

15 Yéli Dnye: Demonstratives in the Language of Rossel Island, Papua New Guinea

Stephen C. Levinson

1 Introduction

The demonstrative system of Yéli Dnye, the ‘Papuan’ language of Rossel Island, is interesting in a number of respects. Although it could be readily misconstrued as a standard ‘this, that, yonder’ system based on distance, the system is in fact a complex multi-dimensional one that invokes a number of semantic dimensions, including epistemic and anaphoric parameters, but also other contributory factors like attention, touch, evidentiality and unmarkedness.

Despite the many parameters actually involved in the meaning of these demonstratives, the field instrument used here (see [Chapter 2](#), this volume), which focuses primarily on spatial contrasts, nevertheless proved very useful in unravelling the semantics of these terms.

2 The Language and Its Speakers

Yéli Dnye, literally ‘Rossel island sounds’ (earlier known variously as *Yele*, *Yela*, *Yelentye*, or simply *Rossel Island language*) is a Papuan – i.e. non-Austronesian – language spoken on Rossel Island in the Louiseade archipelago, Milne Bay Province, which lies 450 km off the coast of mainland Papua New Guinea. Yéli Dnye is an isolate whose affiliation to any other languages has not been definitively established. There are about 5,000 inhabitants of Rossel, including a few married-in native speakers of Austronesian languages (especially the languages of Sudest, Misima and Nimowa). The people are physically distinct from surrounding peoples, and the working assumption is that they, at least partially, represent genetically, historically, culturally and linguistically the pre-Austronesian peoples who presumably filled the whole of near Oceania before Austronesian expansion (Levinson, 2006d). Recent interdisciplinary work shows that the prehistory of near Eastern Papua is complex, with Austronesian peoples arriving about 3,000 years ago in the

Solomons to the north-east of Rossel, finding earlier occupants going back some 30,000 years. On top of these migrations, there have been migrations of non-Austronesian peoples (e.g. in the Santa Cruz islands) and much language shift to Austronesian languages, with a consequent mosaic of languages, genes and cultural items (see, e.g., Hunley et al., 2008; Delfin et al., 2012). Genetic samples have been collected on Rossel Island but remain, frustratingly, largely unpublished; however, reports suggest that the mtDNA is special to the area (Friedlaender et al., 2005; 2007), and the Y-chromosome appears also distinctive of Rossel in particular, with a large dose of Asian genes representing Austronesian contact (Van Oven et al., 2014). Recent unpublished archaeological work on Rossel Island by Ben Shaw (2015) has found pre-Austronesian material but of no deep antiquity.

Linguistically, Yéfi Dnye has less than 5 per cent Austronesian loans, but interestingly these connect to proto-Oceanic not the current surrounding languages. Since there are no clear cognates with other Papuan (i.e. non-Austronesian) languages, we conducted a phylogenetic analysis based on morphosyntax and phonology with the other offshore East Papuan languages: on this analysis Yéfi Dnye remains an outlier (Dunn et al., 2005; 2007; 2008). Yéfi Dnye is the single predominant language on the island (little or no Tok Pisin is spoken in the area – English being the provincial *lingua franca*), although many younger people also know a considerable amount of English through schooling (in English) or outside employment. Rossel is a remote island surrounded by difficult seas, served by few vessels and no air strip and is quite isolated.

Before my own research, the only substantial work on Rossel Island language is the brief but invaluable grammar sketch by James Henderson (1995), an SIL linguist who, together with Anne Henderson, translated the New Testament, produced word lists (Henderson and Henderson, 1987) and in numerous ways encouraged literacy in the language. In what follows I shall employ the practical orthography described in that grammar, and my glosses are based roughly on Henderson's analysis of the verb complex. Although surrounded by Austronesian languages, Yéfi Dnye shows little evidence of influence by them, and with its huge phoneme inventory and complex grammar is scarcely ever mastered by outsiders.

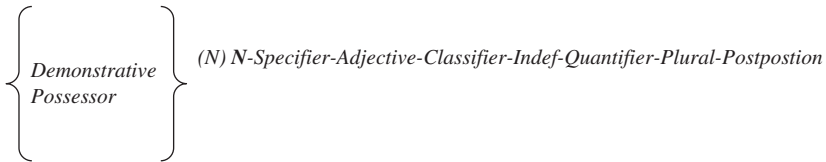
The language has 90 phonemes (a record for the Pacific), including phonetic distinctions unique in the languages of the world (Levinson, in prep.). The syntax exhibits free phrase order but a predominant SOV pattern, with postpositions and adjectival modifiers following nouns, but no systematic left-branching (modifiers tend to come after heads). The language is ergative and is a rarity in exemplifying ergative syntax, so that all major syntactic operations are organized on an ergative/absolutive basis, not on a nominative/accusative

one. Nominals are marked in an ergative/absolutive pattern, but the cross-referencing on the verb follows a partially nominative/accusative pattern. The cross-referencing is manifest in pre- and post-verbal clitics, which are portmanteau morphs carrying tense, aspect, mood, person, number information, as well as a number of other features including conditionality, counter-factuality and – pertinent to this chapter – deictic information. Consequently, there are well over a thousand such morphemes (or form–meaning pairs, although complex syncretism reduces the actual number of forms). Argument-structure alternations are confined to object incorporation, other alternations (e.g. of transitivity) being marked by lexical doublets. Verbs generally supplete but in an irregular way on aspect, tense, mood and sometimes on person. The language taken as a whole, like many other Papuan languages, is a dauntingly complex system at almost every level and awaits full description (Levinson, in prep.). Publications other than Henderson (1995) explore, for example, the colour terms (Levinson, 2000a), landscape terminology (Levinson, 2008), positional verbs (Levinson, 2000b), the kinship terms (Levinson, 2006a), spatial and temporal description (Levinson, 2006c; Levinson and Majid, 2013), body parts (Levinson 2006b), verbal semantics (Levinson, 2007a; Levinson and Brown, 2012), reciprocal constructions (Levinson, 2011) and, most relevantly, person reference (Levinson, 2007b).

3 The Demonstratives in the Context of Yéli Dnye Grammar

Yéli Dnye has extensive deictic systems, covering, for example, reference to the person, social statuses, time and place of speaking. The person system makes distinctions between three persons and three numbers (singular, dual, plural). Social deixis is expressed, for example, in a taboo vocabulary reserved for speaking to or in the presence of in-laws. Temporal deixis includes six absolute tenses in indicatives (on the pattern of events earlier today, yesterday or before, later today, tomorrow or later) and two in imperatives (do it now versus later), and partings include a (non-compositional) specification of how many days from today one expects to meet the addressee again (Levinson and Majid, 2013). Spatial deixis includes not only demonstratives (the focus here) and adverbials but also deictic morphemes attached to pre-verbal clitics indicating ‘hither’ and associated motion markers indicating ‘do while going’ (Levinson, 2006c).

Demonstratives belong to a special part of speech, namely determiners proposed to the head nominal phrase, in a slot in which only possessive pronouns compete. Since there are no clear articles in Yéli Dnye, certainly in that slot, the demonstratives exhaust that form-class. The NP is built according to the following template (Levinson, in prep.):



Nearly every element of this phrase is optional, including (surprisingly enough) the head N, **marked in bold here**, although some co-occurrence constraints exist. Demonstratives and possessive pronouns are the only items that can occur before the head, apart from nouns (here marked in brackets) which form a compound with the head (bare nouns without demonstratives or possessors tend to be interpreted indefinitely). In addition, demonstratives trigger a specifier, a bound affix following the head, irregularly formed or formed according to three classes of noun that may be distinguished in this respect. The first class takes no specifier (as in *ala yââ* ‘this leaf’); the second class adds *-ni* to the noun (as in *ala pi-ni* ‘this man’), which may have irregular repercussions on the stem, often a vowel raising as in *mbwaa* ‘water’ → *ala mbeeni* ‘this water’. A third class of nouns has a suppletive form of the root for the specified form (often built with one of the forms *-li/-pi/-pu/-mi/-mu*) as in *pyââ* ‘woman’ → *ala pywópu* ‘this woman’. The possessive pronouns do not trigger these specifiers (cf. *k:ii* ‘banana’, *a k:ii* ‘my banana’, *ala ki-ni* ‘this banana’).

Therefore, on formal grounds alone the demonstratives constitute a form-class. In addition, the demonstratives are determiners, not pronouns, so in order to play a role as pronouns they must occur before the pronoun *n:ii* (which otherwise occurs as a relative pronoun), replacing the position of the head noun, as in:

- (1) *ala tpile* versus *ala n:ii*
 ‘this thing’ ‘this one’

Thus one might ask: *ló n:ii?* ‘which one?’, and receive the answer *ala n:ii* ‘this one’.

A further complex property of demonstratives is that they also occur in the pre-verbal clitic slot, where they irregularly fuse with the portmanteau morphs indicating tense/aspect/mood/person/ number (of subject). In this role they seem to play epistemic functions, indicating, for example, certainty or uncertainty, as well as deictic roles (see Henderson, 1995: 48–55), an issue taken up in [section 4](#).

To appreciate the subtleties of the Yélf Dnye demonstratives, it is useful to approach them through a series of approximations or insufficient analyses, each of which can be shown to be inadequate. Suppose we took as a working assumption that the four basic demonstratives were organized primarily through a hybrid of interlocutor anchoring and spatial distance measure.

Table 15.1 *An (inaccurate) first approximation: The core set of spatial demonstratives*

	Speaker-based	Addressee-based
Proximal	<i>ala</i>	<i>ye</i>
Medial (neutral)	<i>kî</i>	–
Distal	<i>mu</i> (far from Spkr)	(potentially equivalent to <i>ye</i>)

Table 15.2 *Demonstrative pronouns and corresponding adverbs, according to the first approximation in Table 15.1*

	Pronouns	Adverbs	
Proximal	<i>ala n:ii</i>	<i>al:ii</i>	‘here’
Medial (neutral)	<i>kî n:ii</i>	<i>k:ii</i>	‘there’
Distal	<i>mu n:ii</i>	<i>mw:ii</i>	‘yonder’
Anaphoric	<i>yi n:ii</i>	<i>y:i</i>	‘there as mentioned’

We would then propose an analysis like that in Table 15.1, and we would find it consistent with much functional usage.

The terms have no internal morphological structure, and are thus semantically opaque, with the possible exception of the proximal *ala*, which could possibly be diachronically related to the first person possessive (cf. *a-la* ‘my-bit’). The proposed distance metric in the speaker-based series needs to be understood as relative: all the terms can be employed to distinguish, for example, objects on a table top (see below) but equally to refer, for example, to a string of villages at some kilometre distances along the coast. These terms only form a core: in addition, there is an anaphoric determiner *yi*, and a number of others to be mentioned below. Corresponding to these demonstrative determiners are a set of demonstrative adverbs, as in Table 15.2, again here analysed according to a simple distance metric. Incidentally, it is possible to combine the pronominal *n:ii* and the adverbial series, as in *al:ii n:ii* ‘the here one’, but such uses hardly seem to occur.

To test this first approximation, data were collected using the Pederson and Wilkins (1996) ‘table-top placement’ task.¹ In that task, one, two or three objects (e.g. cups) were placed in various arrangements in front of a speaker, with the investigator beside him or her. The results can be illustrated diagrammatically as in Figures 15.1–15.3.

¹ See also the entries in <http://fieldmanuals.mpi.nl/projects/demonstratives/>.

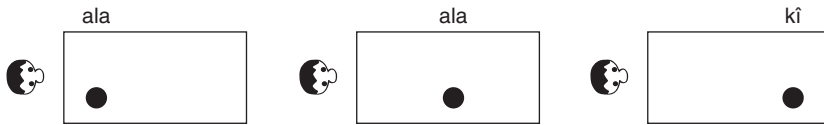


Figure 15.1 Demonstratives used (with pronoun *n:ii*) for *single* objects on a table

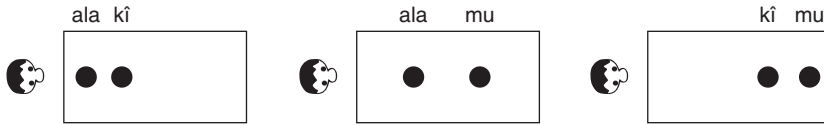


Figure 15.2 Demonstratives used (with pronoun *n:ii*) for *two* objects on a table

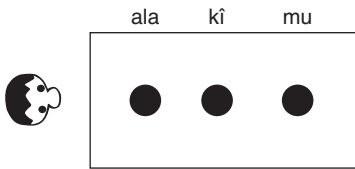


Figure 15.3 Demonstratives used (with pronoun *n:ii*) for *three* objects on a table

This kind of data supports the first-order approximation as presented in Table 15.1, with a series of three speaker-distances distinguished, where the relevant distance is partly a function of the contrasts to be made. Incidentally, these distance distinctions are neutralized for an array of three objects in transverse order across the speaker’s line of gaze: then the same three terms as in Figure 15.3 are employed, arbitrarily starting to left or right (unlike the pattern in Figure 15.3 where order of reference is not at stake, only distance). If the speaker turns his back on the array, the same three terms are employed as in Figure 15.3 (showing that visibility is not a necessary feature for these three terms). If the array is vertically arranged, with one object on the floor, another at navel height and another at head height, the system is neutralized and *ala* (proximal) is used for the object on the floor, *kî* for the object at navel height and *mu* (distal) for head height. If the addressee is not beside the speaker as is presumed in Figures 15.1–15.3, but at the other end of the table, as in Figure 15.4, the same terms are employable, except that the object denoted *mu* in Figure 15.3 can (but need not) be equally well designated *ye* ‘near addressee’:

Table 15.3 Henderson's (1995: 46) analysis of the deictics

Deictic term	Referring use	Anaphoric/cataphoric use
<i>kī</i>	'in sight'	
<i>wu</i>	'out of sight'	anaphoric
<i>ala</i>	'close to speaker'	cataphoric
<i>ye</i>	'close to hearer (addressee)'	anaphoric
<i>yi</i>	'previously discussed'	anaphoric
<i>mu</i>	'the other'	cataphoric

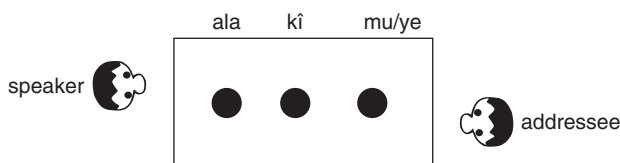


Figure 15.4 When addressee is opposite speaker

The reader should now have a good idea of the basis for the generalization in Table 15.1 above. This pattern can be repetitively elicited, but it is not in fact an adequate analysis of the system, which actually involves additional semantic parameters. For there are in fact six, not just four demonstrative determiners – Henderson (1995) gives (without any further details) the table above (Table 15.3).

Table 15.3 correctly suggests that the terms have additional functions in anaphora, and also that there may be epistemic issues in play, not just distance from speaker. I will dispute some of these glosses, but the insistence on additional factors is correct. In fact, to preview some of the main results, I will argue that the correct analysis is semantically multi-dimensional, requiring distinctions on three dimensions: spatial distance, discourse location and epistemic basis. The analysis can be sketched in the diagram opposite (Figure 15.5), which treats each of these dimensions as the side of a cube.

Take the spatial dimension first, here shown vertically. As we have seen, *ala* and *ye* both indicate proximity (here marked '+ Close'), in the first case to the speaker, and in the second case to the addressee. At the other extreme, *mu* indicates non-proximity (here marked '- Close'). On a different dimension is *kī*, which will be argued below to be in fact *neutral or unmarked* for distance (hence marked '+/- Close'). On the horizontal dimension, we have the unfolding of discourse in time. For referents that are behind in discourse time, the special anaphoric pronoun *yi* is mostly employed; for referents that are ahead in time cataphoric reference can be made with spatial series (as in any

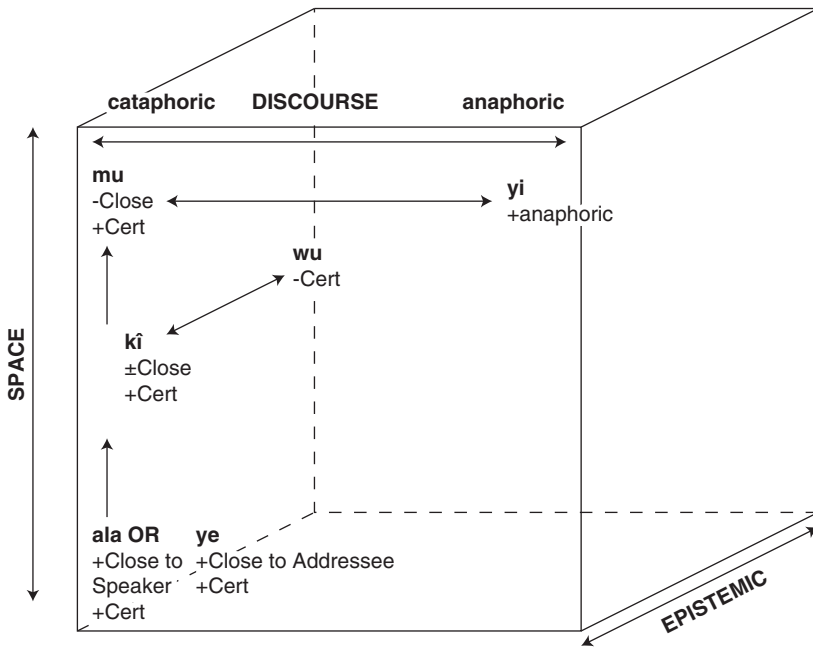


Figure 15.5 The three dimensions of Yélf Dnye deictic determiners

multi-dimensional plot, *yi* therefore contrasts with all the items to the left of the space). The final dimension involves an evidential or epistemic parameter. On this parameter the spatial series contrasts with an additional deictic determiner *wu* ‘that (indirectly inferred)’. The evidence for much of this analysis will be presented in the sections below.

4 Results of the Wilkins Demonstrative Questionnaire (1999)

The Wilkins questionnaire (Chapter 2, this volume) was run twice with my main assistant (Isidore Yidika) on different occasions, and with two other consultants, with individual scenes being checked with yet further consultants. Where practical we acted out the scenes – and thereby found that, for example, if the speaker in scene 7 is sitting on a chair (a rare object on Rossel island), then *ala* ‘this proximal’ is relatively unnatural in reference to a book on the floor in front of him, whereas if sitting on the floor it would be fine. Many variants of each scene were therefore enacted or scenarios set up by verbal description.

The main results of the questionnaire are given in Table 15.4 below.

Table 15.4 *Yéli Dnye* demonstratives used in the scenes in the Wilkins (1999) Demonstrative Questionnaire


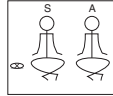
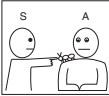
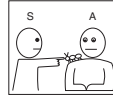
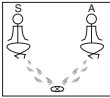

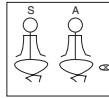


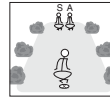
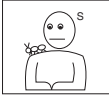
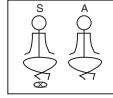
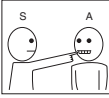
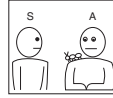
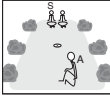

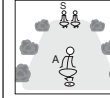


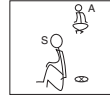
 <p>(1)</p>	 <p>(6) <i>(ala</i> only if pointing or touching)</p>	 <p>(4) (must have been noticed by addr)</p>	 <p>(4) <i>(kī</i> if not noticed by addr)</p>	 <p>(12)</p>	 <p>(22)</p>	 <p>(10) <i>(kī</i> unless spkr can't see referent)</p>	 <p>(14)</p>	 <p>(24) <i>mu</i></p>	 <p>(15) <i>wu</i></p>
 <p>(3)</p>	 <p>(7) (ditto)</p>	 <p>(2) (could be <i>ala</i> if spkr touching!)</p>	 <p>(5) <i>(kī</i> if not noticed by addr)</p>	 <p>(17)</p>	 <p>(20)</p>	 <p>(18) <i>(ye</i> if addr holding, otherwise <i>mu</i>)</p>	 <p>(13) <i>(mu</i> is OK here for small thing far away)</p>	 <p>(21) <i>mu</i></p>	 <p>(11) <i>wu</i> or <i>kī</i> <i>ala</i></p>
<p>Ala S pointing at or touching referent, or so close it is in spkr's space</p>	<p>Ala / Kī <i>ala</i> if spkr is pointing close to or touching referent, otherwise <i>kī</i></p>	<p>Ye Referent is in contact with addr; prior attention by addr essential</p>	<p>Ye / Kī Choice depends on whether addr is attending to referent; <i>kī</i> is default option</p>	<p>Kī</p>	<p>Kī</p>	<p>Ye / Mu Depending on whether addr is holding it or not</p>	<p>Kī / Mu <i>(kī</i> requires pointing, <i>mu</i> requires referent distant or Spkr can't see it)</p>	<p>Mu distant</p>	<p>Wu For unseen object which addr doesn't know about</p>

Table 15.5 *Another arrangement of Yélfí Dnye demonstratives (The arrows below the table show the direct contrast between close to speaker or addressee versus far from both, and the indirect opposition between those marked forms and the unmarked kî.)*

	+CLOSE, +ATTENTION	+CLOSISH, +ATTENTION	UNMARKED	-CLOSE FROM SPEAKER	+DISTANT FROM SPEAKER	+UNCERTAIN (to S & A)
SPKR	Ala	Ala/Kî	Kî	Kî / Mu (or Ye)	Mu (or Ye)	Wu
ADDR	Ye	Ye/Kî				

Table 15.4 should be understood as a simple grouping of scenes under the main deictic determiners. It is not in fact a revealing grouping, which is hard to achieve on a single page complete with columns of thumbnail pictures, because the Yélfí Dnye system is, as mentioned above, multi-dimensional, so resisting a single close-to-far array of scenes. A more revealing grouping is schematically indicated in Table 15.5, where closeness to speaker versus closeness to addressee are treated in parallel, and an additional column at the end picks up the epistemically marked form.

In Table 15.5, some attempt has been made to bring the multi-dimensional Rossel system into the same format as the other systems described in this book, with ‘proximal’ forms to the left, and ‘distal’ to the right. But clearly, this is artificial, since *mu* is distal only from the speaker, and sometimes a referent can be far from speaker and close to addressee, so alternatively *mu* or *ye*. Figure 15.5 above is a better representation of the multi-dimensional character of the system, but nevertheless, this table is a good point of departure for a description of the main findings from the questionnaire.

The major findings of the study are summarized in the following sections.

4.1 *The Nature of the Speaker-centered Distance System: Ala → Kî → Mu*

From the direct responses and following discussions of each scenario, it became clear that the ‘medial’ term *kî* is employable in most scenarios. *Kî*

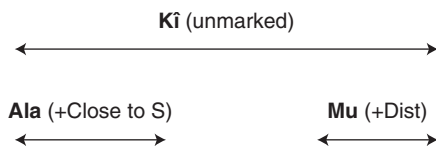


Figure 15.6 Unmarked vs marked oppositions in the speaker-oriented series

becomes pre-empted under specific conditions, essentially when the referent is close to or touching speaker or addressee, or when it is very far from both (a statement to be refined below). Following the analysis I first proposed for English *that* (Levinson, 1995; 2000c: 94; 2004), it seems that *kî* is actually unmarked for distance – a ‘neutral’ demonstrative in the terminology of this book. This predicts that in fact *kî* could logically occur for referents at any distance, and the fact that *ala* and *mu* occur at close and far distances respectively is a matter of pragmatic pre-emption. Such pre-emption would follow from Grice’s (1975) first maxim of Quantity, ‘Make your contribution as informative as is required’, which enjoins a speaker to use the most informative description that applies – with the result that the addressee interprets a less informative description (here *kî*) as suggesting (implicating) that the more informative description (say *ala* or *mu*) does not apply. In this way, a division of labour between alternative forms arises, without an actual lexical specification of a contrastive meaning. The advantage of such an analysis is that it accounts for the fact that *kî* is acceptable nearly everywhere, although sometimes misleading – in other words, it accounts for the flexibility of demonstrative use.

Since this kind of marked/unmarked opposition is probably very general in demonstrative series (cf. English *this* marked with *that* unmarked), it is worth sharpening the theory. Diagrammatically, we can represent the speaker-based series as having overlapping semantics, as shown in Figure 15.6.

The division of labour between the three terms then arises by pragmatic principle: where terms are in privative opposition in this way, a ‘Horn-scale’ arises under which the use of an informationally weaker term systematically invites the inference that the stronger does not apply. The proximal forms *ala* and the distal *mu* pragmatically pre-empt *kî*, and thus the use of *kî* Q-implicates ‘not next to S and not distant from S’ (see Levinson, 2000c; 2004 for the theory).

A further advantage of this analysis is that it is not just *distance from speaker* that lies behind the division of labour between the terms. In fact, the conditions for use of the two marked terms are quite specific:

Ala: requires *touching*, or *close pointing* – even scene 4 where the speaker points to a ‘bug’ (or insect) on the addressee’s shoulder is marginal, unless the speaker is almost touching the bug. A possible interpretation is that *ala* can be used only if the scenario meets two conditions:

- (a) Referent must be in the speaker’s reaching area.
- (b) Referent must be the current focus of the speaker’s **attention** (hence pointing or manipulating with the hand or directional gaze seems an obligatory precondition for the use of *ala*).

Notice we have now introduced yet another dimension, not captured in [Figure 15.5](#), namely focal attention, a parameter known to play a systematic role in e.g. Turkish demonstratives (Küntay & Özyürek, 2006).

Mu: requires *certainty of location but lack of direct contact*.² Sheer distance is just one manifestation of ‘lack of direct contact’ in the intended sense. For example, if some object intervenes between speaker and referent, that creates the relevant kind of ‘virtual distance’. Hence scene 10 is a potential *mu* scene, where speaker and addressee are sitting down side by side, and the addressee is in between the speaker and the referent. In contrast, in scene 11, when the object is at a similar distance and similarly not visible to the speaker, but nothing intervenes between speaker and referent, *mu* is not possible. It follows from the fact that ‘virtual distance’ may involve occlusion that pointing is not obligatory with *mu*, unlike with *ala* (which requires pointing, gaze or touch).

Because of these specific conditions, a *semantic* division of labour between *ala*, *mu* and *kî* is not a tenable analysis: *kî* would then need to be semantically specified with a detailed ad hoc list of negative conditions of the sort ‘not involving close pointing or touching with attentional focus’, ‘not involving lack of direct contact’ and so forth. And it would be hard then to account for the overlapping scenes diagrammed in [Table 15.4](#). These problems are averted by the pragmatic analysis, where *kî* picks up the residue from the more specific demonstratives by pragmatic (and thus defeasible) opposition.

4.2 Addressee-centred Deictic: Ye

The addressee-centred deictic *ye* appears to have similar conditions to *ala*, except they now apply to the addressee rather than the speaker of course.

² The ‘certainty’ feature may itself be implicated by contrast to *wu*, ‘referent with lack of direct perception, or uncertain location’, to be described below.

Ye: Scenarios for the use of *ye* must meet two conditions:

- (a) The referent must be touched by the addressee, or at least within the addressee's reach. (Note that these conditions could apply to an event, e.g. if I hear you fall down the stairs, I could say *Ye lukwe?* 'That-near-you what? i.e. what's happened to you?').
- (b) The *Addressee* must already be **attending** to the referent (cf. the corresponding condition on the *speaker* for the use of *ala*). Hence the referent in scene 4 (bug on addressee's shoulder) is more likely to be described with *kí* than *ye* – for the most natural interpretation of the scene is that the speaker is drawing the attention of the addressee to a perhaps dangerous insect on his or her own body.

Both conditions seem to be generally necessary, although if you are unconsciously fiddling with a pen, I could perhaps designate it by *ye*, as an exploitation of the conventions ('that pen that you should be aware of'). Generally it was felt that the most natural scenario for the use of *ye* was scene (16), where the speaker is distant and the addressee has the referent right in front of him.

Notice that *ye* does not necessarily pre-empt the speaker-based system – thus scene (18) can be *mu* (distant from S) or *ye* (close to A), with *mu* preferred because of the 'virtual distance' caused by visual occlusion, while *ye* would be the more informative choice if the addressee is actually grasping the referent.

4.3 Wu Marks Epistemic Uncertainty (Henderson's 'Invisibility')

From the point of view of spatial distance, *wu* is 'off-scale' (hence the relevant column is placed at the end of Tables 15.4 and 15.5), as it is clearly specialized to referents with uncertain epistemic conditions, regardless of distance. It seems to have two rather different and specific conditions of use, at least one of which must apply to the scenario of use. The first condition listed below is especially relevant for the opposition with *mu* 'that-distal' (as in scene 15), and the second for opposition to the proximal and neutral forms *ala* and *kí* (as with scene 11).

Wu: Scenarios for the use of *wu* must meet at least one (or both) of two conditions:

Condition 1. 'Indirectly ascertained referent':

- (a) Suppose we see a ship's lights far out to sea – the ship can be referred to as *mu* (distal); but if the lights now disappear (e.g. behind a mist bank or if they are switched off), the relevant demonstrative is *wu* (cf. scene 25). In contrast, for an off-shore islet invisible in the mist but whose location is well known, *mu* is

the relevant term, not *wu*, showing that invisibility is not the issue, but indirect inference is.

- (b) Suppose there is a noise outside: *Wu lukwe* ‘What’s that?’ is the natural query.
- (c) Suppose there is a book behind me, which I can indirectly infer from the feel of it in my back, *wu* would be possible in this version of scene 11, otherwise we would expect *ala* or *kí*.

Condition 2. ‘Referent not part of shared common ground’:

- (a) *If speaker knows the referent but the addressee doesn’t* (e.g. for scene 1 the following is a natural interchange):

A: I hurt this *ala* tooth

B: Which one?

A: This *wu* one (demonstrates **invisibility** not the criterion)

Similarly for scene (15), the speaker would refer to a distant book behind the 3rd person as *wu puku dmi* if the addressee cannot see it and does not know about it or its location

- (b) *If neither speaker nor addressee know for sure where the referent is* (e.g. in scene 21 if someone told us that the referent is out there somewhere beside a tree but we have no direct evidence for its location).

Henderson (1995) proposed (as noted in Table 15.3) that *kí* and *wu* are opposed as ‘visible’ versus ‘invisible’ respectively. We have now seen that *wu* may not be used for known but invisible locations (like the invisible but familiar offshore island mentioned in condition 1 as a variant of scene 25). Equally, it may be used for visible locations – like the tooth the speaker is pointing at in scene 1 – where there is some doubt about which referent is at issue. What about the other side of the opposition: is *kí* used only if the referent is visible? We have already seen that in scene 11 the speaker can refer to a book behind himself, for example, as *kí puku dmi*. Similarly, for someone who has just left, *kí n:uu* ‘That is who?’ is as good as *wu n:uu* ‘That-indirectly-ascertained is who?’. If an object is hidden under a cloth, *kí* or *ala* are just as good as *wu* (in fact, in the ‘Walnut Game’ – see Pederson and Wilkins (1996) – in which the referent was hidden under three pots, *kí/ala/mu* all occurred multiple times, and *wu* just once). On the other hand, in scenes 18 and 25 where a speaker points at a distant object hidden from view, *kí* seems not usable, perhaps because both indirect access and far distance are combined. In sum, as suggested already in the ‘cuboid’ model for the Rossel demonstratives (Figure 15.5), the data requires a broader gloss than visibility: *kí* marks relatively direct perceptual access (‘certainty’), and *wu* marks indirect or

inferential access to the referent, or difficulties of access for addressee or both speaker and addressee ('uncertainty'). Such an analysis, unlike the visibility analysis, is fully consistent with the meanings of these same morphemes in a pre-verbal position to be described below.³

4.4 Yi: Dedicated Anaphoric Determiner

The questionnaire is not an instrument for the investigation of anaphora. Nevertheless, since the scenarios called forth little dialogues, anaphoric usages occur. Henderson (1995: 46) notes (see Table 15.3 above) that all the demonstratives except *kî* can have anaphoric (or cataphoric) usages, but in the scenario-driven dialogues it is the determiner *yi* that appears, as illustrated:

Scene 14 (referent in midst of large space like a football field)

Speaker: *kî puku dmi njimi u puku dmi*
that-unmarked is Jimmy's book.

Addressee: *nyââ*
 yes

Speaker: *yi puku dmi u yi a nga ka kwo*
that-anaphoric book I want (lit. its desire is standing to me)

Yi is a determiner that can have **only** anaphoric (and not cataphoric) usage, and the possession of such a term probably has fundamental effects on the structure of any demonstrative system. For one thing it breaks the normal grammaticalization chain from demonstrative to complementizer via cataphora ('John said that: he will come' → 'John said that he would come'; see Heine et al., 1991: 180).

4.5 Gesture, Attention, Mutual Knowledge and Choice of Demonstrative

There are a number of further conditions on the use of the terms, some mentioned already, but best compared together. First, note the correlation with gesture in Table 15.6.

The obligatory gesture associated with *ala* and *ye* – the two proximal forms – is not necessarily or even prototypically a pointing gesture: the essential ingredient is that the referent is in some sense presented, either by picking it up, touching it or close pointing. Now, there are exceptions to these gestures, when, for example, *ala* is used 'symbolically' rather than 'gesturally' (as Fillmore, 1997 puts it), as in *ala dyâmê* 'this island, this world' said in the middle of Rossel Island, for example, or when it is used temporally, as in *ala ngwo* 'now,

³ It may be wondered whether, if *wu* is marked 'uncertain', *kî* is only in pragmatic or privative (unmarked) opposition. At least in the pre-verbal clitic position, it seems to do so, as discussed below.

Table 15.6 *Basic collocations with gesture*

+ Gesture	ala, ye
± Gesture	kí, mu, wu
– Gesture (unnecessary, redundant)	yi (anaphoric)

lit. this time'. But for reference to physical objects that can be visually individuated, a gesture or presentation is necessary. The gestural prescription for the proximal deictics is further grounds for considering these terms to be the semantically marked terms, with the most preconditions on their use. (For a study of Yélfí Dnye deictic reference in action, with details of gesture and gaze, see Levinson, 2007b.)

Pointing or presenting is a way of getting the addressee to focus his/her attention on the referent and thus serves to individuate it. For the speaker to refer entails that the speaker has the referent in his or her attention, but obviously there is no such entailment for the addressee – part of the job of a demonstrative is to achieve this mutual attention. Nevertheless, there seems to be a curious precondition on the use of the addressee-proximal *ye*, namely that the addressee must already be attending to the referent. Scene 4 was particularly revealing here: as noted above consultants said that the natural way to point out the presence of an insect on the addressee's shoulder is to say *kí* not *ye*:

A: *kí lukwe?* 'What's **that-neutral**?'

B: *oo!* 'Oh!'

A: *mg:ee!* '(It's a) centipede!'

Suppose B is a child or ignorant foreigner, who has noticed the insect and grabbed it so it is now in his/her hand, then A could have said the following:

A: *ye lukwe?* 'What's **that-near-you**?'

B: *oo!*

A: *ye mg:ee, kée ngi!* '**That-near-you** is a centipede, throw it away immediately!'

It is noteworthy that for every (so-called) addressee-based term for which we have careful records, special constraints arise concerning the addressee's attentional state. Thus in Turkish the term *şu* (which has been described as an addressee-proximal form) is in fact a term used to get the addressee to focus on the referent (so presupposing that the addressee's attention is elsewhere), and as soon as mutual attention is achieved the term is replaced with *bu* (speaker-proximal) or *o* (speaker-distal) (Küntay and Özyürek, 2002; 2006). This is of course the reverse of the Rossel pattern, where *ye* signals 'I'm talking about the one you are focused on', but in both cases it is the state of the addressee's

Table 15.7 *Conditions on the deictic center's attention with respect to referent*

Prior attention of Spkr and Addr :	<i>ye</i>
Prior attention of Spkr only :	<i>ala, kî, mu</i>
Prior attention of Spkr and Addr :	<i>yi</i>

Table 15.8 *Epistemic certainty*

+ Certainty	<i>ala, ye, kî, mu</i>
- Certainty	<i>wu</i> (indirectly ascertained)

attention that is wholly (Turkish) or partly (Yéli Dnye) at stake (see also Burenhult, this volume).

By assimilating the anaphoric *yi* into the demonstrative paradigm, as pre-supposing mutual prior attention in discourse, we can oppose the terms as in Table 15.7.

Notice that these attentional and gestural prerequisites do not align with the previously discussed epistemic conditions, here in table form for comparison (Table 15.8).

5 Some Further Facts about Yéli Dnye Deictics

There are a number of further points that should be mentioned. The Wilkins questionnaire concerns singular as opposed to contrastive uses of the demonstratives in which one referent is picked out and opposed to another (as in ‘This one, not that one’). English usage makes clear that under contrastive uses distance is effectively neutralized – the first-mentioned referent usually receives *this*, the second *that*. It is therefore worth recording that there is no neutralization of the Yéli Dnye terms in contrastive usage. The questionnaire was supplemented by a special contrastive usage task in which two diagrams, hidden on the reverse of paper squares, are aligned sagittally away from the speaker, and the speaker is asked ‘Which is the circle, and which is the square?’ or the like, and the speaker replies ‘I guess this is the circle, and that is the square’, as appropriate (Wilkins 1999).⁴ The order of mention with respect to distance can then be manipulated. The result for Yéli Dnye is that the order of mention makes no difference to usage, which follows the conditions already established for singular non-contrastive reference as described above.

⁴ See <http://fieldmanuals.mpi.nl/volumes/1999/eliciting-contrastive-demonstratives-personal-space/>

Table 15.9 *Adverbial (manner) uses of demonstratives*

Proximal to Spkr	<i>ala nté</i>	‘like this’
?Proximal to Addr	<i>ya nté</i>	‘like this’
Anaphoric	<i>yi nté</i>	‘like that-mentioned’
Uncertain	<i>wu nté</i>	‘like that-uncertain’

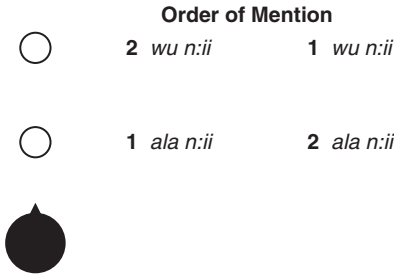


Figure 15.7 Contrastive use of demonstratives (numerals indicate order of mention)

Figure 15.7 illustrates the pattern under which order of mention makes no difference to the choice of demonstrative.

Note that because the diagrams were hidden under paper squares, we get the ‘indirectly ascertained’ form *wu* for the more distant referent, but *ala* (speaker-proximal) for the close referent. This shows once again the pre-emptive character of the proximal demonstrative, over-riding the marking of epistemic uncertainty. In fact, if the speaker touches the more distant referent, then *ala* can (indeed should) be used for that referent too. Other demonstratives would only become pertinent if the speaker was to step back and point from a metre or two distance: then *kî* could be employed for the closer referent, and *mu* for the more distant. Note here too that contrastive use to an already mentioned referent would invoke the dedicated anaphoric determiner *yi*.

Another general point is that in addition to the pronominal and adverbial series tabulated in Table 15.2, there is an additional adverbial series for demonstrations. This set of manner demonstratives is presented in Table 15.9.

The form *ya nté* is presumably based on the addressee-proximal *ye*, but its usage conditions need further examination and are not pursued here. The ‘uncertain’ form *wu nté* is used, for example, as follows:

- A: *ala nté* ‘(he did it) like that’
 B: *wu nté?* ‘How (I missed your demonstration)?’

There are other candidate demonstrative forms, for example *mwada*, which basically means ‘other’ but gets used as a distal demonstrative, as in *mwada pee* ‘the other/far side’, *mwada y:ii* ‘over there, lit. other mentioned-place’. As noted in [Table 15.3](#), Henderson (1995: 46) considers the form *mu* essentially an ‘other’ term. This may be diachronically correct, but synchronically *mu* acts now like a systematic distal. But this suggests a general way in which distal demonstratives may be recruited, through the use of an ‘other’ term where three contrasts have to be made in a two-term system, and then the ‘other’ term gets gradually included in the system.

The temporal uses of the system of deictic determiners would take us far afield (see Levinson and Majid, 2013), but the following facts are perhaps revealing about the spatial meanings. Future time reference uses *ala* or *kí*, as in *ala/kí Sunday ngê* ‘this coming Sunday’. For reference in the past, days are counted backwards (e.g. *m:ii tuwó* ‘day before yesterday’) or forward (e.g. *tómê* ‘nine days from now’) with dedicated forms that do not involve demonstratives.

However, if one wishes to refer to some specific day backwards but can’t specify precisely, one could say *mu Sunday* meaning ‘that Sunday’, ‘the other Sunday’ (as in English *the other day*), while *wu Sunday* would mean ‘that particular Sunday whenever it was (when we went fishing etc.)’. The uncertainty content of *wu* makes it appropriate for remote time, as in the frozen expression *wu-nê* ‘long ago’. Similarly, the proximal meaning of *ala* determines its use for the present, as in *ala ngwo* ‘right now’ (lit. ‘this time’).

A final and highly complex aspect to the deictic determiners is their role outside the NP in the pre-verbal clitic slot, which Henderson (1995) calls the Pre-verbal Nucleus. This pre-verbal slot is typically filled by a Tense-Aspect-Person- Mood (TAMP) marker, a portmanteau morpheme indicating 144 basic contrasts on these dimensions. However, the slot also absorbs other grammatical categories, e.g. negative, conditional, counterfactual and deictic categories, and in this case there may be either a monomorphemic portmanteau morph expressing these additional features along with one of the 144 TAMP distinctions, or in some cases recognizable, separable multi-morphemic instantiations of the distinctions. These separable multi-morphemic variants allow one to analyse this pre-verbal slot as in fact consisting of an ordered series of micro-slots, roughly as in [Table 15.10](#).

As the arrows make clear, the deictic determiners are distributed through the various slots in this series, flanking, for example, negation and the basic TAMP clitic (note all of these precede the verb). This partly reflects the special roles they acquire inside the verb complex (nicely described in Henderson, 1995: 48–55). Thus *kí* (unmarked, certain) and *wu* (uncertain) come to have evidential functions: they mark certainty of the event or state and uncertainty respectively. Thus if you ask ‘Where’s the bottle?’, and I’ve recently seen it, I can say

Table 15.10 *Ordered slots in the pre-verbal nucleus*

Epistemic	Addition 'also'	Distal Deictic	Repetition	Negation	Anaphoric, Cleft	Basic TAMP Proclitic	Motion	Proximal Deictic
<i>kî</i>	<i>mye</i>	<i>mu</i>	<i>mê</i>	<i>daa</i>	<i>yi</i>		<i>mî n:aa</i>	<i>a nê</i>
<i>wu</i>								

Deictics from demonstrative series

the following (where the *k-* morpheme is analysable as derived from the *kí* demonstrative):

- (2) *pód:a tapil mbêmê k-a* *kwo*
 bottle table on CERT-3sPresentContinuousIndicative stand
 ‘The bottle is on the table (I’m sure, I saw it).’

Henderson thus tries to maintain the ‘visible’ condition which he posited for *kí* in its noun-determiner uses, but as noted above, this is too specific a meaning. Similarly, *wu* carries evidential meaning in the pre-verbal slot. It occurs typically in future tenses and questions (Henderson, for reasons unclear to me, suggests that it carries ‘definiteness’ meaning, but uncertainty is the clearer gloss).

The deictics *mu* and *yi* retain their referential functions in the pre-verbal slot – *mu* refers to a distant place where the event occurs, and *yi* to the anaphoric subject of the clause. Henderson (1995: 54) mentions that *yi* may have cleft-like force, but I think this is in a special construction with *yiné*, a complex form also presumably derived from *yi*:

- (3) *yiné* *dê* *d:uu* *ngmê*
 Those-are-the-ones dual did PolyfocalSubject.3sObject.ProximatePast
 ‘Those two are the ones who did it (earlier today).’

Finally, the deictic *a* (from *ala* ‘proximal’) acts like a *hither*-particle. Yéli Dnye has no lexicalized ‘come’/‘go’ or ‘bring’/‘take’ oppositions, but marks the contrast with the *-a* morpheme at the end of the pre-verbal clitic. In this case there is no exact overt counterpart for ‘thither’: the unmarked form therefore *implicates* ‘motion away’ by pragmatic opposition to the marked form that has not been used. The implicature can be reinforced by use of the morpheme *mí/n:aa*, a form with many allomorphs including *d:uu*, which indicates associated motion (‘go and VERB’), and thus, in contrast to *-a*, implicates motion away. The following examples illustrate the interpretive oppositions that can be obtained just by varying these elements (the TAMP element is in second position, and in (c) we have a portmanteau morph covering TAMP and Motion):

- (4) a. *ngomo dê* *kee*
 house 3SubjectPunctual.ImmediatePast enter
 ‘He entered the house’ *implicates* ‘away from here.’
- b. *ngomo d-a* *kee*
 house 3SubjectPunctual.ImmediatePast-**Proximal** enter
 ‘He entered **hither** the house’ *entails* ‘towards here.’
- c. *ngomo d:uu* *kee*
 house 3SubjectPunctual.ImmediatePast+**Motion** enter
 ‘He **went and** entered the house’ *strongly implicates* ‘away from here.’

play such an important role in the neurocognition of space. This leaves only *kī* on the ‘spatial’ dimension, and we have already established that it does not actually encode any spatial discrimination – it is a spatially neutral term which, by picking up the residue between distal *mu* and the proximal term, tends to have medial functions by implicature. Perhaps its epistemic function (‘certainty’) is also only implicated by the fact that it contrasts with *wu* (‘indirectly ascertained’) by being directly referential: the referent must be an object in space which one can directly vouch for (hence the specialized interpretation ‘in sight, visible’ offered by Henderson, 1995).

Deictic determiners are proverbial for their Protean semantics, and the difficulty with which their meanings are pinned down. We now have a good idea of why this should be so: they are – in the Rossel case at least – multi-dimensional, and the pragmatic (and therefore defeasible) oppositions they make are at least as important as their coded content. In fact, it is the sheer emptiness or semantic generality of their content that gives them the wide functions they enjoy. Their core content is to suggest to the addressee that using whatever little semantic constraints they impose, and by monitoring the speaker’s gaze and gesture, the addressee will be able to find the intended referent. That generality allows for contextual enrichment of many different sorts. Even a system of just half a dozen demonstratives like the Rossel one does nothing to moderate this complex picture.

References

- Delfin, F., Myles, S., Choi, Y., Hughes, D., Illek, R., van Oven, M., Pakendorf, B., Kayser, M. & Stoneking, M. (2012). Bridging near and remote Oceania: MtDNA and NRY variation in the Solomon Islands. *Molecular Biology and Evolution*, **29** (2), 545–564. doi: 10.1093/molbev/msr186.
- Dunn, M., Terrill, A., Reesink, G., Foley, R. & Levinson, S. C. (2005). Structural phylogenetics and the reconstruction of ancient language history. *Science*, **309**, 2072–2075.
- Dunn, M., Foley, R., Levinson, S. C., Reesink, G. & Terrill, A. (2007). Statistical reasoning in the evaluation of typological diversity in Island Melanesia. *Oceanic Linguistics*, **46**(2), 388–403.
- Dunn, M., Levinson, S. C., Lindström, E., Reesink, G. & Terrill, A. (2008). Structural phylogeny in historical linguistics: Methodological explorations applied in Island Melanesia. *Language*, **84**(4), 710–759.
- Fillmore, C. A. (1997). *Lectures on Deixis*. Lecture Notes 65. Stanford, CA: CSLI Publications.
- Friedlaender, J., ed. (2007). *Genes, Language, and Culture History in the Southwest Pacific*. Oxford: Oxford University Press.
- Friedlaender, J., Schurr, T., Gentz, F., Koki, G., Friedlaender, F., Horvat, G. & Babb, P. (2005). Expanding Southwest Pacific mitochondrial haplogroups P and Q. *Molecular Biology and Evolution*, **22**(6), 1506–1517. doi: 10.1093/molbev/msi142.

- Grice, P. (1975). Logic and conversation. In P. Cole & J. Morgan, eds., *Syntax and Semantics*. Vol. III: *Speech acts*. New York: Academic Press, pp. 41–58.
- Halliday, M. A. K. & Hasan, R. (1976). *Cohesion in English*. London: Longman.
- Heine, B., Claudi, U. & Hünnemeyer, F. (1991). *Grammaticalization: A conceptual framework*. Chicago: University of Chicago Press.
- Henderson, J. (1995). *Phonology and the grammar of Yele, Papua New Guinea*. Pacific Linguistics, Series B–112. Canberra: Australian National University.
- Henderson, J. & Henderson, A. (1987) [revised 1999]. *Dictionaries of Papua New Guinea*. Vol. IX. Ukarumpa: Summer Institute of Linguistics.
- Hunley, K., Dunn, M., Lindström, E., Reesink, G., Terrill, A., Healy, M. E., Koki, G., Friedlaender, F. R. & Friedlaender, J. S. (2008). Genetic and linguistic coevolution in Northern Island Melanesia. *PLoS Genet.*, **4**(10), e1000239.
- Kemmerer, D. (1999). ‘Near’ and ‘far’ in language and perception. *Cognition*, **73**, 35–63.
- Küntay, A. C. & Özyürek, A. (2002). Joint attention and the development of the use of demonstrative pronouns in Turkish. In B. Skarabela, S. Fish & A. H. Do, eds., *Proceedings of the 26th annual Boston University Conference on Language Development*. Somerville, MA: Cascadilla Press, pp. 336–347.
- (2006). Learning to use demonstratives in conversation: What do language specific strategies in Turkish reveal? *Journal of Child Language*, **33**(2), 303–320. doi:10.1017/S0305000906007380.
- Levinson, S. C. (1995). Three levels of meaning. In F. Palmer, ed., *Grammar and meaning: Festschrift for John Lyons*. Cambridge: Cambridge University Press, pp. 90–115.
- (2000a). Yéli Dnye and the theory of basic color terms. *Journal of Linguistic Anthropology*, **10**(1), 3–55.
- (2000b). H. P. Grice on location on Rossel Island. In S. S. Chang, L. Liaw & J. Ruppenhofer, eds., *Proceedings of the 25th annual meeting of the Berkeley Linguistics Society*. Berkeley, CA: BLS, pp. 210–224.
- (2000c). *Presumptive meanings*. Cambridge, MA: MIT Press.
- (2004). Deixis. In L. Horn, ed., *The handbook of pragmatics*. Oxford: Blackwell, pp. 97–121.
- (2006a). Matrilineal clans and kin terms on Rossel island. *Anthropological Linguistics*, **48**(1), 1–43.
- (2006b). Parts of the body in Yéli Dnye, the Papuan language of Rossel Island. *Language Sciences* (special issue, ed. A. Majid, N. Enfield & M. van Staden), **28**, 221–240.
- (2006c). The language of space in Yéli Dnye. In S. C. Levinson & D. Wilkins, eds., *Grammars of space*. Cambridge: Cambridge University Press, pp. 157–204.
- (2006d). Introduction: The evolution of culture in a microcosm. In S. C. Levinson & P. Jaisson, eds., *Evolution and culture*. Cambridge, MA: MIT Press, pp. 1–41.
- (2007a). ‘Cut’ and ‘break’ verbs in Yéli Dnye, the Papuan language of Rossel Island. *Cognitive Linguistics* (special issue, ed. A. Majid & M. Bowerman), **18**(2), 207–217.
- (2007b). Optimizing person reference: Perspectives from usage on Rossel Island. In N. Enfield & T. Stivers, eds., *Person reference in interaction*. Cambridge: Cambridge University Press, pp. 29–72.

- (2008). Landscape, seascape and the ontology of places on Rossel Island, Papua New Guinea. *Language Sciences*, **30**(2/3), 256–290.
- (2011). Reciprocals in Yéli Dnye, the Papuan language of Rossel Island. In N. Evans, A. Gaby, S. C. Levinson & A. Majid, eds., *Reciprocals and semantic typology*. Amsterdam: John Benjamins, pp. 177–194.
- (in preparation). A Grammar of Yéli Dnye.
- Levinson, S. C. & Brown, P. (2012). Put and take in Yeli Dnye, the Papuan language of Rossel Island. In A. Kopecka & B. Narasimhan, eds., *Events of putting and taking*. Amsterdam: John Benjamins, pp. 273–296.
- Levinson, S. C. & Majid, A. (2013). The island of time: Yéli Dnye, the language of Rossel Island. *Frontiers in Psychology*, **4**, 61. doi:10.3389/fpsyg.2013.00061.
- Pederson, E. & Wilkins, D. P. (1996). A cross-linguistic questionnaire on ‘demonstratives’. In S. C. Levinson, ed., *Manual for the 1996 field season*. Nijmegen: Max Planck Institute for Psycholinguistics, pp. 1–14.
- Shaw, B. (2015). The archaeology of Rossel Island, Massim, Papua New Guinea: Towards a prehistory of the Louisiade Archipelago. Unpublished Doctoral thesis, Australian National University, Canberra.
- van Oven, M., Brauer, S., Choi, Y., Ensing, J. Schiefenhövel, W., Stoneking, M. and Kayser, M. (2014). Human genetics of the Kula Ring: Y-chromosome and mitochondrial DNA variation in the Massim of Papua New Guinea. *European Journal of Human Genetics*, **22**(12), 1393–1403.
- Wilkins, D. P. (1999; this volume). The 1999 demonstrative questionnaire: ‘This’ & ‘that’ in comparative perspective. In D. P. Wilkins, ed., *Manual for the 1999 field season*. Nijmegen: Max Planck Institute for Psycholinguistics, pp. 1–24.
- Wilkins, D. P. (1999). Eliciting contrastive use of demonstratives for objects within close personal space (all objects well within arm’s reach). In D. P. Wilkins, ed., *Manual for the 1999 field season*. Nijmegen: Max Planck Institute for Psycholinguistics, pp. 25–28. (Available online at <http://fieldmanuals.mpi.nl/volumes/1999/eliciting-contrastive-demonstratives-personal-space/>.)