

**Subcategorization pattern and lexical meaning of motion verbs:  
A study of the Source/Goal ambiguity<sup>1</sup>**

ABSTRACT

The paper addresses the problem of the linguistic encoding of the locative roles of Goal and Source of motion. After discussing the typological patterns of marking static locations, goals, and sources of motion, I analyze data from Wan, a Southeastern Mande language that often does not encode the distinction between sources and goals either outside of the verb (by adpositions or case) or in the verb's argument structure. In addition to a class of specialized verbs that subcategorize for a particular type of locative argument ("source verbs" and "goal verbs"), Wan has a number of verbs that do not restrict their argument to either sources or goals. I show that the two verb classes contrast with respect to the amount of information about the direction of motion that is entailed by the verb's lexical meaning. In encoding the role of the locative argument, the two verb classes rely on different strategies: the semantic role is either encoded in the verb's argument structure, or inferred from the interaction of contextual information and the verb's lexical entailments. I demonstrate how the lexical entailments of motion verbs influence their subcategorization pattern and discuss cross-linguistic evidence that supports this analysis.

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# 1. Cross-linguistic expression of Goals, Sources, and Places

## 1.1. Typological patterns of linguistic encoding

There are two types of information that languages typically encode in descriptions of spatial relations. The first type is information about the search domain in which the *Figure* is localized in relation to a *Ground*. It is usually specified by spatial adpositions, such as the English prepositions *in* and *on*, which pick out different spatial regions as the search domain for the Figure's location (these regions can be roughly defined as the area contained by the Ground for *in*, and the area located at the top of the Ground for *on*). The other type of spatial information encoded by languages is the *semantic role* of the locative argument, which defines the relationship between the Figure and the specified search domain. This relationship can be dynamic, if the Figure is in motion, or static; and in the case of a dynamic relationship, the Figure can be moving toward the search domain or away from it.<sup>2</sup> The table in (1) introduces the three major locative roles that I am concerned with in this paper.

(1) Three major locative roles

Relation	Semantic role	Example
static	Place	live <i>in</i> a house
dynamic	Goal	run <i>into/to</i> the house
	Source	run <i>from</i> the house

There are a number of ways to encode the locative roles of Source, Goal, and Place, including the use of specialized adpositions, case marking, specialized particles, and verb forms. Talmy (1985, 1991) distinguishes between two major strategies of marking goals of motion depending on the element that carries that meaning: *verb-framed* languages encode the meaning of goal in the verb by using specialized verb forms, prefixes, etc., while *satellite-framed* languages express the same meaning outside of the verb (by particles, specialized adpositions, case marking, etc.).

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<sup>2</sup> For the purposes of the present discussion, I am ignoring the difference between motion in the direction of a search domain and transition into the search domain, which is often encoded in languages by distinct forms (as, for example, in English *toward* vs. *into the house*).

The relationship between the three major locative roles appears to be asymmetric: the meaning of Goal seems to be “closer” to the meaning of Place than to the meaning of Source (see Stolz (1992: 82-83) for a similar conclusion based on cross-linguistic patterns of diachronic development of the three categories; also Blake (1977: 60) for a summary of case syncretisms in Australian languages). This intuitive notion of relative “distance” in the semantic space corresponds to the apparent frequency of the formal encoding of contrasts between different categories. In a number of languages adpositional marking is not sensitive to the distinction between goals and static locations. These are the languages characterized as “path-languages” by Talmy (1975, 1985), which in general lack adpositions or case marking specialized for the expression of goals (Song and Levin 1998; Beavers, Levin and Tham 2006). Below is an example from French, where no difference is encoded between (2a) and (2b) at the level of the preposition (in both cases, *à*). The prepositional phrase is interpreted as the goal of motion in (2a), and in (2b) it can be interpreted either as a goal or as a static location.

- (2) a. Je suis allé à l'école.  
 'I went to school.' (motion toward a goal)
- b. J'ai couru au stade.  
 'I ran at/to the stadium.' (ambiguous: motion toward a goal / within a location)

There are also languages that overtly encode the distinction between goals of motion and static locations, but not the distinction between static locations and sources of motion. This type, however, is more unusual than the previous one (Creissels 2006: 22). An example of this neutralization pattern is Nivkh (Gruzdeva 1998; Gashilova 1985: 8-10), where goals of motion are marked by the dative/additive case as in (3a), and sources and static locations are marked by the locative/ablative case (3b-c); all examples are from Gruzdeva (1998: 20).

- (3) a. N'i-ø                      vyn'-ø                      d'yr-dox                      myr-d'  
 I-NOM                      copper-NOM                      brim-DAT/ADD                      rise-FIN  
 'I rose to the brim of the copper.'                      (Goal = DAT/ADD)
- b. T'ivlaŋ                      čay-ux                      ŋat'x-ø                      vezla-d  
 cold                      water-LOC/ABL                      foot-NOM                      cramp-FIN  
 '[I] have cramp in [my] foot in the cold water.'                      (Place = LOC/ABL)

c. Umgu- $\emptyset$                       n'o-x                      p'u-d'  
 woman-NOM                      barn-LOC/ABL                      come.out-FIN  
 'A woman came out from the barn.'                      (Source = LOC/ABL)

The same pattern is also found in the Western Nilotic language Dinka (Andersen 2002: 11-12); examples of partial ablative/locative syncretisms and transfers are discussed in (Mackenzie 1978).

Finally, a number of languages do not distinguish overtly between any two of the locative roles. In this paper, I discuss data from such a language, i.e. a language that has no specialized markers for places, goals or sources.

The various types of encoding patterns discussed above are represented schematically in (4).

(4) Patterns of neutralization of distinction between locative roles<sup>3</sup>

Encoding strategy	Explanation
Type A: Goal vs. Place vs. Source	All three roles are encoded with specialized forms, cf. Russian <i>v</i> + accusative vs. <i>v</i> + prepositional case vs. <i>iz</i> + genitive (discussed in more detail below).
Type B: Goal/Place vs. Source	Source is encoded in a unique way but no distinction is made between Place and Goal, as in (2a-b) from French (the source of motion is typically encoded in French by a distinct preposition <i>de</i> ).
Type C: Goal vs. Place/Source	Goals are encoded in a unique way but no distinction is made between Place and Source, as in (3a-c) from Nivkh.
Type D: Goal/Place/Source	No distinction is encoded between any pair of locative roles. This type is the primary focus of the present paper.

It is uncommon to find a language that does not encode the contrast between goals and sources, but at the same time has a specialized form for the expression of static locations, as in Type E below.

<sup>3</sup> I am primarily concerned here with patterns of encoding outside of the verb, e.g., with the satellite-framed strategy, where the locative role receives an overt marker such as adposition or case. Although the same meaning can alternatively be encoded in the verb as part of its argument structure, the use of this strategy is not well studied cross-linguistically.

(5) Type E: Goal/Source vs. Place

This system, however unusual (cf. Andrews 1985: 97), appears to exist in Laz (Kartvelian), and the same “motative” case can be used to encode goals and sources of motion, while static locations are typically expressed by an unmarked (“zero case”) form (Kutscher 2001: 162-72). Thus, Type E can be described as existing, although extremely uncommon and perhaps exceptional.<sup>4</sup>

The apparent asymmetry in typological patterns of neutralization of formal distinction between different locative roles can be captured using the semantic map method as in the following representation (an overview of this method can be found in Haspelmath (2003)):

(6) Goal – Place — Source

The simple one-dimensional semantic map in (6) represents the relative distance between the three categories in the universal conceptual space. This distance corresponds to the likelihood of any pair of meanings being expressed by the same form. The semantic map in (6) can be alternatively read as an implicational hierarchy of distinct formal encoding: if a language uses the same form to encode two categories that are not adjacent in the semantic space (here, Source and Goal), it will also use the same form to encode the categories in the middle (here, Place). This generalization captures the cross-linguistic tendencies in the mapping of conceptual categories of Goal, Source, and Place onto linguistic expression. On the other hand, the greater distance between Place and Source in (6) compared to the distance between Place and Goal reflects the fact that identical encoding of goals and static locations is typologically more common than identical encoding of static locations and sources.

Differences in the category-to-form mapping, however, only account for one kind of variation in the linguistic expression of spatial information, namely, the neutralization patterns, or the generalization that if sources and goals are not distinguished, static locations tend to be expressed by the same form. Another kind of variation has to do with

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<sup>4</sup> Goals and sources are marked by distinct forms (allative vs. ablative) in some dialects of Laz. Historically, the “motative” case seems to be a result of a phonological reduction of the ablative form, which made it homophonous with the allative (Holisky 1989: 407, 467-8).

differences in the construal of the language-specific categories of Goal, Source, and Place. In the next section I show how the representation in (6), in addition to capturing the general typological tendencies in neutralization patterns, is helpful in accounting for this other type of variation.

## 1.2. Language-specific construal of conceptual categories

Goal, Source, and Place in (6) represent linguistic categories, which are mapped onto specific expression types in the language-specific ways summarized in the previous section. However, the semantic content of such categories can vary across languages as languages differ in the ways they draw the boundaries between the categories. The same type of locative argument may be marked as a goal (or source) in one language but as a static location in another. Variation in marking of such borderline cases is discussed in Dahl (1987) for two types of verbs. First, verbs like *remain*, *leave*, and *forget* (in the meaning of ‘leave behind’), which, according to Dahl, encompass more than one point in time but involve only one location, combine with locational phrases in English and Russian but with directional (illative) phrases in Finnish. Similarly, verbs meaning ‘search’, ‘look for’, or ‘find’ take an argument marked as a source of motion in Finnish but a locational phrase in Russian and English (Dahl 1987: 153). Similar cross-linguistic variation is commonly found with verbs like ‘buy’, which combine with static locations in some languages, as in English *buy x at the store*, but with source phrases in others, such as Kazakh (cf. also English *get x from the store*). Cross-linguistic variation of this kind illustrates the flexibility in drawing the line between the neighboring categories (following the representation in (6), between Goal and Place, and between Place and Source), demonstrating how “the borderlines between case categories are drawn differently by different languages” (Dahl 1987: 157; see also Mackenzie 1978: 154).

Besides capturing the cross-linguistic patterns of variation, the special status of sources and goals as a maximally distant pair of categories in (6) reflects another tendency that can be observed within one language. It is quite common to see variation in the marking of the same argument with the same verb, where the goal marking alternates with the marking for static locations without any difference in truth conditions. Same variation is found in the choice between the marking for static locations and the marking

for sources of motion. At the same time, it is hard to find cases of variation that would involve marking for goals and marking for sources and reflect overlap in the categories that are maximally distant in the semantic space).

I will illustrate this with examples from Russian, where the distinction between goals and static locations is normally encoded by case marking, as shown in (7a-b).

- (7) a. Kljuchi lezhat na stole / \*na stol  
 keys lie on table- PREP / \*on table- ACC  
 ‘The keys are lying on the table.’ (Place marking only)
- b. Kljuchi upali na stol / \*na stole  
 keys fell on table- ACC / \*on table- PREP  
 ‘The keys fell down onto the table.’ (Goal marking only)

With a preposition like *na* ‘on(to)’, static locations are marked by the prepositional (sometimes referred to as the locative) case (7a), and goals of motion are marked by the accusative (7b). The sentence in (8), however, is acceptable with both prepositional and accusative case marking, i.e. the locative argument of the verb ‘put’ in (8) can be encoded as either Place or Goal.

- (8) Polozhi kljuchi na stole / na stol  
 put keys on table- PREP / on table- ACC  
 ‘Put the keys on/onto the table.’ (Place or goal marking)

The choice of encoding depends on contextual factors, such as the type of theme and the duration of the resulting state, which, as discussed in Nikitina (2003), are relevant for the construal of the event as dynamic or static. The set of verbs that allow for such variation consists mainly of verbs describing events that can be conceptualized as transitions in space but at the same time do not involve a well-defined path of motion, such as verbs of change of position (*sadit’sja* ‘sit down’, *lozhit’sja* ‘lie down’, etc.). Other verbs that fall in this category are verbs that describe events of caused motion in which the theme does not move along a trajectory independently of the subject participant (verbs like *prjatat’* ‘hide’, *zakapyvat’* ‘bury’, *klast’* ‘put’, *veshat’* ‘hang’, etc.) and verbs of metaphorical transfer (*zapisyvat’* ‘write down’).

The variation in (8) appears to be due to the lack of a clear-cut boundary between the locative roles of Place and Goal, where the overlapping of the two categories in conceptual space results in variable marking with certain verbs within the same language. A similar overlap can be found for the categories of Place and Source, as illustrated below:

- (9) Voz'mi kljuchi na stole / so stola  
 take keys on table- PREP / from table- GEN  
 'Take the keys on the table / from the table.' (Place or source marking)

The verb *vzjat'* 'take' in (9) allows for variation in the encoding of its locative argument as a static location (prepositional case) or a source of motion (specialized "source" preposition with a genitive noun phrase). An alternative interpretation of this example could explain the option of using the static marking (prepositional case on the noun) by the locative phrase functioning as a modifier of the object noun phrase *kljuchi* (describing a kind of keys—the ones that are on the table). This possibility, however, is ruled out by the interrogative example in (10), which shows that the variation extends to adverbials, which cannot function as nominal modifiers in Russian.

- (10) Gde / Otkuda ty vzjal kljuchi?  
 where / where.from you took keys  
 'Where did you get the keys (from)?' (Place or source adverbial)

I interpret examples of variation between goal marking and place marking in (8) and examples of variation between place marking and source marking in (9) as a result of an overlap in the meaning of two different categories (which are adjacent in the conceptual space in 6), when the same situation described by the same verb qualifies as an instance of either event type (static event vs. event of motion). At the same time, cases of alternation between goal marking and source marking are hard to find, which again can be attributed to the remoteness of the roles of goal and source in the conceptual space. I did not find any examples of such variation in Russian.

As examples of variation in the marking of locative roles demonstrate, the cross-linguistic pattern of differential encoding of distinct locative roles (namely, the fact that the categories of Goal and Source are most likely to be encoded by contrasting forms)

corresponds to the degree of categoricity in the choice of marking within one language (cases of variable marking are most difficult to find for goals and sources). The examples of variable encoding of the role of the locative argument in Russian show that even in a language that overtly encodes the distinction between all three categories (Place, Goal, and Source), the mapping of locative roles onto spatial expressions is not always straightforward, due to the fuzziness of the category boundaries.

In what follows, I focus on the problem of the category-to-form mapping, leaving aside the problem of variation in the semantic content of language-specific categories. I present a case study of the encoding of motion events in Wan, a representative of the system characterized above as Type D, i.e. a language that does not mark the distinction between the roles of Goal and Source. As I show in the subsequent sections, not only does Wan not mark the source/goal distinction outside of the verb, but it also does not always encode this distinction in the verb's argument structure, i.e. not all motion verbs subcategorize for a specific locative role. I examine the meaning of verbs that can combine with either a source or a goal of motion and discuss the role that lexical entailments play in facilitating the contextual inference of the role of the locative argument.

## 2. Verbs of directed motion in Wan

### 2.0. Introduction: locative postpositions

Wan is a Southeastern Mande language spoken by approximately 20,000 people in central Côte d'Ivoire. It is a virtually undescribed and undocumented language; the data presented here was collected as part of a language documentation project in the period between 2001 and 2006 in the village of Kounahiri and in Abidjan. The basic word order of Wan is SOVX (the object precedes the verb but oblique arguments follow it, marked by postpositions). This pattern is illustrated in (11), where the object precedes the verb, and the locative argument follows it.

- (11) *è wlaŋwà klā nɛ́ é tã*  
 3SG.SBJ clothes put.PAST child DEF on  
 'She dressed the child.' (lit. 'She put the clothes on the child.')

The locative postpositions of Wan are derived from relational nouns with locative meanings. Most locative postpositions can be traced back to nouns referring to internal parts of inanimate objects, such as ‘top’, ‘bottom’, ‘inside’, ‘sides’. A few postpositions are derived from body part terms like ‘head’ and ‘belly’; the two classes of postpositions and differences between them are discussed in (Nikitina forthcoming). An important property of Wan locative postpositions is the lack of distinction between the meaning of an internal part of the reference object and the meaning of an external region adjacent to that part. Lexicalization of this distinction in adpositions is typical of the Indo-European languages (cf. English *on* vs. *above*). In Wan, localization in the areas adjacent to the reference object is encoded by the same postpositions as localization in contact with the corresponding surface. This indeterminacy is apparent from the English glosses in the chart below, where I introduce the basic locative postpositions of Wan.

(12) Basic locative postpositions of Wan

<i>tā / pēŋ</i>	‘on’, ‘above’
<i>gó / káò</i>	‘inside’
<i>mì</i>	‘by’, ‘on the outer surface’, ‘near’
<i>dìŋ</i>	‘close to’, ‘in the proximity of’
<i>wā</i>	‘at the bottom of’, ‘under’
<i>trāgá</i>	‘in the middle of’, ‘between’
<i>lé</i>	‘on the surface of’

### 2.1. Encoding of locative roles in Wan

The system of Wan locative postpositions is rather unusual in not marking a distinction between any pair of the three locative roles (Type D). Some other languages of this type are Tok Pisin (Mosel 1980: 129) and languages discussed in section 5; for a typological survey, see (Wälchli and Zúñiga forthcoming). In Wan, all locative postpositions encode the position of the search domain with respect to a reference object, yet none of them provides information as to whether the specified search domain serves as a place where the Figure is located, a source of the Figure’s motion or its destination. Unlike adpositions of Indo-European languages, which tend to encode both types of information

(cf. English *in*, used in static situations, *into*, used for reference to goals of motion, and *from*, used for reference to sources), in Wan, postpositions only carry information about the search domain. The relation between the search domain and the Figure is either encoded in the verb or needs to be inferred from context. In the next three examples the same postpositional phrase is interpreted as Place, Goal or Source, depending on the verb it combines with.<sup>5</sup>

- (13) a.  $\hat{a}$   $y\bar{i}$   $k\bar{a}l\bar{e}$   $g\acute{o}$   
 3PL sleep.PAST forest in  
 ‘They fell asleep in the forest.’ (Place)
- b.  $\hat{a}$   $g\bar{a}$   $k\bar{a}l\bar{e}$   $g\acute{o}$   
 3PL go.PAST forest in  
 ‘They went to the forest.’ (Goal of motion)
- c.  $\hat{a}$   $g\bar{o}$   $k\bar{a}l\bar{e}$   $g\acute{o}$   
 3PL leave.PAST forest in  
 ‘They left the forest.’ (Source of motion)

As the examples above illustrate, Wan lacks not only postpositions specialized for the expression of goals (13a vs. b), but also postpositions specialized for the expression of sources of motion (13c).<sup>6</sup> Verbs of directional motion in this type of language are often described as necessarily specialized for the expression of only one of the two meanings: a verb can be used to express events of motion either in the direction of a location, or away from it. In theory, this division of motion verbs into “goal verbs” and “source verbs” guarantees unambiguous encoding of information about the locative role of the postpositional argument, since each verb subcategorizes for one semantic argument type,

<sup>5</sup> With some verbs, the same postpositional phrase can express the path of motion (e.g., with the verb *b\delta* ‘pass’); with other verbs, such as ‘cross’, the path of motion is encoded as the direct object. The example below illustrates the expression of path as a PP argument of the verb *k\acute{u}n\hat{a}* ‘climb’.

(i)  $k\acute{u}n\hat{a}$   $yr\bar{e}l\bar{e}$   $\acute{e}$   $m\grave{i}$   
 climb stairs DEF at.side.of  
 ‘Climb the stairs.’

<sup>6</sup> Many speakers of Wan are bilingual in French. Interestingly, when speaking French, some of them seem to reproduce the lack of distinction between the source of motion and other locative roles. They tend to use the preposition *dans* ‘inside’ with sources of motion instead of the preposition *de*, which marks the source of motion in Standard French; sentences like *Il est venu dans la ville* can be uttered by speakers of Wan for what in Standard French would be expressed as *Il est venu de la ville* ‘He came from the city’).

either a goal or a source of motion. This is how this mechanism is described by Creissels (2006: 23):

Localization is the default interpretation, and the roles of source or destination can be assigned by verbs only. The general rule is that each motion verb has at most one locative argument to which it unambiguously assigns either the role of source, or that of destination.

Although this view holds for some motion verbs in Wan, it fails to account for the fact that a considerable number of verbs of directional motion have a certain degree of flexibility as to which semantic type of locative argument they combine with. The locative argument of such “non-specialized” verbs can therefore receive the interpretation of source or goal of motion depending on the broader context. In the following sections, I discuss the difference between the two types of motion verbs in more detail and show that the split of the verbs into two classes is systematic and conditioned by one particular aspect of the verb’s lexical meaning. In particular, I will argue that the behavior of motion verbs with respect to selectional restrictions on the role of the locative argument can be predicted based on the amount of information about the direction of motion entailed by the verb’s meaning.

## 2.2. Two classes of verbs of directional motion

Since Wan lacks any specialized postpositions for expressing of goals or sources of motion,<sup>7</sup> it is natural to conjecture, following Talmy’s distinction between the verb-framed and the satellite-framed languages, that in the absence of specialized markers of locative roles outside of the verb (“satellites”), the language would resort to the “verb-framed” strategy and encode the semantic role of the locative argument as part of the verb’s grammar. The use of this strategy in Wan is illustrated in (13b-c), repeated below as (14a-b).

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<sup>7</sup> The lack of distinction between sources and goals extends beyond the spatial domain. For example, the same possessive postposition is used in Wan for the expression of the recipient in a selling event (sell x to y) and the abstract source in a buying event (buy x from y). Thus, the abstract source and goal of the verbs ‘buy’ and ‘sell’ are not distinguished at the level of the postposition (in both cases, *əŋ-lé*, ‘in one’s possession’). In this paper, however, I only discuss the expression of spatial goals and sources with motion verbs.

- (14) a.  $\hat{a}$  *gā*                    *kālē* *gó*  
           3PL go.PAST            forest in  
           ‘They went to the forest.’ (Goal verb used)
- b.  $\hat{a}$  *gō*                        *kālē* *gó*  
           3PL leave.PAST        forest in  
           ‘They left the forest.’        (Source verb used)

The verbs in (14a-b) are specialized for the expression of “motion toward” and “motion away from”, respectively, so that each sentence can only receive one interpretation. The chart in (15) contains verbs that are specialized in this way, subdivided into goal verbs, which select for goals, and source verbs, which select for sources. Many motion verbs can be used both intransitively (with the theme expressed as the subject) and transitively in descriptions of caused motion (with the theme expressed as the object). When both uses are possible, I list the intransitive meaning first, followed by the meaning for the transitive use after a semi-colon.

(15) Specialized verbs of motion

Goal verbs		Source verbs	
<i>gà</i>	‘go’	<i>gò</i>	‘leave’, ‘depart’; ‘take away’
<i>tá</i>	‘arrive’, ‘settle down’ ; ‘place’	<i>bā</i>	‘escape’; ‘save’, ‘take away’
<i>klá</i>	‘arrive’ ; ‘place’, ‘pour’, ‘put’	<i>klé</i>	‘drive out’, ‘chase’
<i>wiá</i>	‘enter’ ; ‘insert’	<i>bìlà</i>	‘pull’
<i>tálà</i>	‘throw oneself’, ‘rush’ ; ‘throw’		
<i>yá</i>	‘place oneself, sit down’; ‘put’		

As is typical of verb-framed languages, verbs that encode particular manners of motion do not combine with either sources or goals in Wan. Some verbs of manner of motion can modify a directional predicate, as in (16), where a nonfinite form of the verb *blèkó* ‘run’ is marked by the postposition *yā* ‘with’ (when used with verbs, the postposition denotes simultaneity of the secondary and the principal actions).

- (16)  $\hat{e}$             *zō*                    *blèkó* *yā*        *kōŋ* *gó*  
           3SG.SBJ come.PAST run    with    village in  
           ‘He came to the village running.’

Each verb listed in (15) has a single locative role associated with it. It is therefore impossible to specify both the goal and the source of motion using a single verb (as in the English sentence *He went from the village to the city*). Wan does not use serial verb constructions, and the only way to express both the endpoint and the starting point of motion is to use two separate clauses, as in (17).

- (17) è gō kōŋ gó b'é é gā túābù trōó tā  
 3SG.SBJ leave.PAST village in then 3SG go.PAST European land on  
 ‘He moved from the village into the city.’

Similarly, with verbs that describe a specific manner of causing motion (*bìlà* ‘pull’, *klé* ‘drive out, chase’), an additional predicate is required to introduce an argument with a role that is not subcategorized for by the verb (goal of motion for *bìlà* ‘pull’, as in (18); source of motion for *klé* ‘drive out’).

- (18) yāá kpó dō bìlà lé yí é gó b'é é lā tá yí-tā-gòŋ é gó  
 3SG-COP fish one pull PROG water DEF in then 3SG it put boat DEF in  
 ‘He is pulling a fish into the boat.’

This behavior is again characteristic of verb-framed languages that have no specialized satellites for the expression of sources and goals (Bohnmeyer et al. forthcoming). The case of Wan, however, is interesting in that not all verbs of directional motion are strictly associated with a particular type of locative argument. It turns out that a number of verbs can combine with either a source or a goal of motion, as demonstrated by an example of an ambiguous sentence in (19).

- (19) è siā yrē é gó  
 3SG.SBJ fall.PAST tree DEF in  
 ‘He fell from the tree.’ or ‘He fell into the tree.’

The search domain specified in (19) by the postpositional phrase is the area “inside” the tree, i.e. the tree’s foliage. The verb does not restrict the role of the locative argument to either the source or the goal, and the sentence receives its interpretation depending on broader context. Thus, the source interpretation is preferred if the Figure is a person, and

the goal reading becomes more plausible when the Figure is, for example, a bird that got shot in flight. Another example of an ambiguous sentence is (20).

- (20) *è zò bā é lé bē é p̄ l̄*  
 3SG.SBJ come.PAST field DEF at then 3SG thing eat.PAST  
 ‘He came to the field and had a meal’ or ‘He came from the field and had a meal.’

Like *siá* ‘fall’, the verb *zò* ‘come’ does not constrain the interpretation of its locative argument, and (20) is disambiguated in context, depending on the location of the deictic center of the narration; I will return to the discussion of spatial deixis with this verb in section 3. Other verbs of this type are listed below in (21). These are verbs of directional motion that do not subcategorize for a particular locative role, or verbs with flexible role assignment.

- (21) Verbs that combine with either sources or goals:

<i>siá</i>	‘fall’; ‘drop’
<i>zià</i>	‘come down’, ‘descend’ ; ‘place’, ‘put down’
<i>mlǎ́</i>	‘come/go out’ ; ‘take/bring out’
<i>zò</i>	‘come’
<i>glà</i>	‘take’

In the next section, I look at the contrast between verbs that combine with only one type of locative argument (the set of verbs in 15) and verbs that have no such restriction (the set of verbs in 21). I explain the split between the two types of motion verbs by the degree to which the lexical meaning of a particular verb entails certain characteristics of the starting point and the endpoint of motion.

### 3. Predicting the subcategorization pattern of the verb

#### 3.1. Subcategorization pattern and lexical entailments

Verbs of directional motion from the two major classes are juxtaposed below in (22). As before, verbs that subcategorize for a particular type of locative argument are divided into two subclasses, source verbs and goal verbs.

## (22) Subcategorization patterns of motion verbs

Specialized		Flexible role assignment
Goal verbs	Source verbs	
<i>gà</i> ‘go’	<i>gò</i> ‘leave’; ‘take away’	<i>siá</i> ‘fall’; ‘drop’
<i>tá</i> ‘arrive’; ‘place’	<i>bā</i> ‘escape’; ‘save’	<i>zià</i> ‘descend’; ‘place’
<i>klá</i> ‘arrive’; ‘place’; ‘put’	<i>klé</i> ‘drive out’; ‘chase’	<i>mlá</i> ‘come out’; ‘take out’
<i>wiá</i> ‘enter’; ‘insert’	<i>bìlà</i> ‘pull’	<i>zò</i> ‘come’
<i>tálà</i> ‘throw oneself’; ‘throw’		<i>glà</i> ‘take’
<i>yá</i> ‘place oneself’; ‘put’		

The assignment of verbs to one of the two classes (specialized vs. non-specialized) may at first appear random. There is no obvious aspectual asymmetry between the two classes: some durative verbs, such as *gà* ‘go’ or *bìlà* ‘pull’, belong to the class of specialized verbs, others, such as *zià* ‘descend’, do not impose a restriction on the role of their argument. Similarly, punctual verbs are distributed randomly between the two classes: *tá* ‘put’ and *klá* ‘arrive’ are specialized, and *zò* ‘come’ and *glà* ‘take’ are not.

Frequency also does not predict the verb’s subcategorization pattern, since both classes are composed of verbs that intuitively differ widely in their frequency. Relatively frequent and general verbs can be specialized (e.g., *gà* ‘go’) or flexible (e.g., *zò* ‘come’), and considerably less frequent and more specific verbs can also belong to either class (cf. the verb *bā* ‘escape’ and the verb *mlá* ‘come/go out’).

Another possible explanation could be a difference in the syntactic status of the postpositional phrase. Perhaps, it is an argument with specialized verbs and an adjunct with verbs that have flexible role assignment? Both classes, however, include verbs that can be used without a postpositional phrase. The verb *gà* ‘go’ can be used on its own without a locative argument, referring to an event of departure when the goal is not specified; the verb *klé* ‘drive out’, ‘chase’ is often used without a postpositional phrase to describe situations when the subject participant pursues the theme. Within the class of verbs with flexible role assignment, the verb *siá* ‘fall’ can be used without a locative argument both referring to a change in position (in the sense of ‘collapse’) and describing motion along a path. The lack of correlation with the degree of the argument’s optionality makes it difficult to explain the difference between the two classes of verbs by attributing

a distinct syntactic status to their locative arguments, especially in the absence of further evidence that would support the argument/adjunct distinction when the PP is present.

None of these explanations accounts for the distinction between specialized motion verbs and verbs with flexible role assignment in Wan. It would be wrong, however, to conclude that the assignment of verbs to one or the other class cannot be predicted. In the rest of this section, I will argue that all verbs with flexible role assignment share one aspect of lexical meaning: they all describe directional motion characterized by an inherent asymmetry in the properties of the source and the goal.

Two of the verbs with flexible role assignment, *siá* ‘fall’ and *zià* ‘descend’, describe vertical motion in a fixed direction. With both verbs, the endpoint of motion is always located lower on the gravitational axis than its starting point. This inherent asymmetry in the properties of the source and the goal of motion plays an important role in contextual disambiguation of sentences with such verbs. A considerable number of locations only qualify for one semantic role, either the source or the goal of motion. For example, all ground level locations are unambiguously associated with the endpoint of descending or falling, as in (23a-b), where the search domains described by the postpositional phrases (the space under a table, the surface of the ground) normally cannot serve as a starting point of vertical motion.

- (23) a. *è*            *siā*            *tābālí é*        *wā*  
           3SG.SBJ    fall.PAST      table DEF    under  
           ‘He fell under/??from under the table.’
- b. *è*            *ziā*            *trōó*            *mì*  
           3SG.SBJ    descend.PAST ground        by  
           ‘He came down to/??from the ground.’

At the same time, certain locations do not qualify for the role of endpoint of motion with vertically oriented verbs. This is the case, for example, with locations that do not provide support against gravity, such as *nàṅgbàní gó* ‘in the sky’. With “intermediate” locations, which can in principle serve as a source or a goal of descending or falling, the type of the Figure tends to contribute important information about the event. As I already mentioned

in section 2, the world knowledge about the typical behavior of the Figure (here, a cat) can be enough to disambiguate a sentence like (24).

- (24) *súèŋ dō zīā yrē é gó*  
 cat one descend.PAST tree DEF in  
 ‘A cat came down from/??into the tree.’

Similar kinds of asymmetry in the properties of sources and goals characterize the lexical meaning of other verbs with flexible interpretation of the locative argument. The verb *mlǎ́* ‘come/go out’ describes a transition from a closed, often relatively small container into an open and usually larger area of space. For example, it can be used to describe a transition from a house into the street, but not a transition from the street into a house. This aspect of the verb’s meaning again predetermines the role of a considerable number of locative arguments, depending on whether the specified search domain is conceptualized as a container or as an open area. This requirement of the goal/source asymmetry on the use of the verb makes sentences like (25) and (26) unambiguous, even though the locative arguments are interpreted differently (as a goal in 25, and as a source in 26).

- (25) *è mlǎ́ bā é lé*  
 3SG.SBJ come.out.PAST field DEF at  
 ‘She came out into/??from the field.’
- (26) *gùlè é mlǎ́ yí é gó*  
 crocodile DEF come.out.PAST water DEF in  
 ‘The crocodile came out from/??into the water.’

In (25), the search domain specified by the postpositional phrase is the surface of a “field”, or a portion of open land surrounded by the forest (in Wan, the forest is conceptualized as a container, cf. *kālē gó* ‘in the forest’). By contrast, the search domain in (26) is defined in terms of a containment relation with respect to a body of water. In both examples, the Figure moves from a closed area conceptualized as a container into an open space.

With the verb *glà* ‘take’, the direction of motion is fixed relative to the agent, expressed by the subject. It is part of the meaning of this verb that the theme ends up in

possession or under direct control of the agent. The interpretation of the locative phrase as the source or the goal of motion therefore depends on the relationship between the agent and the search domain specified by the postpositional phrase: the endpoint of transition, but not its starting point, must be closely associated with the agent, either in terms of its spatial location or in terms of a possession relationship. An example like (27) has only one reading, since the search domain defined by the locative phrase is in a broad sense “possessed” by the agent, and therefore cannot be interpreted as the starting point in the event of taking.

(27) à glà lā òŋ-lé  
 3SG take 2SG hands-at  
 ‘Take it into/??from your hands.’

The locative argument in (28), on the other hand, is more likely to receive a source reading, as the reference object, the table, is not directly associated with the listener.

(28) à glà tābālí é tā  
 3SG take table DEF on  
 ‘Take it from/??onto the table.’

The verb *glà* ‘take’ differs in an interesting way from the “asymmetric” verbs described earlier (*siá* ‘fall’, *zià* ‘descend’, *mlá* ‘come/go out’). All those verbs fix the direction of motion with respect to the type of location (elevated vs. ground level location, container vs. open space), and the association of a specific location with the goal or source of motion is to some extent independent of the situational context. With the verb *glà* ‘take’, the interpretation of the locative argument in many cases depends on contextual knowledge about the agent; for example, interpretation of (29) depends on whether or not the calabash is located in the agent’s hands.

(29) à glà gwā é gó  
 3SG take calabash DEF in  
 ‘Take it from/into the calabash.’

The lexical meaning of the verb *zò* ‘come’ also makes reference to the situational context. This verb describes motion toward the deictic center, so that the goal, but not the

source of motion, is associated with the deictic center of situation/narration. The locative phrase in (30) receives the source interpretation when the sentence is uttered by parents and the context makes it clear that they are located at home.

- (30) *yrā̄ mū́ é ñ zò lāklū́ gó gbà wá*  
 children DEF PERF come school in yet NEG  
 ‘Children have not yet returned from school.’

The same sentence can receive a different interpretation when uttered by a teacher who is worried by the children’s absence in class. Thus, when the narration centers on events that happen at school, the relation between the deictic center and the specified location is reversed, resulting in the goal interpretation of the locative argument (‘Children have not yet come to school’).

Similarly, out of context, the locative phrase in (31) receives the goal interpretation, since the village is conceptualized as the “default” location of the narrator, but the interpretation can change with addition of specific context.

- (31) *ǎ zō blèkɔ́ yā́ kɔ́ŋ gó*  
 3PL.SBJ come.PAST run with village in  
 ‘They returned to the village running.’

It is interesting that the verb *zò* ‘come’ contrasts with the verb *gà* ‘go’ in its behavior with respect to the locative argument. Although the verbs seem quite similar in their meaning, the verb *gà* ‘go’ can only combine with a goal argument, while the verb *zò* ‘come’ combines with either sources or goals. This difference follows from the fact that in Wan, the verb *zò* ‘come’, but not the verb *gà* ‘go’, is deictically oriented. The latter is often used in the general sense of making a transition, without reference to the deictic center. This difference in meaning is similar to the contrast between *come* and *go* in English as it is described by Fillmore (1983), who characterized *come* as a goal-oriented deictic verb and *go* as a verb with both source-oriented and “neutral” uses; see also Fillmore (1975).<sup>8</sup> This contrast between *gà* ‘go’ and *zò* ‘come’ supports the hypothesis

<sup>8</sup> Wilkins and Hill (1995) suggest that in languages in which the verb ‘go’ is not inherently deictic in its lexical meaning, this verb may acquire a sense of deixis “in pragmatic interpretation through opposition with the COME expression.” (237). This may be the right characterization of the meaning of *gà* ‘go’ in Wan.



The direction of motion can be fixed with respect to location type (motion from a container into an open area of space), position on the gravitational axis (motion from an elevated location to a lower location), position with respect to the agent (transition into possession of the agent), or with respect to the deictic center (motion toward the deictic center). In all these cases, the set of possible sources of motion differs from the set of potential goals.

At the same time, none of the specialized verbs entails a similar kind of source/goal asymmetry. Any location that serves as the source of motion with specialized verbs can also be its goal (cf. the contrast between *gà* ‘go’ and *zò* ‘come’ discussed in the previous section). In other words, the meaning of specialized goal verbs does not restrict the set of potential goals, and the meaning of specialized source verbs does not restrict the set of potential sources. Thus, the hypothesis that the presence or absence of a source/goal asymmetry entailment determines the verb’s subcategorization pattern makes certain predictions about the use of some motion verbs and their difference from their English equivalents. I will illustrate this with a pair of verbs *bìlâ* ‘pull’ (a source verb) and *glâ* ‘take’ (a verb with flexible role assignment).

The verbs *bìlâ* and *glâ* form an interesting pair, since the meaning of their English equivalents *pull* and *take* does not seem to entail a source/goal asymmetry in all their uses. Although normally the verb *take* describes a transition into the agent’s possession, it can also be used in examples like *He took his son to the city*, where the agent moves together with the theme and the asymmetry entailment (the goal, but not the source of motion, is in agent’s possession) does not hold. Similarly, the verb *pull*, although it often describes situations where the theme moves toward the agent, is also found in sentences like *He is pulling the donkey into the yard*, where the agent and the theme move together toward their common goal. In Wan, however, the two verbs differ in their behavior with respect to the locative argument: only *bìlâ* ‘pull’ is specialized, and *glâ* ‘take’ is not, which I attributed to the inherent source/goal asymmetry of *glâ* ‘take’ and to the absence of such an asymmetry with *bìlâ* ‘pull’.

Interestingly, the difference in subcategorization pattern reflects a real contrast in the use of the two verbs in Wan, which is irrelevant for their English equivalents. Like in English, the verb *bìlâ* ‘pull’ does not provide any specific information about the source

or the goal of motion. Like with English *pull*, the apparent condition that the motion is directed toward the agent is not built into the lexical meaning of the verb *bìlâ* ‘pull’. This is illustrated by a “non-asymmetric” use of the verb in (33), where the agent moves together with the theme, even though the actual distance between them (here, the distance between Leme and the sheep) may remain constant.

- (33) *Lèmè á bólì é bìlâ lé éé bā é gó*  
 Leme COP sheep DEF pull PROG REFL field DEF in  
 ‘Leme is pulling the sheep from his field.’

This is consistent with the verb’s subcategorization pattern. The core lexical meaning of *bìlâ* ‘pull’ does not entail a source/goal asymmetry and does not fix the direction of motion in the same way as verbs with flexible role assignment do, hence its behavior as a source verb.

The use of *glâ* ‘take’, however, differs in an important way from the use of the English verb *take*. Although in English *take* has a “non-asymmetric” use similar to the use of *bìlâ* ‘pull’ in (33), where the subject moves along with the theme, bringing it to a new location (as in *He took the sheep into the field*), such uses are not attested with the verb *glâ* ‘take’ in Wan. The same situation is described instead using the verb *gâ* ‘go’ with a comitative postpositional phrase (i.e. ‘take x to y’ is described, literally, as *go to y with x*). Unlike English *take*, the verb *glâ* indeed entails that the theme starts its motion outside of the sphere of the agent’s possession and ends up in that sphere. This restriction on the use of the verb confirms the generalization that in Wan, all verbs that entail a source/goal asymmetry, and only such verbs, can combine with either sources or goals of motion.<sup>10</sup>

### 3.3. Role of the source/goal asymmetry in contextual inference

As I argued in the previous sections, the subcategorization pattern of motion verbs is determined in Wan by the amount of information about the type of goal and source that is

<sup>10</sup> The contrast between *glâ* and *take* is a good illustration of how translations can be misleading, which points to the importance of considering subtle differences in the use of “equivalent” verbs from different languages.

provided by the verb’s meaning. Verbs that entail a source/goal asymmetry impose no restriction on the semantic type of their argument, and verbs that have no such entailment unambiguously define the argument’s role. As a result, the source/goal ambiguity is restricted to verbs that constrain the interpretation of the locative phrase by their lexical meaning. This correlation appears to be related to the fact that, as I discussed in section 1, the roles of Goal and Source are maximally distant in the semantic space and the majority of the world’s languages seem to encode the distinction between sources and goals in an unambiguous way. This suggests that the need to distinguish between the two roles may be strong enough to play a role in determining the subcategorization pattern of motion verbs.

With verbs that have flexible role assignment, the source vs. goal ambiguity can be resolved based on the interaction of the type of location encoded and the lexical entailments of the verb. Speakers seem to rely on the interaction between these two types of information, avoiding the use of flexible verbs in descriptions of situations that are considered “abnormal” or in contexts that do not provide enough information about the role of the specified location. For example, they avoid using verbs of vertical motion *siá* ‘fall’ and *zià* ‘descend’ on the goal interpretation in (34), where the subject is a cat.

- (34) *súèŋ dō zīā kú é pēŋ*  
 cat one descend.PAST house DEF on.top.of  
 ??‘A cat came down onto the roof.’

The top of the house is a type of location that can in principle serve as either the source or the goal with verbs of vertical motion: it is elevated enough to be a source of vertical motion, but at the same time provides sufficient support against gravity to become its goal. Interpretation of such a location as a goal or a source is dependent on the type of the theme. The theme in (34)—a cat—does not support the intended interpretation of the location as the goal of motion, since the situation of an animal descending onto a roof (from where?!) is far from being a prototypical case of vertical motion and requires additional context. Without such context, speakers of Wan prefer to describe such situations using verbs that constrain the role of their locative argument, in this case, with (35).

- (35) è            gō            yrē é    gó bé é    ziā            kú é    pēη  
 3SG.SBJ leave.PAST tree DEF in then 3SG descend.PAST house DEF on.top.of  
 ‘It left the tree and came down to the roof.’

This pattern of use of verbs with flexible role assignment suggests that such verbs are only used in contexts where the contextual inference of the argument’s role is facilitated by the inherent source/goal asymmetry entailed by the verb. When this information is potentially misleading, speakers tend to resort to verbs that select for a specific locative role in an unambiguous way. The split of motion verbs in Wan into two classes demonstrates the complex interdependence that exists between argument selection and lexical entailments, where some verbs subcategorize for a particular role of the locative argument, while other verbs let the role of their argument be inferred from the information provided by their lexical meaning.

#### 4. Cross-linguistic perspective on the source/goal asymmetry

##### 4.1. Source/goal asymmetry entailed by verbs

Although my previous discussion focused on data from Wan, one would expect the same kind of lexical factors to play a role in the encoding of goals and sources in other languages. The cross-linguistic representation of split systems similar to that of Wan is difficult to assess, since little attention has been paid in the literature to the problem of lexical splits in the use of the verb-framed strategy. It is worth noting, however, that verbs that are often described as flexible in their role assignment in the otherwise verb-framed languages are typically characterized by an inherent asymmetry between the goal and the source, just like the verbs with flexible role assignment in Wan. I suggest that we can predict with which verbs the goal/source ambiguity is most likely to be allowed.

Yukatek Maya is similar to Wan in not encoding the semantic role of the locative argument outside of the verb. According to Bohnemeyer and Stolz (2006: 300), verbs of motion in Yukatek Maya are specialized with respect to the argument type they combine with (source verbs vs. goal verbs). Interestingly, the only verb that is described by them as a “troublesome case” for this distinction is *líub* ‘fall’, which “seems to occur with both goals <...> and sources”. Verbs of vertical motion also function as verbs with flexible

role assignment in Wan, suggesting that the same principles may underlie the division into specialized and non-specialized verbs of motion in Wan and in Yukatek Maya.

In Nahuatl (Aztecan) a combination of the verb *hūitz* ‘come’ with a locative expression is theoretically ambiguous between the goal reading and the source reading (Launey 1981: 55). This ambiguity, however, is often avoided by using the deictic adverbs *nicān* ‘here’ and *ōmpa* ‘there’, as in (36a-b):

- (36) a. *nicān*      Mexico      *hūitz*  
          here        Mexico      comes  
          ‘He comes (here) to Mexico.’
- b. *ōmpa*        Mexico      *hūitz*  
          there       Mexico      comes  
          ‘He comes from (there in) Mexico.’

The disambiguating effect of the deictic particles in these examples comes from the deictic orientation of the verb *hūitz* ‘come’, which can only express motion toward the deictic center (toward ‘here’, and away from ‘there’). This makes the role of the locative argument of ‘come’ easily inferable in context, as in Wan or Yukatek Maya.<sup>11</sup> In Nahuatl, this role tends to be additionally specified by the use of a deictic particle.

Stolz (1993: 211-2, citing Brauner and Herms 1986: 196) describes a similar kind of flexibility in Swahili for the verb *-rudi* ‘return’, which again does not encode the role of the locative argument in an unambiguous way. Just like ‘come’ in the previous example, this verb imposes, as part of its lexical meaning, an inherent asymmetry on the starting point and the endpoint of motion. As a result, “the disambiguation of allative vs. ablative readings, in these cases, is dependent on the *actual deictic center* which, most often, may be simply understood” (Stolz 1993:212).

#### 4.2. Source/goal asymmetry entailed by satellites

The previous discussion was limited to verbs of motion in verb-framed languages, i.e. in languages that do not encode the roles of goal and source outside of the verb. I suggested

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<sup>11</sup> In Lahu (Tibeto-Burman), sources and goals are also not distinguished by postpositions (Matisoff 1973: 162), and the example that Wälchli and Zúñiga (forthcoming) use to illustrate this also contains the verb ‘come’.



The difference between *kata* ‘down’ and other Ancient Greek prepositions is parallel to the split in the behavior of motion verbs in Wan. This suggests that the same set of factors can explain similar differences in the interpretation of verbs, adpositions or other classes of lexical items, depending on the part of construction where the language encodes information about the direction of motion. The exact nature of this dependency is a topic for a separate study.

## 5. Conclusion

Distinguishing between sources and goals of motion is part of a larger problem of contrasting distinct locative roles. As I discussed in section 1, languages vary with respect to the number of contrasts they choose to encode and the ways in which they map the roles of Place, Goal, and Source onto distinct expression types. Based on the apparent cross-linguistic preference to neutralize distinctions between some categories but not the others, as well as on evidence from variation in role marking in Russian, I suggested that the locative roles of Goal and Source are maximally remote in the semantic space. This makes the system found in Wan especially interesting as a case of neutralization of the maximally distant categories, or categories that speakers of other languages tend to encode by distinct forms. Even in such a language, however, instances of real goal/source ambiguity are rare, as in most cases the interpretation follows from the lexical meaning of the verb, in combination with contextual information.

Languages vary in the way they encode information about the relation between the Figure and the search domain. This information can be encoded outside of the verb (most commonly, by specialized adpositions and/or case marking), within it (by specialized “source verbs” and “goal verbs”, or specialized verb forms), or both. I showed that in Wan, where no specialized adpositions can mark sources and goals, that distinction is also not always encoded within the predicate. Rather, there are two types of motion verbs that use two different strategies to encode the role of their locative argument. Some verbs encode the locative role of their argument as part of their argument structure, functioning as specialized “goal verbs” and “source verbs”; this is the pattern found with verbs that have a more general meaning and describe motion without reference to its direction. A different strategy is used with verbs that provide more

specific information about the direction of motion: the role of the locative argument is not encoded directly by such verbs, but has to be inferred based on the interaction of the particular location type with the source/goal asymmetry entailed by the verb's lexical meaning.

Verbs that entail a source/goal asymmetry tend to have flexible role assignment in languages other than Wan. Moreover, the same relationship between lexical entailments and subcategorization pattern may be observed with lexical classes other than verbs, depending on the part of construction that encodes directed motion. I illustrated this with an example from Ancient Greek, where the direction of motion can be encoded in a preposition. The correlation between the subcategorization pattern and the amount of information about direction of motion is therefore not restricted to the class of verbs but can be shown to affect the behavior of other lexical classes in languages where such classes encode information about motion. This correlation reflects a general mechanism of compositional expression of meaning, which relies in part on unambiguous encoding (here, on fixing the role of the argument in the verb's argument structure) and in part on contextual inference (in Wan, precisely with verbs that facilitate such inference). The division of motion verbs into two classes in Wan, which may at first sight appear an insignificant quirk of the language, in fact reflects the sophisticated use of this general mechanism to compromise between unambiguous encoding and contextual inference and reveals an intimate relationship between the lexical meaning and the argument structure of motion verbs.

## Abbreviations

ACC	accusative
ACT	active voice
AOR	aorist
GEN	genitive
COP	copula
DAT/ADD	dative/additive
DEF	marker of definiteness
FIN	finite
LOC/ABL	locative/ablative
MID	medio-passive voice
NEG	marker of negation
NOM	nominative
PAST	past form of the verb
PERF	perfect marker
PREP	prepositional case
PROG	progressive marker
PTCP	participle
REFL	reflexive pronoun
SBJ	subject set of pronouns

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