Transitive Motion Verbs in French and in Korean[1]

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1. Introduction

According to Talmy (1985: 61), the basic motion event consists of one object (the 'Figure') moving or located with respect to another object (the reference-object or 'Ground'). Besides these two components, its semantic structure has another two internal components, *i.e.* 'Path' and 'Motion'. The 'Path' is the course followed or the site occupied by the Figure object with respect to the Ground object, and the 'Motion' refers to the presence *per se* in the event of motion or location. Considering only the dynamic motion event (MOVE), leaving the result of a motion (BE$_{Loc}$) aside, we deal with the *linking* of semantic and syntactic properties. We start from the basic observation that, in many languages, most processes expressing a motion event are intransitive (*Birds fly*) or combine with an oblique object (*Mary climbed up on the table*). In the latter case, the NP *table,* corresponding to the Ground in the Talmy's semantic structure, can be analyzed as a Goal, in terms of the semantic role. Semantic roles such as Goal or Source are very often linked to an oblique object marked by an adposition.

The semantic role considered as prototypical for the direct object is the Patient. Yet, some dynamic motion verbs accept as a direct object a spatial entity which does not correspond to a true Patient (*enter the room,* for example). Givón (1984: 96-99) explains this type of motion event as a deviation from prototypical transitivity by metaphorical extension, by construing a locative as a patient object. He suggests that, using the direct construction, "the speaker introduces a different *perspective*, one of viewing some change in the object as being more *salient*". The object would thus be "more important to the event than if it were merely a point-of-reference". He argues that the locative argument accedes to objecthood whenever it undergoes a 'change of state' understood in a wide sense. Givón considers, for instance, that 'entering the house' is not merely moving into the house, but dramatically altering the condition of the house from "empty" to "occupied". He also evokes the notion of "confrontation" which would be involved in 'approaching the intersection', and the notion of "conquest" in 'swimming the Channel'.

Even though object affectedness must undoubtedly be taken into account (see also Gropen et al., 1991), we argue that this criterion is not sufficient to differentiate between the types of motion events expressed by the direct transitive construction. Indeed, the direct object of some motion verbs can hardly be viewed as really affected by the motion, but rather participates in the event by providing a scale to measure out the process (Krifka 1987, Tenny 1995). Motion verbs combining with this type of direct object incorporate a semantic component 'Region', which can be overtly expressed by 'relational nouns'. These relational nouns often function as pairs (top/down; one side/the other side…) and introduce two landmarks which delimit the passage traveled by the Figure. Extending Talmy's lexicalization patterns, motion verbs which incorporate a Region component can thus be said to conflate Motion and Path components, since the Region component serves to elaborate the structure of the Path. This hypothesis is put forward for French in Sarda (1999, 2000).

In this paper, we compare French and Korean transitive motion verbs. In contrast to French, Korean has a rich morphology which provides formal clues to verify the hypothesis that the locative semantic role can be linked to the direct object if the Motion verb incorporates into its semantic structure Motion, Path and Region components, where the Region enriches the structure of the Path. Moreover, it's worth noting that some of these Motion verbs have a corresponding adpositional form (as in *cross/ across*). It seems that it is related to their enriched Path component.

In section 2, we summarize the main criteria t for our typology of the French Motion Verbs that take the transitive construction. In section 3, we present the Korean data in comparison to the French transitive motion verbs, from both a morphosyntactic and a semantic point of view. In section 4, we propose a comparative account, and suggest that in French, some Motion verbs (the relational ones) can take the transitive construction because they incorporate a Region. This is not unlike what happens in Korean, where motion verbs can form a compound verb with deictic motion verbs. Now, for some Motion verbs, the first component of the compound verb, the verb root, selects an accusative object which determines the space segment traveled by the Figure (i.e., the Path). As such, it is comparable to the Region component incorporated in the French Transitive Motion verbs.

2. French Transitive Motion Verbs

This section presents a typology of French verbs that express a Motion event using the

transitive construction in which the subject denotes the Figure (the moving entity) and the object denotes the Ground (the reference object) as in *Jean a monté l'escalier* 'John climbed up the stairs', *Jean a atteint le sommet* 'John reached the top', or *Jean a heurté un piéton* 'John hit a pedestrian'. We noted above that typical lexicalization pattern for motion events is an intransitive construction. In French, only about a hundred verbs can express a motion event in the Transitive Construction (TC). These verbs are not all 'spatial verbs' (cf. *heurter* 'hit', *abandoner* 'abandon') but they are nevertheless taken into account when they express a motion event in the TC.

In previous work (Sarda 1999, 2000), we have proposed a semantic description of these verbs observing correlations between space, aspect and transitivity. An important distinction to be made is that between *relational vs. referential* verbs based on the semantic constraints on the object. Following the ontology of spatial entities defined in Aurnague (1996, 1998), we distinguish two types of linguistically defined entities: an **object** vs. a **location**. A location refers to a stable spatial segment within a given frame of reference. An object refers to a material entity, not necessary stable, within a frame of reference. Object entities (for example 'tree', 'pen') can become '**specified location entities**' via specification processes occurring at discourse level: 'the foot of the tree' or 'the end of the pen' are specified location entities; they denote a space segment that remains stable with respect to the frames of reference given by the tree and the pen.

2.1 Referential verbs

Referential verbs describe a motion event only when their object denotes a location-type entity. Otherwise, they describe a different type of event depending on the type of entity denoted by their objects. For instance, the event denoted by *quitter son mari* 'leave one's husband' is not spatial since we have no information concerning the location of the entities involved. As the semantics of these verbs is underspecified from a spatial point of view, the interpretation of the process strongly depends on the type of object and on the context. Representative referential verbs are Goal verbs such as *atteindre* ('reach'), Source verbs such as *quitter* ('leave') and Contact verbs like *heurter* ('hit') as in *le camion a heurté un arbre* ('the truck hit a tree'). Actually, the spatial interpretation of the latter group depends more on the type of subject than on the object. Contact verbs do not select a location type entity but some obstacle-type entity, and the subject has to denote a fast mobile entity for the event to be construed as a motion event rather than a static contact relation. Yet, even if Contact verbs

differ from Goal and Source verbs from the point of view of selection restrictions, all verbs belong to the same *Aktionsart* class since they describe a discrete change of state (Achievement in Vendler's 1967 terms). Their object, more or less affected, directly serves to localize the Figure at the initial or the final phase of the process.

2.2 Relational verbs

Relational verbs such as *traverser*, *passer*, or *monter* ('cross', 'pass', climb') do not enforce any selectional restrictions on the object/location alternation. They describe a kinetic relation between two implicit Regions first defined in relation to each other, such as for instance, the two river banks in *Marie a traversé la rivière* ('Marie crossed the river') or the bottom and the top of the stairs in *Marie a monté l'escalier* ('Marie climbed up the stairs').

　　　As said, we posit that relational verbs incorporate such a semantic component Region that can overtly be expressed by 'relational nouns' (such as *bottom/top, side, center, edge…*). The properties of relational nouns have been amply described (see Aurnague 1996, among others). First, they are referentially dependent (*an edge* is necessary *the edge of something*) and can occur with any type of entities. Second, they function in pairs (top/bottom; one side/the other side, back/front…) and thus define gradual antonymies between two poles (motion can thus be wholly conceptualized between these two poles). Moreover, they turn any entity they combine with into a location-type entity: whereas *a tree* cannot be considered a location-type entity out of context, *the foot of the tree* can, because this NP refers to a spatial segment that remains stable with respect to the frame of reference constituted by *the tree*.

　　　We assume that Relational verbs incorporate the semantic component Region conceptualizable thanks to such relational nouns. Relational verbs are then considered real motion verbs because they involved the Path traveled by the Figure. They establish a relation of localization with respect to the different Regions of the object's referent rather than with the object's referent itself, as is the case for referential verbs. They are thus characterized by an 'indirect access to the reference' as opposed to referential verbs which involve 'a direct access to the reference'. In Talmy's classification (1985, 2000), these relational verbs are all called Path-verbs, but we suggest the following more refined categorization into Path-verbs such as Passage verbs (*traverser* 'cross'), Orientation verbs (*monter* 'climb') and Distance verbs (*suivre* 'follow').

2.3 A third class in between: Median verbs

An intermediate class can be defined, however, which shares properties of both relational and referential verbs. This class consists of so-called Median verbs (like *arpenter/ parcourir* 'pace up and down', 'wander about') which establish a relation of localization with respect to the reference object itself (as do referential verbs), yet this relation is established not with respect to the object referent itself but with respect to a space portion delimited by its borders (the internal Region). Median verbs do not describe any change of location but the shape of the motion inside a region. They define homogeneous processes like Activities or Accomplishments and correspond to Manner-Verbs rather than Path-Verbs according to the Talmy's typology (1985, 2000).

2.4 Transitivity of French Motion verbs

Our classification of French Motion verbs attempts to account for the subtle variations in the degree of transitivity associated with the transitive construction [NP1 V NP2]. From a semantic point of view, it would be possible to consider that they describe an intransitive motion event since it is always the subject that is the focal moving entity (the Figure). Such an analysis would, however, ignore finer distinctions.

It will be recalled from our description above that the object of relational verbs and the object of referential verbs do not play the same role in establishing a dynamic spatial relation. More precisely, the object of referential verbs actually undergoes a change of state and it denotes a spatial location, in the sense that the spatial relation inferred from the meaning of the verb is a static relation BE-AT or BE-IN/OUT which directly applies to the object (*atteindre Paris* ('reach Paris') implies 'being in Paris' at the endpoint of the event). In contrast, the object of relational verbs can hardly be viewed as really affected by the motion of the subject, but provides a scale to measure out the process (see Krifka 1987 and Tenny 1995). The spatial relation inferred from the meaning of these verbs is not a static one but an 'incremental' one. According to Dowty (1991: 569), the object of relational verbs would not be a merely Theme but an Incremental Path Theme. Indeed, transitive relational verbs describe telic events and the state of the Path represented by their object is related to the 'aspect' of the event. For instance, from *traverser la rivière* ('cross the river'), we can infer that x is 'on one side of the river' at the starting point of the event and 'on the other side of the river' at the endpoint. The Path realized by the direct object *la rivière* ('the river') is totally traveled by the Figure, if the crossing motion event is accomplished, while it is partially

traveled when the crossing motion event is interrupted. Following Tenny (1995: 38), we assume that the direct object of relational verbs is a *measuring object*, "the implicit scale in the measuring-out of the event is to be found within [it]". The progress of the event can be measured in increments of distance covered towards the endpoint which, for the relational verbs, is a part of the object.

Instead of establishing a clear-cut semantic distinction between transitive or intransitive process, we opt for a scalar description giving an account of the exact role played by the object in the establishment of dynamic spatial relations. This typology of French Transitive Motion verbs (presented in Table 1) follows the analysis sketched above, combined with the more general parameters defined by Hopper & Thompson (1980). We claim that relational verbs are less transitive than referential verbs and, further, that there is a continuum between each sub-class from least transitive in the leftmost column to most transitive in the rightmost column.

Table 1. Typology of French Transitive Motion verbs

Relational verbs				Referential verbs		
distance verbs	Orientation Verbs	Passage Verbs	median verbs	neutral Verbs		Contact verbs
				Source or initial verbs	Goal or final verbs	
approcher: approach *fuir:* escape, flee *suivre:* follow *distancer:* distance *poursuivre:* chase	*monter*: climb *grimper:* climb, scramble *escalader:* climb *gravir:* climb up *descendre:* go down	*traverser:* cross *sauter:* jump *franchir:* get over, step over *passer:* pass	*arpenter:* pace *sillonner:* criss-cross *parcourir:* travel through *explorer:* explore *balayer:* sweep	*quitter:* leave *abandonner:* abandon *deserter:* desert *évacuer:* evacuate	*atteindre:* reach *rejoindre rallier:* join *regagner:* go back *envahir:* invade	*heurter cogner frapper taper:* hit *toucher:* touch

Classifying French Transitive Motion Verbs along their degree of transitivity is a delicate issue, because besides the TC, there is no additional formal marker in French to identify finer degrees of transitivity. Passivization and nominalization are significant tests but are partially constrained at the level of discourse and information structure. The typology of French transitive motion verbs presented above is thus established essentially on the basis of semantic/ontological distinctions. The lack of 'hard-and-fast' clues of transitivity in French has motivated the present comparative approach with Korean data.

3. Syntactico-semantic analysis of Korean motion verbs in comparison with FTMVs

In this section, a syntactico-semantic analysis of Korean motion verbs roughly equivalent to the French Transitive Motion Verbs (FTMVs) discussed in the previous section is provided. As we will see, Korean motion verbs show several morpho-syntactic properties that are not explicitly marked in French. For want of space, only one or two representative verbs from each class of FTMVs studied above will be addressed here. Table 2 below shows the representative FTMVs together with their Korean counterparts[2].

Table 2. Korean counterparts of the representative FDTMV verbs

Type of French Transitive Motion Verb (see L. Sarda: 1999)			Korean Verb	French Verb	English translation	Combinability with Deictic Motion Verbs
Referential	1	Contact Goal	*chi-ta*	*heurter, (écraser)*	'hit' ('flatten')	**chie-ka-ta* **chie-o-ta*
	2	Neutral Goal	*tah-ta*	*atteindre*	'reach'	**taha-ka-ta* **taha-o-ta*
	3	Neutral Source	*ttena-ta*	*quitter*	'leave'	*ttena-ka-ta* *ttena-o-ta*
Referential-relational	4	Internal Median	*heymey-ta*	*arpenter errer*	'wander about'	**heymeye-ka-ta* **heymeye-o-ta*
Relational	5	Passage	*kenne-ta*	*traverser*	'cross'	*kenne-ka-ta* *kenne-o-ta*
			cina-ta	*passer*	'pass'	*cina-ka-ta* *cina-o-ta*
	6	Orientation	*olu-ta*	*monter*	'climb up'	*ola-ka-ta* *ola-o-ta*
			nayli-ta	*descendre*	'descend'	*naylie-ka-ta* *naylie-o-ta*
	7	Dist O (Keeping D)	*ttalu-ta*	*suivre*	'follow'	*ttala-ka-ta* *ttala-o-ta*
	8	Dist1 (Increasing D)	*talana-ta*	*fuir*	'escape'	**talnana-ka-ta* **talnana-o-ta*
	9	Dist2 (decreasing D)	*taka-ka-ta* *taka-o-ta*	*approcher*	'approach'	

The Korean verbs listed in Table 2 can be categorized according to the following observations:

(1) Some of these verbs can form a compound verb with the Deictic Motion Verbs (DMVs) *ka-ta* ('go') or *o-ta* ('come'), while others can not.

(2) The compound verb is made up of two verbs, the first is the verbal root and the second is a DMV. In some cases, each verb keeps its syntactic autonomy.

(3) For some verbs, alternation between an accusative-object and a locative-object is possible while for some others it is not; in the latter case, the verbs only accept one type of object, which is either accusative or locative.

(4) Verbs exhibiting the accusative/locative-object alternation have different meanings in each case.

(5) Verbs impose different selection restrictions on the object.

In the following, we will detail each of these observations. We will first examine the possibility for the Korean verbs listed above to occur with a DMV and then detail the properties of different types of motion event expressions.

3.1 Compound verb

In Korean, verbs expressing a motion of the Figure (which is expressed as the syntactic subject) can form a compound verb, consisting in several verbal roots, the last being a DMV. The DMVs *ka-ta* and *o-ta* signal that the subject moves away from the speaker or moves towards the speaker[3]. They are considered prototypical motion verbs. In an analytic language like Korean, combinability of a verb with a DMV can thus be used as a criterion to establish the class of motion verbs.

Only some verbs in Table 2 can combine with the DMVs, and this partition partially coincides with the relational/referential distinction made for the French verbs. This is shown in the rightmost column of Table 2. The different factors that prevent the verbs in classes 1, 2, 4, 8 and 9 to combine with DMVs are the following.

(a) Verbs *chi-ta* ('hit') and *tah-ta* ('reach'), in classes 1 and 2, do not denote a motion by themselves, but motion is implied in the realization of the process they describe. As Goal verbs, they only point to the result of the displacement, the motion itself is inferred.

(b) The verb *heme-ta* ('wander') intrinsically implies some coming and going and does not express a unilateral orientation defined with respect to the speaker. Hence, it is not combinable with the DMVs, but readily combines with *tani-ta* which means 'come and go': *hemeko-tani-ta* ('wander about').

(c) The verb *talana-ta* ('escape') in class 8 is built with the motion verb *tala-* ('run') and the path particle *na-* ('away'), similar to English *run away*. It does not express an orientation with respect to the speaker but with respect to the entity from which the Figure escapes. The verb *talana-ta* actually forms an unanalyzable lexical form, since, on the one hand, the non-finite form of the verb *tali-ta* ('run') is no longer *tala-* but *talye-,* and on the other hand, the component *tala-* is semantically almost bleached.

(d) The verb *takaka-ta* ('approach'), in class 9, already contains the DMV *ka-ta* ('go') / *o-ta* ('come') prefixed by the path particle *taka-* , meaning 'near'. It is a lexicalized complex motion verb.

These observations suggest the existence of three types of verbs that do not combine with the DMV. Verbs in classes 1 and 2 are not motion verbs proper: the motion component is

inferred from the process rather than denoted by the verb itself. In contrast, verbs in class 9 are lexicalized motion verbs, focusing on the Goal. It is also worth noting that, in French, the transitive use of *approcher* ('come closer') with an object expressing the Ground is quite rare, and, similarly to Korean, the component *proche* ('close') is incorporated. Verbs in class 8 focus on the entity with respect to which the Figure moves; hence, the Deictic Motion is not considered.

If we leave these four classes aside, one can draw a parallel between French relational verbs and Korean verbs that combine with DMVs. This parallel excludes the Korean verb *ttena-ta* 'leave', which readily combines with the DMVs, whereas the French verb *quitter* is considered a referential verb. However, this is a special case since *ttena-ta* covers uses of both *quitter* ('leave') and *partir* ('go away').

3.2 Case marking

Let us now focus on verbs combinable with DMVs. We denote the two verbs of the compound verb V1 and V2, the latter being the DMV. The analysis proceeds as follows: first it is examined whether V1 has an accusative and/or a locative/directional object when it occurs alone; next, a test is carried out to know if the compound verb (V1+V2) has an accusative and/or a locative/directional object. If the locative is excluded when V1 occurs alone but is possible when it occurs with V2, then the locative object is an argument of V2 (the DMV) rather than of V1, and hence the two verbs keep their syntactic autonomy, assigning cases to their own arguments. Otherwise, the two verbs do not keep their syntactic autonomy. These observations will lead us to distinguish between two classes among verbs capable of occurring with a DMV.

3.2.1 Passage verbs: 'Crossing events'
Let us start with the case where the first verbal root (V1) and the DMV (V2) both keep their syntactic autonomy. This case is illustrated with the verb *kenne-kata* ('cross-go').

1)

(1-a)   *chelswu-nun tali-lul   kenne-ss-ta*
          prN-Th   bridge-Acc   cross-Pas-TS(Decl)
          'chelswu crossed the bridge'

(1-b)   *chelswu-nun tali-lo   kenne-ss-ta*
          prN-Th   bridge-Inst   cross-Pas-TS(Decl)
                                  ? Dir
          'chelswu crossed (something) by using the bridge'
          ? 'chelswu went to the bridge (after having crossed something else)'

(1-c)   ?? *chelswu-nun   mikuk-ulo   kenne-ss-ta*
            prN-Th   America-Acc   cross -Pas-TS(Decl)
         'chelswu crossed America'

(1-d)   * *chelswu-nun   mikuk-ulo   kenne-ss-ta*
            prN-Th   America-Dir   cross -Pas-TS(Decl)
         'chelswu crossed (something to go) in America'

Example (1-a) shows that the accusative object is an argument of the verb *kenne-* ('cross'). Moreover, this verb *kenne-* ('cross') does not accept any directional argument, in contrast to the verb *ka-* ('go'). This is the reason why in example (1-b), the suffix *–ro* (allomorph of *-ulo*) cannot be construed as a directional suffix, but has to be considered as an instrumental suffix. This also explains why example (1-d), with a directional argument, is not acceptable.

(2-a)   *chelswu-nun tali-lul   kenne-ka-ss-ta*
         prN-Th   bridge-Acc cross-go-Pas-TS(Decl)
         'chelswu crossed the bridge'

(2-b)   *chelswu-nun   tali-lo   kenne-ka-ss-ta*
         prN-Th   bridge-Inst cross-go-Pas-TS(Decl)
                              ? Dir
         'chelswu crossed (something) by using the bridge'
         ? 'chelswu went to the bridge (after having crossed something else)'

(2-c)   ?? *chelswu-nun   mikuk-ul   kenne-ka-ss-ta*
             prN-Th   America -Acc   cross -go-Pas-TS(Decl)
         'chelswu crossed America'

(2-d)   *chelswu-nun   mikuk-ulo   kenne-ka-ss-ta*
         prN-Th   America-Dir   cross-go-Pas-TS(Decl)
         'chelswu went to America (meaning: he crossed something (the ocean) to go there)'

(2-e)   * *chelswu-nun   tali-lul   mikuk-ulo   kenne-ka-ss-ta*
         prN-Th   bridge-Acc America -Dir   cross-go-Pas-TS(Decl)
         'chelswu went to America by crossing the bridge'

(2-f)   *chelswu-nun tali-lul   kenne   mikuk-ulo   ka-ss-ta*
         prN-Th   bridge-Acc cross   America-Dir go-Pas-TS(Decl)
         'chelswu went to America by crossing the bridge'

In the set of examples (2), *kenne-* ('cross') occurs with the DMV *ka-* ('go'). In example (2-d), made up of *kenne-* ('cross') and *ka-* ('go'), the directional argument is acceptable as the argument of the DMV *ka-*. In example (2-a), the accusative object is an argument of *kenne-*, not of *ka-*. Sentence (2-b) is acceptable for the same reasons as (1-b). This confirms the fact that the verb *kenne-* ('cross') selects an accusative complement, whereas the verb *ka-* ('go') selects a directional complement. Examples (2-a) and (2-d) show that both accusative and locative complements can precede the compound verb. However, (2-e) shows that the two arguments cannot co-occur, while (2-f) shows that each verb of the

compound can be preceded by its argument. This clearly shows that each verb keeps its syntactic autonomy.

Let us now return to examples (1-c) and (2-c). These sentences are odd because *mikuk* ('America') does not meet the selection restrictions to be an argument of the verb *kenne-* ('cross') , which selects a 'Passage'-like object viewed as an access to a goal-location The Figure is conceptualized as being beyond the limits of this passage whose internal dimension is not taken into account. Good candidates are *tali* ('bridge'), *kang* ('river'), *chelkil* ('tracks'), or *pata* ('sea'); *mikuk* ('America') or *path* ('field') refer to entities which possess an internal dimension and thus can less readily occur as argument of the verb *kenne-* ('cross').

Things are slightly different in French. For example, in the sentence *Paul a traversé l'Amérique/le champ* ('Paul crossed America/the field'), the Figure's localization is underspecified as he can either be inside or outside the borders of the area denoted by the object. However, the internal dimension of this area is not fully cancelled out: even if nothing is explicitly specified, the object referent is still viewed as a sprawling area rather than as a passage. In contrast French *traverser* ('cross'), Korean *kenne-* does not accept such nouns denoting a sprawling area having an internal dimension. Korean has another verb to express such an event: the verb *kalo-ciluta* ('cross', litt. 'horizontally-pass'). This verb implies that the Figure is localized inside the borders of the area denoted by the object. Nouns having an internal dimension like *mikuk* ('Americe') or *path* ('field') can thus be selected by this verb.

3.2.2 Source verbs: 'Leaving events'

In French, there are two verbs that express a leaving event: *quitter* and *partir*. There is no strict correspondence to the English translations 'leave', 'go', 'go away', 'go off', 'set off', 'set out'. *Quitter* has only direct transitive uses, and *partir* only intransitive uses: **Je quitte* ('I am leaving') is odd, but *je pars* ('I am going') is fine; **je quitte de Paris* ('I am leaving from Paris') is bad, whereas *je quitte Paris* ('I am leaving Paris') is fine, and *je pars de Paris* ('I am going away from Paris') is also good.

In Korean, the verb *ttena-ta* seems to cover the uses of both *quitter* and *partir*. Whereas *quitter* belongs to the class of referential verbs (focusing on the source phase of the event), the Korean verb *ttena-ta* shares properties with the less transitive verbs that can occur with the DMVs, and thus comes close to the behavior of French relational verbs. *ttena-ta* occurs with DMVs and keeps its syntactic autonomy. It can nevertheless be distinguished from 'Passage' verbs like *kenne-* ('cross') by several factors.

If the complement of the verb *ttena-ta* ('leave') denotes a location, then it can be case-marked either with the accusative (e.g. 3-a), or with the ablative (e.g. 3-b), or with the directional (e.g. 3-c). In the first two cases, the argument denotes the Source, while in the last case, it denotes the Goal.

(3-a)   *chelswu-nun   sewul-ul   ttena-ss-ta*
          PrN-Th   Seoul-Acc   leave-Pas-TS(Decl)
          'chelswu left Seoul'

(3-b)   *chelswu-nun   sewul-eyse   ttena-ss-ta*
          PrN-Th   Seoul-Abl   leave-Pas-TS(Decl)
          'chelswu left from Seoul'

(3-c)   *chelswu-nun   sewul-lo   ttena-ss-ta*
          PrN-Th   Seoul-Dir   leave-Pas-TS(Decl)
          'chelswu left for Seoul'

If the object denotes a human being, then the verb *ttena-ta* assigns the accusative, but not directly the ablative or the directional. Korean has a special case marking *-eykeyse* reserved for a human being when the latter functions as a Source; it is formed with the dative *-eykey* and the locative *-se.* When a human being is used as a Goal, it is combined with the case marking *-eykeylo* formed with the dative *-eykey* and the directional *-lo.*

(3-d)   *chelswu-nun   caki   anay-lul   ttena-ss-ta*
          PrN-Th   self   wife-Acc   leave-Pas-TS(Decl)
          'chelswu left his wife'

(3-e)   * *chelswu-nun caki   anay-eyse   ttena-ss-ta*
           PrN-Th   self   wife-Abl   leave-Pas-TS(Decl)
          'chelswu left from his wife'

(3-f)   *chelswu-nun   caki   anay-eykeyse   ttena-ss-ta*
           PrN-Th   self   wife-Abl   leave-Pas-TS(Decl)
          'chelswu left from his wife'

(3-g)   * *chelswu-nun caki   anay-lo   ttena-ss-ta*
           PrN-Th   self   wife-Dir   leave-Pas-TS(Decl)
          'chelswu left for his wife'

(3-h)   *chelswu-nun   caki   anay-eykeylo   ttena-ss-ta*
          PrN-Th   self   wife-Dir   leave-Pas-TS(Decl)
          'chelswu left for his wife'

The same case marking is assigned with the compound verb made up of the verb *ttena-ta* ('leave') and the DMV:

(4-a)   *chelswu-nun sewul-ul   ttena-ka-ss-ta*
          PrN-Th   Seoul-Acc leave-go-Pas-TS(Decl)
          'chelswu left Seoul'

(4-b)   *chelswu-nun sewul-eyse ttena-ka-ss-ta*
          PrN-Th   Seoul-Abl leave-go-Pas-TS(Decl)
          'chelswu left from Seoul'

(4-c)   *chelswu-nun sewul-lo   ttena-ka-ss-ta*
          PrN-Th   Seoul-Dir leave-go-Pas-TS(Decl)

'chelswu left for Seoul'

(4-d)   *chelswu-nun caki   anay-lul   ttena-ka-ss-ta*
           PrN-Th   self   wife-Acc   leave-go-Pas-TS(Decl)
           'chelswu left his wife'

(4-e)   * *chelswu-nun caki   anay-eyse   ttena-ka-ss-ta*
             PrN-Th   self   wife-Abl   leave-go-Pas-TS(Decl)
           'chelswu left from his wife'

(4-f)   *chelswu-nun   caki   anay-eykeyse   ttena-ka-ss-ta*
           PrN-Th   self   wife-Abl   leave-go-Pas-TS(Decl)
           'chelswu left from his wife'

(4-g)   * *chelswu-nun caki   anay-lo   ttena-ka-ss-ta*
             PrN-Th   self   wife-Dir   leave-go-Pas-TS(Decl)
           'chelswu left for his wife'

(4-h)   *chelswu-nun   caki   anay-eykeylo   ttena-ka-ss-ta*
            PrN-Th   self   wife-Dir   leave-go-Pas-TS(Decl)
           'chelswu left for his wife'

Since the DMV *ka-ta* ('go') takes a directional argument, the accusative complement in (4-a) and (4-d) can only be analyzed as an argument of the verb *ttena-ta* ('leave'). In the same way, the ablative complement in (4-b) and (4-f) can only be considered a complement of *ttena-ta* ('leave'). The directional complement in (4-c) and (4-h) is ambiguous, because both *ttena-ta* ('leave') and *ka-ta* ('go') accept it as their argument. However, each verb of the compound verb keeps its syntactic autonomy, as it can be preceded by its proper argument:

(4-i)   *chelswu-nun   anayl-lul   ttena   sewul-lo   ka-ss-ta*
           PrN-Th   wife-Acc   leave   Seoul-Dir go-Pas-TS(Decl)
           'chelswu left his wife and go to Seoul'

(4-j)   *chelswu-nun   sewul-eyse ttena   anay-eykeylo ka-ss-ta*
           PrN-Th   Seoul-Abl leave   wife-Dir   go-Pas-TS(Decl)
           'chelswu left Seoul and go to his wife'

(4-k)   *chelswu-nun   sewul-lo   ttena   anay-eykeylo ka-ss-ta*
           PrN-Th   Seoul-Dir leave   wife-Dir   go-Pas-TS(Decl)
           'chelswu left for Seoul and go to his wife'

The French verb *quitter* would be more transitive than the Korean verb *ttena-ta* ('leave') since it only has direct transitive uses, while *ttena-ta* equally well accepts the accusative, the ablative or the directional. Furthermore, the object of the French verb *quitter* necessarily corresponds to the Source, while the directional object of the Korean *ttena-ta* ('leave') denotes the Goal and its ablative and accusative objects both denote the Source. In the latter case, the difference between the accusative object and the ablative object is not very clear, even though for some people, the accusative object denotes more than a simple source; in (3-a) and (3-d), it seems that *chelswu* not only left Seoul or his wife but also abandoned all of his activities in Seoul or all of his relations with his wife.

3.2.3 Orientation verbs 'climbing events'

The Korean verb *olu-ta* corresponds to the French verb *monter* ('go up/climb') which is generally used in an intransitive construction such as in *les prix ont monté* ('prices have gone up'). In the Korean constructions, nouns like *kap* ('price'), *sengcek* ('school results'), or *kyekup* ('social rank') can appear in subject position and they are all marked with the feature [+ gradable]. When *olu-ta* ('climb') occurs with a complement, the latter is marked with the locative, and less readily with the accusative.

(5-a)   ? *chelswu-nun namu-lul   ola-ss-ta*
         PrN-Th   tree-Acc   climb-Pas-TS(Decl)
         'chelswu climbed up the tree'

(5-b)   *chelswu-nun   namu-ey   ola-ss-ta*
         PrN-Th   tree-Loc   climb-Pas-TS(Decl)
         'chelswu climbed up the tree'

(5-c)   ?? *chelswu-nun   kicha-lul   ola-ss-ta*
         PrN-Th   train-Acc   climb-Pas-TS(Decl)
         'chelswu got on the train'

(5-d)   *chelswu-nun   kicha-ey   ola-ss-ta*
         PrN-Th   train-Loc climb-Pas-TS(Decl)
         'chelswu got on the train'

The locative complement indicates the endpoint of vertical motion by the Figure. Nouns like *chungkey* ('steps/stairs') hardly occur as a complement of the verb *olu-ta* ('climb'), because they denote an instrument to go somewhere rather than the endpoint of motion.

(5-e)   ? *chelswu-nun   chungkey-lul   ola-ss-ta*
         PrN-Th   stairs-Acc   climb-Pas-TS(Decl)
         'chelswu climbed up the stairs'

(5-f)   ? *chelswu-nun   chungkey-ey   ola-ss-ta*
         PrN-Th   stairs-Loc   climb-Pas-TS(Decl)
         'chelswu climbed up the stairs'

The compound verb made up of *olu-ta* ('climb') and the DMVs *ka-ta* ('go') or *o-ta* ('come') behaves differently. It equally well accepts accusative and locative arguments if the complement denotes a vertically oriented entity. Nouns like *chungkey* ('stairs/steps') and *namu* ('tree') can thus either be marked with the accusative or with the locative, as shown in examples (6-a) to (6-d). However, the noun *kicha* ('train') only accepts the locative case (see (6-e) and (6-f)).

(6-a)   *chelswu-nun   chungkey-lul   ola-o-ass-ta*
         PrN-Th   stairs-Acc   climb-come-Pas-TS(Decl)

'chelswu climbed up the stairs (using the stairs)'

(6-b)   *chelswu-nun*   *chungkey-ey*   *ola-o-ass-ta*
         PrN-Th   stairs-Loc   climb-come-Pas-TS(Decl)
         'chelswu climbed up the stairs (using the stairs)'

(6-c)   *chelswu-nun*   *namu-lul*   *ola-ka-ss-ta*
         PrN-Th   tree-Acc   climb-go-Pas-TS(Decl)
         'chelswu climbed up the tree'

(6-d)   *chelswu-nun*   *namu-ey*   *ola-ka-ss-ta*
         PrN-Th   tree-Loc   climb-go-Pas-TS(Decl)
         'chelswu climbed up the tree'

(6-e)   ?? *chelswu-nun*   *kicha-lul*   *ola-ka-ss-ta*
             PrN-Th   train-Acc   climb-go-Pas-TS(Decl)
         'chelswu climbed up the train'

(6-f)   *chelswu-nun*   *kicha-ey*   *ola-ka-ss-ta*
         PrN-Th   train-Loc   climb-go-Pas-TS(Decl)
         'chelswu got on the train'

The accusative complement is neither the argument of *olu-ta* ('climb') nor that of a DMV, since neither of these verbs accepts it when they occur on their own. It can thus only be analyzed as the argument of the compound verb. Here, the two components have lost their syntactic autonomy. The locative complement, on the other hand, can either be the argument of *olu-ta* ('climb') or the argument of the compound verb if it denotes the endpoint of the motion as is the case with *namu* ('tree') and *kicha* ('train'). Concerning the locative complement represented by *chungkey* ('stairs'), it can only be analyzed as the argument of the compound verb.

The verb *nayli-ta* ('descend') can be used in an intransitive construction just as *olu-ta* ('climb'). Yet, when *nayli-ta* ('descend') occurs with a complement, it exhibits more restrictions than the verb *olu-ta* ('climb'). If it occurs alone, it only accepts an ablative complement which must denote a means of transport. Nouns denoting a vertically oriented object cannot be used as an argument of the verb *nayli-ta.* This is illustrated by examples (7a-7f).

(7-a)   ? *chelswu-nun*   *namu-lul*   *nayli-ess-ta*
             PrN-Th   tree-Acc   descend-Pas-TS(Decl)
         'chelswu came down the tree'

(7-b)   ? *chelswu-nun*   *namu-eyse*   *nayli-ess-ta*
             PrN-Th   tree-Abl   descend-Pas-TS(Decl)
         'chelswu came down from the tree'

(7-c)   ? *chelswu-nun*   *chungkey-lul*   *nayli-ess-ta*
             PrN-Th   stairs-Acc   descend-Pas-TS(Decl)
         'chelswu climbed down the stairs'

(7-d)　? *chelswu-nun*　　*chungkey-eyse*　　*nayli-ess-ta*
　　　　　　PrN-Th　　　　stairs-Abl　　　　descend-Pas-TS(Decl)
　　　　'chelswu climbed down from the stairs'

(7-e)　? *chelswu-nun*　　*kicha-lul*　　*nayli-ess-ta*
　　　　　　PrN-Th　　　　train-Acc　　　descend-Pas-TS(Decl)
　　　　'chelswu got off the train'

(7-f)　　*chelswu-nun*　　*kicha-eyse*　　*nayli-ess-ta*
　　　　　PrN-Th　　　　　train-Abl　　　descend-Pas-TS(Decl)
　　　　'chelswu got off the train'

It has just been shown that when *nayli-ta* occurs on its own, it only selects an ablative argument which denotes a means of transport. However, when it combines with a DMV, it takes an accusative or ablative argument which denotes a vertically oriented object:

(8-a)　　*chelswu-nun*　　*namu-lul*　　*naylye-o-ass-ta*
　　　　　PrN-Th　　　　　tree-Acc　　　descend-come-Pas-TS(Decl)
　　　　'chelswu came down the tree'

(8-b)　　*chelswu-nun*　　*namu-eyse*　　*naylye-o-ass-ta*
　　　　　PrN-Th　　　　　tree-Abl　　　descend-come-Pas-TS(Decl)
　　　　'chelswu came down from the tree'

(8-c)　　*chelswu-nun*　　*chungkey-lul*　　*naylye-o-ass-ta*
　　　　　PrN-Th　　　　　stairs-Acc　　　descend-come-Pas-TS(Decl)
　　　　'chelswu came down the stairs'

(8-d)　　*chelswu-nun*　　*namu-eyse*　　*naylye-o-ass-ta*
　　　　　PrN-Th　　　　　stairs-Abl　　　descend-come-Pas-TS(Decl)
　　　　'chelswu came down from the stairs'

Means of transport nouns can only be marked with an ablative, even when they occur in the compound verb with a DMV.

(8-e)　? *chelswu-nun*　　*kicha-lul*　　*naylye-o-ass-ta*
　　　　　　PrN-Th　　　　train-Acc　　　descend-come-Pas-TS(Decl)
　　　　'chelswu got off the train'

(8-f)　　*chelswu-nun*　　*kicha-eyse*　　*naylye-o-ass-ta*
　　　　　PrN-Th　　　　　train-Abl　　　descend-come-Pas-TS(Decl)
　　　　'chelswu got off the train'

The accusative and ablative complements from (8-a) to (8-d), which denote an object but not a location, can only be analyzed as arguments of compound verbs, since they are unacceptable with either *nayli-ta* ('go down') or with *o-ta* ('come') when used on their own. *o-ta* can take an ablative complement, which must denote a location, not an object. In a case where the ablative complement denotes a means of transport, it can be analyzed as a complement of *nayli-ta* ('go down') (see 7-f).

In comparison with the French verbs *monter* and *descendre*, the Korean verbs *olu-ta* ('climb') and *nayli-ta* ('go down') show less restrictions in the transitive construction when they occur with a DMV. Nouns denoting a vertically oriented object can generally be marked with the accusative by the compound verb. This is the case of nouns such as *san* ('mountain'), *entek* ('hill'), *kil* ('trail', if it is going up), *namu* ('tree'), *cenpostay* ('lamp post'), etc. In French, however, there are more restrictions on the nature of objects of *monter* ('climb') and *descendre* ('go down') in the TC. These objects must be vertically oriented and must correspond to a 'pathway'. They are nouns such as *escalier* ('stairs') or *côte/pente* ('slope/cline'), which denote a path between two locations. Nouns like *montagne* ('mountain') or *arbre* ('tree') cannot occur as objects in the French TC.

In Korean, it seems that verbs *olu-ta* ('climb up') and *nayli-ta* ('go down') only potentially contain a bounded Path, since they can have an accusative object only when they form a compound verb with the DMV, but not when they occur alone; it is the DMV in the compound verb that allows an accusative by establishing an endpoint or a starting point. With compound verbs, the accusative implies that the whole distance delimited by the object has been covered, while the locative only serves to localize the Figure/Subject. For instance, in (6-c), the Figure necessarily moves up to the top of the tree, whereas in (6-d), it can just be in the tree, but need not continue all the way to the top.

3.2.4 Distance verbs: 'following events'

Both the Korean verb *ttalu-ta* ('follow') and the French verb *suivre* express the idea that the Figure maintains a certain distance to the Ground that itself can be a moving entity. However, the latter verb only allows the transitive construction regardless of the object type (an object or a location), whereas the former, when it occurs alone, without a DMV, can appear with an accusative object but only if its object denotes a mobile entity such as animates or vehicles, not when it denotes a location.

(9-a) *chelswu-nun   chinku-tul-ul   ttala-ss-ta*
       PrN-Th   friend-Pl-Acc   follow-Pas-TS(Decl)
       'chelswu followed his friends'

(9-b) *aph-ey   ka-nun kemun   cha-lul   ttala-la*
       front-Loc   go-AS black   car-Acc   follow-TS(Imp)
       'Follow the black car ahead of us'

(9-c) ?? *chelswu-nun   kangpyen-ul   ttala-ss-ta*
          PrN-Th   bank-Acc   follow-Pas-TS(Decl)
       'chelswu walked along the river bank'

However, the non-finite form *ttala-,* which must be followed by another sentence, can combine with an accusative object even when its object denotes a location:

(9-d)   *chelswu-nun   kangpyen-ul   ttala   hakyo-e   ka-ss-ta*
            PrN-Th   bank-Acc   follow   school-Loc   go-Pas-TS(Decl)
            'chelswu went to the school walking along the river bank'

When the same verb *ttalu-ta* ('follow') occurs in combination with a DMV, it can select not only a mobile entity but also a location; the former can only be marked with the accusative, whereas the latter can be marked with either accusative or instrumental as in (10-e) and (10-f) below. But the instrumental *-ulo* can only be interpreted as a path and not as a directional.

(10-a)   *chelswu-nun   chinku-tul-ul   ttala-ka-ss-ta*
            PrN-Th   friend-Pl-Acc   follow-go-Pas-TS(Decl)
            'chelswu followed his friends'

(10-b)   * *chelswu-nun   chinku-tul-lo   ttala-ka-ss-ta*
             PrN-Th   friend-Pl-Inst/ Path   follow-go-Pas-TS(Decl)

(10-c)   *aph-ey   ka-nun kemun cha-lul   ttala-ka-la*
            front-Loc go-AS   black   car-Acc   follow-go-TS(Imp)
            'Follow the black car ahead of us'

(10-d)   * *aph-ey   ka-nun kemun cha-lo   ttala-ka-la*
             front-Loc   go-AS   black   car-Inst/ Path follow-go-TS(Imp)

(10-e)   *chelswu-nun   kangpyen-ul   ttala-ka-ss-ta*
            PrN-Th   bank-Acc   follow-go-Pas-TS(Decl)
            'chelswu walked along the river bank'

(10-f)   *chelswu-nun   kangpyen-ulo   ttala-ka-ss-ta*
            PrN-Th   bank-Inst/Path   follow-go-Pas-TS(Decl)

In examples (10-a) and (10-c), the accusative object is an argument of *ttalu-ta* ('follow'). In (10-e), it can also be analyzed as an argument of the verb *ttalu-ta,* because of the acceptability of a sentence like (9-d). In these cases, the verb *ttalu-ta* keeps its syntactic autonomy whereas the DMV does not, because the compound verb does not accept a locative or a directional argument:

(10-g)   ?? *chelswu-nun hakkyo-e   ttala-ka-ss-ta*
             PrN-Th   school-Loc   follow-go-Pas-TS(Decl)
            'chelswu went to the school in following something/someone'

(10-h)   ?? *chelswu-nun hakkyo-lo   ttala-ka-ss-ta*
             PrN-Th   school-Dir   follow-go-Pas-TS(Decl)
            'chelswu went to the school in following something/someone'

In (10-f), the Instrumental/Path object must be analyzed as an argument of the compound verb, because neither the DMV nor *ttalu-ta* ('follow') alone can select it. In the latter case, the two verbs have thus lost their syntactic autonomy in the compound verb.

Table 3 below summarizes the results of the description in this section. This table gives, for each verb, the type of the object and the case the object can be marked with when the verb occurs alone or when forming a compound with a DMV. In the latter case, we indicate whether the object marked with such or such case is an argument of V1 (the motion verb), of V2 (the DMV), or of the CV (the compound verb). It can be seen that forming a compound with a DMV increases the case-marking possibilities of most verbs.

Table 3. Case marking of motion verbs in Korean

Verbs	Type of the object referent						Verb alone					Verb + Deictic Motion Verb					Syntactic autonomy
	Animate	Mobile	Location Path	Path Internal Dim	Vertical Object	Transport	ACC	LOC	DIR	ABL	INS	ACC	LOC	DIR	ABL	INS	
												Argument of					
kenne-ta 'cross'			+				+				+	+ V1		+ V2		+ V1	Yes
olu-ta 'climb up'					+		?	+				+ CV	+ V1				No for Acc
						+	?	+				?	+ V1				No For Acc
			+ 'stairs'				?	?			?	+ CV	+ CV			+ CV	No
nayli-ta 'descend'						+	??			+		??			+ V1		No for Acc
					+		?			?		+ CV			+ CV		No
			+ 'stairs'				?			?	?	+ CV			+ CV	+ CV	No
ttena-ta 'leave'				+			+		+	+		+ V1		+ VI/2	+ V1		Yes
	+						+		+	+		+ V1		+ V1/2	+ V1		Yes
ttalu-ta 'follow'	+	+					+					+ V1				*	+V1 -V2
			+				+				*	+ V1			+ CV		+V1 -V2

4. Comparative account

In our analysis, we have treated Korean verbs combining with DMVs as roughly equivalent to French representative relational verbs, even when the component Deictic Motion is absent in French motion verbs. Yet combinability with DMVs is considered a reliable criterion to delimit the class of motion verbs in Korean. Such compound verbs can be considered serial verbs because they are formed by a sequence of verbs which act together as a single predicate (see Aikhenvald 2003 for sources containing reliable linguistic data and inductive generalizations). Furthermore, the DMVs which constitute the basic motion verbs are regarded by Foley and Olson (1985) as most serializable verbs. For Aikhenvald (2003: 69), they are likely to occur in serial verbs because they provide the notions of direction and orientation. This clearly applies to Korean compound motion verbs that accept a locative, an ablative or a directional object. However, when they occur with the accusative object, the DMV seems to play another role in addition to the notions of direction and orientation.

As mentioned in §1, some linguists pointed out semantic differences of the locative semantic role when it is linked to the oblique object and when it is linked to the direct object. This semantic difference can be captured more easily when a verb allows two possibilities of case marking for the locative semantic role. This can be illustrated by the classical alternation *John loaded the cart with apples / John loaded apples onto the cart*: in the first case, the cart is completely filled with apples while in latter it is not. The linking of the locative semantic role to the direct object or to the oblique object is thus interpreted in terms of affectedness of the object (totally affected *vs* not totally affected). This feature constitutes indeed one of interacting parameters determining the degree of transitivity, as pointed out by Hopper & Thompson (1980).

Among the Korean motion verbs discussed in §3, we saw that the compound verb *ttena-ka-ta* ('leave-go') accepts both an accusative object and an ablative or a directional one, and that the first verbal component *ttena-* ('leave') accepts both accusative and ablative objects but no directional object. The accusative and the ablative markings with the compound verb are thus possible because of the argument structure of the first verbal component, while the directional case marking is possible due to the argument structure of the deictic motion verb. The alternation between the accusative and the ablative with *ttena-* ('leave') can be explained in terms of affectedness of the object: the ablative object simply indicates an entity (place or person) from which the subject moves away, while the accusative object augments this interpretation by also suggesting the total abandonment of the subject's relations or activities. Not all native speakers agree on this semantic difference, however.

In French, the two verbs expressing a leaving event, *quitter* and *partir*, are distinguished by their object type: the former requires a direct object, the latter, an oblique object. As for the degree of affectedness of the object, the oblique object of *partir* only evokes a spatial interpretation, while the direct object of *quitter* can evoke, on top of a mere spatial interpretation (focussing the initial point of movement), the idea of total abandonment. In the latter case, the semantic difference depends not on different case markings of the object (because *quitter* always has a direct object) but on the nature of object noun: the interpretation of total abandonment is more easily evoked when the object refers to a human being; when the object is a place noun, both interpretations are available. The verb *quitter* is thus analyzed as a referential verb rather than as a relational verb, since its spatial interpretation rests on the type of the referent denoted by the object.

Concerning the Korean compound verb *kenne-ka-ta* ('cross-go'), we have seen that the first component only accepts an accusative object, whereas the compound verb accepts both an accusative and a directional object. Once again, the accusative object can thus be attributed to the argument structure of the first component, whereas the directional object can be attributed to the argument structure of the DMV. The semantic structure of the verb *kenne-* ('cross') involves two sides of a Passage-like object and describes the motion of the Figure from one side to the other. The Path is, so to speak, partially incorporated into the verbal meaning, and the accusative object represents the spatial entity of which the two sides are taken into account. A similar analysis is proposed for the French Crossing event verb *traverser,* a relational verb, which incorporates the Region component expressed by relational nouns *one side / the other side*. This verb, like its Korean equivalent, can only take a direct object. What is worth noting is that in Korean as well as in French, some relational verbs have a corresponding form in the adpositions category. This is a non-finite form in Korean and a nominal form preceded by the preposition *à* in French:

(11) Kr. *kang.kenne*   *suph*
            river.opposite side   wood
            'the wood on the opposite side of the river'

(12) Fr   *passer*   *à travers*   *la forêt*
            pass   across   the wood
            'pass across the wood'

A similar phenomenon can be observed with the Korean compound motion verb *ttala-ka-ta* ('follow-go') and the French relational motion verb *suivre* ('follow'). The first verbal component of the Korean compound motion verb only accepts an accusative object, whereas the compound verb accepts both an accusative object and an instrumental/path object. On the other hand, this compound verb cannot occur with a directional object. Thus, the DMV loses its argument structure. The verb *ttala-* ('follow') incorporates into its semantic structure the notion of a long Path specifying its beginning and its end. The accusative object marks the spatial entity denoting this type of Path. The French verb *suivre* ('follow') incorporates the same type of Path component and occurs only with a direct object. It is thus analysed as a relational motion verb. As *traverser* ('cross'), *suivre* and *ttala-* ('follow') have a corresponding form in the adpositions category, a participle form in French, and a non-finite form in Korean.

(13)   Kr.   *pep-e ttala*
              law-according to
              'according to the law'

(14)   Fr   *suivant   la loi*
              according to   the law
              'according to the law'

In sum, for the three types of Korean motion compound verbs examined here, *ttena-ta* ('leave'), *kenne-ta* ('cross') and *ttalu-ta* ('follow'), the first verbal component keeps its argument structure but the DMV may lose it. Thus, in these constructions, the DMV is more grammaticalized than the first verbal component.

We now turn to the verbs expressing a vertically oriented motion. The Korean compound verb *olla-ka-ta* ('climb-go') accepts an accusative object and a locative object, while the first component *olla-* ('climb') accepts only a locative object. The accusative object can however not be considered an argument of the DMV and must thus be the argument of the compound verb as a whole. In this case, the two components of the compound verb lose their argument structure. The compound verb *olla-ka-ta* can thus be considered as a partially lexicalized serial verb. On the other hand, the semantic difference between the accusative object and the locative object of the compound verb can be explained in terms of degree of affectedness of the object. When it occurs with an accusative object, the compound verb describes the distance of the Path that has been covered completely; when it occurs with a

locative object, it describes the location of the Figure at one point on the Path. The question arises why the accusative object should at all be possible with this particular compound verb, since the verb *olla-* ('climb') by itself does not seem to determine a bounded Path totally covered by the Figure, as it cannot occur with an accusative object when used as an independent verb. It simply expresses a vertically oriented motion which, in theory, is not limited. We suggest that the Region component as *top / bottom* is potentially present with a vertically oriented motion verb, which can be activated under certain conditions. In the Korean compound verb *olla-ka-ta* ('climb-go'), the Region component *top* is activated by the deictic motion component which has in its original argument structure a locative semantic role indicating the end point of the motion. The compound verb accompanied by the accusative object can then express the complete coverage of the Path. The object noun must obviously be a vertically oriented entity in order to be semantically compatible with the verb expressing a vertically oriented motion.

In French, the vertically oriented motion verbs *monter* ('climb') / *descendre* ('descend') show more restrictions than their Korean equivalents when it comes to the type of nouns that can be used as a direct object: they must denote not only a vertically oriented entity but also correspond to a 'pathway' between two locations. This constraint seems to be related to the absence of the deictic motion component to indicate the end point of the motion.

Conclusion

Drawing on data from French and Korean, we have argued in this paper that the linking of the locative semantic role to the direct object can be explained not only in terms of the affectedness of the object but also in terms of verbal semantic structure containing a relational component 'Region' delimiting the passage covered by the Figure. In French, this relational component is incorporated in the transitive motion verbs, in Korean it is expressed by the first component of compound motion verbs. We also argued that in Korean, the deictic motion verb plays a double role in the compound: on the one hand, it indicates a deictic orientation of motion, and on the other hand, it serves to indicate the end point of a motion which is not intrinsically bounded. If our claims are correct, they must be taken into account not only in the theory which deals with the syntax-semantics interface but also in the typology of serial verbs.

List of Abbreviations

Abl: Ablative

Acc: Accusative

AS: Adnominal Suffix

Decl: Declarative

CV: Compound Verb

Dist: Distance

DMV: Deictic Motion Verb

TC: Transitive Construction

Dir: Directional

FTMV: French Transitive Motion Verb

Fr: French

Imp: Imperative

Inst: Instrumental

Kr: Korean

Loc: Locative

Pas: Past tense

Pl: Plural

prN: Proper Noun

Th: Theme

TS: Terminal Suffix

V: Verb

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Notes

[1] We are grateful to several people whose comments and corrections have helped to shape this study: the two anonymous reviewers, Maarten Lemmens, Rudolph Sock and Christophe Zimmer.

[2] The Romanization used for Korean data is the Yale system.

[3] In Korean, the Deictic Centre always seems to be the speaker. A sentence like *I will come to your marriage* sounds odd when translated literally in Korean; the use of the verb *ka-ta* ('go') in the place of *o-ta* ('come') improves the acceptability of this sentence.