

Position and Motion in Tzeltal Frog Stories¹

The Acquisition of Narrative Style

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1. INTRODUCTION

In Mercer Mayer's wordless picture-book *Frog, where are you?* (see Appendix I), the following story is portrayed: a boy has a dog and a pet frog; the frog escapes from its bottle and runs away; the boy and dog look for it across hill and dale, through woods, and over a cliff, till they find it, and return home with a baby frog child of the original pet frog. As a visual prompt for eliciting what is essentially a 'journey' story, the picture-book provides a rich resource for examining the temporal and spatial organization of events in narratives from different languages and cultures. It has therefore been the focus of an extensive cross-linguistic investigation into narrative style and its development in children (Berman & Slobin 1994; see also Slobin 1991, 1994; Özçalışkan & Slobin 1998; Özyürek & Özçalışkan 1998; Wilkins 1997).

Major points of the Berman and Slobin research include the following:

- i. There are clear differences between languages with respect to the event components that speakers encode, due to the 'channeling of attention' involved in thinking-for-speaking. In particular, the semantic typology of a language as 'verb-framed' or 'satellite-framed' (Talmy 1985) is reflected in the linguistic expression of locative trajectories. In verb-framed languages such as Spanish, the preferred locus for Path is in the verb; furthermore, these tend to be concise, bare verbs of motion, often without further locative specification (e.g., 'he ascended'). Satellite-framed languages such as English prefer to encode Path in a satellite (particles such as 'up', 'down', 'in', etc.), and complex trajectories are often encoded in one clause (e.g., 'he climbed up the rock to the tree branch'). Slobin (1996b) further argues that what is asserted versus

what is implied varies in accordance with this typology; for example, characteristically, English asserts trajectory and implies endstate, while Spanish asserts endstate and implies trajectory. This language-specific propensity for channeling attention ensures that the foreground and background are constructed by the narrator, not given by the pictures. Frog stories have a language-specific flavour or style.

- ii. Another important discovery in the Berman and Slobin research is that, in children's narrative development, there are language-specific interactions between narrative organization and linguistic expression. Narrative functions that are expressed by obligatory devices all appear early (by about age three), but even by age nine children have not fully acquired the narrative style of their language.
- iii. A final point, one particularly relevant to this chapter, is that linguistic devices do not have to be obligatory to influence narrative development: children can learn early linguistic forms that are late-learned by children learning other languages (e.g., relative clauses, passives) if they are either *a*) grammaticized, or *b*) 'accessible' (frequent, in contrast sets with other frequent items, prosodically emphasized), i.e., if they are easily expressed in the child's own language.

The present study of Tzeltal frog stories contributes to this large comparative project additional data with two new features. The first is that the data come from a predominantly non-literate, monolingual peasant community. The language of this study is Tzeltal (Mayan), as spoken in the remote rural community of Tenejapa, Chiapas, Mexico; the cultural differences from Western societies, and especially the absence of books, makes for a quite different interpretation of the events portrayed in the story, although it is still treated as a journey story. Secondly, this study focuses on the integration of position (stasis) and motion in event descriptions. It is argued that specification of position as well as motion in journey descriptions is just such an 'accessible' characteristic of the language and influences Tzeltal children's narrative style from age three.

In frog-story research to date, a great deal of attention has been devoted to linguistic and cultural differences in the packaging of event descriptions and the deployment of spatial language (locative trajectories, the lexicalization of Manner and Path, etc.) (Berman & Slobin 1994; Wilkins 1997). No attention has been paid to Position (as location, as the end result of motion, or position-while-moving), which from an Indo-European perspective seems irrelevant to locative description.² But Tzeltal elaborates position as an important element in descriptions of location (Brown 1994). Here I'll argue that it can also be important in descriptions of motion, and, more specifically, that these positionals

can bring Manner (e.g., how the Figure is positioned while moving) into the clause.

2. TZELTAL LINGUISTIC RESOURCES

There are four relevant Tzeltal resources used in journey descriptions; none of these is grammatically obligatory.³ The first three encode Path; the fourth, Position.

- i. A core set of *motion verbs* encoding Motion + Path (e.g., ‘go’/‘come’, ‘enter’/‘exit’, ‘ascend’/‘descend’, ‘pass by’, ‘return’. (‘Fall’ also encodes Motion + Path, though it is not a member of this core Tzeltal set.) In this respect, Tzeltal is a verb-framed language.
- ii. A set of *directionals*, adverbials that directly follow the verb and are grammaticized from the core motion verbs. In this respect, Tzeltal is satellite-framed (or outside of Talmy’s typology). Directionals convey Path (Direction of motion or Orientation of a path or of a static array – for example, ‘he exited coming’ or ‘he is falling coming downwards’).
- iii. A set of *auxiliaries*, grammaticized from the same core set of Path-encoding motion verbs, which precede the verb and convey a ‘motion-cum-purpose’ meaning (for example, ‘he ascends in order to view the countryside’).
- iv. Several hundred *positionals*, a class of verbal roots which convey Position of animate or inanimate things (in stasis, or concurrent-with, or as-a-result-of motion). In a clause, these roots can take any one of three predicative forms. With a -V₁ suffix⁴ they become a stative predicate (‘be-in-position’), which is by far the predominant form they take in the frog stories. But they may also be derivationally causativized (to indicate transitive ‘put-into-position’), as in ‘he [the dog] stood himself up on his hind legs’. And they may be intransitivized (conveying ‘come-to-be-in-position’ or ‘be-normally-in-position’)⁵. The ‘positionals’ I count in these analyses are mostly in the -V₁ predicate form (including body-position words such as ‘sitting’, ‘standing’, ‘kneeling’, ‘lying face-up’, ‘perched’, but also words for positions or configurations of inanimate objects, e.g., ‘tightly-inserted’, ‘bowl-shaped inverted’, ‘hanging’).

Tzeltal is in part a verb-framed language with a core set of Path-encoding motion verbs, so that the bare bones of the frog story can consist of verbs translating as

‘go’, ‘come’, ‘pass by’, ‘ascend’, ‘descend’, ‘enter’, ‘exit’, ‘arrive’, ‘return’, etc. But Tzeltal narrators also make heavy use of the Path-encoding adverbials which provide the direction of motion or the orientation of static arrays. Furthermore, motion is not only encoded barebones, but vivid detail may be provided by positional verbs which can describe the position of the Figure as an outcome of a motion event; motion and stasis are thereby combined in a single event description, packed into one clause.⁶ For example (throughout the chapter, positionals and their glosses are given in italics, while motion/path expressions and their glosses are underlined):

- [1] *xojol moel sjol ta ala plastiko.*
 ‘His head [the dog’s] is *inserted-tightly upwards* into the little plastic thing.’
- [2] *chawal ya x’anix te kereme.*
 ‘*Lying face-up* the boy *has fled* [from the bird].’
- [3] *jipot jawal ta lum.*
 ‘He [the boy] has been thrown *lying-face-upwards-spread-eagled* to the ground.’
- [4] *pakal jilel tz’i’ ta yanil ton.*
 ‘The dog is *lying-belly-down remaining-behind* at the bottom of the stone.’

Why should Tzeltal-speakers be inclined to combine Position and Motion/Path in the same clause? One reason is that positionals can bring manner-like information into the verbal clause, although this is not manner-of-motion but ‘manner’ of the state of affairs described by the whole clause, picking out the Figure. As we shall see, Tzeltal resources for expressing manner of motion are much less elaborated; there are a few Motion + Manner verbs (e.g., ‘swim’, ‘flee’, ‘chase’, ‘walk’, ‘run’, ‘jump/fly’), and some specialized devices (e.g., reduplication, affect verb affixes). Positionals fill the gap.

3. COLLECTING TZELTAL FROG STORIES

3.1 Hypotheses

Given the importance of positionals as an integral (though non-obligatory) part of locative and motion descriptions, Tzeltal-speakers might be more prone to attend to details of positions when describing a motion journey than speakers of other languages. Two possibilities are compatible with what is already known about Tzeltal: Positionals might be used for backgrounded events and picture-description (e.g., ‘shoes standing at the foot of the bed’), with motion verbs used

for foregrounded events that carry the journey story forward (e.g., ‘he fled from the bees’). Alternatively, positionals might be integrated with motion in the same clause; in this case both would be foregrounded (e.g., ‘he fell down lying-face-upwards’). I hypothesized that:

- i. A relatively large proportion of Tzeltal frog-story narrative clauses will specify the position of the Figure.
- ii. Tzeltal children will attend to position (their attention will be channeled to it) by age three.
- iii. Rather than simply alternating background/scene-setting position-descriptions with descriptions of pure motion that move the story along through time, speakers will express position *in the same clause* as motion, to convey not just pure motion but a kind of ‘manner’ associated with the scene. Position and motion will *both* be foregrounded in such clauses.
- iv. Although cross-linguistically it appears that children even by age nine have not fully mastered adult narrative style (Berman and Slobin 1994), relatively early Tzeltal children will show this pattern of motion-event-plus-position description in the same clause.

3.2 Data

For the largely non-literate population of Tenejapa, books are not culturally salient items, nor are they a part of Tzeltal children’s lives until they go to school. In addition, the traditional narratives which used to be an important part of socialization practice are nowadays very much in decline. However, storytelling in the form of gossip and everyday narratives (what happened today) is a well-developed conversational genre, and visual representations in the form of photographs have been part of the culture for over twenty years.

The story as portrayed in the pictures has several cultural oddities from a Tzeltal point of view. Chief among these is the fact that frogs would never be considered pets, and therefore none of my frog-story tellers took the main focus of the journey to be a search for a lost pet frog; nor do they usually identify the frogs at the end with the frog at the beginning. Nonetheless, for all the adults and many of the children it was clear that a journey was at issue (perhaps going out for a walk, or hunting), motivating the narrative style appropriate for journey stories, although in many cases this was taken to be a relatively goalless journey.

Table 1.
Tzeltal frog-story texts

Age group	Number of texts	Number of tellers	Total number of clauses
3–5	11	8	800
6–7	13	10	784
8–13	8	7	658
Adults	10	10	1699

3.3 Method

Frog stories were collected from ten adults and nineteen children, in videotaped sessions mostly in the subjects' homes. A pure frog-story approach (Berman & Slobin 1994:22–25) was unworkable in this community, since even some adults tended to construe the task as a picture-labelling exercise. Therefore I or another caregiver first went through the storybook with the subject, identifying the protagonists and the objects portrayed. Then the narration event was conducted in a culturally natural interactive way, with other interlocutors (siblings, caregivers, the investigator) interjecting conversational responses and prompting questions. Several of the children provided multiple retellings on different occasions; all of their stories are included in the analyses. For this analysis I have edited out irrelevant picture-descriptive detail (about lamps, shoes, moon, etc.), looking only at event descriptions which move the narrative forward through time and focusing on those expressing motion and/or position. The children are grouped into three age groups: 3–5 (prior to schooling), 6–7 (the beginning years for schooling), and 8–12 (school children). Table 1 gives the details for each group.

4. ADULT TZELTAL FROG STORIES

The narrative style of adult storytellers in this task involves introducing protagonists and scene-setting elements with the predicate *ay* 'exist', often specifying their position as well as existence, using positionals for static setting description, and using motion or action verbs along with directionals and positionals to move events and actions through time.

Here is a relatively literal translation of one adult frog story, with irrelevant detail edited out, to give the narrative flavor:

There's one little boy, with his little dog. But there's a frog there. The little dog wants to get it coming out. He sees that it will come out if he grabs it. There's a little girl. She's asleep on her bed with her dog. ... Two little shoes and a tortilla-making table, and a bottle. But the frog is jumping coming outwards. On the ground there's a piece of cloth dumped-in-a-heap. Maybe it's the sleeping girl's shirt. It's nighttime. ... There, lying-face-down on the bed is the little boy. There's something he's looking down at. Maybe he's looking down at the little shoes standing there. And the little shirt, it's still spread out there on the floor. But the little frog isn't there. It's gone. I don't know where it went. There's a little boy again, he's playing with his shoe. There's something he's dumping coming out of it. And the little dog, it looks like there's something he's trying to get, but the little dog doesn't catch anything. There's nothing visible there. ... And the little tortilla-making table, the dog tipped it over. And here the little shirt is hung up, with the little boy's pants. Here, there's the boy again standing at the window, with the dog, who looks like he wants to catch something. But he didn't get anything from inside the little bottle. For no reason is his nose entered in there. Here again, the boy is looking out of the window. But there's the little dog again there, he thinks that the little frog is there, he inserted his head in there again. But he threw himself coming down, the little dog fell coming down. He arrives at the ground. The little boy has 'lost his soul' (been scared). He raised up his eyes because of it. He's afraid his dog will die. But now he descended coming from his window, he came and picked up his little dog. He's sad. He gets licked, he gets kissed, he gets loved (by the dog), because he got looked for by his master. Now here where there's a big tree, there the little boy is standing, with his little dog. Maybe he wants to grab the little birds, lots of them are flying around. But he doesn't catch any; dogs cannot fly. The boy is sad because he wanted to catch the birds. "Why don't I catch any?" maybe he asks himself. But the dog doesn't catch any, because they've flown.... Here's his little house, and they've come to the woods, there are bees there. And a hollowed-place in the tree. There's nothing there, it's just where water puddles. The boy and dog aren't there. Now here again is the little boy under the tree. They arrived coming out there where the big tree is standing; there's the little dog. They arrived to see where a bee's nest is hanging. The dog wants to get it, but the bees came out. There they are flying you see. The little dog wants to get them down, but he can't reach them, they are hung up. The little boy is kneeling on the ground, he's waiting for the honey to fall coming down. But the boy sees there's a hole in the ground, he looks. But a 'groundhog' came out there. But the little dog, he wants to get coming down the bees, he doesn't see his master nearly got bitten by the 'groundhog'. But the little boy was really scared, so his soul went. The dog scratches on the tree, the bees fell coming down because of it. The bees came out (of the nest). Lots came out, lots of bees came out. He's scratching it coming down toward himself. But the little dog doesn't get bitten; he doesn't get bitten. And his master has fled, he ascended the tree. He's afraid he'll be bitten by the bees. And he's afraid of the 'groundhog'. That's why he climbed the tree. Because he won't be caught up there. He looks into the hole in the tree, I don't know what he'll find there now. Then he saw one bird come out there, where the belly of the tree has a hole in it. It's maybe what

we call an ‘owl’. The boy was really scared, he fell coming down *face-up* to the ground. The little dog was chased coming by the bees. There he is running away. He’s scared away. I don’t know where he ran away to, to his land perhaps. And his master, he has fallen coming down. The little bird flew away, the owl we call it. Then the boy feels better. “It’s gone” he says. “They’ve all gone, nothing got me” he says. “But I’ve lost my little dog, I guess” he says. The dog is nowhere to be seen. He goes to yell to the top of a stone. He calls the dog. But he (dog) has hidden himself beneath the stone. Look where the bird that they are afraid of is looking towards them. I don’t know what this is, it looks like a deer. He didn’t see it come, he got perched onto the deer. He’s mounted on its head. The little dog looks for his master, he smells to find where his master went. He’s been perched on the deer; the deer has run away. There the little boy is mounted awaywards. “Ijj, my master has gone!” says the little dog attached there awaywards. Let’s see where they go now. He’s been thrown by the little deer. The little boy has fallen down. The little dog arrives and makes a bed of his master. Upside-down face-upwards to the ground, the little dog. He fell down from high up. He arrived at a lake. This is the lake, and woods, where they are playing. The boy and the dog are immersed in the lake. Sitting they are sad. “We nearly died” they are thinking. The water is low-down (shallow), you can see the boy is sitting. “Here’s there’s a big tree stump,” says the little boy. He went and grabbed it, there he got out. But the stump has a hole in its belly again. I don’t know what he’ll be scared by next. He’s just getting scared. So the little boy puts himself tummy-down there, he comes out. And the little dog, he comes out. The little dog says, “There’s something here!” The little dog saw it first. “There’s something here. There’s something squatting here” he says. “Oh”. It’s the little frogs again. The little boy was really scared again. The whites of his eyes raised up, he was really scared. He was sad, with the little dog too. “Shall we grab them, or not?” “Maybe, there are only two”, he says. But only then does he see that there are lots. Maybe this holey place is their house here. So they are scared. “Maybe they won’t bite,” he says. The little boy looks like he’s going to laugh. So the little boy grabbed one. He grasps it in his hand. The lake is shallow where they are. It’s shallow, the little dog is going across the middle of the lake. But look where other frogs are squatting on top of the log. But there’s one who wants to ascend too, because he’s only a little one, he can’t get up. But his companions have gone up. But it’s high up where they are. There it finishes.”

This story illustrates the uses of positionals and motion/path descriptors for the journey as construed by this teller. Clearly, many clauses construe events in terms of motion alone, and many others encode position of protagonists or aspects of the setting alone in a clause. But sometimes motion and position occur together in one event construal, as when the little boy is described as being ‘mounted awaywards’ – i.e., mounted on the deer while the deer moves awaywards – and when ‘he fell down face-up to the ground’ – i.e., while he fell he was face upwards.

Looking, across all the adult stories, only at clauses which describe the activities/positions of the protagonists (boy, dog, frogs, bees, bird, and deer),

and ignoring for current purposes clauses describing just the setting (fallen-down logs, tipped-over tables, etc.), we find many clauses that combine stasis (adjectival position) with motion. Some examples of the different possibilities follow:

i. Scene-setting descriptions (*ay* ‘exist’ + positionals):

[5] *ay ala kerem, nakal, sok jkojt ala tz’i’.*
‘There’s a little boy, he’s *sitting*, with one little dog.’

[6] *ay ala kerem, pakal ta swaeb.*
‘There’s a little boy *lying-face-down* on his bed.’

ii. Event-motion descriptions (single action or motion verbs, or motion + directional):

[7] *sok ayix pokok ochem koel ch’ix yakan ta ala plastiko*
‘And there’s now a frog whose one leg has entered downwards in the little plastic thing.’

[8] *pero ya xwil tal lok’el ala xpokok tey a.*
‘But the little frog there jumps out towards us.’

[9] *ya xben, spisil ya xbenik ta te’tikil.*
‘He’s walking, both of them are walking in the woods.’

[10] *ch’ay tal koel i kerem i.*
‘The boy fell coming downwards.’

iii. Static scene descriptions (position only, position and direction, or verb-into-position):

[11] *tik’il pokok tey a.*
‘A frog is *inserted-in* there.’

[12] *in te tz’i’e, ay bi jipil ta te’, ya syaan tal ya stej k’an sba yu’un.*
‘As for the dog, there’s something *hung* in the tree, he’s stretching towards it, he *stands-himself-on-hind-legs* because of it.’

[13] *koel tz’imil sni’ me ye tz’i stz’i’ i.*
‘His dog’s nose is *hanging-extended* downwards’

- [14] te xpokoke *jukul* ya xk'abuot.
'The frog [= groundhog] is being looked at *squatting*.'
- [15] ay *jukul jilel* jkojt.
'There's one (frog) *squatting left behind*.'
- [16] ay *jipil tal koel* xux.
'There are bees *hung coming downwards*.'

iv. Non-motion and direction mixed:

- [17] ya sk'abu *ochel*.
'He looks *into* it (bottle).' [lit.: 'looks entering']
- [18] ya sjutz'ita *ochel* xpokok ta yutil ala limete.
'He smells *inwards* to the frog at the inside of the little bottle.'
- [19] la sk'ok *tal koel* xux tz'i' i.
'The dog broke off the bees *down towards him*.'
- [20] li' to k'alal ta meru ya' *moelix* te step.
'All the way *upwards* to his thigh are the shoes.'

v. Position and motion/direction mixed (see also Examples [1–4]):

- [21] te ala tz'i'e *kotol ochem* sjol ta banti ala xalu.
'The little dog, *standing* his head *has entered* the little bottle.'
- [22] *ch'ay koel jawal* niwan ek.
'He *fell downwards face-up* perhaps too.'
- [23] *xpejkunaj xben* yilel.
'He [dog] looks like he's *low-crouching walking* [= he's limping].'
- [24] *kejel* ya xch'oj *bel*.
'*Kneeling* he throws it (frog) *awaywards*.'
- [25] *kojkoltza' ochem*.
'*Upside-down entered in* [dog's head, into bottle].'

vi. Position and non-motion verb mixed:

- [26] kerem, *tek'el* spetoj stz'i'i.
'The boy, *standing* he has picked up his dog.'
- [27] kerem *tek'el* ya stik xchoj banti lekbe te tz'i'.
'Boy *standing* he's feeling his cheek where the dog licked him.'
- [28] tz'i', *tek'el* ya sk'abu moel xux.
'Dog, *standing* he's looking up at the bees.'

The interpretation of such combinations depends of course on the component semantics. With a non-motion action verb and a directional, what is specified is the direction or orientation of the action (as in Examples [17–19]). With an existence verb or no verb, you simply get direction of a static array, as in 'upwards to his thigh' in Example [20]. With motion and direction it may be the same path reiterated in both motion verb and directional (as in Example [10], 'he fell coming downwards'), or it may be Motion + Path with the directional supplying the direction away from Source or towards Goal, as in Examples [7–8]. With a positional, what is conveyed is the Figure's position during or as a result of the action. And with Position + Path, the position of the Figure combines with direction of motion, as in *luchul bel* 'mounted awaywards', i.e., he was mounted on the deer and moving awaywards.

5. ADULT AND CHILD NARRATIVES COMPARED

Tzeltal adults mix Position with Motion; both are important aspects of the frog story for them. But do children? And at what age? I took a central sequence where an elaborate trajectory is portrayed (the 'cliff scene'; see Pictures 14–19 in Appendix I): the scenes illustrated show the boy climbing onto a rock, being carried off by a deer, thrown over a cliff into the water below, and sitting up with the dog on his head. In descriptions of this cliff scene, all clauses which express motion or path or position, or some combination of these, were analyzed to see what proportions are used of different semantic elements in different forms. The proportion of such clauses which express Position alone (with positionals), Motion/Path alone (with motion verbs or directionals), or Position + Motion/Path, are given in Table 2, for adults and for the three groups of children.

As Table 2 shows, Position alone or Motion/Path alone are preferred by the youngest children aged 3–5; for example (Position alone in [29–30], Motion/Path alone in [31]):

Table 2.

Cliff scene – position and motion/path expressed in clause

Age group	Position alone	Motion/Path alone	Position and Motion/Path	Total clauses Motion and/or Position
3–5	24 (52%)	21 (46%)	1 (2%)	46
6–7	20 (23%)	62 (71%)	5 (6%)	87
8–13	20 (25%)	41 (52%)	18 (23%)	79
Adults	74 (39%)	99 (52%)	17 (9%)	190

[29] *t'umul sok yala tz'i'*.
'He [boy] is *immersed-in-water* with his little dog.' (Pet, 3;5)

[30] *chawal ch'in kerem*.
'The little boy is *lying-face-upwards*.' (Sil, 5;0)

[31] *moem ta te'*.
'He [boy] has ascended (into a) tree.' (Mal, 3;0)

There is one example of Path combined with Position in the three- to five-year-old children's stories:

[32] *jok 'ol tal koel yakanik*.
'His feet are *hanging coming downwards*.' (Lus, 4;6)

But the very high proportion of clauses encoding Position alone (52%) reflects the fact that at this age, the task was to a high degree treated as a picture-description task, not a narration.

By age 6–7 there is a big increase in Motion/Path descriptions with a motion verb or a directional, or both; e.g.:

[33] *ch'ayix tal koel i ala kerem i*.
'The little boy has fallen coming downwards.' (X'an, 6;1)

Clearly, by age 6–7 the children display considerable narrative attention to Motion/Path, more in fact than do the older groups, suggesting the possibility of a U-shaped developmental curve reflecting their emphasis on Motion and Path, although at this age they still are not using much Motion/Path + Position combined. By this age they have the adult-like pattern of combining motion verbs with directionals routinely to specify the direction of motion. This is virtually obligatory (stylistically but not grammatically) with verbs of falling, even though

semantically the directional is redundant with the verb. But the children of this age group also use directionals with many other verbs – both motion and non-motion verbs ([34–38] from Mat (6;0); [39–42] from X'anton (6;1)):

- [34] *ya xlok' tal.*
'It [the frog] comes out towards (us).'
- [35] *lok'em bel.*
'It [the frog] has exited awaywards.'
- [36] *och tal te limete ta sjol tz'i' i.*
'The bottle entered onto [lit: 'entered coming'] the head of the dog.'
- [37] *xux i ya sti' moel te tz'i'.*
'The dog barks up at the bees.'
- [38] *li' ay tal koel tz'i'.*
'Here's the dog towards (us) downwards'.
- [39] *ya yil koel ala xpokok i tz'i' i.*
'The little dog sees downwards the little frog.'
- [40] *ya x'ochix bel ta yan ton i yala tz'i' i.*
'His little dog enters awaywards at the bottom of the stone.'
- [41] *xk'echlayej julel yakan.*
'He [the boy] has carried high arriving his legs.'
- [42] *ya k'an mook bel sk'ok tal i ala tz'i' i.*
'The little dog wants to go up awaywards to pick it [beehive] towards him.'
- [43] *ay bi xi' tal koel.*
'There's something he [the boy] has been scared coming down by.'

This attention to directional meaning that adds to, rather than is redundant with, the verb's meaning contrasts with the finding of a similar U-shaped curve for Spanish by Sebastián and Slobin (reported in Berman & Slobin 1994:263–4). They found, in the younger group of age 4–5, a heightened use of directional adverbs (when compared with older groups) that were generally redundant with the verb's meaning, suggesting that “these children feel a need to ‘reinforce’ the directional meaning inherent in the verb of motion” (Berman & Slobin 1994:264). This cannot be the explanation for the heightened use of Motion/Path expressions with many different verbs by the Tzeltal six/seven-year-olds.

The expression of Position + Path in a single clause increases with age, for the three groups of children. For example:

[44] *kajal moel* ta sjol te'tikil chij.

'He [boy] is *mounted-on upwards* the head of the deer.' (Pon, 6;3)

[45] *xjawawet tal* koel

'He [boy] is *face-up-mouth-open coming descending*.' (Alu, 6;5)

[46] *chawalik k'oel*.

'They [boy and dog] are *lying-face-up-arms-outstretched arriving-there*.' (Sil, 6;1)

[47] *pakal k'oel* i ala tz'i' i.

'The little dog is *lying-face-down arriving-there*.' (X'anton, 6;1)

The relative scarcity of these clauses at age 6–7 (6% in the cliff scene) suggests that the children do not yet fully have the ability (or the stylistic inclination) to combine Motion and Position in one clause.

In the group aged 8–13 we find a very large spurt in the expression of Position + Motion/Path. These are expressed concurrently in 23% of the cliff-scene motion and/or position-encoding clauses, a notably higher proportion than that for the adults (9%). Adults of course told much longer and more elaborate stories than the children, more than twice as long on average, resulting in many more motion and/or position clauses than among the children. (See Table 2.)

This contrast between the behavior of the group aged 8–13 and the adults warrants another analysis, eliminating the clauses that have only position or only manner-of-motion verbs, and comparing just those clauses that encode Path with those that encode Motion + Path (columns 2 and 3 of Table 2). This is presented in Table 3.

On the face of it, this pattern by the 8–13 group also reflects a U-shaped curve, possibly attributable to a heightened sensitivity to the language-specific pattern which adults manifest to a lesser degree. Another possibility is that these children are using positionals much more for irrelevant picture-description detail than the adults, who are using them for narrative coherence. However, a scan of their stories compared with those of the adults suggests that this is not the whole explanation for the differences; both adults and children mention many picture-describing details that are not plot-advancing, and many stories lack a clear-cut plot. Finally, it must be noted that this 8–13-year-old group of children has more schooling and consequently more exposure to Spanish than most of the adults; a potential link with Spanish narrative style is worth exploring.⁷

We turn now to consider what semantic elements can be combined in one clause in Tzeltal, and how these are manifested in the frog stories as a whole,

Table 3.

Cliff scene – motion/path alone and combined position + motion/path as a proportion of path-encoding clauses

Age group	Motion/Path alone	Position and Motion/ Path	Total Path clauses
3–5	17 (94%)	1 (6%)	18
6–7	45 (90%)	5 (10%)	50
8–13	34 (65%)	18 (35%)	52
Adults	67 (80%)	17 (20%)	84

across different ages. Motion descriptions in Tzeltal can only specify Source or Goal in one clause, but not both. There is only one general-purpose preposition in the language, which can be glossed as ‘at’, ‘to’, ‘from’, ‘in’, ‘on’, etc., depending on the verb. Tzeltal cannot encode complex paths in one clause in the way that English allows: you cannot say the equivalent of ‘He went from A to B via C’, but only something like ‘He left A, he went to B, he passed by C, he arrived there at B.’⁸ So in Tzeltal we find trajectories from a Source, or towards a Goal, but not both in the same clause; they are not coded as the same event (taking the clause as representing an event). For example (from Source in [48–50], towards Goal in [51–53]):

- [48] ay xpokok, ya xwil tal lok’el ta ti’ limete.”
‘There’s a frog, he’s jumping coming out of the edge of the bottle.’
- [49] ch’ay tal koel ta sjol men chije.
‘He fell down from the head of the deer.’
- [50] jipot koel ta witz
‘He was thrown down from the mountain.’
- [51] echajikix k’oel ta ja’ a.
‘They are spread-eagled arriving-there at the water.’
[spread-eagled upon arrival]
- [52] smeyoj wan k’oel ta sjol ek i tz’i’.
‘He hugged arriving on his head the dog.’ [hugged as he arrived]
- [53] spetoj koel ta lum.
‘He carried it [dog] downwards to the ground.’ [carried it while descending]

Table 4.
Proportion of clauses with complex predicates

Age group	Motion + Path	Other verb + Path	Motion/ Path + Position	Other verb + Position	Total complex predicates	Total clauses Mot./Path/ Position
3–5	40 (20%)	30 (15%)	6 (3%)	2 (1%)	78 (38%)	204
6–7	73 (19%)	112 (29%)	19 (5%)	3 (1%)	207 (54%)	381
8–13	76 (22%)	95 (27%)	25 (7%)	3 (1%)	199 (58%)	346
Adults	129 (16%)	139 (17%)	37 (5%)	15 (2%)	320 (40%)	796

Nonetheless, even though complex trajectories cannot be conveyed with multiple prepositional phrases in one clause, other complex semantic packages can be expressed by a combination of motion verb plus directional or positional, as we have seen in the examples above. A crude index of how frequent such a strategy may be in Tzeltal narratives can be obtained by looking at all the complex clauses – with a verb plus a directional, or a verb plus a positional, or a positional plus a directional – in the frog stories. For this analysis, the complete frog story was used; the analysis summarized in Table 4 shows, for the adults and children, the percentage of complex predicates with different semantic elements encoded in one clause as a proportion of all Motion and/or Position-encoding clauses:

- i.* Motion + Path (with a motion verb and directional; e.g., ‘he is walking awaywards’);
- ii.* other verb + Path (a non-motion, non-positional verb plus directional; e.g., ‘it [dog] is looking upwards at him’);
- iii.* Motion/Path + Position (with a motion verb or directional and a positional; e.g., ‘he is falling down face-up’);
- iv.* other verb + Position (a non-motion verb and positional, e.g., ‘he was thrown face-up spread-eagled’).

As we can see in Table 4, the practice of combining these semantic elements in one clause is frequent indeed – of the total clauses conveying either motion or Position or some combination of these, from 38% for the 3–5-year-olds to 58% for the 8–13-year-olds have a combination. For all the age groups, verb + Path (a verb plus a directional) is the favorite combination, but all age groups, even the youngest, have some positional + motion verb or directional combinations, and

Table 5.

Percentage of simple versus complex Motion/Path/Position in position/motion/path clauses

Age group	non-complex		complex path		complex position	
	Motion only	Position only	Motion + Path	other verb + Path	Position + Path	Position + other verb
3–5	31%	30%	20%	15%	3%	1%
6–7	26%	19%	19%	29%	5%	1%
8–13	18%	25%	22%	27%	7%	1%
Adults	23%	37%	16%	17%	5%	2%

Table 6.

Percentages of Position versus Motion/Path in position/motion/path clauses

Age group	Motion/Path (columns 1, 3, 4, 5)	Position (columns 2, 5, 6)	Total clauses Motion/ Path/Position
3–5	69%	34%	204
6–7	79%	25%	381
8–13	74%	33%	346
Adults	61%	44%	796

again, the 8–13-year-olds outstrip the adults in the percentage of clauses with both Position + Path encoded.

Still, clearly Motion/Path is more crucial to the frog-journey texts than is Position, as measured by proportion of clauses encoding these semantic elements. For all age groups, the percentage of clauses expressing Motion/Path outstrips that expressing Position.

Looking at the same data in a different way, Table 5 compares these same semantic notions when expressed alone in a clause with those occurring in combinations. Comparing expression of Motion/Path versus expression of Position – regardless of whether or not they occur in combinations – it is clear again that Motion/Path is more central than Position in these stories, at all ages. Table 6 extracts the percentages from Table 5 for Motion (columns 1, 3, 4, and 5) versus Position (columns 2, 5, and 6).

6. POSITION AND MANNER IN TZELTAL FROG STORIES

How can we explain the heavy use of positionals in Tzeltal frog stories? Are they predominantly stereotypical combinations? On the whole, they are not; although this is indeed the case for some motion verb + directional combinations

(especially with verbs of falling), it is not the case for positionals which very freely combine with many different verbs and directionals.

Can we then account for them by suggesting that Tzeltal tellers are treating this task not primarily as a narration, but as a picture-describing device, and hence there is heavy use of positionals to describe static scenes? Although this may be part of the reason, especially for the younger narrators, it cannot explain the frequent use of positionals in combination with motion verbs in descriptions of scenes which move the narration forward. Except in the 3–5-year-old group, positionals are not being used just for scene-setting background details.

Could positionals contribute in some way to narrative coherence? This is difficult for a non-native speaker to assess. For the most part, positionals as used here do not seem to be essential for discourse needs, for the addressee's understanding of the narrative, or for the temporal/spatial organization of the story. They are not on the whole being used to portray aspects of the story which, for these storytellers, are essential to the plot. Rather, I suggest, they provide color and interest to what appears to be (for many tellers) a relatively motiveless journey.

What really seems to motivate the use of positionals is a language- and culture-specific property: speakers of Tzeltal tend to display a special interest in the configurational details of Figure and Ground in locative and motion scenes, and the language provides rich resources for this, allowing speakers to compress properties of the Figure (such as how it is positioned) with those of motion so that they are equally foregrounded in the clause. Sometimes this combination can express manner (“he fell lying-face-up”) or resultant state (“he arrived sitting”). This suggests that we might gain some insight into the role of positionals by taking a look at how Manner is expressed in these stories.

Tzeltal, as a verb-framed language, would be expected not to have an elaborate repertoire of manner-of-motion verbs, and even to express Manner only when this is foregrounded in the narrative (Özçalışkan & Slobin, in press-a). It is indeed the case that manner verbs are very few in these stories. There are only a handful of types of manner-of-motion verbs (‘walk’, ‘run’, ‘swim’, ‘jump/fly’), and of Manner + Path verbs (‘flee’, ‘chase’, ‘fall’); for example:

[54] te yakal ta animal te tz’i’e.
 ‘There the dog is in the process of running.’

[55] ja’ a snutz te yajwale, te luchul bel.
 ‘He chases his master, who is perched awaywards there.’

There are not many tokens of these manner verbs in the frog stories; Table 7 summarizes these for the adults and children.

Table 7.
Manner clauses in Tzeltal frog stories

Age group	Manner alone	Manner + Path	Total clauses Motion/ Path/Position
3–5	4 (2%)	22 (11%)	204
6–7	17 (4%)	15 (4%)	381
8–13	7 (2%)	12 (3%)	346
Adults	32 (4%)	49 (6%)	796

It seems reasonable to conclude that one reason for the proliferation of Position in frog stories is to provide some of the graphic visual detail for which, in satellite-framed languages, manner-of-motion verbs are used.⁹

7. CONCLUSIONS

The ‘Tzeltal type’ of frog narration integrates Motion + Path (expressed with motion verbs and directionals) and ‘Manner’-like stasis (expressed with positionals), to provide vivid snapshots of events in the frog journey. Tzeltal, like other Mayan languages, has rich resources for discriminating paths and even richer resources for nuances of position, configuration, and orientation. This characteristic of journey descriptions is compatible with the observation (Brown 1994) that, in Tzeltal, position is integral to descriptions of where things are and where they are going. This is a property of thinking-for-speaking which Tzeltal children have to learn.

Even 3–5-year-olds are attuned to this propensity, as seen in the roughly equal incorporation of position and motion in their stories (Table 2), although for the most part they lack the syntactic ability to combine both in one clause. Yet the fact that position is already heavily attended to even at this age reinforces the conclusion from the Berman and Slobin research that lexicalization patterns shape narrative style, via the shaping of attention produced by habitual language use.

The expression of Position and Motion/Path in one clause means that both can be foregrounded. This usage increases with age for children. However, the adults produce less as a percentage of total clauses than do the 8–13-year-olds, and, in any case, this is not a highly frequent linguistic strategy. This suggests that expressing Position + Motion/Path in one clause is a *stylistic resource* that children even at 3–5 are beginning to acquire; by the 8–13 age range they are outstripping adults, showing ‘over-sensitivity’ (Berman & Slobin 1994) to this language-specific feature of Tzeltal narrative style.

Though Tzeltal is a verb-framed language – since the preferred locus for Path is in the verb or the adverbial directional – complex predicates play an important role in motion description, and while most of these involve Motion + Direction, a significant portion of these (up to 7% in the frog stories taken as a whole; up to 23% in the cliff scene) convey Path and Position in the same clause.¹⁰

The results of this exploratory study are broadly compatible with the Berman and Slobin findings on narrative development, despite the unfamiliarity of the task for these subjects and the consequent departures from the Berman and Slobin elicitation procedure. The prolific use of positionals in combination with motion verbs in the Tzeltal frog stories provides evidence for a language-based sensitization to particular characteristics of the events described. Children of 3–5 do seem to be already attuned to features of narrative style in their language, even when non-obligatory, if these are accessible and easily expressed in the language.

It remains to consider the effect of cultural framing of the task on these results. One effect of non-literacy, and of the cultural oddity of the task, on frog stories by adults is that some adults' stories appear to be non-‘proficient’ in comparison with their naturally produced (non-elicited) narratives; they do not always produce a cohesive, coherent frog-story text. However, their stories are certainly ‘native’. Another important question is the extent to which having a visual stimulus (in this case, a picture-book) increases the amount of descriptive detail in narratives – would an alternative procedure (for example, having them first look at the book and then tell the story from memory) produce many fewer positionals? One presumes so. And finally, the difference between the 8–13-year-olds and the adults remains to be explained. One obvious difference between these two groups is schooling: few of the adults received more than a third-grade education, while most of the 8–13-year-olds had exceeded that and also had some familiarity with Spanish. The next step in this research is to compare the Tzeltal frog stories with naturally-occurring Tzeltal narratives, and to investigate the effect of schooling on the narratives of children and young adults.

NOTES

1. A first version of this chapter was presented at the 30th Stanford Child Language Research Forum and published in the proceedings (Brown 2000). I am very grateful to Dan Slobin for detailed comments and suggestions for improvement, and to Seyda Özçalışkan for providing me with the latest version of the motion-verb coding scheme used in the Berman and Slobin project. I am also grateful to Jürgen Bohnemeyer for on-going discussions on the nature of positionals in Mayan languages.
2. There are occasional exceptions; Slobin (personal communication) cites a handful of English examples: ‘lying’, ‘knocked over’, ‘hanging down’, ‘get stuck’ (between

horns), ‘landed on his back’, ‘lean over’ (log), ‘sitting up’. And Slobin (1996b) cites some Spanish examples with a positional endstate, e.g., *el niño está subido en el árbol*.

3. See Brown (in press) for the semantic and grammatical details of these Tzeltal forms.
4. $-V_1l$ is a suffix where the vowel matches the vowel of the root; for example *tek* ‘stand’ becomes *tek-el* ‘standing’, but *nak* ‘sit’ becomes *nak-al* ‘sitting’.
5. What I am here calling ‘positionals’ includes predicates formed from the Tzeltal positional roots and also from ‘bivalent’ roots, which share some characteristics of the positional class but others of the transitive class (elsewhere I have called this superordinate class of roots ‘dispositionals’). There is actually a cline – based on morphological proclivities – between these two large verb classes. See Brown (1994, in press); and Bohnemeyer & Brown (to appear); see also Haviland (1994), for more details of these verb classes in the two closely-related Mayan languages Tzeltal and Tzotzil.
6. A clause is taken to be “a linguistic unit containing a unified predicate in the form of a verb or an adjective” (Berman & Slobin 1994), or in the case of Tzeltal, potentially both. Since both adjectives and verbs take absolutive endings to form a predicate, a sentence like *ch’ay koel jawal niwan ek* ‘he fell down lying-face-up too perhaps’ could be argued to have two clauses (*ch’ay-Ø koel* ‘he fell down’) and *jawal-Ø niwan ek* ‘he was lying-face-upwards too perhaps’. But in the examples given in this chapter of such constructions, there is no prosodic or grammatical marking of clause boundary; they are treated as one communicative unit.
7. Melissa Bowerman (personal communication) suggests a third possibility which remains to be explored – could the 8–13-year-olds actually be using positional + verb or directional creatively in ways that adults would not consider acceptable Tzeltal, over-extending the potential of these resources to combine freely in a clause? This is difficult for a non-native speaker to assess, but running all the 8–13-year-olds’ examples past Tzeltal adult assessors would be a valuable first step.
8. See Bohnemeyer (in press-b) for detailed evidence of this point for another Mayan language, Yukatek Maya.
9. The way in which Tzeltal spatial language is used to convey motion events integrated with stasis is reminiscent of a different language-specific way of doing this in another verb-framed language – the ‘associated-motion construction’ in Arrernte (Wilkins 1997).
10. This compares with 24% of motion-event clauses in another verb-framed language – Spanish – having complex predicates (Slobin 1996b); for example: *salió corriendo, partieron zumbando*, etc.