

# Argument Structure and the Applicative Construction in English

by

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## Chapter 1

### Introduction

As has often been pointed out by various linguists, the mental grammar in our mind connects a variety of concepts with certain linguistic forms: we can express a great number of different things by combining words in various ways. Investigations into the semantics-syntax interface are therefore one of the central issues in linguistics to pursue the nature of Language. The purpose of this thesis is to discuss meaning-to-form correspondence on the basis of verbal argument structure, focusing on *applicative* constructions, in which an oblique argument of a predicate verb is promoted to its core argument. Such additional arguments are called *applied arguments* and adding an applied argument to the argument structure of a verb results in an increase of the verb's valency by one: intransitive verbs, which license only one argument, change into transitives, and transitive verbs become ditransitives. For example, in Ainu, an Instrument<sup>1</sup> argument *túri* 'rod' in (1a) is incorporated into the argument structure of the verb as in (1b), to which an applicative prefix *e-* is attached:

(1) a. *túri ani ku-cípo.*

rod with I-boat.manage

b. *túri k-ecipo.*

rod I-APPL-boat.manage

"I manage a boat with a rod."

(cf. Sato (2008: 239))

Some languages like Ainu mark applicatives with certain kinds of affixation on verbs, while others employ no such morphological operation for argument introduction. English is

a typical instance of the latter type:

- (2) a. I baked a cake.  
b. I baked *him* a cake. (Pylkkänen (2002: 17) italics are her own)

In (2b), an applied Beneficiary argument *him* appears as the indirect object, with the morphological form of the predicate verb *baked* remaining unchanged. There are some researchers who avoid the term *applicative* for English examples like (2b), because of their lack of unique morphological status.<sup>2</sup> In the present work, however, this terminology will be used to indicate constructions with additional, applied arguments in general. In fact, I will claim that “applicative” is the more preferable term for this construction.

In Japanese, applied Beneficiary arguments often co-occur with complex predicates, where a verb and *yaru/ageru* ‘give’ are connected by the converbal ending *-te*:

- (3) a. ??Taroo-wa Hanako-ni to-o ake-ta.  
Taro-TOP Hanako-DAT door-ACC open-PAST  
b. Taroo-wa Hanako-ni to-o ake-te yat-ta.  
Taro-TOP Hanako-DAT door-ACC open-CON GIVE-PAST

“Taro opened the door for Hanako.”

(cf. Kaga (2007:171), Shibatani (2009: 272))

It is a disputable question whether such a complex predicate as *ake-te-yaru* ‘open-CON-GIVE’ forms a coordinate structure, preserving the lexical autonomy of each independent verb (e.g. *akeru* ‘open’ and *yaru* ‘give’), or whether it functions as a single predicate as a whole. This thesis argues that *-yaru/-ageru* play the role of applicative head

in Japanese, hence the complex predicate itself acts as a single verb that licenses three arguments, including an applied Beneficiary argument.

While most languages have a means of introducing an argument, the grammaticality of applicative expressions varies cross-linguistically. For example, the English counterpart of (3b) is judged unacceptable:

- (4) \*Taro opened Hanako the door. (cf. Shibatani (1996: 167, 170))

The unacceptability of (4) is often attributed to the semantic constraint on benefactive (double object) constructions in English:<sup>3</sup> the schema underlying benefactive constructions in English is that of “change of possession.” (4) is out because Taro’s opening the door does not imply that Hanako will possess the door. For similar reasons, applicatives with continuous motion verbs are low in acceptability in English:

- (5) a. John {threw/tossed/kicked} *Mary* the ball. (ballistic motion)  
b. %John {carried/ pulled/ pushed} *Mary* the ball. (continuous motion)  
(Kishimoto (2001: 134))

Kishimoto (2001) claims that the verbs in (5b) put semantic focus on coextensive movement of the referent(s) of the object (and of the subject) and hence tend to be excluded from the “change of possession” sense. Also, intransitive-based applicatives are permitted only by languages in which a high applicative head is available (e.g. Bantu languages Chaga and Chicheŵa: see Pylkkänen (2002)). In English, applicatives based on unergative verbs are ill-formed:

(6) \*I ran *him*.

(Pylkkänen (2002: 17))

Moreover, English imposes relatively strict restrictions on the use of applicative constructions: not only is unergative-based applicative formation prohibited, but there also appears to be some language-particular constraints placed upon argument introduction in English, as shown in (5). In this thesis, I will attempt to consider some conditions under which argument introduction is permitted in English. Particularly, I will argue that English applicatives are formed only when their predicate verbs have a certain type of argument structure. Also, since a linguistic theory must capture universal as well as language-particular principles of linguistic phenomena, I aim to locate our approach on the general discussion that regards the applicative construction as a kind of *voice*.

This thesis is organised as follows: in chapter 2, for the purpose of reviewing how double object (applicative) constructions have been analysed in previous studies, we shall consider several cognitive approaches (Goldberg (1995), Jackendoff (1990, 1991), Shibatani (1996)) and point out some limitations with them. Also reviewed in the chapter is Pylkkänen's (2002) syntactic/typological<sup>4</sup> approach, which generalises two parametric variations of applicative heads: *high* and *low*. Based on Pylkkänen's (2002) classification, in which English is regarded as a low applicative language, chapter 3 makes a proposal for syntactic/semantic constraints which underlie the English applicative construction. In chapter 4, following the general discussion on applicatives, I shall illustrate that the applicative construction is a kind of voice. Chapter 5 compares applicative expressions in English and Japanese. I will attempt to attribute some differences between these two languages to a general typological variation introduced by Talmy (2000). Finally, chapter 6 summarises this thesis.

## Chapter 2

### Previous Studies

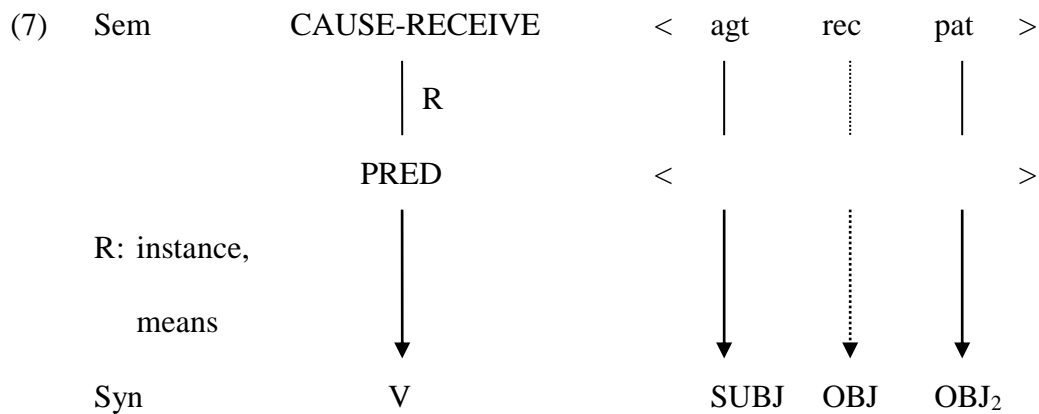
This chapter reviews several cognitive approaches which attempt to capture possible constraints on the English applicative construction. Goldberg (1995), Shibatani (1996) and Jackendoff (1990) hold the same assumption that “change of possession” is the central sense involved in the English double object construction. This indeed holds for the majority of cases, but to accommodate some exceptions, their approaches need further qualification. In 2.2, we shall look at a syntactic approach (Pylkkänen (2002)). I will make sure that her typological distinction between *high* and *low* applicatives plays a significant role to account for argument introduction in general. English applicatives are classified into low applicatives and hence link an individual and the direct object.

#### *2.1 Semantic Approaches to Double Object Constructions*

##### *2.1.1 Constructional Grammar Approaches*

Goldberg (1995), based on the standpoint of *Construction Grammar*, suggests that it is constructions themselves, not lexical items in the sentence, that carry meaning and serve as basic units of a language. In her view, Language draws on “a finite set of possible event types” (Goldberg (1995: 39)), which abstract basic and prototypical human experience. Each construction encodes a certain event type: for example, caused-motion constructions correspond to “something causes something to change location,” resultative constructions to “someone causes something to change state,” and so forth.

According to her, the English double object construction is represented as in (7), although the Recipient/Benefactive argument may or may not be lexically selected by the predicate verb:<sup>1</sup>



(Goldberg (1995: 142))

As indicated by the dotted line in (7), the recipient argument may be supplied by the construction itself. In this case we call it the “applied argument” of the construction. Thus, the (intended) recipient *her sister* in (8) is an argument which is supplied by the construction itself, since the verb *bake* does not lexically involve a Recipient role in its argument structure.

(8) Sally baked *her sister* a cake. (Goldberg (1995: 141) italics are mine)

Goldberg (1995) suggests that unless the “intended transfer sense” is associated with the construction directly, we have to include such an idiosyncratic notion in the lexical information on *bake* itself. If this “transfer sense” were individually associated to verbs, we would have to compile an indeterminable list of one-to-one relations between each verb and such an ad hoc sense which only occurs under a particular condition. At the same time, we would also need to distinguish verbs which accept the adaptation and those which do not. This would impose unnecessary burden for language acquisition. Therefore it appears to be adequate not to attribute the semantics of a construction to each individual lexical item. Instead, Goldberg (1995) suggests that it is *constructions* that serve as grammatical entities

with which certain general senses (e.g. “change of possession”) are associated.

In Goldberg (1995), variations of double object expressions are explained in terms of *polysemy links*: sentences with the same syntactic form share a particular “central sense.” Some are more prototypical in that the semantics of their predicate verbs has a close relationship to the central sense, while others are derived from some of its metaphorical extensions. To illustrate this point more concretely, let us consider the examples in (9):

- (9) a. “X CAUSES Y to RECEIVE Z” (central sense)  
→ Joe gave Sally the ball.
- b. Conditions of satisfaction imply “X CAUSES Y TO RECEIVE Z”  
→ John promised Bob a car.
- c. “X ENABLES Y to RECEIVE Z”  
→ Joe permitted Chris an apple.
- d. “X CAUSES Y NOT to RECEIVE Z”  
→ Joe refused Bob a cookie.
- e. “X INTENDS to CAUSE Y TO RECEIVE Z”  
→ Joe baked Bob a cake.
- f. “X ACTS to CAUSE Y to RECEIVE Z at some future point in time”  
→ Joe bequeathed Bob a fortune.

(cf. Goldberg (1995: 75))

The predicate verb *give* in (9a) lexically carries the semantics associated with the ditransitive construction. It lexically requires the total number of three participants: Agent, Recipient, and Theme.<sup>2</sup> In (9b-f), on the other hand, the predicate verbs’ lexical semantics *per se* does not directly match the central sense of “X CAUSES Y to RECEIVE Z.” For example, *bake* in (9e)



does not even lexically license the Recipient argument, as we saw above. With some metaphorical extension, the verbs in (9b-f) come to function as “ditransitive verbs.”

Following her approach, marginally acceptable ditransitive expressions like (10) also involve metaphorical extension:

- (10) a. If you want my hand in marriage, first you’ll have to kill *me* a dragon.  
b. Cry *me* a river!  
c. God said to Abraham, “Kill *me* a son.” (Pinker (2009: 134))

Here, the following metaphor is involved: “actions which are performed for the benefit of a person are understood as objects which are transferred to that person” (Goldberg (1995: 150)). Goldberg (1995) claims that cases like (10) *are* related to “transfer sense” metaphorically, though they do not involve any change of possession in actuality.

Shibatani (1996) adopts a similar approach. He claims that a speaker construes events or states through the corresponding templates; these situations are coded to certain grammatical schemata and result in specific linguistic expressions. In the case of applicatives, which Shibatani (1996) calls “benefactives” (see fn. 2 of chapter 1), the “give” construction is assumed to serve as the schema:

- (11) The “give” schema:

*Structure:* [NP<sub>1</sub> NP<sub>2</sub> NP<sub>3</sub> GIVE]

NP<sub>1</sub> = coded as a subject

NP<sub>2</sub> = coded as a primary object or a dative indirect object

NP<sub>3</sub> = coded either as a secondary object or as a direct object

*Semantics*: NP<sub>1</sub> CAUSES NP<sub>2</sub> TO HAVE NP<sub>3</sub>; i.e.

NP<sub>1</sub> = human agent, NP<sub>2</sub> = human goal, NP<sub>3</sub> = object theme

NP<sub>2</sub> exercises potential possessive control over NP<sub>3</sub>

NP<sub>1</sub> creates the possessive situation on behalf of NP<sub>2</sub>

(Shibatani (1996: 173-174))

The motivation for Shibatani's (1996) schema-based analysis of applicatives (benefactives) comes from the syntactic correspondence between "give" constructions and benefactive constructions:

(12) a. John gave Mary a book.

NP<sub>1</sub>            NP<sub>2</sub> NP<sub>3</sub>

b. John bought Mary a book.

NP<sub>1</sub>            NP<sub>2</sub> NP<sub>3</sub>

Moreover, Shibatani (1996) shows that some languages actually make benefactive verbal compounds whose second element is a verb meaning "give." Japanese *yaru* 'give' is one of these instances:

(13) a. Kyoo Taroo-ga Hanako-ni hon-o yatta.

today Taro-NOM Hanako-DAT book-ACC gave

"Today, Taro gave Hanako a book."

b. Kyoo Taroo-ga Hanako-ni hon-o yonde yatta

today Taro-NOM Hanako-DAT book-ACC read gave

"Today, Taro read Hanako a book." (Shibatani (1996: 175-176))

He points out that Chinese, Korean, and Sinhala also use similar benefactive verbal compounds with *gěi*, *cwu-ta*, and *denawa* ('give') respectively.

Although the schema described in (11) holds for benefactive constructions cross-linguistically, languages are thought to have several different cut-off points within which the majority of the native speakers of that language allow certain situations to be described in benefactive constructions. Some languages, like English, utilise the construction for situations that are highly construable in accordance with the pattern of "give" constructions, while others that lean toward the more liberal end, license a wider range of benefactive expressions, provided that the semantics of the sentence is associated with the "on behalf of" reading. For example, Shibatani (1996) cites Indonesian and Javanese examples, in which the beneficiaries do not end up with possessing the transferred objects:

(14) a. Saya mengirim-kan Ana paket ke Jakarta. (Indonesian)

I send-BEN Ana package to Jakarta

"I sent a package to Jakarta on behalf of Ana."

b. Aku ngedol-ne Ana pelem neng tamu. (Javanese)

I sell-BEN Ana mango to customer

"I sold mango to the customer on behalf of Ana."

(Shibatani (1996: 182))

Sentences like (14) are remote from the fundamental "give" schema. Yet, some part of its meaning is still compatible with the semantics of the construction in (11): "give" constructions usually express situations favourable to the Recipient participant. In this sense, sentences in (14) have a partial relationship with the semantics of the construction.

What Goldberg (1995) and Shibatani (1996) commonly insist on is that the surface syntactic configuration of [NP<sub>1</sub> V NP<sub>2</sub> NP<sub>3</sub>] itself carries the specific meaning of “NP<sub>1</sub> (X) CAUSES NP<sub>2</sub> (Y) to RECEIVE/HAVE NP<sub>3</sub> (Z).”<sup>3</sup> Situations that are readily interpreted as change of possession are highly conventionalised and widely accepted cross-linguistically; peripheral examples, which are only partly related to the central sense, exhibit a smaller degree of acceptability in both language-internal and cross-linguistic continua.

Constructional approaches, which postulate basic construction-specific senses and their metaphorical extensions, however, do not seem to be able to draw a clear line for dividing those situations that can be expressed by applicative/benefactive constructions and those that cannot. As mentioned in (5), repeated below as (15), in English applicatives, verbs of instantaneous causation of ballistic motion and verbs of continuous imparting of force manifest contrastive status in acceptability, despite their cognitive similarity in that in both situations *the ball* is caused to move to the direction of *Mary*:

- (15) a. John {threw/tossed/kicked} *Mary* the ball. (= (5a))  
 b. %John {carried/pulled/pushed} *Mary* the ball. (= (5b))

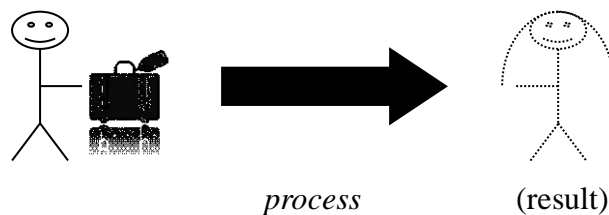
Actually, Shibatani (1996) attempts to address this contrast in terms of the notion of possession, suggesting that “the contrast seen here is due to the difference in the ease of ‘coercing’ the situations into the schema. That is, while the ballistic motion entails an instantaneous separation of an object from the former possessor, the accompanied motion [= continuous motion] does not; accordingly, situations involving ballistic motions are easier to construe in terms of the schema that stipulates the possession of an object by a new owner” (Shibatani (1996: 181)). It is true that verbs of continuous motion put strong focus on the manners in which the object is moved, rather than on its resultant state of being transferred by

one participant to another; but it is not crucial for acceptability judgement of applicatives whether the moved object is separated from the possessor instantaneously. As pointed out by Kishimoto (2001: 134-135)), the deictic verb *bring*, which does entail that the possessor accompanies the object being transferred, can function as the predicate verb in applicative constructions with no difficulty:<sup>4</sup>

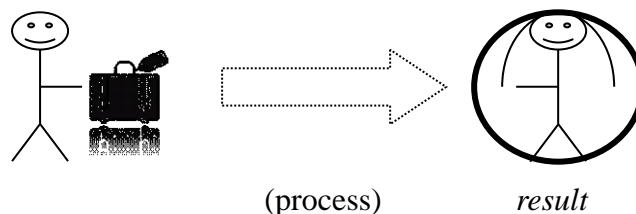
(16) He brought me the suitcase. (Youth Progressive)

A clear contrast between (15b) and (16) lies not on the manner in which the ball/suitcase are moved, but on the focused part of the event in question. For instance, *carry* in (15b) focuses on the *process* of the transferring event, while *bring* in (16) on the *result* of the event. (17a, b) illustrate this point:

(17) a. John *carried* the suitcase (to Mary).



b. John *brought* Mary the suitcase.



Thus, Shibatani's (1996) attribution of the contrast between (15a, b) to "an instantaneous separation of an object" appears to be invalid. At best it needs some modification in order to explain the general incompatibility between applicative constructions and verbs that

describe continuous motion.

“Metaphorical extension,” a mechanism to derive various expressions with double objects from the “core” sense, also needs further investigation, despite its well established status in cognitive approaches (Goldberg (1995) and Shibatani (1996), as reviewed above, as well as Akashi (2004), Culicover (2009) etc.). As pointed out in Kaga (2007), ditransitive sentences like (18) with an inanimate indirect object are hard to be interpreted in accordance with “NP<sub>1</sub> (X) CAUSES NP<sub>2</sub> (Y) to RECEIVE/HAVE NP<sub>3</sub> (Z).” In (18a) and (18c), in what sense do *the door* and *the canoe* receive a kick or a push? (cf. Kaga (2007: 161)):

- (18) a. Then he [= a Frog] went up and gave the door a kick with one of his great feet. (Lewis Carroll, *Through the Looking Glass and What Alice Found There*, underline is mine)
- b. \*He gave a kick to the door. (cf. Kaga (2007: 161))
- c. Barney nodded resignedly as he gave the canoe a push with his foot. (BNC)
- d. \*Barney gave a push to the canoe. (cf. Kaga (2007: 161))

In the context of the dative alternation in English, it is often claimed that indirect objects in double object constructions are subject to the animateness constraint (Jackendoff (1990: 197), Kaga (2001: 147, 2007: 133), Kishimoto (2001: 134), Pinker (2009: 124), etc.). As shown in (19), an expression (like *New York* in (19b)) that merely denotes a place to which the thing indicated by the direct object is transferred cannot appear as the indirect object in double object constructions:

- (19) a. John sent the package to Bill/to New York.
- b. John sent Bill/\*New York the package. (Jackendoff (1990: 197))

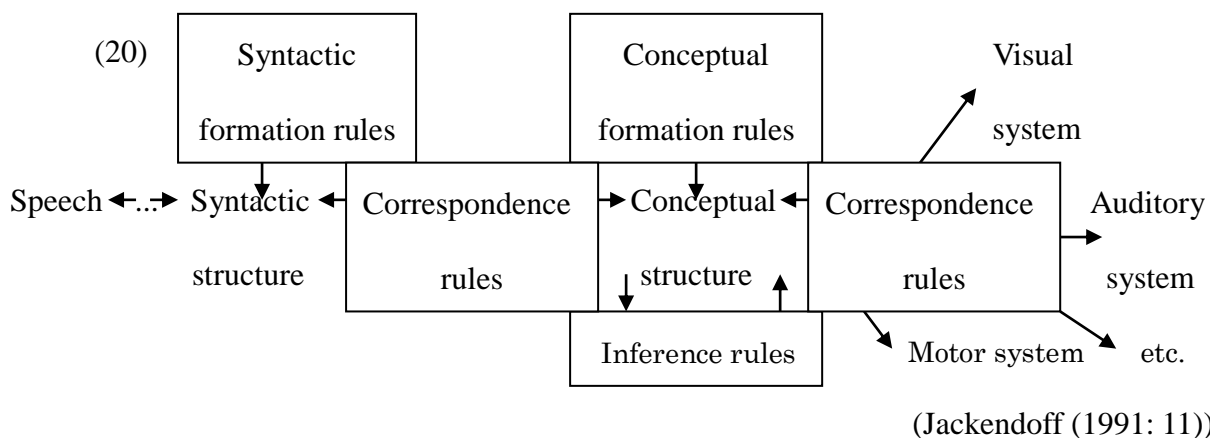
The animateness constraint is often claimed to be deduced from the “central sense” of the double object construction. Since this construction prototypically expresses “change of possession,” this means that the referent of the indirect object must be capable of possessing things, either literally or metaphorically. Contrary to this constraint, the indirect objects in (18a) and (18c) refer to inanimate entities, and they are not under personalification. *The door* in (18a) and *the canoe* in (18c) are no more Possessors than *New York* in (19b) is.<sup>5</sup> Therefore, it is hard to assume that (18a) and (18c) are derived from the metaphorical extension of the central sense. Nevertheless, they must not be expressed as the object of preposition *to*, as in (18b) and (18d). Such cases are problematic to cognitive approaches which suppose that the sense of “change of possession from the Agent to the Possessor/Recipient” is glued to the double object construction.

(15), (16) and (18) demonstrate a limitation of the constructional/schema-based approaches that stretch the unitary notion of transfer of possession: without a more rigid principle for making a distinction between events that can be expressed in double object constructions and those that cannot, we have to expand the construction-dependent notion in an indefinite and unreasonable way, at least to accommodate certain non-prototypical cases.

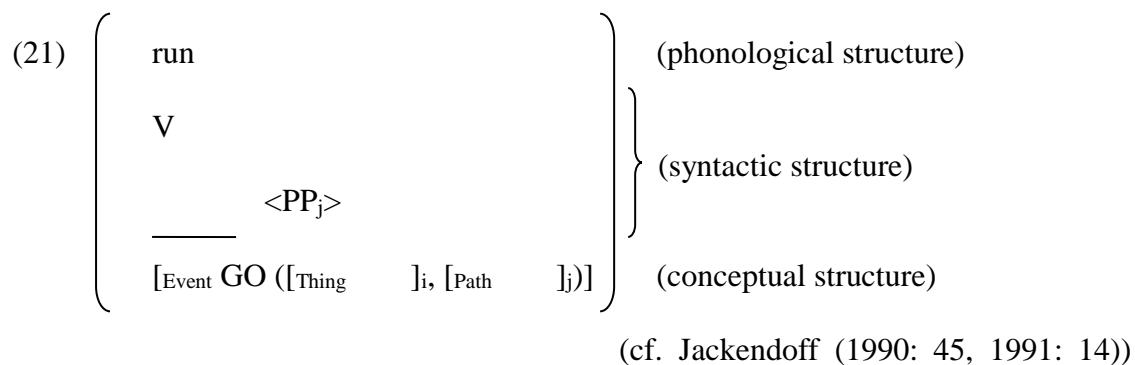
### 2.1.2 Conceptual Semantic Approaches

Jackendoff’s (1990, 1991) *Conceptual Semantic* approach, on the other hand, explores a set of conceptual primitives such as Event, State, Path, Place, etc. and principles of combination rules that collectively generate the possible concepts expressed by words and sentences (cf. Jackendoff (1990: 9, 1991: 11)). From this standpoint, human construal of the world is linked to a form of mental representation, called *conceptual structure*. This composes an autonomous level of representation and is related to syntactic structure through

correspondence rules:



In this framework, “the lexicon is conceived of as a part of the correspondence rule component” (ibid). In other words, a lexical item carries the word’s syntactic, conceptual, and phonological information. For example, the lexical entry for the word *run* is roughly formalised as in (21):<sup>6</sup>

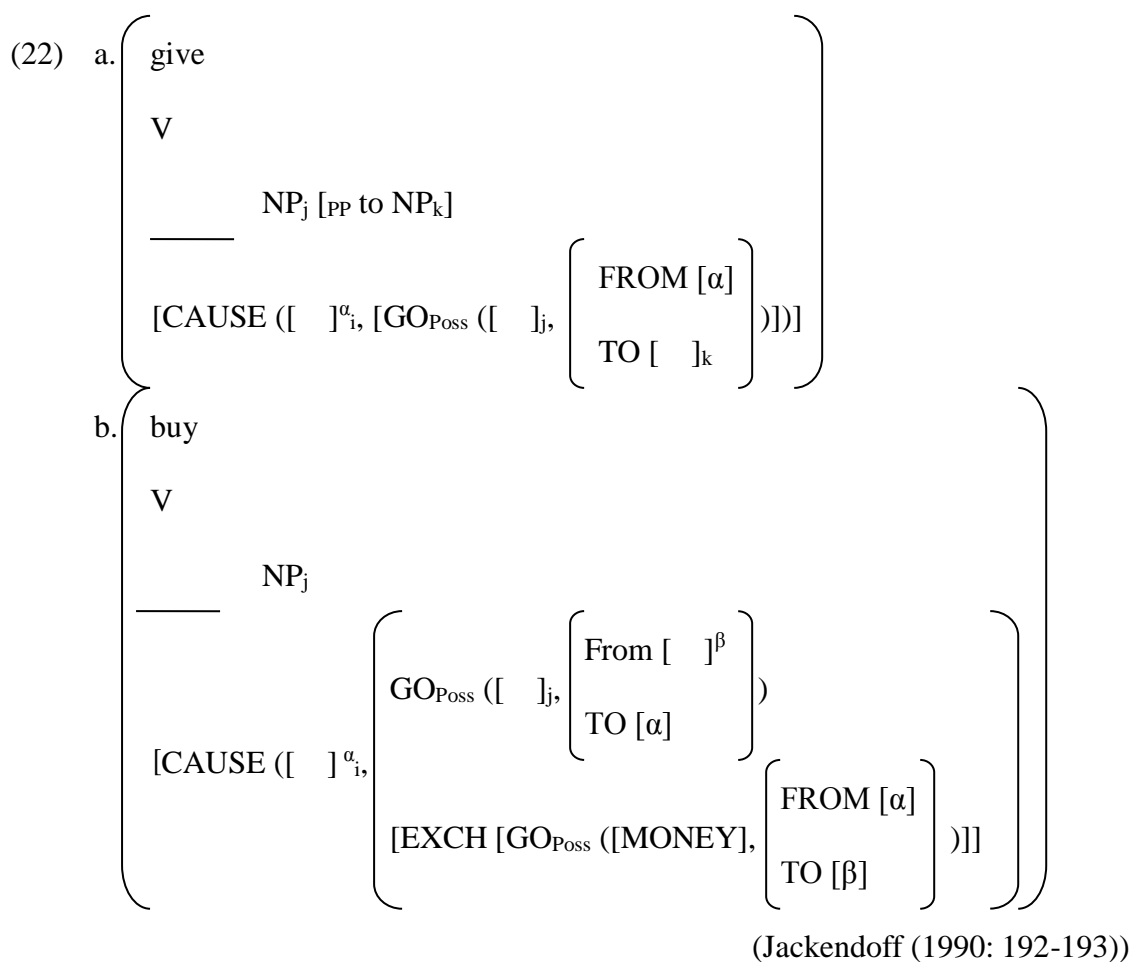


(21) illustrates that the phonological material *run* syntactically functions as a verb which optionally subcategorises an PP, and it corresponds to the item’s LCS (lexical conceptual structure) involving the Event function GO; thus it expresses the sense of motion.

With Jackendoff’s (1990, 1991) LCS notion, we can clearly distinguish between lexically ditransitive verbs and non-ditransitive verbs that can be a predicate of applicative

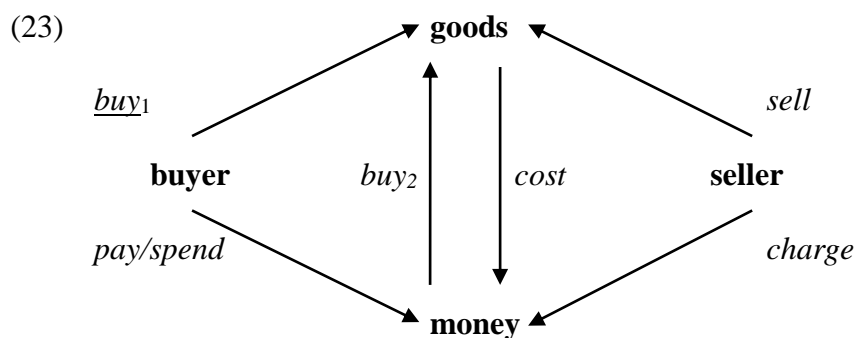


constructions (i.e. the latter group of verbs do *not* lexically subcategorise an indirect object; superficially they look like “ditransitive” verbs, because of the introduction of an applied argument). (22a, b) illustrate the lexical entries of *give* and *buy*; the former lexically requires two internal arguments (either in a form of double-DP/NP or in a DP/NP-PP frame), while the latter subcategorises only one, albeit considerably frequent appearance in a double-DP frame in applicative constructions.<sup>7</sup>



In (22a), it is clearly shown that the event of *giving* necessarily involves both a thing being transferred and a recipient who will be the new possessor of the thing. These conceptual arguments are mapped into the syntactic level—as the direct and indirect object, respectively. A *buying* event, on the other hand, conceptually involves both “transfer of possession (from a

seller to the buyer)” and “countertransfer of money (from the buyer to the seller)” sense; *buy* foregrounds the former and backgrounds the latter, while this foreground-background distinction will be reversed with *pay*. At the syntactic level, *buy* obligatorily encodes only the relationship between goods and the buyer. Entities in the backgrounded event are relegated to adjunct phrase(s) as in *The cowboy bought a horse (from the sheriff) (for \$500)*. (cf. Radden and Dirven (2007: 27)). (23) depicts the elements and relationships of the “commercial event” and specifies which verb foregrounds which relationship in English:<sup>8</sup>



(cf. Radden and Dirven (2007: 28))

As illustrated so far, even though both types of verbs appear in double object constructions, some verbs are *lexical ditransitives* in that their LCSs carry the Benefactive/Recipient as well as the Agent and the Theme, while others function as *transitive* verbs, which do not lexically licence Benefactive/Recipient arguments.

Given that *buy*, for example, does not lexically specify the third party who will ultimately possess the transferred object(s), why is the Benefactive/Recipient *Mary* in *John bought Mary a book* construed as such? Jackendoff (1990) provides a number of *adjunct rules* to adjust apparent mismatches between conceptual arguments and syntactic positions. Among the rules introduced by him, *Beneficiary NP Adjunct Rule* and *Recipient NP Adjunct Rule* have something to do with applicative constructions. I will examine these rules and

instances in turn.

(24) *Beneficiary NP Adjunct Rule:*

If V corresponds to [CREATE/PREPARE ([X], [Y])], and NP corresponds to [Z], then [S ... [VP [V NP ...] ...] may correspond to

$$\left[ \begin{array}{l} \text{CREATE/PREPARE } ([X], [Y]^{\alpha}) \\ \text{[FOR [AFF}^{+} ([\alpha], [Z])]} \end{array} \right]$$

(Jackendoff (1990: 196))

The rule in (24) reflects a couple of facts seen in the applicative constructions: first, the action described by the verb is highly constrained to one of the types listed in (25).

- (25) a. **Verbs of Creation:** *bake, build, cook, fix, knit, make, pour, sew, weave, etc.*  
b. **Verbs of Performance:** *dance, draw, paint, play, recite, sing, write, etc.*  
c. **Verbs of Obtaining:** *buy, earn, find, get, order, rent, reserve, save, etc.*  
d. **Verbs of Preparation:** *cut, peel, etc.*

(cf. Jackendoff (1990: 196), Kishimoto (2001: 131))

Second, as observed in 2.1.1, the event expressed by an applicative construction implicates the subject's *intention*, at least, for the beneficiary to receive the benefit.<sup>9</sup> The second row of the conceptual structure in (24): [FOR [AFF<sup>+</sup> ([ $\alpha$ ], [Z])]] corresponds to this property. In this construction, an object *Y* is created/prepared to positively affect (AFF<sup>+</sup>) the beneficiary *Z*. The Theme argument *Y* hence binds the first argument in the function FOR AFF<sup>+</sup>.

Applicatives with verbs of ballistic motion as in (5a)/(15a) are interpreted in accordance with *Recipient NP Adjunct Rule:*

(26) *Recipient NP Adjunct Rule:*

If V corresponds to [CS<sub>launch</sub> ([X], [GO ([Y], [Path ])))] and NP corresponds to [Z], then [S ... [VP V NP ...] ...] may correspond to

$$\left[ \begin{array}{l} \text{CS}_{\text{launch}} ([X], [\text{GO} ([Y]^{\alpha}, [\text{Path TO } [Z]^{\beta}]))] \\ [\text{FOR } [\text{GO}_{\text{Poss}} ([\alpha], [\text{TO } [\beta]])]] \end{array} \right] \quad (\text{Jackendoff (1990: 199)})$$

It is noteworthy that both in *to*-dative constructions and double object constructions, verbs which describe “launching” causation of motion (i.e. in our terms, verbs of ballistic motion) specify a Path, expressed syntactically either as a PP headed by *to* or as a DP. The unacceptability of (27) indicates this fact: even without an explicit Goal argument, when someone *throws a ball*, the ball has to move to somewhere.

(27) \*I threw the ball with my left hand without releasing it.

(Talmy (2000: 33))

In double object constructions, the DP Goal/Recipient also binds the (intended) Possessor role, as the index  $\beta$  signals.

Jackendoff’s (1990) LCS analysis seems to have some advantages over Constructional approaches in predicting possible types of predicates for a construction, by referring to some lexical properties of verbs. The contrast in acceptability of the double DP frame with ballistic/continuous motion verbs as in (5)/(15) follows from the assumption that Recipient NP Adjunct Rule is applicable to the ballistic motion verbs, but not to the continuous motion verbs. Also, such non-prototypical ditransitive sentences as (18a) and (18c), whose indirect objects are inanimate, can be accommodated if we slightly modify the LCS for *give* (22a) as

having a more abstract event function *GO* instead of *GO<sub>Poss.</sub>*. That is, *a kick* or *a push* “goes” to *the door* or *the canoe*. Such “change of location” senses are interchangeable with the prototypical sense expressed by double object constructions: i.e. “change of possession” sense.<sup>10</sup>

However, as Jackendoff (1990) himself admits, the characterisation of the verb in the above discussion is informal: although the specification of the lexical property of verbs enables us to describe the fact that some groups of verbs like (25) and ballistic motion verbs can easily take double DPs as their objects while others, like continuous motion verbs, cannot, it is desirable to explain in a formal way *why* such phenomena emerge. In chapter 3, adopting Kaga’s (2001, 2007) thematic structure with *three macro-roles*, I provide a foundation for the classification of verbs which can be possible predicates in applicative constructions. Before entering into our discussion, it is helpful to look into a syntactic/typological analysis of the applicative construction made by Pylkkänen (2002).

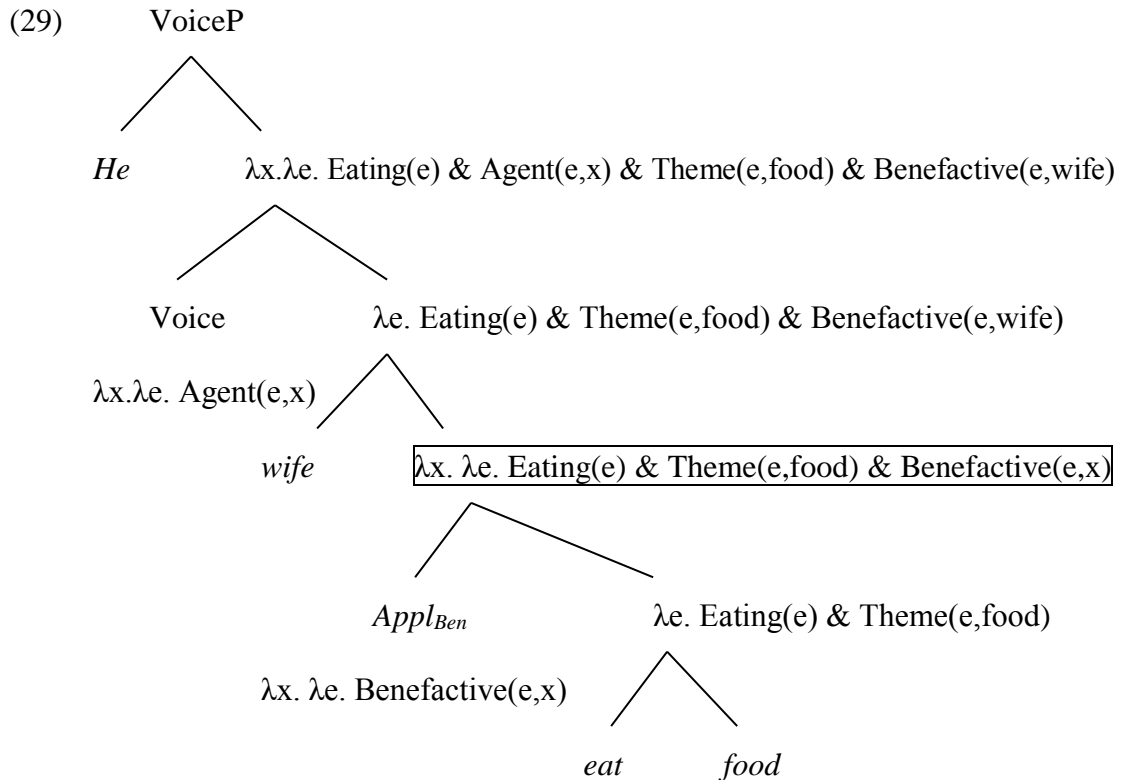
## 2.2 A Syntactic Approach to the Applicative Construction

As noted in chapter 1, the diversity of languages has some ways to promote an oblique element to a “core” argument, with certain language-specific constraints on the operation. Pylkkänen (2002) develops a parametrical mechanism from which cross-linguistic variation derives. She shows that applicative constructions divide into two subtypes—*high* applicatives and *low* applicatives. They manifest both syntactic and semantic contrasts: in the former type, the applicative head (APPL), a functional head to introduce an additional argument, attaches above the VP and denotes “a thematic relation between an applied argument and the event described by the verb,” while in the latter an APPL combines the applied argument with the direct object, denoting “a transfer of possession relation between two individuals” (cf. Pylkkänen (2002: 15)).

Since high applicatives are not restricted to a “possessive” relation, there exist several possible semantic relationships between the applied argument and the event described by the verb. For example, (1) shows that high applicatives in Ainu can incorporate an Instrument into the argument structure of the verb. In a Bantu language Chaga, a Beneficiary participant can be applied, even with no relation to the direct object of the verb:<sup>11</sup>

- (28) a. N-a-ý-lyì-í-à                                  **m-kà**    k-élyá.  
              FOC-1SG-PRES-eat-APPL-FV    **1-wife** 7-food  
              “He is eating food for his **wife**.” (Pylkkänen (2002: 17, bolds are her own))
- b. \*He ate the wife food.    (Pylkkänen (2002: 19))

It is clear that *the wife* bears a benefactive relation with the event of “eating food” but not with the direct object *food*: she benefits because her husband eats food on behalf of her, but *food* itself, eaten by him, does not exert any influence on her. Thus, Chaga is an instance of high applicative language. In English, which only allows low applicative constructions, this type of argument introduction is prohibited. The high applicative construction (28a) is associated with the following syntactic structure:



(Pylkkänen (2002: 30, italics are mine))

Here, the applicative head attaches above [<sub>VP</sub> eat food], hence *high* applicative.

In low applicative languages, an applied argument obligatorily enters into a relationship with the direct object of the sentence to which it attaches. In English, for example, the sentences as in (30) are legitimate, whereas sentences as in (31) are illegitimate:

- (30) a. I wrote John a letter.  
 b. I baked my friend a cake.  
 c. I bought John a new VCR.

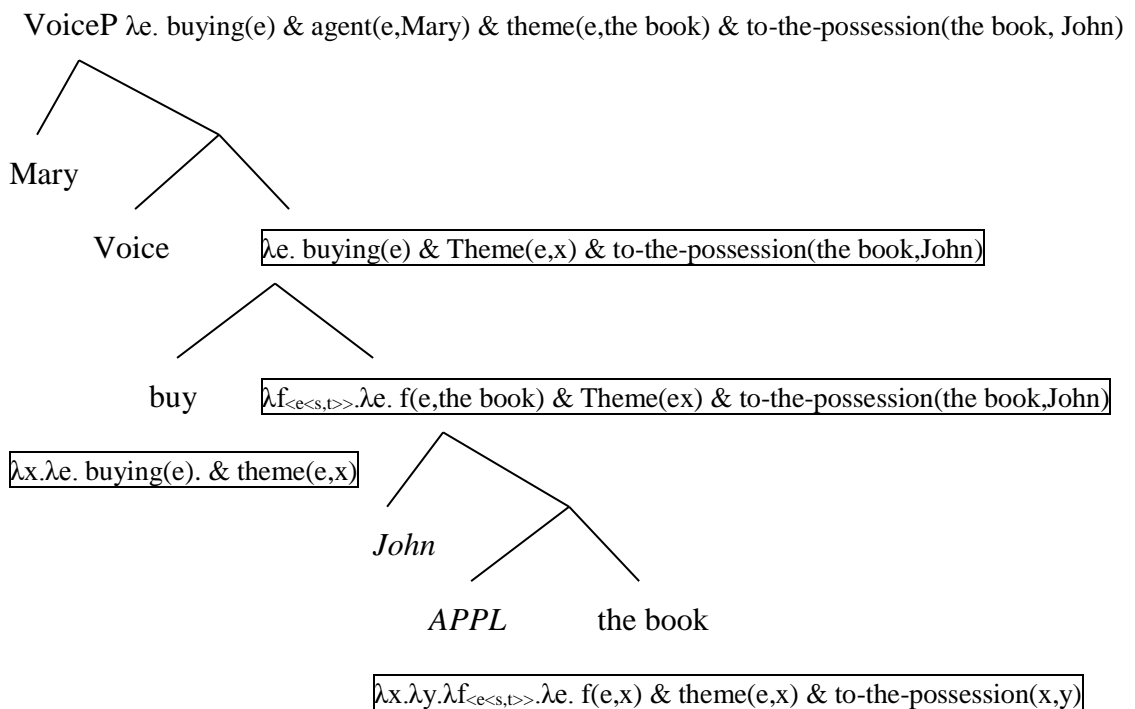
(31) a. \*He ate the wife food. (=28b)

b. \*John held Mary the bag.

(Pylkkänen (2002: 19))

In (30a-c), *low recipient applicatives* in her term, the applied arguments bear an (intended) transfer of possession relation to the direct object of the predicate verb: *a letter* is to the possession of John in (30a); *a cake* to my friend in (30b); *a new VCR* to John in (30c). In contrast, we cannot construe any direct relationship between the applied arguments and the objects in (31): in (31a), the wife and the food do not build a relationship as the result of the husband's eating it and in (31b), John's holding the bag will not end up with Mary's possessing it.<sup>12</sup> Pykkänen (2002) thus proposes a derivation process in which an APPL head for low applicatives relates an applied argument to the individual which is referred to by the verb's direct object. For example, the English applicative sentence in (32) receives the following syntactic structure:

(32) Mary bought John the book.



(Pykkänen (2002: 23, italics are mine))

Notice that the low applicative head attaches *below* the verb, while the high applicative head



attaches *above* it, as illustrated in (29).

With the contrastive syntactic structures in (29) and (32) in mind, Pylkkänen (2002) attempts to capture the semantic asymmetry between the two types of applicatives: “the [low] applicative head relates an individual to the direct object,” while “the [high] applicatives head relates an individual to the event described by the VP” (cf. Pylkkänen (2002: 17)). Based on this hypothesis, she further makes the following two predictions for low applicatives:

(33) a. DIAGNOSTIC 1: TRANSITIVITY RESTRICTIONS

Only high applicative heads should be able to combine with unergatives. Since a low applicative head denotes a relation between the direct and indirect object, it cannot appear in a structure that lacks a direct object.

b. DIAGNOSTIC 2: VERB SEMANTICS

Since low applicatives imply a transfer of a possession, they make no sense with verbs that are completely static[.] ... High applicatives, on the other hand, should have no problem with such as *hold*[.]

(Pylkkänen (2002: 23))

In other words, neither unergative nor static verbs are suitable for low applicatives. Pylkkänen (2002) confirms that these diagnostics hold cross-linguistically, citing the following data from English and Japanese, in which applicative constructions pattern as low:<sup>13</sup>

(34) a. \*I ran him.

b. \*I held him the bag.

- c. \*Taroo-ga Hanako-ni hasitta.  
 Taro-NOM Hanako-DAT run-PAST  
 “Taro ran for Hanako.”
- d. \*Taroo-ga Hanako-ni kanojo-no kaban-o motta.  
 Taro-NOM Hanako-DAT she-GEN bag-ACC [hold-PAST]  
 “Taro held Hanako her bag.”

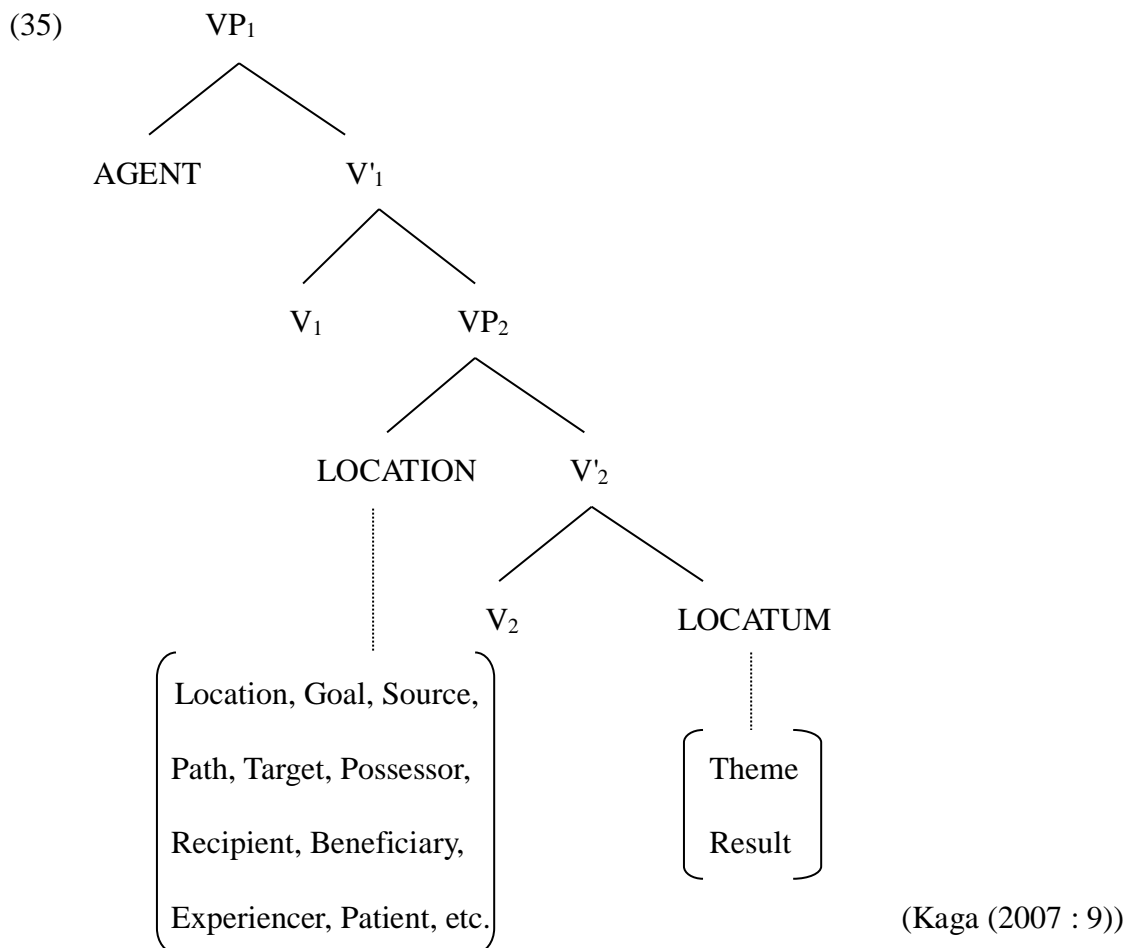
(Pylkkänen (2002: 24-25))

In our analysis of applicative constructions in English (and Japanese, mainly dealt with in chapter 5), I adopt Pylkkänen’s (2002) fundamental perspective on applicative typology. Since they are low applicatives, (a) a low APPL head is attached below VP, and (b) an applied argument obligatorily enters into a relationship with the direct object. Although further investigation is required on whether this “relationship” between the two entities can be uniformly characterised as a “possessive relationship,”<sup>14</sup> it seems that Pylkkänen’s (2002) general notion of “a relationship between the applied argument and the direct object” holds for low applicatives. In the next chapter, we shall examine some language-particular principles of applicative constructions in English. Our approach attempts to accommodate not only prototypical cases, whose properties have already been widely studied in the previous literature, but also some atypical (but acceptable) cases of double object constructions. Precisely, I will explicate (a) the contrastive acceptability of applicatives with ballistic/continuous motion verbs, and (b) an adequate way to derive non-prototypical double object constructions which denote no actual “transfer of possession” and/or violate the animateness constraint.

### Chapter 3

#### Argument Structure of Predicate Verbs and Applicative Constructions in English

This chapter investigates language-particular properties of the applicative construction in English. Following Pykkänen’s (2002) typological classification, English is regarded as a low applicative language. Thus, the general constraint on low applied arguments that these must establish a relation with direct objects is effective in English. As has often been pointed out (see chapter 2), the relationship prototypically denotes a “possessive” one: the entity described by the direct object is transferred to the referent of the applied indirect object. In this chapter I will examine *why* this notion is associated with the applicative construction, on the basis of a double VP shell structure proposed by Kaga (2001, 2007):



Kaga (2007) defines the notion of LOCATION as “locations for some object(s) in some broad sense” (Kaga (2007: 11)). LOCATION is further divided into two subtypes: *simple LOCATION* and *affected LOCATION*. The former, instances of which are realised as PPs, “represents a physical place or position where some entity or entities exist(s) in [(Location)], arrive(s) at [(Goal)], come(s) from [(Source)], pass(es) along [(Pass)], or go(es) toward [(Target)]” (Kaga (2007: 65)). The latter, on the other hand, “denotes entities that stay in a kind of state or undergo a kind of change of state in that they (come to) possess something (a thing, an experience, a property, etc.)” (ibid), and these arguments are realised as DPs.<sup>1</sup> In contrast, the LOCATUM is “defined as a role assigned to a (concrete or abstract) entity in motion or being located” (Kaga (2007: 12), see also Fillmore (1968)).<sup>2</sup>

Our ultimate goal is to present a comprehensive principle of applicatives which achieves not only *descriptive* but also *explanatory* adequacy at the same time. To reach the goal, I would like to put forward the following hypotheses:

- (36) a. The low applicative head (APPL) merges with the verb in the V<sub>2</sub> position, giving the verb an ability to license an applied argument.
- b. An applied argument in low applicative languages is assigned one of the thematic roles which are macroscopically classified as “affected LOCATION”: Possessor, Recipient, Beneficiary, Experiencer, or Patient.
- c. Given that an applied argument is an element of LOCATION, it needs to be introduced to an SVO structure whose direct object is construed as a LOCATUM argument.

Unlike those languages which have independent morphological affixes for applicatives,

English does not overtly mark this construction. Nevertheless, I claim that a morpho-phonologically empty APPL is attached to the predicate verb in applicative constructions in English, as postulated in (36a). I suggest that it is a conflation of the verb and the APPL that enables the introduction of an applied argument. In our perspective, the applied argument is attached to the spec,VP<sub>2</sub> position. The argument is construed as an instance of affected LOCATION, as noted in (36b), and thus realised as DPs, because applicative constructions describe situations under which the argument is “affected” by the LOCATUM argument in one way or another. (36c) is an assumption crucial for a distinction between verbs compatible with the applicative construction and verbs that are not compatible. It states that verbs whose direct object is a LOCATUM argument can allow argument introduction, while on the other hand verbs with a LOCATION argument are not compatible with the applicatives, because the position where applied arguments are to be attached is already occupied.

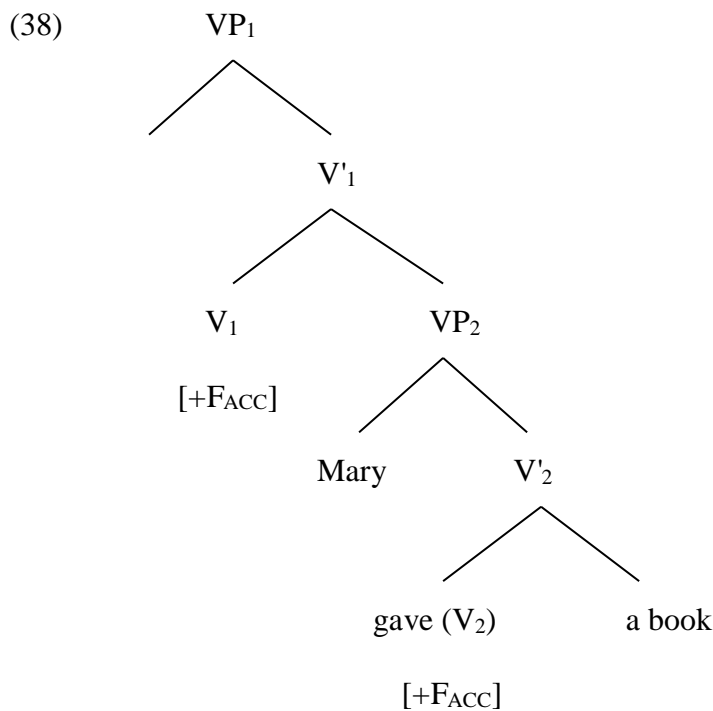
In the following sections, we will confirm the adequacy of my hypotheses in (36a-c). Specifically, in section 3.1, we observe that the indirect objects of double object constructions are assigned one of the thematic roles under “affected LOCATION.” I will show that even those examples that are remote from the “central sense” of the construction still carry an affected LOCATION argument, thus realised as their indirect objects. In section 3.2, I shall illustrate that the conflation of a verb and an APPL changes the argument structure of the verb. So-called *for*-dative constructions and *to*-dative constructions<sup>3</sup> differ in their argument structure, because the NP in *for*-NP is not included in the verb’s LCS but the one in *to*-NP is present in LCS. Despite this distinction, I claim that in both cases the compound verb [V+APPL] expands the valency of the original verb by one. Section 3.3 compares legitimate and illegitimate applicative sentences and asserts that an additional argument can be inserted when the LOCATION position is unoccupied and there is a LOCATUM argument

which can enter into a relationship with the argument. Section 3.4 summarises this chapter.

### 3.1 Theta-Assignment in Double Object Constructions

Traditionally, indirect objects of the double object construction are treated as an instance of Beneficiary/Benefactive, Goal, Possessor, or Recipient (Culicover (2009), Goldberg (1995), Grimshaw (1990), Jackendoff (1990), Larson (1988), Shibatani (1996), among others.) In this thesis, they are regarded as instances of “affected LOCATION.” Accordingly, the double object construction in (37) is associated with the structure in (38) at an intermediate stage of the derivation (see also Kaga (2007: Ch. 4)):

(37) John gave Mary a book.



In this structure, the upper Case-checking feature [+FACC] checks accusative Case of the DP in the spec,VP<sub>2</sub> position (i.e. *Mary*), and the lower one the Case of the DP in the complement

position (i.e. *a book*). From a thematic point of view, *Mary* in (37) is assigned a Recipient or Possessor role.

In Kaga's (2007) perspective, "affected LOCATION" is the hypernym of Possessor, Recipient, Beneficiary, Experiencer, and Patient. This leads us to hypothesise that there exist double object sentences whose indirect objects are assigned a Experiencer or Patient role. Also, it can be predicted that such double object sentences are somewhat remote from the "central sense" of the construction, because Experiencer and Patient are less likely to "receive" an object. The following examples support this prediction:<sup>4</sup>

(39) a. Lipson's textbook taught me Russian.

b. \*Lipson's textbook taught Russian to me.

(Ohele (1944) / Yasui (2001: 25))

c. Mary's behaviour gave John the clue to the Sphinx's riddle.

d. \*Mary's behaviour gave the clue to the Sphinx's riddle to John.

(Green (1974) / Kaga (2007: 165))

(40) a. Then he ... gave the door a kick with one of his great feet. (cf. (18a))

b. Barney ... gave the canoe a push with his foot. (cf. (18c))

First, we will consider (39). As the subject DPs are inanimate, (39a) and (39c) cannot express "Agent's intended transfer of objects." Instead, the situations described by these sentences imply that *me* in (39a) and *John* in (39c) acquired some knowledge/ideas through studying/observing the referents of subject (Causer) DPs. Such participants are appropriately interpreted as Experiencers.<sup>5</sup> Following Kaga's (2007) *Structural Realization Principle*, affected LOCATION arguments must be realised as DPs:

(41) *Structural Realization Principle*

Instances of simple LOCATION are realized as PPs, while those of affected LOCATION are realized as DPs. (Kaga (2007: 66))

The ungrammaticality of (39b) and (39d) readily follows from this principle.

The indirect object DPs in (40), on the other hand, are regarded as Patients.<sup>6</sup> These sentences are also remote from the “central sense” of double object constructions, because inanimate *door* or *canoe* cannot “receive” a kick/push in any ordinary sense. Though they are not involved in a state-changing process (see fn. 5), yet they are treated as “affected” LOCATIONS. In fact, it is inferable that some effect of the action is left in the *door* or *canoe* and it seems adequate to interpret that they are indeed “affected.” To be more concrete, notice that (40a, b) express events in which the Agents intend to make the closed door open in (40a) or to launch the canoe into a brook in (40b).

Sentences of the type exemplified in (39-40) have been treated as “exceptional” or at least atypical examples in constructional/schema-based approaches, but once we adopt the thematic structure illustrated in (35), we can properly predict the legitimacy of these sentences. We can therefore safely conclude that the VP-shell structure and the three macro-roles in (35) correctly capture the general theta-assignment in double object constructions in English.

### 3.2 *Verbal Semantics, Applicative Head, and Argument Structure*

In this section I shall point out that APPL changes the argument structure of verbs. When APPL is attached to the verb, a Beneficiary is introduced to the construction as an applied argument and linked to the LOCATION position. At the language-particular level,



those elements that are interchangeable with applied arguments are goal or benefactive PPs headed by *to* or *for*.

First we will focus upon verbs that licence *for*-prepositional benefactives, whose valency apparently increases with the aid of APPL. Typically, such verbs are classified into verbs of obtaining (42a) or verbs of creation (42b):

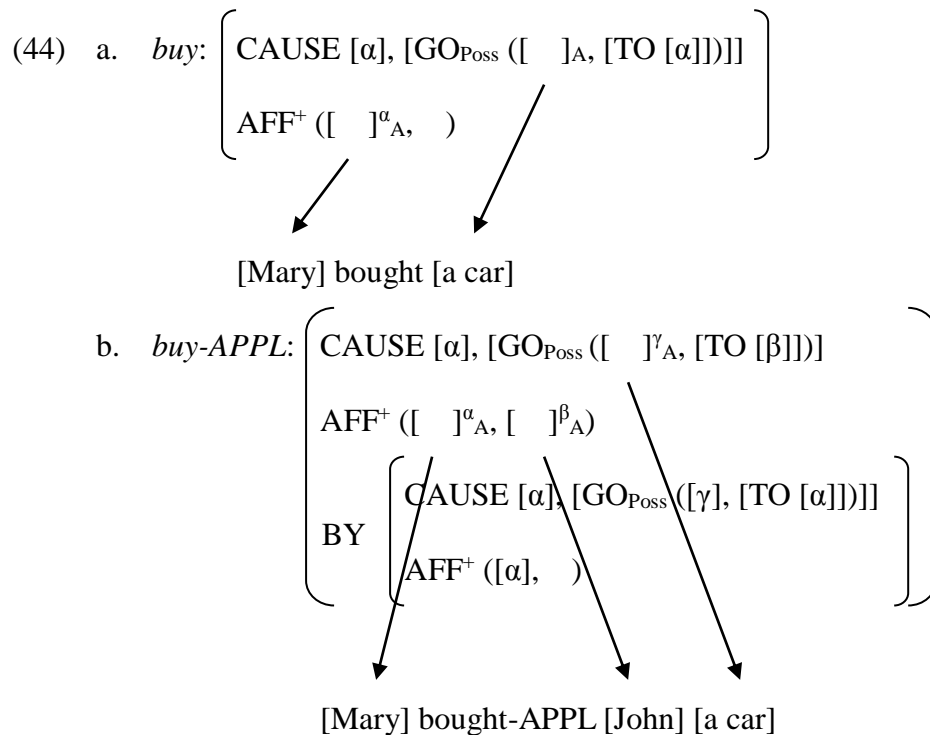
- (42) a. Mary bought John a car. / Mary bought a car for John.  
 b. Bill built Nancy a house. / Bill built a house for Nancy.

As exemplified by the following LCS for *buy*, these types of verbs do not lexically include any information about beneficiaries of the event:

$$(43) \left( \begin{array}{l} \text{buy} \\ \left[ \text{CAUSE} ([ ]^{\alpha}_i, \left( \begin{array}{l} \text{GO}_{\text{Poss}} ([ ]_j, \left( \begin{array}{l} \text{From } [ ]^{\beta} \\ \text{TO } [\alpha] \end{array} \right) \right) \right. \\ \left. \left[ \text{EXCH } [\text{GO}_{\text{Poss}} ([\text{MONEY}], \left( \begin{array}{l} \text{FROM } [\alpha] \\ \text{TO } [\beta] \end{array} \right) \right]) \right] \end{array} \right) \right) \end{array} \right) \end{array} \right) \quad (\text{cf. (22b)})$$

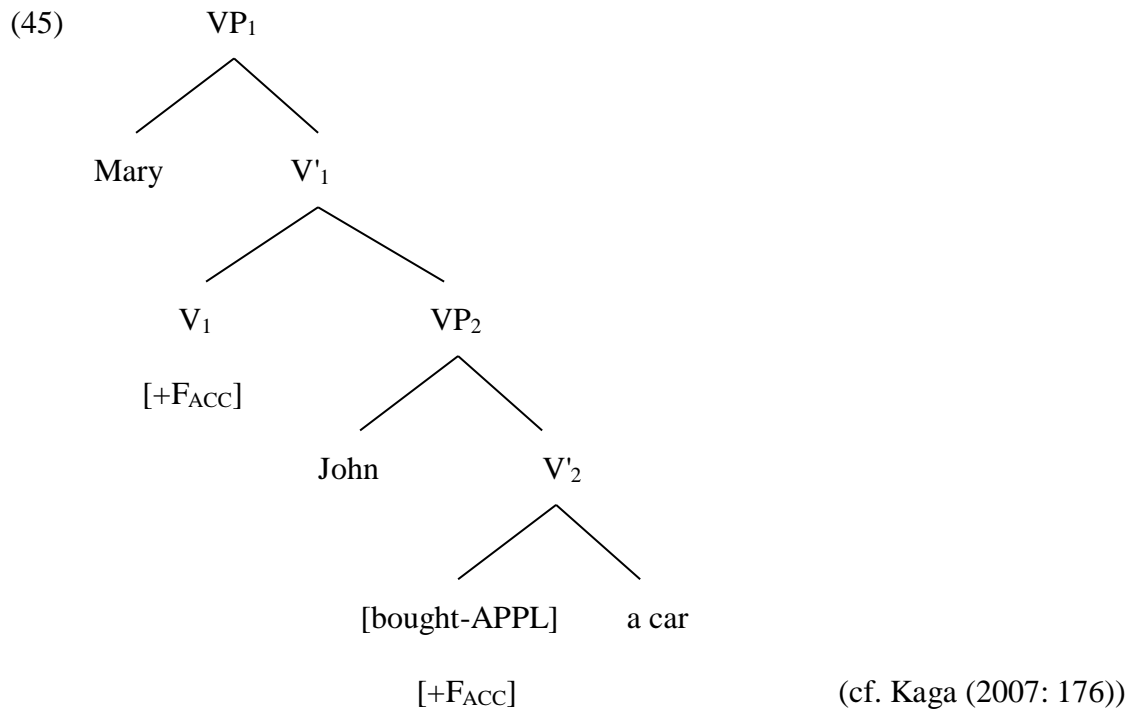
Hence, in non-applicative constructions, beneficiaries (if any) are expressed by an adjunct PP headed by *for*: e.g. *Mary bought a car for John*. Given that the verbs themselves do not license a Beneficiary (LOCATION) argument, it is an APPL head that plays the role in introducing the argument into the structure. To put it in another way, the predicate verbs are composed of a  $V_{\text{root}}$  (verb root) and APPL in applicative constructions. On the basis of Jackendoff's (1990) linking theory, we can illustrate the rough LCSs and the argument

linking of the verb *buy* for the non-applicative DP<sub>-for</sub>PP frame and those of the compound verb *buy-APPL* for applicative constructions as in (44a, b):<sup>7</sup>



The subscript “A” in (44) denotes that such “A-marked” arguments are linked to the corresponding syntactic structure.<sup>8</sup> As shown in (44b), APPL introduces an additional conceptual argument, namely, the second argument of the function *AFF* (“affect”). Following Jackendoff (1990, Ch.7), the second argument of *AFF*<sup>+</sup> is analysed as Beneficiary. As the LCS of (44b) indicates, the sentence *Mary bought-APPL John a car* is interpreted as an event in which Mary positively affects (i.e. benefits) John, by buying him a car.<sup>9</sup>

This line of analysis parallels with the one proposed by Kaga (2007). He postulates an “empty lower V” which is merged with the verb at the V<sub>2</sub> position and is responsible for licensing a Beneficiary. In this thesis, I regard this empty V as an equivalent of an APPL head. Consequently, the sentence in (44b) is analysed as having the following structure:



To be more concrete, I assume that (a) the lexical verb *buy* itself has only one Case-checking feature (of  $V_2$ ) that checks accusative Case of *a car*, (b) with APPL adjoined to the verb, the verbal complex comes to have one more Case-checking feature (more exactly, I propose that APPL evokes the Case-checking feature of  $V_1$ ), and (c) as a result, the feature of  $V_1$  checks Case of *John*, making the double DP frame possible.<sup>10</sup> The same analysis applies to other types of verbs that can appear in both applicatives and *for*-prepositional benefactives: that is, verbs of creation (*build, bake, etc.*), verbs of performance (*paint, sing, write, etc.*) and verbs of preparation (*cook, peel, etc.*). To sum up, these classes of verbs lexically select only two arguments: AGENT and LOCATUM. When APPL is conflated with them, the resultant verb complexes become capable of licensing additional argument: LOCATION, which corresponds to an applied argument.

Next, let us consider the type of verbs that takes either the double DP frame or the DP-<sub>to</sub>PP frame. Verbs included in this class are verbs of sending (*pass, send, throw, etc.*), verbs of communication (*mail, show, tell, etc.*), and verbs of carrying (*bring, take*). For

example, *throw* appears either in an applicative construction (46a) or in a DP-<sub>to</sub>PP construction (46b), among other varieties of Path expression:

- (46) a. Sam threw Bill the ball.  
 b. Sam threw the ball to Sandy/out of the window/into the park/away.

(Jackendoff (1990: 198))

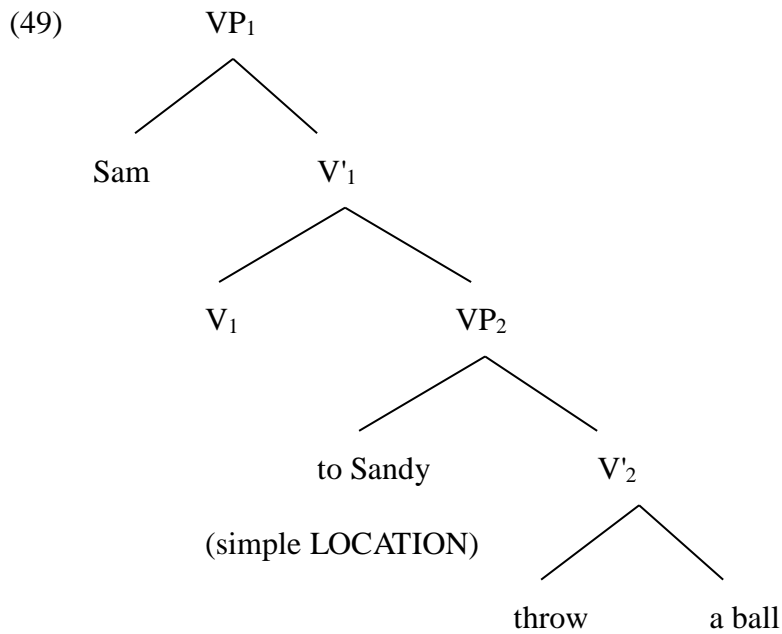
As the following LCS illustrates, at the conceptual level, *throw* contains an implicit Path. This argument need not overtly be reflected in the syntax. Such arguments which are logically necessary but syntactically optional are called “implicit arguments” (Jackendoff (1990: 45-46)) or “default arguments” (Pustejovsky (1995: 63)).

- (47)  $\left[ \begin{array}{l} \text{throw} \\ \text{NP}_j \\ \text{[CAUSE ([ ]}_i, \text{[GO ([ ]}_j, \text{[Path ]})]} \end{array} \right]$  (cf. Jackendoff (1990: 171))

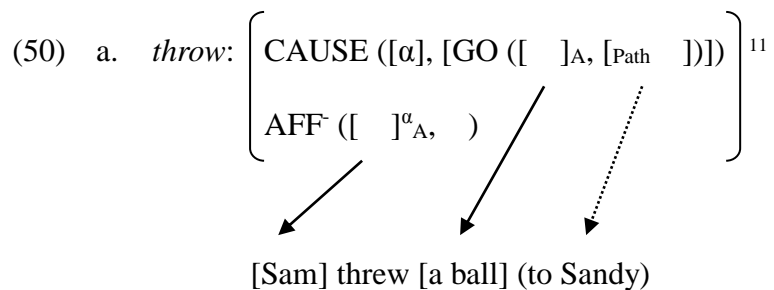
Other instances of verbs listed above are assumed to have similar LCSs with an implicit Path argument. In other words, if <sub>to</sub>PPs are syntactically absent, the notion of Path is inferable from the context or speech situation. Recall the peculiarity of (27), repeated below as (48), where the Path notion is completely absent.

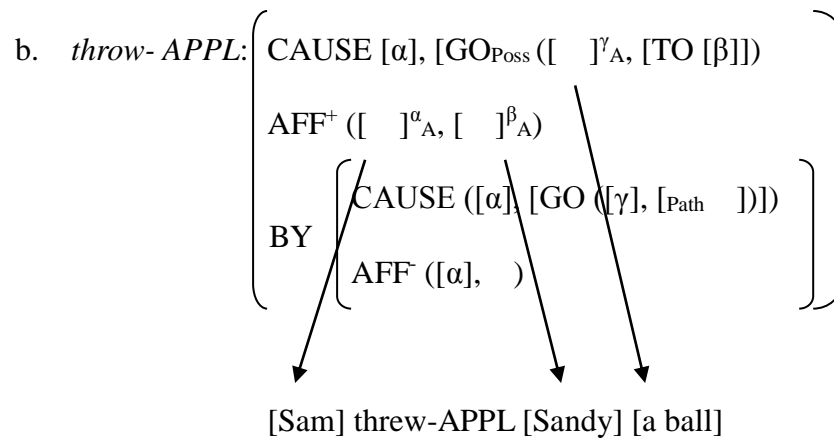
- (48) \*I threw the ball with my left hand without releasing it.

When a Path argument is overtly expressed in syntactic structure, it occupies the spec,V<sub>2</sub> position as a simple LOCATION. See (49) for example:

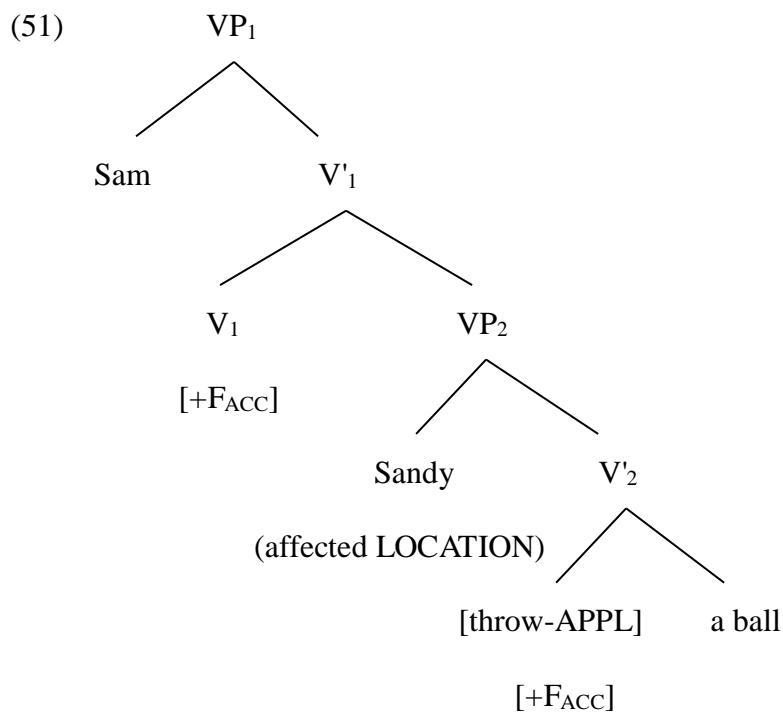


I suppose that the linking rule applied to the verb *throw* followed by a  $_{\text{to}}\text{PP}$  is distinct from the one applied to the converb *throw-APPL* followed by double DPs. The LCSs of the verb *throw* and the verb complex *throw-APPL* is illustrated in (50). Importantly, affected LOCATION (the second argument of  $\text{AFF}^+$  in (50b)) is obligatory, while simple LOCATION (the argument of Path in (50a)) is optional:





With the aid of APPL,  $V_1$  acquires a Case-checking feature. Consequently, accusative Case of the LOCATION argument is properly checked. The applicative sentence (50b) is associated to the following structure, at some stage of derivation:



In this structure, both theta-assignment and Case-checking are properly carried out. Hence the grammaticality of the applicative construction in (51).

This subsection made it clear that an applicative head (APPL) makes the number of

core arguments of the verb increase by one. Also, I claimed that APPL evokes a Case-checking feature of  $V_1$ . The promoted Beneficiary/Recipient argument is legitimately licensed by this feature at the syntactic level.

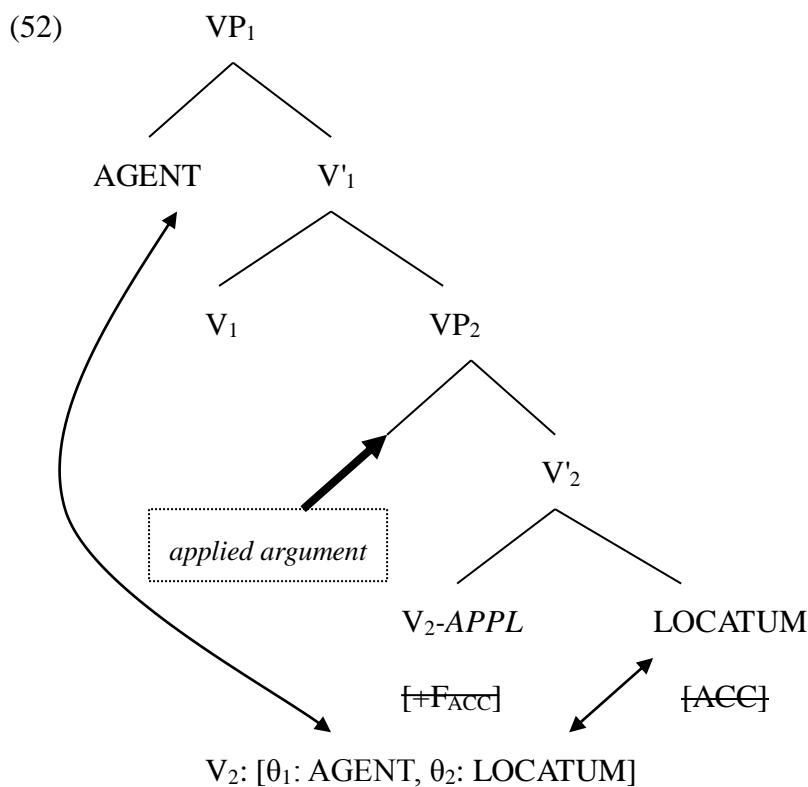
### *3.3 Constraints on Argument Introduction*

In the previous section we observed that a conflation of a verb and APPL results in the promotion of an oblique argument or adjunct to the verb's core argument. However, this operation is not applicable to all verbs. As mentioned above, some verbs show strong compatibility with APPL, while others cannot accept APPL. This subsection makes it clear that argument introduction is possible when predicate verbs take a LOCATUM argument as their direct object, but is impossible with verbs whose direct object is an instance of LOCATION. Again, verbs showing an applicative/*for*-dative alternation and verbs showing an applicative/*to*-dative alternation are treated as different types. Notice, however, that regardless of the verb type, the crucial point for our analysis is that argument introduction is possible only when the direct object, originally subcategorised by the predicate verb or verb complex, is construable as LOCATUM.

#### *3.3.1 Verbs of Creation, Performance, Obtaining, and Preparation*

Verbs of creation, performance, obtaining, and preparation appear in both applicative and *for*-dative constructions. As shown in 3.2, they are lexically dyadic; an applied argument is licensed by virtue of the APPL head (more precisely, the property of APPL that changes the verb's LCS and evokes the Case-checking feature of  $V_1$ ). We posit that the lexically subcategorised internal argument of these verbs has the role of LOCATUM—an entity in motion or being located. On this supposition, it is easily predicted that applied arguments, instances of affected LOCATION, can be introduced into the unoccupied

spec,VP<sub>2</sub> position of the structure. Recall that *buy*, for example, lexically subcategorises two participants: “buyer” and “bought.” Almost all researchers will agree that the former is assigned an AGENT role. As for the latter, I regard it as an instance of LOCATUM. The conceptual adequacy of this supposition is certificated in that the goods being bought are “located” to the possession of the buyer in its canonical sense, which matches the definition of LOCATUM.<sup>12</sup> When APPL attaches to the verb, the resultant verb complex becomes capable of licensing a LOCATION argument. Similarly, direct objects that are lexically subcategorised by verbs of creation, performance, or preparation are regarded as LOCATUM arguments. For example, *a house* in [<sub>VP</sub> build a house] and *a song* in [<sub>VP</sub> sing a song] are “located” in the real world as the result of each event; *a grape* in [<sub>VP</sub> peel a grape] is metaphorically “moved” or “located” to the state where it is ready to be eaten.<sup>13</sup> (52) clarifies our point:





The syntactic-conceptual correspondence shown in (52) suggests that verbs which manifest a *for*-benefactive/applicative alternation lexically subcategorise one external and one internal argument which are placed in the AGENT and LOCATUM positions respectively. Applicative constructions are generated through conflation of the verb and APPL. An APPL head evokes the Case-checking feature of V<sub>1</sub> and as a result the applied argument is Case-checked at the LOCATION position.

### 3.3.2 *Caused-motion Verbs*

Compared to the verb types discussed in 3.3.1, compatibility between caused-motion verbs and the applicative construction is not straightforward. The verbs listed in (53) are all acceptable in the DP-<sub>to</sub>PP frame. In contrast, applicatives with certain kinds of caused-motion verb are indisputably judged grammatical, while there are verbs that have weaker affinity to the construction:

- (53) a. John {threw/tossed} Mary the ball. (ballistic motion)  
 b. John kicked Mary the ball. (ballistic motion)  
 c. %John {dragged/pushed/pulled} Mary the ball. (continuous motion)  
 d. John {brought/took} Mary the ball. (continuous motion)  
 e. %John carried Mary the ball. (continuous motion)  
 f. \*John moved Mary the ball. (continuous motion)

It has been argued in the previous literature that verbs which express ballistic motion are compatible with applicative constructions, but verbs which express continuous motion are less or not compatible. It is noteworthy that judgements on the acceptability of applicative sentences with a continuous motion verb vary from one type of verbs to another, as shown in

(53c-f). This subsection deals with such contrasts in applicatives, and shows the validity of our analysis based on the distinction between LOCATION and LOCATUM.

We shall start with verbs which *lexically* describe a ballistic motion event, exemplified in (53a). Verbs such as *throw* and *toss* imply the movement of the object(s). See the following definitions of the verbs *throw*, and *toss* in *COBUILD for Advanced Learner's English Dictionary* (new digital edition; henceforth COB):

- (54) a. *throw*: When you **throw** an object that you are holding, you move your hand or arm quickly and let go of the object, so that it moves through the air.
- b. *toss*: If you **toss** something somewhere, you throw it there lightly, often in a rather careless way.

(COB, underlines are mine)

It is now clear from (54) that the direct objects of these verbs are interpreted as an entity being “moved/located” to a certain place. Thus they are analysed as instances of LOCATUM. The conceptual notion of “place” corresponds to a LOCATION argument. Syntactically, the LOCATION argument is optionally realised as a PP if it is regarded as a simple LOCATION. When APPL is conflated into the verb, the LOCATION argument is construed as an affected LOCATION, which is obligatorily realised as a DP (see also (50-51)).

*Kick* in (53b) also expresses a ballistic motion. Nevertheless, a further comment is in order for this verb, and hence I do not simply include this verb into the same group as the ones in (53a). The key motivation to do so is that *kick* does not lexically imply the object's motion. Witness the definition in COB:

- (55) *kick*: If you **kick** someone or something, you hit them forcefully with your foot. (COB)

(55) suggests that *kick* should be classified into the same group as *push* or *pull*. They are verbs that do not imply any movement of entities. (56) makes it clearer that *kick* can be treated in parallel with *push/pull*:

- (56) Amy *pushed/pulled[kicked]* (on) the door as hard as she could, {and it finally opened/but it wouldn't budge}.

(Jackendoff (1990: 133) italics are mine)

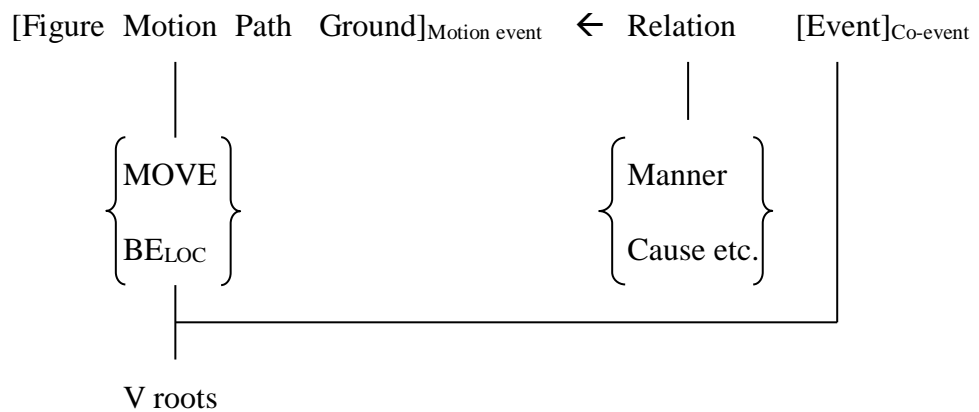
Interestingly enough, although *kick* is compatible with applicatives, *push* and *pull* are (usually) excluded from the construction. Why does such a contrast emerge? According to my native informant, (53b) describes a situation where the participants (*John* and *Mary*, in (53b)) are playing football. Hirose (1996: 174) claims that *kick* requires Recipient or Goal in such a specific situation. Moreover, Akashi (2004) points out that even when such a highly conventional situation as football is not inferred, native speakers of English consider that sentences like (57a) describe similar situations to passing a soccer ball:

- (57) a. Mary kicked John the book.  
b. Mary gave John the book by kicking it. (cf. Akashi (2004: 71))

That is, the applicative sentence in (57a) can be paraphrased into the ditransitive sentence in (57b). According to Akashi (2004), a sample situation evoked by (57a) is that Mary kicked

the book under the desk and passed it to him in a library. Both in (53b) and (57a), the action of kicking is reinterpreted as a manner in which one person gives or passes an object to another. In other words, *the ball* in (53b) and *the book* in (57a) are regarded as entities being “located” from one to another. *The door* in (56), on the other hand, is not an entity being located, but one to which some impact is brought. It is thus argued that although *kick* can lexically select a LOCATION argument, when it describes a manner of the action of giving/passing, it can take a LOCATUM object that is “located” to the place specified by the LOCATION argument perhaps via conflation as suggested by Talmy (2000).<sup>14</sup> See (58) for the mechanism of conflation proposed by Talmy (2000):<sup>15</sup>

(58) a. Co-event conflation in the Motion verb

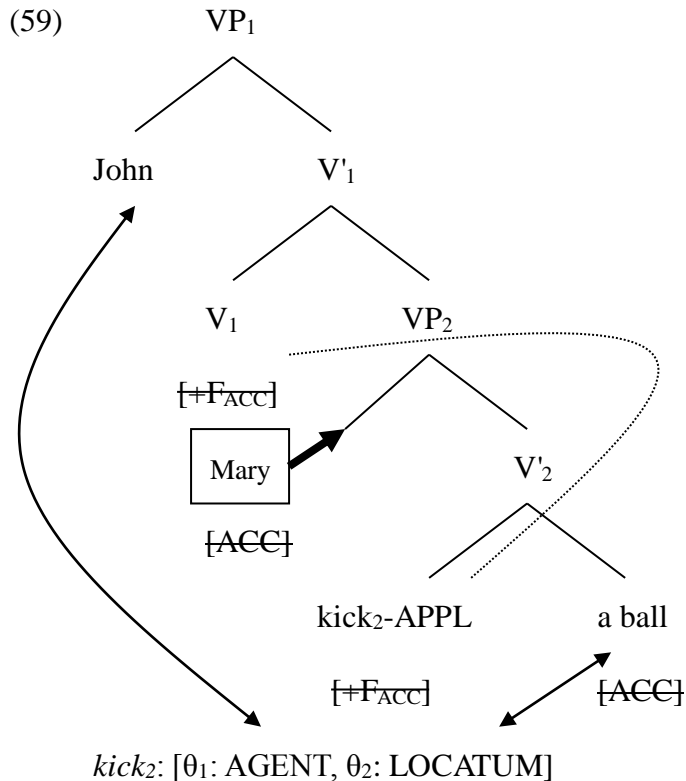


- b. I *kicked*<sub>1</sub> the wall with my left foot.
  - c. I <sub>A</sub>MOVED the ball across the field, by *kicking*<sub>1</sub> it with my left foot.
  - d. I <sub>A</sub>MOVED [by *kicking*<sub>1</sub>] the ball across the field with my left foot.
- ↳ kicked<sub>2</sub>

(cf. Talmy (2000: 28/30-32))

In my analysis, *kick*<sub>1</sub> corresponds to a verb of the impact sense. When it is combined with the event function <sub>A</sub>MOVE, the impact meaning of *kick*<sub>1</sub> is construed as the cause of the

motion. The direct object of the resultant *kick*<sub>2</sub> (i.e. *the ball*) is interpreted as an instance of LOCATUM. APPL is further attached to *kick*<sub>2</sub>, resulting in the applicative sentence in question:



In this way, (53b) is properly theta-marked and Case-checked.

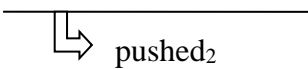

Another question to be asked is: given that direct objects of verbs of impact like *kick* can be reinterpreted as LOCATUM elements, why are certain verbs of exerting force (e.g. *drag*, *push*, *pull*) low in grammaticality in applicative constructions? To handle this question, we have to keep in mind that the low applicative construction denotes a (possessive) relationship between an applied argument and the direct object. To put it in another way, a low APPL head can fittingly conflate into verbs when the event expressed by the verb is identified with a manner or cause of transferring an object or objects from one (group of) person to another; if the event simply expresses an object's change of location, this

conflation is less likely to take place.

To see our point more concretely, let us compare a grammatical DP-toPP frame sentence and a rather dubious double DP frame sentence with the verb *push*:<sup>16</sup>

- (60) a. John pushed a box to Mary.  
 b. %John pushed Mary a box. (cf. Akashi (2004: 56))

In both (60a) and (60b), the verb *push* is (re)analysed as a Cause of the motion event (see (58a)). Here, *a box* is an object in motion and thus assigned a LOCATUM (Theme) role. When we describe the verb of exerting force *push* with the notation of the subscript “1” and the verb resulting from the conflation with the notation of the subscript “2,” the process deriving (60a) can be illustrated as follows:

- (61) a. John <sub>A</sub>MOVED [by pushing<sub>1</sub>] a box to Mary.  
  
 b. [VP<sub>1</sub> John [VP<sub>2</sub> to Mary [V<sub>2</sub> push<sub>2</sub> a box]]]  
  
 push<sub>2</sub>: [θ1: Agent, θ2: Theme]

The set of operations illustrated in (61) is the same as the case of converting the verb *kick*<sub>1</sub> → *kick*<sub>2</sub>. Notice, however, that the event of *pushing* an object is unbounded, unlike *kicking* an object, which is interpreted as a bounded (semelfactive) event. See the contrast in (62a, b):

- (62) a. He pushed the cart *for an hour*.  
 b. \*He pushed the cart *in an hour*. (Nakatani and Kageyama (2009: 27))

Concerning caused-motion events, their temporal boundedness plays a key role in determining the compatibility with applicative constructions. An English applicative sentence expresses a situation under which an individual comes to possess some object(s) transferred to him/her. In such a situation, the applied argument (affected LOCATION) must be foregrounded. In temporarily unbounded events, however, the focus is apt to lie on entities which receive the force of the action denoted by the predicate verb (i.e. LOCATUM arguments).<sup>17</sup> Such events can be delimited by a PP: a simple LOCATION which specifies the goal of the action. In this case, the LOCATUM element keeps being focused. Since an applied argument has to carry a rather heavy informational status, it cannot function as a simple delimitation of the event. (63a, b) show the decrease in the acceptability of applicative sentences with unbounded events:

- (63) a. %John {dragged/pushed/pulled} Mary the ball.  
 b. John {dragged/pushed/pulled} the ball {for/\*in} *an hour*.

The grammaticality of applicative sentences with the deictic verbs *bring* and *take* readily follows my analysis. What is crucial in determining the compatibility between caused-motion verbs and the applicative construction is not the types of motion (i.e. ballistic/continuous), but the temporal boundedness of the event denoted by VPs. As shown in (64), *bringing* or *taking* an object is an event that is bounded in time and involves a specific endpoint (for a relevant discussion, see also (17b) in section 2.1.1).

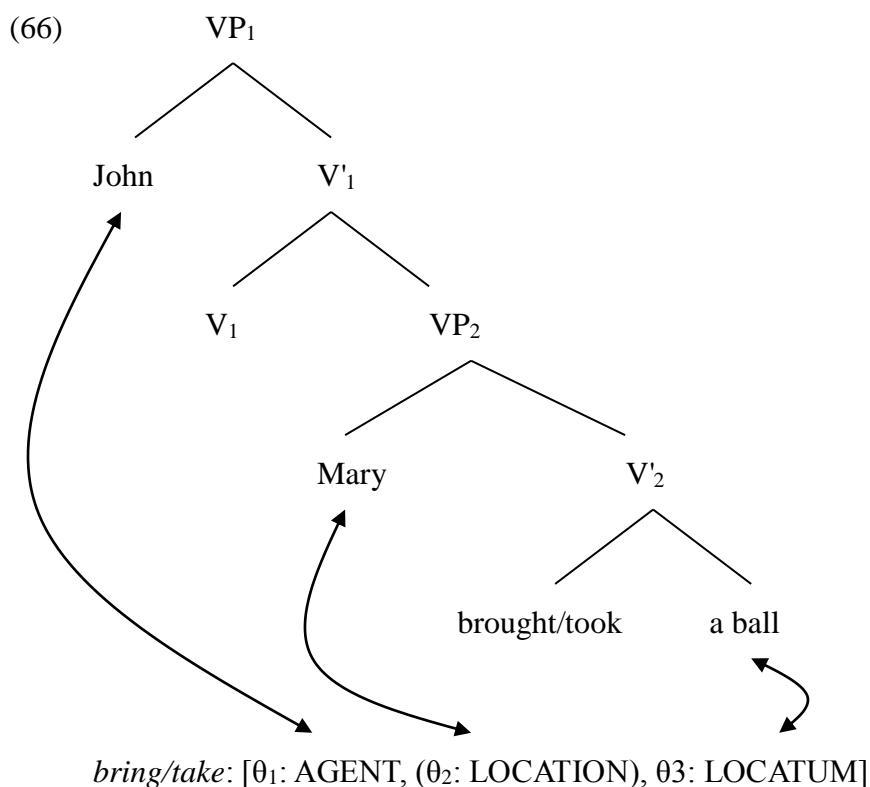
- (64) a. take/bring a box *in an hour*  
 b. \*take/bring a box *for an hour* (Akashi (2004: 61) italics are mine)

Kishimoto (2001) points out that *take* and *bring* deictically specify Goal: in the former, an entity goes away from the speaker/hearer, and in the latter, an entity comes to the speaker/hearer. At the conceptual level, these verbs lexically involve a LOCATION argument in their LCS. At the syntactic level, if it occurs as a Possessor/Recipient, it is realised as a DP; if it is interpreted just as a Goal/Source, it appears as a PP. Recall *Structure Realization Principle* (Kaga (2001, 2007)):

(65) *Structural Realization Principle*

Instances of simple LOCATION are realized as PPs, while those of affected LOCATION are realized as DPs. (= (41))

Following the discussion above, (53d) is analysed as having the structure (66):<sup>18</sup>





In (66), all the thematic roles are properly assigned. The grammaticality of (53d) is hence correctly captured.

Applicatives with the verbs *carry* and *move* as in (53e, f) are next to impossible, although they subcategorise a LOCATUM argument. This fact is also explained in the same line. The *for/in* test reveals that *carrying/moving* events are temporarily unbounded:

- (67) a. \*carry a box *in an hour*  
b. carry a box *for an hour* (cf. Akashi (2004: 61) italics are mine)
- (68) They moved around *for years*, sometimes even leaving the state for what they thought would be greener pastures.

(COUBUILD *Dictionary of Idioms*<sup>2</sup> [IDM<sup>2</sup>], italics are mine)

Since both *carry* and *move* imply no endpoint, they are less compatible with applicative constructions, which strongly require bounded events. Given that no LOCATION is involved in the event in question, it is impossible to express the possessive relationship between its referent and the direct object.

Interestingly, Bresnan and Nikitina (2003) show that in some specific contexts applicative sentences are found with verbs which are argued to be less compatible with this construction—*carry, push, (pull, drag)*:<sup>19</sup>

- (69) a. Polly had been sick and Sara wanted to **carry her some food**.  
b. As Player A **pushed him the chips**, all hell broke loose at the table.

(Bresnan and Nikitina (2003: 14, 6))

According to Bresnan and Nikitina (2003), applicative sentences with *carry* like (69a) can be found in a description of situations where walking is a major mode of transportation. They claim that “carrying people things” as a transfer of possession was common in such a situation (see Bresnan and Nikitina (2003: 13)). In this case, *carrying* an object is almost equivalent to *bringing* an object. The use of the verb *carry* in the pre-automotive era may imply that it was by walking that one brought things to another. (69b) is treated in a similar way. The context of (69b) is a tournament poker game. In poker games, poker chips are pushed across the table to the winner. In (69a, b), the LOCATION arguments are not the mere endpoint of motion events. Rather, the objects in motion (*food* in (69a) and *chips* in (69b)) are “located” to their possession. Thus they are regarded as instances of Possessor or Recipient, and must be realised as DPs, following Structure Realization Principle. This line of analysis also sheds light on the slight difference in acceptability between (53c)/(53e) and (53f), repeated below as (70a-c):

- (70) a. %John {dragged/pushed/pulled} Mary the ball. (= (53c))  
 b. %John carried Mary the ball. (= (53e))  
 c. \*John moved Mary the ball. (= (53f))

For native speakers, (70a, b) are marginal, but still understandable, compared to (70c). This fact is captured by the supposition that the verbs in (70a, b) are (narrowly) open to the interpretation in which they are regarded as the cause or manner of transfer of possession events. Bresnan and Nikitina (2003: 14) claim: “pushing is probably less likely to be discussed as a mode of transferring possession than carrying, with pulling perhaps less so, and lowering and dragging the least.” Their observation leads us to conclude that the more the action named by the verb is construable as a mode of transferring possession, the more

the verb is compatible with applicative constructions.

This subsection has argued that the compatibility of caused-motion verbs with applicative constructions is highly influenced by the sentence interpretation. Verbs that merely express entities' change of location are inappropriate candidates for this construction. The crucial factor in determining the compatibility of caused-motion verbs with applicative constructions is whether the action named by the verb can be construed as "a mode of transfer of possession." From the thematic perspective, verbs that subcategorise both affected LOCATION and LOCATUM are eligible predicates. In order for an event to be interpreted as a mode of transfer of possession, the endpoint of the event must be specified, because a temporarily unbounded event cannot foreground its resultant state in which a possessive relationship is changed. My analysis therefore accommodates the fact that verbs of ballistic motion can easily enter into the applicative construction, while verbs of continuous motion are less compatible with the construction. The events expressed by the former are temporarily bounded and hence can be backgrounded as a cause of transfer of possession. In contrast, the events expressed by the latter are unbounded. While we can delimit the event by specifying the endpoint with a PP—an instance of simple LOCATION, the event still focuses on the entity's change of location. It is therefore hard to make such events and the "transfer of possession" sense compatible with each other.

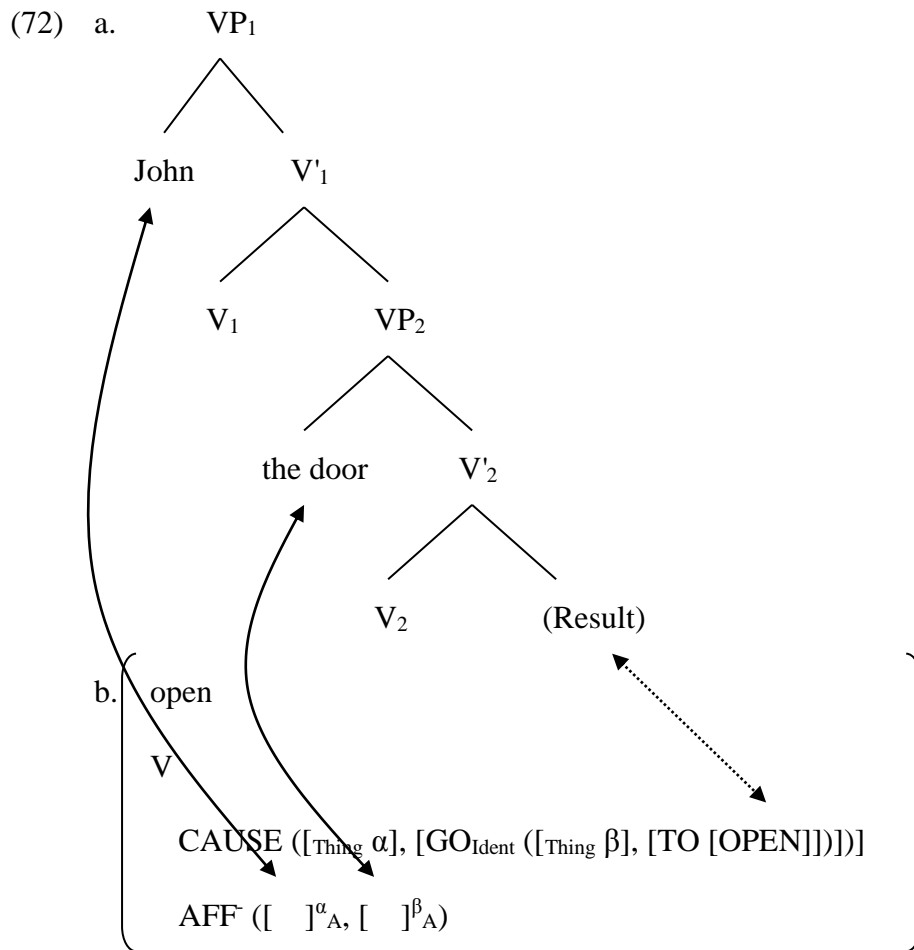
### *3.3.3 Unacceptable Applicative Constructions in English*

Shibatani (1996) indicates that English is one of the most restrictive languages in accepting argument introduction. As shown below, only (71a) is acceptable in English. In German, Japanese and Italian, the counterparts of (71a) and (71b) are judged legitimate; in Javanese, all the counterparts except (71h) are legitimate applicatives.

- (71) a. I bought Mary a book.  
b. \*I opened Mary the door.  
c. \*I closed Mary the door.  
d. \*I swept Mary the garden.  
e. \*I killed Mary the centipede.  
f. \*I danced Mary.  
g. \*I sang Mary.  
h. \*I went Mary to the market. (Shibatani (1996: 170))

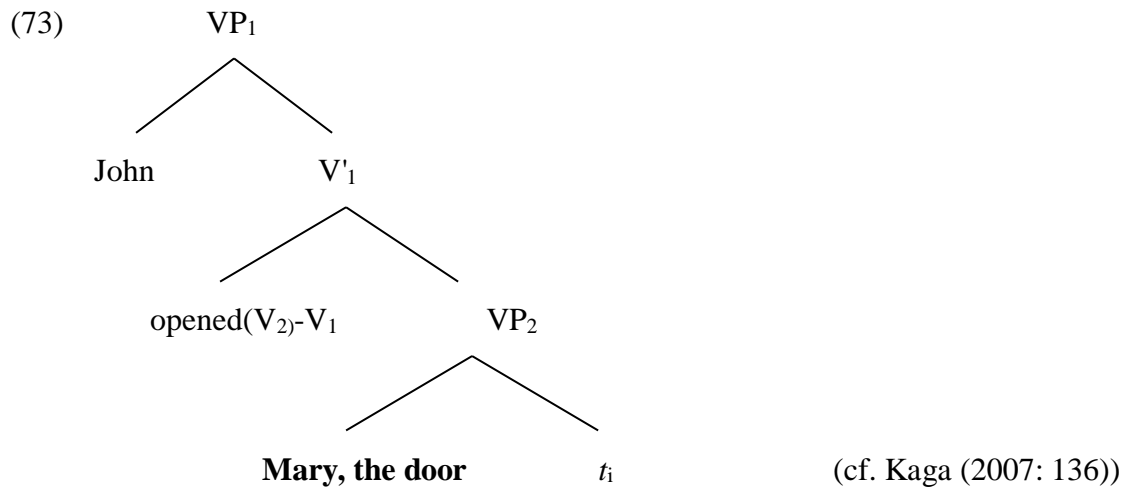
On the basis of our thematic perspective, the data above are captured by postulating that “only the verbs that select a LOCATUM argument can occur in benefactive [or applicative] constructions” (Kaga (2007: 138)). The direct objects in (71b-e) are analysed as instances of LOCATION, hence their unacceptability. Intransitive-based applicatives (71f-h) are out because they conflict with the significant property of low applicatives: there is no direct object to which applied arguments are to be related.

To show the validity of my analysis, let us examine the LCS of the verb *open* and the syntactic-conceptual correspondence:



(cf. Jackendoff (1990: 250))

The LCS in (72b) shows that *open* is a change of state verb. The referent of its direct object is regarded as an entity which undergoes a change of state. Such elements are assigned a Patient role, or a LOCATION role, macroscopically. Given that applied arguments are also instances of LOCATION argument (Beneficiary, Possessor, Recipient, etc.), (71b) has the illegitimate structure, in which Spec,VP<sub>2</sub> position is occupied by two LOCATION arguments. Hence the ungrammaticality of the sentence.



The same analysis applies to the other change of state verbs like *close* in (71c) and *kill* in (71e).

Another way to determine the verb that takes a LOCATION argument is examining whether the verb can appear in resultative constructions. In this construction, the entity undergoing change of state is assigned a LOCATION (Patient) role. (74a, b) indicate that several verbs in (71) can indeed appear in resultative constructions, while they cannot appear in applicative constructions:

- (74) a. I closed the door shut.  
 b. I swept the garden clean. (Kaga (2007: 138))

In contrast, such verbs as *buy* and *build* that are well-formed in applicatives cannot appear in resultatives. This is because its direct object and the RP (result phrase) doubly occupy the LOCATUM position (complement of VP<sub>2</sub>).

- (75) a. \*Mary bought a car out of order. (on resultative reading)  
 b. \*The contractor will build a house splendid. (ditto) (cf. Kaga (2007: 137))

This test predicts that verbs of exerting force, which do not necessarily entail any change of state in the referent of their direct object, indeed select LOCATION (or Object, microscopically: see also fn. 5). When a certain result state is specified via an RP, it becomes apparent that the direct object referent of verbs of exerting force is indeed construable as a subject of change of state, which is a property of a LOCATION argument. Our prediction is borne out by the contrast illustrated in (76-77) between well-formed resultatives and ill-formed applicatives:

- (76) a. John pushed the door shut.  
b. \*I pushed John the box.
- (77) a. The horses dragged the logs smooth.  
b. \*John dragged Mary a heavy sack. (Kaga (2007: 150))

As shown below, I found a number of intriguing applicative sentences which provide further support for my approach (the italics in (78) are mine).<sup>20</sup> All of the verbs (*open*, *push*, and *pull*) are alleged to be less compatible with the construction.

- (78) a. Kindborg is majoring in business marketing and hopes sincerely that in the near future basketball will *open him the door to a scholarship* at a four-year university.  
(<http://corsair.smc.edu/archive/2007-11-21.pdf>)
- b. ...Allah the Almighty promises to *open her the door to heaven* and...  
([http://www.rtb.gov.bn/rtbnews/2009/Jan09/050109/story\\_1.html](http://www.rtb.gov.bn/rtbnews/2009/Jan09/050109/story_1.html))

c. Not much of a talker he *pushed me the pen and paper*.

(<http://www.festivalpig.com/The-Zanzibar-Job.html>)

d. One of my closest partners in coffee, Jeremy Tooker...spent some devoted time on the Slayer machine pulling shots of espresso. He *pulled me the same coffee*, two different ways...

([http://www.gimmecoffee.com/galleries/drrrrty\\_south\\_scaa\\_style/](http://www.gimmecoffee.com/galleries/drrrrty_south_scaa_style/))

It is important to note that the direct objects in (78a-d) are construable as elements of LOCATUM: that is, they are entities in motion or being created. In the contexts of (78a, b), the event of *opening the door* is paraphrased into “making a chance.” *The door to a scholarship* in (78a) and *the door to heaven* in (78b) are both LOCATUM arguments, in that they are newly created for the Beneficiaries by the action of *opening*. Here, the *door* functions as the target of metonymy: though the Beneficiaries are not offered any benefit from the door *per se*, they do get the benefit from the *way/chance* created by the metaphorical action of *opening the door*. In (78c), *push* is a manner of transferring possession. *The pen and paper* in this context is not a mere entity to which some impact is brought (i.e. Patient/Object), but an entity which is transferred from one person to another (i.e. Theme). Finally, in (78d), the event of *pulling the coffee* is seen as a kind of performance. As the result of the event, two cups of coffee, pulled in two different ways, are served to the speaker.

Lastly, let us examine the ill-formedness of intransitive-based applicatives. Pylkkänen (2002) posits that the existence of a direct object is a *sine qua non* of low applicatives.

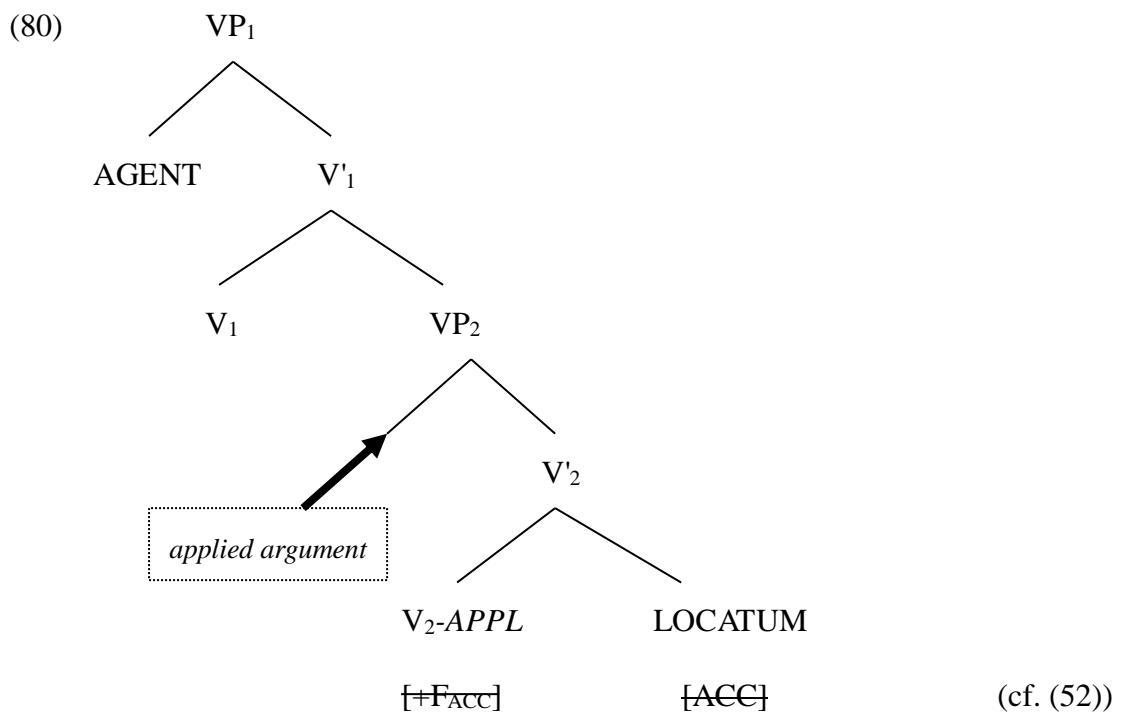
#### (79) DIAGNOSTIC 1: TRANSITIVITY RESTRICTIONS

Only high applicative heads should be able to combine with unergatives. Since



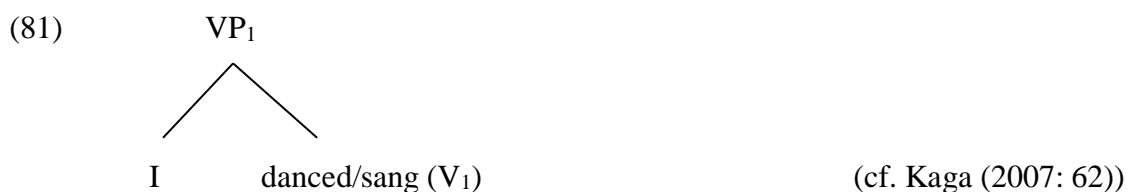
a low applicative head denotes a relation between the direct and indirect object,  
 it cannot appear in a structure that lacks a direct object. (= (33a))

The data in (71f-h) confirm her diagnosis. How can this fact be captured from a thematic viewpoint? In our framework, the “direct object” in (79) is defined more rigidly as an instance of a LOCATUM argument. Structurally, low applicative constructions in English require that the Comp,VP<sub>2</sub> be projected.



Unergative verbs, on the other hand, occupy V<sub>1</sub> position, licensing only an AGENT argument.

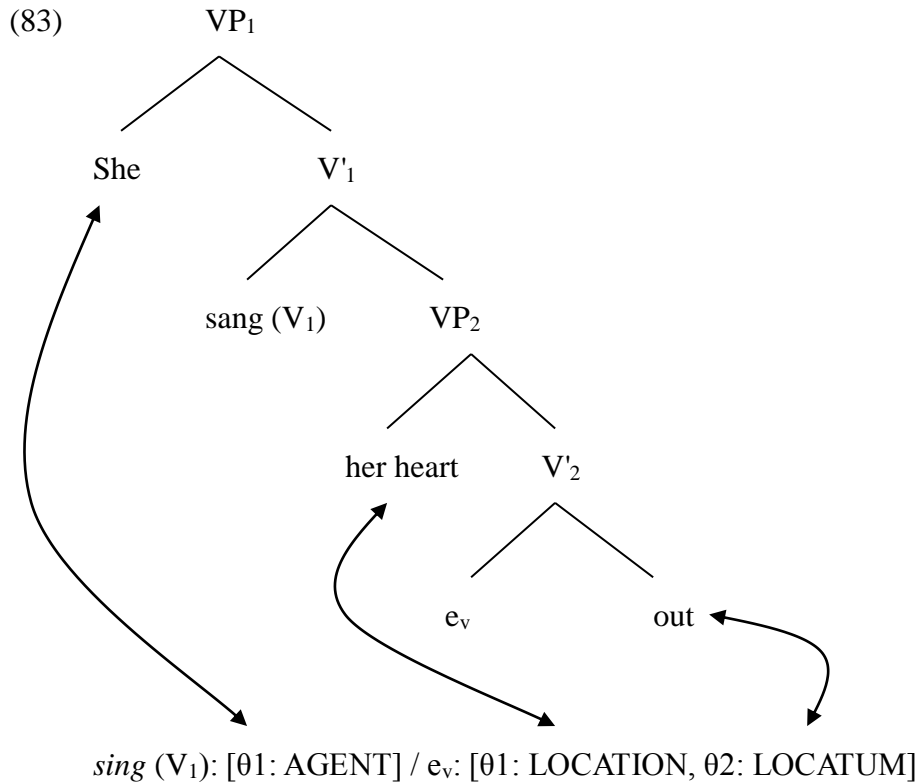
The sentences *I danced/sang* are associated to the following structure:



In this structure, there is no LOCATUM argument that enters into a relation with an applied LOCATION argument. Hence the ill-formedness of (71f, g): we cannot freely add Beneficiary to the structure with no VP<sub>2</sub> projection as in (81). Interestingly enough, unergative-based *resultatives*, known as “derived/strong resultatives,” are possible in English:

- (82) a. She sang her heart out.  
b. He danced his feet sore. (Goldberg and Jackendoff (2004: 560))

This contrast between applicatives and resultatives reminds us of the one we discussed in (76-77). Kaga (2007) suggests that resultative sentences like (82) are derived with the aid of an empty V (e<sub>v</sub>) that occurs at the lower V<sub>2</sub> position. Following his analysis, (82a) is assigned the structure in (83):

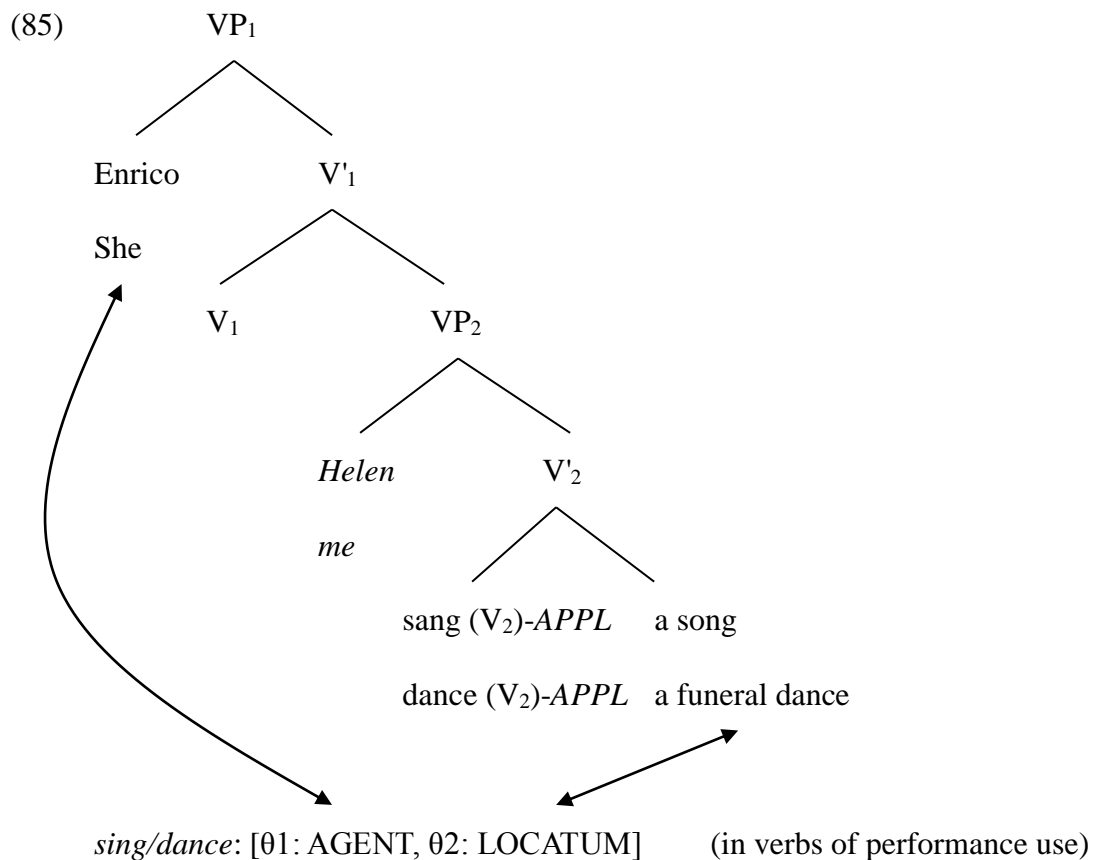


(cf. Kaga (2007: 88))

This line of approach provides us with a further endorsement of postulating an empty element in V<sub>2</sub> position.<sup>21</sup> The low APPL head, unlike the e<sub>v</sub> in derived resultatives, does not seem to be able to stand alone. Instead, it should be combined with the verb appearing in the V<sub>2</sub> position. Notice that *dance* or *sing* is qualified to license applicative construction, when they are used as a verb of performance, licensing a cognate object. In such a case, they occur in the V<sub>2</sub> position and their (cognate) objects are analysed as an instance of a LOCATUM argument, since they are “newly created” by the action named by the verb. The sentences in (84a, b) correspond to the VP structure in (85), at a certain stage of derivation:

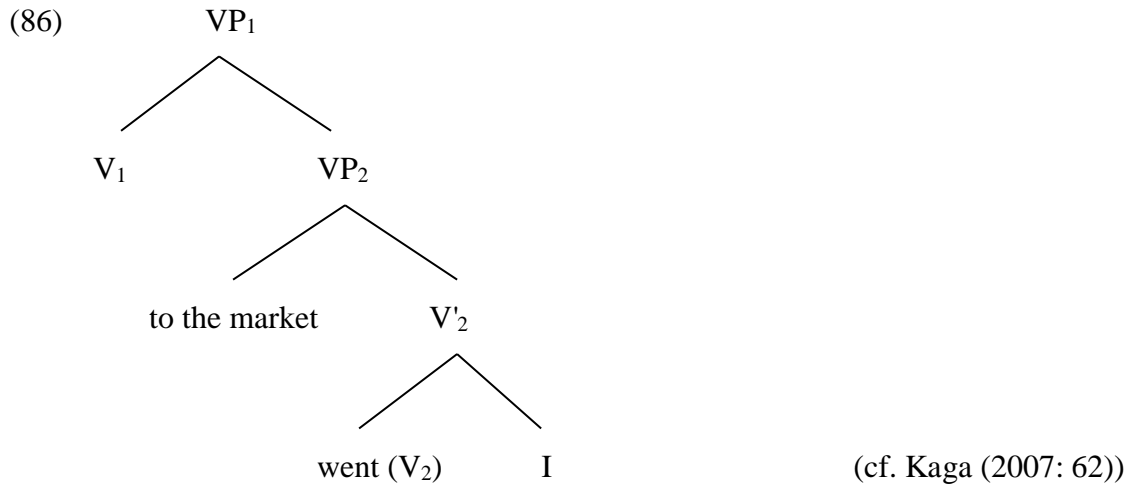
- (84) a. Enrico sang Helen a song. (Jackendoff (1990: 195))  
 b. She danced me a funeral dance.

(<http://www.rachelcaine.com/page53/page60/page60.html>)



In this structure, theta-assignment and Case-checking are properly carried out. Verbs like *sing* and *dance* are excluded from the applicative construction in their unergative use, but they are compatible with the construction in their performance use. This fact arises from the presence/absence of a LOCATUM argument.

(71h) is also an ill-formed applicative, yet for a different reason from the one advanced for unergative-based applicatives like (71f, g). The subjects of unaccusative verbs are analysed as an entity in motion, i.e., an instance of LOCATUM. According to Kaga (2007), unaccusative verbs “are generated at the lower V<sub>[2]</sub> position with no Case-checking feature [+F<sub>ACC</sub>] assigned” (Kaga (2007: 62)). Thus, the VP structure assigned to the sentence *I went to the market* is illustrated in (86):



Since  $V_2$  has no Case-checking feature,  $I$  moves to the Spec,TP position and has its nominative Case checked (for details of the derivation process, see Kaga (2007, Ch. 2)). In the structure (86), the Spec,VP<sub>2</sub> position, to which an applied argument is to be attached, is already occupied by a simple LOCATION argument. Given this analysis, the ungrammaticality of unaccusative-based applicatives follows from the facts that the verbs lack accusative Case-checking features (compare (86) with the legitimate VP structure for applicative constructions shown in (52)/(80), in which a  $V_2$  carries a [+FACC]), and that the position for a LOCATION argument is already taken up by a simple LOCATION argument. Potentially, sentences like (87) with the verb *last* can be analysed as instances of legitimate unaccusative-based applicatives:

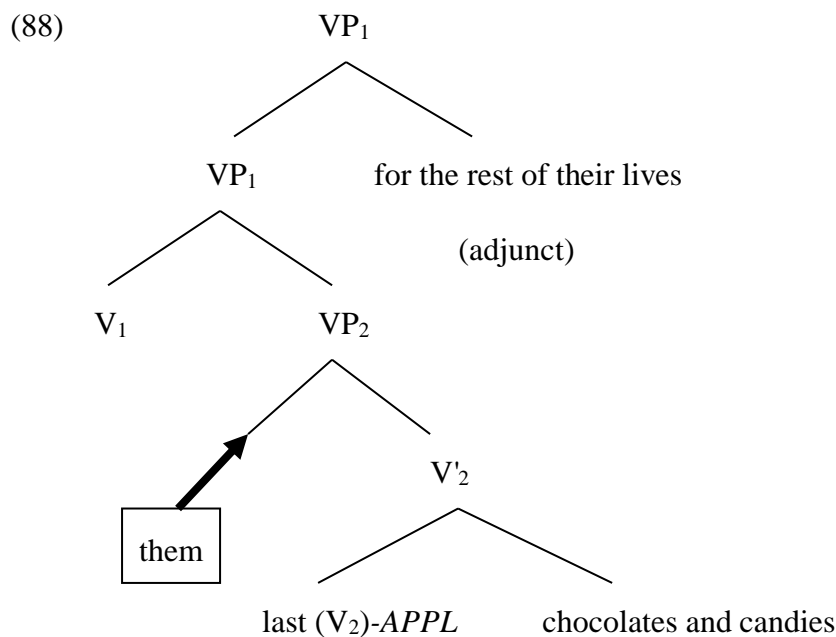
- (87) a. ... all of them will be given enough chocolates and candies to last them for the rest of their lives!

(Roald Dahl, *Charlie and the Chocolate Factory*, underline is mine)

- b. These shoes should last you till next year.

(OALD<sup>6</sup>, underline is mine)

In (87a, b), the objects *them* and *you* are not obligatory, and they can be regarded not as elements selected by the verb, but as applied arguments. Unaccusative-based applicatives are very rare; in fact, I have found no instances other than the ones with the verb *last*. Usually, unaccusative verbs subcategorise a simple LOCATION, because the action named by the verb conceptually involves the “place” (in broader sense) where an entity moves or exists. The unique property of *last* may then be attributed to the fact that it specifies *temporal*, but not *spatial* boundaries during which an object keeps its quality. In this sense, this verb selects no simple LOCATION argument and admits an applied argument:



Unfortunately, because of the lack of a similar instance, this analysis remains within a matter of speculation.

Given the investigations so far, I recast Pylkkänen’s (2002) *Transitivity Restrictions* in (79) as “*LOCATUM*” *Restrictions*:

(89) LOCATUM Restrictions:

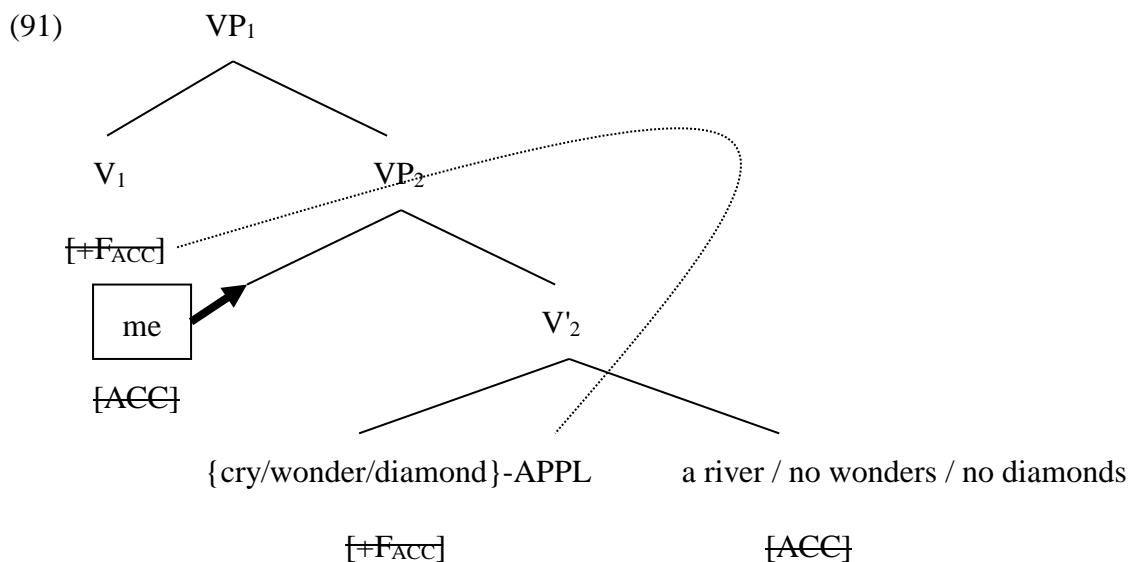
Since the English low applicative head denotes a relation between the LOCATUM argument and the applied LOCATION argument, it cannot appear in a structure that lacks a LOCATUM argument.

The following examples, which can be regarded as rather exceptional, satisfy the restriction in (89), hence they are all judged well-formed:

- (90) a. Cry me a river! (= (10b))  
 b. Wonder me no wonders, sir. (BNC)  
 c. Diamond me no diamonds!<sup>22</sup>

(Alfred Lord Tennyson, *Lancelot and Elaine* / Pinker (2009: 136))

In (90a-c), the direct objects are pragmatically interpreted as Theme/Result arguments. Although they do not entail any “change of possession,” the structure assigned to them is compatible with the applicative construction:



More specifically, I assume that a low APPL head conflates only into  $V_2$  with a Case-checking feature [+F<sub>ACC</sub>]. This is responsible for the fact that unaccusative-based applicatives are excluded. As noted in (86), an unaccusative verb select a LOCATUM argument but carry no [+F<sub>ACC</sub>]. Therefore they cannot be conflated with APPL. In addition, this Case-related restriction on attachment of the low APPL head also predicts so-called “Latinate restriction”: Latinate verbs cannot appear in double object constructions. Thus, although the semantics of the verb *donate* is close to that of *give*, the Latinate class verb *donate* does not allow the double object construction, as shown in (92):<sup>23</sup>

- (92) a. I donated a book to the library.  
 b. \*I donated the library a book. (Kaga (2007: 142))

Kaga (2007: 143) proposes that Latinate verbs have “the lexical property that lower  $V_{[2]}$  does not carry a Case-checking feature.” To summarise, I argue that the English low applicative needs a Case-checking feature [+F<sub>ACC</sub>] assigned to the lower  $V_2$ , which licenses a LOCATUM argument in the Comp,  $VP_2$  position.

### 3.4 Summary

In this chapter we have dealt with language-particular constraints on the low applicative construction in English. The hypotheses advanced in this chapter are given in (36), repeated below as (93):

- (93) a. The low applicative head (APPL) merges with the verb in the  $V_2$  position, giving the verb an ability to license an applied argument.



- b. An applied argument in low applicative languages is assigned one of the thematic roles which are macroscopically classified as “affected LOCATION”: Possessor, Recipient, Beneficiary, Experiencer, or Patient.
- c. Given that an applied argument is an element of LOCATION, it needs to be introduced to an SVO structure whose direct object is construed as a LOCATUM argument.

In section 3.2, we have examined (93a) in detail. At the conceptual level, APPL adds the second argument to the action tier of the verb complex; at the syntactic level, it evokes the accusative Case-checking feature of V<sub>1</sub>. Section 3.1 has confirmed that the indirect object in double object construction in general is analysed as affected LOCATION. This postulation enables us to analyse “atypical” double object constructions in a parallel manner to more typical ones. Applied arguments in English, on the other hand, are assigned one of the Possessor/Recipient/Beneficiary roles. They are thus analysed as elements of affected LOCATION, as noted in (93b). The validity of the hypothesis (93c) is attested in section 3.3 with a wide range of verb types. We have found that English low applicatives indeed require the direct object to be construed as LOCATUM—things in motion or being located. The construction defies the verbs which select a LOCATION argument (e.g. verbs of exerting force), and the verbs without VP<sub>2</sub> projection (i.e. unergatives). Also, LOCATUM arguments must be backgrounded in applicatives. If the events strongly focus on the entities’ change of location rather than the transfer of possession, as in sentences with the verb *move* or other unaccusative verbs, these events are quite low in compatibility with the construction.

In our approach, it naturally follows from properties of LOCATUM and (affected) LOCATION that the English low applicative construction expresses a “possessive” relationship between an applied argument and the direct object of predicate verbs. In

applicatives, a direct object corresponds to the LOCATUM argument and an applied argument to the LOCATION argument. The LOCATUM role is assigned to an entity in motion or being located; and the LOCATION is regarded as (concrete or abstract) locations to which the LOCATUM element moves to or is located. Moreover, the affected LOCATION role is assigned to an argument which is interpreted as Possessor/Recipient/Beneficiary. Putting all accounts together, the events described by applicative constructions are generally interpreted as a process of “locating some object(s) to the possession of the referent(s) of the applied argument.” With this idea, we need not regard low applicative constructions as an extension of lexically ditransitive constructions. In fact, English *give*-constructions allow a wider range of indirect objects, which do not “possess” anything, but to which some kind of force is exerted. Such indirect objects are assigned micro-role Patient/Object, which are also subtypes of the LOCATION role.

I believe that our approach has advantages over the ones proposed in previous studies which I reviewed in section 2.1. First, by treating applicatives independent of lexical ditransitives, we need not extend the “transfer of possession” sense to some unreasonable end. It is the property of the low APPL head in English that limits the applied arguments to a Possessor, Recipient, or Beneficiary argument. Second, our LOCATUM Restriction formally delineates some characteristics of verbs compatible with the applicative construction. The “core sense” of applicative constructions:  $X \text{ CAUSES } Y \text{ to RECEIVE/HAVE } Z$  can be now attributed to the general properties of the macroscopic thematic roles. Also, our framework suggests that illegitimate applicatives are analysed as being *syntactically* inconsistent with the restriction put upon the construction.

## Chapter 4

### Applicatives as a Type of Voice

In the previous chapter, we discussed English applicative constructions, limiting our arguments to the language-particular level. In this and the following chapters, I will examine English applicative constructions from a more general standpoint.

In the literature on applicative constructions in diverse languages, it is common to analyse applicative heads as verbal affixes that increase the valency of the verb into which they conflate (Sato (2008), Shibatani (1996), etc.). Many languages such as Ainu, Chaga, and Indonesian have certain applicative markers on the verb, which are written in boldface in the following examples:

(94) Ainu

túri k-ecipo.

rod I-APPL-boat.manage

“I manage a boat with a rod.”

(= (1b))

(95) Chaga

N-a-ý-lyì-**í**-à

m-kà k-élyá

FOC-1SG-PRES-eat-APPL-FV

1-wife 7-food

“He is eating food for his wife.”

(= (28a))

(96) Indonesian

Saya menduduk-**i** kursi

I sit-APPL chair

“I sit in the chair.”

(Shibatani (1996: 159))

It is indisputable that languages with overt applicative markers have a type of construction that deserves to be called “applicatives” in their grammar system. In contrast, there is controversy in whether English double object constructions which result from so-called “dative alternation” should be regarded as “applicative” constructions (see also fn. 2 of chapter 1). This chapter will show that English (low) applicatives should be regarded as a subtype of applicative constructions. In fact, I suggest that English does have a kind of applicative marker, although it is invisible on the surface.

One reason for researchers to deny English “applicatives” is that the alternation between applicatives and non-applicatives is “not systematic” in English (cf. Culicover (2009: 194-195)), compared to languages that have morphological applicative markers. For example, in languages like Ainu, Chaga, and Indonesian, applicative markers can attach to a wide range of verbs, resulting in promoting an oblique argument to a core argument of the verb. These languages allow intransitive-based applicatives (e.g. (96)). Also, oblique Instrument/Location arguments can become a core argument, as in (94) and (96), respectively. Such types of applicative constructions are not possible in English:

(97) a. I sat in the chair.

b. \*I sat the chair.

(98) a. I cut the rope with a knife.

b. \*I cut a knife the rope. (cf. Culicover (2009: 194))

Based on these facts, Culicover (2009) claims that so-called “dative-alternation” in English is a *lexically restricted* alternation, involving “two related lexical entries for verbs that participate in it” (Culicover (2009: 194)). He supposes that there are two entries for the verb *give*, as shown in (99):

(99) a. *give*<sub>1</sub>

Syntax	CATEGORY V
	COMPS NP [PP to NP <sub>1</sub> ]
CS	<b>GIVE</b> (AGENT/SOURCE: X, THEME: Y, GOAL: Z <sub>1</sub> )

Chris *gave*<sub>1</sub> the money to Sandy.

b. *give*<sub>2</sub>

Syntax	CATEGORY V
	COMPS NP <sub>1</sub> NP
CS	<b>GIVE</b> (AGENT/SOURCE: X, THEME: Y, GOAL: Z <sub>1</sub> )

Chris *gave*<sub>2</sub> Sandy the money. (cf. *ibid*)

His approach assumes that every verb that appears in dative alternation has two lexical entries, exemplified in (99).

Contrary to Culicover's (2009) claim, however, English double object constructions are not restricted to a narrow range of lexical items, but show high productivity. For example, as our means of communication develop, newly coined verbs have turned up in double object constructions:

- (100) a. Please {xerox/fax/bitnet} him this document. (Kishimoto (2001: 129))
- b. I'll e-mail him the directions. (Pinker (2009: 120))

Also, we can easily adduce similar examples to (90b, c):

- (101) a. Wonder me no wonders, sir. (= (90b))  
 b. Diamond me no diamonds! (= (90c))  
 c. Comment me no comments. / Blog me no blogs. (Pinker (2009: 136))  
 d. Please sir, do me a favor and name me no names.  
 (COCA (Corpus of Contemporary American English))  
 e. Just promise me no Nicole Richie and I'm yours for the season.<sup>1</sup>

(COCA)

The productivity of the English double object construction shows that it is doubtful to posit two related entries for verbs that can occur in both the DP<sub>-to/for</sub>PP frame and the double DP frame. If we follow Culicover's (2009) assumption that the "dative-alternation" in English is a lexically restricted phenomenon, quite a few verbs including those in (100-101) would have double LCSs that correspond to (99a, b), despite the fact that certain double object sentences are judged rather marginal and highly context-dependent.<sup>2</sup>

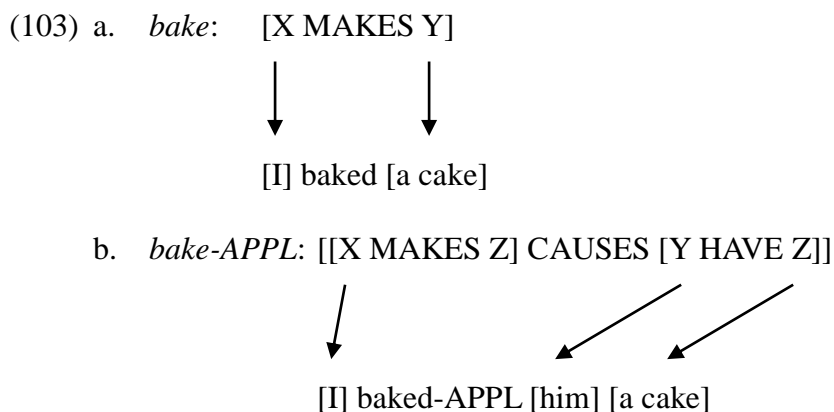
On the other hand, in our approach to the applicative construction in English, APPL can attach in principle to verbs that have LOCATUM argument (or to verbs that have [+F<sub>ACC</sub>] in the V<sub>2</sub> position), as is the case for applicative markers in other languages. On this hypothesis, the high productivity of this construction is appropriately predicted. Although it is true that English applicatives are less freely admitted in comparison with other languages (high applicative languages, in particular), the derivational operation applying to this construction in English still shows systematic properties within the typological and language-specific constraints. That is, we can systematically generate English low applicative sentences, provided that the semantics and the argument structure of predicate verbs are compatible with the construction. Hence we can use the applicative construction in a creative way, with verbs that satisfy language-particular restrictions.

Another reason against “English applicatives” is the lack of morphological marking. As illustrated in (94-96), many languages exhibit special verb forms for applicative constructions. English, by contrast, has no explicit morphological applicative marker:

- (102) a. I *baked* a cake. (= (2a))  
 b. I *baked* him a cake. (= (2b))

This seems to lead many linguists to conclude that the Beneficiary in (102b) is licensed not by the verb but by the construction/schema (Goldberg (1995), Shibatani (1996)) or by a kind of adjunct rule (Jackendoff (1990)). Also widely assumed is that the verb’s argument structure is the same in (102a, b): *bake* [ $\theta$ 1: Agent,  $\theta$ 2: Theme]. This assumption implicitly denies the idea that an APPL head conflates with the verb in (102b).

Our approach claims that the argument structures of (102a) and (102b) are different, although closely related. The rough LCSs are illustrated below:<sup>3</sup>



My analysis therefore treats sentences which Culicover (2009) and Shibatani (1996) call “benefactives” (like (102b)) as corresponding to applicatives shown in (94-96), in so far as an APPL head affects the verb’s argument structure and its valency increases by one. It is only

the typological and/or language-specific properties of the APPL head that make English applicatives more restricted than those in other languages.

Importantly, there exists an independent motivation for positing an empty element in V<sub>2</sub> position in English. For example, recall our discussion of English derived/strong resultatives in section 3.3.3:

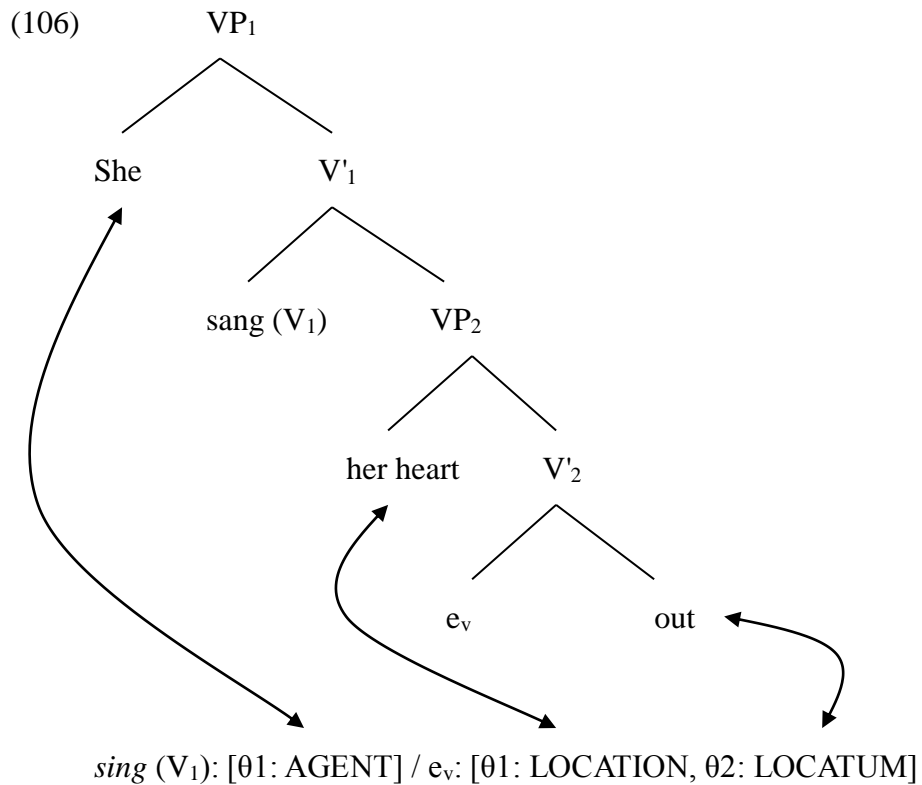
- (104) a. She sang her heart out. (= (82a))  
b. He danced his feet sore. (= (82b))

The “objects” in (104) are not selected by the predicate verb, as shown in (105):

- (105) a. \*She sang her heart. (in the relevant sense)  
b. \*He danced his feet.

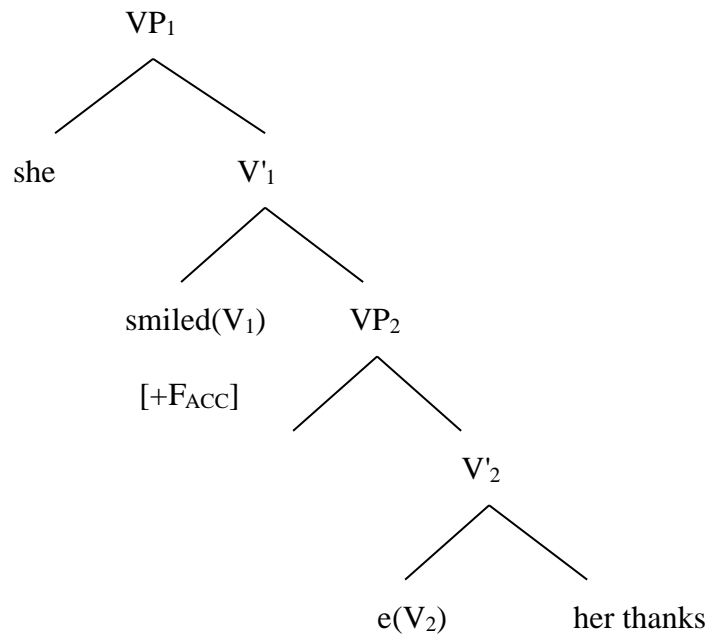
The syntactic structure corresponding to (104a) is illustrated in (83), repeated below as (106):





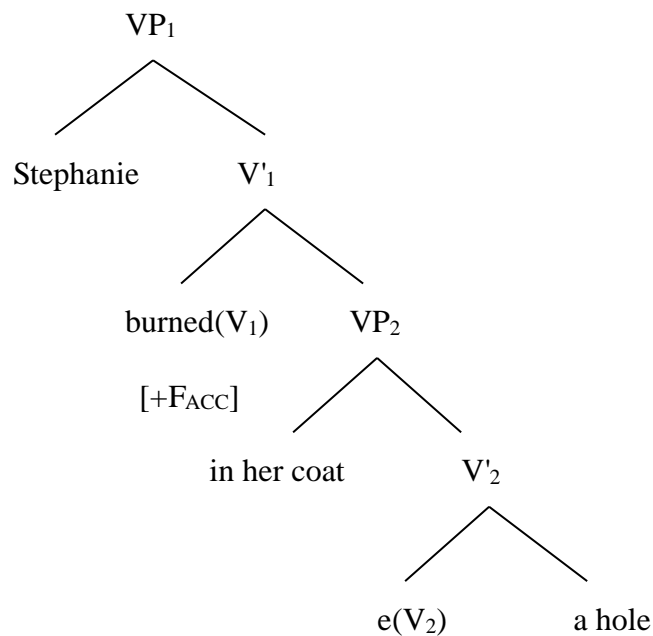
The same analysis applies to (104b), as well as to other instances of derived/strong resultatives. The crucial point for our discussion is that the LOCATION (Patient) argument *her heart* and the LOCATUM (Result) argument *out* are licensed by the empty verb ( $e_v$ ) that serves as the head of the lower  $VP_2$ .<sup>4</sup> Kaga (2007, Ch. 3) further suggests that gesture-expression constructions like (107a) and “a hole” constructions like (107b) are also licensed by virtue of an empty  $V_2$ .

(107) a. She smiled her thanks.<sup>5</sup>



(Kaga (2007: 123, 125))

b. Stephanie burned a hole in her coat.



(Kaga (2007: 123, 126))

*Smile* in (107a) and *burn* in (107b) are both analysed as intransitives, and hence neither LOCATION nor LOCATUM can they subcategorise. Nevertheless, English

gesture-expression constructions and “a hole” constructions are properly licensed, because an empty  $V_2$  is available in English. In fact, such empty verbs are said to be available in satellite-framed languages, but not in verb-framed languages.<sup>6</sup> According to Talmy (2000), English is an instance of the former type of languages, among most Indo-Europeans except Romance. On the other hand, Romance languages and Japanese are classified into the latter type of languages. The following data shows that the German counterparts of (107a, b) are grammatical, but their French and Japanese counterparts are ungrammatical:

(108) German

- a. Sie winkte ihren Dank.<sup>7</sup>  
she winked her thank
- b. Sie brannte ein Loch in den Mantel.  
she burned a hole into the coat

(109) French

- a. \*Pauline a souri ses remerciements.  
Pauline has smiled her thanks
- b. \*Il a brûlé un trou à son manteau.  
he has burned a hole on his coat

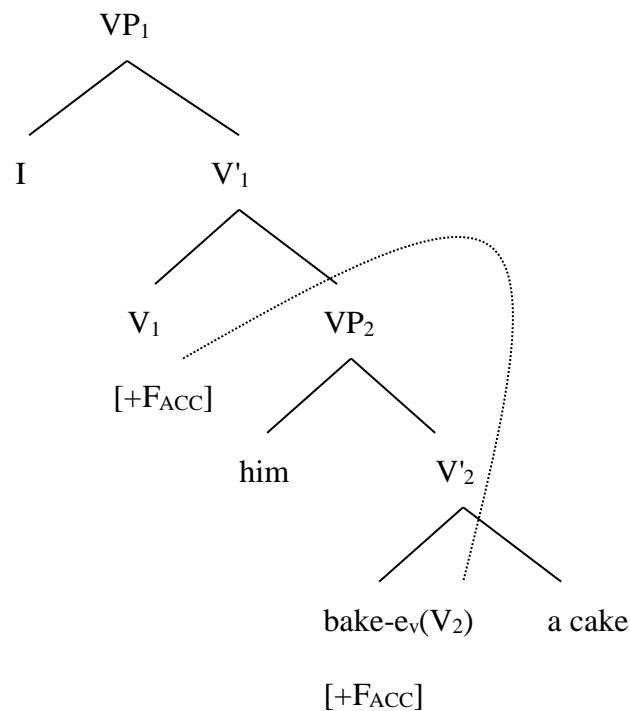
(110) Japanese

- a. \*John-ga kansya-o warat-ta.  
John-NOM thank-ACC smile-PAST
- b. \*John-ga kooto-ni ana-o kogasi-ta.  
John-NOM coat-LOC hole-ACC burn-PAST

(Kaga (2007: 124))

The above examples support the idea that an empty verbal element can appear in the lower V<sub>2</sub> position in satellite-framed languages, but not in verb-framed languages. Taking these facts into consideration, an empty low APPL head in English is analysed as a subtype of such an empty V<sub>2</sub>:

(111) I baked him a cake.



In (111), the empty V<sub>2</sub> (e<sub>v</sub>) corresponds to APPL. Unlike those empty verbs in (106-107), a low APPL head cannot stand alone but attaches to a verbal head which has an [+F<sub>ACC</sub>] feature at the lower V<sub>2</sub> position. Macroscopically, it turns out to be plausible to treat APPL as a subtype of the empty verbs, whose status in satellite-framed languages is motivated irrespective of particular constructions.

To sum up this chapter, I have proposed that English in fact has an empty applicative marker. Though English applicatives are highly limited, yet we should not assume that English double object constructions (minus lexical ditransitives, to be precise) are distinct

from applicative constructions. It is due to its language-specific restrictions that English admits fewer cases of applicative constructions. We have observed that English applicatives are indeed productive within the limits of LOCATUM Restriction. Also, we have argued that it is well-motivated to posit an empty verbal element in the  $V_2$  position in satellite-framed languages.

In the next chapter I will confirm the hypothesis that the empty APPL head behaves in a manner that is parallel to overt applicative markers, comparing English applicatives with Japanese applicatives. As mentioned above, an empty  $V_2$  is not available in Japanese, because it is a verb-framed language. I hypothesise on the basis of our theory developed thus far that Japanese explicitly marks applicatives with *-yaru/-ageru*, and that the empty APPL head in English corresponds to such an overt applicative marker.

## Chapter 5

### Comparison of English and Japanese Applicative Constructions

This chapter aims to give support to our assumption of an empty applicative marker in English. For this purpose, I will compare English applicatives with Japanese double object (benefactive) constructions, because Pylkkänen (2002) classifies both of them into the identical subtype of applicative construction: low recipient applicatives (cf. Pylkkänen (2002: 15)). We will observe that *-yaru/-ageru* functions as an overt applicative marker in Japanese.<sup>1</sup> Next, I will argue that in both constructions, an implicit/explicit low APPL head introduces one additional LOCATION argument. Finally, following our discussion in chapter 4, it is proposed that the empty APPL in English and the overt APPL in Japanese are captured in terms of a prevalent typological generalisation of satellite-framed and verb-framed languages. In English, the original sense of the verbs is modified by an empty  $V_2$ , whereas in Japanese, the same effect is obtained by the formation of converbs.

As mentioned in the introduction of this thesis, in Japanese applicative constructions, the main verb is accompanied by the overt applicative marker *-yaru/-ageru*. (*Ageru* is a polite form of *yaru*. Henceforth, I will refer only to *yaru*, but note that both of them behave in the same way.) In fact, applied arguments in this construction seem to be licensed by *-yaru*, for sentences without *-yaru* are degraded in acceptability:

- (112) a. Mary-ga John-ni kuruma-o katte-yat-ta.  
Mary-NOM John-DAT car-ACC buy-give-PAST
- b. ??Mary-ga John-ni kuruma-o kat-ta.<sup>2</sup>  
Mary-NOM John-DAT book-ACC buy-PAST

“Mary bought John a car.”

(cf. Kaga (2007: 166, 171))

In (112), the gloss “GIVE” is assigned to *-yaru*, due to its semantic similarity to the main verb *yaru* (see also fn. 1). While I agree that the applicative marker *-yaru* in (112a) and the main verb *yaru* are close in meaning, I believe that more lights should be thrown on the functional resemblance between *-yaru* and applicative affixes, such as the ones in the Ainu/Chaga/Indonesian examples in (94-96).<sup>3</sup>

To confirm the idea that *-yaru* is an applicative marker, I will show that the configuration [ $V_{\text{root}}\text{-te-yaru}$ ] behaves like one word as a whole. In other words, the  $V_{\text{root}}$  in this configuration “does not have the lexical autonomy of an independent verb” (Shibatani (2009: 260)). This suggests that some properties of the verb, its argument structure in particular, are changed by the effect of *-yaru*. See (113):

- (113) a. Taroo-ga Hanako-ni hon-o yat-ta.  
 Taro-NOM Hanako-DAT book-ACC give-PAST  
 “Taro gave Hanako a book.” (Shibatani (2009: 273))
- b. \*Taroo-ga Hanako-ni hon-o kat-te.  
 Taro-NOM Hanako-DAT book-ACC buy-CON  
 (lit) “Taro having bought a book for Hanako” (cf. Shibatani (2009: 260))

(113) indicates that we obtain only one well-formed sentence from the sentence *Taroo-ga Hanako-ni hon-o kat-te yat-ta* ‘Taro bought Hanako a book.’ This contrasts with the Mandarin Chinese examples in (114). These examples show that Mandarin Chinese verbal serialisation differs from Japanese converb formation, in that each one of the serialised verbs in (114a) can function as a predicate of independent sentences, as shown in (114b, c):

- (114) a. [T]ā zǒu qù le.  
 she walk go ASP  
 “She went walking.” (Shibatani (2009: 257))
- b. [T]ā zǒu le.  
 [she] walk ASP  
 “[She] has walked.” (Shibatani (2009: 260))
- c. [T]ā qù le.  
 [she] go ASP  
 “[She] is gone.” (ibid)

Unlike in Mandarin Chinese verbal serialisation, verbs that are marked by the converbal ending *-te* lose their lexical autonomy in Japanese converbal complex predicates. Thus, the verbal complex [V<sub>root</sub>-*te-yaru*] as a whole, but not the V<sub>root</sub> in itself, seems to function as a single word in sentences with converbal complex predicates.

Readers may suspect that sentences like (112a) are instances of clausal subordination. On this analysis, (112a) corresponds roughly to the English bi-clausal sentence in (115):

- (115) Mary bought a car and gave it to John.

However, implications coded in a converbal complex predicate are distinct from the ones in its clausal subordination counterpart, as observed in pairs as in (116a, b).

- (116) a. Hanako-wa kodomo-o toire-ni ture-te it-ta.  
 Hanako-TOP child-ACC toilet-DAT take-CON go-[PAST]  
 “Hanako took the child to the toilet.”



- b. Hanako-wa kodomo-o ture-te, toire-ni it-ta.  
 Hanako-TOP child-ACC take-CON toilet-DAT go-[PAST]

“Hanako went to the toilet taking the child along.” (Shibatani (2009: 271))

Shibatani (2009: *ibid*) points out: “[116a] implies that the child had to go to the toilet to relieve himself, whereas [116b] implies that Hanako had to go to the toilet to relieve herself.”<sup>4</sup> Given that it is the verb phrase *toire-ni iku* ‘go to the toilet’ with which the implication of relieving oneself is associated, *kodomo* ‘child’ in (116a) needs to be analysed as an argument of the verbal complex of *ture-te iku* ‘take-CON go,’ but not as an argument of the verb *ture-te* ‘take-CON.’

A semantic contrast between the applicative sentence in (117a) and the complex sentence in (117b) is captured in the same manner.

- (117) a. Hanako-ga Taro-ni hon-o kat-te-yat-ta.  
 Hanako-NOM Taro-DAT book-ACC buy-CON-APPL-PAST

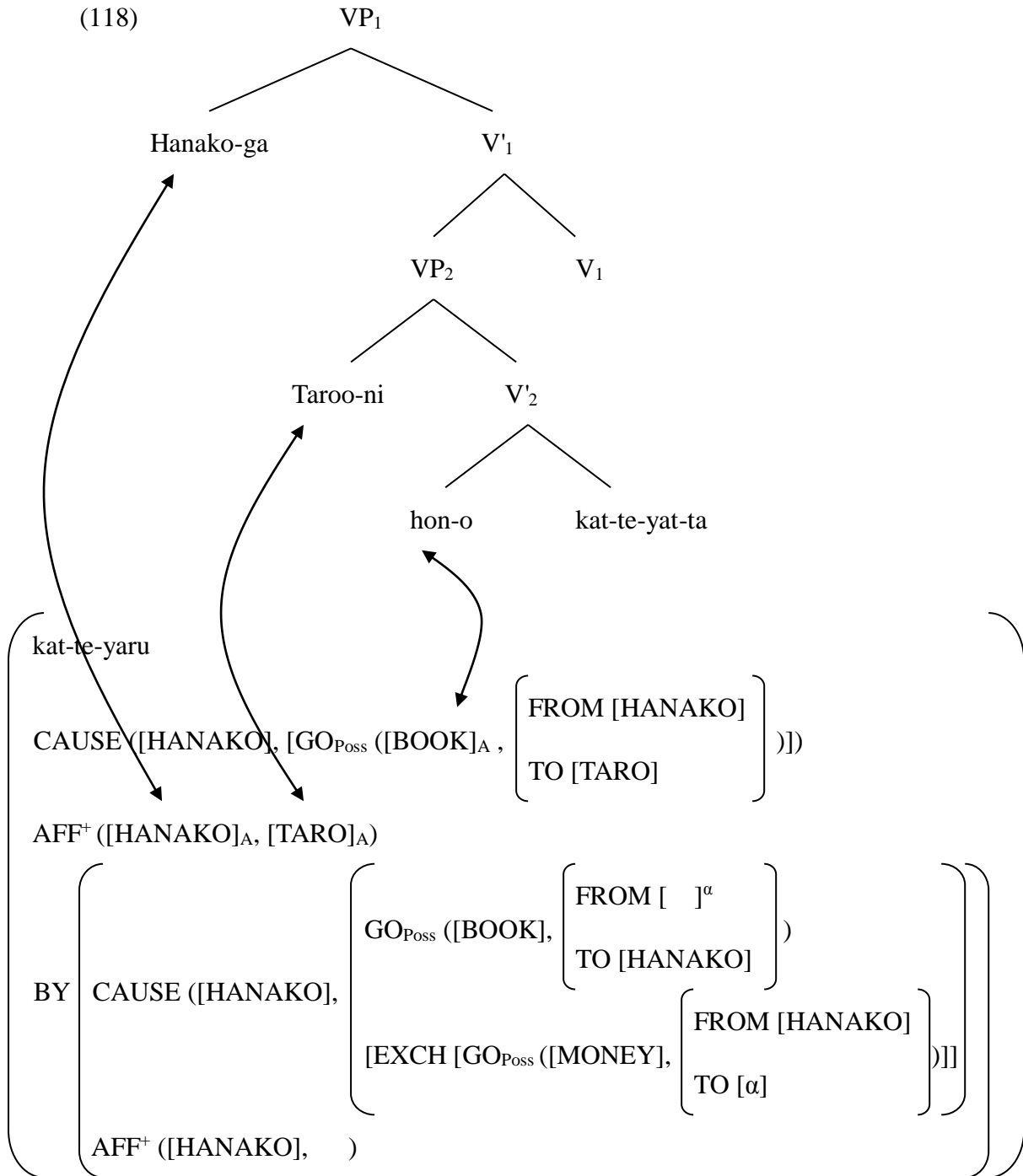
“Hanako bought Taro a book.”

- b. Hanako-ga hon-o kat-te, Taro-ni yat-ta.  
 Hanako-NOM book-ACC buy-CON Taro-DAT give-PAST

“Hanako bought a book and gave it to Taro.”

(117a) strongly implies that it is Taro who will read the book. (117b), on the other hand, can be read in the interpretation that Hanako bought the book for herself and she gave it to Taro after reading it.<sup>5</sup> As shown in the LCS for the verb *buy* ((22b)/(43)), its Possessor argument is bound to the Agent argument in the canonical sense. But in (117a), the Possessor role is not bound by *Hanako*, but is assigned to *Taro*. It is therefore adequate to hypothesise that

the argument structure of the converbial complex predicate *kat-te-yaru* ‘buy-CON-APPL’ has an individual LCS, though it undoubtedly is in a close relationship with the LCS of the verb *kau* ‘buy.’ The LCS for the converbial complex predicate *kat-te-yaru* ‘buy-CON-APPL’ and the syntactic-conceptual correspondence is illustrated as follows:<sup>6</sup>



Furthermore, Shibatani (2009) adduces the following benefactive (applicative) examples, which also sustain this line of analysis:

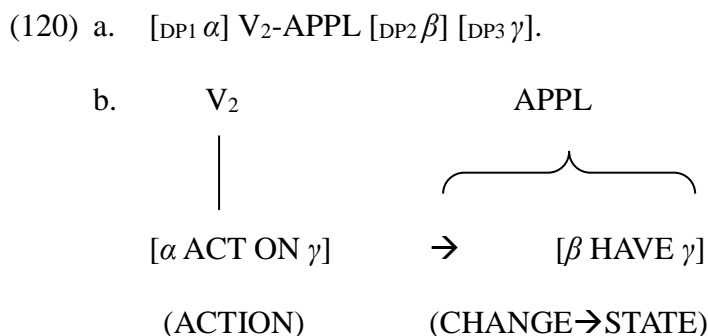
- (119) a. Taroo-wa Hanako-ni hon-o yon-de yat-ta.  
 Taro-TOP Hanako-DAT book-ACC read-CON GIVE-[PAST]  
 “Taro read Hanako a book.”
- b. Taroo-wa Hanako-ni to-o ake-te yat-ta.  
 Taro-TOP Hanako-DAT door-ACC open-CON GIVE-[PAST]

(Shibatani (2009: 272))

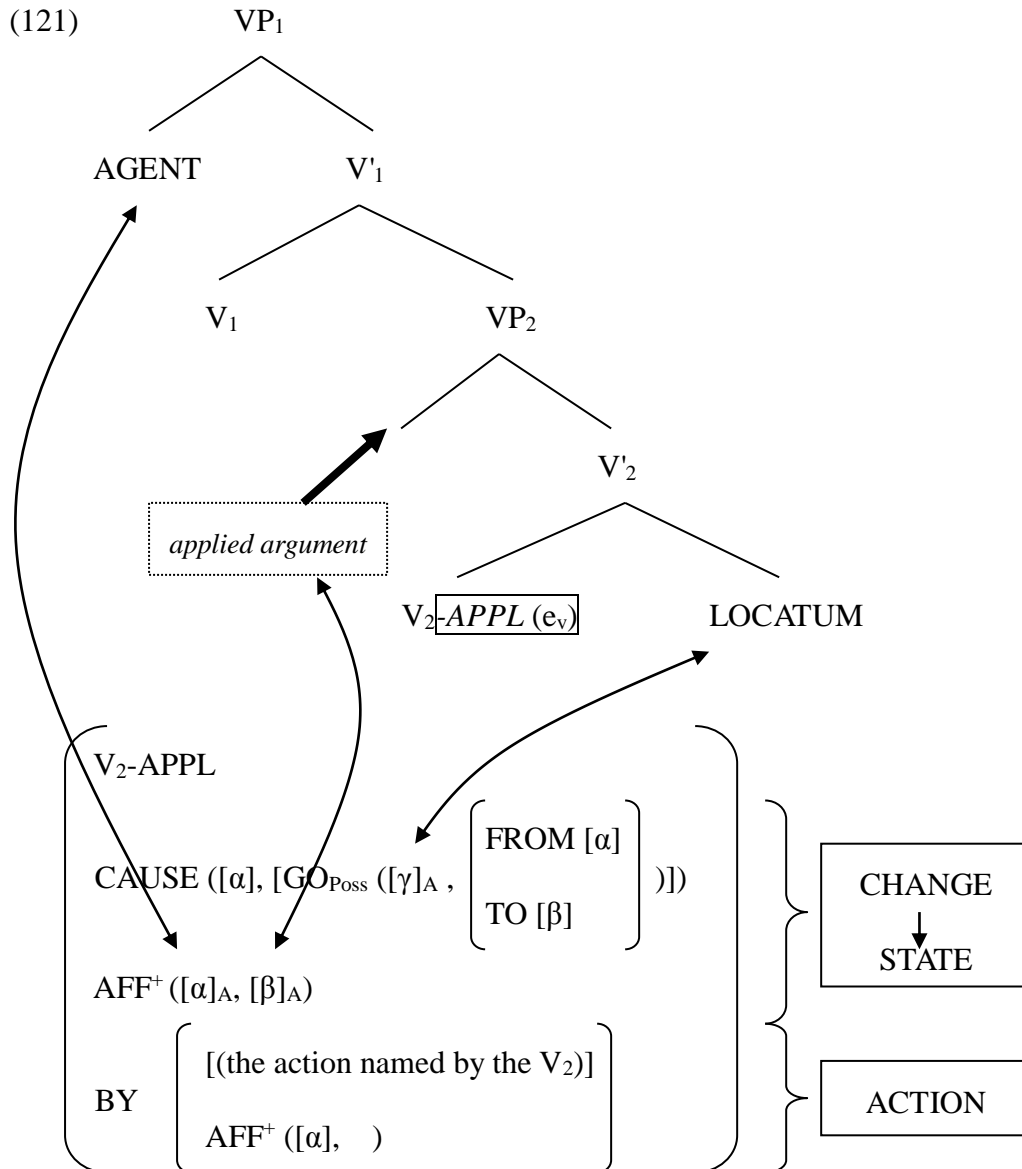
(119a), for example, means that it is not the book itself but its *contents* that gets transferred. This interpretation can be obtained neither from *hon-o yomu* ‘read a book’ nor from *hon-o yaru* ‘give a book.’ This fact indicates that the metonymic transfer sense in (119a) is borne of the unified argument structure of the complex predicate *yon-de yaru* ‘read-CON GIVE’ (or ‘read-CON-APPL,’ in my approach). (119b), where an “opening space” that results from the action of opening the door is metonymically transferred, is also explained in the same way. Judging from the above data, it is safe to conclude that Japanese *-yaru* modifies the argument structure of the verb to which it attaches. More specifically, I claim that *-yaru* functions as an applicative head, introducing an argument into the least embedded action tier (i.e. the second argument of AFF<sup>+</sup>), as illustrated in (118). Considering Kaga’s (2007) thematic structure and Jackendoff’s (1990) linking principle together, this applied argument in the conceptual structure is associated with the LOCATION position (spec,VP<sub>2</sub>) of the syntactic structure (see fn. 8 of chapter 3). Notice that the linking relation involved in converbal complex predicates is different from the one associated with the corresponding non-serial verbs. Since the applied argument is incorporated into the LCS as the second argument of

the least embedded action tier, it receives priority in A-marking.

We have observed so far that *-yaru* plays the role of the overt applicative marker in Japanese applicative constructions in which a Beneficiary argument is added. The applied argument is A-marked in the LCS and syntactically realised as the LOCATION element. Next, let us turn to a verb-framing typological generalisation about explicit and implicit APPLs. In chapter 4, I argued that the APPL head in English is an instance of empty verb that is licensed at the lower  $V_2$  position in satellite-framed languages. From the conceptual viewpoint, this empty verb is responsible for the notion of “CHANGE.”<sup>77</sup> In satellite-framed languages, a combination of (a) verbs which correspond to the notion of “ACTION” and (b) an empty  $V_2$  establishes the whole action chain. Superficially, it looks as though an overt verb alone covers the concept of “ACTION → CHANGE → STATE.” Given that the empty APPL is regarded as an instance of  $e_v$ , the English applicative construction is analysed as follows:



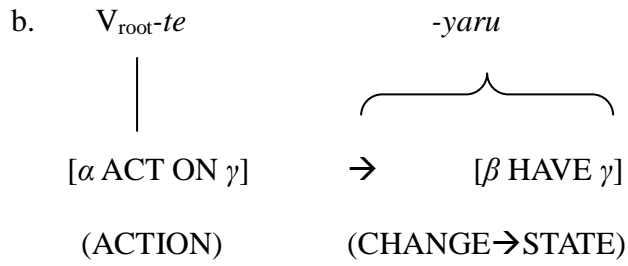
The abstract syntactic-conceptual correspondence is illustrated in (121):



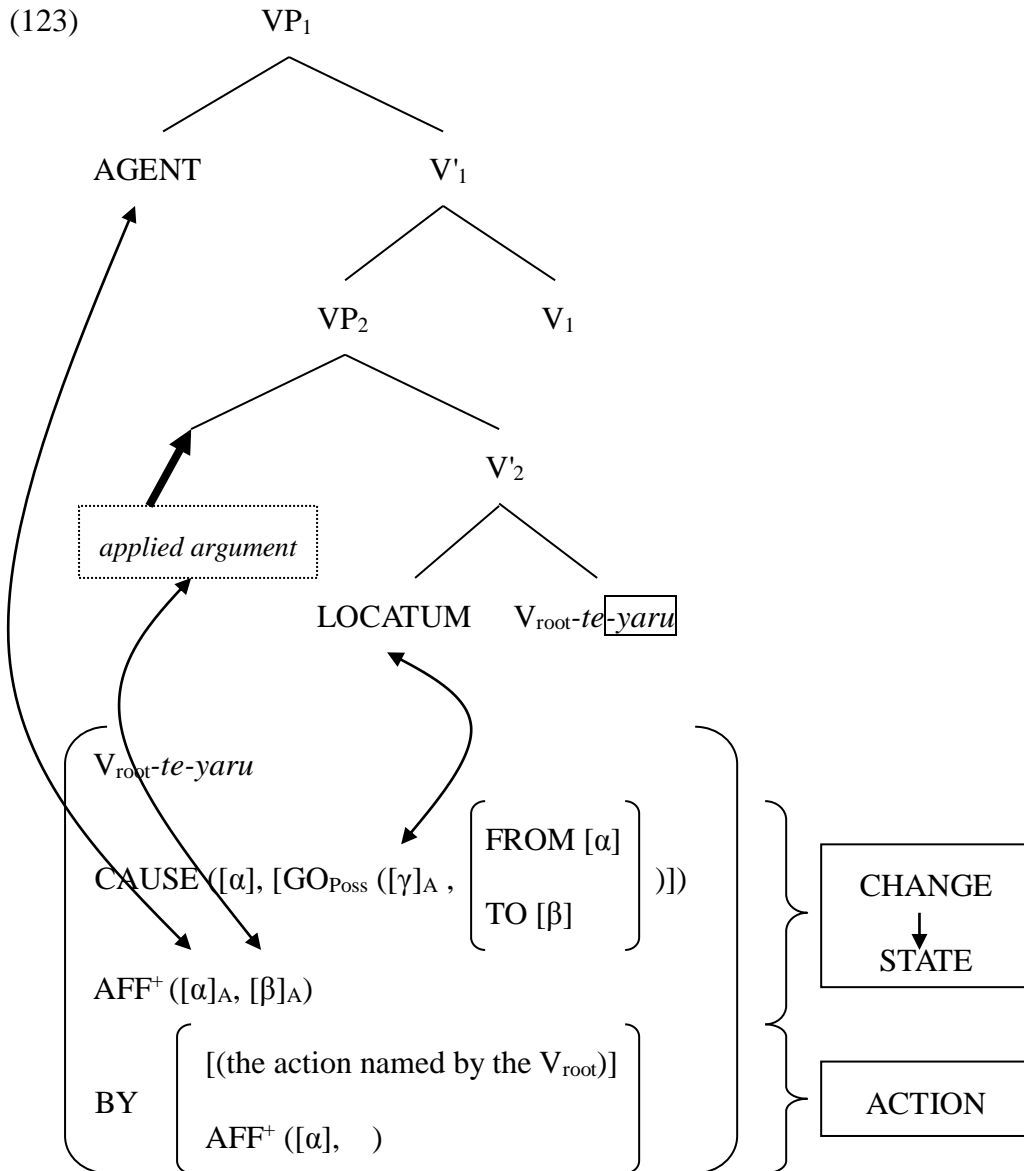
For instance, in the sentence *Mary bought John a book*, the buying event corresponds to the part of ACTION, and theoretically, the empty APPL corresponds to the notion of CHANGE → STATE (i.e. the possessional relationship between *John* ( $\beta$ ) and *a book* ( $\gamma$ )). In actuality, I assume that the resultant *V<sub>2</sub>-APPL* covers the whole action chain as a single predicate.

In contrast, such an empty *V<sub>2</sub>* is not available in verb-framed languages like Japanese. Instead, the Japanese applicative construction employs the overt applicative marker *-yaru*, whose semantics is responsible for the conceptual notion of “CHANGE → STATE.” The *V<sub>root</sub>*, on the other hand, represents ACTION:<sup>8</sup>

(122) a.  $[\alpha]$ -NOM  $[\beta]$ -DAT  $[\gamma]$ -ACC  $V_{\text{root-}te}$ - $yaru$ .



The syntactic-conceptual correspondence is:



As shown above, the empty APPL in English and the overt applicative marker *-yaru* in Japanese share the common properties, both at the conceptual and the syntactic level. Concretely, both of them cover the conceptual notion of “CHANGE → STATE” in the action chain; they introduce an applied argument into the least embedded action tier, and evoke Case-checking feature of upper V<sub>1</sub>. To conclude, the surface contrasts seen in low recipient applicatives in English and Japanese are explained in terms of the properties of the APPLs.<sup>9</sup> In English, the applicative marker need not be phonologically overt, because empty V<sub>2</sub> is available; in Japanese, converbial complex predicates with the overt applicative marker *-yaru* are created in order to license applied arguments, because it cannot employ an empty V<sub>2</sub>.

The contrast between the empty APPL in English and the overt APPL in Japanese can be recast as a part of the general verb-framing typology, as has already been suggested in chapter 4. It is observed that English utilises an empty verb in various constructions where complex verbs are used in its Japanese counterparts. See (124-125):

(124) a. He {kicked/pushed} the door open.

b. Kare-wa doa-o {ker-i-ake-ta / os-i-ake-ta}.  
 he-TOP door-ACC {kick-CON-open-PAST/ push-CON-open-PAST}

(cf. Kageyama (2001: 171))

(125) a. The ball rolled to the fence.

b. Booru-wa fensu-ni {korogat-te-it-ta / ?\*korogat-ta}.  
 ball-TOP fence-to {roll-CON-go-PAST / roll-PAST}

(cf. Ueno and Kageyama (2001: 62))

The verbs *kick/push* and *keru/osu* do not entail any result of the action (see section 3.3.2) and

hence they alone cannot license RPs (resultative phrases). Kaga (2007) proposes that an empty V<sub>2</sub> guarantees the well-formedness of (124). Precisely, in (124), the verbs *kick* and *push* are conflated with an e<sub>v</sub>, resulting in a kind of verbal complex predicates *kick-e<sub>v</sub>/push-e<sub>v</sub>*, which function as change of state verbs. In Japanese, because of the lack of empty V<sub>2</sub>, complex verbs such as *keri-akeru* ‘kick open’ or *osi-akeru* ‘push open’ are coined in order to express the change of state event caused by *kicking/pushing*. Similarly, the verb *roll* does not lexically subcategorise the Goal, as alluded in (126):

(126) The log rolled over and over in the water. (Talmy (2000: 36))

Again, the verbal complex *roll-e<sub>v</sub>*, but not the verb *roll*, licenses the Theme (*the ball*) and the Goal (*to the fence*) in English. Manner of motion verbs in Japanese (e.g. *korogaru*) also do not lexically specify the goal:

(127) Booru-ga gaiya-o tenten-to-korogat-ta.  
 ball-NOM outfield-ACC go-rolling-PAST

‘The ball rolled along in the outfield.’

(*Kenkyusha’s New Japanese-English Dictionary*<sup>5</sup>)

Thus, in Japanese, the verb *iku* ‘go’ plays the same role as the e<sub>v</sub> in English. With a non-serialised verb, the acceptability of the sentence is degraded: ?\**Booru-wa fensu-ni korogat-ta*. ‘The ball rolled to the fence.’

Based on the parametric difference with respect to the availability of a lower empty V<sub>2</sub> introduced by Kaga (2007), we can provide a coherent explication of the typological contrasts between English and Japanese, observed not only in applicative constructions but also in a



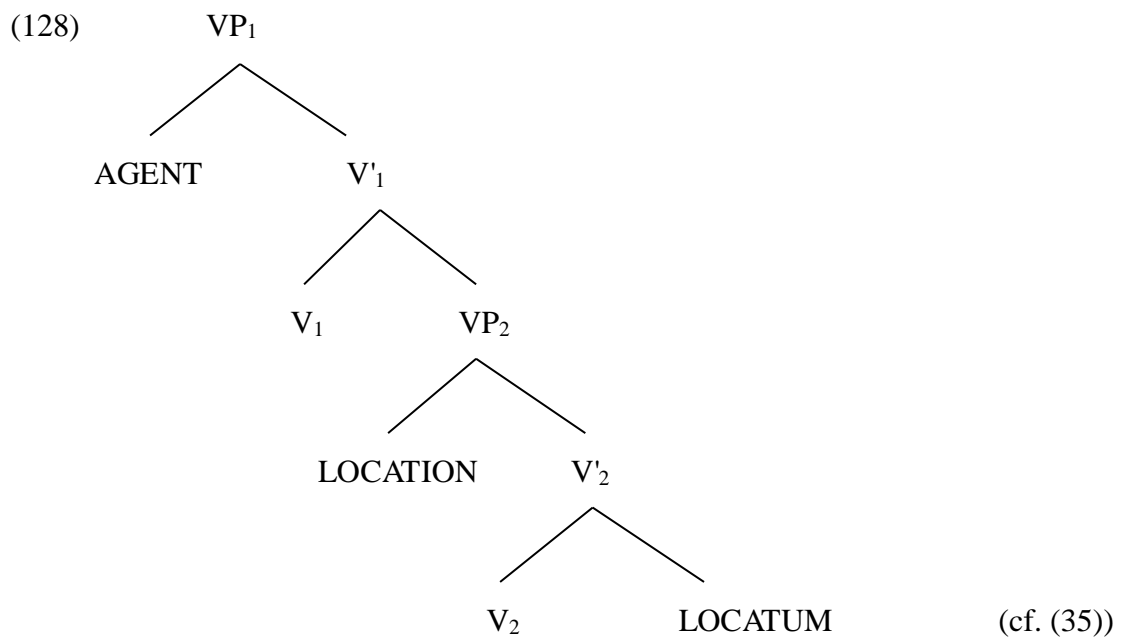
wide range of other constructions: in English, predicate verbs conflate with a phonologically empty  $V_2$ , whereas in Japanese, each entity that enters into conflation has its own phonological content. The conflation in Japanese therefore derives converbal complex predicates.<sup>10</sup> We can now conclude that the only difference between English low recipient applicatives and Japanese ones lies on the phonological properties attributed to the APPL head of each language. Furthermore, with the construction-independent motivation for the existence of the empty APPL head in English, I argue that the English “benefactive” construction is in fact a subtype of the *applicative* construction. Our analysis supports Pylkkänen’s (2002) subcategorisation of applicative constructions in which the English and Japanese double object constructions are regarded as the same *low recipient applicative*: they exhibit quite similar grammatical behaviour, except for some difference in the properties of the APPL head. In English, this functional head is invisible, but we have alluded evidence to show that an (empty) applicative head is effective in a significant way. I suggest that argument introduction is a cross-linguistically uniform grammatical operation which is attributable to the function of the applicative head.

## Chapter 6

### Conclusion

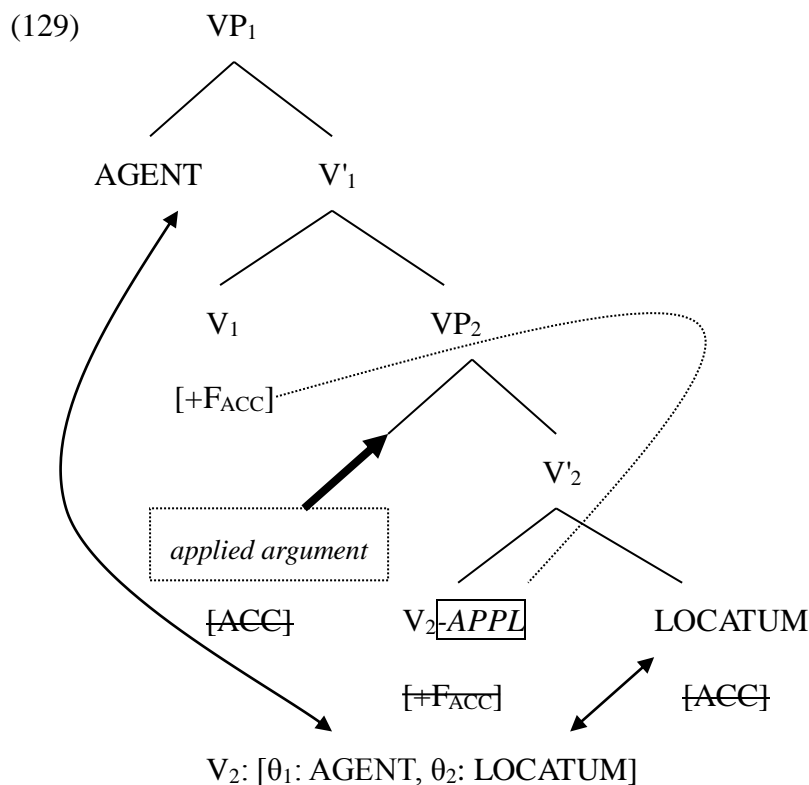
In this thesis I have presented an analysis of applicative constructions in English, both at the language-particular level and at the general level. We have observed that verbs of creation/performance/obtaining/preparation and verbs that express ballistic motion are compatible with English applicative constructions. On the other hand, applicatives with verbs of exerting force or impact, verbs of continuous motion, and intransitive verbs are all ill-formed (section 3.3). I have proposed that these facts are accounted for in terms of the thematic theory that assumes three macro-roles, as well as of the general properties of applicative heads.

Our discussion presupposes a double VP-shell structure that includes three macro-roles proposed by Kaga (2001, 2007):



With the structure in (128) in mind, we have claimed that English applicatives are tightly

constrained to verbs which select a LOCATUM argument as their direct object. Put in another way, English applicative constructions can be derived from SVO structures whose direct objects are construed as entities being located to a certain (concrete or abstract) place. We have seen that a close examination of several cases, which had been regarded as atypical double object constructions, has provided us with supporting evidence for this prediction. Verbs incompatible with this construction, on the other hand, either subcategorise a LOCATION argument or have no VP<sub>2</sub> projection. Such verbs cannot license legitimate applicatives, because the spec,VP<sub>2</sub>—the position to which an applied argument should be linked—is not available. To illustrate our ideas with a diagram, the structure for the English applicative construction is assumed to be the one in (129):



I have proposed that the APPL head in English activates the Case-checking feature [+F<sub>ACC</sub>] of the upper V<sub>1</sub>. In this structure, theta-assignment and Case-checking are properly carried out.

The grammaticality of the construction is therefore guaranteed.

A second point made in this thesis contains the hypothesis of a cross-linguistically consistent system of argument introduction. Specifically, the functional head APPL has the key function of licensing an applied argument. At the conceptual structure, APPL introduces the second argument of the least embedded action tier. This conceptual argument is A(rgument)-marked subsequent to the A-marking of the first argument of the tier, resulting in a surface syntactic argument. Cross-linguistic variations, then, have been assumed to be attributable to certain typological/language-specific properties of applicative heads. Following Pylkkänen's (2002) applicative typology, languages with *high* applicative heads (e.g. Ainu) can relate an applied argument with the event described by the verb. In Ainu example (130a), an Instrument is promoted to the verbal core argument:

- (130) a. túri k-ecipo.  
rod I-APPL-boat.manage  
“I manage a boat with a rod.” (= (1b))
- b. \*I manage a boat a rod.

By contrast, in languages with *low* applicative heads, an applied argument obligatorily enters into a relationship with the direct object.

Our assumption of applicative heads in English conflicts with some previous studies against English “applicative” constructions. Notwithstanding, I have argued for the empty applicative head in English. To provide some support for my analysis, I have shown that an empty  $V_2$  is available in satellite-framed languages (cf. Kaga (2007)). This empty  $V_2$  arguably licenses arguments that are not subcategorised by the verb root. This makes possible derived/strong resultative constructions, gesture-expression constructions and “a

hole” constructions in English. Given the argument for the empty V<sub>2</sub>, it is claimed that there also exists an empty APPL head in this language, which functions in the same way as the Japanese overt applicative marker *-yaru*. The contrast in phonological properties of the APPLs is now explicated on the basis of the general verb-framing typology (cf. Talmy (2000)).

There are potential problems to be addressed in my theory. Since I eschew multiple thematic role assignment, it has been supposed that a LOCATUM argument is not the second argument of the function AFF (i.e. Patient; see fn. 8 of chapter 3). In other words, I have implied that the subject of change of location, unlike the subject of change of state, is not construed as an entity that is truly “affected” by the event. When we follow Jackendoff (1990) in applying the *do-to* test to pick out the “affected entity” of the sentence, this test provides correct predictions for sentences with affected LOCATION and LOCATUM:

- (131) a. What Bill did to the truck was load it with books.  
b. What Bill did to the wall was smear it with paint.  
c. \*What Bill did to the books was load the truck with it.  
d. ?\*What Bill did to the paint was smear the wall with it.

(Jackendoff (1990: 130))

In (131), *the books* and *the paint* are LOCATUMs—entities in motion or being located; and *the truck* and *the wall*, syntactically realised as DPs, are affected LOCATIONs. It is apparent from (131) that the LOCATION arguments are viewed as entities directly affected by the Agent’s action. However, as for sentences with LOCATUM and simple LOCATION, my analysis provides undesirable predictions:

- (132) a. What Bill did to the books was load them on the truck.  
 b. What Bill did to the paint was smear it on the wall.  
 c. ?What Bill did to the truck was load the books onto it.  
 d. ?What Bill did to the wall was smear paint on it. (ibid)

(132a, b) may suggest that LOCATUM arguments should also be regarded as affected entities, and hence should be associated to the action tier. To give a brief consideration to this matter, the minor difference in acceptability between (131c, d) and (132c, d) can be regarded as a reflection of the fact that LOCATION is more likely to be interpreted as affected by the event, yet this account is low in explanatory power. That is, while (131c, d) are totally ill-formed, (132c, d) marginally accept the interpretation in which simple LOCATIONs instead of LOCATUMs are regarded as the affected entities. In addition, it is pointed out that in DP<sub>-to</sub>PP frame, the verb *give* “prefers an action tier with the Theme as some sort of *quasi Patient*” (Jackendoff (1990: 136) italics are mine):

- (133) What Harry did with/\*to/\*for the books was give every one of them to Sam.  
 (ibid)

Judging from the above examples, further elaborate discussions are still necessary to determine whether not only affected LOCATION but also LOCATUM arguments should be regarded as a possible argument of the action tier.

Note that (132) does not pose a problem which invalidates my theory of APPL. As shown in (131), at least an affected LOCATION is consistently construed as an entity being affected by the event, compared to a LOCATUM. Given that APPL introduces the second argument of AFF to the least embedded action tier, the linking principle for applicative

constructions proposed in this thesis derives the correct syntactic configuration, regardless of the status of LOCATUM arguments in the embedded LCS. Still, (131a, b) do cast doubt on the adequacy of giving the equal syntactic status to both simple and affected LOCATIONS. Some researchers, Miyagawa and Tsujioka (2004) for example, argue that what we call simple LOCATION and affected LOCATION appear in different syntactic positions (simple LOCATION, or “low goal” in their term, appears in a lower position than the one assumed in here) citing sentences exemplified in (134):

- (134) [?]Taroo-ga Hanako-ni Tokyo-ni nimotu-o okut-ta.  
 Taro-NOM Hanako-DAT Tokyo-DAT package-ACC send-PAST  
 “Taro sent Hanako a package to Tokyo.”

(Miyagawa and Tsujioka (2004:9))

Miyagawa and Tsujioka (2004) claim that in (134), *Hanako* is “high goal” and *Tokyo* “low goal.” However, because this sentence sound peculiar and indeed this is judged low in grammaticality by most of the native speaker of Japanese I consulted, their proposal can at best be a possibility, but not a solution.<sup>1</sup>

Furthermore, although I believe that the distinction between LOCATUM (i.e. entities in motion or being located) and LOCATION (i.e. location for some object(s) in some broad sense) is effective to account for various linguistic phenomena, the notion of “affectedness” requires a more explicit definition. (131) and (132) suggest that we need to dig more deep in order to elucidate a correlation between the thematic roles and the syntactic functions. The detailed discussion on this matter, however, is left to the future research.

## NOTES

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### Chapter 1

<sup>1</sup> In this thesis, following Kaga (2001, 2007), micro-roles such as “Instrument” will be represented with only the initial letter in capitals, while macro-roles (see chapter 3) are written with all letters in capitals.

<sup>2</sup> Shibatani (1996), for example, calls such examples as (2b) “benefactives,” and strictly distinguishes them from “applicatives” in the sense that “applicatives generally allow intransitive bases, while benefactives seldom admit intransitive bases.” (Shibatani (1996: 160)). But I will follow Pykkänen (2002), who argues that such a contrast results from two parametrically different types of applicative heads: *high* and *low applicatives*.

<sup>3</sup> In this thesis, three terms that share a similar meaning will be used to denote different meanings: an *applicative* construction involves an *applied argument*, which is *not* selected by the predicate verb; *ditransitive* signals the *lexical* property to subcategorise two internal arguments (and thus a “ditransitive verb” like *give* forms a “ditransitive construction”); a *double object* construction refers to a type of construction in which two NPs/DPs follow the predicate verb, regardless of the sources of these arguments.

<sup>4</sup> The notion of “typology” in my thesis indicates either the *applicative* typology or the *verb-framing* typology. I refer to the former when I am comparing English with high applicative languages such as Ainu, Chaga, Chichewa, Indonesian, etc. In this case, the properties of applicative heads (*high* or *low*) are the matter of concern. On the other hand, in the contexts of the verb-framing typology, satellite-framed languages (e.g. English) and verb-framed languages (e.g. Japanese) are under comparison.

### Chapter 2

<sup>1</sup> (7) illustrates “a paring between a semantic level and a syntactic level of grammatical functions” (Goldberg (1995: 51)). The first row represents the semantics associated with the construction: “X (Agent) CAUSES Y (Recipient) to RECEIVE Z (Patient).” These argument roles correspond to the *participant roles* which the predicate verb profiles. The construction also specifies the possible type of relation R with which a verb forges an alliance. The lowest row specifies the syntactic function to which each argument roles correspond.

<sup>2</sup> Goldberg (1995) regards the things being transmitted in a ditransitive construction as a “patient.” In this thesis, however, for the reason discussed in chapter 3, the thematic role associated to them is treated as a “Theme.”

<sup>3</sup> In head-final languages, the surface syntactic form do not directly match with this form; what is crucial here is, the semantics of “NP<sub>1</sub> CAUSES NP<sub>2</sub> to RECEIVE/HAVE NP<sub>3</sub>” is associated to the *construction* that carries three participant roles, regardless of the individual lexical items.

<sup>4</sup> Kishimoto (2001) suggests that deictic verbs such as *bring* and *take* can appear in double object constructions, because they lexically imply “change of possession,” and in this sense correlate with the central meaning of the construction (cf. (17b)). Thus, (16) is not a true counter-example to the constructional/schema-based approach. Still, it is desirable to enquire into a more principled way to distinguish verbs that show a close affinity with the double object construction from ones that are excluded from this construction. (16) shows that Shibatani’s (1996) account for the declined acceptability in (15b) does not have enough explanatory power.

<sup>5</sup> As will be discussed in section 3.2, some *effect* of a kick or a push is left in the door or the canoe. This does not mean, however, that we should understand them as instances of metaphorical Possessor/Recipient, since “[t]here is no ordinary sense in which an inanimate entity... ‘possesses’ a kick or a [push]” (Kaga (2001: 143)).



<sup>6</sup> The subscript *i* in (21) indicates the subject/external argument position. Thus, the verb *run* requires two arguments: one is the subject Thing in motion and the other is the Path, the trajectory of motion. The latter may not always be syntactically present, as indicated by the angle brackets.

<sup>7</sup> In (22), binding arguments are notated by Greek superscripts; their bound arguments by Greek letters within square brackets. Also, the function GO<sub>POS</sub> indicates that the events named by these verbs involve transfer of possession, and EXCH is a subordinating function to express a backgrounded Event. (For details of the notations, see Jackendoff (1990)).

<sup>8</sup> The verb *buy* under discussion corresponds to *buy*<sub>1</sub> in (23); *buy*<sub>2</sub> corresponds to a sentence like (i):

(i) \$500 buys (you) a good horse. (Radden and Dirven (2007: 27))

<sup>9</sup> This constraint does not seem the case with certain high applicatives. In (1b), repeated below as (i), for example, the applied argument is an Instrument, which is not subject to the constraint in any sense:

(i) túri k-ecipo.  
rod I-APPL-boat.manage  
“I manage a boat with a rod.”

<sup>10</sup> This interchangeability is also instantiated by “dative-alternation.” DP-PP frames represent “change of location,” whereas double DP frames indicate “change of possession,” at least in canonical cases.)

<sup>11</sup> In (28a), abbreviations FOC and FV correspond to “focus” and “final verb,” respectively.

<sup>12</sup> More accurately, in the plausible situation described in (31b), John is not holding the bag with the intention of Mary’s possessing it, though he intends to benefit her.

<sup>13</sup> Pykkänen (2002: 24-25) also presents Korean (a low applicative language) and Luganda, Venda, Albanian (high applicative languages) counterparts of (34a, b). In Korean, parallel to English and Japanese, the counterparts of (34a, b) are ungrammatical; in the latter three languages, both unergative-based applicatives and ones with static verb are judged grammatical.

<sup>14</sup> In fact, Pykkänen (2002) herself supposes two varieties of low applicatives: one is *low recipient applicatives* (e.g., English and Japanese double object constructions), and the other is *low source applicatives* (e.g., Japanese adversity causatives and a certain type of adversity passives):

- (i) a. Japanese adversity causative:  
Taroo-ga sensoo-ni-yotte musuko-o sin-ase-ta.  
Taroo-NOM war-BY son-ACC die-CAUSE-PAST  
“Taro’s son was caused to die on him by the war.” (Pykkänen (2002: 82))
- b. Japanese adversity passive  
Hanako-ga dorobou-ni yubiwa-o to-rare-ta.  
Hanako-NOM thief-DAT ring-ACC steal-PASS-PAST  
“Hanako was affected by the thief stealing her ring.” (Pykkänen (2002: 62))

*Taroo* in (ia) and *Hanako* in (1b) are analysed as applied Source arguments, who originally possessed the individuals denoted by the direct objects (*musuko* ‘son’/‘yubiwa’ ‘ring’). Low source applicative sentences assert that the referent of direct object is transferred *from* the possession of the individual denoted by the applied argument. For details, see Pykkänen (2002 Ch. 2).

### Chapter 3

<sup>1</sup> A typical example that distinguishes between simple and affected LOCATIONs is seen in locative alternation constructions:

- 
- (i) a. John loaded the truck with hay.  
 b. John loaded hay on the truck. (Kaga (2007: 67))

Both in (ia) and (ib), the thematic relation between *hay* and *the truck* is the same: the former goes onto the latter. On the other hand, only (ia) receives the well-known “holistic” interpretation; i.e. *the truck*, which is realised as a DP, is *fully* loaded with hay. In contrast, the PP in (ib): *on the truck* is construed as a mere location onto which hay is loaded. In Kaga’s (2007) approach, the direct object DP in (ia) is assigned an affected LOCATION (Patient) role, whereas the PP in (ib) gets a simple LOCATION (Location) role. The holistic interpretation is associated with the “affectedness” of the LOCATION argument.

<sup>2</sup> It may not intuitively be apparent that the Result role is assigned to an entity “in motion or being located.” This thematic role is typically assigned to the object of verbs of creation:

- (i) a. He founded *a new school* in the city.  
 b. He wrote *a boring paper*. (Kaga (2007: 12 italics are his own))

The creation event described in (ia) is interpreted as locating *a new school* in a certain place (*the city*). Similarly, although (ib) has no overt locative phrase, the sentence is understood to state that a new paper is introduced into *the real world*. Therefore, the Result role can be included under LOCATUM. (For more detailed discussion, see Kaga (2007: 12-13)).

<sup>3</sup> We have to be careful in using the terms “*for*-dative/*to*-dative,” since there is no overt dative case in English (Jackendoff (1990: 195)). In this thesis, these are used just conventionally to represent the DP-PP (PP headed either by *for* or *to*) frame following a predicate verb.

<sup>4</sup> Readers sceptical toward our analysis may retort that the sentences in (39-40) are instances of lexical ditransitive constructions and hence not adequately support our assumption that applied arguments can be assigned Experiencer/Patient role as well as Beneficiary/Possessor/Recipient role. Nevertheless, (39-40) lend support to Kaga’s (2007) thematic structure and our generalisation that indirect object DPs are an instance of affected LOCATION.

<sup>5</sup> Kaga (2001, 2007) says that they can be regarded as a Possessor or Experiencer. In any way, the point here is that *me* in (39a) and *John* in (39c) are not passive participants in both situations; they “[get] something (information, feeling, concrete things, or others) by exercising his/her mental or physical faculties” (Kaga (2007: 165)).

<sup>6</sup> Adopting a more strict definition, they are more adequately regarded as an *Object*, a new subtype of affected LOCATION. The difference between Patient and Object is, following Kaga (2007), that the former obtains or loses some property as a result of a process specified in the sentence, while the participants assigned the latter role need not be involved in a state-change process.

<sup>7</sup> When a benefactive *for*-PP is present in (44a), the goods will end up in the Beneficiary’s possession. This information is additional and not included in the LCS of *buy* itself. Notice that in the canonical sense a buyer (eternally or temporarily) possesses the goods that he/she bought, even when he/she has intention to give them to a third party.

<sup>8</sup> Jackendoff (1990) proposes that such “A-marked” arguments are determined in accordance with the following principle:

- (i) *Thematic hierarchy*  
 Order the A-marked arguments in the action tier from left to right, followed by the A-marked arguments in the main conceptual clause of the thematic tier, from least embedded to most deeply embedded.

An *action tier* deals with Actor-Patient relations, and a *thematic tier* deals with motion and location. In

(44a), for example, the first row of the LCS represents the thematic tier; the second row, the action tier.

The correspondence between Kaga's (2007) macro-roles and this hierarchy can be illustrated as follows; the relevant constituents are marked with \*:

- |      |    |                            |                     |
|------|----|----------------------------|---------------------|
| (ii) | a. | [AFF (X*, <Y>)]            | (AGENT)             |
|      | b. | [AFF (<X>, Y*)]            | (affected LOCATION) |
|      | c. | [Event GO (X*, <Y>)]       | (LOCATUM)           |
|      | d. | [Place/Path Function (X*)] | (simple LOCATION)   |
- (cf. Jackendoff (1990: 258))

Notice, however, that Jackendoff (1990) supposes that a single DP can receive more than one (micro) roles, whereas Kaga's (2007) framework is based upon UTAH, which claims that a certain (macro) role is assigned to a particular syntactic position. This indicates that the terms assigned to each role in Jackendoff (1990) and Kaga (2007) do not always refer to the homogeneous concept.

<sup>9</sup> The hypothesis that APPL introduces Beneficiary into the verb's LCS is further supported by Pinker's (2009) observation of daily utterances by some children whose L1 is English. He points out that their use of applicative sentences is far less restricted, compared to adults' use:

- |     |    |  |                      |
|-----|----|--|----------------------|
| (i) | a. | Mommy, fix me my tiger.                        |                      |
|     | b. | Button me the rest.                            |                      |
|     | c. | How come you're putting me that kind of juice? |                      |
|     | d. | Mummy, open Hedwen the door.                   | (Pinker (2009: 120)) |

It seems likely that the children first formulate the very basic rule for APPL: that is, they attach APPL irrespective of verb types, so as to introduce Beneficiary. Later, they gradually amend the rule, determining whether the (type of) verb in question is compatible with the construction or not.

<sup>10</sup> For the detail of Case-related operations, see Kaga (2007: Ch. 4)). Also, it is necessary to reply to the question why the Case-checking feature of upper V<sub>1</sub> can be activated by adjoining APPL to the lower V<sub>2</sub> position. Probably this matter is related to APPL's property of changing the argument structure of verbs, but the precise investigation remains in need. We leave this to future research.

<sup>11</sup> Though Jackendoff (1990) may consider that [BALL] is the second argument of AFF (i.e. Patient), I do not associate it with the action tier, because it is construed (at least primarily) as an entity in motion (i.e. LOCATUM/Theme), but not as an entity to which some impact is brought (i.e. LOCATION/Patient). This way of analysis does not seem quite undisputable, but see 3.3.2 for a more detailed discussion on caused-motion verbs which provides some further explanation of my point of view.

<sup>12</sup> This possessive relationship between "buyer" and "bought/goods" is also captured by the binding co-indices in LCS of *buy*:

$$(i) \left[ \text{buy} \left[ \text{CAUSE} ([ ]^{\alpha}, \left[ \text{GO}_{\text{Poss}} ([ ]^j, \left[ \text{From} [ ]^{\beta} \right] \text{TO} [\alpha] \right]) \right] \left[ \text{EXCH} [\text{GO}_{\text{Poss}} ([\text{MONEY}], \left[ \text{FROM} [\alpha] \right] \text{TO} [\beta] \right]) \right] \right] \right] \quad (= (43))$$

Here, the index  $\alpha$  indicates that the goods get in possession of the buyer (Agent).

<sup>13</sup> As for *peel a grape*, the construal presented here may be somewhat dubious: one can assume that the event described by *peel a grape* is a change-of-state process of the grape. In fact, such verbs as *cut* and *cook* are lexically ambiguous in that they can take either LOCATION or LOCATUM object:

- 
- (i) a. Mary cut John a slice of bread.  
 b. Mary cut the bread into slices. (Kaga (2007: 138))

In (ia), *a slice of bread* is a Result object: a slice emerges as a result of cutting. In (ib), in contrast, *the bread* is a Patient object: the bread, which exists prior to cutting, is the material to be cut into slices. I suppose that *peel* is another instance of this class of verbs.

Notice that in applicative constructions, direct objects of *peel* are understood in parallel with the ones of verbs of creation. Compare (iia, b):

- (ii) a. Beulah peeled Mae a grape. (cf. Jackendoff (1990: 195))  
 b. Bill built Nancy a house. (cf. (42b))

In both sentences, the direct object referents (*a grape* and *a house*) are understood to become ready for the indirect object referents to use. Thus the direct objects of verbs of preparation are judged to be instances of LOCATUM. A similar proposal is given in Akashi (2004).

<sup>14</sup> In this case, the LOCATION can be either simple LOCATION (kick a ball *to John*) or affected LOCATION (kick *John* a ball). In the latter, the notion of “place” should be somewhat extended: the entity is located to the “place” where it is possessed by a person other than the former possessor.

<sup>15</sup> Following Talmy (2000: 29), the subscript “A” is placed before a verb to indicate that the verb is agentive. Thus, <sub>A</sub>MOVE can be paraphrased as “CAUSE to MOVE.”

<sup>16</sup> In Akashi (2004), (60b) is judged ungrammatical. Actually, it seems that this sentence is not totally out, despite its low grammaticality. My informant says that this sentence is understandable, although he personally will not use it.

<sup>17</sup> The fundamental idea of the contrast between bounded and unbounded events is originated in Akashi (2004, Ch. 4).

<sup>18</sup> The brackets surrounding the LOCATION role in the LCS of the verbs *bring* and *take* in (66) mean that the role is an implicit argument: it may not explicitly appear in the surface structure.

<sup>19</sup> Bresnan and Nikitina’s (2003) examples for applicative sentences with *pull* and *drag* are shown below:

- (i) a. Nothing like heart burn food. “I have the tums.” Nick joked. He **pulled himself a steaming piece of the pie**. “Thanks for being here.”  
 b. “Well. . . it started like this. . .” Shinbo explained while Sumomo **dragged him a can of beer** and opened it for him, “We were having dinner together and. . .”  
 (Bresnan and Nikitina (2003:6))

Because I found no further instance of applicatives with *pull* or *drag*, I do not go deep into these sentences. But I suppose that they are treated in the same way as (69): the actions expressed by the verbs are either a cause or manner of the “locating” event. Thus, (ia, b) are considered to be legitimate.

<sup>20</sup> The following example also offers supporting evidence for our discussion:

- (i) a. \*John killed Mary the centipede.  
 b. John killed Mary a centipede for her collection.  
 (Takami (2003: 204) / Kaga (2007: 139))

Being a change of state verb, *kill* is not compatible with the applicative construction in its usual sense. In a special context like (ib), however, *kill* can appear in applicative constructions. Kaga (2007: 139) claims: “in the context of [ib], *kill* serves as a kind of effectum verb in the sense that John made a specimen

out of the living centipede by killing it, and the direct object has a role of Result or Theme.” (ib) as well as sentences in (78) suggest that there are certain limited cases in which verbs less compatible with the applicative construction acquire a special use which licenses a LOCATUM argument and can function as a predicate verb of applicatives.

<sup>21</sup> In fact, such elements happen to be empty in some languages including English; in other languages like Japanese, their counterparts do have their unique morpho-phonological status and form a complex verb. This issue will be discussed in more detail in chapter 5.

<sup>22</sup> The intended meaning of this sentence is like “Don’t give me any diamond! (For my prize is death.)” Thus, the “verb” *diamond* in (90c) is construed as a verb of giving.

<sup>23</sup> The Latinate restriction seems to become weaker with some verbs with high frequency in use. For example, *Unabridged Genius* says that the Latinate verb *explain* appears in the double DP frame in nonstandard uses, when the indirect object is a pronoun:

- (i) Explain me the rule. (Unabridged Genius)

#### Chapter 4

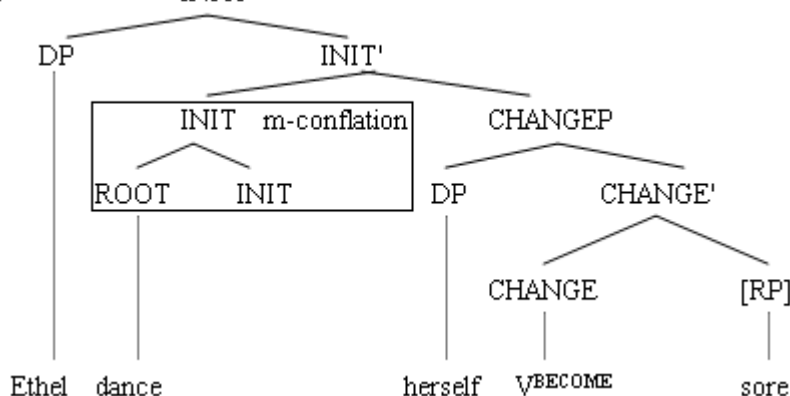
<sup>1</sup> According to the corpus, this sentence is found in a weekly entertainment magazine. Probably, (101e) is uttered in a situation in which a director and an actor/actress are making a booking. The actor/actress seems to accept the offer, if the director promises him/her not to cast Nicole Richie as a coactor in a drama.

<sup>2</sup> In fact, Culicover (2009) himself mentions that there are some regularities for deriving the English double object constructions, citing constructional approaches. However, as discussed in section 2.1, the constructional approach also faces some problems. In any way, I believe that approaches that associate English double object constructions with properties of individual lexical items or those of a fixed syntactic configuration cannot present an adequate generalisation for the double object construction in English.

<sup>3</sup> The notational system of the LCSs in (103) is based on Kishimoto’s (2001: 138).

<sup>4</sup> A similar analysis is proposed by McIntyre (2004). In his approach, the verb root of English resultatives is assumed to merge with a light verb INIT, which stands for the initiation of the event, at the morphological level (this operation is called “m(orphological)-conflation). In the resultant verbal complex, the lexical root is non-head and hence licenses no arguments. Instead, the initiator of the event is licensed by INIT, and another light verb CHANGE introduces the object and the RP. (ia, b) illustrates his approach:

- (i) a. Ethel danced herself sore:  
DO (Ethel, DANCE) &<sub>CAUSE</sub> BECOME (SORE (ETHEL))  
b.



(cf. McIntyre (2004: 550))

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<sup>5</sup> In this structure, the LOCATION element is not specified.

<sup>6</sup> Satellite-framed languages use “satellites” (particles or affixes etc., see Talmy (2000) for more accurate definition) to express the path of motion; in verb-framed languages, path appears in the verb root. Compare English (satellite-framed) in (i) and Spanish (verb-framed) in (ii):

- (i) I ran *down* the stairs. (Talmy (2000: 30), italics are mine)  
(ii) El hombre *bajó* a -l sótano corriendo.  
the man went-down to-the cellar running  
“The man entered the cellar at a run.” (Talmy (2000: 130), italics are mine)

<sup>7</sup> Kaga (2007) notes that in German, the exact counterpart of the English sentence in (107a): *Sie lachte ihren Dank* ‘She smiled her thanks’ is judged unacceptable for some unknown reason.

## Chapter 5

<sup>1</sup> The syntactic status of *yarū/ageru* is disputable among researchers. For example, Kaga (2007) regards it as an auxiliary, whereas Shibatani (2009) analyses the configuration [V<sub>root</sub>-*te-yarū/ageru*] (where *-te* is a converbal ending) as a converbal complex predicate. Because I treat them as instances of applicative markers, I speculate that they are a kind of suffix, despite their obvious semantic affinity with the main verb *yarū/ageru*. Although a precise investigation into their status is required, this issue goes beyond the scope of this thesis and will not be dealt with here. Conventionally, I refer to them as “applicative markers.”

<sup>2</sup> If the direct object *kuruma* ‘car’ is replaced by *omiyage* ‘souvenir,’ (112b) becomes fully acceptable without *-yarū*:

- (i) Mary-ga John-ni omiyage-o kat-ta.  
Mary-NOM John-DAT souvenir-ACC buy-PAST  
“Mary bought John a souvenir.” (cf. Shibatani (1994) / Kaga (2007: 171 fn. 23))

Kaga (2007) points out that the acceptability of (i) comes from the lexical implicature of *omiyage* ‘souvenir.’ Unlike the English word *souvenir*, the Japanese *omiyage* usually stands for a thing that is given to others. In other words, “*omiyage*, but not *kuruma*, lexically implies the existence of (intended) recipient(s)” (ibid). Hence the acceptability of (i).

<sup>3</sup> With regard to the function of *-yarū*, Shibatani (2009) draws a similar perspective. Shibatani (2009: 273) says: “The verb *yarū* ‘GIVE’ in the Japanese benefactive construction functions exactly like benefactive applicatives in other languages that increase verb valency by one.” But I hold a different opinion from him in the status of “applicative” constructions in Japanese. Shibatani (1996, 2009) does not regard Japanese “benefactives” as an instance of “applicatives,” as discussed in chapter 4. Instead, he supposes that the syntax of benefactive constructions parallels with the one of “the basic ‘give’ construction” of the language. However, I believe that it is more appropriate to analyse the “give” construction and the applicative/benefactive construction distinctively. See chapter 3 for details of my approach.

<sup>4</sup> Intuitively, (116b) does not seem to specify who relieve himself/herself: both readings in which Hanako or her child has to relieve her/himself sound possible (this intuition is shared by several native speakers of Japanese). The point is, though, that (116a), unlike (116b), allows only one interpretation, in which the child urinates.

<sup>5</sup> Actually, one of the native speakers of Japanese told me that (117b) sounds more likely that Hanako gave Taro the book *after* she had read it by herself.

<sup>6</sup> I believe that (118) is the Japanese counterpart of the full expansion of syntactic-conceptual correspondence of the English applicative sentence in (44b).

<sup>7</sup> Notice that an affected LOCATION argument (except Object) is construed as the subject of “change of state,” and a LOCATUM argument is the subject of “change of location.” In this sense, an empty V<sub>2</sub> is adequately regarded as representing the sense of CHANGE. It is also noteworthy that when a verb selects an Object, the verb is not associated with an e<sub>v</sub>.

<sup>8</sup> Since Japanese is a head-final language, the predicate verb follows the objects in the surface word order. However, in terms of thematic hierarchy, it is supposed that the structures of Japanese and English share the same properties.

<sup>9</sup> From my perspective, the following applicatives with change of state verbs in Japanese are licensed by virtue of the APPL head *-yaru*. The empty APPL head in English cannot license these sentences:

- (i) a. Boku-wa Hanako-ni kutu-o migaitte-yat-ta.  
 I-TOP Hanako-DAT shoe-ACC polish-[APPL]-PAST  
 “I polished the shoes for Hanako.”  
 b. Boku-wa Hanako-ni to-o akete-yat-ta.  
 I-TOP Hanako-DAT door-ACC open-[APPL]-PAST (Kaga (2007: 168))
- (ii) a. \*I polished Mary the shoes.  
 b. \*John opened Mary the door. (Shibatani (1994) / Kaga (2007: 169))

Kaga (2007) claims that Japanese benefactives (or applicatives, in our term) require “an element, overt or not, that serves as a Theme with respect to the auxiliary *yaru*” (cf. Kaga (2007: 178-179)). In (ia), Hanako’s shoes, which are polished for her, are interpreted as a Theme. Also, the action of *to-o akeru* ‘open the door’ is interpreted as a creative event of making a passage. Hence (ia, b) are grammatical. These may *prima facie* look like high applicatives, but notice that the applied arguments have to enter into relation with the (overt/covert) entities that emerge as the result of the action. Being a *low* applicative construction, Japanese benefactives cannot associate applied arguments to the event itself:

- (iii) \*Boku-wa Hanako-ni gomi-o sutete-yat-ta.  
 I-TOP Hanako-DAT garbage-ACC throw out-[APPL]-PAST  
 “I threw the garbage out for Hanako.” (Kaga (2007: 178))

To summarise, though Japanese applicatives are more permissive than English ones, yet such a contrast can be captured within the range of the general properties shared by the low applicatives.

<sup>10</sup> The formation of converbs is not the only mechanism available for languages that lack empty V<sub>2</sub>. For example, in many Romance languages, the core schema of an event is expressed by the verb, with gerundives that express the co-event of cause or manner (see Talmy (2000) for details). See the following English and French caused-motion sentences for example:

- (i) a. I pushed[-e<sub>v</sub>] my car out of the garage.  
 b. J’ai *sorti* ma voiture du garage en la poussant  
 I-have *taken-out* my car from the garage by pushing-it  
 (cf. Kaga (2007: 154, fn.12), italics are mine)

## Chapter 6

<sup>1</sup> According to Miyagawa and Tsujioka (2004), the intended meaning of (134) is: Taro has the knowledge that sending the package to (some destination in) Tokyo will guarantee that Hanako, who need not be in Tokyo (she could be in Boston, for example), will receive it. However, even the Japanese speaker who judged this sentence acceptable was not able to tell this implicature.