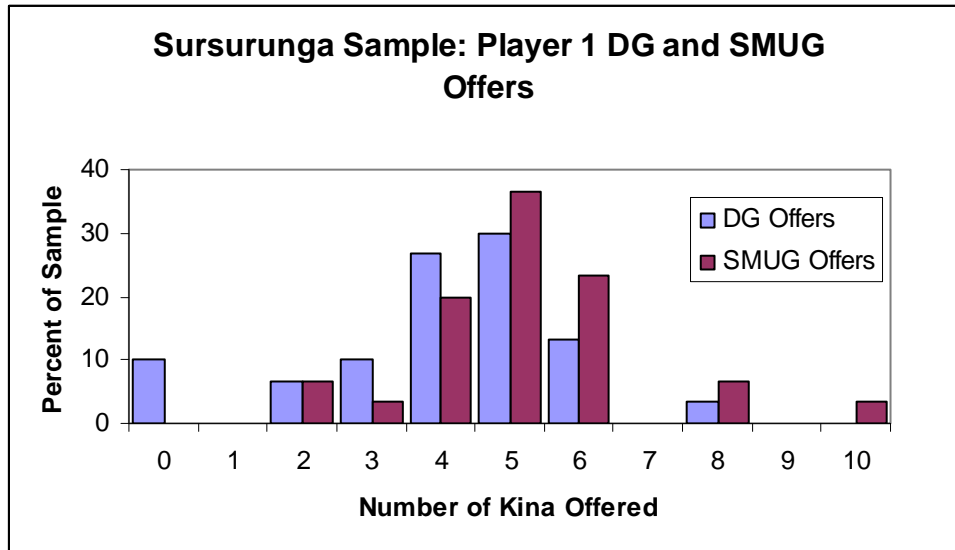


Figure 3 (DG mean = 3.97; SMUG mean = 5.13)

The results for Player 1 cash offers in both DG and SMUG are generally unremarkable, *unless* one assumes that human beings are rational economic maximizers. It could be argued that shrewdly calculating Player 1s in SMUG would assume that Player 2s are not rational and therefore offer 50–50 splits, but the DG game results show that, even when there would be no exogenous negative consequences for a low offer, *most people still preferred to offer fifty percent of the stake to an anonymous Player 2*. I turn now to the results of the same games played not with cash, but with a traditional medium of exchange: betel nut.

3.1.2 Betel nut results

As I describe in footnote 2, betel nut chewing is a widely practiced form of recreational drug use, common in Southeast Asia, and throughout much of Oceania. Chewing betel nuts releases a number of psychoactive alkaloids, most notably arecoline. Chewing betel nut generally produces something of a pleasurable feeling and staves off hunger and tiredness. Relative to its psychotropic functions, betel nut's connections to sociality are robust, as the give-and-take of betel between people is ubiquitous in many parts of Melanesia, and New Ireland is no exception.

The use of betel nut in experimental games, then, is a practical test—when compared with cash results—of whether, and to what degree, the medium of exchange affects peoples' decision-making in experimental games such as Dictator and Ultimatum. Put more directly, comparing the results of the same experimental games—using betel nut in one instance and cash in another—is a test of whether people use different decision-making algorithms depending on the medium involved.

3.1.2.1 Betel nut DG

Betel nut offers largely followed the same pattern as cash offers in that a 50–50 split was the modal offer. Figure 4 shows these results. The mean offer was 4.0 betel nuts, which is essentially the same as the mean offer of 3.97 kina.

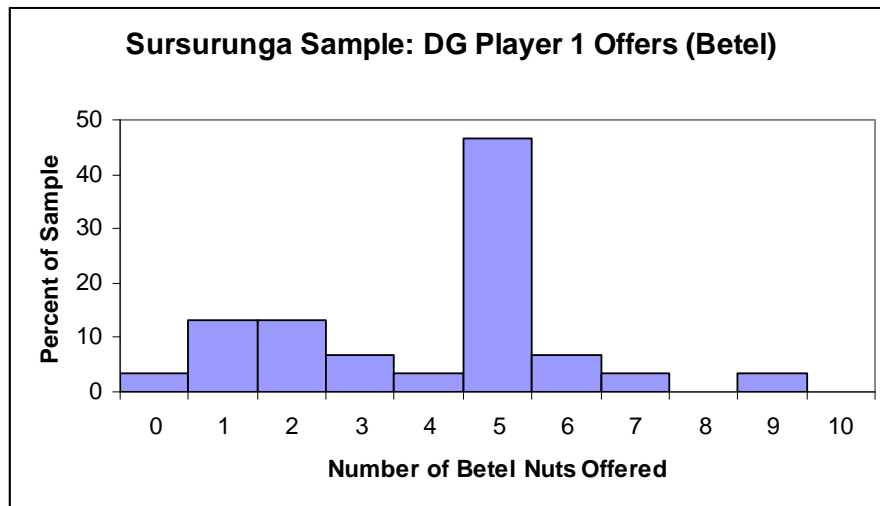


Figure 4 (N = 30; 8 females, 22 males)

Table 4 indicates that there are no significant correlations between the number of betel nuts that Player 1s offered and any other variable. There is a non-significant tendency for those with less education to offer more (or, put another way, for those with more education to offer less), but at this point, it is probably best to assume this result is simply a sampling error.

Table 4: Pearson Correlations: Player 1 Betel Nut DG Offers and Demographic Variables

	<i>Age</i>	<i>Sex</i>	<i>Education</i>	<i>Income</i>
DG Offer (Betel)	-0.07558	0.00	-0.27388	0.142437

3.1.2.2 Betel Nut SMUG

As with DG, the use of betel nut did not seem to affect the results of SMUG. SMUG results are given in figure 5. The mean number of betel nuts offered by Player 1s was more than a 50–50 split: 5.53.

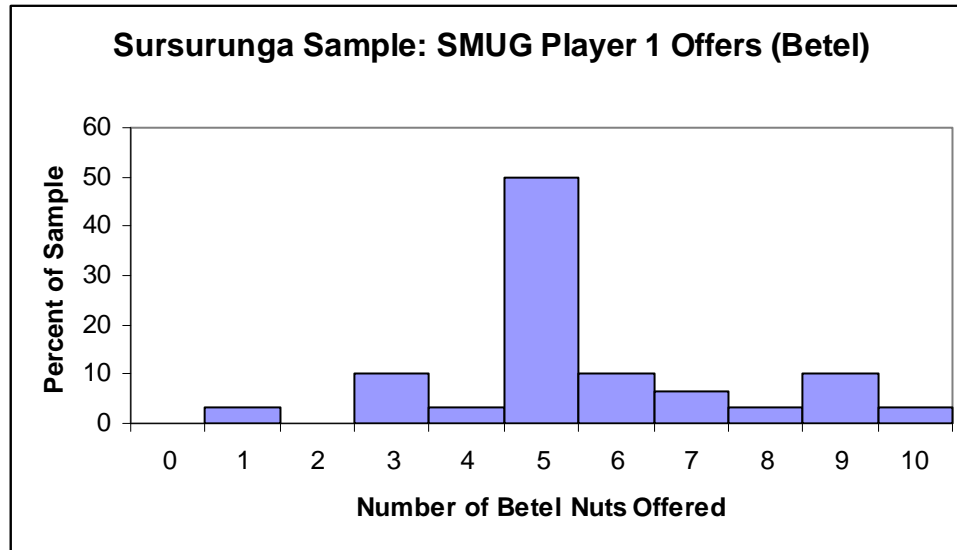


Figure 5 (N = 30; 8 females, 22 males)

Again, table 5 indicates that there is no correlation between age, sex, education, or cash income and the size of Player 1 offers:

Table 5: Pearson Correlations: Player 1 Betel Nut SMUG Offers and Demographic Variables

	<i>Age</i>	<i>Sex</i>	<i>Education</i>	<i>Income</i>
SMUG Offer (Betel)	-0.0431	0.105941	-0.11218	0.127951

3.1.2.3 Betel Nut DG and Betel Nut SMUG compared

Like the cash results, SMUG betel nut offers were larger than the DG betel nut offers. Figure 6 compares Player 1 DG betel nut offers and Player 1 SMUG betel nut offers:

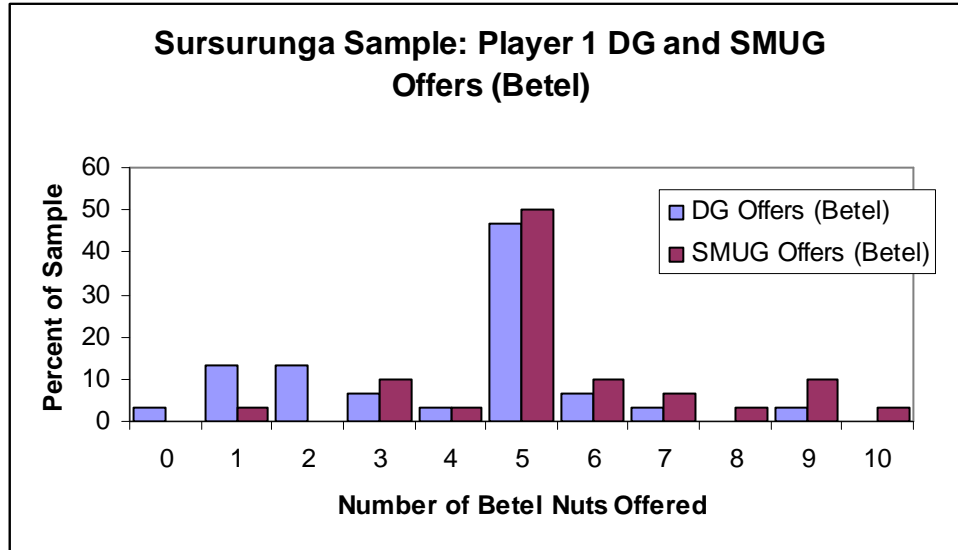


Figure 6 (DG mean = 4.00; SMUG mean = 5.53)

3.1.3 Cash and betel nut results compared

Here I compare the results of the two games to see if the exchange item affects the exchange strategy. Figure 7 compares both versions of DG to each other, while figure 8 compares both versions of SMUG games.

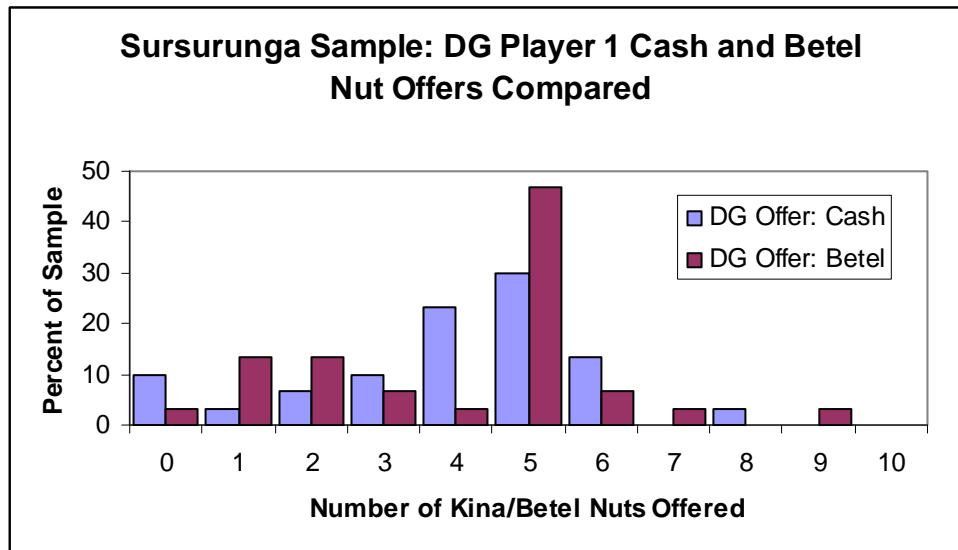


Figure 7

Table 6 indicates that a two-tailed t-test shows no significant difference between the use of cash or betel nut in Player 1 Dictator offers:

Table 6: t-Test: Player 1 Cash DG Offers and Betel Nut DG Offers

DG Player 1	Cash Offers	Betel Nut Offers
Mean	3.966667	4
Variance	3.757471	4.344828
Observations	30	30
Hypothesized Mean Difference	0	
df	58	
t Stat	-0.06414	
P(T ≤ t) one-tail	0.474539	
t Critical one-tail	1.671553	
P(T ≤ t) two-tail	0.949079	
t Critical two-tail	2.001717	

Likewise, SMUG results do not vary as a result of the medium (cash or betel nut) used, as figure 8 indicates.

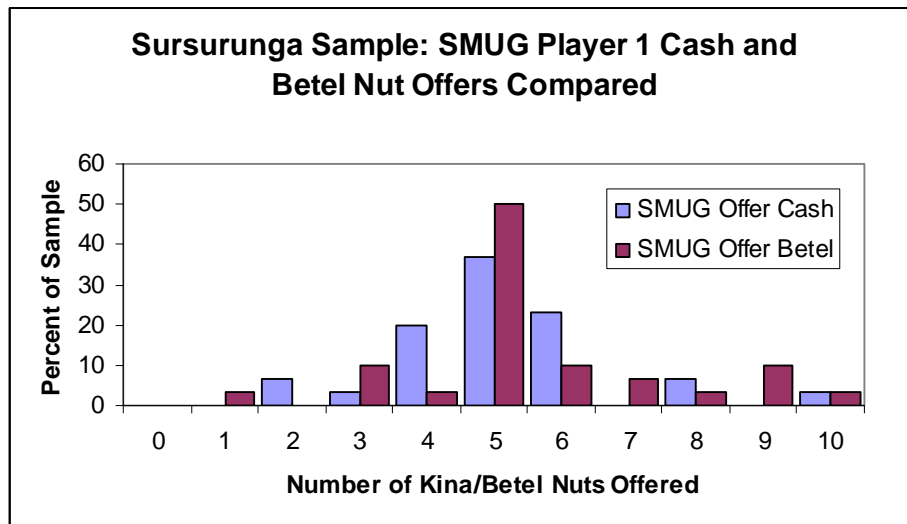


Figure 8

Again, a two-tailed t-test shows no significant difference between the cash SMUG results and betel nut SMUG results, as indicated in table 7:

Table 7: t-Test: Player 1 Cash SMUG Offers and Betel Nut SMUG Offers

SMUG Player 1	Cash Offers	Betel Nut
Mean	5.133333	5.533333
Variance	2.671264	3.912644
Observations	30	30
Hypothesized Mean Difference	0	
df	56	
t Stat	-0.85384	
P(T <= t) one-tail	0.198414	
t Critical one-tail	1.672522	
P(T <= t) two-tail	0.396829	
t Critical two-tail	2.003241	

Before turning to the results of SMUG Player 2, note that figure 9 displays all of the Player 1 offers reported so far. For all four games, a 50–50 split is the modal offer, and in both the cash and betel nut games, the SMUG offers were higher than the DG offers (as expected).

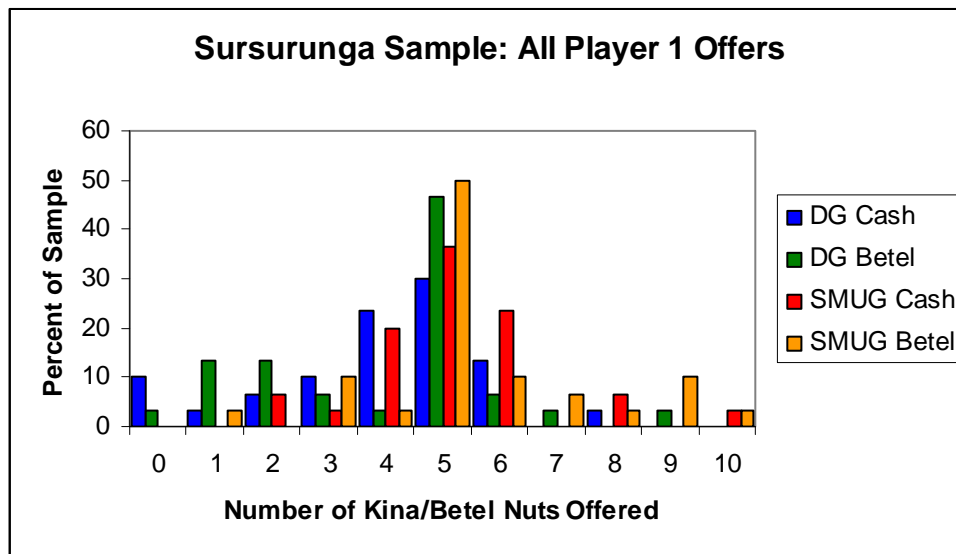


Figure 9

3.2 Player 2 Results

3.2.1 Cash results

3.2.1.1 Cash SMUG

Figure 10 shows the frequency of acceptable offers that Player 2s claimed in the cash Ultimatum game. The graph shows that the most frequently accepted offer

was the 50–50 offer. The mean minimum acceptable offer (recall that MAO was the lowest percentage of the stake that a Player 2 accepted) was 3.93 kina.

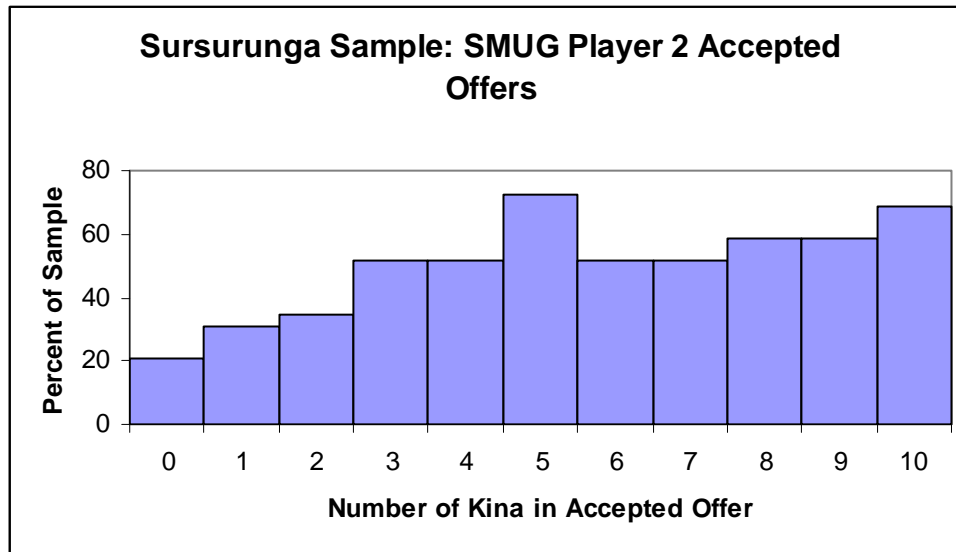


Figure 10 (N = 29; 12 females, 17 males)

In order to contraindicate other variables being responsible for these results, I again provide in table 8 Pearson correlations between the MAO and age in years, sex (males = 0, females = 1), education in years, and cash income in kina earned over the previous year. While there were tendencies for women and more educated people to prefer higher offers (or in other words, women and those with more years of education were slightly more likely to reject offers that men and those with fewer years of education found to be more acceptable), these results are not statistically significant.

Table 8: Pearson Correlations: Player 2 Cash SMUG Minimum Acceptable Offer (MAO) and Demographic Variables

	<i>Age</i>	<i>Sex</i>	<i>Education</i>	<i>Income</i>
MAO	0.033845	0.348145	0.315474	-0.24138

3.2.1.2 Betel Nut SMUG

Figure 11 shows the pattern of accepted offers by Player 2s in the Ultimatum game using betel nut instead of cash. The mean MAO for Player 2s in the betel SMUG game was 3.2 betel nuts.

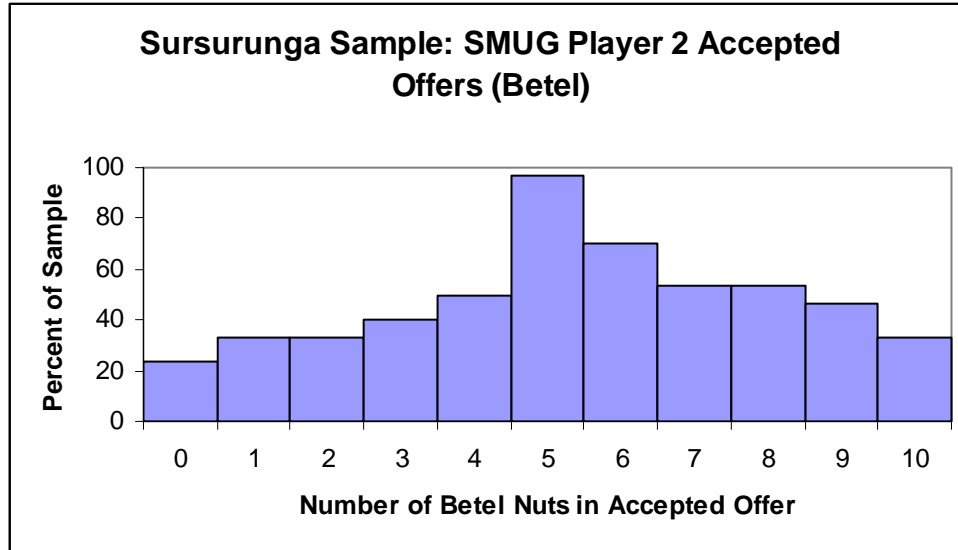


Figure 11 (N = 30; 11 females; 19 males)

Correlations with the four variables and the Player 2 MAOs are provided in table 9. While there was a tendency for older people to have a higher MAO, the result is not significant.

Table 9: Pearson Correlations: Player 2 Betel Nut SMUG Minimum Acceptable Offer (MAO) and Demographic Variables

	<i>Age</i>	<i>Sex</i>	<i>Education</i>	<i>Income</i>
MAO (Betel)	0.308041	-0.1982	-0.01228	-0.04255

In comparing the SMUG Player 2 cash results with the Player 2 betel nut results in figure 12, there are two noteworthy data. The first is, as expected, the modal accepted offer was a 50-50 split regardless of the medium. The second is that in both the cash and betel nut cases, hyperfair offers (those in which Player 1 offers more than 50 percent of the stake to Player 2) are often rejected. I discuss hyperfair offers below.

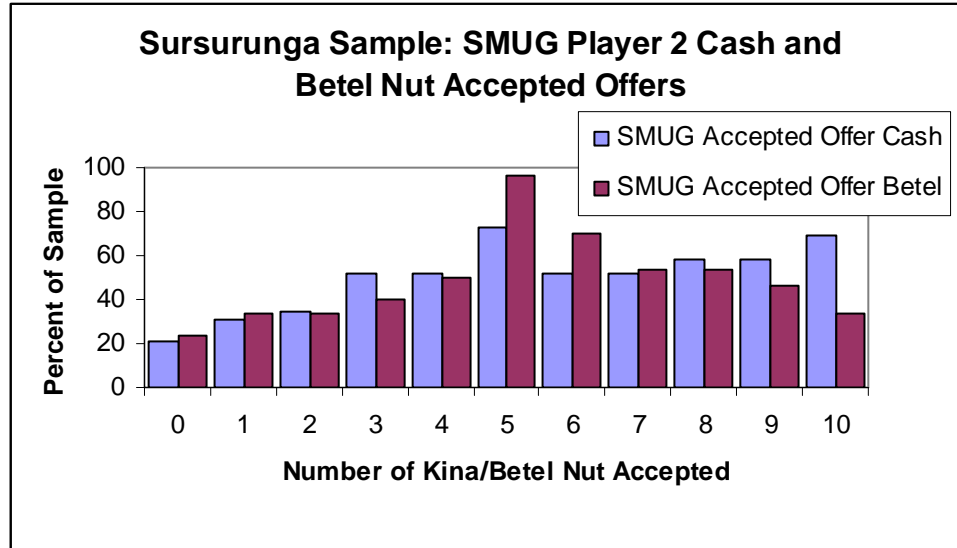


Figure 12

Two-tailed t-tests show no significant difference between the use of cash or betel nut in Player 2 SMUG minimum accepted offers, as can be seen in table 10:

Table 10: t-Test: Player 2 Cash SMUG Minimum Acceptable Offers (MAO) and Betel Nut SMUG MAO

SMUG Player 2 MAO	<i>Cash</i>	<i>Betel Nut</i>
Mean	3.931034	3.2
Variance	9.20936	3.406897
Observations	29	30
Hypothesized Mean Difference	0	
df	46	
t Stat	1.113359	
P(T ≤ t) one-tail	0.135669	
t Critical one-tail	1.67866	
P(T ≤ t) two-tail	0.271339	
t Critical two-tail	2.012896	

4 Analysis

There are two aspects of the results to which I wish to attend. The first is the fact that it is possible—from the perspective of Player 2s—to accept too much, and the second is that there seems to be no appreciable difference between traditional and capitalist exchange media when it comes to decision-making about exchange and allocation of resources.

4.1 The Rejection of Hyperfair Offers by Player 2s

Player 2 acceptance rates—and the high frequency of rejection of hyperfair offers—in the Ultimatum games played by the Sursurunga conform to a pattern first noted among the Au of the Sepik region (Tracer 2004), and which subsequently has been found in other places as well (Fiji, Kenya, Ghana, and Colombia; see Henrich *et al.* 2006). Given that Melanesia is a part of the world where competitive forms of feasting and exchange have long been documented (see, for example, Young 1971 and Strathern 1971), there is really little surprise in the Sursurunga data provided here. What these—and the countless other—forms of aggressive giving have in common is a manipulation of the expectation of balanced reciprocity.

The idea that balanced reciprocity in exchange is a universal human default is demonstrated in the foregoing data, as well as by the fact that Dictator and Ultimatum games always produce modal offers of 50 percent, and that 50 percent offers are the most frequently accepted (Henrich, *et al.* 2006). This does not, of course, mean that human beings are only capable of engaging in equally balanced exchanges. It does, however, mean that people can use, manipulate, and exploit the default preference for balanced reciprocity by providing an extravagant gift that produces an onus on the recipient to give back. I use the phrase “giving-with-a-purpose” to refer to this sort of effort to put the burden of the return prestation on another person (or group).

Indeed, giving-with-a-purpose has become institutionalized in at least one aspect of Sursurunga life, and it is a context in which unbalanced munificence is understood and experienced as an attempt at public humiliation.

The aggressive aspect of giving has been formalized among the Sursurunga in a form known as gomgom. A case from 1998 exemplifies the genre:

Sokip (like all names here, a pseudonym) and his wife Tinkus have a dispute that escalates to her shouting and screaming at him. The commotion is loud enough that Sokip’s mother and brother, Tinamel and Tobim, respectively, who live next door, try to calm things down. This only makes things worse, and by the time Tinamel and Tobim depart, many things were said in anger by both of the women, Tinkus and her mother-in-law Tinamel.

Things eventually simmer down, but bad, awkward feelings remain in the days and weeks that follow. Tinkus and her next-door-neighbor mother-in-law (who would typically find themselves engaged in garden work/child care together) observe a chilly truce, but no one is comfortable with the situation. In order to try to resolve the situation, Tinamel, Tobim, and Sokip decide to sponsor a small (three pigs) gomgom feast.

For the gomgom, everyone in the village (about 110 people) is publicly invited. A date is set and plans are put into motion. Others can provide supplementary food, but the enatic unit of Tinamel, Tobim, and Sokip are primarily responsible for the feast. Those in the village will spend the day eating (and eating well) and visiting in a festive atmosphere. The exception to this will be Tinkus. Her husband’s lineage’s decision to sponsor a gomgom places her on

the horns of a dilemma. If she participates and (publicly) enjoys the largesse of her mother-in-law and her mother-in-law's kin, she cannot continue the feud of glares and steely silence. To be given something and to reciprocate with ill-will is simply not done and would make her the source of malicious gossip. On the other hand, if she chooses not to participate in the gomgom, she (publicly) declares that she is untroubled by the notion that the hard feelings continue, even though her antagonist is ready to bury the hatchet. Naturally, in the court of public opinion, the magnanimity of Sokip's enatic unit will outweigh Tinkus's strident claims that she is being victimized.

The result was that Tinkus was in a bad spot: if she failed to participate, she thereby publicly rejects an attempt to make things better. If she does participate, she is forced to be friendly to her in-laws. They have her. In the gomgom context, giving is an unfriendly, even somewhat hostile, act because it is an attempt to exert control over the behavior of another.¹³ In short, giving overly much benefits the giver rather than the beneficiary. This, then, is why some Sursurunga Player 2s in SMUG—both cash and betel nut versions—stay away from accepting offers that are too high. It is also probably part of the reason why Player 1s seldom give ultra-high offers, but that cannot be demonstrated.

4.2 Cash and Betel Nut Games Compared

If it were to be shown that there are substantial differences in the outcomes of the games depending on whether cash or betel nut is used, then the use of cash in such experiments around the world would be suspect. This is not to suggest that local context has no relevance (see, for example, Lesorogol 2007), but the Sursurunga data and the t-tests run on those data confirm that there can be no *a priori* assumption of a meaningful difference between a traditional medium of exchange and cash when playing DG and SMUG.

There are, however, some differences that should be highlighted. Referring to figures 7 and 8, while the modal offers made by Player 1s are 50–50 splits, note that in both DG and SMUG, that pattern is much more robust in the betel nut games than the cash games. And in figure 12, the acceptance by Player 2s of a 50–50 offer is stronger in the betel nut version. If, as I have shown, the results of these games reveal traditional pattern of exchange irrespective of the medium used, then an easy-to-see implication is that while cash does not significantly alter traditional exchange “grammars,” it does seem to affect them.

The single most noteworthy effect of cash is the two different trajectories of accepted offers by Player 2s (figure 12); while the pattern of accepted offers of betel nut approaches a normal curve, the pattern of accepted cash offers is nearly bimodal. As the cash offer increases, it seems to push Player 2s into a quandary: accept the money or do what feels right.¹⁴ In the end, however, the

¹³In the end, Tinkus did appear at the gomgom and participated fully. (I left the area days after this event and so have no idea of the final denouement, if any.)

¹⁴An anonymous reviewer asks if the tendency to accept higher offers of cash than of betel nut might not be due to the fact that cash is more difficult to obtain than betel nut. While this is not impossible, it does beg the question of why differences do not show up elsewhere. Furthermore, income was not a significant variable in the choices made by Player

New Ireland data do show that it is possible to offer too much, and that individuals in the position of Player 2 prefer a 50–50 offer rather than getting the lion’s share, as the aggregated data of all Player 2s from Sursurunga SMUG games show as in figure 13.

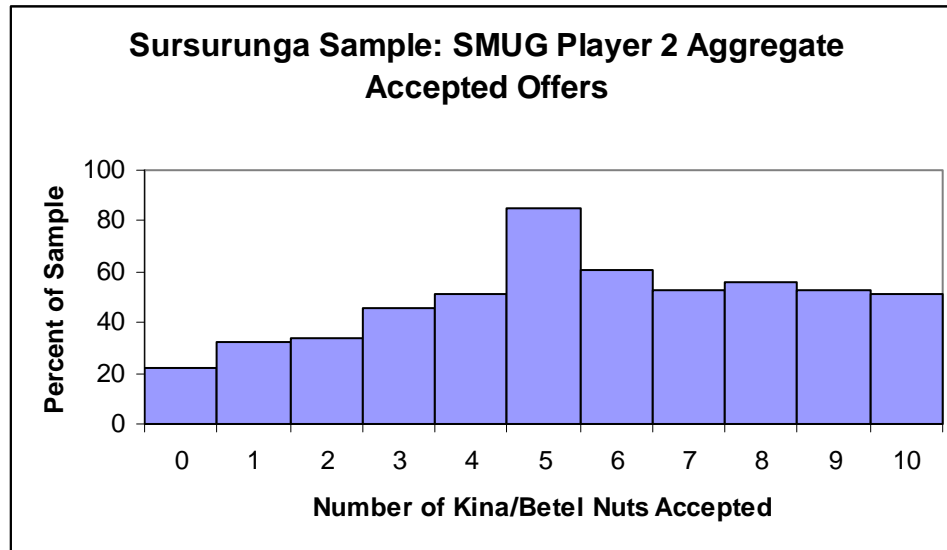


Figure 13

5 Discussion

The observations made from the Sursurunga data are that (1) people prefer not to accept offers that are too high; and (2) the results from using cash in DG and SMUG are not significantly different from the results of games played with betel nut. In this section, I include evidence from post-game interviews to corroborate these conclusions.

First, the rejection of hyperfair offers by Player 2s is articulated along the lines of a default 50–50 split, such that a deviation from 50–50 suggests the possibility of a disquieting reason. Here are some Player 2 responses to the question “How would you have felt if the other person had offered you [the maximum] ten kina/betel nut?”:

- “I would feel sorry that the other person wouldn’t have any” [cash]
- “Not too good. [Interviewer’s question: In what way?] “I would have felt ashamed.” [cash]
- “I would worry about the other person.” [cash]

1s or Player 2s in the cash games, and to the degree that income is a proxy for ease of obtaining cash, the absence of covariation suggests that the perception of the difficulty in obtaining cash is not salient. Having made these points, however, I do have a hunch that at some level, cash is more valued if only because cash can be readily transformed into other resources via purchase, while the same claim cannot be made to the same degree for betel nut. Alas, one cannot even know whether the cash used in the games—essentially a windfall—was viewed in the same terms as cash that results from labor.

- “Ashamed; and pity for the other person.” [cash]
- “I’d be happy, but it would be mixed with shame because the other person has nothing.” [cash]
- “It doesn’t feel right that I should get it all.” [cash]
- “Not good because then Player 1 would have nothing.” [cash]
- “A bit ashamed because the other person has nothing.” [cash]
- “Happy, but pity for the other.” [cash]
- “Happy, but a little embarrassed and sorry for the other person.” [cash]
- “I would feel sad for the other person.” [betel nut]
- “Perhaps a bit sorry for the other person.” [betel nut]
- “I would be embarrassed.” [betel nut]
- “I would be happy, but only if the other person were also happy.” [betel nut]
- “It wouldn’t be right.” [betel nut]
- “I would feel ashamed.” [betel nut]
- “Worried about the other person.” [betel nut]
- “Not good.” [betel nut]
- “It wouldn’t be right; I’d feel pity for the other person.” [betel nut]
- “Embarrassment mixed with happiness.” [betel nut]
- “I wouldn’t feel good; a bit ashamed.” [betel nut]
- “I would want to turn around and give the other person five back.” [betel nut]
- “Not very happy because the other person will be sad.” [betel nut]
- “A little upset; sorry for the other person.” [betel nut]

The sense that something would be relationally amiss in the event of accepting a hyperfair offer is a corollary of the 50–50 default norm, and is reflected both in the rejections of ultra-high offers as well as the comments about such offers.

Second, comparing comments about cash and betel nut games shows that there are no significant differences in responses. During post-game interviews, I asked if the games were like aspects of traditional or customary life (Sursurunga: *tatalen*; Neo-Melanesian: *laip bilong ples*). Table 11 shows the results:

Table 11: Responses to the Question “Does This Game Remind You of Something in Customary Life?”

	Cash	Betel Nut
Different from Customary Life	28	19
Similar to Customary Life	27	38

$$\chi^2 = 0.058305 \text{ (not significant)}$$

The numerical data, statistical test, and oral reports corroborate each other in support of the claim that the media used in the experimental games do not have a significant effect on the results. In short, the decision-making algorithm that is

used for the cash games is (1) either the same one that is used for the betel nut games—and can therefore be understood as “traditional” (with the corollary that cash games do indeed tap traditional decision-making—or (2) the two exchange media trigger two different decision-making strategies which, by coincidence produce the same results. Until or unless there is evidence for the latter, Occam and I prefer the former explanation.

6 Conclusion

The use of cash in experimental games can, on conceptual grounds, be challenged along the lines of an argument that asserts, *a priori*, that money evokes a specialized capitalistic decision-making module. Following this line of reasoning, the use of cash cross-culturally in such games reveals little about pan-human exchange strategies, and would most likely be seen to be an artifact of globalization. The results presented here, however, constitute a preemptive empirical strike against such ideas.

The foregoing account of the controlled comparative use of both cash and a traditional medium of exchange shows that the results of experimental games using cash cannot be rejected unless it can be shown, using the same sort of approach demonstrated in the foregoing, that for a particular site, cash is an unworkable and confounding medium.

The one question that still has no answer—and which will have to remain unanswered—is the one that addresses exchange strategies on the part of those populations for whom money is a largely novel exchange medium. Certainly, Karl Franklin would be in a position to suggest an educated guess about how the Kewa would have carried out Dictator and Ultimatum cash games in his early days among them and how that would have compared to traditional, local exchange media.

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Land-Language Link

M. Lynn Landweer

ABSTRACT

The phenomena of language maintenance and language shift are dependent upon social mechanisms that substantiate a speaker's choice to maintain his or her language repertoire intact or facilitate shift to another language or other languages. But at a deeper level, those social mechanisms themselves are founded in motivations endemic to the society in question.

In research on the mechanisms for language shift in Melanesia, I studied two ethnolinguistic groups, the Gabobora and Doga, speakers of the Anuki and Doga languages respectively. These two groups live adjacent to one another along the north coast of the Cape Vogel Peninsula, Milne Bay Province, Papua New Guinea. They share remarkable similarities in terms of external characteristics, not only location, but also missionization history, education, potential for trade, natural resources, and even profiles of conflict. Yet, in spite of these similarities, their languages occupy opposing ends of the viability spectrum. Anuki, the language of the Gabobora, appears to be viable, while the Doga language is not.

This paper proposes an internal mechanism that is contributing to the divergent language outcomes (differing patterns of marriage alliances) and suggests the motivation behind that mechanism (postulating a link between land security and language choice), concluding with a hierarchical template that may be used assess relative language viability.

1 Introduction

From April 2000 to March 2001, I lived on the Cape Vogel peninsula, Milne Bay Province, Papua New Guinea in order to do a comparative study of two ethnolinguistic groups: the Gabobora and the Doga. My purpose was to pursue research on the mechanism(s) of language maintenance and shift in Melanesia (Landweer 2006).

During my study I found that enclaves of the Gabobora and Doga, speaking Anuki and Doga respectively,¹ hop-scotch one another along the coast and hinterland of the North Cape Vogel peninsula. The two groups have shared equivalent opportunities and challenges to a remarkable degree due to their relative locations, common history of missionization, expatriate-led education, potential for trade, natural resources, and even profiles of conflict (with the same ethnic groups as enemies).² Yet, in spite of these similarities, the Gabobora and Doga people evidence very different outcomes in terms of language prioritization. The Gabobora language, Anuki, is viable while the Doga language is endangered. The issue at hand was to determine what contributed to the difference.

Anuki and Doga are distinct, but related, Austronesian languages within the Papuan Tip Cluster of Western Melanesian Oceanic languages. Genetically, they fall under the Proto North Mainland/D'Entrecasteaux segment of the Nuclear Papua Tip Network, Anuki directly as a member language, and Doga through its connection to the Are-Taupota Chain (Ross 1988:193). They, and nine other related languages, are spoken in the region of the Cape Vogel peninsula and islands adjacent to the mainland.

At the time of the research there were 892 Gabobora and 257 Doga. Both communities practice subsistence gardening, supplemented by what they hunt and gather. In addition to these means of land-based subsistence, some of the Doga also augment their diet with sea fish, which are speared or caught with hook and line. Both the Gabobora and Doga societies function under a dual system of leadership. Traditionally, elders among the Gabobora hold positions of shared authority—coming to decisions by consensus, whereas, among the Doga, leadership is inherited. However, regardless of the traditional form of leadership, both groups also function under an introduced system of elected government. Local government councils are elected (not necessarily from the ranks of Gabobora eldership or the Doga designated leaders) to represent various wards within the broader context of regional politics. Thus layers of local, regional, and provincial government have been added to the traditional systems of leadership.

¹Although the Gabobora people are referred to as Anuki in linguistic publications such as the *Ethnologue* (Gordon 2005), they distinguish the name of their spoken language (Anuki) from the name associated with themselves as a people group (Gabobora). In deference to their wishes, I am maintaining that distinction. By contrast, the Doga people refer to themselves and their language as Doga.

²The use of the term “ethnic” here and elsewhere is to distinguish groups of people who share common ancestry and/or nativity with concomitant identification to a distinct cultural collectivity. This definition is abstracted from Hutchinson and Smith (1996:5)

Research for this paper was conducted on the use of the Anuki and Doga languages through face to face interviews held in public venues in villages throughout the two speech communities over the period of the year of my residence with them. Interviews were conducted in the Anuki language, in which both the Gabobora and Doga respondents were fluent. Respondents were asked to identify the names of ascending and descending generations within their personal family tree, and for every individual identified his/her marital status, the identity and ethnicity of his/her spouse, language repertoire, educational standard attained, and whether, when, and how long each person had traveled outside of the region. Initial interviews with family heads were cross-checked for accuracy in separate interviews with siblings or first cousins of the same generation. The resultant data set of 2031 individuals was narrowed to 1149 subjects who were still living. These subjects represent an equivalent five generations of Gabobora and Doga populations. To be included within this narrowed data set, each subject had to be demonstrably either Gabobora or Doga in heritage, but not both. The final tally was 892 Gabobora and 257 Doga. I was solely responsible for the collection, checking, documentation and all computerization of the data.

The discussion to follow briefly describes the Gabobora and Doga ethnolinguistic groups in terms of their location, their subsistence base, the populations who prioritize their heritage languages as L1,³ the social differences between the two groups, and the impact those difference seem to have on their language profiles, i.e., the mechanism for language shift. The link between land and language is proposed, with a summary of findings, and finally, a practical application for the land-language link hypothesis is put forward as a means of assessing language viability.

2 Ethnolinguistic profiles

2.1 Gabobora

2.1.1 Location

The Gabobora ethnolinguistic group has lived on the Cape Vogel peninsula since before the coming of the Australian Anglo-Catholic mission in 1898 (Wetherell 1977:86). Oral genealogies collected by myself place them on the north side of the peninsula for at least seven generations. Furthermore, colonial records of the patrols of Assistant Resident Magistrate (ARM) O. J. Atkinson (1924-1925) document a verbal claim to the land extending back beyond the memory of that current generation of elders.

Historically, the Gabobora lived in the hills to the south, behind the coastal plain, as well as on the slopes of Mt. Murakoiya and Mt. Kwarubogi. While settled on higher ground, the Gabobora forefathers also laid claim to land along

³I.e., their primary language.

the coast below their settlements. With the advent of colonial administration in 1924 and the oversight of Atkinson, the Gabobora people were persuaded to settle on their coastal land in order to work coconut plantations for income to pay a head tax. This move also placed them within proximity of the track that circumnavigated the peninsula which was a convenience for colonial administrators (9).⁴

The major landmarks of Gabobora territory include the Okoanuba River and Tapio Bay in the east and Posa Posa Harbour to the west, with the Dabi River splitting the eastern and western contingents of the ethnic community. Other landmarks include the limestone cliffs of Mt. Gwagwame to the southwest of Woruka, the slopes of Mt. Kwarubogi southwest of Pem and due south of Tototo, and the dominating Mt. Murakoiya, located south and slightly east of Pem, from which the Dabi River rises, (see map).

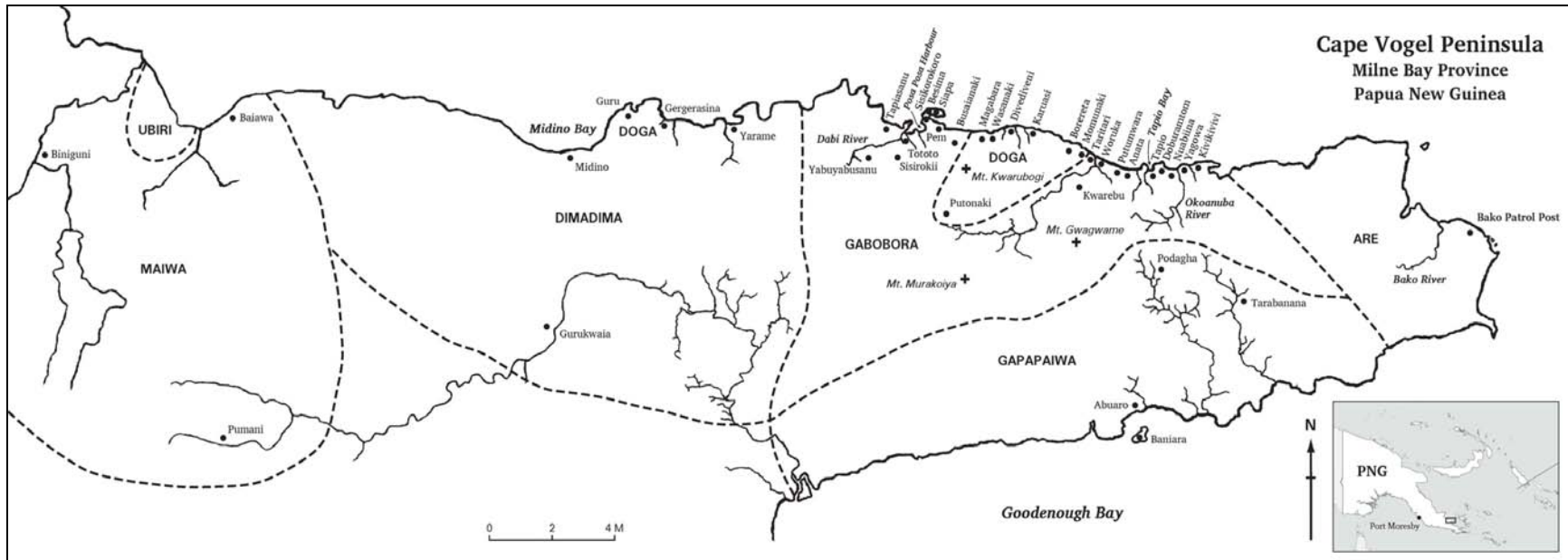
The Gabobora tend to live in non-nucleated family hamlets. There are, however, a few larger groups of families that can be considered villages. Those villages, including associated hamlets, are as follows: (i) Tapio with Nuabiina, Yagoa, and Kivikivivi hamlets, (ii) Woruka with Kwarebu, Taritari, Putumwara and Anata hamlets in the east, (iii) Pem with Sisikorokoro, Besima, Siapa, and Busaianaki hamlets, (iv) Tototo with Sisirokii hamlet, and (v) Tapiasanu with Yabuyabusanu hamlet (shared with Dimadima speakers) at the western margin of Anuki territory. All of these sites are located on the north side of the Cape Vogel Peninsula.

2.1.2 Subsistence base

The Gabobora were gardeners traditionally. When I asked various Gabobora elders for the most important lesson taught to the younger generation, without fail they mentioned the gardening calendar and the skills associated with gardening. Everything else is secondary. Thus, for the Gabobora, land for gardening is of utmost importance. Further, their ownership of the land they occupy is secure. Historic evidence suggests that they have been tied to the land they occupy for generations. In fact, they typify themselves as *simake bubuna*, i.e., ‘they have stayed well’ on their own land (5, 2).

Gabobora land holdings seem adequate to meet subsistence needs for the present. Most of their nutritional needs are met through their garden produce, supplemented by what they can hunt and gather from the bush or by the fish a handful of skilled fishermen take from the sea. However, because the Gabobora value education and school fees are required for the access to a market economy, they have come to depend on excess garden produce and the production and sale of copra for cash. Thus, the Gabobora report a dual economic system: garden subsistence supplemented by hunting and fishing for the majority of their nutritional needs, and marketing ventures for modern goods and services, including education.

⁴Reference numbers in parentheses indicate that the data have come from specific interviews in personal communication and correlate with the “Individual Respondent” section preceding the “References.” Thus, reference (9) refers to Thomas Luai. Luai is the archives reference officer working at the National Archives of Papua New Guinea. The first reported trip of O. J. Atkinson to the north Cape Vogel peninsula occurred from 16 January to 2 February 1924.



2.1.3 Speaking population

From 2000–2001, there were 892 living ethnic Gabobora (table 1).⁵ Of these, 625 (70.6 percent) speak the traditional vernacular (Anuki) as their L1 (table 2), regardless of their place of residence. Furthermore, 456 (51.1 percent) live in village or family hamlets within their traditional territory. Locally resident population 411 of 456 (90.1 percent) speak Anuki as their L1 (table 2). Thus, within traditional Gabobora villages, resident Gabobora clearly prioritize Anuki as their language of choice. Furthermore, when one examines the language preferences of everyone living in Gabobora heritage sites, regardless of the ethnicity of the speakers, Anuki is still the dominant language. Of the 601 speakers in Gabobora villages, 474 (78.8 percent) prioritize Anuki (table 3).

Finally, because the future of a language is bound in the linguistic choices of the children, one is wise to examine the language preferences specific to that population. When one looks at the language of Gabobora children and youth, Anuki is found to be quite strong. Regardless of their place of residence (whether in Gabobora territory or elsewhere) 247 of 409 (60.3 percent) Gabobora children speak their heritage language (table 2).⁶ This percentage represents a number that is twice the minimum of speakers suggested by the 2001 UNESCO publication for endangered language status, i.e., if a language is not to be considered endangered, minimally thirty percent of the children of a speech community must learn the traditional language of their forefathers (Wurm 1996:14). It should also be noted that the cadre of youth and children accounts for 409 (of 892, i.e., 45.9 percent) of the entire Gabobora-heritage ethnolinguistic group⁷ (table 1). Thus, it seems abundantly apparent that the Gabobora as an ethnic community prioritize their heritage language Anuki.

2.1.4 Characteristics of marital unions

One of the social factors that supports the continued use of the Anuki language is found in the character of the marital unions formed by the Gabobora with the inter-generational transmission of the language through such unions. The number of exogamous to endogamous marriages was 166 to 127 of 293 unions, i.e., 56.6 percent vs. 43.3 percent (table 4)⁸. Whereas in 2000-2001 exogamous marriages outnumbered endogamous marriages by 39 unions (13.3 percent), this

⁵To be considered “Gabobora” an individual must have one ethnic “Gabobora” parent.

⁶The percentage raises to sixty-five percent (247/380) if one removes the number of children whose language preferences are unknown (table 2).

⁷For both the Gabobora and Doga speech communities, the percentage of youth and children to the adult (including elders) population was determined using the entire population of youngest generational cohort (to the age of twenty), regardless of established language preference, to the entire population of adults and elders in each community. Among the Gabobora there are 409 in the youngest cohort, of which 380 have demonstrable language preferences established. Among the Doga there are 139 youth and children of which 124 have a defined language preference.

⁸To be considered endogamous or exogamous the ethnic heritage of both partners of a union had to be established.

is a relatively new innovation.⁹ Among those who did marry a Gabobora spouse, it was noted that the Anuki language was clearly prioritized. Statistics show that of the youth and children born of such endogamous unions, the vast majority, 137 of 148 (92.5 percent), prioritized Anuki (table 5). The language allegiance figure for Anuki among Gabobora (regardless of generation) born of parents sharing that ethnic heritage was 384 of 411 (93.4 percent, table 5).

It should be noted that even within exogamous marriages, Anuki was still the language of choice among *some* of the youngest generation, viz., 85 of 206 (41.2 percent). Overall, 201 of 401 (50.1 percent) Gabobora born of exogamous marriages prioritize Anuki as their language of choice (table 6).

2.1.5 Residence patterns

When one looks at the residence patterns of those who claim Gabobora ethnicity, one discovers two interesting characteristics in terms of language prioritization. First, as noted above, Anuki is the language of choice in Gabobora villages, and secondly Gabobora children who do not prioritize the Anuki language live distant from the Cape Vogel Peninsula.

There were 178 families represented among the Gabobora who reside in Gabobora heritage sites. Language preferences are known for all but one of the 356 individuals within those marital unions. Only 74 of those 355 individuals (20.8 percent) were speakers of languages other than Anuki. Of marriages represented within Gabobora territory, only 67 of 178 (37.6 percent) are exogamous.¹⁰ A total of 121 of 140 (86.4 percent) children and youth of these mixed-heritage households living in Gabobora territory claim *Anuki* as their L1.¹¹ Considering the language preferences of the total population of Gabobora individuals living in their traditional territory with 192 of 215 (89.3 percent) children and 411 of 456 (90.1 percent) of the population overall speaking Anuki (table 2), it seems that the impact of non-Gabobora spouses does not significantly deter the transmission of the Anuki language inter-generationally.

Secondly, while it is true that 121 of 206 (58.7 percent) Gabobora children of exogamous marriages do not speak Anuki as their L1 (see table 6), it is also true that these mixed-heritage children do not live in the core¹² of Gabobora communities or for that matter, in terms of the majority, on the north Cape Vogel peninsula. Of the 121 non-Anuki-speaking Gabobora children, only 12 (9.9 percent) live on the peninsula, and none in villages that are central to

⁹According to their Gapapaiwa competitive feasting partners, until recently the Gabobora tended to marry other Gabobora. Marrying exogamously then is a relatively new innovation. (McGuckin, personal communication, 24 August 2008)

¹⁰The vast majority of the exogamous Gabobora unions function as Gabobora single-parent households. Of the 42 children of such unions, 37 (88.0 percent) claim Anuki as their L1. Of these, only one of the 32 who live in Gabobora territory does not claim Anuki as the L1. It seems, therefore, that these children are strongly influenced by their Gabobora single parents, functioning more like the children of endogamous rather than exogamous unions.

¹¹There are actually 145 children of exogamous unions, but five are preverbal, and thus were deleted from the number and percentage of speakers.

¹²“Core” refers to villages that are central to the traditional territory of an ethnolinguistic group as opposed to communities on territorial borders, where residents of neighboring languages would be in regular contact with those of the target group.

Gabobora territory. Six children, from two Gabobora-Gapapaiwa mixed-marriage families, live in the Gabobora-Gapapaiwa border communities of Podagha or Tarabanana and speak the Gapapaiwa language. The remaining six children of a Gabobora-Dimadima marital union live in the Dimadima border community Yarame and speak the Dimadima language. The remaining 109 non-Anuki speaking children live distant from Gabobora territory and the Cape Vogel Peninsula. Further, in every case when these individuals speak another vernacular language, it is the same as their non-Gabobora parent's L1 and of their residential community. Thus, it seems that while there are a number of Gabobora-heritage children growing up speaking a language other than Anuki, the impact of the language choice of a vast majority of them (109 of 121 or 90 percent) is not felt in Gabobora communities scattered along North Cape Vogel.

2.2 Doga

2.2.1 Location

Oral traditions indicate that the Doga were characteristically nomadic, so much so that they have been labeled by such terms as *travelers*, *passengers*, and/or *floaters* by the Doga themselves (15)¹³ as well as by their Gabobora neighbors (1, 6).

The largest verifiable complement of Doga¹⁴ claimed that their roots lay in locations scattered in both the Oro and Milne Bay Provinces. Their family genealogies associate them with ethnolinguistic groups including the Maisin, Ubiri, Maiwa, Dimadima, Gapapaiwa, and Gabobora. It should be noted, that in spite of persistent questioning, no *single* source location for the Doga ethnolinguistic group was ever indicated in the compiled oral histories that extended across five generations. This suggests that the Doga have been nomadic, i.e., without recollection of a specific source location, since beyond current memory.

Further, given the oral histories provided, there is evidence of two distinct sub-groups within the Doga ethnolinguistic community; viz., the Doga who were seafarers, sailing between temporary camps off the coast, and other Doga who were apparently land-based.

It should be noted that Doga migration, regardless of sub-group was characterized as a movement of clans or family units rather than as of one corporate whole.

2.2.1.1 Historic locations of seafaring Doga

The descendents of seafaring Doga appear to have originated from points north and west, i.e., from coastal locations such as the Ubiri village of Kewansasap in

¹³Reference numbers in parenthesis indicate that the data has come from specific interviews in personal communication, cf. "Individual Respondents" list preceding Tables and References.

¹⁴Those living in settlements along the North Cape Vogel peninsula, having at least one parent claiming to be Doga.

Oro Province, and the Maiwa village of Baiawa located on the western edge of the Milne Bay Province (10). In addition to these two locations, the seafaring Doga people were reported to have established fishing camps around the now-submerged islands of Kukunaki and Segunaki (adjacent to the mainland villages of Pem and Magabara) along the north coast of Cape Vogel (3).

Whether the Doga people ever built permanent structures on Kukunaki and Segunaki is unknown, but it is certain that they cannot do so now because both islets are submerged, yet still visible in the aquamarine waters off the mainland. The Gabobora elders (17) reported that between the founding of St. Augustine's school at Pem in 1932, and WWII, ten years later, Kukunaki and Segunaki sank, obviating them as potential settlements—even as temporary fishing camps.

Ultimately, the seafaring Doga accepted an invitation to settle on land granted to them by the Gabobora elders (6). That original settlement was Karuasi, located the north side of the Cape Vogel peninsula, between the Gabobora settlements of Woruka and Busaianaki.

2.2.1.2 Historic locations of land-based Doga

The second sub-group of Doga seems to have been land-based. While only fragmentary evidence exists of this segment of the Doga society, their existence, places of origin, and the current location of their descendents were recounted in the oral histories of clan affiliation.

According to the Gabobora Eastern Elder Group, the land-based Doga came from as far south and west as Biniguni, forty-two kilometres WSW of Guru and Pumani, twenty-seven kilometres SW of Guru, in Maiwa country; as well as Gurukwaia in Dimadima territory, twelve kilometers SSW of Guru (6). Some of these Doga may have been among those reported to have settled in two locations in the hills just above Pem at the foot of Mt. Kwarubogi (10).

2.2.1.3 Locations of present-day Doga

Oral histories regarding the points of origin of the Doga people suggest that they have not always been resident on the Cape Vogel peninsula, but have traveled from locations west and southwest of their current settlements. Further those histories demonstrated a settlement pattern of geographic fragmentation. That fragmentation continues to be evident among Doga society.

The largest group of ethnic Doga people were found to be located between Gabobora villages along the north side of the Cape Vogel peninsula. Even on North Cape Vogel, the Doga do not represent a cohesive whole, but are found in two concentrations. The eastern settlements of the Doga include Borereta village with its surrounding hamlets Momunaki to its east and Wasanaki and Karuasi to its west; as well as the inland village of Putonaki;¹⁵ and then further west, the

¹⁵Both Anuki and Doga speakers live in Putonaki.

villages of Divediveni and Magabara.¹⁶ The western enclave of Doga on North Cape Vogel are found in two small hamlets: Geragerasina and Guru¹⁷, located to the west of the Gabobora villages of Pem, Tototo and Tapiasanu. Of these Doga locations, all but Guru and Putonaki are coastal.

The major landmarks of the Doga settlements on North Cape Vogel include the Dabi River to the east within a very short walk of Momunaki, and to the west, the eastern headland of Midino Bay (see map).

In addition to these northern settlements of Doga along the Cape Vogel peninsula, it was reported that individual Doga families continued to scatter south and east to settle as far as the villages of Abuario and Baniara in Gapapaiwa territory (10).

As travelers dependent upon treaties, the Doga have not enjoyed the stability of having been associated with their current piece of ground since time immemorial. Whether having arrived by sea or across land, Doga settlement patterns have always been dictated by the availability and suitability of land for building or subsistence as well as the skill of family or clan leadership to establish and maintain treaties with the elders of the speech communities with whom they have come to live (16). One of the outcomes of this independence of movement is a geographic fragmentation of the speech community *and* insecurity in the land that they occupy.

2.2.2 Subsistence Base

Historically, there is evidence that the Doga people practiced two complementary and distinct approaches to subsistence: one subgroup basing their livelihood from the land, and the other from the sea. Thus, among the one contingent there were leaders in competitive gardening (Young 1971) as well as the practice of pig and fowl husbandry. The second contingent held skills related to the seafaring (such as canoe building, fishing and making fish nets).

2.2.2.1 Land-based subsistence

Only fragmentary evidence exists of the land-based Doga. Their existence was documented by oral histories of clan affiliation. The primary data substantiating their distinct land-based role was found in the contemporary recollection of the names of their feasting chiefs—the organizers of gardening for competitive feasting (from the Awanare clan); of those who cared for fowl (of the Dibosoro clan), and of those who tended pigs (in the Waraga clan).

¹⁶Both Anuki and Doga speakers live in Magabara.

¹⁷In Guru and Geragerasina, both Doga and Dimadima are spoken.

2.2.2.2 Sea-based subsistence

The seafaring Doga, sometimes generally referred to as *Karapempta* were fisherman, makers of nets, and traders via ocean-going canoes (8). Associated with the *Karapempta* were members of the *Kuyauwa* and *Ewaboana* clans, who made the canoes.

The seafaring Doga traded fish for black palm spears (13) and/or garden produce (4) with other ethnolinguistic groups living adjacent to and beyond their fishing camps. Their trading circuit ranged from Doburamtom near Nuabiina (just east of Tapio) in Gabobora territory to Wamsia, near Midino, and Yarame both in Dimadima territory (13). While maintaining the fishing rights over the submerged islands of Kukunaki and Segunaki, (17), the seafaring clans of Doga ultimately moved inland and, like their land-based brothers an Gabobora neighbors, took up gardening. At the time of data collection, the Doga sea-faring trade was a thing of the past, however, local fishing and land-based trading skills continued, serving to supplement what they produced from their gardens.

2.2.2.3 Current subsistence practices

Regardless of historic clan affiliation and traditional subsistence responsibilities, it was reported that “everyone” among the Doga now live from the produce they raise (16). As a very industrious people, they supplement their subsistence gardening by taking full advantage of the regional market economy. They sell or trade excess produce and/or fish at local markets in neighboring Gabobora villages, in places as distant as the Bako Patrol Post, a day’s journey to the east (in Are territory), and in Midino, equally distant to the west (in Dimadima territory). However, it is also true that the cessation of their subsistence by sea-based trading has resulted in dependency upon the land they occupy.

2.2.3 Speaking population

The Doga ethnic population numbers 257 (table 1). Of this number, 120 (46.7 percent) clearly prioritize the Doga language (table 7). If one adds those whose coordinate bilingualism includes the Doga language as one of the pair of languages spoken as L1 (16 individuals) then the percentage rises to 52.9.

Of the 139 ethnic Doga youth and children, only 47 (33.8 percent) clearly prioritize Doga as their L1 (table 7). If one adds in the eight coordinate bilinguals, then the percentage is 39.5. Thus, even taking the most optimistic view (including the coordinate bilinguals) the use of the Doga language by the youth and children still approaches the UNESCO 30 percent minimal criterion for endangerment (Wurm 1991:14). The negative impact of this low inter-generational transmission rate is compounded by the fact that this youngest cohort of ethnic Doga makes up over half of the known population at 139 of 257 (54.1 percent, table 1). Finally, over half of the ethnic Doga live in other-

language heritage sites away from the larger concentrations of Doga speakers on the Cape Vogel peninsula, where the language of their host communities prevail. This is demonstrated by the fact that only 41 of 144 diasporic Doga (28.5 percent) continue to speak their heritage language (table 7).

2.2.4 Characteristics of marital unions

The typical ethnic Doga marriage pattern appears to have contributed to the decline of Doga inter-generational language transmission. Overall, only 19 of 82 (23.1 percent) ethnic Doga marriage unions were endogamous (table 4). When one focuses specifically on Doga settlements, the presence of exogamous marriages is all too evident: 31 of 43 (72.09 percent) are exogamous. It should be noted that *all* of the non-Doga spouses in these unions have a language *other* than Doga as their L1, as do four of the ethnic Doga themselves. Thus, of the 62 men and/or women found within exogamous marriages in Doga territory, only 27 (43.5 percent) individuals speak Doga.¹⁸

2.2.5 Residence patterns

It is also important to look at the composition of Doga settlements. Considering all residents of Doga settlements, regardless of ethnic heritage, 113 of 226 (fifty percent) are of Doga heritage (table 7 with table 8). Of the total population in these locations, 110 of 226 (48.6 percent) speak Doga as their L1.

The majority of those forming the nucleus of ethnic Doga families within Doga settlements have exogamous marriages with spouses who maintain their own language as their L1. Because of the percentage of residents who speak languages other than Doga, the Doga language within the core of the Doga settlements is in danger of linguistic swamping. Such is evident by the language preferences indicated by the adult and elder populations of Doga settlements, with only 49 speakers of Doga as L1 as contrasted to 59 speakers of other languages (table 8).

The linguistic situation is not only undermined within the Doga-designated territory, it is also endangered where the Doga have settled beyond those confines. When one looks at the diasporic Doga, i.e., 144 of 257 (56 percent of the ethnic Doga population) who have emigrated to locations outside of the Doga land-grants on North Cape Vogel one finds only 41 of that 144 (28.5 percent) claim to speak Doga as L1 (table 7). What is particularly telling is that of these 41 Doga-heritage emigrants, only six are in the cadre of children or youth. Further, of the entire grouping of emigrant youth and children only six of 78 (7.7 percent) are continuing to speak Doga. Clearly, the future of the Doga language is endangered both from within and without.

¹⁸Similarly, of those exogamous couples currently resident outside of Doga settlement areas, only one person speaks Doga and that coordinately with Maisin as his L1. He is ethnically Doga-Maisin.

2.3 Discussion

The Gabobora and Doga populations differ significantly ($p = .000$ Fisher's Exact Test) in relation to endogamous or exogamous marriages. Fully 49.5 percent of the Gabobora population was born of endogamous marriages. For the Doga, however, the figure was only 20.4 percent (table 9). This correlates with a greater propensity among the Doga for exogamous unions than among the Gabobora, at 76.8 percent vs. 56.6 percent (table 4). The two communities also vary markedly in terms of their possession of the land they occupy. The Gabobora, as apparent residents long before recorded history, are secure in their land holdings. The Doga, by contrast, being recent immigrants, are subject to land grants provided by the Gabobora clans.

What motivated the Doga people toward exogamy? What precipitated Doga migration, the dispersion of their family units and clans throughout the Cape Vogel peninsula and beyond, a move which both facilitated and entailed exogamy? The answer to these questions may be found in the oral traditions of Doga migrations.

According to Doga sources, the Doga are highly fragmented by reason of their migratory history, including the manner of those migrations. According to statements made by the Wasanki elder group, "each Doga clan travelled their own way" (16). Whether motivated originally by the need to survive—as was the case of the Karapempta, Kuyauwa and Dibosoro clans who fled as refugees from fighting (8,10), or in search of suitable land—as was the case with the Doga Waraga clan (15), subsequent settlements were invariably temporary. One theme repeated itself consistently during the interviews with Doga leaders, viz., internal disagreements and strife motivated Doga-speaking individuals and/or family groups to separate and seek places far from one another, as well as distant from those with whom they may have had treaties. Such was the case among members of the Doga Awanawre clan who disagreed over sugar cane (7, 14), among individuals within the Doga Ewaboana clan who fought over laulau fruit (11), and among the brothers of the Doga Dibosoro clan who were in strife over women (12, 18).

Thus, strife between segments of the Doga ethnolinguistic group and subsequent independent travel by the clans and families has resulted in a fragmented Doga population, both socially and geographically. As a result, Doga settlements have always been dictated by the availability and suitability of land, as well as by the skill of the family leadership to establish and maintain treaties with the elders of the speech communities with whom they have come to live (16). One of the outcomes of their migratory pattern and subsequent geographic fragmentation is that the Doga do not seem to be secure in the land they occupy.

As travelers, dependent upon treaties, they must exercise wisdom, grace and conciliatory skills to ensure continued production from their gardens tilled in the soil of land grants. As such, the Doga community must find ways to fit within their host communities. That they have been successful in "fitting in" was made evident when I interviewed various Doga elders and asked them to identify

cultural markers that distinguished them from the neighboring Gabobora ethnolinguistic group. The vast majority of the Doga respondents struggled to find examples that would differentiate the two groups. This contrasted markedly with the ready ability I found among the Gabobora to speak of markers of their cultural heritage. The Dogas' lack of awareness of cultural distinctiveness corresponds with what seems to be a conscious endeavor to blend in with their neighbors. It was as though the value to assimilate trumped any value of being uniquely Doga. One man's response seemed to capture the essence of this Doga perspective, viz., "I live in Anuki territory now. I am an Anuki" (i.e., Gabobora) (8).¹⁹

A complicating feature of the Doga situation in 2000-2001 was a brewing land dispute. While the land holdings of the Gabobora and those on which the Doga have settled seemed to be sufficient to support an adequate garden subsistence for the time being, anxiety was building over future land resources. Thus a dispute over land rights flared between the Doga representatives and Kimoiya clan members of the Gabobora. It seems members of the Kimoiya clan were resentful of the Doga who had expanded their settlements beyond the boundaries they (the Kimoiya Gabobora) perceived to have been the original land grant. Time will tell whether this dispute will grow to the point of disenfranchising the Doga. However, it was evident that at least some of the Doga settlements were at risk and that the Doga were quite aware of it.

With the historic loss of temporary fishing camps, the cessation of the seafaring trade, and the necessity to depend primarily on gardening subsistence practices, the Doga honed their skills of blending-in and conciliation in order to ensure their survival. Responses to crises, such as the land dispute noted above, varied according to the individual Doga or Doga family. Some have worked to strengthen their ties and moved to live with relations resident elsewhere. Some chose to relocate along the Cape Vogel peninsula within the traditional territory of other ethnolinguistic communities. Other Doga moved to urban centers located far from the Cape. Still others, like Mr. Iimasame, purposed to assimilate into their current surroundings. In Mr. Iimasame's case, he had become "Anuki" (i.e., Gabobora) to ensure his current home (8).

It should be noted that, except for decisions to relocate among relatives, all other choices of migration for the Doga result in contact with other ethnolinguistic groups. One of the consequences of such immigration is that the migrating Doga children are exposed to the language of their host society. Typically, when these immigrant children grow to maturity, they marry exogamously, usually into their host society. As a result, the grandchildren of the original Doga immigrant adults are doubly exposed to a language other than Doga: first, as the L1 of their non-Doga parent, and secondly, as the language used by the broader community. Yet, along with language exposure, Doga migrations have also provided a means for obtaining land for their descendents. The children of exogamous unions gain rights to local land through the

¹⁹Iimasame's reference to the Gabobora as "Anuki" may have been in deference to my initial faulty usage of the language name to refer to the ethnolinguistic group. As I have noted, the Gabobora refer to themselves as "Gabobora," but reference their language as "Anuki."

inheritance of their non-Doga parent. Inherited land then becomes the mechanism of stability and subsistence for succeeding generations. However, as the data demonstrate, such immigration frequently results in a shift of language allegiance to the local vernacular; viz., only six of the 144 Doga emigrant diaspora, who continued to use Doga as their L1, are children (table 7).

While never stated as such by any of the Doga interviewed, the loss of the Doga identity and language is a direct outcome of their shift to dependence on garden subsistence (rather than fishing technologies and trade), their migrations to arable land, and the Doga value and necessity to “fit in” within their host communities. For “fitting in” is prerequisite to their continued occupation of the land granted to them, and land is prerequisite to survival in a garden-subsistence system. Thus, for the Doga there was a definitive land-language link—they are acquiring the languages spoken by those who have granted them land.

Are the Doga alone in this association between land, language and cultural heritage? No, there are other communities in equivalent straits. In 1989, I visited two other Papua New Guinean ethnolinguistic groups whose access to traditional lands was limited or impossible, and for whom that lack of access was coincidental to language loss, viz., the Labu (Morobe Province) and the Koita (Central Province). Both groups had been driven from their traditional lands by warring neighbors some generations previously and were subsequently living in “new” territory. In the case of the Labu, survivors fled to a tiny spit of land bounded by the sea on the east, a swamp on the west, the Markham River to the north, and Sugar Loaf Mountain to the south. The Koita also fled, quite literally into the ocean where they built new homes on stilts over the water, in enclaves located between those of the prestigious and “safe” Motuans. Both of these displaced ethnolinguistic groups (Labu and Koita) have since taken on a subsistence base within a market economy, either primarily—where survival is based on processed foods purchased in the markets in Lae (Labu), or supplementarily—where they purchase foodstuffs in addition to what they can raise by limited garden production (Koita). Finally, both were shifting their language allegiance to the languages associated with their need to access a market economy, the Labu extensively so to Tok Pisin, and the Koita to a lesser degree to Motu and/or English. Like the Doga of the Milne Bay Province, the disparate Labu and Koita ethnolinguistic groups seemed to be losing facility in their own languages, a loss that was coincident to their loss of access to their traditional lands, and with that loss, a loss of the concomitant subsistence base associated with those lands, i.e., gardening.

2.4 Land and language

The loss of language which is coincidental to the loss of their access to traditional lands begs the following questions: “What is the typical Papua New Guinean view of their land? What is their view of their heritage language? What is the relation of both land and language to ethnicity?”

In Papua New Guinea, every bit of land is owned. Land can be lent, borrowed, rented, even gifted temporarily, but it is fundamentally inalienable. Land is therefore intimately linked with individuals and individual ethnic communities. Thus, Sean Dorney, journalist and Papua New Guinea historian, speaks of the “passionate importance of land to all Papua New Guineans” (1991:18). The wife of an early colonial administrator, Rachel Cleland, states it this way, “The land itself is part of the very soul of the clan” (1983:133). Summarizing the perspective of highlands groups in Papua New Guinea, Philip Gibbs states the land is a “source of social value in security, unity and identity” (2005:3). Clearly there is a strong link between Papua New Guineans and their traditional lands.

But land is not alone in this social prominence. Language is also intimately tied to ethnic consciousness. Such notables as Fredrik Barth (1969:14), Joshua Fishman (1998:330), and William Labov (2001:246) have agreed that the most common marker of ethnic identity is language itself. But specifically, within the context of multilingual and multiethnic countries, William Foley notes that “language and race/ethnicity are so closely tied together as to be almost interchangeable as a label of one’s social identity” (2000:338). With regard to the nations of Melanesia, of which Papua New Guinea is a member, Donald Laycock notes, “linguistic diversity...is perpetuated as a badge of identification.... [S]omeone who speaks exactly as you do may or may not be a friend; but someone who speaks differently is always automatically an outsider....” (1982:34-36). Finally, Papua New Guinean linguist, Otto Nekitel states,

Socially, language binds or cements individuals to larger human aggregates. Members of a community often use their mother tongues as indicators of their social groups and ethnic belonging. Societal differentiation is, therefore, marked by or coincides with linguistic differentiation. (1998:22)

Clearly, ethnicity and land are linked, as well as ethnicity and language, but what of a link between language and land?

In the regions surrounding Papua New Guinea, i.e., Australia, Southeast Asia, and Micronesia (see Merlan 1981:139, Hajek 2002:200, and Florey 1991) a direct link between land loss and language loss has been posited, a concept put succinctly by Donald Topping as the phenomenon of “unitary territory-language affiliation” (2003:525). Within Papua New Guinea, Don Kulick expresses a positive connection between land and language in his ethnography of a tiny East Sepik Province speech community, stating, “Taiap [language] is understood by the people of Gapun to be inseparably bound up with the land” (1992:85).

But the question remains: “Is there a specific link between land loss and language loss in Melanesia, specifically in Papua New Guinea?” That link is emblematic to people groups in Papua New Guinea has already been established. Perhaps the best way to answer the question is to recognize that the link between language and land is more than emblematic; there is also a very practical side. The vast majority of the Papua New Guinean population (85 percent) depend on their land for survival through subsistence gardening. Thus, loss of land endangers existence, while production from accessible land ensures survival.

On the other side of the globe, Scott Palmer addressed the practical relationship between subsistence activities and language. Palmer proposes that a “change in work structure,” i.e., employment, and concomitant “change of language of work” presaged a shift of language allegiance among indigenous Native Americans. In essence, a change of their subsistence base (to “a wage based economic system”) required a change of language (1997:263). Similarly, the loss of the traditional Doga subsistence base (seafaring trade), particularly so for the Karapempta, Kuyauwa and Ewaboana clans of the Doga, and the necessity to settle on the mainland have required equally radical changes in the Doga social structure with the new primary focus on gardening, and, due to that change, the necessity for land. However, being “travelers” on the land has fostered land insecurity which is motivating still more social change—for some a shift in locale and with that shift an apparent change in ethnic and language allegiance facilitated by exogamy.

We have come full circle. We have shown that exogamous marriages form a major mechanism for language loss in the Doga community, but the motivation behind such marriages is a need for a subsistence base in order to survive and, in the case of the Doga, it is land for gardening which enables them to exist. For the Doga there is a distinct link between the loss of land and loss of language.

3 Summary and conclusions

The practice of endogamy versus exogamy has been found to be a statistically significant difference when comparing the viability of the Anuki language spoken by the Gabobora people with the endangered Doga language, spoken by the Doga people. Endogamy is strongly associated with language maintenance, and exogamy with language loss. But social mechanisms, such as the character of marital unions, are only stimuli for language choices. At a deeper level, there are motivations behind those mechanisms. Thus, the question that begs a response is: “What, therefore, motivates exogamy in a broader society where language and ethnic identity are so closely associated?” This is particularly important when one finds speech communities where there are exogamous

marriages, but the local vernacular is nevertheless maintained. Such was the case of the Gabobora, especially those living in traditional territory.²⁰

In this research I have suggested that a lack of security in the sufficiency of land resources (associated with subsistence gardening potential) has motivated exogamy among the Doga. Having no apparent permanent land settlement along the north Cape Vogel Peninsula, except through the land grant from the Gabobora forefathers (which is now in dispute), the Doga are especially vulnerable. However, with marriage into landed ethnolinguistic communities, the children of exogamous unions have access to territory on the basis of their non-Doga parent's right of inheritance. Thus, I am positing that the social mechanisms of marital unions, i.e., the choice of marital partners, which ties directly to inter-generational language transmission, is motivated by the rights and privileges accompanying those unions, including stable access to land. Since 85 percent of the population of Papua New Guinea depends on arable land for their survival, at least in Papua New Guinea, I am positing a positive association between land and language, i.e., a land-language link.

4 Practical application

The Anuki and Doga languages represent only a fraction of the 830 distinct languages spoken in Papua New Guinea and an even smaller fraction of some 1,310 languages spoken in the Pacific. While it is true that the historical, social, educational, and economic environment of the Milne Bay languages of Papua New Guinea have correlates in the speech communities of other small Pacific island nations, it would be beneficial to determine whether the viability of those other languages is directly linked to the same mechanisms of maintenance shown in the Gabobora and Doga populations, endogamous versus exogamous marriages, which may be motivated in part by relative rights to land for subsistence gardening.

Therefore, the link between land and language may be a profitable avenue for research in other contexts where land is scarce among ethnic communities whose survival is based on subsistence gardening. This land-language link suggests a principle that can be used to assess variable language viability. That principle could be stated as follows:

Assuming all other things being equal, where one speech community practices subsistence cultivation and occupies undisputed and adequate amounts of land (in terms of meeting the current supply of sustenance needs as well as meeting that which is perceived as adequate for the foreseeable future) is contrasted with a speech community that occupies disputed land owned or claimed by others, the former group has a better prognosis for continuing the use of the vernacular than the latter.

²⁰Of the 601 residents of Gabobora territory, 474 (75.7 percent) clearly prioritize Anuki (table 3). This percentage includes 64 individuals who are not of Gabobora heritage, but who have favored the language of their place of residence (Anuki) over their traditional tongue.

Thus, the principle of viability could also be stated as: The greater the ethnolinguistic group's sense of an adequate and undisputed land supply, the greater the chance for continuation of their associated vernacular. Considering a relative ranking of such subsistence groups, one could project a hierarchy that categorizes groups according to the following features:

1. Those who occupy undisputed and adequate inheritable land are least likely to "lose" their vernacular due to subsistence needs.
2. Those who occupy an undisputed, but foreseeably inadequate, supply of arable land are the most likely to maintain the vernacular in the current generation, but more likely to "lose" speakers in the future due to the necessity to supplement marginal subsistence (in terms of agriculture) through marketing, trade, or employment schemes.
3. Those who occupy designated land as outsiders (by mutual agreement) face the likelihood of succeeding generations marrying into family lines that hold the traditional land rights with the loss of the vernacular in those succeeding generations.
4. Those who occupy disputed land as outsiders, i.e., squatters, necessarily accommodate to the host group, if not assimilate into that society in order to maintain access to arable land for current needs and the needs of future generations.

Individual Respondents

- (1) Adia, John Arthur. August 2000. Woruka, MB, Papua New Guinea. Personal Communication.
- (2) Buameya, Joseph. 7 September 2000. Woruka, MB, Papua New Guinea. Personal Communication.
- (3) Doridori, Pritchard. 4 September 2000. Woruka, MB, Papua New Guinea. Personal Communication.
- (4) Garairo – a, John Bodger. 24 April 2000. Woruka, MB, Papua New Guinea. Personal Communication.
- (5) Garairo - b, John Bodger. 7 September 2000. Woruka, MB, Papua New Guinea. Personal Communication.
- (6) Gabobora Eastern Elder Group: Willington Sarusaruna, Spencer Sarusarua, Praut Rugabuna, Remingius Garairo, John Arthur Adia, Septimus Rukeya, Temple Kanitu, Paulus Paipaira, John Bodger Garairo, Nicholas Banige 22 February 2001. Woruka, MB, Papua New Guinea. Personal Communication.
- (7) Gerawa, Robertson. 6 February 2001. Wasanaki, MB, Papua New Guinea. Personal Communication.
- (8) Iimasame, Elliot. 2 February 2001. Pem, MB, Papua New Guinea. Personal Communication.
- (9) Luai, Thomas. 8 May 2001. Waigani, NCD, Papua New Guinea. Personal Communication.
- (10) Mapuna, Gideon. 17 February 2001. Magabara, MB, Papua New Guinea. Personal Communication.
- (11) Midiboda, George. 6 February 2001. Borereta, MB, Papua New Guinea. Personal Communication.
- (12) Nuayoga, Richmond. 2 February 2001. Pem, MB, Papua New Guinea. Personal Communication.
- (13) Rugabuna, Praut. 9 September 2000. Tapio, MB, Papua New Guinea. Personal Communication.
- (14) Soubuna, Kifas. 9 November 2000. Borereta, MB, Papua New Guinea. Personal Communication.
- (15) Tabogani, Utikas. 15 November 2000. Divediveni, MB, Papua New Guinea. Personal Communication.
- (16) Wasanaki Elder Group: George Midiboda, Kifas Soubuna, Robertson Gerawa, Utikas Tabogani. 6 February 2001. Wasanaki, MB, Papua New Guinea. Personal Communication.
- (17) Western Elder Group: Didymus Sipomaga, John Garfield, Frank Davis, Redford Kerina, Matthew Gunisebare, Bartholemew Yababana, Rodney Garairo. 12 February 2001 and 19 February 2001. Woruka, MB, Papua New Guinea. Personal Communication.
- (18) Yababana, Bartholomew 2 February 2001. Pem, MB, Papua New Guinea. Personal Communication.

Table 1: North Cape Vogel Residents by Ethnic Heritage and Generation

		Ethnic Heritage					
			Gabobora	Doga	Gabobora-Doga	All Others	Total
Generation	Elders	Number	176	34	25	8	243
		% within Era	72.4%	14.0%	10.3%	3.3%	100.0%
		% within Ethnic Heritage	19.7%	13.2%	21.2%	11.6%	18.2%
	Adult Core	Number	307	84	15	10	416
		% within Era	73.8%	20.2%	3.6%	2.4%	100.0%
		% within Ethnic Heritage	34.4%	32.7%	12.7%	14.5%	31.1%
	Youth & Children	Number	409	139	78	51	677
		% within Era	60.4%	20.5%	11.5%	7.5%	100.0%
		% within Ethnic Heritage	45.9%	54.1%	66.1%	73.9%	50.7%
	Total	Number	892	257	118	69	1336
		% within Era	66.8%	19.2%	8.8%	5.2%	100.0%
		% within Ethnic Heritage	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2: Gabobora Language Allegiance by Generation and Residence Home

		Place of Residence										Grand Totals				
		Gabobora Heritage Village					Other-Language Heritage Sites					Total	Of Language Allegiance			
Languages		Anuki Language	Other Languages	Coord. Bilinguals	Unknowns*	Total Category	Anuki Language	Other Languages	Coord. Bilinguals	Unknowns	Total Category	Population	Anuki Language	Other Languages	Coord. Bilinguals	Unknowns
	Population Categories	Youth & Children (0-20 yrs.)	192	8	0	15	215	55	125	0	14	194	409	247	133	0
% pop. of category		89.3%	3.7%	0%	6.9%	100%	28.3%	64.4%	0%	7.2%	100%	100%	60.3%	32.5%	0%	7.1%
Childbearing Cadre (21-40 yrs.)		116	15	0	0%	131	102	69	1	4	176	307	218	84	1	4
% pop. of category		88.5%	11.4%	0	0%	100%	57.9%	39.2%	.57%	2.27%	100%	100%	71%	27.3%	.32%	1.3%
Elders (41-79 yrs.)		103	6	1	0	110	57	8	0	1	66	176	160	14	1	1
% pop. of category		93.6%	5.45%	.91%	0	100%	86.3%	12.1%	0%	1.5%	100%	100%	90.9%	7.95%	.56%	.56%
Total Persons		411	29	1	15	456	214	202	1	19	436	892	625	231	2	34
% of Population	90.1%	6.35%	.22%	3.28%	100%	49%	46.3%	.23%	4.35%	100%	100%	70.6%	25.8%	.22%	3.81%	
% of Total Population		51.1%					48.8%					100%				

*The "Unknown" category includes those children who are preverbal as well as individuals whose language preferences were unknown.

Table 3: Language Preferences for *All* Residents of Gabobora Settlements by Generation

Generation	Total	Anuki	Coordinate Bilingualism	Other Languages	Preverbal
Children	292	233	7	27	25
Adults	185	128	0	57	-
Elders	149	113	4	32	-
Total	626	474	11	116	
% of Total Population		75.7%	1.7%	18.5%	3.9%
Verbal	601				
% of Verbal		78.8%	1.8%	19.3%	

Table 4: Marital Alliances of Gabobora and Doga Populations

Ethnic Group and Gender	Total	Total Known Heritage	Same Ethnicity as Spouse	% of All	% of Known	Not the Same Ethnicity as Spouse	% of All	% of Known	Heritage Not Known	% of Total
Gabobora										
Men	143	133	58	40.5%	43.6%	75	52.4%	56.3%	10	6.9%
Woman	182	160	69	37.9%	43.1%	91	50.0%	56.8%	22	12.0%
Total	325	293	127	39.0%	43.3%	166	51.0%	56.6%	32	9.8%
Doga										
Men	40	40	8	20.0%	20.0%	32	80.0%	80.0%	0	0%
Women	49	42	11	22.4%	26.1%	31	63.2%	78.8%	7	14.2%
Total	89	82	19	21.3%	23.1%	63	70.7%	76.8%	7	7.8%

Table 5: Language Preferences of Gabobora Endogamous Born by Generation

Ego's Priority Languages		Generation			Total
		Children	Adult Core	Elders	
Other (Other)	Number	6	5	0	11
	% of Priority Lngs.	54.5%	45.5%	0%	100.0%
Other (Anuki)	Number	4	8	2	14
	% of Priority Lngs.	28.6%	57.1%	14.3%	100.0%
Doga L1 – Anuki L2	Number	1	1	0	2
	% of Priority Lngs.	50.0%	50.0%	0%	100.0%
Anuki L1 – Doga L2	Number	<u>6</u>	13	16	35
	% of Priority Lngs.	17.1%	37.1%	45.7%	100.0%
Anuki - Other	Number	0	1	0	1
	% of Priority Lngs.	0%	100%	0%	100%
Anuki (Other)	Number	<u>131</u>	101	116	348
	% of Priority Lngs.	37.6%	29.0%	33.3%	100.0%
Total of All Languages	Number	<u>148</u>	129	134	411
	% of Priority Lngs.	36.0%	31.4%	32.6%	100.0%

Table 6: Language Preferences of Gabobora Exogamous Born by Generation

Ego's Priority Languages (Lngs.)		Generation			Total
		Children	Adult Core	Elders	
Other (Other)	Number	81	31	1	113
	% of Priority Lngs.	71.7%	27.4%	.9%	100.0%
Other (Doga)	Number	0	0	3	3
	% of Priority Lngs.	0%	0%	100%	100%
Other (Anuki)	Number	40	35	8	83
	% of Priority Lngs.	48.2%	42.2%	9.6%	100.0%
Doga L1 – Anuki L2	Number	0	1	0	1
	% of Priority Lngs.	0%	100.0%	0%	100.0%
Anuki L1 – Doga L2	Number	<u>3</u>	5	1	9
	% of Priority Lngs.	33.3%	55.6%	11.1%	100.0%
Anuki - Other	Number	0	0	1	1
	% of Priority Lngs.	0%	0%	100.0%	100.0%
Anuki (Other)	Number	82	88	21	191
	% of Priority Lngs.	42.9%	46.1%	11.0%	100.0%
Total of All Lngs.	Number	206	160	35	401
	% of Priority Lngs.	51.4%	39.9%	8.7%	100.0%

Table 7: Doga Language Allegiance by Generation and Residence Home

		Place of Residence										Grand Total				
		Doga Settlement Sites					Other-Language Heritage Sites					Total	Of Language Allegiance			
Languages		Doga Language	Other Languages	Coordinate Bilinguals	Unknowns*	Total Category	Doga Language	Other Languages	Coordinate Bilinguals	Unknowns	Total Category	Population	Doga Language	Other Languages	Coordinate Bilinguals	Unknowns
Population categories	Youth & Children (0-20 yrs.)	41	8	5	7	61	6	61	3	8	78	139	47	69	8	15
	% pop. of category	67.2%	13.1%	8.2%	11.4%	100%	7.7%	78.2%	3.8%	10.2%	100%	100%	33.8%	49.6%	5.6%	10.8%
	Childbearing Cadre (21-40 yrs.)	25	8	2	0	35	21	23	5	0	49	84	46	31	7	0
	% pop. of category	71.4%	22.8%	5.7%	0%	100%	42.8%	46.9%	10.2%	0%	100%	100%	54.7%	36.9%	8.3%	0%
	Elders (41-71 yrs.)	13	4	0	0	17	14	2	1	0	17	34	27	6	1	0
	% pop. of category	76.4%	23.5%	0%	0%	100%	82.3%	11.7%	5.8%	0%	100%	100%	79.4%	17.6%	2.9%	0%
	Total Persons	79	20	7	7	113	41	86	9	8	144	257	120	106	16	15
	% of pop. by category	69.9%	17.7%	6.2%	6.2%	100%	28.5%	59.7%	6.25%	5.55%	100%	100%	46.7%	41.2%	6.2%	5.8%
% of Total Population	43.9%					56%					100%					

*The "Unknown" category includes those children who are preverbal as well as individuals whose language preferences were unknown

Table 8: Language Preferences for *All* Residents in Doga Settlements by Generation

Generation	Total				
	Doga	Coordinate Bilingualism	Other Languages	Preverbal	
Children/Youth	110	61	13	28	8
Adults	64	31	2	31	0
Elders	52	18	6	28	0
Total	226	110	21	87	8
% of Total		48.6%	9.3%	38.5%	3.5%
Verbal	218				
% of Verbal		50.4%	9.6%	39.9%	

Table 9: Progeny of Gabobora and Doga Living Marital Unions

Ethnicity of Ego's Birthparents			Ethnic Heritage Classification		Total
			Gabobora	Doga	
	Different ^a		429	199	628
		% within Ethnic Heritage	50.5%	79.6%	57.1%
	Identical ^b		421	51	472
		% within Ethnic Heritage	49.5%	20.4%	42.9%
Total Progeny^c					
			850	250	1100
		% within Ethnic Heritage	100.0%	100.0%	100.0%

^aOne parent is of the target Gabobora or Doga ethnic heritage, but the other parent does not share the same ethnicity as his/her spouse.

^bBoth parents are either ethnically Gabobora or ethnically Doga.

^cFor which heritage of both parents is known. One parent, typically the father, of illegitimate children is not claimed, even if known.

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**Cannibals, *Kiaps*, and Magistrates:
Three Eras Impacting Samo Spatiality,
Interpersonal Relationships, and Bible Translation**

R. Daniel Shaw

ABSTRACT

This paper traces the key colonial events that impacted the Samo people (Western Province, Papua New Guinea), who live in the last region to be contacted (1961) and de-restricted (1969). The result has been a changed Samo perspective regarding interpersonal relationships and a shift in the practice of cannibalism. Australian administrative officers (*kiap* in Tok Pisin) dealt with cannibalism in the Western Province by using a large police presence and the fear of imprisonment. In 1975 the Samo watched the Australians turn administration over to Melanesian magistrates whose emphasis has been to meld estranged peoples into a nation of “a thousand tribes.” Furthermore, when the Bible was translated into the Samo language, it provided a renewed understanding of human relationships with a broader rationale for the cessation of cannibal raids. Indeed, cannibalism ceased, and centralized villages replaced isolated longhouses. What emerged was a new perspective of those spatial elements necessary for protection and a new rationale for interpersonal relationships. The result has been an altered view of both their land and the people who live on it.

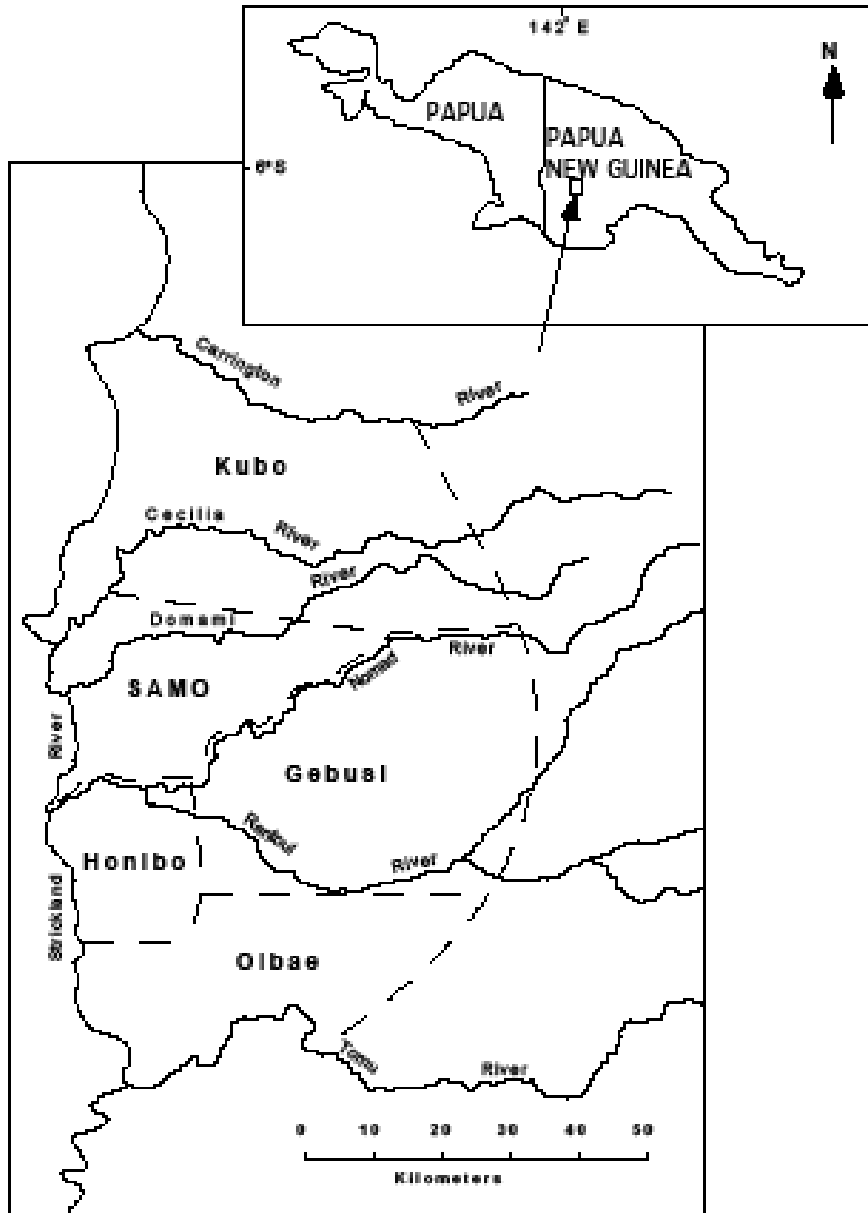
1 Introduction

Karl Franklin's career spanned a critical period in the transition of New Guinea from a remote and little known island of near pre-historic proportions under colonial administration to a fully recognized nation on the global scene. At Franklin's entry to New Guinea in 1958 there was no anticipation of national independence. His objectives were to work under the auspices of the Summer Institute of Linguistics (SIL) to identify and record the languages and cultures of this little known population. Overseeing surveys, organizing language institutes, and pioneering research among the Kewa of the Southern Highlands Province were all part of his involvement, and they corresponded with his deep interest in cataloguing languages and their distribution across the Australian-administered Territories of Papua and New Guinea (later known as Papua New Guinea (PNG)).

I first met Karl in 1969 upon my arrival in PNG to work with SIL. Soon after my family and I established ourselves among the Samo, Karl contacted me regarding the need for a full linguistic survey of the Strickland Plain and surrounding area (see map) in the Western Province (Shaw 1973:49ff). He was helpful in making suggestions and encouraged my involvement in this process. A similar survey ten years later provided comparative statistics on these languages, and again Karl was not only supportive but also assisted in the process (Shaw 1986).

Of import here is the impact Franklin had on the development of our academic appreciation of PNG languages and the people who spoke them. His tenure spanned a significant period of change in the life of this nation, from cannibalism to full nationhood. This change was especially true for the Samo of the Western Province who had yet to be contacted when Franklin arrived in PNG, and who now are a well-documented society, in part due to Franklin's encouragement to see the documentation of as much linguistic and cultural information as possible. Moreover, the people of PNG had an amazing impact on so many expatriates, changing us in ways we could not have imagined when we began our interaction with them. Karl's mentoring of me as a young, naive anthropologist was significant, and this chapter is a token of my appreciation.

Map: Dialects on The Strickland Plain (Permission of Wadsworth Publishers)



The pre-European contact period for the Samo was dominated by cannibalism that impacted relationships at all levels of social structure, from household members protecting each other to the raiding and counter-raiding of enemies. The subsequent colonial presence was dominated by young Australian patrol officers (*kiap* in Tok Pisin) who established a permanent presence in the region in 1961 and oversaw the eventual transition to a national government in 1975 when Papua New Guinean magistrates assumed control.

I will present the material chronologically from the late 1950s to 1980. First I will discuss the aboriginal context in terms of cannibalism and its impact on social structures as they related to the distribution of people in isolated

longhouses scattered throughout the rain forest. Then I will discuss the early colonial period when the *kiaps* responded to cannibalism and established sedentary villages which forced people out of their aboriginal habitations. Finally I will present the late colonial period when the PNG government's magistrates took up their responsibilities as keepers of the peace.

I will account for the veracity of an indigenous population that responded to outside influence in what Eugene Ogan (1996) calls "a near virgin" context. Roy Wagner (1995), in turn, presents how the colonialists had an "intent" for the colonized that produced changes that went beyond the purview of the 'contacted' peoples. Such intent was demonstrated by an administrative encouragement to replace a migratory longhouse pattern of life with a sedentary village-based economic and social environment, one that provided greater protection against enemy raids and made administration of the region much simpler. I seek to show how the colonizers and the indigenous populations interacted to establish what Nicholas Thomas (1994) calls the "colonial project." Furthermore, scripture, translated for people who held to their mythical past yet sought to fit new expectations, provided a rationale for changing behavior patterns that went beyond those that had been prescribed for them.

2 Cannibalism: aboriginal households and social networks

As we began to learn the Samo language, my wife Karen collected a text from some children playing in the village. Their brandishing of toy bows and arrows, whooping, and play acting portrayed an enactment of a raid. When she asked them what they were doing, they responded with the following text:

The Biami [Samo name for the Bedamini people] come for the purpose of killing. Having killed you, they cut you up and stuff you into a string bag. Having stuffed you, they carry you home. Arriving home they cut you up. Having cut you up, they put you with sago and greens for the purpose of cooking. Having cooked you, they eat you. That is all [my translation from Samo].

The Nomad River region, in the center of the island of New Guinea, was the last to be contacted by the Australian administration and remained restricted (outsiders could not enter without police protection, largely because of rampant cannibalism) until 1969. This relatively recent de-restriction provided a unique opportunity to explore the nature of the earlier contact situation. The first intentional contact with the Samo was Brian McBride's patrol in 1959. His patrol report makes note of the circumstances under which the people were living at the time: "The population has had little or no contact and...there is no semblance of our ideas of law and order in the area. Tribal fighting, killings, and cannibalism frequently occur and are openly talked about" (McBride 1959).

Late in 1961 the administration established a patrol post and built an airstrip at the confluence of the Nomad and Homami Rivers. Over the eighteen months during which the station was built, the Samo gradually overcame their shyness and contributed to the work force largely out of curiosity. Those who worked for

a month received a steel ax head. In this way about one hundred steel axes were introduced to the area. By mid-1963 patrol officer Ian Douglas noted that steel axes had largely “replaced the traditional stone ax, but in all other respects the Supei¹ are as primitive as their forebears one hundred years ago” (Douglas 1963).

2.1 Pre-contact social structure

In the pre-contact era, a longhouse was the primary dwelling. It was occupied by 25–75 people and was surrounded by gardens that sloped down to sago-lined swamp and the rain forest beyond. The social relationships between people in these isolated communities focused on the activities of a group of co-initiates² (both male and female) as they attempted not only to create physical protection through the construction of a longhouse, but also to provide social protection by establishing an alliance network through the exchange of female siblings with men of other households. I have described these relationships elsewhere (Shaw 1990, 1996, 1997), and for the purposes of this chapter I will focus on the protective rationale of these households and their respective alliances to each other as a bulwark against enemy attack which often resulted in cannibalism.

Raiding and subsequent cannibalism were frequent, openly discussed (as McBride noted) and were supported by the rationale for the network of alliances between communities. Through female-sibling exchange, men built a social structure which extended from a given household (viewed as being at the center of their world) to allied communities where female siblings resided after being exchanged as wives. The exchanges between allies and other non-allied communities served to broaden the alliance network. All women who were received from communities where women were called *uyo*, loosely translated as ‘mother’, were themselves called *uyo*. Thus women provided both food and protection, inasmuch as the members of households into which they were distributed formed a protective circle of trusted people stretching ever further into the forest. If these individuals became aware of outsiders (who by definition were considered enemies, i.e., they were untrusted), they could send an alarm to initiate counter measures. This alliance structure then was carefully orchestrated. Each exchange was considered strategic for maintaining ties to previously established allies while, to the extent possible, extending relationships to new allies and thereby expanding their web of protection (figure 1). Proximity impacted this distribution, as a close and on-going relationship

¹Early reports use the name Supei instead of Samo. Inasmuch as patrols came from Kiunga in the west and crossed the Strickland River, officers used the name the Pare people on the west side of the river used. The people, themselves, as all groups on the east side of the Strickland, use the name Samo which is currently used by the administration. This reflects the colonial approach of using information from external sources rather than information from the people themselves.

²Initiation is central to understanding the use of Samo relationship terms. Though somewhat parallel to “generation” I use “initiation cycle” to reflect the commonality of all those who were initiated after one’s parents but before one’s children. Thus for individuals older than oneself, a parent’s younger siblings are defined as older siblings, and a clear gender distinction is essential. For individuals younger than oneself, no gender distinction is made, and all who are born before one’s children are collectively “younger siblings” to all members of the co-initiate group (Shaw 1996 pp. 44ff).

with those in contiguous land areas was more crucial to survival than relationships with those further away.³

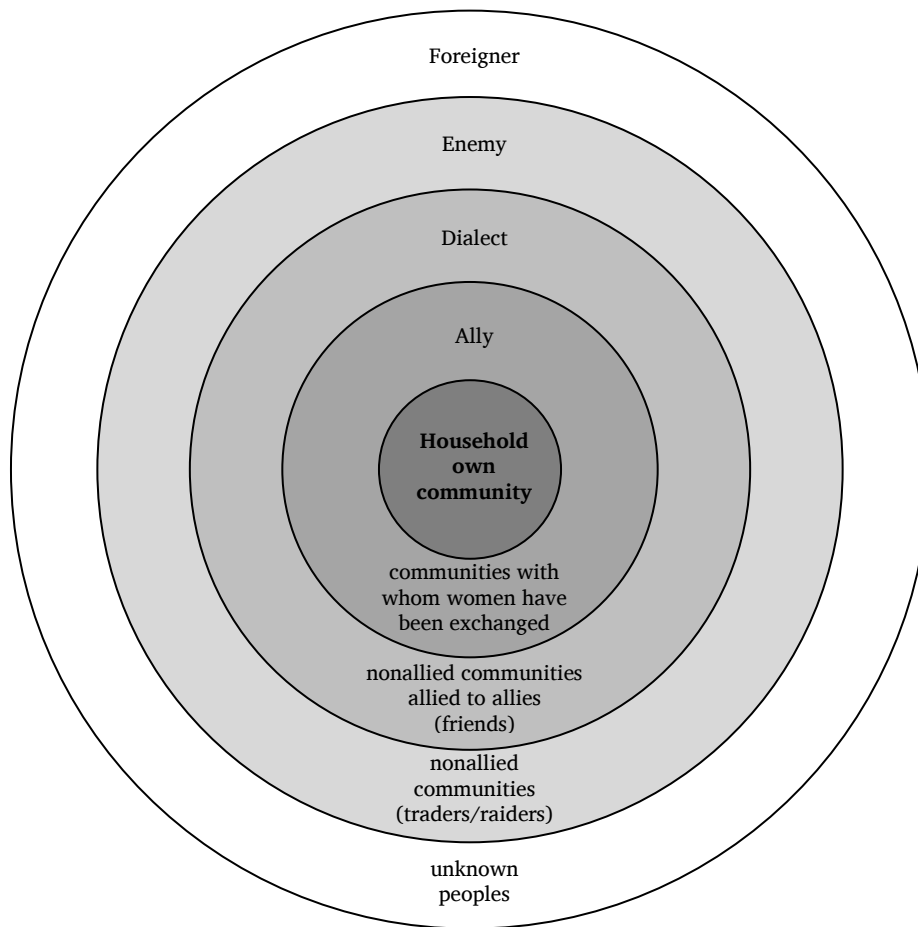


Figure 1: The Samo alliance network (permission of Wadsworth Publishers)

Men in an alliance relationship used the reciprocal term *koiman*, ‘in-law’, or more broadly, ‘ally’ for each other, but the relationship was seen largely as an extension of male siblings within a household. When male allies visited each other, they were given the privileges of community membership, e.g., food and sleeping rights commensurate with their position within the initiation structure. Thus, married men would sleep with others in the central, most protected, portion of the house, while unmarried men slept with other bachelors on the porch which doubled as a fighting platform. A watch was kept every night in order to guard against a raid, and the doorway at the front of the house was blocked by filling it with logs. Thus a longhouse served its occupants as a fortress against enemy raids.

³Inasmuch as houses were built within the designated land area of each household, they came into closer proximity with different neighbors over time. The alliance structure reflects this proximity and can be traced in the genealogies as well as in narratives connected to the various habitation sites.

2.2 Trading led to raiding

The Strickland Plain had an abundance of soft, colored stones which the Samo used to make paint for a wide variety of utilitarian and ritual purposes (Shaw 1990:49ff). However, this region did not provide the limestone that is necessary for mixing with betel nut. Possum fur pelts and stone ax heads were available from the foothills of the Karius Range to the north; tobacco and shell necklaces were available from groups to the south, closer to the coast. Hence, trading parties moved about the region, particularly during lulls in the planting-harvesting cycle and during the processing of sago. Because trading was organized to procure goods not otherwise available within the region, it entailed dangerous journeys beyond the protection of the alliance structure.

To maximize safety, trading parties used well-traveled trails and made loud whooping noises and a lot of chatter as they moved about. No one with treachery in mind, so their reasoning went, would make such a racket and thereby announce their presence. Trading, however, provided an entrance into distant houses as well as a good view of the surrounding land as the traders arrived and subsequently departed carrying their exchanged goods. This knowledge of a house and its environs could be valuable information for a raiding party in the future, and people on both sides of the displayed goods were wary of each other. Women and children were often carefully secluded, and warriors were watchful for the wandering eyes of distrusted visitors who were not offered food and were hastened on their way as expeditiously as possible. A raid, often precipitated by an earlier raid from an enemy longhouse, demanded considerable cooperation and planning, and trading was often part of the preparation.

2.3 Raiding assumed cannibalism

After carefully planning a raid, a confederation of allies would set out for their target. Unlike acts of trading, where noise served as protection, successful raids required stealth and surprise.⁴ Equipped with knowledge procured from the reconnaissance of a trading party, the men would creep into the longhouse clearing and surround the house in the pre-dawn darkness. One or two especially brave and daring warriors would enter the house through an unguarded doorway, a hole in the floor, or even the menstrual confinement area. Once inside, they would wield a stone club and attempt to crush skulls or break bones. Screams of pain were muffled by a deafening roar from the warriors outside. As confusion spread within the house, people, awakened from a sound sleep, attempted to ascertain what was happening and would often respond by attempting to escape. As they exited the house, waiting warriors would easily shoot them with barbed arrows at close range. With the element of surprise on

⁴The Samo were particularly wary on wet, moonless nights when it was difficult to see approaching raiders who camouflaged themselves with soot-black and shredded black palm leaves and grasses wedged into their arm and leg bands.

their side, raiders could take advantage of those who in their sleepy stupor were not sufficiently awake to appropriately respond.⁵ Raiders acted quickly to dismember the bodies of their victims, throw them into string bags and hasten into the dark forest. Before leaving the site, however, the raiders would pick up their bows and thump the taunt strings, stomp their feet, and let out a rising and falling death knell. They then would torch the house and depart for home with their heavily laden bags of human meat.

Upon arriving home, warriors would be greeted with jubilation as the meat was parceled out, cooked in a leaf oven (much as they would cook cassowary or pork with greens and sago) and consumed in a party atmosphere amidst the recounting of the expedition's details. While retaliation was often the primary focus, procurement of meat was a welcome result,⁶ in some measure exacerbated by a protein deficient diet. A commonly heard aphorism in my early days with the Samo stated that "a certain pitch in a baby's cry indicated that only human meat would satisfy." Samo stories (like the one my wife procured) about Bedamini raids were frequent and portrayed both brutality and a focus on food as a primary motivation. This was the context into which the *kiaps* entered in the late 1950s.

2.4 The raiding experience makes the Bible clear

When translating for the Samo, we came to the parable of the wise householder: "But know this, that if the master of the house had known what hour the thief would come, he would have watched and not allowed his house to be broken into. Therefore, you also be ready, for the Son of Man is coming at an hour you do not expect" (Matthew 24:43ff).

Interestingly, Samo is a language with no word for "thief." In asking about this, I learned that an assumption within a household⁷ is common ownership—everyone shares. As individuals move beyond the household, their allies, and friends—and ultimately those across a river in enemy territory—represent increasingly less trust as well as ownership. Taking something from an enemy is not regarded as stealing, but rather simply as trading or raiding. Whatever they take (including bodies) is regarded as theirs. Such a rationale for behavior, then, is predicated on the degree of trust, so within a household everything is held in

⁵If the guard on duty sounded an alarm, the household would react. Men would run to the porch, grab bows and arrows stockpiled for just such an occasion, and rain arrows down on the intruders. Women would gather the children around themselves and huddle in the secluded women's section of the house. Raiders, however, often had the upper hand as a product of surprise which was often used to rationalize the impact of murder. Since the Samo believe a person's spirit wanders away from the body during sleep (as evidenced by dreams which the Samo consider real), surprise removes the possibility of the spirit returning to the body before life is taken from it. The raiders, then, were only taking the body, not killing the spirit which, in their view, was free to return to the abode of the ancestors. A destroyed longhouse was often avoided because of the possibility of spirits hanging around looking for their bodies.

⁶Most raids were retaliatory and retributive. They were wide spread throughout the Bosavi region as noted by several writers. Most mention an attitude of "*an eye for an eye...*" and subsequent cannibalism: (Schieffelin 1976: 121ff; Kelly 1977; Sørum 1980; Knauff 1985).

⁷The term for 'house' and for those who live in the house (the household) is the same, *moonson*. This has significance with respect to the expected behavior of everyone living in the community—they are household members who share everything.

common and there is no such thing as stealing. Taking the “spoils” of an enemy raid is not stealing, but rather the reciprocal result of procuring that which has been hard won.

As a translator, I was faced with the task of communicating God’s intent in this passage from Matthew and moving beyond Jesus’ specific use of the term “thief” in order to ensure Samo understanding. I asked, “What in the Samo cognitive environment accounts for the element of surprise and requires vigil?” Clearly the schema surrounding raiding fills this semantic domain. The *ayo*, ‘old man of the house’ instructs the young, unmarried men who sleep on the open porch to take turns keeping watch against the surprise of a raid. With a longhouse positioned at the top of a sloping ridge, which intruders would need to traverse, the household warriors were able to sound an alarm while raining arrows down on their assailants and thus warding off a raid.

Jesus makes his intent clear, “always be ready!” As the householder always posts a guard because he never knows when a raiding party may attack, so the Samo also must carefully watch for Jesus’ unexpected return. This moves the translation into a dramatic cognitive sphere that conveys the intent of the passage with which every Samo householder resonates and every warrior bristles with anticipation. They receive this message with understanding and there is no need for an explanation regarding what a thief does, how that happens and who is involved. The Samo would not understand such an inappropriate focus on something beyond their experience. However, placed in the context of raiding, they immediately understood and were able to appropriate the intent of Jesus’ words to their understanding of the raiding experience and apply the message to appropriate action, an attitude of careful anticipation for that which is unexpected—never be caught unaware.

3 *Kiaps*: colonial contact and pacification

One of the primary objectives of early contact and the construction of an airstrip and patrol post at Nomad River was the pacification and elimination of cannibalism. A favorite demonstration of power for a newly contacted community was to bring a large pig into the clearing and shoot it with one slug from a police gun. The pig dropped dead on the spot and the message was not lost on the amazed observers. Administrators and patrol officers were assisted by an extensive national police force⁸ that quickly created a presence and followed up all reports of raiding and cannibalism.

On an early census patrol, the interpreters heard about a raid on a Kubo longhouse to the north. Upon hearing the story the officer returned to Nomad for police reinforcements and then proceeded to launch his own “raid” upon the Komifia raiders. Surrounding the house in the pre-dawn darkness, several police entered the house and apprehended the men, bringing them to Nomad for trial (personal journal).

⁸In 1968 there were over one hundred police and their families living at Nomad River.

One early book (Anderson 1970) about the region detailed the administration's response to a raid among the Bedamini. These dwellers of the Papuan Plateau were particularly recalcitrant and kept the *kiaps* busy searching out and bringing raiders to justice. Efforts to eliminate raiding subsequently reduced the opportunities for cannibalism. By pacification in 1969, cannibalism was little more than a memory (albeit vivid) for most people in the region. The perpetrators of raids were tried and sent off to extensive jail terms (typically five to seven years) in the provincial capital at Daru. Little distinction was made between raiding and the cannibalism that followed—all who were apprehended were sent to jail.

3.1 To eat or not to eat?

In 1971, a clear case of cannibalism without involvement in the preceding murder was brought as a test case and documented in the Australian press. Seven Gebusi men (a related dialect south of the Homami River)⁹ were brought to trial at the District headquarters in Daru. Judge J. Prentice subsequently dismissed the case ruling:

On a full consideration of the evidence, I have come to the conclusion that the conduct of the Yulabi villagers and of the man from Dadalibi in eating the body of the deceased Sabasigi villager, [in all the circumstances of the case], was neither improper nor indecent behaviour on their part, [being normal and reasonable behaviour for them as most primitive villagers living in the Gabusi area of the Nomad Sub District in early 1971] in the limited condition of pacification and administration to which that area had then been reduced (1971, Supreme Court Document #634).

Given the absence of a legal precedent on cannibalism and the value of local customs regarding the proper disposal of a body, the judge had no choice but to acquit the accused who had not been involved in the murder. These seven men, therefore, had only engaged in what reporters labeled “a bizarre funeral” (*Pacific Islands Monthly*, September, 1971:47). The court contended that under the Queensland Criminal Code, which served as the jurisdiction for Papua prior to Independence in 1975, cannibalism was little more than “improper and indecent interference” with a body, and the accused were released to return home. Thus, while law required a government response to raiding, by this ruling, cannibalism could be treated as “custom,” a local manifestation of behavior that, though contrary to “civilized” activity, was not deemed criminal.

Ironically, for many of these raiders, incarceration became the doorway to opportunity. While in jail they learned to speak the trade language (either Hiri Motu spoken throughout Papua, or Tok Pisin used more broadly throughout the nation). Some also learned to read and write, use basic math, and, in some cases,

⁹Bruce Knauff (1985) has chronicled the high incidence of homicide through sorcery among the Gebusi. He has noted that the focus of attention on the Bedamini allowed the Gebusi to come across as peaceful, thereby allowing the administration to be tough on their feared neighbors to the east (personal communication). This ruse enabled the Gebusi, and to a lesser extent others on the Strickland Plain, to carry on much as they always had with little government intervention. Patrols to the south of the Homami River were infrequent and primarily administrative rather than punitive.

carpentry, mechanics, and other skills. Upon their release from prison, these “reformed cannibals” returned home only to discover that life had gone on without them. In many cases their wives had been married to a younger brother in an effort to maintain household relationships and support women and children whose lives had been disrupted by the absence of the accused.¹⁰ Many of these men also found it difficult to settle back into village life, so they used their new knowledge of the world to offer their services to the administration. This resulted in some becoming government interpreters while others became clerk’s assistants and medical orderlies. Some even became policemen or joined the army.

Nevertheless, the cessation of raiding and cannibalism produced a behavioral modification imposed by outside agents of change. Not only was murder deemed inappropriate, a fact reinforced by heavy sentencing, but consuming the remains of the deceased in a feasting context was also viewed as unacceptable by the larger public. Over the years government officers and an expanding support staff represented that “public” to the Samo and made an effort to bring civilization to this remote region. They introduced material culture through frequent plane loads of goods for the station trade store, new ideas through education, and an altered diet through introduced fruits, vegetables, and protein-rich foods that ameliorated the local propensity for cannibalism. This altered lifestyle was most evident in the orchestrated move of people from isolated forest longhouses into villages.

3.2 From longhouse to village

Instituting a shift from living in dispersed longhouses to living in centralized villages appears to have been central to *kiap* Ian Douglas’ practice of establishing rest houses for government patrols. His stated objective as presented in his patrol report in 1963 was to establish viable villages in order to facilitate administration.

In due course these rest houses may well act as magnets, drawing in the various outlying houses as their current dwellings become uninhabitable. In this way the area would be eventually reduced to eight or nine villages worthy of that name, thus greatly easing the job of administering the area (Douglas 1963).

Indeed, this was almost prophetic, for over the next ten years the Samo moved to these sites as their longhouses fell into disrepair and they were forced to rebuild. Not wanting to spend undue amounts of time traveling from a forest house site to the nearest government rest house, and never knowing when a *kiap* may demand a hearing, they began the process of establishing new communities. Those households that were most closely allied to each other congregated in

¹⁰The Samo utilized the levirate to ensure that women and children remained in the village following a husband and father’s death. Rather than some men having more than one wife, it was common to have a younger household male who was not yet married, become husband and father to the surviving kinsmen. Thus it was not uncommon for a younger man to marry the wife of his deceased *onyon*, ‘older brother’, caring for her and his children including any progeny of the new union (Shaw 1990: 65, 73, 80).

order to form new social units the people called *gaboo monsoon*¹¹ ‘white man said place’, or simply, ‘village’. As increasing numbers of people gathered at these sites, their need for garden space, building materials, and access to a ready water supply resulted in them opening the surrounding forest, creating, in turn, a greater opportunity for observation of attack by human enemies. Hence the protection of the administration, realized through inhibiting raiding, was central to the success of household aggregation.

A system of trails facilitated the movement of people and goods between these villages. Patrol reports always included a notation on the condition of these “roads” which eventually became passable for four-wheel-drive vehicles. These roads were a great assistance in the administration of a growing number of trade stores, medical aid posts, churches, and schools. This provided the context of transition from expatriate influence directed by *kiaps* to national involvement by the newly independent government of PNG in 1975.

3.3 The value of human life

I learned the resounding impact of the *kiaps* upon the Samo when translating the flood story from Genesis. Our team of translation assistants had grappled with the concepts in the story of Noah. They had recounted their own flood myth to help me understand how they perceived such a cataclysmic event. They had marveled at the devastation caused by the flood and that all the people and animals had perished when the waters rose above the highest mountains. They were also impressed with Noah who prevailed after having faithfully followed God’s instructions despite years of taunting by his neighbors. For, in the end it was he who, because of his obedience, prevailed and was rescued. With all this as background we arrived at Genesis 9:5ff “I created humans to be like me, and I will punish any animal or person that takes a human life. If an animal kills someone, that animal must die. And if a person takes the life of another, that person must be put to death.”

One evening I sat on the porch reading the results of the translation team’s efforts to a small crowd that had gathered—after all, we were the best entertainment in town. As I read, various ones chimed in with suggestions for making the text clearer, all the while interjecting their thoughts and joking with each other about what God might do to them because of their social infractions. When I read the above verses, however, a silence came over the group and they sat thinking about what they had just heard. Then an older man sitting in the shadows at the edge of the porch blurted out, “Are you telling us that God condemns cannibal raids?” This created an awkward moment. If I said, “Of

¹¹These structural adjustments resulted in my being able to document a shift from an average of 78 percent lexical cognates between five dialects on the Strickland Plain in 1971 to an 89 percent cognate count among the same dialects in 1981. Samo, as the central dialect, was mutually intelligible with the four other dialects which, because of their placement vis-à-vis each other, were not mutually intelligible. Therefore, Samo, could be considered the dominant dialect and carry the name for the entire language. However, since some of these dialects have been presented in the literature as distinct groups, I would not now encourage such usage of the Samo name. This rapid lexical shift was directly associated with village aggregation and the decision to develop a broader alliance structure (Shaw 1986).

course,” I would be classed with the *kiaps* and their sidekicks, the missionaries. But if I said, “No,” they would possibly take God’s Word too lightly—was I a missionary or an anthropologist? So I countered by asking him to tell me about cannibalism.

For the next hour or so he told me about the rationale for raiding, the devastating effects of raiding and counter raiding, and the inevitable feast that ensued, satisfying everyone with human meat. Then he reflected on the Scripture passage and God’s regret in creating human beings who followed their own path of devastation and self-will. He ended by stating how afraid they were of the *kiaps* who had come and put fellow villagers in jail for raiding and cannibalism. Missionaries from other parts of PNG also had come and told them that raiding and cannibalism were bad. Then he made an incredible statement. “These outsiders came and gave us their message, but no one ever told us why raiding and cannibalism was bad. You are the first one to come and make sense.” Then, in typical Samo literary style he summed up the conversation. “Human beings are special and we must not take their lives and eat them.”

My response was to tell him that this was not my message, but rather God’s Spirit was mingling with his spirit, and he needed to communicate this message to his fellow Samo. Everyone on that porch that night heard the word of the Lord and it went beyond what they had heard before and penetrated their understanding of proper behavior. Clearly, their behavioral expectations did not measure up to God’s standard for human beings whom he had created.

While they had ceased raiding with its attendant loss of life and subsequent cannibalism at that point in time, largely because of their fear of the *kiap*’s response, having Scripture in their language gave the Samo a new understanding of God’s intention for human beings and the value of life. They valued government protection and appreciated its effect of preserving life, but the Scripture in their language gave them a new appreciation for why they should not seek reprisal on their enemies and bring home human meat. Human life, even of enemies, was precious in God’s sight, and that knowledge rose above the confusion of government and missionary messages to a level of divine truth. God had spoken and the Samo had heard!

4 Magistrates: new structures and national development

For PNG as a whole, independence represented a transformation that Mave O’Collins (1979) called “neo-colonial.” Nationals, she maintained, continued the colonialist attitudes and practices of their predecessors. Those who trained at the Administrative College in Port Moresby soon found themselves in remote places like the Nomad River. Later, former police and government clerks themselves became administrators. This transition, however, meant little to the Samo who continued to interact with outsiders, even though their skin color was now more like their own. What the retiring *kiaps* began, Melanesian *kiaps* continued. Like their predecessors this new group of outsiders had little appreciation for the circumstances under which the Samo lived. In fact, the Samo lifestyle was as

remote and strange to these newcomers as it had been to the Australians before them.

I recall an incident when a magistrate from the New Britain province presided over a case of what a teacher considered “bridal abuse.” Acting in accordance with the custom of taking an unsuspecting girl from her natal community and introducing her to the new husband, a group of Samo men were dragging a kicking and screaming woman who demonstrated her character by attempting to escape. Responding to the ruckus a teacher interrupted the proceedings and took the entire group to the Nomad station in order to inflict justice upon these “ignorant savages.” My journal continues the story:

Early Friday morning, Hogalibo and I went to Nomad to discuss the matter with the magistrate. I tried to impart some cross-cultural understanding and compassion for customs beyond his experience. I explained the importance of women demonstrating their value through the display of uncooperativeness. I also explained the need for the exchange to be completed in order to establish an alliance between the two communities. The rationale for the rather harsh treatment of the woman was to ensure that she arrive at the destination and the marriage alliance be completed with all haste.

During my exposé the magistrate nodded his understanding and reiterated stories he had heard from old men about marriage customs in New Britain. While not the same, and not practiced for many years, he acknowledged the people’s right to express their customs so long as they did not interfere with the laws of the country. We then went out to the flimsy jail house where he verified my analysis of Samo marriage with the incarcerated wedding party. Hoga [the bride] was still, appropriately, sulking and the men were no longer brash and strong. Using Hiri Motu, he questioned them about their activities in light of what he had learned from me. The men supported my analysis and hung their heads while the magistrate cautioned them about being so rough on women and their need to fit into the larger national society. He thereupon released them. Their animated discussion all the way home and the subsequent conclusion to the exchange demonstrated that all was well with marriage alliances in Samoland. However, they were understandably cautious about displaying their culture before the teachers for some time after that (personal journal).

For me, the amazing thing about this incident was the power that this solitary outsider had to halt the procession and hand the entire exchange party over to the authorities. Clearly Papua New Guineans had replaced the Australians of yesteryear as authority figures. While the Samo had more physical power than the teacher, he represented outside authority and they acquiesced and went to Nomad with him.

For their part, the Samo maintained their basic approach to economic and social viability within the rubric of their village structure. For them, the culture of contact was an extension of aboriginal beliefs and values within the framework of villages, connecting roads and the encroachment of the outside world. This became obvious in the extension of household kin terms to all members of a village and the decision to no longer marry between the village households. Former allies now all lived at the same location which precluded the need for further internal exchange of female siblings. What had been household exogamy resulted in village endogamy and, as one informant queried, “What is the value of self alliance?” They chose rather to expand their alliances with other villages. Thus villages replaced longhouses, not only as a domicile, but

also as a structural identity, which required expanded relationships within a community and with a broader alliance structure outside. This broadening of the social structure eventually reduced the distinctions between dialects on the Strickland Plain. As men were forced to look more broadly for potential wives, and thus new exchange partners, and as the government protection reduced the need to worry about raiding and cannibalism, it became safe to marry someone from a greater distance—both geographically and socially. Hence, former enemies began to exchange their women with each other, resulting in a dramatic reduction in lexical differences between the five dialects on the Strickland Plain (Shaw 1986).¹²

The social shifts mirror the spatial adjustments that came with village aggregation. As the land surrounding the villages has become depleted, people have had to go ever deeper into the forest to find sago and suitable land for growing plantain and *pitpit*, ‘wild sugar cane’ producing a pithy/mealy fruit resembling a small ear of corn. This has forced them to spend increasing amounts of time away from the villages, living in small, temporary garden houses. There they seek to survive without the excitement (and pain) of raiding and subsequently feasting on human meat. Ironically, because of the depleted forest surrounding contemporary villages, the Samo are forced to go ever further away to maintain their food supply by hunting, foraging and processing sago. The more the Samo conform to national standards, the more they must revert to their aboriginal lifestyle in order to survive. Migratory longhouse communities were a much better means of utilizing the forest environment than sedentary villages as demanded by the government. Perhaps at some point these wary people will abandon their villages and reestablish the art of building longhouses in the forest.

4.1 God’s protection symbolized by the house

The value of a well-built, secure and safe house was central in enabling us to effectively translate passages such as 1 Thessalonians 5:8 with its emphasis on the “breastplate” of faith and love and the “helmet” of salvation. These elements of Roman armor meant nothing to the Samo. But the broader context gives further understanding of God’s intent and his message to the Samo. In 1 Thessalonians, chapter 4, the Apostle Paul is giving instructions to the original audience in Thessalonica regarding the return of Christ. As Jesus had done in Matt. 24, Paul uses the imagery of a “thief in the night.” With that imagery in mind Paul contrasts night time behavior with what takes place during the day.

¹²In his most recent book, Derek Bickerton (2008) writes: “Every dialect feature has geographic boundaries, and every dialect is a structured, integrated whole; it’s just not possible for isolated features to detach themselves from their homes and congregate in a single place.” The Samo data would appear to contradict this view and demonstrate that linguistic theories are subject to the dynamics of a context. The contact situation on the Strickland Plain, as it pertained to raiding and cannibalism in juxtaposition to the Samo socio-political environment and longhouse relocation into centralized villages created a very different response from that which Bickerton would expect. Women brought their dialect with them when they were exchanged, but that changed in relationship to being understood by people around them, and the speech of their children. The more exchanges were used to reinforce alliances, the greater the inter-dialect interchange and the greater the commonality that resulted.

This sets up, for the Samo, the scenario of the householder ordering the preparation of a house for nighttime protection. Householders secured the house by “locking” the door, a process that required pulling out the wooden pins that held the logs above the doorway. Those logs then filled the doorway and sealed off the house. During the evening, members of the household habitually gathered in their respective space, the women and children in the kitchen or the secluded women’s portion of the house, the married men in the main room in the center of the house, and the bachelors on the porch. Often a fire was the center of attention as people gathered for warmth, story telling and solace from the vagaries of a harsh world outside.

All this is conjured up in the Samo mind as they listen to Paul talk about the “day of the Lord” which will come when they least expect it. Instead of the protection of Roman armor, the Samo understand the protection of a house, and the translation provides a schema of protection for all who are surrounded by the house ensured by the *ayo*, ‘the householder’ who symbolizes protection and care. With such understanding, the return of Christ takes on new meaning for them as they huddle in their houses knowing that as they love and care for each other and place their faith in Christ the ultimate householder; Oye Ayo, “God” will protect them and bring salvation by ensuring their safety.

This is an incredible picture that throws back to their conceptual framework of raiding, the importance of physical protection, and the solace of human relationships within a household. This relational scenario provides a powerful imagery of interaction—the fear of a raid that is ameliorated by the knowledge that they are protected by their secured space as well as by their social network. Such understanding provides a new awareness for God’s protection. Such awareness further allows those who are not Samo to gain new insight from the physical and spiritual response of the Samo as they anticipate (as expectedly as a watchful householder) the Lord’s return.

5 Conclusion

As Karl Franklin encouraged young scholars to investigate the linguistic and social contexts in which they worked, I now recognize the distinct privilege of recording the adjustments the Samo made as they sought to incorporate the activity of *kiaps* and magistrates and thereby forever changed the social context of pre-contact cannibalism. The shift in the nature of social groupings from the isolation of near-nomadic, aboriginal households to a more stable, village-based social structure reflects the impact of colonialism on the one hand, and the Samo response through adjustments that reflect their values and assumptions on the other. The new organization with its focus on villages and dialect homogeneity is by no means a one-to-one correlation with the precontact focus on longhouses and alliances. While a village is somewhat comparable to a grouping of precontact allies, it has a very different rationale, namely bureaucratic demand (see figure 2). Although the Samo maintained the same term for ‘alliance’, the change in the distribution patterns—from that of households to that of villages—

resulted in a broad social network that has had a dramatic impact upon dialect variation.

A Pre-contact longhouse in relation to other Social Groupings	A Post-contact village in relation to other Social Groupings
<i>Monsoon</i> , 'household' <i>oosoo buoman</i> , 'ally' <i>ton</i> , 'dialect/language' <i>hatooman</i> , 'enemy'	Unlabeled, 'family' <i>Gaboo monsoon</i> , 'village' <i>oosoo buoman</i> , 'ally' <i>ton</i> , 'dialect/language' <i>kooahage/boo</i> , 'national/expatriate foreigner'

Figure 2: Expanding units of Samo social structure
(used with permission of Wadsworth Publishers)¹³

Furthermore, while enemies have been largely eliminated, and cannibalism is little more than a memory, outsiders have come in increasing numbers and taken on the protective role once allotted to allies. However, outsiders, like enemies, are not trusted, because there is little interaction. Therefore, relationship within the villages has altered the family terminology to encompass all who live at a particular village site. Inasmuch as outsiders largely keep to themselves and do not integrate into community life, they remain untrustworthy. Thus the Samo remain wary of outsiders and maintain an on-going sense of isolation, despite the fact that there are increasing numbers of educated Samo who are becoming teachers, medical orderlies, and politicians. A Samo was the speaker of the Western Province Assembly from 1999 to 2003, and a Samo is the current headmaster at the Hanonabi school.

Such has been the impact of colonialism and the availability of the Bible on the Samo. Over the nearly fifty years since contact, there has been a shift in their social structure and their concept of physical space, the latter now reverting to a more pre-contact appearance as people spend increasing amounts of time away from the village in order to survive. Like other colonized peoples, they have made radical changes to their lifestyle, only to find that in order to survive they must revert, in part, to their aboriginal structures. Colonialism resulted in radical change that left the Samo with a new rationale for a structure that has reduced animosity and increased linguistic compatibility. They find themselves fighting for physical survival in the present post-colonial and globalized

¹³This figure reflects changes in social structure following the shift from scattered longhouses in the forest to sedentary villages. The two sets of groupings have been offset to highlight that though many of the same terms prevail, their meanings are different.

environment, while maintaining a semblance of meaningful structures that provide a memory of the past relevance and anticipate a future significance. Scriptures in their language help provide that significance as they understand themselves as people whom God loves, even as he also loves all who “sleep/reside in all the places of the earth,” as John 3:16 tells the Samo.

Colonialism came in with young *kiaps* demonstrating their power by killing a pig, and it has ended with an elaborate system of roads connecting permanent, but often deserted, villages. How the Samo maintain their viability and adjust their structures to this new system of relative autonomy and broad national identity provides an opportunity for further study and appreciation of social adaptability through time and space. What has happened provides a testimony to the resilience of a people who remain aware of their surroundings, relationships, and structures.

Scripture translation, couched in the conceptual framework of familiarity, while presenting God’s intent for the Samo (as well as all humankind), enables them to make sense out of God within a context that is meaningful to them. And in understanding God’s message, the Samo have developed a rationale for changing their behavior, while at the same time gaining new appreciation for the value of their cultural understanding.

On-going study demands an awareness of the nature of socio-cultural cohesion and the versatility of the human struggle for identity, survival and salvation. As Michael Foucault (1965) demonstrated how the residents of an insane asylum survive the madness of the “civilization” created for them, so I have attempted to show how the Samo have adjusted to and will persevere beyond the impact of colonial hegemony. Without a doubt they will develop new tropes which neither they nor their colonial benefactors could have imagined. Scripture in its turn, gives the Samo renewed hope for their future even as it draws on images from their cannibalistic past to inform their understanding and bring God into their midst.

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**The Appearing and Disappearing World
of the Bogaiya:
A Corner of Papua New Guinea Cultural History**

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ABSTRACT

Classifications of the languages spoken by people in corners of the regional landscapes of the Papua New Guinea Highlands have exercised the attention of linguists interested in the long-term cultural history of the Highlands. The population known as the Bogaiya or Bogaia near the Strickland River in the Southern Highlands Province are a case in point. Linguistically, affinities between their language and that of the Duna, their neighbors across the Muller Range, have been broached. In cultural terms, through our own fieldwork among the Aluni Valley Duna and in Yeru close to the Strickland, we have also found a range of ideas and ritual practices that link these particular Duna and the Bogaiya, especially practices relating to a Female Spirit figure, the Payame Ima. Duna language and culture features can also be linked with their more populous southern neighbors, the Huli. The Bogaiya conceptually appear or disappear in different ways according to how they are situated in the classifications of linguists and anthropologists. And in their own historical world, forces of recent change brought about by the building of an airstrip and a mission have accelerated a process of their assimilation into the sphere of the Duna. Such processes of shifts in cultural and linguistic identities have probably also formed part of the histories of populations in pre-colonial times, causing discrete groups to appear and disappear, leaving their traces in ethno-historical narratives and traditions.

Classifications make entities appear and disappear, in accordance with the criteria applied. Historical processes do the same: named groups, for example, emerge and merge with one another according to political conflicts and

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competitions. How do we put these two different dimensions together when considering a category like that of the Bogaiya (Bogaia, Pogaia), a tiny language group on the fringes of the Southern Highlands Province in Lake Kapiago District in Papua New Guinea?²

The Bogaiyan language has been at the center of some linguistic discussions in the constant classificatory jockeying by linguists regarding the languages of the New Guinea Highlands area in general. In political and cultural terms, there are obvious historical relations between the Duna speakers, who abut at their far western end onto the Muller Range where Bogaiya settlements are found, and the Huli people to the south-east, administratively centered on Tari, and well-known in the literature as vigorous warriors and orators, with a complex social structure based on a combination of cognatic and agnatic principles of descent and kinship. In some early classifications, the Huli and Duna languages have been placed broadly together, along with Enga language forms. In other terms—on grounds of shared pronouns and their putative significance for deep historical relations of common origins—the Duna language has been linked more closely to Bogaiya. Are these classifications mutually exclusive? Is one capable of being shown to be true as opposed to the other, or do they reflect different aspects of either truth or speculation, or estimates of probability, on the part of linguists? And what difference does this make for other modes of analysis? If the Duna and Bogaiya languages are especially linked together in genetic terms, this suggests that their long-term cultural histories should also be closely linked. On the other hand, if Duna and Huli are seen as linked together, the Bogaiya become a small isolate, a linguistic, and potentially a cultural, curiosity on the fringe of the Highlands.

Among linguistic experts on the so-called Papuan or non-Austronesian languages of New Guinea, there has been considerable discussion on issues of this sort, stemming from the pioneering classificatory efforts of Stephen Wurm and his professional collaborators at the Australian National University. Wurm and his fellow-workers quite early on noted many classificatory difficulties surrounding the use of lexicostatistical methods and their assumptions about borrowing and non-borrowing of vocabulary items between areas. Wurm and McElhanon (1975:145) succinctly indicate the problems resulting from what they called “the almost ubiquitous presence of varied influences of languages upon each other on virtually all levels which can reach a magnitude unrealized in the framework of the lexicostatistical method and in the basic principles of genetic linguistics in general” (1975:145). They go on to mention that even pronouns may be taken over from one language to another and raise the question of languages that may have to be viewed as “mixed.” They cite Andrew Pawley in an earlier paper (Pawley 1969), who argues that ignoring certain features of languages in favor of others simply to produce a clear classification “provides no adequate basis for the reconstruction of linguistic events, nor does

²The Bogaiya language is one that we have been interested in, especially in relation to the Duna language, for many years. We have collected language materials during our fieldwork in these areas within the Southern Highlands of Papua New Guinea. Two of our major works on the Duna people are the books, *Empowering the Past* (Strathern and Stewart 2004) and *Remaking the World* (Stewart and Strathern 2002). For a map of the area see Stewart and Strathern 2002:5.

it give an adequate picture of linguistic relationships” (1975:147). They proceed to make a modified restatement of the case for using genetic classifications, based on a suite of criteria including “typological and structural criteria” (1975:149, a view attributed particularly to McElhanon). They then summarize a range of detailed methods of assessment that include both lexical and structural considerations. Interestingly, a small number of vocabulary items are preserved in their scheme as diagnostic of shared genetic relationships: among verbs, especially those for *eat* and *say/speak*, and among nouns, those for *arm*, *bone*, *female breast*, *ear*, *eye*, *fire*, and *louse*, and less significantly, for *mother*, *skin*, and *water* (1975:150). Among structural criteria, “the structure and typology of verb forms are particularly important,” as well as the functions of the verb forms (1975:150). They go on to re-establish tables of degrees of putative relationship between languages.

In the sphere of “loanwords,” Wurm et al. (1975:937), note the work by McElhanon and Voorhoeve, finding Austronesian loanwords “far in the interior of the New Guinea mainland,” a feature going with the general feature of extensive borrowing of vocabulary between languages (1975:938). Moreover, “instances of languages undergoing changes quite rapidly under the influence of other languages can be observed today in the New Guinea area” (1975:938), and this raises again the question of “‘mixed’ languages” (1975:939).

Another methodological approach to issues of language interrelationships can be found in Harland Kerr’s detailed study of correspondences and parallels between forms in the Wiru language of Pangia in the Southern Highlands Province and the languages around it, notably Kewa, the language area where Karl Franklin worked. Wiru has been classified as an isolate (like the Oksapmin language). Kerr, however, shows with exact examples numerous correspondences between Wiru and a whole range of other Highland Papua New Guinea languages especially those of the West-Central family in the East New Guinea Highlands Stock (Kerr 1975:277). He refers, *inter alia*, to “the bipolarisation of the personal pronoun system” (1975:278) and “the benefactive construction” (1975:279) as evidence of very old genetic relationships between Wiru and languages outside of the ENGHS. He also notes correlations between the Wiru enclitic *-pe* as a question marker, and the same in Kewa, and compares this to *-te* in Binumarien (of the Eastern Family, 1975:280). There follows a detailed delineation of vocabulary correspondences, including numbers with the Melpa language of Mount Hagen, e.g., Wiru *ibini* ‘name’, Melpa *mbi*; but also with Enga, e.g., Wiru *lene* ‘eye’, Enga *rengge* (1975:280). The treatment is convincing, both at the surface lexical level, and in terms of reconstructed proto-forms and processes of transformation (“relics”). The upshot is not to reclassify Wiru, but to show that, isolate or not, it does clearly belong to the general set of Highland Papua New Guinea languages (1975:292).

In much later reconsiderations in the volume *Papuan Pasts*, Pawley (2005) reviews the “chequered history” of the Trans-New Guinea Phylum, while Malcolm Ross (2005) makes an extensive case for classifications based on pronouns. So the debates continue.

Standing back from the details of these immensely meticulous computations of relationships, we can ask two questions: first, “How would things look if, instead of concentrating on genetic relationships, linguists were to focus on the sociolinguistic contexts of what are dubbed processes of *borrowing* and *loan words*?” And, second, “How do all of these observations (and the question just posed) bear on the question of the Bogaiya?”

The linguists whose work we have briefly alluded to here have all recognized the existence of processes whereby extensive correspondences occur as a result of borrowing. But what is the meaning of the term *borrowing*? We are actually dealing with social relationships of travel, trade, ritual transmissions, marriage, political alliances, the passage of folk-tales, alterations in leadership patterns, and the like. Borrowing is not what is happening; social exchange is what is happening. The concentration on genetic relationships has to do with setting up hypotheses about prehistoric migrations of peoples. The concentration on social exchange, by contrast, has to do with understanding the flow of practices, as well as people, across landscapes, in shorter time scales. When something is borrowed, it has generally to be paid back; but this is not how it happens with loan-words. They are simply passed on, along with the practices that explain why this happens. Presumably, both sides may borrow. The direction of borrowing is likely to reflect relations of power or dominance between the groups involved.

To the Bogaiya, then. First, in linguistic terms, their language has been linked especially to the Duna language via the pronoun systems of the two languages. Reliance on this correspondence leads to the creation of a set consisting of Duna and Bogaiya—separate from other languages. On the other hand, looking at putative borrowings, we find Duna can be linked with Huli, presumably because of the kinds of social exchanges over time that we have noted. In fact, some ritual complexes of activities traversed the Huli and Duna areas (see, e.g., Frankel 1986, Goldman 1983, Stewart and Strathern 2002, Strathern and Stewart 2004). These would have provided ample occasions for vocabulary and other linguistic transfers.

Linguists, faced with classificatory problems, have recognized the existence of dialect chains running across areas. A similar concept is needed for the passage of commonalities in cultural and social terms. While an exclusivist model of relationships might suggest that the Duna be linked *either* with the Bogaiya, *or* with the Huli, an inclusivist cultural-chain model suggests instead something that corresponds to all the ethnohistorical evidence we have, i.e., that there is a continuum running from the Huli to the Duna to the Bogaiya and vice-versa. The Duna groups with whom we have carried out fieldwork, in the Aluni Valley, represent the specific link with the Bogaiya, primarily via correspondences in ritual practices.

In *Remaking the World*, we discuss in detail ideas about a powerful female spirit, the *Payame Ima*, which are in part shared between the Bogaiya and the Aluni Valley Duna. We write:

Given the prevalence of stories about the Payame Ima and people's continuing concerns for her in the Aluni Valley, it is possible that the traditions regarding her have entered the Duna area geographically and historically via the Bogaiya people, with one point of confluence at Yeru, near the Strickland [River] and another the pathways over the high Muller Range at the back of Hagu [a mountain settlement where we had one of our fieldwork houses] which lead down to the very sparsely settled Bogaiya area (Stewart and Strathern 2002:95).

We go on in this passage to point out that

certainly, fundamental ideas about the ground, human and pig sacrifices, witchcraft, assault sorcery, the idea of *rindi kiniya* [ritual complexes of action to forestall the decline of the earth and its resources], and the concept of the Payame Ima, the female spirit, are all found clearly among the Bogaiya" (2002:95).

Detailed accounts given by Bogaiya informants indicate that these correspondences are quite specific and reflect shared cosmological ideas about spirits in the landscape. Most particularly, among the Duna, all origin stories and stories about powerful nature spirits or ancestral figures have a directional or geographical dimension. Spirits are said to travel between areas, revealing themselves to people at one point in the landscape and giving them magical powers of access to wealth items such as pigs and shells. It is in this idiom that people may be referring to the passage of ideas and practices across language and dialect boundaries, including numerous traditions of passage between the Oksapmin area west of the Strickland and the Duna (and Bogaiya) areas. Cultural practices and spirits are seen as *mobile*. Their movements constitute what we have called *ritual trackways* (see, e.g., Stewart 1998). The great salience of ideas about the *Payame Ima*, persisting in the contemporary context among the Aluni Valley Duna, may therefore be a marker of historical connections with the Bogaiya. Over in Horaile to the east of the Aluni Valley, where Charles Modjeska worked, it is possible that ideas about the *Payame Ima* are less historically entrenched than among the Aluni Valley groups. This in turn may be related to different places of origin of groups. The Aluni Valley groups tend to trace their ancient origins either to some point in the Valley itself or to Yeru, right down by the *Strickland* River, near to the homeland of the Bogaiya. Yeru may be an interchange area between the Bogaiya and the Duna, and was said to have had its own language separate from either Bogaiya or Duna. Fragments of "Yeru speech" were related to us in the field. These seemed to suggest that Yeru speech was a variant of Duna, while the Bogaiya language is less closely tied with Duna. It is possible that Yeru speech represents the kind of mixed language that the linguists, whose work we discussed above, have mooted as a valid object of study in New Guinea: mixed, that is, with elements of both Bogaiya and Duna in it. Origin myths of groups in the Yeru area suggest links both with Bogaiya territory and with Oksapmin.

The upshot of these observations is that (1) cultural practices show close interrelationships *between* the Duna speakers of the Aluni Valley and the Bogaiya, and (2) Duna and Bogaiya elements have historically come together and mingled at the place Yeru, which several of the recognized named descent

groups/categories in the Aluni Valley consider to be an important origin place for themselves, a point of dispersal from which people migrated uphill.

These suggestions also indicate that the whole idea of “the Bogaiya” depends on isolating a particular collection of groups and practices and naming them as a separate entity. The pioneering field observations of Paul Sillitoe (1994) support such a *notion*. Sillitoe refers to the Bogaia (his spelling) as a “vulnerable population” (sub-title of his *Oceania* monograph). His study is a typically painstaking and meticulous account of population, demography, land use, and genealogies in the area. In the course of his discussion, he makes several observations pertinent to our theme here:

- (1) The “Bogaia” as such were “discovered” by Operation Drake explorers in the late 1970s, who published their findings in media headlines. They were probably contacted previously by earlier patrols (Sillitoe 1994:3).
- (2) The Bogaia think that they are threatened by a type of sorcery from their Oksapmin neighbors, and they in fact suffer from a variety of diseases that reduce their population numbers (1994:1).
- (3) The Bogaia live in a corner of the landscape where four other cultural/linguistic formations abut on them (Ok, Hewa, Duna, and Tsinali/Tsinaliy). Sillitoe refers to this situation as a “cultural cocktail” (1994:19).
- (4) The Bogaia have no name for themselves (1994:19). (The term Bogaia in fact appears to be the name given by linguists to their language.)
- (5) At Yeru they interact mostly with the Duna and the Oksapmin people, whom they call Kora (1994:20).
- (6) Kin connections resulting from marriages indicate the strongest connections with the Kora and Duna areas (1994:20).
- (7) The basic ‘corporate social groups’ are called *say* (= Duna *tse* ‘base, origin’). These groups persist as named entities over time, but people reside very fluidly. Although there is a patrilineal preference, people can also affiliate with their mother’s *say*. There is no correlation between *say* membership and residence patterns (1994:23–24).
- (8) By our own observations—in addition to those of Sillitoe—some of the *say* names listed by Sillitoe, relate to groups found at Yeru (e.g., Iypaluma, Songuwa, and Kusuwkusuw) (1994:24).

From the account of Bogaiya social structure noted in (7) and (8) above, it is quite evident that Bogaiya and Duna social groups overlap, not only in their general form, but also specifically as named entities. The Songuwa (Songwa), for example, are a group whose members are found variously in the parishes of the Aluni Valley and whose origin story carries cosmological significance for ritual trackways that traverse the Duna area and also link the Duna to Ok (Kora) (see Stewart and Strathern 2002: 22, 25–33, 121, 152, 160–61, 166). Aluni Valley Duna groups also have origin stories linking them to Kora with ancestral marriages but also by way of narratives of ancestral spirit figures (*tama*) who

travelled from Kora and founded local groups in the Aluni Valley (e.g., the origin story for Haiyuwi parish, Stewart and Strathern 2002:23).

In spite of these links with Kora, the Bogaiya fear the Oksapmin people, and Sillitoe refers to both physical and sorcery raids as the background to these fears. From the Bogaiya viewpoint, the sorcery raids may have been seen as quite physical in themselves, if the sorcery in question is the same as the kind the Aluni Valley Duna recognize as *tsuwake tene*: a form of assault sorcery of a classic type, in which the marauding sorcerer or sorcerers acting together are said to waylay a victim in the bush and then open up the victim's insides and place rubbish and leaves within the body (for details, see Stewart and Strathern 1999). The Aluni Valley Duna declared in the 1990s that this type of sorcery was practiced only by bands coming from Oksapmin, sometimes placing young women in front of the attackers in order to entice men away from their usual pathways and so make them more easily vulnerable to the sorcerers' onset. These Duna fears match those of the Bogaiya as reported by Sillitoe. The Duna were also concerned about *tsuwake kono* witchcraft, mostly said to be exercised by females. In the precolonial past (prior to the 1960s) women found guilty of witchcraft might be forced to hang themselves. Such fears and concerns therefore could lead to a reduction of the population, in a kind of feedback loop. Deaths would spark fears of witchcraft, accusations could be made against suspects, and these if found guilty might be forced to commit suicide. Aluni Valley Duna felt that Yeru was a source-place of witchcraft influences, along with Oksapmin. Women from these places, or with ancestry from these places, were likely to be suspected of witchcraft. At the same time, Yeru was seen in a sense as also a source-place of cultural practices and meanings in general, via the general origin narrative of the Songwa (Songuwa/Tongua in other transcriptions) and the narrative of how people ceased to be cannibals and began to eat pigs instead, also woven into the Songwa story (Stewart and Strathern 2002: 28-38, esp. p. 30). The Songwa, Kopetei, and Poli, relatively small remnant groups incorporated into the higher altitude Valley population, are the locus of rich *malu* or origin narratives, encapsulating many aspects of Duna cosmology, and also linking the Valley Duna to the Bogaiya. The same holds for the narrative chains of stories about the powerful female spirit, the *Payame Ima* (detailed in Stewart and Strathern 2002: 93-110).

In short, Duna and Bogaiya traditions meet in Yeru. We cannot say what the directions of transmission of those traditions may have been, but there are indications in people's own stories that certain motifs have come from the Bogaiya into the Duna area via Yeru. Bogaiya may have been a cultural interchange area, as Sillitoe notes. It may also have been a fertile place for the generation of new and complex mythical narratives. Such a suggestion makes the Bogaiya "appear" again as culturally salient, even as they "disappear" demographically through disease in low altitude areas, where soil fertility is poor and people are widely spread out.

Thus far we have been explaining ways in which the Bogaiya have either appeared or disappeared according to classifications and the cultural history of the past. In 1999 we observed a contemporary process that threatened to make

the Bogaiya disappear even as they themselves attempted to survive. A mission station was established at Egali, near to Yeru. The missionary family had an airstrip built there and set up a health clinic as well as an instructional center. Large numbers of Bogaiya abandoned their scattered dwellings and built houses close to the new station. They bought store food when they could and also beer smuggled in from time to time. Numbers of Duna people also came down to Egali and mingled with the Bogaiya settlers. The Bogaiya began to adopt the Duna language instead of their own. The missionary was frustrated because he had come to learn the Bogaiya language in order to translate the Bible into it and found a congregation there. The apparent abandonment of their own language in favor of the language of the more numerous and predominant Duna population was thus a source of existential confusion for the missionary, although not, it seems, for the Bogaiya themselves. They were a small, vulnerable, and poor population. The mission and its airstrip was a source of goods and medicines, which would enable people to survive. If, in the process, they shed aspects of their culture and/or language, this transition was not too bothersome, since the two languages and cultures (Bogaiya and Duna) are, as we have seen, quite closely related. This process of assimilation, as well as the contrary process of splitting off, has probably been repeated many times over in Papua New Guinea cultural history. That the latest episode of this process in the Bogaiya/Yeru/Duna interchange area is also adventitiously a result of a kind of globalization—i.e., the arrival of an American missionary and an airstrip—is just another twist in the rope of history. It would be interesting and rewarding to add to these notes and queries about the Bogaiya by conducting archaeological excavations in Yeru to try to discern traces of earlier twists in the earth.

Returning also to the issues of mixed languages and loanwords discussed earlier, have the Bogaiya just been going through a phase of intensive borrowing? Or have they been creating a mixed language? Or have they simply been making themselves disappear as a cultural entity while ensuring their physical survival? Time will tell.

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A Remarkable Chain Tale from New Guinea

C. L. Voorhoeve

ABSTRACT

Although chain tales have been recorded in many parts of the world and have been the subject of systematic study, they are either extremely rare in New Guinea, or they have largely escaped the attention of those who recorded its oral literature. The chain tale presented here is the only New Guinean one that has come to my attention. What makes it remarkable is that three almost identical variants were recorded in geographically widely separated areas in languages that are at best only distantly related. The question of how to explain this similarity is broached but alas not answered because of the dearth of data.

1 Introduction

It has been a long time since I met Karl for the last time, and the invitation to contribute to a festschrift for him came as a pleasant surprise. Karl was my first Ph.D. student; our initial contact dates from June, 1967. I was a young research fellow at the Australian National University and in the middle of my first fieldwork in the Western District of Papua New Guinea when I received a letter from Karl informing me that I had been appointed as his supervisor. We actually met a few months later in Canberra after my return from the field.¹ In the following years we did not meet very often. Karl's work was in the highlands, mine in the lowlands, and only occasionally our paths crossed, as in 1971 when I was Karl and Joyce's guest at Ukarumpa, Eastern Highlands District (the Summer Institute of Linguistics' site in Papua New Guinea) for a few days, and

¹I may have been a bit hard on Karl then, as we represented two very different theoretical frameworks. I was a European structural linguist, Karl a Pikean Tagmemicist, and our viewpoints did not always coincide. But Karl weathered all storms and his dissertation, *A Grammar and dialect Study of Kewa, New Guinea* (Franklin 1969) still has its respected place on my bookshelf.

in 1973 when I collaborated with Karl on a chapter in a volume he was editing: *The linguistic situation in the Gulf District and adjacent areas, Papua New Guinea* (Franklin and Voorhoeve 1973). Late in the 1970s, when fieldwork became increasingly difficult in Papua New Guinea, I shifted my research to eastern Indonesia, and we lost touch altogether.

What should one write for an old friend one hasn't seen for such a long time? Luckily, I learned that his most recent focus is on folktales and oral storytelling, a field I am keenly interested in myself. As it happened, just before our first contact I had recorded a so-called chain tale that puzzled me very much because it was so similar to a chain tale I recorded much earlier in the Asmat area of what was then Netherlands New Guinea. At the time, however, I was fully occupied with descriptive and comparative work, so the topic of chain tales was shelved. At last, Karl's festschrift has provided the stimulus to take it up again.

2 Chain tales

A snake is hit on the head by a falling fruit
 The snake calls a rat to eat the fruit
 The fruit calls the fire to burn the rat
 The rat calls the rain to put out the fire
 The rain falls down.

In a chain tale the first event or episode triggers a second one, the second triggers a third, and so forth: A > B > C > D ... In one type of tale the succession of events just stops at a certain point; in other tales the series of events leads back to the initial one: A>B>C>D>A..., or at a certain point is reversed: A>B>C>D>C>B>A. The tale that will concern us here is of the first type. In a stripped-down version as I have given it above, and in the following, I shall discuss three variants, two recorded by myself and one I happened to come across in a large collection of folk tales. The main difference between these variants lies in their function. One of them is just a children's story; the other two each form the first part of a larger story, leading up to respectively a flood story and a story about the origin of fire.

3 First variant

The first variant I recorded in November, 1960 in the government station Agats in the Asmat area of West New Guinea. My informant was a student at the local mission school. It is a children's story that was told to him by his mother when he was a small boy.² Specific notes to the glosses follow the text.³

²I included this text in my description of the Flamingo Bay dialect of Asmat (Voorhoeve 1965:186-187), presenting the Asmat text alongside an English translation without further notes.

³The spelling is phonemic except for (b, mb, m) and (d, nd, n) which are allophones of the complex phonemes /m/ and /n/ respectively. The /c/ is a voiceless alveo-palatal stop, and /r/ can be a flap or a trill. Stress is indicated by an acute accent over the stressed vowel.

- (1) Bacíw bu a-mbu-áms-er in.
snake SPECIES water IND₍₁₎-bathe-lie.down-NP(3SG)₍₂₎ QUOTE₍₃₎
'A *baciw* snake was resting after bathing.'
- (2) Ám ek ar-ám op yirán á-e-tep-er in.
am fruit he-CONTRAST₍₄₎ above ripe IND-do-hang-NP(3SG) QUOTE
'Above, an *am* fruit⁴ was hanging, ripening.'
- (3) Bacíw a! ó na árpuk a!
baciw EXCLAM 2SG FOC₍₅₎ out.of.the.way EXCLAM
'Hey, *baciw*! Get out of the way, you!'
- (4) Do a mbaré "yirán b-e-kurúm bo-kóy-ndi
1SG here already ripe INF₍₆₎ -do-completely INF-come.loose-go.down
e-mbí a-yí-por-á e-r opák in.
do-PRES-1SG IND-say-see-REPET do-NP(3SG) not QUOTE
'I here am already about to become fully ripe and fall down, he said again and again,
but with no success.'
- (5) A nat: car-pá min nát tepa-ko-kóy-ndi-ewér-m-okom
3SG FOC 2PL-alone₍₇₎ EMPH FOC why.not-RED-come.loose-go.down-HAB-PRES-2PL
'He (the snake) (said): "Why don't you make it a habit of dropping down
when you are alone?"'
- (6) Á ow m-ambís maserim car bo-ko-kóy-ndi-ewer-éyi
here somebody INF-lying.down then 2PL INF-RED-come.loose-go.down-HAB-REPET
aráw an? iním a-e-r in.
NEC₍₈₎ QUESTION thus IND-do/say-NP(3SG) QUOTE
'"Do you always have to drop down when somebody is lying here?" thus he spoke.'
- (7) Á, em-ém-ams-er-em iním a-e-r in.
well PFV₍₉₎-go-lie.down-NP-2SG thus IND-do/say-NP(3SG) QUOTE
'"Well, you have already lain down," (i.e., as you are staying there..) thus (the fruit) said.'
- (8) Am ék op ew tep-koy-ér cowák mbi-sa ndambí
am fruit above from hang-come.loose-NP(3SG) at.once nose-back in.a.bunch
a-ndi-yám-tiw-er in.
IND-go.down-big-put.down-NP(3SG) QUOTE
'At once the *am* fruit fell down from above in a bunch and hit him heavily on the back
of the nose.'
- (9) Uwú mbi a uwú mbi a! iním a-e-r in.
ouch nose EXCLAM ouch nose EXCLAM thus IND-do/say-NP(3SG) QUOTE
'"Ouch, my nose! Ouch, my nose!" thus he (the snake) said.'

⁴Unidentified, but described to me as similar to a mango.

- (10) Pér, asé ew sir-ac-ém am ék m-an in yis-ap-céy!
 rat bush from run-ANT₍₁₀₎-2SG am fruit INF-eat PURP₍₁₁₎ go.out-sit-IMP₍₁₂₎
 iním a-e-r in.
 thus IND-do/say-NP(3SG) QUOTE
 ‘‘Rat, you should run out of the bush and sit down to eat the *am* fruit,’’ thus he said.’
- (11) Per áp-sir-er cowák am ék m-an in á-yis-ap-er in.
 rat sit-run-NP(3SG) at.once am fruit INF-eat PURP IND-go.out-sit-NP(3SG) QUOTE
 ‘Immediately the rat started running and sat down to eat the *am* fruit.’
- (12) Wa, yismák a per fa-m-tiw-íc! iním a-e-r in.
 hey fire this rat burn-CAUS-put.down thus IND-do/say-NP(3SG) QUOTE
 ‘‘Hey, fire, burn this rat,’’ it (the fruit) said.’
- (13) Yismák per sesesé a-óm-om-at-er in.
 fire rat singeing IND-start-walk-GV₍₁₃₎-NP(3SG) QUOTE
 ‘The fire started walking to the rat while singeing it.’
- (14) Te mumbú a-ne-mb-úc a iním a-e-r in.
 rain heavy IND-fall.down-CAUS-IMP EXCLAM thus IND-do/say-NP(3SG) QUOTE
 ‘‘Downpour, fall down!’’ he (the rat) said.’
- (15) Te mumbú a-ne-mb-or in.
 rainheavy IND-fall.down-CAUS-NP(3SG) QUOTE
 ‘A heavy rain fell.’
- (16) Baré opák.
 finished no.more
 ‘That’s all.’

NOTES to the glosses:

- (1) The prefix *a-*, glossed IND for INDICATIVE, following Drabbe 1959: §59, is not easy to characterize. It seems to be a default prefix when none of the semantically ‘‘loaded’’ prefixes occur. It may be omitted, as in (12), (14) and (15), without semantic consequences.
- (2) The 3SG marker for the Near/Mythical Past is Zero; compare *-er-em* NP2SG and *er-es* NP3PL.
- (3) The sentence-final particle *in/un* is glossed QUOTE; it is an evidential marker, not uncommon cross-linguistically, marking utterances for which the speaker has no direct evidence, such as all sentences in a story like this.
- (4) *-am* in the anaphoric pronoun *arám* serves to highlight the change of Subject ‘he (on the other hand)’.
- (5) The FOCUS marker is *na/nat*, providing some emphasis to the preceding pronoun or noun phrase.
- (6) The verbal prefix /m(V)-/, realized phonetically as [b(V)-] or [m(V)-], indicates an INFINITIVE form when used in isolation. Together with an inflected form of the verb *e* ‘do’, it is used to express intention or an imminent event. Note that here two INF-forms go with one inflected form of *e*.
- (7) The pronominal suffix *-ap/pa* expresses that one does something on one’s own, i.e., alone, when nobody else is around. The suffixed form can be followed by *min*, which seems to stress the fact that nobody else is there.
- (8) *Araw*, followed by the question marker *an* and following an INF verb form, expresses that the necessity to perform the action expressed by the verb is questioned (Voorhoeve 1965, §245).

- (9) The prefix *em(V)*- indicates a perfective aspect.
- (10) The suffix *-ac* is labelled ANTERIOR (Voorhoeve 1965, § 114, 115); it indicates that the action precedes that of the following verb. Verbs with *-ac* occur mostly sentence medially, but can occur sentence-finally as adhortative or imperative forms, as in *bar atow e-ac-om a!* ball play do-first-we EXCLAMATION – “Let’s first play football!”
- (11) The QUOTE marker *in*, preceded by an INF verb and followed by an inflected verb form, indicates that the action expressed by the first verb is the purpose of the action expressed by the second. It can be translated by ‘in order to’.
- (12) An imperative form with *-cey* is more polite and not as domineering as the IMP forms with *-i(c)*.
- (13) *-at-* is a generic verb, occurring with quite a few noun-complements: *cembew -at-* ‘to abuse sb.’, *owen -at-* ‘to fight’, etc. I find the form *om-om-at* difficult to gloss. *Em-em* means ‘set out walking’. With an “infix” *-o-*, it becomes *om-om* ‘set out walking while doing something’, and that something, in this case, is *sesese -at-* ‘to singe, scorch’.

4 Second variant

The second variant I recorded in May 1967 when I was stationed at Nomad Patrol post in the then Western District of Papua⁵ for an initial survey of the languages in the Nomad sub-district. The contact language in the Western District was a local variant of Hiri Motu,⁶ but at that time there were only a few young men in the Nomad sub-district who had acquired a working knowledge of it. Those who were most fluent in Hiri Motu worked as interpreters for the Government at the Nomad patrol post. One of them, Dina, from the Pare language area across the Strickland River, was willing to work for me as an informant for his language. He was eager, but unsophisticated, so that progress on his mother tongue was slow and often hampered by the limitations of Hiri Motu as a contact language. But he was a good story teller, and as I was interested in oral literature, he told me several Pa folktales. For my benefit he did this in Hiri Motu; the Pa originals would have been beyond my grasp. When he told me the tale of the goanna that is hit by a fruit and then calls a rat to eat the fruit, etc., I was struck by its similarity to the story presented above, and I asked him to summarize the story for me in his own language. However, the rough translation we then worked out contains so many uncertainties and gaps that it is unfit for presentation here. The following is a free translation of the Hiri Motu version:

This is an old story. Our ancestors used to tell it, and it goes like this. A goanna was sitting on the trunk of a tree. While he was sitting there, a blackpalm fruit fell down on the ground. The goanna was amazed, “Hey, what was that, falling down?” But he stayed where he was. Then another blackpalm fruit fell down. He went to have a look. “Oh,” he said when he saw them, “those are the things that gave me a fright!” He went back, but then he thought, “I’ll do something else.”

And he went back to the place where the fruit were falling. He found the blackpalm and climbed up its trunk. Then he said, “Hey, who are you trying to hit all the time? You fruit are not people, are you?” And then he said, “Come and hit me! If you are really something, come down!”

⁵Now: Western Province.

⁶Hiri Motu, or Police Motu as it was called back in 1967, is a pidginized form of the Austronesian Motu language spoken around Port Moresby.

The fruit said, "Ah, this man tells me to hit him!" And it continued, "You should stand quite close to the trunk!"

But when it fell down to hit the goanna, the latter moved to the other side (of the tree). "You cannot hit me!" A fruit on that side was ripe and fell, but the goanna again moved to the other side. "You cannot hit me!" So it went on, but then a fruit on the goanna's side pretended to fall down, and when he went to the other side, a fruit on that side fell straight down and hit the goanna. "Ouch!" He was in great pain! "Why did you trick me and hit me?" he cried.

He was in great pain, crying and rolling over and over on the ground, and then he called out to the rat, one, two, three times. "Rat, where are you? Come and look at this fruit, this fruit hit me!"

Then the rat came running, grabbed the fruit and started gnawing away—*krekkrek, krekkrek...*

"Ouch, don't kill me; please, let me go!" Then the fruit called out: "Fire! Come and burn this rat!"

The fire set out and came, burning the trees wherever it went, erratically, all over the plains and the hills. The rat and goanna both ran away, but there was no way out. They ran in circles, and finally the fire overtook them. "What shall we do," they both cried, and then they called the rain, "Hey, rain, flood, come down here and put out the fire! Quick, it's almost killing us!"

Up in the sky there was thunder and lightning on all sides, and a heavy rain fell down. When the rain fell, a flood came down, tearing away the forest on all sides. And when it came, it took with it both the rat and the goanna, and the blackpalm fruit floated away.⁷

But in Pa this is not the end of the story. The rain does not stop, but causes a flood which submerges the whole world, drowning every living being on it, except for two brother-sister couples who have a premonition of what is going to happen. They save themselves on a hastily built raft; first they are carried away with the current, but then they succeed in tying their raft to the top of an immensely tall tree reaching almost to the clouds. There they stay till the waters have receded. After some time two giants pass them; the first one comes from the mountains, the second from the sea. When the giants have changed places, the earth is again ready for habitation.⁸ The two young men now exchange sisters, marrying them, and they repopulate the earth. They are the ancestors of all the tribes living in the Nomad sub-district.

5 Third variant

The third variant I found very recently in a large collection of more than 1200 folktales originally published in the newspaper *Wantok* between 1972 and 1997 (Slone 2001:19). It was first published in the *Wantok* issue of 21 November 1973. The story was written down by a Gope⁹ student at Kerema High School in the Gulf District. As the story is too long to include here I have summarized it:

On the sea shore, under a mangrove root, a small mud crab is asleep. It has just moulted, and its shell is still soft. Suddenly, the crab is rudely awakened by a falling mangrove fruit that has hit him on his new shell. The crab cries out, "Rat, come here and eat this

⁷The Hiri Motu version of this part of the story was published in Dutton and Voorhoeve 1974:182–183.

⁸I mention this detail here because mythical beings who move from the mountains to the sea and vice versa are also found in Asmat mythology. It is still unclear what their role is or what forces they represent.

⁹The Gope area lies at the top of the Papuan Gulf and the language spoken there is North Eastern Kiwai.

mangrove fruit! It has damaged my new shell!” Soon a rat arrives and starts eating the fruit. The fruit now cries out, “Fire, come and help me; burn this rat who is trying to eat me!” The fire comes and scorches the rat, who cries out, “Water, where are you! Come and put out this fire that is burning my hair!” Then the water (rain) comes and tries to extinguish the fire.

And again, as in the Pa version, the story continues. The fire gets help from a snake who carries it away to the Gope people who up till that time had not known about the use of fire.¹⁰

6 Discussion

So we have here three strikingly similar chain tales; all three seem part of an old oral tradition, handed down in languages that not only are geographically far apart, but also not closely related at all. Asmat is a member of the Asmat-Kamoro Family, and Pa is a member of the Awin-Pa Family. On a higher level, the two families are related; both are members of the proposed Central and South New Guinea subgroup of the Trans New Guinea family. Even more distant is the relationship of Asmat and Pa with North-Eastern Kiwai, the language of the Gope area. NE Kiwai is a member of the Kiwai Family, which may also belong to the Trans New Guinea family (Ross 2005:37).

Given the geographic and linguistic distance between the tales, how can their similarity be explained? When comparing the three tales, my first impression was that they seem to have an internal logic that would make them resistant to change, at least in their basic structure. I found this confirmed in a collection of Indian folktales by A. K. Ramanujan (1997, chapter 8) in which he says, “Chain tales are accumulative tales with a stricter narrative logic: every additional episode is dependent on the previous one.” He quotes an earlier study of the folktale by Stith Thompson in which she observes,

A much more definite narrative core is found in the cumulative tale [of which the chain tale forms a sub-group—CLV]. Something of the nature of a game is also present here, since the accumulating repetitions must be recited exactly, but in the central situation many of these tales maintain their form unchanged over long periods of history and in very diverse environments. (Thompson 1946:230)¹¹

If such a resistance to change is common to all chain tales, the three variants presented here can be the result of a long history of borrowing across language boundaries. But it is also possible that they were handed down for thousands of years from one “proto form” in a language ancestral to Asmat, Pa and NE Kiwai. And naturally the latter process does not exclude the first.

According to Thompson and Ramanujan, whose studies took them all the way from North America through Europe and the Middle East to India, chain tales are a kind of game, and a form of amusement for children as well as grown-ups. This certainly is the case with the Asmat version which has no connection with

¹⁰A slightly different version of the same story, I found later, was published in 1974 by Kristen Press, Madang in a booklet entitled *Creation Legends from New Guinea*. 19–22 (The Crab and the Fire, by Oriu Gemo).

¹¹A second edition of her study has appeared in 1977, but I had only access to the first one of 1946.

either flood or fire or any other mythical theme. In Pa and NE Kiwai, however, the chain tale forms the upbeat, as it were, to a much more serious myth of origin. It is perhaps worth investigating whether there is something in the nature of chain tales that makes them important as an introduction to myths of origin, and to myths in general, that may have had a sacred character. But before we can begin such an investigation, we should have more chain tales to work with. It is remarkable that the three tales recorded so far are all basically one and the same story. Are there no other chain tales to be found in New Guinea oral literature? Did they perhaps escape attention or were they not thought worthy of being written down? Perhaps Karl can help us out!

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24

From Terse to Loose: Translating Hebrew Poetry into Hawai`i Pidgin

Joseph E. Grimes

ABSTRACT

Hebrew poetry is complex in the ways it uses semantic parallelism and rhythm, and in its terseness. Hawai`i Pidgin, which is the vehicle for a subculture of substantial size, has complexities that are different from those of Hebrew, in the ways in which it handles semantic parallelism, versification, sequencing of sentence and discourse elements, anaphora, phrasal lexemes, proverbial sayings, and metaphor. Nevertheless, adequate translation is possible.¹

1 Hebrew Poetry

When Hebrew poetry is translated into a language as different from it as Hawai`i Pidgin is, there are a few points about Hebrew poetry that are keys to how the process works out. Robert Alter's (1985) book on classical Hebrew poetry calls attention to some aspects of Hebrew poetry that provide a handle for comparison.

He singles out a certain kind of semantic parallelism that characterizes nearly all Hebrew poetry—not just saying something twice with a little variation thrown in, but using the difference between one *VERSET*² and its follow-up to add

¹I am indebted to Ronald Youngblood of Bethel Seminary, San Diego, California for a series of lectures that got me started thinking along these lines, and to Ryo Stanwood and Robert Arakaki of the Pidgin translation team who made helpful suggestions.

²*Verset* is a technical term for an important element of Hebrew verse. One line of Hebrew verse is typically divided into two parts, or versets, that are usually rhythmically and semantically related to other versets. Some lines contain

precision, or color, or a consequence. He also says a little about the rhythmic properties of the poetry, which is the most obvious disconnect between Hebrew and Pidgin. And he calls attention to the terseness of the typical Hebrew line of verse. Terseness is also valued in Pidgin, but it must be sacrificed for a number of reasons in order to get an otherwise faithful, but looser, rendering.

1.1 Semantic parallelism

Alter's view of semantic parallelism goes beyond treating it as a creative way of juggling synonyms by almost saying the same thing twice. That would be tiresome and trite, and there is little such triteness in biblical poetry. He points out that nearly all parallel versets treat the first verset as more prosaic or generic, or as the starting point of a process or a causal chain. The next verset generally follows from the first, adding detail or specificity or concreteness or intensification or sequence or consequence or a higher level of diction or a metaphor to one of the terms in the first verset. This kind of parallelism, where the parts are deliberately set out of kilter so that the progression of thought can be noticed, can be perceived easily even in translation.

The principle of adding a little information is not restricted to the versets in a single line. A whole sequence of lines can show similar development from one line to another as well. Alter (1985:23) cites Psalm 145 as consisting largely of multiline developments of this kind.

Gapping between versets is common: "The ox knows its owner :: and the ass [knows] its master's crib," (Isaiah 1:3) has the verb of the first verset doing double duty for the second. That leaves a little extra room in the second for elaboration with *crib*. Semantic parallelism can also be presented chiastically, with the elements of the second verset in reverse order from the matching elements of the first.

1.2 Rhythm

Hebrew poetry is not rhymed, though it occasionally uses alliteration. Nor is its rhythm restricted to particular foot types such as iambs or trochees, or to a particular meter such as tetrameter or hexameter. Most characteristically, a verset contains several major stresses, with each stress dominating in a group of up to five syllables that act as a rhythmic unit. Many lines have three such stress groups in the first verset, followed by three, or less commonly two, in the second; but that is not a strong requirement.

three versets, a few four. Other terms such as HALF-LINE and HEMISTICH are also used, but they are confusing when talking about three-verset lines. COLON, plural COLA, is also used, but either form runs into trouble because other homophones are more familiar.

1.3 Terseness

It seems to have been bad form in classical Hebrew to waste words. Most poems go out of their way to say things succinctly—aside from set phrases like “birds of the air” and “fish of the sea,” which seem to be obligatory.

One Hebrew grammatical pattern that facilitates terseness is the use of prefixes and suffixes, most of them one syllable or less, to identify verb arguments, noun possessors, pronoun person and number, and even referents associated with particles like *hinneh* ‘with reference to the present context’. Once a participant has been identified in a discourse, affixation alone can carry the referential system a long way without requiring a lot of extra syllables. A noun phrase, for example, need not be repeated to keep its identification alive, even when other nouns are used to bring in additional participants or things.

Another pattern promoting terseness in Hebrew poems is the use of infixation to distinguish verbal stems. In a polysynthetic language like Huichol of Mexico,³ in contrast to Hebrew, the passive of a causative requires one causative suffix and one passive suffix, each a complete syllable, to be added to the stem of a verb. Hebrew, in contrast, presents causative and passive in combination as the *hof'al* stem, adding one prefix syllable but eliminating one vowel, so that the overall syllable count for the inflected verb remains constant.

2 Pidgin Society

The Hawai'i Pidgin Bible is being translated for a specific audience: the many people who use Pidgin constantly in all areas of life, yet whose fluency in English is not high enough to allow them to use it in very many areas. The majority of the native speakers of Pidgin, it should be emphasized, are completely bilingual in standard English and integrated into American and Western culture; they don't need a Pidgin translation.⁴ About half the population of the State of Hawaii, on the order of 600,000 people, learn Pidgin as their mother tongue, which does not militate against a lot of them simultaneously learning English as mother tongue and growing up completely bilingual. But, of the mother tongue speakers, it is reasonable to estimate that at least one hundred thousand are Pidgin-dominant; that is, they speak and understand Pidgin noticeably better than they handle English. They are the audience the translation is for, because they are the ones that English does not come close to

³Huichol is a Southern Uto-Aztecan language of west central Mexico. From 1952 to 1967 my wife and I worked with Huichol translators to produce the New Testament in that language. After forty years, during which the church that formed around the translation grew in depth and number, a new team of translators has begun to translate the Old Testament, and we have been assisting them by taking occasional breaks from the Pidgin project to familiarize them with the translation process. Grimes (1964) lays out quite a bit of the morphology and syntax.

⁴Nevertheless, a seminary graduate who also holds the Ph.D. in political science told us, “English speaks to my head, but Pidgin speaks to my heart.”

communicating with at the levels of complexity and emotion that Scripture presents. We have seen estimates as high as two hundred thousand in that category; but no hard data have ever been collected because the cost is impossible to justify politically, and the protocols of the national census, though they have improved over the years, still do not report multilingual communities with anything like credible accuracy.

Another figure should be mentioned to complete the demographic picture. The other six hundred thousand or so residents of Hawaii have immigrant languages such as English, Japanese, Cantonese, Hakka Chinese, Korean, Spanish, Portuguese, Ilocano, Tagalog, and many other languages of the Pacific as their mother tongues, mainly English. There are among them about 1,000 native speakers of the Hawaiian language (the Austronesian language of the original settlers of the Hawaiian Islands more than a millennium before European contact); the number is increasing through immersion schools with strong parental support. It is likely that as many as five hundred thousand of that six hundred thousand speak Pidgin more or less well, but as a second language. They learn it because in most of the high schools in the state outside of strongly English-speaking neighborhoods, Pidgin is a necessity for social survival.

2.1 Basilect

Some creole languages including Hawai`i Pidgin remain in contact with the language from which they have derived most of their vocabulary. In such cases a continuum of speaking styles often evolves, with some people speaking a variety that shows a minimum of influence from the lexifier language, and a high consistency of grammar from one speaker to another. Such styles are called the **BASILECT**. Basilectal speakers agree regularly on what is and what isn't good Pidgin.

On the other end of the scale are forms of speech only minimally different from the lexifier language; they are called the **ACROLECT**. Most speakers come somewhere in the middle, the highly variable **MESOLECT**. Individuals who can shift gears across the whole scale are rare.⁵

2.1.1 *Consistent grammar*

Speakers of the basilect show more uniformity in grammar than mesolectal speakers, who tend to mix the creole grammar and the grammar of the lexifier language without realizing it. Basilectal speakers may also exploit features of the creole grammar that mesolectal speakers do not command. The Pidgin Bible

⁵Grimes (1999) gives an example of an entertainer who starts out basilectally, but within minutes goes almost acrolectal except for pronunciation and body language.

hovers around the basilectal end of the scale, depending on who translated or reviewed which passage, because the group the translation is made for are more basilectal than mesolectal.

Mesolectal and acrolectal speakers of Pidgin react to the Pidgin Bible as understandable, but not quite their speech. For them it represents “heavy Pidgin,” which they acknowledge to be the real Pidgin, “like my grandmother talking.” That doesn't mean it's obsolete, but it does mean that the non-basilectal speaker who says it probably would not think of phrasing things in exactly that way. On the other hand, basilectal speakers relate to it easily, sometimes commenting that it sounds like rural west O`ahu, which is where most of the translation was done.⁶

2.1.2 Subculture

Pidgin is the vehicle of a subculture usually referred to as Local. Local life styles and values are noticeably different from those of the mainstream: family and friend centered rather than job or business centered, learning by apprenticeship rather than learning in classroom, story rhetoric rather than outline rhetoric, shorts with rubber slippers and t-shirt for both sexes rather than aloha wear and slacks or skirts, a counterculture to the English-dominated mainstream culture. People in the Local culture tend to use Pidgin in all areas of life.

2.2 Proficiency in English

2.2.1 No monolinguals

We have yet to hear of a Pidgin speaker who did not speak at least some English, or who did not go to school in English. But when we look into how well Pidgin speakers handle English, there are a considerable number, as already mentioned, who do not handle it well enough to hold a job that requires English, such as dealing with tourists.

The main factor for Pidgin speakers learning English is probably obligatory schooling. The public and private schools are taught in English. Some teachers use Pidgin to help their students grasp the content of what they are teaching, then help the students to also express what they have grasped in English. One promising strategy involves not putting down either English or Pidgin, but having Local students talk about topics of local interest in Pidgin with their family, then present what the family thinks in English when they get to school the next day. This is counterbalanced by having them watch selected television

⁶The twenty-six native speakers of Pidgin who worked on the New Testament came from the four major inhabited islands: O`ahu, Hawai`i, Maui, and Kaua`i.

programs in English and report on them in Pidgin when they get to school (Reynolds 1999).

But one factor in most schooling is that it purveys a set of values that are at odds with the Local outlook. Children are criticized for not speaking standard school English in classes whose teachers don't understand the dynamics of the situation, though there is no provision for teaching English to those students as the second language that it is, and no models for them to learn from at home. They are sometimes told that what they have learned at home is wrong. The children take this as a condemnation of their parents by the teacher, and decide that that means the teacher is not worth listening to because they know they can learn better from their parents and friends. So English becomes the language of outsiders, and Pidgin has all along been the language of the good guys. The high school dropout rate is horrendous, attracting national concern.

Television in the Islands is mainly in English. Most households have access to it, so the amount of English that people are exposed to in a week seems considerable. On the other hand, most television viewing seems to be passive, with people conversing and working and not quite listening to what is being said. Television has an undoubted influence, but a lot of it is more like background noise for doing other things.

2.2.2 Low proficiency bilinguals

The audience for the translation has already been mentioned: people whose Pidgin is better and more expressive than their English. They are the core of many sectors of the economy, and they do their jobs in Pidgin unless they are among the more bilingual ones who also meet the English-speaking public: building and road construction, highway maintenance, automobile maintenance, fishing, some service industries, passenger and cargo transportation, agriculture, and ranching among others. They are the ones the English Bible and English-speaking churches and the schools are not communicating with.

2.2.3 High proficiency bilinguals

Most native speakers of Pidgin are at home in both Pidgin and English, and can function in either culture. Some of them even handle the basilect fluently, though most are mesolectal. They do not need a Bible in Pidgin.

There are some in this category who don't want a Pidgin Bible. They have made themselves proficient in standard English to the point where they see themselves as having left Pidgin behind, hoping to escape the social stigma attached to it. They tend to feel that if they can do it, all the other Pidgin speakers can and should do it too. So they look on Pidgin as an obstacle to advancement in business and professional society.

They're right, if one accepts that as the only reasonable goal in life. Many people in the Local culture do not accept that view. But many who are highly proficient in English also appreciate *Da Jesus Book* (2001) because of the way it speaks directly to them.⁷

3. Pidgin Poetry

Before getting into the adaptations that must be made to transmute Hebrew poetic form into Pidgin, we need to examine the radically different role poetry plays in the life of Pidgin speakers. Hardly any Pidgin poetry exists; what we see today is the beginnings of poetry. They have songs; but nearly all except comic songs are in Hawaiian or English. Pidgin comic songs are usually parodies of English songs, skewed to comment on the local situation. The meter is usually trochaic, matching the meter of the song being parodied.

The idea of artistic expression in music is familiar to Pidgin speakers, but there is less of a focus on artistic verbal or visual expression. Going beyond direct prosaic communication to convey things that are not easily expressed, calling forth a counterpart to a writer's emotional or esthetic response in the reader, can be done, but it is not done often.

Still, nearly all Pidgin speakers know how to sing, and most know how to accompany themselves or others with guitar or ukulele. Neighborhood or family bands with guitars, ukuleles, bass, and drums are common. Some of the best known singing groups started out as backyard bands when the singers were in high school. People compose and perform their own songs as well as the songs of others. There is a lively and profitable recording industry in the islands. Most professional musicians whose native language is Pidgin sing Hawaiian or English songs publicly, though not all of them know what the Hawaiian words mean or imply.

There are also a few published collections of poems and stories that include Pidgin poems. The genres are heterogeneous; some are translations. Writing Pidgin poems is not a passion that grips young writers. In (1) is a stanza from a poem composed in Pidgin by Merle Nishida (1987), with a phonological transcription for each line on the right:⁸

⁷In 2008, over 60,000 copies of *Da Jesus Book* (2001) were circulating (publisher's data).

⁸The transcription commonly used among scholars, known as the Odo transcription, follows standard International Phonetic Alphabet conventions, but to facilitate typing uses *ae* for the IPA digraph *æ*, the open front unrounded vowel as in English "cash," *aw* for broken *o*, the open back rounded vowel *ɔ* as in English "caught," *r* for schwa with right hook *ɚ*, the rhotacized mid central vocoid as in American English "hurry," *D* for shoulderless *r*, the alveolar tap as in English "Betty," *ng* for the velar nasal *ŋ* as in English "sing," *sh*, *ch*, *j* for the voiceless alveopalatal fricative and the affricates *ʃ*, *tʃ*, and *dʒ* as in English "sheep, cheap, Jeep." Vowels are unglided unless the beginning and ending points are transcribed as *ei*, *ou*, and others.

- | | |
|-------------------------------|----------------------------|
| (1) I go up stair tree-o-one | a go apstea chri-o-wan |
| fo get money | fo get mani |
| He no pay me two munt a'ready | hi no pe mi tu mant awrede |
| Everytime he say nex week | eritaim hi se neks wik |
| nex week | neks wik |
| I wait | a wet |
| I give chance | a giv chaens |

“I went upstairs to [Unit] 301 / to get money / He hasn’t paid me for two months / He always says, ‘Next week, / next week’ / I wait / I make allowances.”

A widely known translation from Shakespeare's *Twelfth Night* is much more influenced by standard English, though the translator didn't even bother to try to match the meter of the original (2). The first lines are from James Grant Benton (1983).

- (2) AMALU: If music going be da food of love, go play on, gimme mo den extra, so da appetite goin get sick and go make.⁹ Oooh, dat vamp again. It had one dying beat, and wen come ova my ear like da sweet sound dat breathes on one bank of pakalana, stealing and giving odor. Nuff, pau already. Da baga not as sweet as was befo. Ho, spirit of love, you so alive and fresh dat if you was da frolicking Pacific, I would drink you all. Auwe! So full of different forms is love dat, by himself, he is one unending purple dream.

KAWIKA: Prince Amalu, you going hunt, o wat?

As we encountered poetry in translating *Da Jesus Book* (2001), we found that our readers generally understood that poetic passages are different from prose. The connection was through songs; they had been exposed to written song lyrics in English and Hawaiian since childhood. They accepted a print layout like that used in most English translations of the Psalms, where many Hebrew lines are represented graphically as couplets, one verset per graphic line. Where the Pidgin equivalent of a verset got to be rhythmically “too long,” though we are still feeling our way about what “too long” is, they would partition it into more lines, so that one line of Hebrew or Hebrew-derived poetry might come through as four or five print lines. But it sounded right to them when they read it (3):

⁹Not English “make,” whose counterpart is pronounced *mek* in Pidgin. The one in the example means ‘dead,’ and is two syllables with vowels *a* and *e*. The Bible spells it as *mahke* to avoid confusion.

- (3) Da peopo dat *know* dey need God inside dea heart,
 Dey can stay good inside
 Cuz God in da sky, he dea King.
 Da peopo dat cry inside dea heart,
 Dey can stay good inside
 Cuz God goin kokua dem. (Matthew 5:3-4)

The rest of this paper attempts to tease out various factors that have to be taken into account in getting Hebrew poetry to morph into Pidgin in a way that is acceptable to the readers, and sticks with them.

3.1 Pidgin language

The standard grammar of Pidgin is that of Kent Sakoda and Jeff Siegel (2003). It covers the basics, but there is still more grammatical richness than the current edition covers. Most pretensions to lexicography are popular and slanted for laughs; but Douglas Simonson (1981) and (1982) and Lee Tonouchi (2005) do cover a good deal of the language and are fairly accurate as far as they go. Serious lexicography first appears in Ryo Stanwood (1999).¹⁰ Most of the other linguistic literature on Pidgin concentrates on its historical development and the provenience of specific terms.

3.1.1 *Semantic parallelism*

Hebrew modes of semantic parallelism seem to be widely acceptable to Pidgin speakers, yet another testimonial for the essential translatability of that rhetorical pattern. Every so often, however, the renderings of two versets come out identical, and the translators prefer to conflate them. Usually the small differences in meaning that lend body to Hebrew poetry are reproducible, and the translators come up with ways to extend the meaning as the Hebrew does.

3.1.1.1 *Versification*

Many Pidgin speakers fall into a pattern in ordinary non-poetic speech that could be characterized as speaking in parallel couplets. Hirokuni Masuda (1995) traces this to similar couplets in the speech of rural Japanese of Hiroshima Prefecture, the area where many of the plantation laborers in Hawaii came from,

¹⁰Ryo Stanwood was one of the translators of *Da Jesus Book* (2001), and continues active in the translation of *Da Befo Jesus Book*, the Old Testament. I have been collecting notes from numerous discussions with the translators of the Pidgin Bible concerning the appropriateness of the use of many words in specific contexts, sense discrimination, lexical functions, and formulating theoretically tight definitions; but the dictionary that should arise from those will probably not take shape until the current translation project is finished.

and notes that some ethnic Hawaiians also speak in couplets and triplets (personal communication). His observations may help explain why Pidgin speakers seem to take Hebrew poetry in stride.

In (4), for example, is an excerpt from an oral history interview by Masuda (1995:322). An eighty-two-year-old retired plantation worker is describing his former job as a superintendent on a sugar plantation. In this case, Masuda gives a modified Odo transcription (left), and I provide the translation (right):

<p>(4) no, da ka get in wan long lain. samtaim in wan long lain. meibii, get about fifti, siksti kaz, yae.</p> <p>aen den, its nat onli wan lain, dei get sevro mo aDa lainz, dei get sam mo kaz, tu, ae?</p> <p>aend, da tiimstaz iz awlweiz bringin ka, aend, awlweiz teikin aut, sii.</p>	<p>No, the cars get into a long line. Sometimes in a long line. Maybe there are about fifty, sixty cars, yeah?</p> <p>And then, it's not only one line; they have several other lines, and they have some more cars too, huh?</p> <p>And, the teamsters are always bringing cars, and always taking cars out, you see.</p>
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3.1.2 Discourse constraints

There are a number of discourse constraints that militate against simply making Pidgin poetry track Hebrew poetic form as closely as possible. They operate both within sentences and within higher level discourse units.

3.1.2.1 Canonical sequence

Pidgin speakers rightly insist on having the translation present information their way, not the ways in which English or Hawaiian or Japanese or Hebrew organize it. Over and over I have seen translators mystified by an early draft that was overly influenced by English. Then they notice that something in the confusing part doesn't fit the canonical pattern of Pidgin, suggest an alternative that does fit, and the whole thing suddenly comes together.

The pattern can be laid out something as in (5):¹¹

¹¹This is the major pattern; there are variations on it. The elements in parentheses are optional.

(5) (CONJUNCTION) – (TIME) – (NEW TOPIC) – CONTENT

The first three elements are optional. Initial conjunctions like *aen* ‘and’, *bat* ‘but’, *so* ‘so’, *kaz* ‘because’, combinations like *so den* ‘so then’, exclamations like *chi* ‘gee!’, and subordinators like *fo* ‘in order to’ come first in the sequence. When time needs to be made explicit, it usually precedes everything but conjunctions. New topics are frequently fronted (left dislocated); that is, the noun phrase that identifies them is put ahead of where it would normally occur, and in its place there is a pronoun, as in (6) with an Odo transcription and English translation:

- (6) *nait taim trzde ma mada shi* “Thursday nights my **mother, she**
 go wok laiberi lihue, *would go to work in the Lihue library,*
 aen mi a goin wid her. *and me, I would go with her.”*

Languages like English have similar discourse-related elements, and they frequently use permutations of them to highlight specific ones. This can be done in Pidgin to a limited extent, but it exacts a price in requiring that a special grammatical apparatus be invoked to make it clear when something is out of its expected order, and it often is not as clear as it would be in the canonical order.

The pattern holds for the parts of a complex sentence. Something like it also holds for paragraphs and stanzas; the orientation information gravitates toward the early parts.

There is a further, related constraint that has to be dealt with constantly. Readers expect time to be represented iconically, so that clauses in just about any relationship to one another have to be ordered in the same sequence as the events occurred. Flashbacks, for example, are extremely difficult to set up so they will be understood.

For example, David’s line in 2 Samuel 22:4 reads in Hebrew as in (7):

- (7) Praiseworthy-one I call to Yahweh¹² :: and from my enemies I am saved.

The corresponding Pidgin is as in (8):

¹²The postexilic ploy of appearing to not insult the name of God by simply never uttering it, regardless of whether or not one lives in a way that does not pull down God’s reputation, would have been shredded by a prophet like Amos. The substitution of “Lord” to the exclusion of the divine name falls flat for Pidgin speakers, for whom “Lord” means nothing. “Boss,” the appropriate Pidgin term for whoever is at the top of one’s hierarchy for deciding what to do, carries strong and live negative connotations from plantation days and to a certain extent from today. So we follow the team consensus: God keeps saying that he wants people to know him as Yahweh, and part of his reason is that the competing gods all have names (including Pele and Kwan Yin and others who are worshiped in Hawaii in the 21st century) and he does not want to be confused with any of them. For the New Testament we have to tough it out with “Boss”; the Pharisees won that round.

- (8) Wen da peopo dat stay agains me attack,
 I yell to Yahweh fo help me.
 He da One get me outa trouble.
 He da One, good fo erylbody tell dat he da greates!

The event sequence from a Pidgin speaker's point of view is as in (9):

- (9) a. I have enemies.
 b. They attack.
 c. I call to Yahweh for help.
 d. He saves me.¹³
 e. (Timeless) Everybody should praise him

The first two events are background and can be combined into a *when*-clause, and it should come first because it sets the time for the rest, and its events occurred before the rest. Tokens (9a and (9b) have to be kept in temporal order because one leads to the other. The timeless observation could go before or after, but sounds better at the end.

3.1.2.2 Tight anaphora

One of the most common questions in any Pidgin translation session is “Who does this ‘he’ refer to?” It is possible to get confused by the anaphoric (backward-looking) references of English, because they upset the Pidgin way of tracking reference. The pronominal inflections of Greek and Hebrew, and to a lesser extent English, allow reference to be tracked for a long way via pronouns, though not for nearly as long as the same-subject versus different-subject inflection chains of some languages of the central highlands of Papua New Guinea allow.

English gets its continuity because part of the referential system is organized around the topic; if there is any doubt, it is a safe bet that a pronoun or a third person singular inflection refers to whoever or whatever you're talking mainly about.

In Pidgin, reference can be maintained by pronouns, but under a recency principle, not a topical principle. The referent mentioned most recently is the antecedent if the pronoun and its antecedent have the same person and number. Using pronouns wherever English or Greek or Hebrew use pronouns guarantees referential chaos.

The way to get around this is to maintain a clear picture at every step as to which candidates for pronominal reference are available at that point in the

¹³The Hebrew does not identify who saves me. Pidgin requires that that information be supplied from the context.

discourse. If there is only one candidate in the field, a pronoun is suitable. If more than one referent is available, a distinguishing noun or noun phrase is better as in (10) (Isaiah 10:6 in NIV and Pidgin):

<p>(10) I send him against a godless nation,</p> <p style="padding-left: 40px;">I dispatch him against a people who anger me,</p> <p style="padding-left: 40px;">to seize loot and snatch plunder,</p> <p style="padding-left: 40px;">and to trample them down like mud in the streets.</p>	<p>I goin send da Assyria army guys agains my peopo Dat ack jalike I no matta. I no can take awready Da bad kine stuff da Israel peopo stay do. Dass why I tell da Assyria peopo Fo come take da Israel peopo's rich stuff An take um all away. Jalike dey goin walk on top da Israel peopo An push um down jalike dey mud on top da streets.</p>
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The attitude of Pidgin speakers toward what they regard as excessive use of pronouns is “Why doesn’t he just go ahead and tell us who he’s talking about instead of making us guess?” So “a godless nation,” which is not just any godless nation, say in Southeast Asia, sounds to Pidgin speakers like Isaiah is hinting and pussyfooting, but doesn’t want to embarrass anybody by coming out and saying who he’s talking about, when it’s obvious to them that it’s “my nation.”

One upshot of the Pidgin way of tracking reference is that it sounds to speakers of most other languages as if it is grossly overnominalized. However, I once did a little work on one of the Otomí languages of central Mexico where even a translation that followed the Pidgin pattern would probably need to have most Pidgin pronouns that are left replaced by noun phrases. So Pidgin is not at the short end of the reference tracking scale, but is close to it.

I should mention that Pidgin discourse having to do with local subject matter, directed to people who know the speaker, and in a setting familiar to all, is not nearly as loaded with noun phrases. There is even a generic element, *da kine*, that is used heavily in such familiar situations. It is a pro-form used to represent a noun phrase, adjective, or verb that the speaker judges the hearer can supply from the context. But with biblical discourse being about people the readers don’t know, from another cultural world and another time that they have no experience with, they feel comfortable only with constant reminders of who or what is being referred to.

3.1.2.3 Phrasal lexemes

The dictionary of Pidgin that I have been building up desultorily over the last twenty years contains about one thousand six hundred entries. That is because when I began, I was concentrating on one-word lexical items. It soon became clear, however, that Pidgin is not limited to one-word lexical items. Most of its vocabulary is phrasal lexemes—multi-word expressions whose meaning is either not deducible by putting together the words in a compositional semantics, or when they can be deciphered compositionally, one word does not occur without the other or others in that meaning. In the current state of the dictionary data base, the phrasal lexemes are listed as subentries under each of the words in them; but the next round will give them full lexical status, and the number of lexemes will appear much larger.

In the Isaiah example there are two phrasal lexemes: *army guy* and *on top*. The first is the standard way of expressing ‘soldier’; there is no single word for the concept, but the pair is compositionally clear. The second is compositionally opaque; it corresponds to English ‘on’. When a bus driver at a transfer point told my wife, “Go on top dat bus ova dea,” the driver was not looking at a double-decker with seats on the roof, nor was she suggesting that it was so crowded that my wife would have to climb to the roof and hang on. She just meant, “Get on that bus.” When Jesus delivered the Sermon on the Mount, the heading is “Jesus Teach On Top Da Mountain Side” (Matthew 5:1), which does not imply that he was at the summit. On the occasion when he probably was on a summit (Mark 9:2), he “take Peter, James, an John wit him up on top one big mountain,” where up on top is different from on top.

The technical theological vocabulary in the Pidgin Bible doesn’t sound one bit theological to an English speaker, because it’s all done with phrasal lexemes. We discovered early on that if we approached a theological term not primarily from the theological side, but from the perspective of the interpersonal relationships behind it, it resolved quickly into a situation that has counterparts in Pidgin-speaking culture. When one person forgives another, he let um go. When it’s God forgiving sins, he let um go an hemo da shame fo da bad kine stuff da guy wen do, which embeds another theological term, da bad kine stuff somebody wen do, known in English in church but not on the street as “sin.” The glossary in the back of *Da Jesus Book* contains a section English Kine Bible Words that is simply a list of the theological technical terms that Pidgin speakers who attend English-speaking churches¹⁴ have had thrown at them without explanation, with the corresponding Pidgin phrasal lexemes provided for clarification. We heard of

¹⁴Since Hawaii is a multicultural environment par excellence, most churches operate in English because it serves them as a common language. The upshot is that Pidgin speakers who are not fluent in English may feel like the church is not capable of addressing them directly, but forces them to go through the language of the dominant culture to meet God.

one Bible study group that began from that list, since the words in it represented things some of the participants had wondered about for years.

The Isaiah example contains one word in the English Kine Bible Words list: “wrath,” which is God no take wat somebody do. In Pidgin, no take is a polar concept; you either allow something or you vigorously reject it, with no degrees of middle ground. It differs from huhu ‘be angry’ in that you can be litto bit huhu or come mo an mo huhu.

From the standpoint of Hebrew poetry, phrasal lexemes are the death of rhythm and terseness in translation. To present complex ideas successfully in Pidgin, we must spell them out in a much looser way. The Isaiah 10:6 line discussed previously has two versets, which translate into two couplets in English, and comes out still more loosely as three couplets and one triplet in Pidgin. But it works as poetry.

3.1.3 Semantic background

The cultural models Pidgin speakers have available are more distant from biblical culture than mainstream American culture is, even with Bible illiteracy as the current norm around the United States. The cultural context is a factor in the semantics of translation.

3.1.3.1 Knowledge of biblical culture and world view

The Bible assumes a world that is not very much like anything in Hawaii—sleeping on flat roofs, camels, sheep, walled cities, swords, grain and grape agriculture, sheep and goat herding, burnt offerings, harps, Middle Eastern politics, on and on. Few children have been in Sunday school enough to absorb even the small doses of these things that some mainland children get.

On the other hand, many people in Hawaii live closer to monarchy than those on the mainland. The Hawaiian monarchy reigned until it was deposed by a coup in 1893, the royal palace is still a focal point, princes and nobles were recognized well into the twentieth century. So kings and thrones and succession and nobility are no mystery.

But all in all, every context in the Pidgin Bible is strange for its readers. Use of footnotes has been suggested, but the target population includes too many people who read the footnotes only when they get to the bottom of the page, and don’t relate them to the earlier text.

What we have done is to be alert for implicit cultural information that needs to be made explicit in the text for our readers, much as Mark 5:41 makes clear talitha koum for Greek-speaking readers who don’t know Aramaic.

3.1.3.2 Proverbial sayings

Pidgin does have a few proverb-like sayings that are terse, widely known and used, and not totally transparent in themselves as in (11):

- | | |
|---------------------------------|--|
| (11) Cool head, main ting. | ‘It’s important to not become
overexcited in this situation.’ |
| If can, can. If no can, no can. | ‘If it’s possible, go ahead. If not,
don’t worry.’ |

So far, however, we haven’t succeeded in coining proverbs that are as laconic as those in translations of biblical ones, though we’ve tried.¹⁵

3.1.3.3 Metaphors

Pidgin is not devoid of metaphors. But hardly any of the homegrown ones match Biblical metaphors. So for example the metaphorical source “light and darkness,” which is used frequently in the Bible with targets of good and evil, understanding and ignorance, and life and death, falls flat.

But all is not lost. Simile is alive and well in Pidgin. The procedure we stumbled into is that the target of the metaphor, the thing the metaphor is supposed to shed light on, has to be made explicit first. Once that is in place the source or figure can follow in the form of a simile, and the simile can even be extended or developed as Hebrew metaphors often are. Consider Isaiah 40:11 (NIV and Pidgin) as in (12):

- | | |
|--|---|
| (12) He tends his flock like a
shepherd:
He gathers the lambs in his arms
and carries them close to his heart;
He gently leads those that
have young. | He take care his peopo, jalike one
sheep farma take care his sheeps.
He carry da bebe sheep in his arm,
An carry dem on top his chest,
An show da way to da mudda
sheeps, so dey can go res. |
|--|---|

The source of the metaphor is *flock* referring to people, which, in Isaiah’s culture, automatically entailed having a “shepherd” and “shepherding” activity; the Hebrew for the noun ‘shepherd’ is a participle of the verb rendered *tend* in NIV. The target is Yahweh’s care for his people. A pronoun can be used to start, because the most recent third person singular in the context is Yahweh. The

¹⁵One of the translators suggested that the title of this paper should really be “Terse Verse; Hang Loose Mongoose,” using a humorous short rhyming couplet pattern of Pidgin.

target that the metaphor is supposed to shed light on follows immediately. *Jalike* [ʤa'laik] introduces the source as a simile, and all is well; the link between target and source has been made explicit. From there it is possible to stretch out the simile as much as is needed, giving examples of shepherding activity. The reader already knows what it is a simile of, and that is the main thing.

This almost formulaic restructuring of metaphors has had to be applied to nearly every metaphor in the Bible, poetic or not, and it works. But such an approach to translating Hebrew metaphors contributes considerably to the much looser character of the Pidgin poetic form, because both target and source have to be made explicit, and the source introduced as a simile even where Hebrew uses a metaphor.

This sketch shows how the complex poetry of Hebrew can be adequately passed into a language that would appear to throw up obstacle after obstacle to carrying through the meaning, because of its radically different ways of handling discourse and metaphor. The Pidgin form of semantic parallelism with natural versification into couplets, canonical sequencing of elements, tight anaphora, phrasal lexemes, and handling of unfamiliar metaphors makes it possible to represent poetic meaning reasonably well, but definitely not phrased in the way King David would have done it.

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The Difference a Word Makes

Ger Reesink¹

ABSTRACT

This paper offers some thoughts on the question what effect language has on the understanding and hence behavior of a human being. It reviews some issues of linguistic relativity, known as the “Sapir-Whorf hypothesis,” suggesting that the culture we grow up in is reflected in the language and that our cognition (and our worldview) is shaped or colored by the conventions developed by our ancestors and peers. This raises questions for the degree of translatability, illustrated by the comparison of two poems by a Dutch poet who spent most of his life in the USA. Mutual understanding, I claim, is possible because we have the cognitive apparatus that allows us to enter different emic systems.

1 Introduction: Language and Communication

In the novel *Night train to Lisbon* (Pascal Mercier, pseudonym of Peter Bieri, philosophy professor, Freie Universität Berlin), a letter by a Portuguese doctor is read in which he comments on a paper presentation and discussion on ‘Lying to liars’. The doctor, Amadeu Prado, writes:

The discussants claimed that they understood each other, that they responded to each other’s arguments. But that wasn’t the case. None of the discussants showed any evidence that their opinion had in any way been influenced by the arguments they heard. And

¹Karl Franklin has had a great influence on my life. As director of SIL-PNG, in 1974 he assigned me to my first linguistic survey in the Western province and suggested that we (my family) could stay in Papua New Guinea rather than waiting longer for visas to go on to our assignment in Indonesia. Later, in 1979, he gave me a prepublication version of Lakoff and Johnson’s *Metaphors we live by*, which struck a cord in my thinking, followed later by a photocopy of Haj Ross’ *human linguistics*. We changed places as director and as executive committee chairman of SIL-PNG. After I left SIL we have continued a correspondence on various topics, one of them being the issue of emic versus etic levels of analysis of linguistic structures, such as stories. Some of the points raised in that correspondence are weaved into this essay. I hope he and other readers will enjoy these thoughts.

suddenly I realized with a shock, even felt physically: that's always the way it is. Saying something to somebody: how can you expect that it matters? The stream of thoughts, images and emotions that continually goes through us, that strong stream has such an enormous power that it would be a miracle if it didn't drag all the words that someone speaks to us along and render them to oblivion, if not by accident, sheer accident, they would fit in with one's own words. Is it any different with me? I thought. Have I ever really listened to someone else? Have I ever absorbed the other person with his words in such a way that my inner stream of consciousness changed course? [my translation from the Dutch version, Mercier 2007:134.]

Although we may recognize such emotions after some confused, inconclusive exchange between people, often enough we experience—or at least have the illusion—that our communication with fellow human beings has been successful. Human communication most typically involves language. Of course, there are many paralinguistic modes that play important roles, such as facial expressions, gestures, social and physical distance, but here I want to focus on the human-specific medium that we call language. When we consider for a moment what a 'language' actually constitutes, it seems to me that true mutual understanding between any two people is a remarkable achievement.

The answer to the question 'What is a language?' can be something like the following:

A language is a collection of virtual signs and rules stored in the minds of individual members of a certain collectivity of humans which are realized in utterances that are the product of communicative acts between these individuals. [My translation of *Une langue est une ensemble de signes virtuels et des règles conservés dans l'esprit des individus d'une certaine collectivité humaine et s'actualisant dans des énoncés qui sont le produit d'actes de communication entre ces individus* (Lazard 2006:63)]

And in order for communication to be successful, any two (or larger set of) individuals need to have the same set of signs and rules. In other words, the language needs to be exactly the same in the minds of interacting people. But our common experience teaches us that this is not the case. As is common knowledge among linguists since the classic works by Wilhelm Von Humboldt and Edward Sapir, to name but a couple, there are all kinds of variations among individual speakers, as also Gilbert Lazard (2006:65) points out, which can lead to the break-down of communication, from a relative minor misunderstanding among family members to complete incomprehension among speakers of mutually unintelligible speech forms.

Since the way we say things—another characterization of what language is, suggested by William Foley (1997:29)—is inextricably linked to the social network in which we grow up (Sapir 1921:11, 218), the linguistic enterprise has to take all levels of language variation into consideration. This is especially true if we want to contribute to an understanding of who we are as humans and how we transfer our thoughts to each other. This is the way I would phrase the goal of linguistic researchers, following Haj Ross' appeal for "human linguistics":

if we could really understand communication it seems to me that's a field where we linguists should be involved and haven't been enough a real understanding of communication would be a heck of a gift to the world (Ross 1982:2) [...] so basically I

guess human linguistics as I see it is concerned with looking at the relationship between knowledge and wisdom as that pertains to the study of language (Ross 1982:7) [...] I think that any of you and there are probably lots of you who have learned a foreign language you know it changes your soul basically you *are* a new language you are a new person in that language (Ross 1982:29) [following Ross' lack of punctuation and lay-out].

The title of this paper promises some thoughts on what effect a word may have on a human being. It was inspired by my experience with Usan, a Papuan language spoken by approximately one thousand four hundred people in the Madang province of Papua New Guinea (Reesink 1987). In this language there are no other lexical items to refer to speech than *qob*; it can be used to refer to a word, an utterance, a speech variety, a language, and so on. Moreover, Usan speakers use this word to convey meanings such as 'problem' or related concepts, showing a close parallelism with Tok Pisin *tok*; for example, *Qob ue* 'talk no' is equivalent to Tok Pisin *Nogat tok*, when the speaker wants to express that 's/he has nothing to say', or 'sees no problem'. In other words, what difference does a word, a story or speaking a different language make to our understanding or action?

This example already exemplifies one of the topics I want to address, that of translation equivalence. First however, I will consider the relation between thought and language. In section 2 I relate the use of language to 'reality', and in section 3 I will argue that the distinction between propositional and metaphorical use of language is only a matter of degree, not a qualitative difference. Section 4 will address translatability, and in the conclusion I will reiterate that the words or languages we speak do make a difference, and how that difference can be for good, rather than for evil.

2 Language and reality

Being a symbolic species (Deacon 1997), humans interact with physical and social reality through language. And we know, each language cuts up the pie of reality with different segments, colors, and texture. The *Ethnologue* (Gordon 2005) lists almost seven thousand living languages at present, with the great majority of the world's people speaking a language of the large Indo-European and Sino-Tibetan language families; ninety-five percent of the living languages total only six percent of the world population. In the past, before the enormous expansions of some language families, the diversity must have been far greater than what we see today.

But even today, the diversity of speech varieties is many times greater than the figure attached to recognized languages. Language, like culture, is an abstraction, an idealization of the behavior and traits of individual human beings who are in close (daily, frequent, geographically) contact (see, for example, Sapir 1921, 2002).

As a child learns a (first, second, etc.) language, s/he learns to associate strings of sounds (words, phrases, sentences) with certain effects (= understandings, consequences in behavioral responses from others): symbols are acquired, consisting of Form-Meaning pairings. Such a Form-Meaning pairing

was named tagmeme by Kenneth Pike (1971, 1982), and more recently the term construction seems to capture a very similar concept (Goldberg 1995, Croft 2001). These constructions have a tight, but not inseparable, relation between Form and Meaning. They are being interpreted, tested by certain expansions, extended to other situations, and corrected or confirmed by other members of the speech community. For example, a Dutch toddler may at first use the form *mama* to address or refer to various adults in his daily environment, but then learns to limit the form to his (biological, adopted) female care-giver, in contrast to using *tante* for other related older females.

From the beginning, the child learns to construe reality according to the conventionalized conceptualizations and verbalizations of his/her immediate society (group).

Constructions, whether just lexemes (words or morphemes) or more complex morphosyntactic arrangements, are conventionalized throughout the community. As the child grows up surrounded with the rich linguistic input from parents, siblings, friends, and others, s/he acts like a true scientist, forming hypotheses and testing these, as s/he goes about constructing his/her (private) language (Tomasello 2003).

Two examples will illustrate this process. When a four year old Dutch boy says at the end of dinner, *Mag ik af tafel* ('May I off table') instead of the correct *Mag ik van tafel af* ('May I of/from table off' = 'May I be excused'), he uses the 'original' ablative notion of *af* 'off'. It is quite conceivable that in a small community this might give rise to a new construction; now his hypothesis with regard to the behavior of *af* will be disconfirmed by answers such as *Ja, jij mag van tafel af* ('Yes, you may of/from table off').

The Dutch equivalent for 'fairy-tale' is *sprookje*, containing a lexicalized diminutive [-je]; the form *sprook* does not occur by itself. My granddaughter, at the age of two years and ten months, characterized a long story I had read to her as a *sprook*. She was corrected: *Ja, dat was een lang sprookje* 'yes, that was a long fairy-tale'. Her response was: 'Well, then it is a *sprook*, if it is so long, right?' She had clearly developed an understanding of the bound morpheme [-je] meaning 'something small', and this meaning did not seem appropriate in this context. Her sensible hypothesis received disconfirmation by the conventionalized lexicalization offered by her grandfather.

These anecdotal examples are representative of a large body of literature favoring the idea that we acquire language in a social process (e.g., Vygotsky (1962), Sampson (1997), Tomasello (2003), and Goldberg (2004)) rather than through a genetically programmed Universal Grammar (e.g., Chomsky (1968), Bickerton (1981), and Pinker (1994, 2007)). As Sapir (1921:147ff) has already pointed out, each individual forms a slightly different variety of the language spoken in her/his immediate environment. But the individual differences are overshadowed by the major agreements between members of the speech community to which we belong. Those major agreements form the grooves along which we categorize social and physical reality. I think this implies that my reality is slightly different from that of other members of the speech community

I belong to. And the shared reality as experienced by my speech community is different from the realities of other languages.

The concept of linguistic relativity is known as the Sapir-Whorf hypothesis, which has been ignored or countered by linguists and psychologists working within the Chomskyan paradigm. Most recently, Steven Pinker (1994, 2007) has debunked the principle of linguistic relativity in favor of some innate, specialized language instinct, in spite of the increasing evidence that the language we speak does influence the way we perceive and interact with the objective physical and social reality we belong to. Following John Lucy (1992), a series of publications by Stephen Levinson and colleagues (Levinson et al. 2002, Levinson 2003, Majid et al. 2004) has shown that speakers of languages with an absolute frame of reference for spatial orientation (anchoring in the environment by means of cardinal directions or elevational dimensions of the landscape) respond differently in non-linguistic tasks from speakers of languages with a relative frame of reference (anchored to position of speaker or object, using orientations such as “left” and “right”).

Work by Maurizio Gentilucci and associates (Gentilucci et al. 2000, Gentilucci 2003) shows that cognitive functions such as language have an effect on visuo-motor transformation in the brain. For example, in their experiments subjects were asked to reach and grasp objects on which were printed the Italian words *vicino* ‘near’ versus *lontan* ‘far’ or *piccolo* ‘small’ versus *grande* ‘large’. The kinematics of the initial phase of reaching-grasping was affected by the meaning of the printed words. When instructions involved the verbs *posta* ‘place’ versus *alza* ‘lift’ or the adjectives *laterale* ‘lateral’ versus *alto* ‘high’, a greater influence of verbs than of adjectives was observed on the kinematics of the action. In a similar vein, work by Gary Lupyan (2006) and associates (Lupyan et al. 2007) shows that the availability of verbal labels helps humans acquire or use category information.

These experimental findings underscore earlier claims by linguists such as Edward Sapir, Benjamin Whorf, and Dwight Bolinger:

[...] seeing of like and unlike, of putting together and classifying apart, is more than a casual though daily occurrence. It is the mechanism through which reality is organized and the whole construct of language is built, in all its forms, rules, and applications. The world is a vast elaborated METAPHOR. (Bolinger 1980:141)

Different languages provide speakers with different sets of form-meaning pairs, or metaphors we live by (Lakoff and Johnson 1980), through which we deal with reality. Let me quote again from Bolinger (1980:67): “Meanings demand forms to represent them, but forms equally reach out to meanings. In large degree we find in the world outside us what our language leads us to expect to find.”

Thus, the Dutch propensity to use diminutives—far more than in closely related German²—has produced the lexical form *sprookje* to which my granddaughter attached the meaning ‘small story’, which was then corrected by further input from the conventionalized language of her grandfather.

²For example, a Dutch speaker can ask: *bier-tje* [beer-DIMINUTIVE]? as equivalent to ‘Do you want a beer?’; we even have the diminutive on adverbs, such as *even-tje-s* [briefly-DIMINUTIVE-PLURAL].

3 Propositional and metaphorical language

Given that we use language to represent what we understand of reality and to inform each other about what we think (in the broadest terms: our understanding of our environment, our feelings and intentions), it is not difficult to see why Bolinger (1973) could claim that “Truth is a linguistic question.” In that article, and in a much more elaborated presentation in his book *Language, the loaded weapon* (1980), he is on a crusade against forms of language used to manipulate or deceive people. “Truth is that quality of language by which we inform ourselves” (Bolinger 1973:542), which is opposed to both unconscious and deliberate falsehood, a contrast rather akin to what Eve Danziger (2006:261-262) claims to be the basic philosophy of the Mopan Maya, tied to the meaning of *tus*. This word does not just cover English ‘lie’, but any perceived discrepancy between someone’s words and the actual state of affairs, such as simple ‘errors’. Danziger’s account of Mopan *tus* suggests to me a high degree of similarity with the meaning of Tok Pisin *giaman*, which in turn translates easily both the Usan noun *qetopur* ‘lie’ and adverb *gag*, ‘jokingly’. But truth is not necessarily or only conveyed by what we call literal or propositional expressions. In fact, Bolinger claims that “the most insidious of all concepts of truth is that of literalness,” as, for example, in the advertising slogan of the oil industry ‘no heating costs less than oil heat’, which must be true, because no heating costs nothing at all!

He goes on to show how certain constructions in English, such as passive and nominalization, can be exploited to hide who is responsible for a particular event. Politicians in particular are prone to use such devices. It would be interesting to find out exactly how speakers of languages with no passive and much less propensity to form abstract nouns can play around with alternative constructions to express degrees of control or responsibility.

To give just two examples, Usan allows suppression of responsible source of information by means of a switch reference chain in which one of the participants is only indexed by a third person, different subject marker, as in the sequences *qamarari igonei* ‘you have heard them say’ and *gab qamarari iguminei* ‘we have heard them say (that) they had seen’ in an excerpt of a discussion (1):

- (1) Ne dar-ab qamar-ari ig-onei qi?
 2SG come.down-SS say-2/3PL.DS hear-2SG.FP QUEST
 ‘Have you heard them say it (when/after) they came down?’

In iro bai-a qamb namanimun qas gum-at
 1PL across take-3SG.DS say.SS letter only write-SS
 big-a g-ab qamar-ari ig-uminei
 put-2/3SG.DS see-SS say -2/3PL.DS hear-1PL.FP
 ‘We have only heard (them) say that they had seen that he had written and sent a letter saying he had taken (=married) over there.’

A very nice example of how Folopa speakers (Gulf Province, PNG) can exploit the distinction between ergative and absolutive pronouns is provided in (2) and (3) from Neil Anderson and Martha Wade (1988:7).

- (2) No-ó kale naaꝔ o make ɛ di-ale-pó.
 brother-VOC the your sago young 1SG.ABS cut.down-PAST-INDICATIVE
 ‘Brother, I (mistakenly) cut down your young sago tree.’
- (3) No-ó kale naaꝔ o make yaꝔo di-ale-pó.
 brother-VOC the your sago young 1SG.ERG cut.down-PAST-INDICATIVE
 ‘Brother, I (intentionally) cut down your young sago tree.’

When discussing these examples, R. M. W. Dixon (1994:32) suggests that the labels of ergative versus absolutive seem inappropriate for a language with semantically based marking, and that here the term ergative may be better replaced by ‘controller’ for the ergative. Thus, a Folopa speaker can indicate that a controllable event did come about without his intention and thus avoid the dire consequences of retribution.

Because any language is but a limited medium in which to express the rich world of all aspects of external states of affairs and all the nuances of our inner feelings and thoughts, speakers have to press certain forms into various services, yielding polysemous and metaphorical expressions. Foreshadowing George Lakoff and Mark Johnson’s work (1980), Benjamin Whorf (1956:205) discusses the basic metaphor TIME = SPACE in English and other Standard Average European languages. He claims that this metaphor is largely absent in Hopi, except for a few traces of space-related items used to indicate temporal concepts, because the language has abundant lexical and morphological means to express temporal concepts as such.

Another example of how the language we speak presents a footprint of the culture as conventionalized by previous generations of speakers as they categorized and conceptualized the physical environment in which they lived is provided by the Usan verbs used for ‘entering a house’ (Reesink 1987:6). As in many other (Papuan) languages, the spatial orientation system has lexicalized elevational distinctions in many ways. Motion verbs are mono-morphemic forms expressing elevational information and direction, as given in (4) with forms used for ‘Same Subject following’.

(4) Spatial orientation in Usan verbs for ‘enter’

	UP	DOWN	ACROSS
go away from Deictic Center	ir-ab	is-ub	qi-b
come towards Deictic Center	di-ab	dar-ab	yar-ab

Most modern houses, *munai*, are built on stilts. The ‘inside’ of a house or other enclosures is expressed by the form *mor*, most likely derived from *mon* ‘nest’, which is the base for the term *munai* ‘house’ (*ai* is ‘ground’). Thus, it seems strange at first to learn that going into a house is *mor isub* ‘inside going down’. When one is inside a house, however, one may invite someone to come in by saying *mor di*

‘inside come up.IMPERATIVE’, which seems to make more sense. But these two verbs are not the direct opposites we would expect from the array given.

This discrepancy can be explained when we consider the traditional houses that the Usan speakers used to build. They were rectangular structures built directly on the ground. The door opening contained a low fence with steps leading up to the threshold and down to the dirt floor inside. From the outside one had to go up first in order to enter, so the person functioning as deictic center first saw someone coming up. To actually enter a house, one had to ‘descend’, *mor isub*.

4 Translatability

The article I quoted in the introduction, Ross (1982), presents a beautiful Dutch poem and shows how the poetess exploits sound, rhyme, and semantic collocations to convey her sense of being born with a purpose. For his English speaking audience, Ross had to give a translation and explain in addition the special effects that make the poem so powerful in Dutch. My guess is that he and the audience did get a feel for the poetic message, but not the same as a native speaker does. What’s more, my experience with Dutch poetry and Dutch native speakers has taught me that no two native speakers get the same understanding of any poem.

To what extent can poetry be translated from one language into another? I would like to illustrate this problem in (5) by comparing Dutch and English versions of the same poem, *Psalmen en andere gedichten*, by a highly esteemed Dutch poet Leo Vroman (1999) who, as a biochemist, has lived and worked in the USA for more than 50 years.³

The poem is labelled a Psalm, but the Jewish poet has no need of a personal god. His work as a haematologist has given him a deep understanding of our biological nature, and he seems to hold a view of nature close to the concept developed by the Dutch philosopher Spinoza, some three hundred years ago.⁴ Although the English version is a good poem in and of itself, and the general gist is similar to the Dutch version, there are significant differences in the imagery and hence the conveyed meaning.

(5) Comparison of a poem in Dutch with its English equivalent

	Psalm 1
Systeem! Gij spitst geen oog of baard	System! Thou showest eye nor beard,
en draagt geen slepend kleed; hij die in U een man ontwaart misvormt U naar zijn eigen aard waar hij ook niets van weet	cold cloth or golden throne, and he who claims You have appeared an image of his own distorts Thee equally unknown just as unjustly feared

³With kind permission from the publisher, Querido, and Leo Vroman.

⁴For a very readable overview of Spinoza’s life and ideas, see Nadler (1999).

Systeem, ik noem U dus geen God
 geen Heer of ander Woord
 waarvan men gave en gebod
 en wraak verwacht en tot wiens genot
 men volkeren vermoordt.

Systeem! Lijf dat op niets gelijkt,
 Aard van ons hier en nu,
 ik voel mij diep door U bereikt
 en als daardoor mijn tijd verstrijkt
 ben ik nog meer van U
 Vroman (1999:7)

System, I dare not call Thee Lord
 God, or by some such Name
 for which men begged You to afford
 the slaughter of some heathen horde
 that loved Thee all the same.

System! Your body must exist
 in me unknown to mine.
 I sense Its Harbor like a Fist
 fading into a Final Mist
 once all this will be Thine.
 Vroman (1999:137)

Firstly, the last three lines of the first stanza in the Dutch poem in my opinion express more powerfully, aided by meter and rhyme, the pitfall of attempting to form an image of the overall system we belong to, even if personified by the vocative. A more literal translation reads: “he, who discerns in you a man, distorts you after his own nature, of which he also knows nothing.” Secondly, the second stanza conveys not only the concept of a god dictating ethnocide, but also characteristics of the Old Testament figure: “from whom one expects gift and commandment and revenge, and for whose pleasure one murders nations.” Finally, the third stanza in Dutch achieves a more satisfying connection between the timelessness of Nature and our fleeting existence as part of it: “System! Body that resembles nothing, nature of our here-and-now, I feel myself deeply touched by you, and if thereby my time passes on, I am even more (part) of you.”

Obviously, my more literal translation is only a weak attempt to convey the richness and depth of the Dutch poem. The poet himself has created a related poem in his second language, with a similar—dare I say ‘the same’?—theme, which no doubt has a different impact on a native speaker of English than it has on me.

A Dutch theologian responding to this poem pointed out that Vroman does address the impersonal System, but clearly this does not imply that this concept is even close to what Christians mean when they address or refer to God. The meaning of a word or construction is inextricably linked to the network of meanings that make up one’s language.

In 2007 a Dutch Catholic bishop made an attempt to bridge the widening rift between factions in Dutch society, after a xenophobic member of parliament expressed his intent to move a ban on the Koran. The bishop suggested replacing the word ‘God’ in Dutch by the word ‘Allah’. His reasoning was that a unified name for the Supreme Being would bring Christians and Muslims closer, and during his years in Indonesia he was used to referring to his God by the name of *Allah*. In fact, it is a common usage in Indonesia, and a requirement of the Indonesian Bible Society that any Bible translation in a vernacular employs this term for the biblical God. This unorthodox proposal made all the press. It was clearly well-meant, and was a far more positive approach to the Dutch Muslims than the hostile rhetoric of the mentioned parliamentarian. But obviously, *Allah* in Dutch means something completely different than it does in Indonesian.

Even within the same language, it is clear that the same word does not mean the same thing to all members of the speech community. Recently, Klaas Hendrikse, a Dutch pastor of the newly amalgamated reformed churches, wrote a book with the title *Geloven in een God die niet bestaat, manifest van een atheïstische dominee* (2007) ‘Believing in a God who does not exist, manifest of an atheist pastor’. This seems to contain a glaring oxymoron. To really understand what Hendrikse means one must read the book. Here is a small passage that may give a glimpse of his reasoning. It is headed by a quote from an American author (Muriel Rukeyser 1913-1980):

The universe is made of stories, not of atoms.

What God means to you is part of your life story. Thus God is not just a word by itself, but part of a story that unfolds during your whole life and travels with you. Your story is never just yours, others are co-authors to it, and it wants to be told to others. You only become human when you come to yourself [here, a Dutch idiom is used that lacks an English parallel: *op verhaal komen* is literally ‘come onto story’ and it expresses the English ‘come round, recuperate, catch one’s breath’], when you tell yourself to others. (Hendrikse 2007:120)

In other words, Hendrikse uses ‘story’ as a metaphor for our life, intertwined with people we meet on the way, who in a sense are co-authors. In that story, he claims, some events take place for which we, because we happen to have grown up in the Netherlands, coin the word and concept of GOD, even though this God does not exist, like, say, an apple-cake. In other cultures, people use different concepts and words to make sense of life’s vagaries.

Given all that, is translation possible at all?

Doug Hofstadter, in his delightful book *Le ton beau de Marot* (1997), would seem to make a strong case for a positive answer. The noun phrase *ton beau* ‘beautiful tone’, because of the assimilation of the alveolar nasal to a bilabial [m] preceding the bilabial stop [b], is homophonous with the noun *tombeau* ‘tomb’ on which a witty love poem is written. It is this French poem that he and other writers translate in a number of English versions, maintaining meter and rhyme schemes. A remarkable performance!

George Grace writes:

There is a long history of denials that translation is really possible, of assertions that it is impossible to separate what is being said from the way it is said. The best proof that translation is possible is that it is being done constantly. And surely it works; a vast number of transactions are accomplished in the world every day which would not have been possible without translation. (1981:37)

After he has asserted that we can separate what we say from the way we say things, because we do remember semantic content even if we can’t repeat the exact form, Grace does admit that there is some merit to the opposing case. Indeed, Hofstadter (1997:427; 450) asserts that “each language inhabits a world slightly different from all other languages, and so it has certain special terms whose meanings cannot be expressed concisely in other languages.” Thus he agrees with Bolinger (1980:69) in admitting that it is impossible to distinguish “the WHAT she said [...from] the WAY she said it.”

Hofstadter's conclusion is that translation may not capture the fine grained subtleties embedded in single words or expressions, but that a larger chunk of text is able to convey an efficient transmission of experience and attitude. I think, in this sense, Vroman's English poem may qualify as a translation or close paraphrase of the Dutch psalm.

5 Conclusion: the enigma of mutual understanding

In the preceding sections I have given examples of single lexical items, morphosyntactic constructions, and a small discourse in the form of a poem that can only truly be understood within the larger system to which they belong, known as LANGUAGE. In my view the process of translation from one language to another is similar to, and only quantitatively different from, the process of transmission of information between any two members of the same speech community. Any language, including the zillions of idiolects, is a coherent system of form-meaning composites, what Pike has called the EMIC level as opposed to ETIC variations which may be random or conditioned. When no two emic systems are exactly the same, how is it that we humans can transfer meaning to one another, that translation of various bodies of text (oral or written) has gone on since the first diversification of human speech in separate dialects and languages?

I may sound like an extreme linguistic relativist; in fact, I think I am one. But I am not sure what this phrase means to every reader of this essay (if there are any). To me, it means that I will have to account for the enigma of mutual understanding and effective translation. As Grace said, it happens all the time. Yes, but as Lazard warns, misunderstandings also happen all the time. The solution lies in what Hofstadter said about the levels of granularity and what Pike (1982:131) said about the common experiences of all human beings. We share our basic cognitive faculty with all conspecifics in that we are social beings, able to acquire a symbolic system with which we communicate. Our biologically given Theory of Mind allows us to adapt the form-meaning pairs we hear into very similar form-meaning pairings as part of our own individual emic system. Although occasionally we notice a mismatch between our understanding and that of our speech partner, the many conventions of either our native or our acquired culture enable us to overcome such gaps with sufficient success.

In this process all of us need not just a basic intelligence, but a more encompassing wisdom (see Sternberg 2007). The word *wise* is etymologically related to Gothic *wītan*, Old Indic *veda* 'I know'; the same stem is found in Latin *videre* 'see' and Greek *οἶδα* 'know'. The adjectives for 'wise' in Indo-European languages are

in the majority of cases connected with words of intellectual force as 'know, think, understand, mind', yet have come to mean something more than mere 'knowing', etc., that is, they usually imply also good sense, sound judgment, etc. (Buck 1988:1213)

It is not strange then that equivalents for 'wisdom' in Papuan languages are likewise connected to 'knowing' or 'seeing', even if these words or expressions have slightly different positions in the topology of different emic systems.

Words, languages, they do make a difference to our understanding of reality, including who we are, since we are part of Vroman's system or Spinoza's *Deus sive Natura*. In our social context it is important to (i) have the serenity to accept the things we cannot change, (ii) the courage to change what we can, and (iii) the wisdom to know the difference (Reinhold Niebuhr). It is through wisdom that minor misunderstandings and major conflicts can be resolved, that different emic systems can be linked to mutual understanding.

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A Critical Analysis of the Old Greek (G) of Amos 3:12 in Light of Ancient Translation Practices

Alpheaus Graham Zobule

ABSTRACT

When an unexpected variation occurs between an Old Greek (Septuagint) reading and a Hebrew reading of the Massoretic text, scholars often explain the variation as due to the activities of the Greek translator. When the variation involves a wrong rendering of the Hebrew it represents, scholars often ascribe the wrong rendering to the translator's mistaken or interpretive activity. In this article, I make the point that scholarly analyses on supposedly wrong renderings have often been inadequate because they have not often taken ancient translation practices into account and as a result have often incorrectly treated the translator as if he were a scribe who copied the Hebrew rather than as a translator who translated the Hebrew. I argue that the nature of the work of a copyist is different from that of the translator. This means that in analyzing an unexpected Greek rendering of a Hebrew form, one must also treat the unexpected rendering in the light of the translation process, not the copying process. I demonstrate that in coming up with the unexpected renderings of the various elements in a textual segment of Amos 3:12, the translator employs translation techniques that are consistent with ancient translation practices.

It is common to ascribe to the activity of the Old Greek (G) translator any Greek rendering that does not correctly represent the Hebrew it corresponds to. This is true of a textual segment in Amos 3:12, namely, κατέναντι φυλῆς καὶ ἐν Δαμασκῶ ἱερεῖς which corresponds to **בְּפֶאֱחַ מִטָּה וּבְדַמָּשֶׁק עֹרֶשׁ**. The unexpected renderings in G Amos 3:12 have been explained as the result of either a mistaken or an interpretive activity of the translator (Cripps 1955:291-92, Harper 1905:80-81, Wolff 1977:196, nn. a-a, b, Hammershaimb 1970:62, Paul 1991:120-21, Sawyer 1970-71:123-130, and Dines 1992:110-117). From a mistaken rendering argument, the translator supposedly misreads **מִטָּה** 'bed, couch' as **מִטָּה** 'tribe', hence, φυλῆς 'tribe'; **דַּמָּשֶׁק** 'damask, silk?' as **דַּמָּשֶׁק** 'Damascus', hence, Δαμασκῶ 'Damascus'; and then mistakenly transliterates **עֹרֶשׁ** 'couch, divan' as ἱερεῖς 'priests'. From an interpretive activity argument, Sawyer, for instance, argues

that the Ⓔ rendering of Amos 3:12 is an evidence of an anti-sectarian polemic in the Septuagint version of Amos. My proposal, however, is that the unexpected renderings are neither the result of the translator's mistaken activity nor of his interpretive activity; on the contrary, they are the result of the translator's intentional activity that follows certain ancient translation practices in order to arrive at a meaningful rendering of the textual segment which contains the difficult form דְּמִשָּׁק .¹

The primary weakness of the argument that treats the unexpected renderings as unintentional translation mistakes is that it wrongly presumes the translator as a copyist. The translator is presumed to be one who, working in the manner that a copyist copies individual words one at a time, renders each word one at a time without giving due consideration to how each word functions in syntagmatic relationship with the other words in the same textual segment. The presumption fails to take into consideration the fundamental difference between the nature of the task of the copyist and that of the translator. The difference is that the copyist uses a copy of a text in one language in order to produce another copy in the same language, while the translator uses a copy of a text in one language in order to produce a witness to the text in another language. This means that while the copyist does not necessarily need to know the meaning nor the function of any of the forms he is copying in order to make a good copy of the original, the translator has to understand the meanings and functions of morphemes, lexical and grammatical forms and the syntactical relationships that he is looking at before he can correctly render them into another language. This distinction in the nature of the copyist and of the translator's tasks implies that the kinds of issues and difficulties that the translator faces and deals with are not exactly those that the copyist faces and deals with. A failure to make this distinction often leads to an incorrect treatment of unexpected Greek renderings as if they were copyist errors or corruptions. This failure is amply demonstrated by a study done by Anthony Gelston (2002:493) on what he calls "misreadings" in Ⓔ Amos. He identifies 23 examples in Ⓔ Amos that he claims are misreadings by the translator. The primary cause of the misreadings, he says, is that the translator has difficulty deciphering the Hebrew *Vorlage* because of the obscurity in the *Vorlage*, indistinct handwriting, or physical damage. He portrays the translator as if he were a copyist who worked from a badly damaged *Vorlage* and who constantly misread one form for another.²

The argument that the unexpected rendering of Amos 3:12 is reflective of the interpretive activity of the translator also cannot be sustained under close scrutiny. For the purpose of this article I refer to the distinction that James Barr (1979:290–291) makes between basic interpretation and high level interpretation. Basic interpretation involves syntactic and semantic comprehension of the meaning of the text, while high level interpretation involves matters of content, of reference, or of theological exegesis. High level interpretation, which presumes basic interpretation, is done by exegetes,

¹For further details on the theory underlying the explanations here, see Zobule (2008:40-87).

²For a further analysis of other examples given by Gelston, see Zobule (2008:320-323).

preachers or theologians. It is the basic type of interpretation that the translator does; he has to understand morphemes, words, syntax and other linguistic elements before he can translate. In using the term “interpretive rendering” to speak of Greek renderings that are very different from the Hebrew *Vorlage* they represent, Ⓔ scholars often mean high level interpretation. For the rendering of וְכָל-הַגּוֹיִם יִרְשׁוּ אֶת-שְׂאֵרֵי אֲדוֹם לְמַעַן ‘in order that they may possess the remnants of Edom and all nations’ [Amos 9:12a]) as ὅπως ἐκζητήσωσιν οἱ κατάλοιποι τῶν ἀνθρώπων καὶ πάντα τὰ ἔθνη ‘so that the rest of the men and all the nations may seek’, for instance, F. F. Bruce considers the Ⓔ rendering as one of the best examples where translators “conform the wording to their own religious outlook or otherwise to adapt it to an interpretation which was accepted in the circles to which they belonged” (1979:17).³ In a similar manner, the unexpected rendering of Amos 3:12 is considered by John Sawyer to be an interpretive rendering. However, the primary difficulty with this argument is that Ⓔ Amos is a formal translation that closely represents its Hebrew *Vorlage* and it is not characteristic of its translator to employ high level interpretation in his translation. Both Jennifer Dines (1992) and Zobule (2008) show that Ⓔ Amos may be characterized as a formal rendering.

The unexpected rendering in Ⓔ Amos 3:12 may be properly explained in terms of ancient translation practices. The relevant ancient translation practice relates to how an ancient translator often deals with a textual segment that contains a difficult form. Unlike preachers who may gloss over difficult forms they find in a text they are dealing with, the translator has the two-fold challenge of not only translating the difficult form correctly but also of translating it in a way that is meaningful both as an individual form and as it relates to the other forms in the textual segment that it is in. Even though he may be ignorant of a linguistic form, the translator still has to find ways to deal with it since he cannot just leave it undealt with without causing an intolerable rendering of the textual segment that contains it. In modern translation practice, we indicate our ignorance of a Hebrew form primarily by the means of conjecture which is often accompanied by a footnote containing a note such as “Hebrew is uncertain.” As others have already shown, ancient translators too do not always understand their text (Tov 1984, Ottley 1919:114-116, and Swete 1989:329-330). There is no evidence that ancient translators use footnotes, but that does not mean that they have no means of dealing with unknown forms. The most common translation practices that ancient translators employ in dealing with a difficult form are as follows: transliteration, replacement, etymological rendering, form-association rendering, segmentation, elimination, conjecture, and conjectural variation.⁴ The application of one or more of these translation actions on a difficult form usually results in a rendering that does not correctly represent the meaning of the difficult form. This often leads to the necessity to apply other unexpected translation actions on other known elements

³For the argument that the Ⓔ represents an earlier reading, see Jones (1995:175–190) and Archer and Chirichigno (1983:155). Based on my study of Ⓔ Amos 1–5, the conclusion to my analysis of Ⓔ Amos 9:12a supports Jones’ and Archer and Chirichigno’s conclusion (Zobule 2008:324–332).

⁴For a detailed discussion of these translation practices as they relate to difficult forms, see Zobule (2008:55–67).

in the same textual segment. The resultant rendering of the textual segment is often unexpectedly different from what its corresponding Hebrew text says; however, since a difficult form is involved the primary aim of the translator is simply to arrive at a reasonably meaningful rendering. This phenomenon will now be used to explain the rendering of **עַרְשׁ וּבִדְמֶשֶׁק מִטָּה** (Amos 3:12) by the unexpected *κατέναντι φυλῆς καὶ ἐν Δαμασκῶ ἱερεῖς*.

The form that gives rise to the unexpected renderings of the elements of the above textual segment is **דְּמֶשֶׁק**. The \mathfrak{S} Amos translator knows the other three nouns in the textual segment as is obvious from his correct rendering of them elsewhere in the same book: he properly renders **עַרְשׁ** ‘couch, divan’ by *στρωμνή* ‘bed, couch’ [Amos 6:4]), **מִטָּה** by *κλίνη* ‘bed’ [Amos 6:4]), and, although **פֶּאֶה** ‘corner, side’ does not appear anywhere else in Amos or the Minor Prophets, the rendering *κατέναντι* in Amos 3:12 is a correct representation of it. The noun **דְּמֶשֶׁק** ‘silk’ (?), however, is a hapax legomenon and a difficult form to the translator.⁵ The translator, however, cannot leave the difficult form undealt with in translation. In order to come up with a meaningful rendering, he associates it with a similar but semantically unrelated form **דְּמֶשֶׁק** ‘Damascus’ and then, because **דְּמֶשֶׁק** is a proper name, he transliterates it as *Δαμασκῶ*. Associating a word with a similar but semantically unrelated form is a very common practice.⁶ The other three principal ancient versions, namely, Latin Vulgate (*Damasco*), Syriac Peshitta (*dmswq*) and Targum Jonathan (**דְּמֶשֶׁק**) also associate the difficult form with **דְּמֶשֶׁק** ‘Damascus’. Later Greek translators Aquila, Symmachus and Theodotion also associate the unknown form **דְּמֶשֶׁק** with **דְּמֶשֶׁק** and transliterate it as *δαμασκω*. It is possible that the other three principal ancient versions and later Greek translators follow the tradition of \mathfrak{S} , but it is likely that each is simply employing the same ancient translation practice of form-association rendering for they also differ from \mathfrak{S} in their renderings of the entire textual segment.⁷ **דְּמֶשֶׁק** is a difficult form not only to the \mathfrak{S} translator but also to the translators of the other principal ancient versions as well as to later Greek translators.

Having demonstrated that **דְּמֶשֶׁק** is a difficult form to the \mathfrak{S} Amos translator, based on ancient translation practices, explaining the rise of the unexpected renderings of the two nouns **מִטָּה** and **עַרְשׁ** in the textual segment **עַרְשׁ וּבִדְמֶשֶׁק מִטָּה** (3:12) is now a simple matter. As has been noted earlier, the translator is not ignorant of the Hebrew nouns **מִטָּה** ‘bed, couch’ and **עַרְשׁ** ‘couch,

⁵The meaning of this hapax legomenon is uncertain. BDB lists as its possible meaning ‘damask, silk’. For various attempts at emending it, see Rabinowitz (1961:228–231). For other attempts on understanding **דְּמֶשֶׁק עַרְשׁ**, see Hulst (1960:239). The other principal ancient versions (Latin Vulgate, Syriac Peshitta, Targum Jonathan) and later Greek translators (Aquila, Symmachus, Theodotion) presuppose **דְּמֶשֶׁק** as the form they tried to render.

⁶For the original use of the term *form-association*, see Weissert (1974). Form-association is a very common ancient translation practice but it has been incorrectly labeled as “etymological” rendering or exegesis by Tov (1984, 1997), Barr (1979:318–322), and Barrett (1977:184). The words “etymology” and “etymological” are inadequate descriptive terms for such a phenomenon, because the two forms that the translator associates are similar only in form but are not etymologically related in any way.

⁷The complete rendering of the textual segment **עַרְשׁ וּבִדְמֶשֶׁק מִטָּה** by the other three principal ancient versions are as follows: Latin Vulgate has *in plaga lectuli et in Damasco grabatti* ‘in region of a bed and in couch of Damascus’, Targum Jonathan has **דְּמֶשֶׁק רַחֲצִין** ועל דְּמֶשֶׁק שְׁלֹטָן *“in the strength of power and who rely upon Damascus,”* and Syriac Peshitta has *bhwtr’ dmn slj wb’m’ dmn ddmswq* “by the rod [that strikes] suddenly and by the people from Damascus.” The renderings of the later Greek translators are as follows: α has *εν κλιματι κλινης* και *εν δαμασκω κρβατου*, θ has *εκ κλιματος κλινη* και *εν δαμασκω κλινη* and θ' has *κατεναντι κλιματος* και *εν δαμασκω κλινη*.

divan'. However, having represented the difficult form דַּמָּשֶׁק by Δαμασκῶ, maintaining correct renderings of מִטָּה and עֶרֶשׁ would yield a nonsensical rendering like κατέναντι κλινῆς καὶ ἐν Δαμασκῶ στρωμνῆς 'before a bed and in Damascus of a bed'. The translator now has to choose either to maintain this intolerable rendering in the G translation or to apply secondary adjustments to other elements in the textual segment in order to produce an overall meaningful rendering. The translator follows the latter, but because the difficult form דַּמָּשֶׁק has already been represented by the incorrect form Δαμασκῶ, accuracy and meaningfulness cannot both be maintained; accuracy must therefore give way to meaningfulness.

In coming up with a meaningful rendering of the textual segment, the G translator's renderings of מִטָּה and עֶרֶשׁ appear unexpected to modern eyes but are really not unexpected in light of ancient translation practices. First, the translator associates מִטָּה 'bed, couch' with a similar but semantically unrelated form מִטָּה 'tribe' and represents it by φυλῆς 'tribe'. The meaning of מִטָּה 'bed, couch' is of course not correctly represented by φυλῆς 'tribe', but the translator has at least represented the consonantal form of מִטָּה. This is not the only instance that the G Amos translator applies a form-association rendering on a form which then results in an unexpected rendering.⁸ In 1:5 where the difficult form תּוֹמֵךְ 'the one who holds' occurs and for which he conjectures its meaning as κατακόψω 'I will cut', the translator does a similar secondary adjustment by associating שֶׁבֶט 'rod, staff' with שֶׁבֶט 'tribe' and represents it by φυλῆν 'tribe'. In 1:8 the translator varies his conjecture of the difficult form תּוֹמֵךְ and uses ἐξαρθήσεται 'shall be taken away' and then again associates שֶׁבֶט 'rod, staff' with שֶׁבֶט 'tribe' and represents it by φυλή 'tribe'. As he has done in associating the difficult form דַּמָּשֶׁק 'damask, silk' (?) with דַּמָּשֶׁק 'Damascus', form-association may be employed as a primary translation action in dealing with difficult forms. In 1:5, the translator is ignorant of the proper name קִיר in קִירָה 'to Kir' and so associates קִירָה with קִרְיָא 'called', hence, ἐπίκλητος 'called'. When the same proper name occurs in 9:7 in מִקִּיר 'from Kir', he associates מִקִּיר with מִקְוֶה 'spring, fountain', hence, βόθρος 'a pit, cistern'.⁹ Assuming that the Greek Minor

⁸For a complete list of form-association renderings that the G Amos translator makes of difficult Hebrew forms as well as of other known forms (when secondary adjustments are necessary) in Amos 1-5, see Zobule (2008:297-298, 306-308). Here are some examples of form-association renderings that involve difficult forms: קִירָה 'to Kir' is associated with קִרְיָא 'called', hence, ἐπίκλητος (1:5); שְׁלֵמָה 'complete, safe' with שְׁלֹמֹה 'Solomon', hence, Σαλωμων (1:6, 9); the noun רַחֲמָיו 'his allies' with רֶחֶם 'womb', hence, μήτραν 'womb' [1:11]; סוּפָה 'whirlwind' with סוּף 'end, completion', hence, συντελείας 'end, completion' [1:14]; נִוְעָדוּ 'they have come together' with נִוְדָעוּ 'they know one another other' [3:3]; hence, γνωρίσωσιν ἑαυτούς; סוּר 'secret; counsel' with מוֹסָר 'discipline, instruction', hence, παιδεία (3:7); מְהוּמָה 'confusion, panic' with חֲמָה 'be astounded, dumbfounded' or possibly חֲמוּהוּה, hence, θαυμαστά 'wonderful, marvelous' [3:9]; צֵר 'adversary, enemy' with צֵר 'Tyre', hence, Τύρος (3:11); וּסְפוּ 'and they will sweep away' with וְנוֹסְפוּ 'and they will be added', hence, καὶ προστεθήσονται (3:15); and דוּגָה 'fishing' with דוּר 'to heap up, pile', hence, ὑποκαίωμένους (4:2); פְּרִצִים 'breaches' [4:3] with פְּרִיצִים 'violent ones', hence, λοιμοί (4:2); מִחֻץ 'from that which is leavened' with מִחוּץ 'from outside', hence, ἔξω (4:5); נְדָבָה 'free-will offerings' with נְדָרִים 'vows, promises', hence, ὁμολογίας (4:5); and מַה שָׁחוּ 'what [is] his thought' with מִשִּׁחוּ 'his anointed one', hence, τὸν χριστὸν αὐτοῦ (4:13); הַמְבִלִּיג 'the one who smiles' with הַמְפִלִּיג 'the one who divides', hence, ὁ διαίρων (5:9); צָרָרִי 'showing hostility' with רֹצְצֵי 'the ones who crush', hence, καταπατούντες 'the ones who tread upon' [5:12]; סִכְחָה 'sikkuth' (?) with סִכְחָה 'booth', hence, τὴν σκηνήν (5:26).

⁹The proper name קִיר 'Kir', excluding its use in compound forms, e.g., Kir-har'eseth, occurs only three other times in Hebrew (2 Kgs 16:9; Isa 22:6; Amos 9:7). In 2 Kgs 16:9 and Amos 9:7, the Syriac Peshitta, Latin Vulgate and Targum Jonathan represent it with *qjr*, *Cyrene* and קִירִינִי respectively (cf. ἡ κυρηγηθε for קִירָה); in Isa 22:6 they all associate it with its other homonym קִיר 'wall', hence, the Syriac Peshitta has *šwr* 'the wall', the Latin Vulgate *parietem* 'the wall' and Targum Jonathan שוּר 'wall'. The G translators are also ignorant of the form and so eliminate it from the translation in 2

Prophet is a translation unit (see Thackeray 1903 and 1909:11-12), the renderings of the three occurrences of סִוּפָה ‘whirlwind’ in the Minor Prophets also betray the translator’s ignorance of its correct meaning. In Amos 1:14, consistent with ancient translation practices in dealing with difficult forms, he segments סִוּפָה as סוּר plus ה (the 3fs suffix) and then associates the constituent סוּר with סוּר ‘end, completion’, hence, συντελείας αὐτῆς ‘her end/completion’ [1:14]); in Nah 1:3 and Hos 8:7, consistent with another ancient translation practice in dealing with difficult forms, he replaces it by a semantically unrelated καταστροφή ‘overthrow, destruction’.

Second, the Θ Amos translator has to deal with the Hebrew עֲרֹשׁ in such a way that its representation is meaningful not only by itself but also in its relationship to the other elements in the textual segment or to the other elements in the vicinity of the textual segment. It has been said that the translator mistakenly transliterates עֲרֹשׁ as ἱερεῖς because of their phonetic similarities. However, that explanation is inadequate because עֲרֹשׁ is a Hebrew word while ἱερεῖς is a Greek word, and the primary task of the translator is not to copy עֲרֹשׁ but to translate it. The fact that עֲרֹשׁ is unexpectedly represented by ἱερεῖς must be explained in terms of the translation practices, not in terms of the copying practices. My argument is that the unexpected rendering of עֲרֹשׁ as ἱερεῖς is really a secondary adjustment that the translator does and it involves two translation actions. First, the translator associates עֲרֹשׁ with the similar but semantically unrelated Greek noun ἱερεῖς and transliterates it as ἱερεῖς. This is an instance of a form-association with a receptor language form that then results in transliteration. This translation action is influenced partly by the availability of a similar sounding form in Greek to the Hebrew form here and also partly by the secondary translation adjustment that the translator takes in Amos 1:15 where he first introduces ἱερεῖς into the translation in order to have a meaningful rendering. Second, the reason עֲרֹשׁ is here transliterated as ἱερεῖς without much difficulty (and quite possibly the primary motivation for the transliteration) is because, taking it as part of the next verse, ἱερεῖς happily serves as the vocative addressed by the imperatives (ἀκούσατε, ἐπιμαρτύρασθε) in the next verse. Taking ἱερεῖς as the vocative and going with the two imperatives in the next verse is the only grammatically and syntactically sensible thing to do; if one takes ἱερεῖς as a nominative then it becomes part of the verbless clause καὶ ἐν Δαμασκῶ ἱερεῖς which is an abnormality in Greek. Even if one assumes that the substantive participle οἱ κατοικοῦντες in the immediately preceding clause is to be the understood verb for καὶ ἐν Δαμασκῶ ἱερεῖς, it still does not make a good Greek clause. In short, as another secondary translation path taken to accommodate the unexpected representing of the difficult form דַּמָּשֶׁק by Δαμασκῶ, the translator reorganizes the syntactical function of עֲרֹשׁ by transliterating it as ἱερεῖς and by so doing creates a new understanding with the newly introduced ἱερεῖς ‘priests’

Kgs (4 Kgdms) 16:9, make a contextual interpretation or replacement in Isa 22:6 and make a form-association rendering in Amos 1:5; 9:7. (Note, however, that the Θ Amos translator is not ignorant of another similar form קיר [‘wall’] which he correctly represents as τὸν τοῖχον [Amos 5:19]). This observation on how the Θ and the other ancient versions deal with קיר at various places can hardly be explained by the argument that the translators mistake one form for another similar form as a copyist could possibly have done; it is obvious that the translators of Θ , Latin Vulgate and Targum Jonathan are all trying to make sense of the difficult form קיר in Amos 1:5 and 9:7.

as the addressees of the two imperatives in the next verse.¹⁰ This means that ἱερεῖς at the end of Ⓞ Amos 3:12 is meant to be taken as the addressees of the two imperatives in the next verse and it is not meant to be taken as part of the last textual segment in 3:12.

To conclude, the explanation of the rise of unexpected renderings in Amos 3:12 may be summarized as follows. First, the Ⓞ variations in the textual segment of Amos 3:12 are not the result of the mistaken activity of the translator. The translator is not mistaken; he is conscious what he is doing here. Second, the Ⓞ variations are not the result of the interpretive activity of the translator, if by interpretation one means high level interpretation. Third, the Ⓞ variations are caused by the presence of the difficult form דַּמָּשֶׁק and the translator's desire to have a meaningful rendering of the textual segment. The translator associates the difficult form דַּמָּשֶׁק with the similar but semantically unrelated form דַּמָּשֶׁק 'Damascus' and then, since דַּמָּשֶׁק 'Damascus' is a proper name, transliterates it as Δαμασκῶ. Having done that, the translator cannot maintain correct renderings of the other two nouns in the textual segment without having a nonsensical rendering of the textual segment. In order to avoid an intolerable rendering of the textual segment, the translator, in keeping with ancient translation practices, renders מִטָּה 'bed, couch' by associating it with the similar but semantically unrelated form מִטָּה 'tribe' and then associates עֲרֹשׁ with the Greek ἱερεῖς and transliterates it as ἱερεῖς—a translation action that is accompanied by the reorganization of the syntactical function of ἱερεῖς. Since the textual segment עֲרֹשׁ וּבִדְמָשֶׁק מִטָּה בְּפֶאֶחַ (3:12) contains a difficult form, in representing it with the unexpected κατέναντι φυλῆς καὶ ἐν Δαμασκῶ ἱερεῖς the overall aim of the translator is not accuracy but that the textual segment means something in translation.

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¹⁰This restructuring is properly understood by Brenton (1975) who takes ἱερεῖς as a vocative and with the next verse, while Howard (2004) misses it when he takes ἱερεῖς with the preceding verse.

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