

A Third Way to Travel

The Place of Thai in Motion-Event Typology

Jordan Zlatev & Peerapat Yangklang

1. INTRODUCTION

It has become almost impossible to consider motion-event descriptions, especially from a typological perspective, without starting from the seminal work of Talmy (1985, 1991, 2000), and its application to narrative and to the issue of linguistic relativity by Slobin (1996, 1997a, 1997b, 2000), as also testified by many of the contributions to this volume (cf. Galvan & Taub, Ibarretxe-Antuñano, Brown, Ragnarsdóttir & Strömquist, Bavin, and Wilkins).

To recapitulate very briefly, in order to avoid unnecessary repetition: holding the expression pole of the linguistic sign (cf. Saussure 1916) constant, languages can be divided into *path-type*, *manner-type*, and *figure-type*, depending on which semantic category is preferably lexicalized in the root of their motion verbs (Talmy 1985; Slobin & Hoiting 1994; Zlatev 1997).¹ On the other hand, starting from the semantic pole, and the highly abstract semantic-conceptual notion of *core schema* (“the association function that sets the figural entity into a particular relationship with the ground entity”, Talmy 2000b:218), which in the case of motion events corresponds above all to the category of Path, languages fall into one of only two categories depending on which form class preferably expresses this notion: the verb root, or the “satellite” – a verb prefix, verb particle, or some other kind of (subordinate) element in close association (“in a sister relation”) with the verb root. This distinction is supposed to cut a line through the world’s languages, as stated by Talmy:

Languages that characteristically map the core schema into the verb will be said to have a *framing verb* and to be *verb-framed*. Included among such languages are Romance, Semitic, Japanese, Tamil, Polynesian, most Bantu, most Mayan, Nez Perce, and Caddo. On the other hand, languages that characteristically map the core schema onto the satellite will be said to have a *framing satellite* and to

be *satellite-framed* languages, and included among them are most Indo-European minus Romance, Finno-Ugric, Chinese, Ojibwa and Warlpiri. (Talmy 2000b:222; author's emphasis)

While remaining very influential, Talmy's "two-category typology" (cf. Ibarretxe-Antuñano, this volume) of *verb-framed* versus *satellite-framed* languages has also proved to be problematic. For example, as Brown (this volume) parenthetically notes, Tzeltal, a Mayan language, has both Path-expressing verbs and directionals, where the latter could be classed as "satellites", especially given the rather vague definition of that concept. Thus, Mayan would appear to belong to both sides of the two-category typology.

Particularly problematic are languages with verb serialization, where two or more verbs, with or without arguments, co-occur in the same clause, apparently expressing the same event, as illustrated by the Thai single-clause sentence [1], which includes three different kinds of motion verbs: the Manner verb *dəən* 'walk', the (non-deictic) Path verbs *khâam* 'cross' and *khâw* 'enter', and the Deictic verb *paj* 'go'.

- [1] *chán* *dəən* *khâam* *thanǎn* *khâw* *paj* *naj* *sǎn*
 I walk cross road enter go in park
 'I walked across the road and into the park.'

Such so-called *serial-verb languages* are widespread in a variety of language families, such as Niger-Congo, Hmong-Mien, Sino-Tibetan, Tai-Kadai, Mon-Khmer, and Austronesian, and have attracted considerable attention from typologically oriented linguists (e.g., Stahlke 1970; Thepkanjana 1986; Chuwicha 1993; Bisang 1995; Durie 1997; Senft 2001).

With regard to motion-event typology, Talmy (1991, 2000b) classifies at least two serial-verb languages, Chinese and Lahu, as satellite-framed. On the other hand, Slobin and Hoiting (1994) suggest that "serial-verb languages be reclassified as complex verb-framed types" (ibid:502), and in a recent publication Slobin (2000) remarks that "serial-verb languages like Chinese may represent a third type of lexicalization pattern, lying between S-languages and V-languages" (ibid:134). In a recent paper, Essegbey and Ameka (in press) pose the crucial question already in the title, *Serializing languages: Satellite-framed, verb-framed or neither?* Based on an analysis of motion events in Ewe and Akan (Niger-Congo), they conclude that these languages share some features of both types and therefore cannot be said properly to belong to either.

In this chapter, we will address Essegbey and Ameka's question from the standpoint of (Standard) Thai. In Section 2, we will describe the Thai *translocative* serial-verb construction, exemplified in [1], and draw preliminary

conclusions from such “competence” data, i.e., from analysis based on the grammatical intuitions of native speakers. At first glance, it appears that Thai should belong to the verb-framed category since the “core schema” is expressed in Path verbs such as *khâw* ‘enter’ and *ʔòk* ‘exit’. On closer inspection, however, this conclusion turns out to be doubtful since these verbs can be accompanied by preceding Manner verbs. There is no syntactic or semantic evidence that either type is subordinate to the other, and therefore they need to be given equal status.

Nevertheless, as increasingly practised in linguistic typology (e.g., Slobin 1996; Pedersen et al. 1998), it is not enough to recognize the presence of a particular structure in a language – it should be investigated to what extent this structure is actually *used* in discourse and how it correlates and interacts with other discourse features in the formation of a *rhetorical style* (Slobin 1996). To satisfy this requirement, we used the frog-story framework (Berman & Slobin 1994), with certain adaptations for Thai, called for by its status as a serial-verb language, as we will describe in Section 3.

Thus, properly armed with data from linguistic analysis and narrative production, we will turn in Section 4 to the two versions of Talmy’s typology – the one concerning lexicalization patterns (Talmy 1985, 2000a) and the one concerning “event integration” (Talmy 1991, 2000b) – and consider the place of Thai in a general typology of motion events. In Section 5, we will look more specifically at some of the features shown by Slobin to distinguish typical satellite-framed languages (“S-languages”), such as English, from typical verb-framed languages (“V-languages”), such as Spanish, on the discourse level, namely:

- i.* higher level of Manner-verb use;
- ii.* higher level of specification of Ground²;
- iii.* higher granularity of event encoding;
- iv.* fewer static descriptions and less “scene setting”.

Finally, in Section 6 we will summarize and conclude that in accordance with the proposals of Slobin (2000) and Essegbey and Ameka (in press), Thai – and by extension other serial-verb languages – *cannot* be properly categorized as either verb-framed or satellite-framed. Furthermore, we will argue that these languages do not take a position that is intermediate between the two, as suggested by Slobin and Hoiting (1994), but rather instantiate a “third type”, which in turn calls for a radical extension and/or revision of the currently dominant motion-event typology.

2. TRANSLOCATIVE MOTION IN THAI: VERBAL EXPRESSION

2.1 Conceptual foundations

Work in motion-event typology, which inevitably involves comparisons between languages, as well as different authors' descriptive frameworks, has been hampered by a lack of clear definitions. In particular, there seems to be some confusion as to what actually is a "motion event" and how to decide in a systematic way what semantic category is being "conflated" by different expressions. Talmy (1985) is somewhat to blame for this, since in this highly influential paper these terminological issues were left unclear, but the recent revised version (Talmy 2000a) is more explicit with respect to the basic concepts. A *Motion event* (with a capital M) is defined as "a situation containing motion and the continuation of a stationary location" (ibid:25). This very general notion is further divided into *translational motion*, where "an object's basic location shifts from one point to another in space", and *self-contained motion*, where "an object keeps its same basic, or 'average' location" (ibid:35). What makes distinguishing between these two categories problematic is that many Manner-of-motion verbs such as *float* and *kick* can be used in both a "translational" [2a] and a "self-contained" context [2b].

[2a] He kicked the ball over the wall.

[2b] He kicked the wall.

Talmy tries to account for this variation in terms of polysemy. For example, in [2] there would be two different senses of *kick* involved, where the first is *translocative*³ and the second *locative*. But this is clearly problematic, and even Talmy admits that a "constructional approach" (Goldberg 1995) may be preferable. We will assume precisely such an approach and regard the meaning of verbs such as *kick* as semantically *general*, rather than polysemous, even though the distinction between polysemy and generality may sometimes be difficult to draw (cf. Geeraerts 1993; Zlatev, in press).

We will therefore treat as *potentially translocative* not only clear Path verbs such as *khâw* 'enter' but also verbs expressing an activity that *can* lead to a change in location: both intransitive verbs such as *kradòt* 'jump' and transitive ones such as *plàk* 'push'. On the other hand, when working with production data – as we do with the Thai frog stories in later sections – the decision on whether to code a particular use as translocative or locative can (and will) be made based on the actual context.

In dealing with the rather ill-defined category of Manner, we will have in mind a rather general notion, corresponding to Talmy's (2000b) "co-event",

which can be subcategorized depending on the various “relations” it stands in with respect to the translocative event, where Manner-of-motion in a narrow sense is but one. Other types of Manner in the broad sense involve Cause, Speed, Vehicle, and Means.

However, we will refrain from using the term “co-event” since we consider it highly aprioristic to regard Path (or more generally the “core schema”) as the “main/framing event”, irrespective of whether it is encoded by a (main) verb, as in V-languages, or by a (subordinate) particle or affix, as in S-languages. While it may seem reasonable to apply this terminology to typical V-languages such as Spanish and French, where the “co-event” is expressed by an optional adverbial phrase, it seems to us highly forced to treat the Manner verbs in, e.g., Germanic languages as expressing a “co-event”, leaving the “framing event” for the verbal particle. Similarly, we find the distinction “main event” versus “co-event” inapplicable to the Thai translocative serial-verb construction, where, as we will argue, Path and Manner verbs have *equal status*.

2.2 (Non-deictic) Path verbs

At first glance, Thai seems to be a fairly typical V-language, similar to the Romance languages in that it has a considerable number of Path verbs, e.g., khâw ‘enter’, ?òək ‘exit’, læj ‘pass’, klàp ‘return’, phàan ‘pass’, khâam ‘cross’, khuîn ‘ascend’, loŋ ‘descend’, thǒj ‘back off’, jǒn ‘reverse’, tronj ‘go straight’, won ‘circle’, thaam ‘follow’. Each one of these can appear as the sole verb in a sentence, for example as an answer to the question tham ?araj ‘what am/is/are/was/were I/you/he/she/we/they doing?’, as in [3] and [4].

[3] chán khâw hǒŋ
I enter room
‘I went into the room.’

[4] chán ?òək càak hǒŋ
I exit from room
‘I went out of the room.’

Several verbs from this group can combine in a *serial-verb construction* (henceforth “SVC”), as shown in [5].

[5] chán won jǒn klàp khâw hǒŋ
I circle reverse return enter room
(a) (b) (c) (d)
‘I returned circling back into the room.’

Thepkanjana (1986) makes the interesting generalization that when several Path verbs combine in an SVC, their order is *a*) geometric shape of the path, *b*) direction with respect to the preceding path, *c*) direction with respect to an object, and *d*) “direction resulting from the interaction between the path and the outside world” (ibid:136); each of these four categories is instantiated by one verb in [5], as indicated by the letters in parentheses. On the other hand, Muansuwan (2000) argues that no definite ordering between Path verbs in the SVC can be established. Our position is intermediate: We believe that there are indeed constraints on ordering, resulting in the ungrammaticality of, e.g., [6]. On the other hand, the ordering is hardly as strict as Thepkanjana (1986) proposes, since, e.g., [7] is possible. Furthermore, Thepkanjana’s distinction between *c*) and *d*) is not clear. The issue is definitely interesting and in need of further analysis, but as it is not directly relevant to our main argument, we leave it at this for the present.

[6] *chán khâw jón hōŋ
 I enter reverse room
 (d) (b)

[7] chán won klàp jón khâw hōŋ
 I circle return reverse enter room
 (a) (c) (b) (d)
 ‘I returned circling back into the room.’

2.3 Deictic-Path verbs

On the other hand, it is clear that when one of the two Deictic-Path verbs *paj* ‘go’ and *maa* ‘come’ appears in a translocative SVC, it *always* appears in the *final position* of the verb series, as in [8]. If the deictic verb precedes a motion verb as in [9], that motion verb is not part of the translocative construction proper, and arguably not part of the same clause. The whole construction, of which the translocative construction is but a part, is a *purposive* one (Thepkanjana 1986), involving two clauses rather than one, with a semantic difference reflected by the different English translations of [8] and [9].

[8] chán klàp khâw paj/maa naj hōŋ
 I return enter go/come inside room
 ‘I came back into the room.’

[9] [[chán klàp paj/maa]_{trans} khâw (naj) hōŋ]_{purp}
 I return go/come enter (inside) room
 ‘I came back [in order] to enter the room.’

The Path expressed by *paj* and *maa* is oriented not only with respect to the Deictic Center⁴ (DC) – “away from” and “towards”, respectively –, but also with respect to the landmark, when this is expressed by a nominal. In this latter case, the Path expressed is “allative”: the end point of the motion event is the reaching of the landmark.

2.4 Manner verbs

The analysis presented so far reinforces the impression that Thai is a V-language, or at least a path-type language, as actually claimed by, e.g., Weinold (1995). However, a first indication that this conclusion may be problematic comes from the fact that Thai also has a large number of verbs expressing Manner of motion. This includes not only the relatively small set typical of S-languages, including verbs such as *dəən* ‘walk’, *wīŋ* ‘run’, *piin* ‘climb’, *khlaan* ‘crawl’, *klīŋ* ‘roll’, and *kradòot* ‘jump’, but also verbs making rather fine semantic distinctions, typical of Manner-type languages, and correspondingly of S-languages, e.g., *kracoon* ‘leap’, *jōŋ* ‘tiptoe’, *kâaw* ‘stride’, *khajəŋ* ‘limp’, *lúaj* ‘creep’ (of snake-like animals), *luj* ‘wade’, *buiŋ* ‘rush’, *hèe* ‘parade’, and *khajàp* ‘bulge/extend’.⁵ To these one could easily add other more general Manner verbs such as *dəənthaaŋ* ‘travel’⁶, *həən* ‘travel by air’, *lɔj* ‘float’, and *khii* ‘ride’. It should be noted that all these verbs express *intransitive motion* in the sense that even when they can take a direct object (as with, e.g., *khii* ‘ride’), it is the subject of the sentence that is the focal moving entity, referred to as the *figure* (Talmy 1985) or *trajector* (Langacker 1987). Manner verbs can appear alone as the sole verb of the sentence, or followed by a deictic verb [10]. At least in the latter case they clearly express translocative rather than simply “self-contained” motion.

- [10] *chán* *dəən* (*paj*)
 I walk go
 ‘I am walking (away from DC, towards something).’

Even though they can appear alone, Manner verbs and Path verbs often combine with Path verbs in a translocative SVC, always in the order Manner verb > Non-Deictic-Path verb > Deictic-Path verb (cf. Thepkanjana 1996; Muwansuan 2000; Zlatev 2003), as in [11]. The sequence of Path verbs can consist of at least five different verbs, as in [12].

- [11] *chán* *dəən* *khâw* *paj*
 I walk enter go
 ‘I am walking in (away from DC, into something).’

- [12] *chán dæən won klàp jón khâw paj*
 I walk circle return reverse enter go
 ‘I am walking in a circle, returning back inside.’

It is sometimes claimed, e.g., by Sak-Humphry, Indambraya, and Starosta (1997), that when a Path verb follows a Manner verb in examples such as [11], it is not really a verb but a “deverbal adverb” of some sort, “homophonous” with the corresponding true Path verb. If this is true, then, e.g., *khâw*, ‘enter’ should be treated as an adverb, and therefore as a “satellite”, in [11], and possibly even in [12], but as a verb in [3]. We find such an analysis unconvincing for three reasons.

First, there seems to be no semantic difference between the “truly verbal” (e.g., Example [3]) and the adverbial (e.g., Example [11]) “homophones”, as would be expected if the latter were the result of a process of grammaticalization. Second, it is not clear how such analyses apply to cases such as [12] where there are several Path verbs following the Manner verb. It would be rather implausible to claim that these are all deverbal adverbs in this context but not in [5], which is identical save for the presence of a preceding Manner verb. Third, and perhaps most importantly, all verbs in the translocative SVC, individually [13–15] or together [16], are within the scope of negation, which, when preceding verbal phrases, is marked with the negative marker *mâjdâj*.

- [13] *khâw mâjdâj dæən khâw paj, khâw wîŋ khâw paj*
 he/she NEG walk enter go he/she run enter go
 ‘(S)he is not walking in (away from DC) – (s)he is running in.’

- [14] *khâw mâjdâj dæən khâw paj, khâw dæən ?òok paj*
 he/she NEG walk enter go he/she walk exit go
 ‘(S)he is not walking in (away from DC) – (s)he is walking out.’

- [15] *khâw mâjdâj dæən khâw paj, khâw dæən khâw maa*
 he/she NEG walk enter go he/she run enter come
 ‘(S)he is not walking in, away from DC – (s)he is walking in, towards DC.’

- [16] *khâw mâjdâj dæən khâw paj, khâw wîŋ ?òok maa*
 he/she NEG walk enter go he/she run exit come
 ‘(S)he is not walking in, away from DC – (s)he is running out, towards DC.’

While none of the three reasons provided (i.e., synonymy, Path-verb sequences without Manner verbs, wide negation scope) is conclusive in itself⁷, their combination makes it highly implausible to argue that Path verbs following Manner verbs are actually “satellites”.

2.5 Manner + Path verbs

The perceptive reader may have noticed that among the examples of Manner and Path verbs given above there were no verbs corresponding to *fall* and *sink*, which have been treated differently by different authors. Slobin (1996) regards *fall* as a Path verb, since its primary meaning is downward direction of motion, while *sink* is treated differently since it implies motion through a *medium* different from air. But since there is a minimal paradigmatic contrast between these verbs (in English), it can be argued that *fall* also expresses Medium; that is, at least in the default interpretation, the downward movement is “through air”. Furthermore, both (kinds of) verbs contain the additional information that the motion is caused by gravity and that there is a corresponding lack of control on the part of the trajector. Finally, as is the case with other Manner verbs, the “framing event” is expressed by a satellite, e.g., *down* in *he fell down*.

We will suggest that such verbs take an intermediate position between “pure” Manner verbs (which could be locative, at least in some contexts, e.g., *he walked for hours on the treadmill*) and Path verbs proper such as *enter* and *exit*, since they seem to conflate Manner (in the broad sense of the term) and Path. Hence, an appropriate label for these verbs would be Manner + Path verbs, or “MP verbs” for short. The class of MP verbs is well represented in Thai, for example by *phlòo* ‘pop out’, *thálú* ‘pierce’, and *thîm* ‘puncture’, which include a semantic aspect of going *through* a landmark; by *tók* ‘fall’, *lòn* ‘fall’⁸, *lóm* ‘collapse’, *hòklóm* ‘trip and fall’, and *com* ‘sink’, which express a *downward* motion; and by *láj* ‘chase’, which like the Path verb *taam* ‘follow’ specifies motion in the direction of a moving object, but also conveys Manner-related information (purposive action, high speed, etc.) With a liberal interpretation of “translocation”, we could also consider here verbs which express a *directional postural change* of the human body such as *kóm* ‘bend down’, *həəj* ‘straighten up’, and *hǎn* ‘turn around’, where the Path-related information is reflected by the English glosses.

Intriguingly, the class of MP verbs, thus far characterized semantically, also constitutes a *syntactic* category in Thai. This becomes clear when MP verbs are used in combination with the other motion-verb types – Manner, Path and Deictic-Path verbs –, as in [17a]. Interestingly, the position of the MP verb is exactly where it would be predicted on semantic grounds: following the Manner verb, but preceding the Path verb(s). Violations of this constraint, e.g., [17b] and [17c], result in ungrammaticality.

- [17a] chán dæən phlòo ?òok paj
 I walk pop out exit go
 ‘I popped out, walking.’

[17b] *chán phlòo dæən ʔòok paj
 I pop out walk exit go

[17c] *chán dæən ʔòok phlòo paj
 I walk exit pop out go

To summarize, the structure of the *intransitive* translocative serial-verb construction is characterized by the order specified in [18], where the asterisk represents the possibility for several verbs of a given type (with or without arguments) to follow each other, obeying constraints that are still not completely clear.

[18] [Manner-V* > MP-V > Path-V* > Deictic-Path-V]_{Clause}

The precedence order of the four different types of motion verbs *within a single clause* can be established with a good deal of certainty. This constitutes an important grammatical fact and poses impediments to assigning Thai to only one side of the binary motion-event typology. A case in point is the following: Considering the presence of Path verbs, Thai ought to be regarded as a V-language. But one characteristic feature of V-languages is that they obey the so-called *boundary-crossing constraint* (Slobin & Hoiting 1994), according to which Manner verbs cannot be used to describe situations in which a boundary is crossed. However, as Example [1], repeated in [19], shows, the Manner verb dæən, ‘walk’ combines not only with one but with two boundary-crossing verbs, and the sub-events described by them are within its scope.

[19] chán dæən khâam thanǒn khâw paj naj sǔan
 I walk cross road enter go in park
 ‘I walked across the road and into the park.’

Note also that it is possible to have more than one landmark (Ground) per clause, again unlike V-languages but similarly to S-languages such as English. In these ways Thai behaves quite similarly to other serial-verb languages such as Ewe and Akan, as described by Assegbey and Ameka (in press).

2.6 Cause-of-Motion verbs

A characterization of the expression of translocative motion in Thai would not be complete without considering “transitive motion” as well, i.e., utterances where the grammatical subject is not identical to the trajector, but rather constitutes the agent (or cause) of motion, while the trajector is expressed by the direct object in the sentence, as in [20].

- [20] kháw joon lúukbɔn ʔòɔk paj
 he/she cast ball exit go
 ‘(S)he cast the ball out.’

Verbs such as *joon* ‘cast’, conflating Motion with Cause-of-Motion (“CoM”), are also numerous in Thai, e.g., ʔaw ‘take’, jip ‘pick’, sàj ‘insert’, phaa ‘take along’, thòt ‘take off’, jók ‘lift’, and phlāk ‘push’. There are considerable similarities between the transitive translocative-motion construction and the intransitive one described in previous sub-sections. The “slots” for the Path verb(s) and the Deictic-Path verb appear to be the same. CoM verbs can also combine with Manner verbs, as in [21].

- [21] kháw phaa lúuk dæɲ ʔòɔk paj
 he/she take-along child walk exit go
 ‘(S)he took his/her child out walking away.’

However, it is impossible to combine CoM with most MP verbs in a single clause, as shown in [22]. The reason appears to be that most MP verbs imply volitional motion, i.e., agency on the part of the trajector, which is what is lacking when the trajector is the direct object of a transitive CoM verb.

- [22] *kháw joon lúukbɔn phlòɔ ʔòɔk paj
 he/she cast ball pop out exit go
 ‘(S)he cast the ball and it popped out.’

This interpretation is supported by the fact that when the MP verb does *not* imply agency, as is the case with *tók* ‘fall’, combination with a CoM verb is indeed possible, as in [23].

- [23] kháw phlāk dək tók lɔŋ paj
 he/she push child fall go-down go
 ‘(S)he pushed the child down.’

On the other hand, the Path verbs combine freely with CoM verbs, provided of course that they do not specify conflicting spatial values. Thus, [24a] is possible, whereas [24b] is not.

- [24a] kháw sàj lúukbɔn khâw paj naj klɔŋ
 (s)he insert ball enter go in box
 ‘S(h)e put the ball inside the box.’

[24b] *kháw sǎj lúukbɔn ʔòok paj naj klɔŋ
 (s)he insert ball exit go in box

This can be explained assuming that Thai Path verbs lack the element of agency as part of their semantic, “overt” meaning, while still being able to imply it “covertly” (Zlatev 1997), pragmatically (Levinson 2000), in the intransitive-motion constructions exemplified in [3–16]. The alternative would be to opt for a “polysemy” explanation with intransitive Path verbs expressing agency and transitive ones lacking this semantic feature. But since this latter account increases the complexity of the analysis and starts us on the slippery slope of postulating new “polysemes” for new constructions, we find the first account preferable.

2.7 Summary and conclusions

A general linguistic analysis of translocative-motion constructions in Thai, based on native-speaker intuitions, shows that at least the following four characteristics make it extremely difficult to classify Thai as *either* verb-framed (a V-language) or satellite-framed (an S-language).

- i. Thai is not forced to “choose” between Path verbs and Manner verbs (and Cause-of-Motion verbs), since each has a separate slot in the serial-verb translocative-motion construction. Because of this, Thai features the kind of Path verbs typical of V-languages, and at the same time features a large number of Manner verbs making fine semantic distinctions, as in S-languages.
- ii. Furthermore, there is a separate slot for MP verbs, conflating Manner and Path in a single lexical item.
- iii. Even when occurring together with Manner and MP verbs, the Path verbs exhibit the properties of full lexical verbs rather than those of, e.g., “deverbal adverbs”, and hence cannot be treated as “satellites”.
- iv. Unlike typical V-languages such as Spanish, Thai does not obey the boundary-crossing constraint (Slobin & Hoiting 1994) and allows more than one Ground expression in a single clause.

In order to see if these conclusions hold also in the face of quantitative, “usage” data, we analysed the data from the Thai frog-story corpus, as described in the following two sections.

3. METHODOLOGY: THE THAI FROG-STORY CORPUS

The quantitative study of verbal expressions of Motion in Thai is based on a corpus of 50 Thai frog stories from five age groups. In constructing this corpus, we by and large adopted the well-known method for eliciting cross-linguistically comparable narratives originally developed by Berman and Slobin (1994), with some adaptations with respect to the definition of the basic units of analysis – word, clause, and utterance – as described in this section. However, for the reader not interested in these methodological issues and eager to continue with the argument from the preceding section, we recommend skipping directly to Section 4.

3.1 Data collection

The child data were collected in one pre-school and two primary schools in Bangkok and the adult data were collected from students and faculty members of Chulalongkorn University, in both cases during the first half of the year 2000. The interviewer, always a native Thai-speaker, first let the subject scan through the book for about five minutes. The instructions were approximately as in the following English translation, highlighting the narrative character of the task: “This story is about a boy, his dog and a frog. I’ll let little brother/sister⁹ [= the subject] take a look at the pictures of the story, first. Then, big brother/sister [= the interviewer] will ask little brother/sister to tell big brother/sister the story, picture by picture.”

3.2 Transcription and segmentation

Ten narratives from each of the age groups 4, 6, 9, 11, and Adult were transcribed in standard Thai orthography. In almost all cases this transcription was performed by the person who carried out the interview, soon after the recording took place. Then the Thai transcription was converted into a phonemic notation via a semi-automatic computer program. The transliteration system shown in Table 1 for consonants and Table 2 for vowels was used. Tones were marked at the end of each syllable according to the following scheme: mid 0; low 1; falling 2; high 3; rising 4. While current versions of the CHAT notation (cf. MacWhinney 2000) support non-ASCII fonts, we found that sticking to ASCII increased the “portability” of our data considerably. We will use this notation in the remaining part of this chapter.

Unlike Western orthographic systems, Thai writing does not place spaces between words, but rather uses them to separate semantic units, corresponding sometimes to phrases, sometimes to whole sentences. Hence, the phonemic

Table 1.
The transliteration system for Thai consonants

	Labial	Alveolar	Palatal	Velar	Glottal
Stop + voice – asp.	b	d			ʔ
Stop – voice – asp.	p	t	c	k	
Stop – voice + asp.	ph	th	ch	kh	
Fricative	f	s			h
Semi-vowel	w		j		
Nasal	m	n		ŋ	
Lateral		l			
Trill ¹⁰		r			

Table 2.
The transliteration system for Thai vowels

	Front	Central	Back
Close	i	U	u
Mid	e	q	o
Open	x	a	O

transcription had to be segmented into word-level segments manually. This was straightforward in most cases since the vast majority of Thai words, especially in the colloquial register, are monosyllabic. However, it is not always clear whether certain multi-syllabic expressions should be treated as *a)* mono-morphemic words, *b)* multi-morphemic words including lexical compounds, or *c)* phrases consisting of one or more words. In deciding how to analyse particular cases, we used the following criteria:

- i. Mono-morphemic word* iff at least one of the syllables in the expression does not have a transparent separate meaning, e.g., *naa2taaN1* ‘window’. Even though this expression is probably a compound diachronically, the compounding is not transparent to present-day speakers, and therefore it was treated as mono-morphemic.
- ii. Multi-morphemic word* (“+” between the syllables) iff all the syllables have transparent separate meanings, but the meaning of the whole is not derivable by combining that of the parts, e.g., *phuu2+jaj1* ‘person’ + ‘big’ = ‘adult’. Lexical compounds are one sub-class of this category. Derivations such as *khwaam0 + suk1* ‘-ness’ + ‘happy’ = ‘happiness’) are

also included in this category, even though their derivation is semantically regular.

- iii. *Phrase* (a space between the syllables) iff the syllables have separate meaning, and combine systematically to give the meaning of the whole, e.g., maa4 ‘dog’ + noj4 ‘little’ = ‘little dog’ and raN4 ‘nest’ + phUN2 ‘bee’ = ‘beehive’.

In the same group as the second category, and thus marked in the same way (with a “+” connecting the parts), were *formulaic* expressions, e.g., may0+pen0+raj0 ‘never mind’. Thus, compounds and other multi-morphemic words, formulaic expressions, and reduplications could easily be treated as *single lexical items* (at the same time as analysis could easily be performed on their parts if required).

The phonemic transcription was checked against the original tape recordings and adaptations were made to bring the transcription closer to the actual speech produced. Deviations from the normative pronunciation were represented using the CHAT convention of placing the citation form in square brackets after the transcription of the sub-standard form, e.g., laN0 [: raN0] ‘nest’.¹¹

All pauses were marked in the transcriptions as short (#) or long (##). Repetitions and re-tracings were marked using the CHAT conventions, i.e., the repeated or re-traced material was surrounded by angle brackets “<>” (if consisting of more than one word) and followed by [/], [//], or [///]. The first indicates a repetition, the second a retracing with some change, usually a self-correction, and the third a retracing with substantial change, usually a paraphrase.¹²

One of the most serious methodological difficulties we encountered was how to define and segment the narratives in “sentence-length” units in a consistent and clear manner. In this respect there is a conflict between the instructions in the manuals of CHILDES, which urge the transcriber to focus on the *utterance*: “Each main line should code one and only one utterance.” (MacWhinney 2000: 16), and those of Berman and Slobin (1994), which use the *clause* as a major unit of analysis, defining it as follows:

Each clause should be transcribed on a new text line. We define a clause as any unit that contains a unified predicate. By unified, we mean a predicate that expresses a single situation (activity, event, state). Predicates include finite and non-finite verbs, as well as predicative adjectives. (ibid:660)

The serial-verb nature of Thai, exemplified in Section 2, made it difficult to decide what to regard as a “unified predicate”. While knowing that our decisions will not satisfy all scholars of Thai linguistics, we used the following set of criteria (*i-iv*) for identifying *clause boundaries* in Thai. Thus, a clause boundary was marked with the conventional CHAT symbol [c]

- i.* before the introduction of a new explicit or implicit subject;
- ii.*
 - a)* before the relative-clause markers *thii2* and *sUN2* ‘which’;
 - b)* if there is only a noun phrase (i.e., the subject) between the previous [c] and the relative-clause marker, the clause boundary [c] is instead placed at the end of the relative clause;
 - c)* in other places where a relative-clause marker may be inserted without change of meaning;
- iii.*
 - a)* where clause boundaries are indicated by the presence of conjunctions such as *lx3*, *lxxw3* ‘and’, *lxxw3 kO2* ‘and then’, *kO2* ‘then’, *thxx1* ‘but’, *phrO3* ‘because’, *mUa2*, *phOO0* ‘when’, *con0* ‘until’, *mxx3* ‘though’, and *phUa2* ‘for the sake of’;
 - b)* in other places where a conjunction may be inserted without change of meaning;
- iv.* after *wa2* ‘that’, if it is both preceded and followed by text segments with main verbs (thus excluding cases where *wa2* is a main verb, and where it has nouns and other non-verb expressions as complements).

To illustrate, following these criteria, a popular pop-song line¹³ consisting of seven verbs in a row and a pronoun [25] can be segmented into three clauses by the insertion of clause-boundary symbols after *paj0* (*iii-b*), after *waa0* (*iv*), and after *thqq0* (*i*).

[25] *jaak1 dqqn0 khaw2 paj0 [c] bOOk1 waa0 [c] rak3 thqq0 [c]*
 wish walk enter go speak say/that love you
 ‘I want to come in to say I love you.’

Given this way of marking clauses, we were faced with the dilemma of how to satisfy the CHAT convention of having only one utterance per line (tier). If we chose only phonetic criteria, i.e., pauses and intonation contours, to define utterance boundaries, we would have to break up clauses – as previously defined – into many lines, and thus decrease readability and analysability. On the other hand, if we neglected prosodic criteria and only segmented the text into clauses, we would miss the fact that some clause boundaries coincided with pauses, and thus seemed to constitute processing units, while others did not. We resolved this dilemma with a compromise, operationally defining a criterium (*v*) for

Table 3.

Size of the Thai frog-story corpus in terms of utterances, clauses, word tokens, and word types, excluding repetitions and retracings, by age

Age	Utterances	Clauses	Word tokens (excluding reps)	Word types (excluding reps)
4	380	433	2273	277
6	508	631	3141	312
9	616	780	4638	467
11	551	700	4227	448
Adults	957	1235	8144	855
Total	3012	3779	22423	1149

“utterance”, i.e., the unit to be placed on a single line/tier, through a combination of phonetic and grammatical criteria:

- v. An utterance boundary (.) occurs when there is *both* a phonetic indication of utterance closure – a short pause (#), a long pause (##), or a vowel lengthening (:) *– and* a clause boundary, marked with [c].

This means that if there is only a pause but no clause boundary, the pause is marked within the utterance. Likewise, if there is a clause boundary but no pause or vowel lengthening, the utterance is assumed to continue until a clause and an utterance boundary coincide.¹⁴

Based on the above definitions, Table 3 shows the size of the corpus in terms of utterances, clauses, word tokens, and word types, the last two excluding repetitions and re-tracings.

The Thai frog-story corpus, as thus far described, is available to the linguistic community through the data-exchange system CHILDES (childes.psy.cmu.edu).

3.3 Marking and coding of translocative utterances

The forms involved in the expression of motion events in Thai – the verbs described in Section 2, but also prepositions and locative nouns (cf. Zlatev 2003) – are frequently polysemous between spatial and non-spatial meaning. Furthermore, one and the same form, e.g., thUN4 ‘to’, ‘reach’, can appear as either verb or preposition. Finally, as pointed out in Section 2, it is important to distinguish translocative from self-contained motion, and sometimes this can be decided only by context. Factors such as these make it necessary to find all instances of translocative constructions manually and to “tag” their relevant

constituents. This was done on a subsidiary tier (%dir), as shown in [26]. Note that since there are two clauses in this utterance (according to the definitions presented above), each one including a translocative construction, the two are coded separately on two different subsidiary tiers. (The English translation above the utterance is added for expository purposes only; it is not included in the actual coded corpus.)

[26] *** File “09j.cha”, lines 54–56
 (s)he walk until wonder enter go in forest
 *CHI: khaw3 dqqn0 [c] con0 loN4 khaw2 paj0 naj0 paa1 [c]#.
 %dir: dqqn0:MAN
 %dir: loN4:MAN khaw2:PATH paj0:DEI naj0:RN paa1:LM

Table 4 shows the tags used for coding the expressions in the translocative utterances in the corpus, the semantic categories they represent, and their form class as well as one example per tag.

4. THE PLACE OF THAI IN MOTION-EVENT TYPOLOGY

As pointed out in Section 1, the general motion-event typology developed by Talmy can be formulated in two complementary ways:

- i. in terms of the dominant *lexicalization pattern* for the verb root: Path + Motion, Manner + Motion, or Figure + Motion; or
- ii. in terms of the dominant form of *core schema* expression: verb-framed (V-language) or satellite-framed (S-language).

Let us consider each one of these in turn, in the light of the Thai frog-story data.

4.1 Lexicalization patterns: manner-type or path-type?

According to Talmy (1985, 2000a), all Indo-European languages but the Romance ones, as well as many others, notably Chinese, predominantly conflate Motion with Manner in their verb roots, i.e., they are *manner-type* (Slobin & Hoiting 1994). On the other hand, the Romance languages, and quite a few Asian languages, including Thai (Wienold 1995), are supposed to be *path-type*, owing to a pronounced presence of verbs conflating Motion with Path.¹⁵

Unlike the similar observation made by, e.g., Tesnière (1959), Talmy has consistently argued (e.g., Talmy 1991, 2000a) that these lexicalization types form an *exhaustive typology*, i.e., that any language will use only one type of verbs in

Table 4.

Tags, semantic categories expressed (“conflation pattern”), form classes, and examples of translocative-motion expressions in the Thai frog-story corpus

Tag	Conflation pattern	Form class	Example
COM	Motion + Cause-of-Motion	Verb	joon0 ‘throw’
MAN	Motion + Manner	Verb	dqqn0 ‘walk’
MP	Motion + Manner + Path	Verb	phloo1 ‘pop out’
PATH	Motion + Path	Verb	khaw2 ‘enter’
DEI	Motion + Path + Deixis	Verb	pay0 ‘go’
PREP	Path	Preposition	caak1 ‘from’
RN	Region	Region noun	naj0 ‘in’
CN	Region	Class noun	khaaN0 ‘side’
LM	Landmark	Noun	paa1 ‘forest’

its most “characteristic expression of motion”, defined (Talmy 1985:62, 2000a: 27) as that which

- i.* is colloquial in style, rather than literary, stilted, etc. ...
- ii.* is frequent in occurrence in speech, rather than only occasional. ...
- iii.* is pervasive, rather than limited, that is, a wide range of semantic notions are expressed in this type.

Even though English has a number of Path verbs such as *enter*, *exit*, *ascend*, and *descend* – notably of Romance origin –, these lack properties *i–iii*. There are a few Path verbs such as *pass* and *cross* that do fulfill criteria *i* and *ii*, but they are relatively few in number, i.e., they fail *iii*.

It has been argued, e.g., by Slobin and Hoiting (1994) and by Zlatev (1997), that the distinction between path-type and manner-type languages is much more of a continuum, and indeed Talmy (2000) allows for a certain degree of mixed types. Still, if one can maintain the claim that in any language, there is only one “most characteristic expression of motion” (cf. above), one may still decide, for instance, that despite Manner verbs such as *rouler* ‘roll’, French is a path-type language, while English can be classed as manner-type notwithstanding the few exceptions mentioned above. In both cases, the exceptions will be attributed to a lesser, *non*-characteristic pattern.

However, Thai appears to be problematic for this general claim, owing to its sizeable number of Manner verbs *and* Path verbs as well as to the structurally distinct classes of Manner + Path (MP) verbs, Deictic-Path verbs, and – in the case of “transitive motion” – Cause-of-Motion (CoM) verbs. The question to be

Table 5a.

Cause-of-Motion verbs, Manner verbs, Manner + Path verbs (including posture-change verbs (P)), Path verbs, and Deictic-Path verbs in the 50 Thai frog stories

Cause-of-Motion verbs			Manner verbs		
aw0	'take'	32	wiN2	'run'	122
plOj1	'let go'	6	piin0	'climb'	64
saj1	'insert'	6	bin0	'fly'	52
joon0	'cast'	5	kra0doot1	'jump'	49
phaa0	'take along'	4	dqqn0	'walk'	40
phlak1	'push'	3	jON2	'tiptoe quietly'	8
cap1	'grab'	2	khlaan0	'crawl'	5
jok3	'lift'	2	lOOj0	'float'	4
nam0	'carry'	2	lut1	'slip (off)'	4
thOOt1	'take off'	2	waaj2+naam3	'swim'	3
thee	'kick'	2	dqqn0+thaaN0	'travel (far)'	2
jUUn2	'pass', 'give'	1	khii1	'ride'	2
jip1	'pick'	1	kliN2	'roll'	2
khwit1	'poke'	1	kra0coon0	'leap'	2
laj2	'chase'	1	kra1cuj0++kra1caa0	'spread out'	2
phuN2	'throw'	1	luj0	'wade'	
pqqt1	'open'	1	jam2	'trot (in mud)'	1
soN1	'send'	1	loN4	'wander'	1
thUU4	'carry'	1	ta1kiaak1+++ta1kaaj0	'move frantically'	1
thiN3	'throw away'	1	taj1	'crawl'	1
Manner + Path verbs			Path verbs		
tok1	'fall'	196	OOK1	'exit'	228
nii4	'escape'	68	loN0	'descend'	213
laj2	'chase, follow'	36	khUn2	'ascend'	146
phloo1	'pop out'	35	khaw2	'enter'	64
lom3	'fall, collapse'	14	taam0	'follow'	49
lon1	'fall off'	14	klap1	'return'	46
kom2	'bend down' (P)	8	khaam2	'cross'	8
mut3	'crawl under'	8	thUN4	'reach'	6
cha0Nook2	'bend down' (P)	7	phaan1	'pass'	4
ruuaN2	'fall'	7	caak1	'leave'	3
han4	'turn around' (P)	5	OOm2	'encircle'	1
luk3	'rise' (P)	5	lO3	'go along'	1
thim2	'pierce'	5	lqqj0	'pass by'	1
com0	'sink'	4			
jxx1	'stick in'	3	Deictic-Path verbs		
phut1	'pop up'	2	paj0	'go'	523
Nqqj0	'look up' (P)	1	maa0	'come'	392
cha0Nqq3	'stretch out' (P)	1			
diN1	'dive'	1			
hok1+lom3	'trip and fall'	1			
jUUn0	'stand up' (P)	1			
khwam2	'turn ups. down'	1			

Table 5b.

Total number of types, tokens, and mean number of tokens per type of Cause-of-Motion verbs, Manner verbs, Manner + Path verbs, Path verbs, and Deictic-Path verbs in the 50 Thai frog stories

Verb type	Types	Tokens	Tokens/type
Cause-of-Motion verbs	20	75	3.8
Manner verbs	20	367	18.4
Manner + Path verbs	22	423	19.2
Path verbs	13	770	59.2
Deictic-Path verbs	2	915	457.5

answered is whether these classes also fulfil the criteria of being *a*) colloquial and *b*) frequent in everyday discourse. Table 5a and 5b show this to be the case for at least three of the classes. Table 5a gives the type–token count for each individual verb of the five classes present within the 50 Thai frog stories, while Table 5b summarizes the counts class-wise.

With respect to the requirement of being colloquial, we can observe that all five classes are represented in this undoubtedly colloquial genre. With respect to frequency, however, we can see some clear differences. The Cause-of-Motion verbs are least frequent, and have a fairly low token/type ratio. This rather surprising finding can probably be explained by the relatively young age of most of the narrators, as well as the actual content of the story, where self-propelled “intransitive” motion dominates. The Deictic-Path verbs, on the other hand, are extremely frequent but have only two types, suggesting that it may be proper to regard Deixis as a *grammaticalized* category in Thai.

However, if we focus on the remaining three categories – MAN, MP, and PATH –, we can observe that the differences between them are hardly sufficient to motivate regarding one as overshadowing the others and being *the* “characteristic” one. Each class is represented by a large number of types, where the first five or six types are highly frequent. In the present analysis, the MP class includes verbs expressing body-posture change such as *han4* ‘turn around’, involving the translocation of an implicit or even explicit¹⁶ body-part trajector. If posture verbs – marked (P) in Table 5a – are included, MP is the most numerous category, and MP and MAN have an almost identical token/type ratio. But even if one excludes the posture-change verbs, MP is still very well represented. Furthermore, one can argue that from a semantic standpoint, MAN and MP could be considered as a single (macro-)category of “Manner verbs”. Then this class of Manner verbs would have a total frequency that is almost the same as that of the PATH verbs. As regards the higher token/type ratio of the PATH verbs, it is predictable from their more schematic semantics (cf. Section 2).

Finally, the fact that MP verbs have a separate slot, positioned between the MAN and PATH categories, both syntactically and semantically, reinforces the conclusion that Thai belongs *at least* to a “mixed-lexicalization type”. However, our belief is that its serial-verb characteristics make Thai not just a mixed type, but an altogether *different* type from the typical satellite-framed and verb-framed languages. We will argue for this conclusion in the remainder of this chapter.

4.2 Path expression: verb or satellite?

Since the “core schema” includes Path in the domain of motion events by definition, and since, as was demonstrated in Sections 2 and 4.1 above, Path is expressed verbally in Thai, it would seem that Thai should be regarded as a verb-framed language. However, two quite different problems put this conclusion in doubt.

The first is that the somewhat “bleached” semantics and high token/type ratio of Path verbs (see above) suggest that they could possibly be on their way to becoming “satellites” of the preceding Manner/Cause verbs. It is such a tendency, combined with less verb-like morpho-syntactic characteristics, that seems to motivate Talmy’s (1991, 2000b) classification of Chinese and Lahu (typologically similar to Thai) as satellite-framed languages.

In Section 3, it was argued on the basis of linguistic analysis that Thai Path verbs are indeed “true verbs”, but can this conclusion be further supported by production data? For this we may consider the *proportion of independent use* of the different kinds of verb types in discourse. If it turns out that Path verbs appear predominantly together with Manner verbs, but that the opposite is not the case, i.e., if Manner or MP verbs often appear “alone” as in Example [10] above, then one may still suspect that Path verbs are progressing along a grammaticalization cline that might lead them into “satellitehood”. To investigate this, we checked the proportion of co-occurrence and independent use of the three main candidates for head-verb status in the translocative serial-verb construction: MAN, MP, and PATH. Table 6 presents the results.

What Table 6 shows is that all three verb types appear independently of each other to a considerable degree. Far from being in a more dependent position, and therefore possibly developing into a “satellite”, Path verbs occur independently even *more* often than the other two categories. Even if we were to subtract the 45 instances in which the category co-occurs with Cause-of-Motion (not counted in Table 6), it is still the case that in about *half of all occurrences* the Path verbs appear independently of other motion-verb types, save possibly for Deictic-Path verbs. In all these cases, the Path verb can be nothing else but “head” in the translocative construction.

The conclusion is that in a *binary* motion-event typology, Thai must be regarded as a verb-framed language – possibly as a “complex verb-framed type”,

Table 6.

Proportion of co-occurrence and independent use of the three verb categories Manner (MAN), Manner + Path (MP), and Path (PATH) in the Thai frog stories

Category	Total (instances)	Co-occurrence	Independent use (instances)	Percentage of independent use
MAN	367	$\underline{\quad} + MP = 58$ $\underline{\quad} + PATH = 172$	$367 - 230 = 137$	37%
MP	423	$MAN + \underline{\quad} = 58$ $\underline{\quad} + PATH = 218$	$423 - 276 = 147$	35%
PATH	770	$MAN + \underline{\quad} = 172$ $MP + \underline{\quad} = 218$	$770 - 390 = 380$	49%

as proposed for serial-verb languages by Slobin and Hoiting (1994). However, the implicit premise of this conclusion is the second and more serious issue in doubt – *what reasons are there to insist that the typology should be binary*, apart from general considerations of simplicity? A good reason would be if it can be supported with empirical evidence that all languages fall into one of the two types with respect to a number of grammatical and discourse characteristics, as argued for a large sample of languages by Slobin in a series of recent publications (e.g., Slobin 1996, 1997a, 1997b, 2000). However, whether serial-verb languages, and Thai in particular, pattern along with the typical verb-framed languages such as the Romance languages is highly doubtful, as we will show in the following section.

5. THAI AND V-LANGUAGES

To answer the question above, let us compare specific data from the Thai frog stories with comparable data from typical verb-framed and satellite-framed languages, collected mainly by Slobin and his associates. Table 7, based on data reported by Slobin (2000), shows the proportion of Manner versus Path verbs used to describe a single event in the frog story: the sudden appearance of the owl from within the tree (Picture 12). As Slobin shows, the satellite-framed Germanic languages use at least a certain proportion of Manner verbs (the “Path verbs” reported seem to be mostly deictics such as *come*), while Russian, which can pack Path into the verbal prefix and Manner into the root, uses Manner verbs exclusively. The situation is reversed in the verb-framed Romance, Turkish, and Hebrew.

When we introduce the Thai data into the comparison, however, the clear typological divide breaks down, or rather the binary distinction seems

Table 7.

“The Owl’s Exit”: Percentages of Manner and Path verbs, considering only those narratives where the event was expressed (29 for Thai), in a number of different languages, based on Table 1, Slobin 2000

Language	Manner verb	Path verb
<i>Satellite-framed</i>		
English	32% (16)	68% (34)
German	18% (5)	82% (23)
Dutch	17% (4)	83% (19)
Russian	100% (18)	-
<i>Verb-framed</i>		
French	-	100% (21)
Spanish	-	100% (64)
Turkish	-	100% (53)
Hebrew	3% (1)	97% (78)
?		
Thai	MAN: 38% (11) MP: 28% (8)	PATH: 90% (26) DEI: 100% (29)

inapplicable. First of all, as for all serial-verb languages, the percentages need not add up to 100% since there is no requirement that there should be only one verb per clause. This “exiting” event in question is described by a (non-deictic) Path verb in 26 of the 29 instances, and with a Deictic-Path verb in all 29. The most noteworthy result is, however, that the use of Manner verbs and Manner + Path verbs is at least on the level typical of the satellite-framed Germanic languages, if not higher.

Another result that typologically distinguishes Thai from the discourse pattern typical of V-languages comes from looking at the proportion of Ground expressions to the total number of motion verbs. In verb-framed languages, each path segment or change of direction (not just “boundary-crossing” sub-events) needs to be encoded by a separate verb since there are no satellite-based constructions permitting a complex path with a single verb, such as in *he went out of the house, down the hill, through the forest, and into the village*. Since in a non-serial-verb language, a new main verb would imply a new clause, and a string of separate clauses describing the same motion event would be stylistically heavy,

Table 8.

Percentages of Ground expression per verb (and per clause) in Thai, English, and Spanish, based on data from Slobin (1997b), Table 1.4

Age	English	Spanish	Thai (per motion verbs)	Thai (per translocative utterances)
3–4	54%	48%	71/316 (22%)	71/177 (40%)
5	60%	50%	92/480 (19%)	92/247 (37%)
9	62%	61%	114/564 (20%)	114/257 (44%)
11			117/477 (25%)	117/229 (51%)
Adult	82%	63%	147/728 (20%)	147/315 (47%)

Slobin predicted that speakers of V-languages would express only key segments of a path, leaving the rest to inference from context and background knowledge. This, in turn, would imply a lower proportion of Ground elements to verbs than in satellite-framed languages, where, as the English example shows, it is quite possible to include several Grounds in a single clause. As shown by Slobin (1997b), this prediction is only weakly confirmed for children, but the difference between speakers of V-languages and S-languages becomes more prominent for adults; cf. the first three columns of Table 8. As pointed out in Section 2, Thai does *not* obey the boundary-crossing constraint, and furthermore allows more than one Ground expression in the same clause – both claims can be illustrated with the example sentence presented in [1] and repeated in [19]. This leads us to expect a level of Ground expression that is *higher* than that typical of V-languages and possibly similar to that of S-languages.

However, the results from the analysis of the frog-story data were contrary to this prediction. Considering the proportion of Ground expressions in Thai¹⁷, we find a level that is significantly *lower* than in Spanish, not only when we calculate the Ground/verb ratio (Table 8, column 4), which was indeed expected to be low because of the possibility to have a large number of different motion verbs in a single translocative construction, but also when we calculate the proportion of Ground expressions to translocative utterances (Table 8, column 5). Furthermore, as the breakdown into age groups shows, there seems to be hardly any development in the proportion of Ground expressions after the age of nine.

How can this finding be accounted for? Prior to answering this question, let us look closer at four motion events in the frog story involving falling events, analysed previously by, e.g., Slobin (1996) and Ibarretxe-Antuñano (this volume). Comparison between Thai and Basque, another “untypical” V-language, shows how non-homogeneously languages assigned to the same side of the motion-event typology can behave with respect to this parameter; cf. Tables 9–10.

Table 9.

“Bare verb(s)” or Ground in four different “falling events”: comparison between Basque and the first 40 Thai frog stories (ages 4, 6, 9, and 11), based on Ibarretxe-Antuñano (this volume), Table 1

Scene	Basque		Thai	
	Bare verb	Ground	Bare verb(s)	Ground
Dog falls	2	10	21	17
Beehive falls	4	8	20	2
Boy falls from tree	1	12	12	15
Boy and dog fall	-	22	31	48
Total	7 (11%)	52 (88%)	84 (51%)	82 (49%)

Table 10.

Comparison of the degree of Ground specification between the “problematic” languages Basque and Thai, the S-language English, and the V-language Spanish

Language (category)	Bare verbs	Verb + Ground
English (S)	18%	82%
Spanish (V)	37%	63%
Basque (V?)	11%	88%
Thai (?)	51%	49%

The results in Table 10 are particularly troublesome for the binary typology, since it turns out that Basque, a V-language, has a higher level of Ground specification even than the S-language English, while Thai has a considerably lower level than Spanish.

This shows that the presence or absence of Path verbs in a language can at best be a *contributing factor* to the tendency to specify Ground through nominal expressions. Another and seemingly more important factor is the presence of a developed *adnominal* spatial semantic system, such as the locative-case system in Basque (as suggested by Ibarretxe-Antuñano) or in Icelandic, which is shown by Ragnarsdóttir and Strömqvist (this volume) to have a higher proportion of Ground specification than the closely related Swedish, which lacks a case system.

As for Thai, the reason for the relatively low level of Ground specification is clearly not a low level of Path expression, as hypothesized for V-languages by Slobin, but rather the opposite: since the Motion event is often so richly specified *verbally* (cf. Table 7), nominal Ground specification is often omitted since the information can be worked out from context. This can also be seen as part of a general tendency in Thai, and other South-East Asian languages, towards referential implicitness or “zero anaphora” (Clark 1992).

Table 11.

Average number of event segments mentioned and percentage of narrators mentioning three or more segments, based on Slobin (1997:449). (Ten stories for each language, in Thai ten stories produced by nine-year-olds.)

Language type	Language	Mean number of event segments	Narrators mentioning > 3 segments
Satellite-framed languages	Germanic (DU, EN, GE, IC, SW)	3.0	86%
	Slavic (PL, RS, SC)	2.8	76%
Verb-framed languages	Romance (FR, PR, SP)	2.1	30%
Serial-verb languages	Thai	3.0	80%

This explanation for the surprisingly low level of Ground specification in Thai finds further confirmation when Thai is compared with the typical S-languages and V-languages with respect to how many events in a single trajectory of motion are explicitly encoded. According to Slobin (1997), one specific dramatic event in the frog story involves “four potential event components”, which he specifies as follows (Slobin 1997:448):

- i.* change of location: deer moves, runs, arrives at cliff;
- ii.* negative changes of location: deer stops at cliff;
- iii.* cause of change of location: deer throws boy, makes boy/dog fall;
- iv.* change of location: boy/dog fall into water.

Table 11 shows that in this respect, Thai is much more similar to the S-languages analysed – in both cases approximately 80% of the narrators mentioned at least three (two mentioned four, possibly five) of these “event segments” – than to the V-languages, where the corresponding percentage was 30%, with a significantly lower average number of event segments mentioned.

Finally, Slobin hypothesized that this relative “under-specification” of V-languages in the above respect would be compensated for by a higher proportion of static scene descriptions, e.g., *He fell. There was a lake below.* The Romance languages have indeed been shown to have a higher proportion of such descriptions than the S-languages, in which they are practically non-existent. In this respect, Thai seems to be intermediate, since in two of the ten event descriptions analysed for Table 11, i.e., 20%, there were such “scene settings”: more than in S-languages, but less than in V-languages. But clearly, a larger sample is necessary for any clear typological tendencies to be discernible.

To summarize, even though Thai clearly expresses Path (or the “core schema”) through verbs, and not satellites, it remains problematic to categorize it as a V-language since with respect to several properties, such as the degree of Manner-verb use and the degree of sub-event expression, it resembles the contrasting class of S-languages much more. These properties of Thai, as well as its insensitivity to the boundary-crossing constraint, can be attributed to its typological feature of verb serialization. The low proportion of Ground expressions was somewhat surprising, but this too can be understood as resulting from a high rather than a low – as in the Romance languages – level of trajectory specification, and a general “pragmatic” tendency to favour referential implicitness.

6. SUMMARY AND CONCLUSIONS

The aim of the research described in this chapter was to investigate whether Thai, and by extension other languages with verb serialization, belongs to the verb-framed (V-languages) or to the satellite-framed (S-languages) category of the well-known Talmian motion-event typology – or possibly to neither of the two, as suggested by Essegbey and Ameka (in press).

We began by describing the structural properties of the Thai translocative serial-verb construction, establishing that intransitive motion can be encoded by four structurally and semantically different classes of motion verbs: Manner, Manner + Path (MP), Path, and Deictic-Path verbs, occurring with or without complements. Transitive (causative) motion is similarly expressed, though with verbs expressing Cause instead of Manner, and combining only with MP verbs that express non-volitional motion. Since Manner verbs combine with Path verbs in expressing boundary-crossing events, it could be concluded that Thai does not obey the “boundary-crossing constraint”, which states that in V-languages, Manner-of-motion verbs can be used to describe only non-boundary-crossing situations (Slobin & Hoiting 1994). Furthermore, since several Path verbs can combine in a single translocative-motion construction, there is no constraint to encode only a single “path segment” per clause, as is the case in V-languages but not in S-languages.

To see how these structural characteristics were “translated” into specific discourse properties, we investigated all translocative-motion utterances in a corpus of 50 Thai frog stories. The results showed that *both* the verbs expressing Cause/Manner (the classes CoM, MAN, and MP) and those expressing Path (MP, PATH, and DEI) were highly represented in terms of both tokens and types, though with explainable differences within the groups. The fact that the Manner + Path (MP) class straddles both sides of this divide reinforces the conclusion that Thai avoids the dilemma of either-Manner-or-Path through a synthesis: not either-or, but both!

Table 12.

Comparison between structural and discourse characteristics of V-languages (verb-framed), S-languages (satellite-framed), and Thai

Parameter	V-Language	S-Language	Thai
Core schema (Path) expression	Verb	Satellite	Verb
Co-event (e.g., Manner) expression	Adverbial	Verb	Verb
Boundary-crossing constraint	Yes	No	No
Several path segments per clause	No	Yes	Yes
Manner-verb use	Low	High	High
Ground specification	Lower (63% for Spanish)	Higher (82% for English)	Lower (25% per verb; 51% per clause)
Event granularity	Lower “Cliff scene”: < 3	Higher “Cliff scene”: > 3	Higher “Cliff scene”: > 3
Scene setting	Yes	No	Some

Still more quantitatively, we compared the Thai frog-story data with similar data for other languages, collected by, e.g., Slobin and Ibarretxe-Antuñano, with respect to the discourse parameters *a*) Manner-verb use (in the encoding of a particular “exiting” event), *b*) level of Ground specification, *c*) event granularity (number of sub-events encoded), and *d*) presence of static, “scene-setting” expressions. With respect to these factors, Thai appeared to resemble S-languages more than V-languages, especially if one disregards Ground specification, which was surprisingly low – something that could be attributed to a “pragmatic” principle of avoiding explicit nominal reference whenever Ground information can be contextually recovered.

Table 12 summarizes these findings and juxtaposes them with the characteristics of (typical) verb-framed and satellite-framed languages. This clearly shows that even though by the first *definitional* criterion, Thai should be regarded as “verb-framed”, it resembles typical V-languages very little, and in most structural and discourse parameters it behaves much more like the S-languages. This seeming contradiction – Thai is a V-language that mostly behaves like S-languages – can be resolved only by stating that the language belongs to a *third class*. We hypothesize that this is the class to which all (typical) serial-verb (SV) languages belong. This last claim is supported by the research of Essegbey

and Ameka (in press), who come to essentially the same conclusions as we do for Thai in their analysis of the Niger-Congo languages Ewe and Akan.¹⁸

Slobin and Hoiting (1994) acknowledge the special characteristics of serial-verb languages, but describe them as being on a “cline” between S-languages and V-languages, rather than belonging to a separate third type:

In this paper, we focus our attention in a language’s tendency to encode paths in full verbs rather than in other types of elements. Perhaps it would be more appropriate, therefore, to speak of *verb-framed* and *non-verb-framed* languages. In this sense, languages like Lahu are at the verb-framed end of the cline. (Slobin & Hoiting 1994:502)

The problem with this proposal is that while on a “cline” based on a parameter such as verbal encoding of Path, serial-verb languages would indeed be “at the verb-framed end of the cline”, but based on other parameters, e.g., verbal encoding of Manner, they would be towards the satellite-framed end. As a matter of fact, based on the findings reported in this chapter, summarized in Table 12, we would claim that *there is no consistent metric according to which serial-verb languages can be positioned “between” S-languages and V-languages.*

Hence, we fully agree with Essegbey and Ameka that serial languages belong to a third type, or – to extend Slobin’s (1996) well-found metaphor – that they offer a “third way to travel”.

There is an even more fundamental reason why serial-verb languages should be considered a distinct type: The motivation behind the original dichotomy is the presence of a *single* main-verb slot in the clause structure of the languages analysed. Given this basic constraint, languages can fairly naturally be distinguished on the basis of whether they preferentially use this slot to encode Path, leaving Manner to an optional adverbial, or rather to encode Manner, leaving Path to a “satellite”. But in the serial-verb languages, this basic constraint is *relaxed* – the language need not choose between the first and the second strategy since it can easily have it both ways: Path and Manner are expressed in two different verbs, which are *structurally and discursively of equal status.*

The conclusion can only be that the existence of serial-verb languages such as Thai, Ewe, and Akan entails the need to extend the Talmian binary motion-event typology *at least* into a ternary one. In the process of this extension, the role of structural parameters such as the number of verbs per clause and the presence/absence of a locative-case system will need to be rethought. Theoretical frameworks such as *distributed spatial semantics* (Sinha & Kuteva 1995) and *holistic spatial semantics* (Zlatev 1997, 2003), which emphasize the many-to-many mapping between, on the one hand, (lexical and grammatical) form classes and, on the other, semantic categories such as Path, Manner, and Region, are likely to prove useful for this purpose. But this is the topic for another story ...

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Finally, we wish to emphasize that despite our somewhat critical, “revisionary” attitude concerning some of the work of Len Talmy and Dan Slobin, we are very much aware that we are, at best, standing on the shoulders of these two linguistic giants.

NOTES

1. It is generally unknown to the English-reading world that the currently famous typological distinction between Manner verbs and Path verbs was introduced by Tesnière (1959) under the terms *mouvement* and *déplacement*, respectively (cf. Wälchli 2001). Tesnière observed that French motion verbs express predominantly *déplacement*, while in German, Latin, and Russian motion verbs express mostly *mouvement*.
2. Talmy’s (and Slobin’s) notion of *ground* corresponds closely to that of *landmark* (Langacker 1987). We will use the two terms interchangeably, except in cases such as *He went outside*, where a ground is arguably expressed without there being an explicit landmark. To avoid any possible misunderstandings, we will capitalize the term, i.e., *Ground*.
3. We will use this term, which we find considerably more transparent than the term *translational*.
4. This is usually equated with the Speaker in discussions of Deixis within Thai linguistics, but the two are not identical (cf. Zlatev 2003), even though they appear to coincide more often than in English (cf. Fillmore 1966).
5. Takahashi (1997) describes 26 such verbs expressing “global locomotory body motion”, and this list is by no means exhaustive.
6. Etymologically, the two syllables of the verb mean ‘walk’ and ‘road’, and synchronically, the verb implies traversing a long distance using effort and – by pragmatic implicature – by means of a vehicle. This motivates our inclusion of this verb in the Manner category.

7. For example, English satellites are within the scope of negation too, at least when stressed: *He did not walk into the room – he walked out of it.*
8. The difference between these two kinds of “falling” is subtle and difficult to pinpoint, but it seems that *tók* is more general while *lòn* implies a preceding event causing the fall. Accordingly, rain can *tók* but not *lòn*.
9. “Big brother/sister” and “little brother/sister” are clumsy English translations of the terms *phii* and *ńǝǝŋ*, respectively, which are extremely common in spoken Thai and roughly indicate whether the speaker is of higher or lower age/status than the addressee.
10. The contrast between /l/ and /r/ is often not preserved in colloquial style, but it is a feature of Standard Thai, and we have consistently added the standard form in brackets in the cases where /r/ is pronounced as [l].
11. Most of the CLAN programs make an automatic substitution of the second form for the first, which gives greater reliability in, e.g., counting word types. This substitution can be easily cancelled and analysis performed on the first forms by using the switch “+r5”.
12. All CLAN programs except MLU and MODREP include the repeated/retraced material by default, and in order to exclude it, the switch “+r6” needs to be used.
13. “Somsaan”, LOSO (Bangkok: More Music, 1998).
14. An exception from the condition U1 was made when there was only a single word (or short phrase) serving as a “filler” between the clause boundary and the actual pause; in this case, the utterance was terminated after this filler.
15. The “third type” according to this classification: conflation of Motion with Figure, i.e., information about the nature of the moving entity, exemplified by some North-American languages such as Atsugewi and Navajo, need not concern us here.
16. As in *He turned his head around*. One could argue that the corresponding motion verbs in Thai should rather be regarded as verbs of Cause-of-Motion, but in the present analysis, both kinds of uses, i.e., with explicit and implicit landmarks, are coded as MP verbs, for the sake of simplicity.
17. These were defined either as concrete nominals or, if those are absent, as “Class nouns” combined with “Region nouns”, e.g., *khaaN0* ‘side’ + *naj0* ‘in’, the combination of which corresponds to the English *inside*.
18. Essegbey and Ameka (in press) summarize their results in a table that is almost identical to our Table 12, except that they generalize directly to “serializing language” and do not include data on Manner-verb use and degree of Ground specification.