Aspects of Motion Events from a Typological Perspective

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Manner of motion verbs in English, coupled with goal phrases, can express that the agent reaches the goal by that action. By contrast, manner of motion verbs in Japanese cannot combine with goal phrases directly; manner of motion needs to be realised as an adjunct or the path verb iku 'go' must adjoin to the manner of motion verb as shown in (1b) and (1c). The contrast is well-known by the typological surveys by Talmy (1985, 2000): Verb-framed languages and Satellite-framed languages. In Verb-framed languages, path is encoded as a main verb and manner must be a subordinate adjunct. In Satellite-framed languages, manner is encoded as a main verb and path must be a satellite.

- (1) a. * John-ga mise-ni hasit-ta. John-NOM shop-to run-PAST '(intended) John ran to the shop.'
 - b. John-ga hasitte mise-ni it-ta.
 John-NOM running shop-to go-PAST
 'John ran to the shop.'
 - c. John-ga mise-ni hasitte-it-ta. John-NOM shop-to run-go-PAST 'John ran to the shop.'

The purpose of this talk is to show that motion events in Verb-framed languages are best analysed by introducing the degree semantics à la Kennedy and Levin (2008); Kennedy (2012). I argue that a path verb selects a goal phrase in Verb-framed languages, whereby manner of motion verbs by themselves cannot take a goal phrase as their complement. This is because the selection of goal phrases is made solely by path and the constraint is exclusively determined: if a language is tuned to Verb-framed, no verbs other than path cannot select goal phrases. I assume that path verbs encode some result state and manner verbs in Verb-framed languages exclusively encode some manner in which some action is carried out. The distinction between result and manner can be made based on scalar semantics; a result encodes some change measured along a scale while a manner does not (Rappaport Hovav and Levin, 2010; Beavers and Koontz-Garboden, 2012). An important consequence of the dichotomy between result and manner is that it is path that provides a degree. I propose that path denotes a relation between degrees and individuals that includes the measure function just like degree achievement verbs and incremental themes discussed by Kennedy (2012), so that iku 'go' denotes the type $\langle d, \langle e, \rangle$ $\langle s, t \rangle \rangle$, where s expresses situations. Since path includes degree arguments, this argument must be saturated in order to derive an event description. I claim that a path verb is evaluated with respect to a maximum standard (Kennedy and McNally, 2005; Kennedy, 2007) and that the degree argument is saturated through composition with the abstract *Path*, that establishes an equivalence relation between two degrees: one is derived by applying the path verb to its external argument, the other by applying it to the standard constituent denoted by a goal

phrase, where d_g is the degree introduced by the goal phrase. Under the present analysis, the semantics of the verb phrase *mise-ni iku* 'go to the shop' in (1b) is shown as follows:

(2) a.
$$\mathbf{iku}(\mathbf{x})(\mathbf{s}) = \mathbf{max}(\mathbf{iku}_{max})$$

b. $[Path] = \lambda P \lambda y \lambda x \lambda s. P(\mathbf{x}) = P(\mathbf{y})$
c. PathP
 $\lambda \mathbf{x}. \lambda s. \mathbf{iku}(\mathbf{x})(\mathbf{s}) = \mathbf{iku}(\mathbf{mise})(\mathbf{s})$
 PP Path'
 \mathbf{mise} $\lambda y. \lambda x. \lambda s. \mathbf{iku}(\mathbf{x})(\mathbf{s}) = \mathbf{iku}(\mathbf{y})(\mathbf{s})$
 \mathbf{mise} $-\mathbf{ni}$ Path P
 $\lambda P \lambda y \lambda x \lambda s. P(\mathbf{x}) = P(\mathbf{y})$ \mathbf{iku}
 $Path$ \mathbf{ku}

By contrast, main verbs in Satellite-framed languages do not specify goal phrases. The abstract *path* combines with a satellite to return a degree in Satellite-framed languages. Hence the typological difference follows.

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