

## Directed Motion in Languages of Indonesia and Implications for the Directionality-Resultativity Correlation

Based on Talmy's (1975, 1985) typology of directed motion expressions, Javanese and Indonesian have been argued to be verb-framed languages along with Spanish and Korean. In this paper, however, we show that they have patterns more similar to English, a satellite-framed language, than Spanish/Korean. We further show that these languages present an interesting challenge to the previous claim that there is a tight correlation between directed motion and resultative expressions.

In so-called satellite-framed languages such as English and German, directed motion events are normally expressed by combining manner of motion verbs and goal-expressing PPs, as seen in (1).

(1) John {walked/ran/crawled} into the house.

Thus, in satellite-framed languages, motion verbs are often conflated with manner, and path is expressed by satellites such as particles, adpositions, and prefixes. In verb-framed languages (e.g., Spanish, Korean), on the other hand, it is the path component that is often conflated with a motion verb and manner is expressed as an adjunct phrase, as illustrated in (2).

(2) a. Maria entró a la casa corriendo. b. Mary-ka cip-ey ttwi-e tul-e-ka-(a)ss-ta.  
Mary entered to the house running Mary-NOM house-LOC run-e enter-e-go-PST-DC  
'Mary entered the house running.' 'Mary entered the house running.'

Directed motion expressions in Austronesian languages have not been discussed extensively in the literature but they have often been described as verb-framed languages due to the superficial richness of path-encoding verbs (e.g., Wienold 1995 based on Indonesian).

Close examination of Indonesian and Javanese, however, reveals that they show patterns similar to English/German. As seen in (3), manner verbs in Indonesian can license directed motion interpretations by combining with the goal-expressing PPs headed by the directional preposition *ke* 'to'. (Javanese shows the same pattern. Examples omitted here due to space limitations).

(3) a. Mary {berjalan/ berlari/ merangkak} ke dalam rumah.  
Mary walk/run/crawl to inside house  
'Mary walked/ran/crawled into the house.'

One of the interesting properties of the directed motion constructions in both languages is that manner verbs can also be juxtaposed with path-denoting verbs, a property common to many Oceanic languages where verbs have superficial resemblance to prepositions (e.g., Durie 1988).

(5) a. John berjalan memasuki rumah. b. John berjalan menyeberang jalan.  
John walk enter house John walk cross street  
'He walked into the house.' 'John walked across the street.'

One could analyze, based on (5), that; 1) the path-denoting verbs function as prepositions, much like their true prepositional counterparts, *ke dalam* (a) and *ke seberang* (b), or 2) the sentences in (5) have resemblance to the Spanish and Korean examples in (2), where path-denoting verbs are main predicates and manner verbs are adjuncts, or 3) (5) can be analyzed as a type of serial verb construction commonly found in many South/East Asian languages (e.g., Thai, Vietnamese).

In this paper, we provide evidence in favor of the third hypothesis based on a number of syntactic and semantic facts: First, an extraction pattern with the yes-no question particle *-kah*, which normally targets a core predicational element (Sneddon 1996), suggests that it is the manner verb that functions as a core predicate, not the path verb, unlike Spanish/Korean. Notice that when path verbs are used as main verbs, the verbs and their complements can be extracted, as shown in (6).

(6) a. memasuki rumah-kah John?  
enter house-Q John  
'Did John entered the house?'

b. menyeberang jalan-kah John?  
cross street-Q John  
'Did John cross the street?'

If the path verbs in (5) were core predicates with the manner being an adjunct, one should expect that the path-V and its complement be also eligible for extraction. However, (7) shows that the only element eligible for extraction is the manner V, and the extraction of the path V and its complement

leads to ungrammaticality. This suggests that it is the manner verb that serves as a core predicate, eliminating the second hypothesis. (Notice that intransitive V<sub>s</sub> can be extracted by themselves).

- (7) a. berjalan-kah John menyeberang jalan?  
 walk-Q John cross street  
 ‘Did John walk across the street?’  
 b. \*menyeberang jalan-kah John berjalan?  
 cross street-Q John walk  
 ‘Did John cross the street walking?’

The question particle *-kah* can also target a (predicational) complement, as shown in (8).

- (8) di seberang jalan-kah kantor postnya (ada)?  
 LOC other.side street-Q office post be  
 ‘Is it across the street where the post office is?’

(9) shows that *-kah* can extract a true prepositional phrase, as in (9a), but not the path-denoting verbal phrase, as in (7b) above & (9b). The contrast shown in (7b) and (9a) thus eliminates the first hypothesis that path verbs in (5) are analyzed as prepositions.

- (9) a. ke seberang jalan-kah John berjalan?  
 to other.side street-Q John walk  
 ‘Was it across the street John walked?’ (Dir)  
 b. \*melewati danau-kah burung itu terbang?  
 go.by lake-Q bird the fly  
 ‘Was is across the lake the bird fly?’

Second, the path-denoting verbs can be used only when they are associated with an animate Figure, while non-affixed prepositions are insensitive to the animacy of the Figure, as seen in (10).

- (10) a. Tika mendorong Mary {menyeberang/ke seberang} jalan.  
 Tika push Mary cross / to other.side street  
 ‘Tika pushed Mary across the street.’  
 b. John melempar bola {\*menyeberang/ke seberang} jalan.  
 John throw ball cross/ to other.side street  
 ‘John threw the ball across the street’

We argue that the ungrammaticality of (10b) with *menyeberang* is due to the fact that path verbs in this context can only modify the motion carried out by the subject. Thus, *menyeberang* is unacceptable in (10b) since the subject *John* does not participate in the motion event, but only the object does. This also conforms to the interpretation available for (10a) with *menyeberang*, which requires an accompaniment of the subject in the motion event; *menyeberang* is acceptable only in the context where Tika moves along with Mary. This interpretation is not required with *ke seberang* in (10a); the most salient reading with the PP is a punctual event reading in which Tika gives one push to Mary who ends up being across the street. Thus, the contrast shown in (10) suggests that path verbs differ from their prepositional counterparts; the former is a modifier of the whole event denoted by the VP, supporting the third hypothesis, while the latter is a predicational complement and is predicated of an object in transitive directed motion.

Approaches to cross-linguistic variation in directed motion often assume that there is a tight correlation between the availability of adjective resultatives and the possible combination of manner verbs and goal PPs, mostly based on Germanic and Romance languages. English, for example, allows the combination of manner verb and goal PPs, as in (1), and adjective resultative phrases (e.g., *John wiped the table clean*). Spanish does not allow either, as often demonstrated in the literature (e.g., Aske 1989). Indonesian and Javanese, however, present an interesting challenge to this correlation since they allow the combination of manner verb and goal PPs like English, but disallow adjective resultatives; resultative states in both languages are expressed periphrastically with *sampai* (Indo) ‘until’, as in (9).

- (9) Tika menumbuk daging itu \*(sampai) penyat.  
 Tika pound meat the until flat  
 ‘Tika pounded the meat until it became flat’

The facts drawn from Indonesian and Javanese, therefore, cast doubt on the previous analyses of the linguistic variation in resultatives, which crucially hinge upon a correlation between directionality and resultativity (e.g., Beck and Snyder 2001, Mateu and Rigau 2001, among many others).