

Diversity of Clause Structures

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This paper is concerned first with the question whether or not theta-marking of the subject necessarily results in object Case assignment as is predicted by Burzio's generalization. I will argue that theta-marking and Case-assignment are independent, using a variety of Japanese intransitive and transitive sentences with both simple and complex predicates. Some of them are compatible but the others are incompatible with the above generalization. Hasegawa (2001) is used as one of the theoretical bases, which also argues against this generalization using a variety of Japanese transitive sentences as counterexamples. Both the present paper and Hasegawa (2001) claim the independence of subject theta-marking and Case assignment. The next question is whether or not Case is absorbed only by a predicate incapable of marking the subject with a theta-role. This question is answered in the negative, that is, Case absorption is not dependent on dethematization. Regarding predicative affixes as functional categories represented as ν with or without the accusative Case checking function and the lexical property of external theta-marking, we are able to give a unified account for the data supporting and refuting Burzio's generalization.

< I > Introduction

The well known descriptive generalization, called Burzio's generalization, has played an important role as a guideline for researches in the framework of the Principles and Parameters Approach (PPA). The modularized sub-theories of the PPA, especially the theta theory¹ and the Case theory², are formulated along the line of this generalization, which reads as follows according to Chomsky (1981, 1986).

¹ The core of the theta theory is theta-criterion, which reads as follows: Each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument. (Chomsky 1981, p. 36)

² Case Theory consists of abstract Case assignment to the NPs governed by Case assigning heads, Tense and verbs. "Case" stands for an abstract case, lexically realized or non-realized.

Burzio's generalization:

“If some NP governed by V is assigned no Case, then the VP of which V is the head assigns no theta-role.” (Chomsky, 1981, p. 125)

“A verb (with an object) Case-marks its object if and only if it theta-marks its subject.” (Chomsky, 1986, p. 139)

The correspondences between transitive and unaccusative sentences and transitive active sentences and their passive counterparts are nicely accounted for by this generalization. The crucial point involving Case and theta theories is their mutual dependence, namely, if a verb requires the subject for its theta-marking, it assigns Case to its object; if it does not, Case assignment to its object is impossible. The examples in (1) and (2) illustrate their interdependence.

- (1) a. John opened the gate at seven.
b. The gate opened at seven.

Since the transitive verb *open* assigns the theta-role Agent to its subject *John*, it gives an abstract Case (accusative) to its object. The subject *John* is Case marked in its base position (the position of Specifier of I(flection) P(hrase) (= IP-Spec) by I, the head of IP. The object *the gate* is given the theta-role Theme and Case-marked by the verb. In this way both these NPs are licensed as the subject and object of the sentence. The sentence (1b) has the deep structure (1c) given below. In (1c), *open*, an intransitive verb called an unaccusative, does not theta-mark the subject, so that the subject position is not filled in the deep structure by a lexical item with its own theta-role. This means that the subject position of a sentence with an unaccusative verb must be empty, as shown in (1c). Since there is no theta-marking of the subject, the object *the gate* cannot be assigned a Case by the verb, though it is assigned the theta-role Theme by this verb. Without an abstract Case an NP is filtered out by the Case Filter³, so this NP with the theta-role Theme has to move to the subject position to receive the nominative Case there.

³ Case Filter requires that every lexical NP get Case assigned to it.

- (1) c. _____ opened the gate at seven.

The above procedure follows from the Unaccusative Hypothesis, originally proposed by Perlmutter, who is one of the founders of the relational grammar. According to the relational grammar, the hypothesis goes as follows:

The Unaccusative Hypothesis:

A transitive stratum is one that contains a 1-arc and a 2-arc. An unaccusative stratum is one that contains a 2-arc and no 1-arc.

(Perlmutter and Postal, 1984, p. 94)

In our terms the head of 1-arc roughly corresponds to subject, and that of 2-arc to object. In other words, a transitive verb has subject and object positions, while an unaccusative verb has only one position for object, not for subject.

The correspondence between a transitive active sentence and its passive counterpart is exemplified by the sentences in (2).

- (2) a. John opened the gate.
b. The gate was opened by John.
c. _____ was opened the gate by John.

The theta and case marking of *John* and *the gate* in (2a) is the same as the case of (1a). The passive counterpart (2b) has a deep structure similar to (1c). However, the verb *open*, originally a transitive verb, has the capacity of theta-marking and Case assignment. This capacity is nullified or taken off by the affixation of the passive morpheme *en* (in this case *ed*) by procedures called dethematization and Case absorption. The former suppresses the subject theta-role marked by its sister VP, the latter depriving the verb of its Case assigning capacity. After the application of these rules the derivation proceeds just as the case of the unaccusative sentence (1b). Thus, dethematization and Case absorption trigger the movement of the object NP to the subject position to meet requirements of theta and Case theories. As far as the passive of this type is concerned, dethematization and Case absorption are mutually dependent.

It has been shown so far that Burzio's (B's) generalization is

supported by typical transitive-intransitive correspondences in English. However, there are some counterexamples.

- (3) a. It surprises us that the chairman has not arrived at a conclusion.
b. It strikes me you are quite upset.

In (3) the expletive *it* appears in the subject position; that is, an expletive devoid of a theta-role occupies this position, which means that there is no subject theta-marking in (3). Still the objects *us* and *me* are both theta and Case marked. Thus, it is obvious that sentences like those in (3) do not conform to Burzio's (B's) generalization. Japanese has various sorts of examples not complying with this generalization.

This paper is concerned first with the question whether or not theta-marking of the subject necessarily results in object Case assignment as is predicted by the above generalization. I will argue that theta-marking and Case-assignment are independent, using a variety of Japanese intransitive and transitive sentences with simple and complex predicates. The next question is whether or not Case is absorbed only by a predicate incapable of marking the subject with a theta-role. This question is answered in the negative in Section II. Section II is a revised version of Inoue (1991), with its basic ideas intact. This paper discusses a variety of intransitive predicates (verbs and adjectives), both simple and complex, and compatible and incompatible with B's generalization. Section III gives a review of Hasegawa (2001), which argues against this generalization using a variety of transitive sentences as counterexamples. Both these works claim the independence of subject theta-marking and Case assignment, that is, subject theta-marking is not always correlated to object Case assignment. Inoue (1991) further claims that Case absorption is not dependent on dethematization. In other words, Case absorption may take place even when the subject retains its own theta-role marked by the verb. In Section IV a proposal for a new analysis is presented. Section V concludes the discussions in this paper.

< II > Intransitive sentences and their case alignments

2.1. Introduction

In this paper it is claimed that the four sub-theories, namely, subject theta-marking, object Case assignment, dethematization, and Case absorption are independent. To support this claim, typical Japanese case combinations *ga-o* (Nominative-Accusative), *ni-ga* (Dative-Nominative), and *ga-ga* (Nominative-Nominative) are used. Since Japanese NPs carry case particles (both structural and inherent), the discussion in this paper is based on actual case alignments, ignoring a theoretical construct called abstract case, represented as Case.

The standard Japanese case assignment transformations were first proposed by Kuroda (1965), and slightly modified by Kuno (1973) within the framework of the Extended Standard Theory (EST). This system is called the linear case marking system, which is in brief a mechanism of marking un-case-marked NPs according to their linear order, namely, the first unmarked NP is marked with *ga*, and the rightmost unmarked NP with *o*, and the remaining unmarked ones with *ni*, basically a proposal by Kuno (1973). All these rules are applied cyclically. On top of these case assigning rules, the rule of *ni* assignment to the complement subject is applied together with surface adjustment rules such as the *ga-ni* conversion converting the *ga-ga* to the *ni-ga* sequence⁴.

In the proposal for a new analysis, a theoretical framework is broadly set as covering those proposed in recent years approximately from the late 80s to the early 90s, in order to prevent unnecessary complications due to many unsettled problems emerging as the result of fast developing theoretical reorganization in the framework of the Minimalist Program (MP). Only certain already fairly well attested

⁴ The *ga-ni* conversion was first proposed by Inoue (1964, 1969) followed by Kuno (1973). However, this type of morpho-phonological adjustment rule has not been widely accepted. On the other hand the proposal to assign the particle *ni* to the agentive complement subject has gained ground since the time of the EST. This rule is used extensively by Kuroda (1978). However, there have been various proposals for treatment of *ni* in this context. Takezawa (1987) regards this type of *ni* as a default case particle used when *ga* is not assigned, while Watanabe (1993) claims without discussion that *ni* is assigned to complement subjects by a universal strategy.

assumptions are utilized in this proposal. Even though Case checking has replaced Case marking in the PPA and the MP framework, the case marking system is retained in the descriptive part of this work to keep discussions through the stages of EST, PPA, and MP as intelligible as possible. In Section IV, a new system is proposed, and correspondence between the two systems is clarified.

The case assignment of complement subject with *ni* survives to a certain extent⁵. The remaining question is concerned with the two types of *ga* marking, that is, the *ga* assignment to the subject in general and to the object of stative predicates. The subject has been assigned *ga* by the head of IP, following the widely accepted case assignment for languages like English. *Ga* assignment to the object has been one of the established assumptions concerning stative predicates. However, the Japanese nominative assignment cannot be regarded so simple because of the presence of multiple subject sentences, sentences without nominative NPs, and the nominative *ga* assignment to the object of a stative predicate. Sentences without nominative NPs are discussed in Inoue (1998), in which it is claimed that *ga* is assigned as a default case when all the other case assignments fail⁶.

2.2. Evidence from Japanese supporting Burzio's generalization

2.2.1. Transitives consonant with B's generalization

2.2.1.1. Simple transitives

Japanese has an exact parallel to the English transitive sentence with its subject theta-marked by the verb phrase on the basis of the lexical information carried by the head verb. Thus, complying with B's generalization, this verb assigns the accusative case to its object. Sentence (4) is a Japanese counterpart of the English (1a).

⁵ Certain other inherent particles, such as *kara* and *de*, occupy the complement subject position. (See Inoue 1998 for discussion of sentences with subjects marked by inherent particles.) All these particles are selected by complement verbs, while *ni* in this context is assigned by matrix predicates in the framework of PPA. In the recent framework the term "licensed" in place of "assigned" is appropriate. The ambiguous word "permitted" is used here to leave the question open until the new analysis is presented.

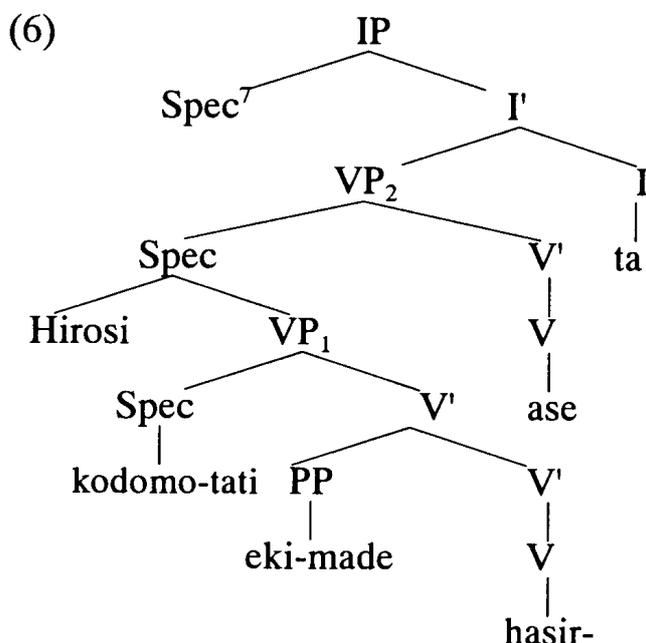
⁶ It is tentatively assumed here that *ga* is assigned in situ to an NP without a structural or inherent case assigned.

- (4) John-ga 7-ji-ni mon-o ake-ta
 -NOM at gate-ACC open-PAST
 'John opened the gate at 7.'

2.2.1.2. *O*-causatives

O-causative sentences like (5) given below are similar in this respect to a simple transitive sentence. The deep structure of (5) is (6).

- (5) Hiroshi-ga kodomo-tati-o eki-made hasir-ase-ta
 -NOM children-ACC station to run-CAUSE-PAST
 'Hiroshi made the children run to the station.'



The causative affix *(s)ase*⁸ requires a sentential complement, as shown by (6). As for justification for this biclausal analysis, see Shibatani (1973) among many others. *(S)ase* marks its subject *Hiroshi* with the theta-role Agent, so it has the capacity of assigning the accusative *o* to its object.

⁷ "Specifier" is a relational term, not the name of a category. It is not appropriate to use such relational terms in a structural representation. However, in Japanese the specifier and complements appear on the same side, and it is sometimes misleading to use categories such as NP and PP in this position. This is why "Specifier" is used in the descriptive part of this paper. The Specifier of VP, for example, is abbreviated as VP-Spec in the following discussion. This will be corrected in Section IV, introducing new structural representations.

⁸ The consonants enclosed by the parentheses in *(s)ase*, *(r)are*, *(r)e*, and so on are deleted when these affixes are attached to stems ending with consonants but stay after the stems with final vowels.

(S)*ase* is an affix triggering the adjunction of the complement verb to itself, which is effected by two transformations, one called Verb Raising⁹ and the other Verb Incorporation¹⁰, resulting in the complex predicate *hasir-ase*. The complex predicate *hasir-ase* governs everything governed by the complement verb, in this case *hasir*, which is guaranteed by a principle called the Government Transparency Corollary.

Government Transparency Corollary:

A lexical category which has an item incorporated into it governs everything which the incorporated item governed in its original structural position. (Baker 1988)

Since the complex predicate *hasir-ase* inherits from (s)*ase* the capacity of assigning the accusative case, it assigns *o* to *kodomo-tati*, governed by this complex predicate¹¹.

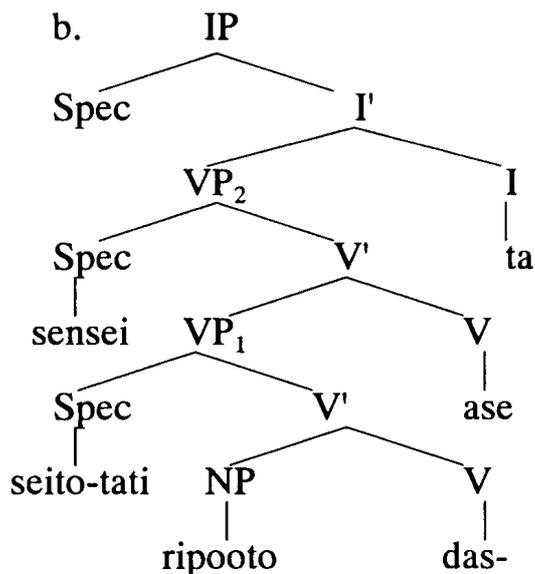
With a transitive complement sentence an *O*-causative sentence has *ni-o*, instead of the expected *o-o* sequence, as shown by (7a).

- (7) a. Sensei-ga seito-tati-ni ripooto-o das-ase-ta
 teacher-NOM pupils to report-ACC submit-CAUSE-PAST
 'The teacher made pupils submit their reports.'

⁹ Verb Raising is an adjunction of a complement verb to the matrix verb, which must satisfy the Head Movement Constraint in the sense of Travis (1984, p. 131). Head Movement Constraint: An X-o may only move into the Y-o which properly governs it.

¹⁰ Verb Incorporation is assumed by Baker to be one of 'Move α ', which is justified by Empty Category Principle, because the trace left behind by V(erb) I(ncorporation) obeys this principle. This much is the same as Verb Raising, but VI further requires the incorporation of the complement verb into the matrix one, thus forming a complex predicate. In this paper, Verb Raising is assumed to be accompanied by Verb Incorporation.

¹¹ This follows from Government Transparency Corollary. Moreover, the government blocking category VP₁ is selected by the causative affix (s)*ase*, that is, lexically governed by (s)*ase*, so it no longer functions as a blocking category in this context, thus allowing the government of *kodomo-tati* by the complex predicate *hasir-ase*.



In (7b), the complement object *ripooto* gets *o* from the complement verb *das*. Next, the complement subject *seito-tati*, governed by the complex predicate *das-ase* is assigned *o* by this complex verb, thus forming the *o-o* sequence. The sequence of *o-o* is blocked by a morpho-phonological constraint called the double *o* constraint, which forces the change of *o* to *ni* in the morpho-phonological component, resulting in the *ni-o* rather than the *o-o* sequence. Thus, (7a) is ambiguous between the two readings, *O*- and *Ni*-causatives.

In Inoue (1991) the *Ni*-causative is treated differently from the *O*-causative. First of all, complement sentences of causatives are IPs instead of VPs, to make it possible to distinguish the structures of *O*- and *Ni*-causatives, by generating the complement subject of the former in the VP-Spec position, and that of the latter in the IP-Spec position. By this analysis the *ni* assignment to the complement subject is applied to *Ni*-causatives, thus giving a uniform account of the distribution of *ni* attached to the complement subjects of various constructions, i.e. *Ni*-causative, indirect passive, *ni-ga* potential constructions, and so on. Let us tentatively call these affixes *ni* assigning ones. One of the weaknesses of this analysis lies in the fact that the position of I(nflection) is generated to complement sentences of derivational affixes such as *(s)ase* (causative), *(r)are* (passive), *(r)are*, *(r)e* (potential), which never appear with the finite tense. However, this weakness is overcome by the recent theoretical refinement; more specifically, a way has been

established to make distinctions between predicates capable and incapable of theta-marking of subject¹². Thus, we can formulate structures containing VPs with or without the subject position, that is, the external argument position. The former structure with the external argument position can be the underlying structure of *Ni*-causatives, and the latter for *O*-causatives. However, there is a dilemma in the fact that *O*-causatives also theta-mark their subjects.

It is true that *ni* is assigned to an agentive complement subject, not to non-agentive ones. However, *O*-causatives permit both agentive and non-agentive complement subjects. Moreover, unergatives (with agentive subjects) can be complements of both *O*- and *Ni*-causatives. This is the second problem involved in the analysis of *Ni*-causatives.

Setting aside the possibility of proposals of alternative underlying structures, let us assume that (7b) underlies both *Ni*- and *O*-causatives. Under this assumption, a question arises as to why the complex predicate *das-ase* (cause to submit) assigns *ni* to the complement subject of *Ni*-causative despite its obligation of assigning the accusative case *o* as in the case of *O*-causatives. The other cases where the rule of *ni* assignment is applied to the complement subjects involve complex predicates without the capacity of accusative case assignment. The complex predicates formed by the indirect passive (*r*)*are* and potential (*r*)*are* and (*r*)*e* fall into this category, while those with the causative (*s*)*ase* retains this capacity.

Two alternatives for solving this problem come to mind; one is to assume the same underlying structure for both *O*- and *Ni*-causatives, giving a specification to the *Ni*-causative affix such as [+Subj *ni* assignment], and the other to treat the *ni* phrase as an adjunct with the inherent case particle, with PRO for the complement subject. Detailed discussion of these alternatives will be given in Section IV.

Let us assume that *O*- and *Ni*-causatives share the same structure (7b). Both of them theta-mark subjects, but only the complex predicate in the former case-marks its object, namely the complement subject, while in the latter, assumed to lack this capacity, the complex predicate

¹² See Section IV for details. In this model, subject originates in the VP-Spec position, and raises to the IP-Spec position if it is required to meet some structural conditions. This is called "VP internal subject hypothesis".

marks the complement subject with *ni*, following the specification [+Subj *ni* assignment], and at the same time inheriting the case marking capacity of the complement verb it marks the complement object with *o*. Thus, complex predicates with the *Ni*-causative (*s*)*ase* superficially comply with B's generalization¹³. The problem of using a special feature [+Subj *ni* assignment] is not surmountable in the present theoretical framework, but will be solved in our proposal given in Section IV.

2.2.2. Intransitives consonant with B's generalization

2.2.2.1. Unaccusatives

There is also in Japanese an exact syntactic parallel to English unaccusative sentences like (1b). The only difference is morphological, that is, whereas English has many verb roots common to transitive and intransitive verbs, such as *open*, *close*, *break*, *burn*, *move*, *turn*, just to mention a few, in Japanese such common roots are very rare. Japanese has, on the other hand, varieties of transitivizing and intransitivizing affixes, like (*s*)*as*, (*s*)*e*, *s* in the former group, and (*r*)*ar*, (*r*)*e*, *r* in the latter. The Japanese unaccusative counterpart (8a) has the root *ak*, to which the transitive affix (*s*)*e* is attached yielding the transitive stem *ak-e* in (4). Just as B's generalization predicts, the unaccusative *ak* does not theta-mark the subject, so (8a) has the underlying structure (8b) with an empty subject position, the same as the English (1c). The object *mon* with the theta-role Theme is supposed to move to the subject position to get nominative case from I. However, in Inoue (1991) this movement is not regarded as obligatory, because *ga* is treated here as a default case particle assigned to NPs without any case assigned to them¹⁴. A detailed comments concerning case assignments are given in Inoue (2000b).

¹³ The superficial conformity is achieved through accusative case assignment by the complex predicate to the complement object. The *Ni*-causative (*s*)*ase* theta-marks subject, but it is without case assigning capacity, contradicting B's generalization, which triggers *ni* assignment to the complement subject. Furthermore, the complex predicate derived by incorporating the complement verb into (*s*)*ase* does not absorb case, but inherits the accusative case assigning capacity from the complement verb. See Section IV for details.

¹⁴ Inoue (1998) deals with various problems and alternatives for solutions of problems involved in the treatment of *ga*.

- (8) a. Mon-ga 7-ji-ni ai-ta
 gate-NOM at open-PAST
 'The gate opened at 7.'
- b. _____ mon 7-ji-ni ak- ta

2.2.2.2. Passives

The situation with Japanese passives is different. As is well known, there are two types of passives in Japanese, a direct passive like the one in English, and an indirect one that does not exist in English. Even though it is possible to assume a simple sentences as underlying the Japanese direct passive, just like (2c) for English passives, Inoue (1991) proposes to assume a sentential complement structure for both direct and indirect passives. The reason is partly theoretical, because this analysis enables us to analyze passives in a way parallel to the treatment of other constructions with intransitivizing morphemes such as potential and desiderative affixes¹⁵.

There has been a proposal to classify direct passives into two subclasses, one with *ni* and the other with *niyotte*. A sentential complement structure and a simplex structure are given to the former and the latter respectively as underlying structures. In this paper only the former, the *ni* direct passives, is taken up. The sentences in (9) exemplify direct and indirect passives. (The sentences a, b, and c are passives, and a', b', and c' are their active counterparts.)

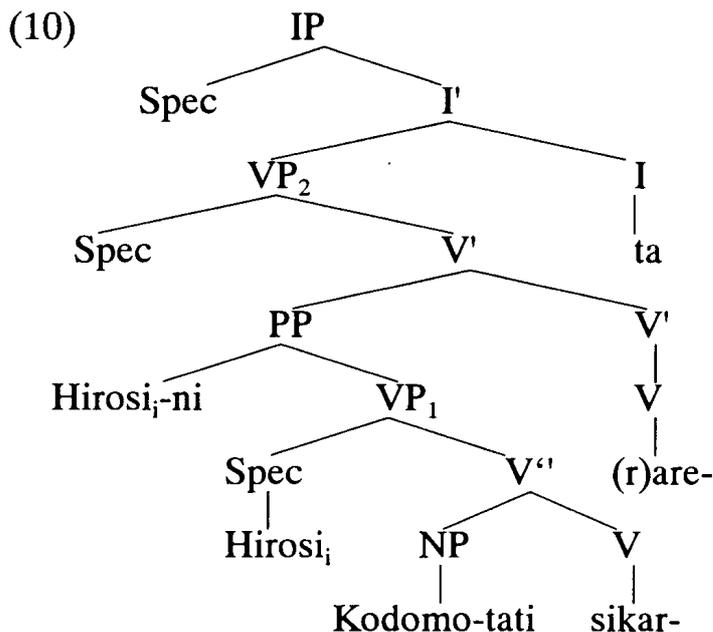
- (9) a. Kodomo-tati-ga Hiroshi-ni sikar-are-ta (direct passive)
 children-NOM by scold-PASS-PAST
 'The children were scolded by Hiroshi.'
- a'. Hiroshi-ga kodomo-tati-o sikat-ta
 NOM children-ACC scold-PAST
 'Hiroshi scolded the children.'

¹⁵ This paper assumes that the passive and potential affixes optionally project the external argument position. See Section IV for details. Kuroda (1979) first proposed to distinguish the *ni* direct passive from the *niyotte* direct passive giving them the different structures described in the next paragraph.

- b. Wareware-wa kotosi-wa yoku ame-ni fur-are-ta (indirect passive)
 we-TOP this year-TOP often rain-by fall-PASS-PAST
 'It rained very often this year, and we were adversely affected.'
- b'. Kotosi-wa yoku ame-ga fut-ta
 this year-TOP often rain-NOM fall-PAST
 'It rained often this year.'
- c. Boku-wa ootoo-ni nikki-o yom-are-ta (indirect passive)
 I-top young brother by diary-ACC read-PASS-PAST
 'I had my brother read my (or someone's) diary.'
- c'. Ootoo-ga nikki-o yon-da
 young brother-NOM diary-ACC read-PAST
 'My young brother read the diary.'

(9b) has an intransitive complement sentence, while in English intransitives cannot underlie passives. (9c) has a transitive sentence as a complement. Both (9b) and (9c) have matrix subjects that do not appear in the active counterparts. Inoue (1991) assumes the same underlying structure with a complement sentence for direct and indirect passives.

The direct passive conforms to B's generalization, since the passive morpheme *rare* does not theta-mark the subject and it does not assign accusative case *o* to the object. The underlying structure of the direct passive (9a) is given in (10).



Note that in (10) the Spec position of VP₂ is empty, which indicates that the passive (*r*)*are* does not theta-mark its subject (in VP₂-Spec). The complement verb *sikar-* is incorporated into (*r*)*are*, deriving the complex predicate *sikar-are*, which takes away the theta-role given to the subject of VP₁ *Hirosi* (dethematization) and absorbs the case assigning capacity of *sikar* (case absorption). As the result of dethematization the trace¹⁶ of *Hirosi* is left behind. This trace licenses *Hirosi-ni*, which is base generated as an adjunct. Now the object *kodomo-tati* is caseless, and gets *ga* eventually. In the case of direct passives, lack of the case assigning capacity goes hand in hand with case absorption of the case assigning capacity of the complement verb, thus, conforming to B's generalization.

The indirect passives behave like *Ni*-causatives, theta-marking subjects, marking complement subjects with *ni*¹⁷, and assigning *o* to complement objects by inheriting the capacity of object case marking from complement verbs. In this way it obeys B's generalization. Both the indirect passive and the *Ni*-causative share the same structure with the complement subject assigned the case particle *ni*. The only difference between them lies in the following fact: The *Ni*-causative marks its subject with the theta-role Agent, and the indirect passive with Experiencer. Their derivations are exactly the same.

In sum, the passive morpheme (*r*)*are* is assumed to optionally theta-mark its subject. When it does not choose subject theta-marking, the generated structure underlies the direct passive; if it does, the underlying structure for the indirect passive emerges.

2.2.2.3. Potentials

Japanese potentials are in a situation similar to passives. The sentences in (11) show three case combinations permitted by potentials.

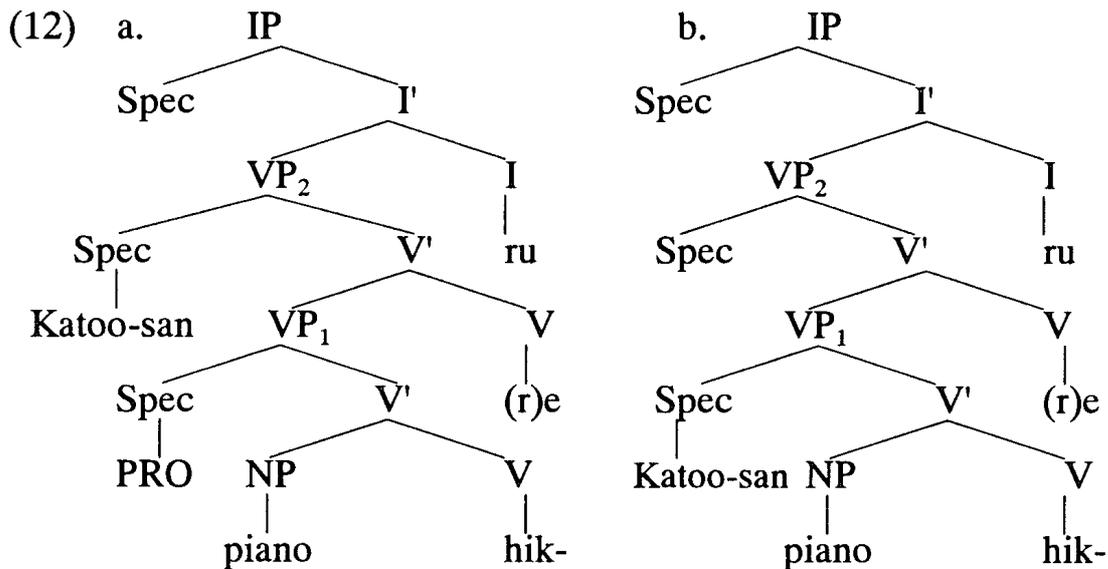
¹⁶ It is not likely that dethematization leaves a trace. The question here is the timing of licensing of the adjunct *ni* phrase. I leave this question open for the time being.

¹⁷ It might be questionable to treat the *ni* assignment of complement subjects of indirect passives and *Ni*-causatives in the same way as that for potentials and 'tough' sentences. Furthermore, there is a proposal to treat the *ni* phrase in potentials differently from that in 'tough' sentences. (Kuroda 1986) However, at least the former two can reasonably be treated in the same way.

- (11) a. Katoo-san-ga piano-o hik- e-ru (koto)¹⁸ (ga-o)
 -NOM -ACC play-POT-PRES
 'Mr. Kato can play the piano.'
- a'. Katoo-san-ga piano-o hik-u
 (complement sentence for the potentials in (11))
- b. Katoo-san-ni piano-ga hik-e-ru (koto) (ni-ga)
- c. Katoo-san-ga piano-ga hik-e-ru (koto) (ga-ga)

The potential with the *ni-ga* combination (hereafter called *ni-ga* potentials) conforms to B's generalization just like direct passives. It has an underlying structure with an empty subject position. The derivation of *ni-ga* potentials is almost the same as that of direct passives, the only difference being between *ni*-assignment to the complement subject in the former and the generation of an adjunct *ni* phrase in the latter. This difference is represented as the difference of the deep structures, (10) for direct passives and (12b) for *ni-ga* potentials. *Ga-o* potentials behave partly like indirect passives, theta-marking subjects and inheriting the case assigning capacity from complement verbs. In this case the potential morpheme, without the case assigning capacity, does not absorb that capacity from the complement verb as in the case of direct passives. Thus, *ga-o* and *ni-ga* potentials are a transitive-intransitive pair conforming to B's generalization. *Ga-ga* potentials do not comply with this generalization, which will be taken up shortly. The underlying structures of *ga-o*, and *ni-ga* potentials are given below as (12a) and (12b).

¹⁸ *Koto* is added to sentences with stative predicates, to prevent the interpretation as 'exhaustive listing' in the sense of Kuno (1973).



These two structures are distinguished by presence or absence of a lexical item in the VP₂-Spec position. In (12a) this position is filled with *Katoo-san* (a *ga-o* potential), but not filled in (12b) (a *ni-ga* potential). In the former the potential morpheme *(r)e* theta-marks the subject, and the complex predicate, *hik-e*, derived by Verb Raising and Verb Incorporation, assigns *o* to the complement object inheriting case marking capacity of the complement verb *hik*¹⁹. The result is the *ga-o* combination. In the latter, without subject theta-marking, the complex predicate cannot assign a case, and it has to absorb the case assigning capacity from the complement verb *hik*-, yielding the caseless object *piano*, which eventually receives *ga*. Thus, the *ni-ga* combination comes out with *ni*, assigned by the complex predicate *hik-e*.

The *ga-ga* potential shares the same structure (12a) with the *ga-o* potential. The potential suffix *(r)e* theta-marks the subject, but contrary to the case of the *ga-o* potential, the complex predicate with this suffix absorbs the case assigning capacity of the complement verb *hik*, leaving the object *piano* caseless. Thus, this type of potentials is a counterexample to B's generalization.

The very existence of *ga-o* potentials motivates the assumption that the potential morphemes *(r)are*, and *(r)e* optionally theta-mark the subject. *Ga-o* potentials require subject theta-marking to get accusative *o* assigned

¹⁹ It is assumed in this paper that the *ni* assignment is applied to all the agentive complement subjects governed by complex predicates with affixes without case assigning capacity.

to the object. *Ni-ga* potentials, on the contrary, permit case absorption. The situation is exactly the same as that of the indirect and direct passives.

2.2.2.4. Desideratives

A piece of indirect evidence is given in Inoue (op.cit.) for the empty subject position assumed for *ni-ga* potentials. The argument goes as follows: Desiderative sentences do not permit the *ni-ga* combination, as shown by the sentences in (13)

- (13) a. Boku-ga tennis-o si-ta-i (koto) (ga-o)
 I-NOM tennis-ACC do-DES-PRES
 'I want to play tennis.'
- b. *Boku-ni tennis-ga si-ta-i (koto) (*ni-ga)
 -DAT -NOM
- c. Boku-ga tennis-ga si-ta-i (koto) (ga-ga)
 -NOM -NOM

In brief, it is argued that the *ni-ga* combination is disallowed because the desiderative morpheme, as a sensation predicate, must have its own subject with the theta-role Experiencer. It was first brought up in Kuroda (1973) that there is a certain restriction on the choice of the subject of sensation adjectives such as *atu-i* (hot), *samu-i* (cold), and *sabisi-i* (lonely)²⁰; that is, when these adjectives are in the present tense, only the first person subject is permitted. Japanese is strongly affected by contexts implying the question whether or not the speaker directly perceives a sensation at the moment of speaking. Actually it is impossible for the speaker to perceive a sensation felt by someone other than himself at the speaking moment, so that sensation predicates in the present tense require the first person subject. Such a restriction can be stated only if the matrix subject position (the VP₂-Spec position in (12)) is filled with a lexical noun phrase; to put it another way, these predicates disallow an empty subject position. The desiderative morpheme *ta-i* is a

²⁰ The tense morphemes *ru* and *ta* are not attached to verb stems in the argument portions of this paper. However, they are added to adjective stems, because without them some of the adjective stems are ambiguous and lead to misunderstanding.

kind of a sensation predicate, so that its subject position cannot be empty, that is, *ta-i* theta-marks its subject. The fact that *ta-i*, obligatorily theta-marking the subject, allows the *ga-o* and *ga-ga* combinations while disallowing the *ni-ga* combination is a piece of evidence that the structure underlying the *ga-o* and the *ga-ga* potentials is with lexically filled subject positions theta-marked by the potential morphemes, and that of the *ni-ga* potentials are with an empty subject position.

2.2.2.5. Adjectival affixes

Adjectival affixes participate in this type of syntactic derivation. One class consists of so called 'tough' morphemes such as *yasu-i*, *yo-i* (easy) and *niku-i*, *gata-i* (hard), and the other has *asi-i* (corresponding to the English adjectival affix *-ous*, in *envious*, for example) as the only member. Complex predicates with 'tough' morphemes permit the *ni-ga* and *ga-ga* combinations, and the *ga-o* combination with a certain unique semantic property.

- (14) a. Gakusei-ni kono zisyo-ga tukai-yasu-i (koto) (ni-ga)
 student-DAT this dictionary-NOM use-easy-PRES
 'This dictionary is easy for students to use.'
- a'. Gakusei/Watasi-ga kono zisyo-o tuka-u
 'Students/I use this dictionary.'
 (ga-o, underlying transitive sentence)
- b. Watasi-ga kono zisyo-ga tukai-yasu-i (koto) (ga-ga)
 I-NOM this dictionary-NOM use-easy-PRES
 'I feel it easy to use this dictionary.'
- c. Kodomo-tati-ga miti-o matigai-yasu-i (koto) (ga-o)
 Children-NOM way-ACC mistake-easy-PRES
 'Children tend to take the wrong way.' (with a semantic change)

The transitive counterpart (14a') and 'tough' sentences like (14a) comply with B's generalization, while (14b) with the *ga-ga* combination is a counterexample. *Yasu-i niku-i* in sentences with the *ga-o* combination can be assumed not to be included in 'tough' morphemes due to its semantic difference from regular 'tough' sentences, as shown by the English translation given to (14c). Inoue (1978) treats them as a kind of

modals. For a detailed discussion see Inoue (1978).

Complex predicates with the suffix *asi-i*, which derives adjectives from verbs, allow the *ni-ga* and *ga-ga* combinations, also excluding the *ga-o* combination. Observe the sentences in (15).

- (15) a. Watasi-ni ane-ga urayam-asi-i (koto) (ni-ga)
 I-DAT older sister-NOM envious-PRES
 'I am envious of my older sister.'
- b. Watasi-ga ane-ga urayam-asi-i (koto) (ga-ga)
 -NOM -NOM
- c. *Watasi-ga ane-o urayam-asi i (koto)
- a'. Watasi-ga ane-o urayan-de-i-ru (koto)
 I-NOM older sister-ACC envy-STATE-PRES
 'I envy my older sister.'

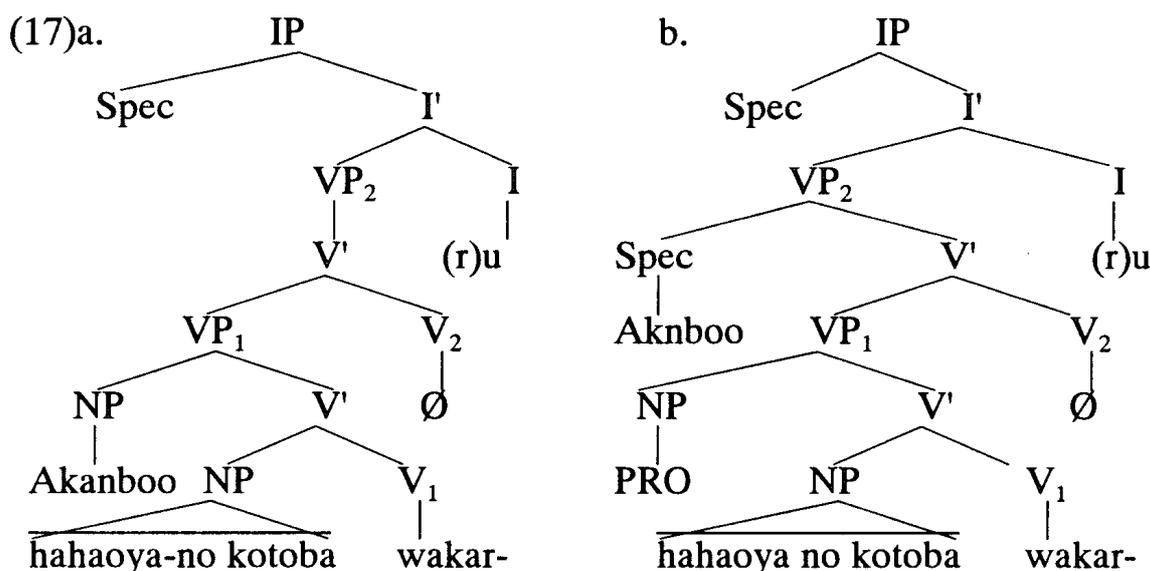
(15a) is the adjectival counterpart of the transitive (15a'), both of which observe B's generalization. With the *ga-ga* combination, (15b) is a counterexample to this generalization. Similar complex predicates are *netamasi-i* (be jealous of) / *netam-u*(envy), *konom-asi-i* (be likable) / *konom-u* (like), *nozom-asi-i* (be desirable) / *nozom-u*(desire), and so on.

2.2.2.6. Simple intransitives

There are two groups of simple predicates that behave like potentials. The first admits the *ni-ga* and *ga-ga* combinations, while the other admitting only the *ga-ga* combination. Since the *ga-ga* combination is a counterexample to B's generalization, only their distributional facts are given here, with details of its derivation discussed later.

- (16) a. Akanboo-ni hahaoya-no kotoba-ga wakar-u (koto) (ni-ga)
 baby-DAT mother-GEN word-NOM understand-PRES
 'Babies understand what their mothers say.'
- b. Akanboo-ga hahaoya-no kotoba-ga wakar-u (koto) (ga-ga)
- c. *Akanboo-ga hahaoya-no kotoba-o wakar-u (koto) *(ga-o)
- d. ??Dooka watasi-no yuu koto-o wakat-te kudasai ??(ga-o)
 please I-GEN say thing-ACC understand-IMP
 'Please understand what I say.'

The structures of (16a) and (16b) are given below.



In (17a) *wakar* assigns the theta-role Experiencer to its external argument *akanboo*, but it does not assign a case to its object *hahaoya-no kotoba*. As the result, the object gets *ga* assigned to it. The \emptyset dominated by V_2 does not theta-mark its subject, so the VP_2 -Spec position is empty. V_2 is assumed to be with [+Subj *ni*-assignment]. After *wakar* is raised to the position of V_2 , it takes on the *ni*-assignment feature and gives *ni* to its governee *akanboo*, bringing about the *ni-ga* combination. In (17b) VP_2 -Spec is filled by *akanboo*, and here subject theta-marking is coupled with absence of case assignment, contrary to B's generalization. The result is the *ga-ga* combination. The *go-o* combination is disallowed, which shows that *wakar* lacks case assigning capacity. (17d) indicates that this combination is exceptionally permitted in the context involving strong agentivity like an imperative sentence. Still it is marginal to say the least.

There are very few verbs of this type, the only ones so far brought up in discussion being *wakar* and *deki* (can do). Both *wakar* and *deki* imply a sense of potentiality, which has led some linguists to the analysis of them as complex predicates with the zero potential affix. The analysis given above goes along with this approach with a slight modification.

Sentences with simple predicates permitting only the *ga-ga* combination excluding the *ni-ga* sequence are as follows:

- (18) a. Kato-san-ga ryoori-ga zyoozu-da
 -NOM cooking-NOM good-COP-PRES
 'Miss Kato is good at cooking.'
- a'. *Kato-san-ni ryoori-ga zyoozu da
- b. Kodomo-tati-ga inu-ga kirai des-u
 Children-NOM dog-NOM hateful-COP-PRES
 'The children hate dogs.'
- b'. *Kodomo-tati-ni inu-ga kirai das-u
- c. Boku-ga biiru-ga hosi-i (koto)²¹
 I-NOM beer-NOM want-PRES
 'I want some beer.'
- c'. *Boku-ni biiru-ga hosi-i (koto)

We have seen so far that B's generalization is observed in the transitive-unaccusative pair, the direct-indirect passives, the *ga-o* and *ni-ga* combinations in potentials, and adjectival complex predicates with 'tough' morphemes and *asi-i*, both paired with transitive verbs. On the other hand, counterexamples are found rather extensively in constructions such as simple predicates like *wakar* and *deki*, potentials, desideratives, adjectival affixes like *yasu-i*, *niku-i*, *asi-i*, all allowing the *ga-ga* combination.

2.3. Intransitives as counterexamples to B's generalization

The sentences with the *ga-ga* sequence are listed below.

- (19) a. Akanboo-ga ahaoya-no kotoba-ga wakar-u (koto) (=16b)
 'Babies understand what their mothers say.'
- b. Kato-san-ga piano-ga hik-e-ru (koto) (=11c)
 'Miss Kato can play the piano.'
- c. Boku-ga tenisu-ga si-ta-i (koto) (=13c)
 'I want to play tennis.'
- d. Watasi-ga kono zisyo-ga tukai-yasu-i (koto) (=14b)
 'I feel it easy to use his dictionary.'

²¹ Kuroda (1988) claims that *hosi-i* and *ta-i* subcategorize for two subjects, contrary to our claim that with respect to grammatical functions this double *ga* construction involves subject and object both assigned the default particle *ga*.

- e. Watasi-ga ane-ga urayam-asi-i (koto) (=15b)
 'I am envious of my older sister.'
- f. Kato-san-ga ryoori-ga zyoozu-da (=18a)
 'Miss Kato is good at cooking.'
- g. Boku-ga biiru-ga hosi-i (koto) (=18d)
 'I want some beer.'

So far it has been argued that the desiderative affix *ta-i*, the adjectival affix *asi-i*, sensation predicates like *hosi-i* (want) obligatorily theta-mark their subjects. The potential affixes (*r*)*are*, (*r*)*e* and 'tough' morphemes optionally function as subject theta-markers. The obligatory use of the first person subjects in (18c, d, e, g) is due to the restriction imposed on psychological and sensation predicates in the present tense. Even though all of them theta-mark their subjects, they do not assign a case to their objects, thus disagreeing with B's generalization. The complex predicates in these sentences absorb the case assigning capacity of complement transitive verbs without dethematizing their subjects' theta-roles. All these facts support my claim that subject theta-marking, case assignment, dethematization, and case absorption are all independent.

2.4. Conclusion

Hasegawa (2001) claims independence of subject theta-marking and case assignment to the object. The claim is similar to those in Inoue (1991) and its revised version given in Section 2.2. However, her counterexamples to B's generalization are mostly from certain Japanese transitive sentences. My analyses of constructions with the *ga-ga* combination given above strengthen our claim.

As Hasegawa (2001) uses the recent MP framework, it is in order to summarize before its review my discussion so far with my own generalization, which can readily be recast into a new framework.

Inoue (2000a) makes a proposal to call the derivational predicative affixes functional predicative affixes (FPA), and classify them into six categories with a covering symbol for each: C standing for transitivizing suffixes (*s*)*ase*, (*s*)*e*, (*s*)*as*, (*s*)*os*, *s* as well as the Causative (*s*)*ase*, D for unergatives (predicates with agentive non-causal subjects), Ch for

intransitivizing *(r)ar*, *(r)e*, *r*, *W* for the desiderative *ta-i*, and *hosi-i* (“want, desire”), *A* for direct and indirect Passive suffixes, and *P* for potentials. *A* with an external argument stands for not only the indirect passive *(r)are* but also for *moraw*, *uke*, and *uketor* (all meaning “receive”). The six FPAs are divided into three groups: (a) *C*, *D*, and *W*, each with the external argument, (b) *Ch*, without the external argument, (c) *A*, and *P*, each optionally projecting the external argument position.

A rather similar idea was first publicized by Ostler in his lexicalist grammar (1980). He proposes the following four operators: *C* (Cause), *A* (Affect)²², *P* (Potential), and *Ch* (Change). These operators are used in the individual rules like passivization, causativization, and so on, as triggers for grammatical linking rules, that is, structural case assigning rules. Addition and deletion of arguments are specified by the individual rules. Thus, his operators are simply signals for case linking rules. However, the idea of treating these affixes as operators, distinct from the other derivational affixes, is quite insightful. Rephrasing the idea of subject theta-marking in the early PPA framework, Inoue (2000a) extended Ostler's idea to a broader generalization of functions of these predicative affixes, based on the capacity of projecting the external argument position.

<III>. A review of Hasegawa (2001)

Hasegawa utilizes a functional category *v*, proposed by Chomsky (1995) as a category projecting the external argument position. She further claims that *v* is both lexical and functional, projecting the external theta position as well as deciding Case assignment. These characteristics are represented by the features [\pm external role][\pm Obj Case] as the specifications carried by these affixes, called functional heads. With these innovations *v* is no longer a symbol for those projecting the external theta position, but stands for all the functional heads regardless of whether or not they have capacity of such a projection. The following chart cleverly summarizes the distribution of variety of transitive and

²² Ostler uses “Affect” as the category name for the passive morpheme, because passives induce the interpretation of affected subjects.

intransitive sentences, indicating that our arguments are in complementary distribution..

(20)

	+ external role	-external role
+ Obj Case	(a) transitives	X
- Obj Case	Y	(b) unaccusatives

(Hasegawa (18))

As we saw in Section 2.2, transitives with plus and unaccusatives with minus for both these features ((a) and (b) in (20)) are exactly what B's generalization predicts. X and Y stand for counterexamples. X with [-external role] and [+Obj Case] is exemplified by (3) given in Section I, repeated below as (21). Hasegawa presents many examples of this class from Japanese non-agentive transitives.

- (21) a. It surprises us that the chairman has not arrived at a conclusion.
 b. It struck me you are quite upset.

As for Y, Hasegawa gives unaccusatives with agentive subjects like (22) given below.

- (22) a. Mary (intentionally) moved. (Hasegawa (20))
 b. John fell (on purpose).
 c. Susan stood straight.

The sentences in (23) are Japanese counterparts.

- (23) a. Hanako-ga (wazato) ugoi-ta (Hasegawa (24))
 -NOM intentionally move-PAST
 'Hanako moved (intention ally).'
 b. Kyoko-ga (koini) taore-ta
 -NOM on purpose fall-PAST
 'Kyoko fell (on purpose).'

This class is distinguished from the class of unergatives like *hasir* and *utaw*, which optionally select objects.

- (24) a. Hanako-ga (kootei-o) hasit-ta (Hasegawa (21))
 -NOM school-yard-ACC run-PAST
 'Hanako ran (the school yard).'
- b. Tomoko-ga (uta-o) utat-ta
 -NOM song-ACC sing-PAST
 'Tomoko sang (a song).'

Hasegawa's examples in (23) are a kind of unaccusatives with agentive subjects. All the examples given in Section 2.3 are judged to belong to Y, since there seems to be no question about their property with the features [+external role] [-Obj Case]. Thus, our assumption of the independence of subject theta-marking and case assignment to object is amply verified by these counterexamples.

It has already been shown that Hasegawa's group Y has a number of different types of counterexamples on top of Hasegawa's agentive unaccusatives. Let us turn now to her group X, which is subdivided into four subclasses.

A. Non-agentive Causer

- (25) a. The wind opened the door. (Hasegawa (30a))
 a'. ?The door opened with a gust of wind.
- b. The heat dissolved the sugar. (H. (30b))
 b'. ?The sugar dissolved in the heat.
- (26) a. Ziko-ga densya-o okur-ase-ta (H. (31a))
 accident-NOM train-ACC delay-TR-PAST
 'The accident delayed the train.'
- a'. Densya-ga ziko-de okure-ta (H. (39a))
 train-NOM accident-by be=delay-PAST
 'The train was delayed by the accident.'
- b. Kaze-ga eda-o yur-asi-ta (H. (31b))
 wind-NOM branches-ACC sway-TR-PAST
 'The wind swayed the branches.'
- b' Eda-ga kaze-de yure-ta (H. (39b))
 branch-NOM wind-by swing-INTR-PAST
 'The branches swayed in the wind.'

B. Causer of Psychological State

- (27) a. The news surprised everyone. (H. (32a))
 a'. Everyone is surprised at the news. (H. (40a))
 b. The rumor angered Mary. (H. (32b))
 b'. Mary was angered at the rumor.
- (28) a. Sono sirase-ga minna-o odorok-ase-ta (H. (33a))
 the news-NOM everyone-ACC surprised-CAUSE-PAST
 'The news surprised everyone.'
 a'. Minna-ga sono sirase-ni odoroi-ta (H. (41a))
 everyone-NOM the news-DAT be=surprised-PAST
 'Everyone was surprised at the news.'
 b. Sono uwasa-ga Hanako-o kurusim-~~{e/ase}~~-te-i-ru (H. (33b))
 the rumor-NOM -ACC be=tortured-~~{TR/CAUSE}~~-PROG-PRES
 'The rumor tormented Hanako.'
 b'. Hanako-ga sono uwasa-ni kurusin-de-iru (H. (41b))
 -NOM the rumor-DAT be=tortured-PROG-PRES
 'Hanako is tormented with the rumor.'

C. Experiencer or Patient of Sensation Expressions

- (29) a. Jane_i broke her_i arm. (H. (34a))
 a'. Jane's arm broke.
 b. Sue_i hurt her_i back. (H. (34b))
 b'. My back hurt. (H. (42b))
- (30) a. Hanako-ga ude-o ot-ta (H. (35a))
 -NOM arm-ACC break-PAST
 'Hanako_i broke her_i arm.'
 a'. Hanako-no ude-ga or-e-ta (H. (43a))
 -GEN arm-NOM break-INTR-PAST
 'Hanako's arm broke.'
 b. Tomoko-ga kosi-o itam-e-ta (H. (35b))
 -NOM back-ACC hurt-TR-PAST
 'Tomoko_i hurt her_i back.'
 b'. (Watasi-no) kosi-ga itam-u (H. (43b))
 my-GEN back-NOM hurt-PRES
 'My back hurts.'

D. Experiencer: Possessor of Feelings or Mental State

- (31)a. Kyoko-ga sono hitokoto-ni kimoti-o nagom-ase-ta (H.(36a))
 -NOM that one=word-DAT feeling-ACC calm-CAUSE-PAST
 'Kyoko got her feelings calmed by that word.'
- a'. Kyoko-no kimoti-ga sono hitokoto-ni nagon-da (H. 44a))
 -GEN feeling-MOM that one=word-DAT calm-PAST
 'Kyoko's feelings calmed with that word.'
- b. Tomoko-ga sono deki-goto-ni sesuzi-o koor-ase-ta (H.(36b))
 -NOM that incident-DAT spine-ACC chill-CAUSE-PAST
 'Tomoko got her spine chilled by the incident.'

Among the examples given above, the sentences (a) and (b) are transitives with non-agentive subjects, while the (a') and (b') sentences are their intransitive counterparts. The subjects of the transitives in the A and B group appear in their intransitive counterparts as the phrases with the sense of “cause”; *with a gust of wind* and *in the heat* in (25a', b'), *ziko de*, and *kaze de* in (26a', b'), *at the news* and *at the rumor* in (27a', b') and *sono sirase ni* and *sono uwasa ni* in (28a', b'). All of them are adjuncts expressing the causes of the events. It is assumed that these cause phrases are raised to the empty subject position of the matrix clause. This assumption is supported by the following data containing reflexive forms bound by the following antecedents, that is, the case of backward binding.

- (32) a. The pictures of herself_i annoyed Mary_i. (H. (47a))
 a'. Mary_i was annoyed about the picture of herself_i. (H. (49a))
 b. Zibun_i-no kako-ga Taro_i-o kurusim-{e/ase}-te-i-ru (H. (48b))
 Self-GEN past-NOM -ACC be=tormented-{TR/CAUSE}-PROG-PRES
 'His past life distresses Taro.'
 b'. Taro_i-ga zibun_i-no kako-ni kurusin-de-i-ru (H. (50b))
 -NOM self-GEN past life-DAT be-tormented-PROG-PRES
 'Taro is distressed with his own past life.'

Following Belletti and Rizzi (1988), Hasegawa assumes that the adjunct “cause” phrase is below the object argument in the underlying structure, which makes it possible for the reflexive to have the object argument as

its antecedent, meeting the condition (A) of Binding Theory. The (a) and (b) sentences in (32) are derived by raising the cause phrase from inside the VP to the empty subject position of the matrix clause. With this fact as a piece of supporting evidence, the non-agentive subject (cause) is argued to have been raised from inside the VPs of the (a') and (b') sentences in (25) through (28). An additional piece of evidence is given based on the fact of non-availability of an agentive phrase in an intransitive sentence with a non-agentive subject. Thus, ungrammaticality of the sentences in (33) is due to the underlined agentive phrases.

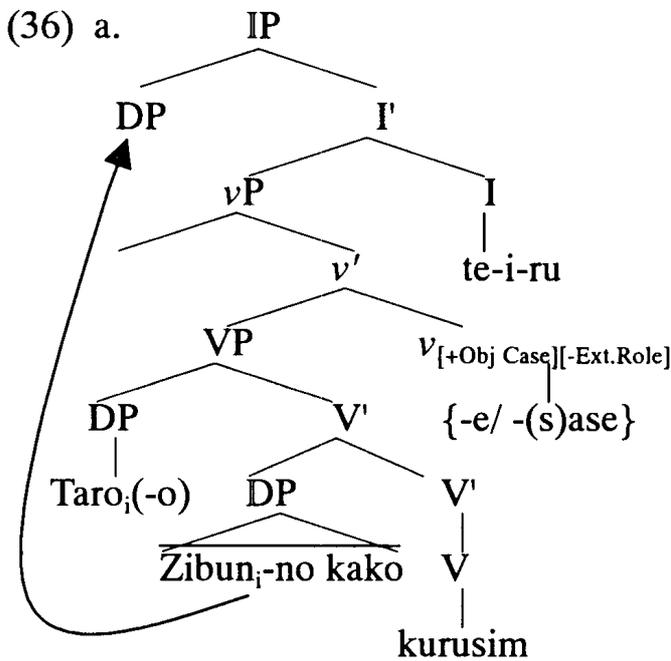
- (33) a. *The door opened by/with Jane. (H. (45a))
 b. *Densya-ga syasyo-de okure-ta (H.(46a))
 train-NOM conductor-by be=delay-PAST
 *'The train was delayed by the conductor.'

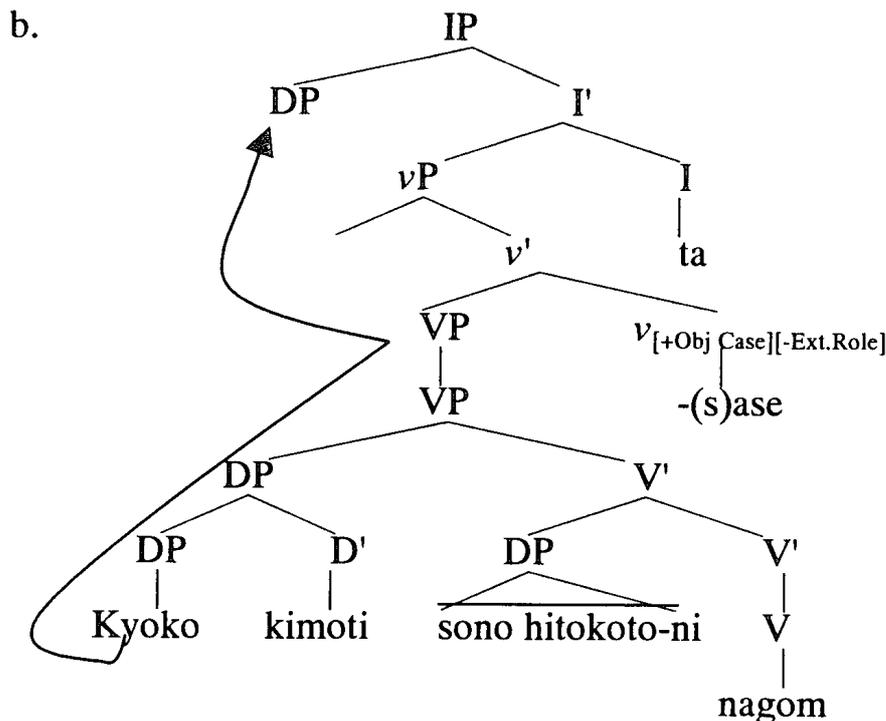
Now observe that all the Experiencer subjects of the (a) and (b) sentences in (29)-(31) correspond to the possessor NPs in the (a') and (b') counterparts. Since the Possessor Ascension (subjectivization by Kuno (1973)) is a widely accepted assumption, it is reasonable to treat the Experiencer subjects as derived by this rule. It is argued that there exists a phenomenon observed in transitives with Experiencer subjects (of the C and D groups) as well as sentences derived by the Possessor Ascension. That is, both these constructions do not permit pronominal forms left at the extraction sites, as shown by (34) and (35).

- (34)a. Hanako_i-ga ({*kanozyo_i-no/*?zibun_i-no/0_i}) ude-o ot-ta (H. (53a))
 -NOM her-gen / self-GEN arm-ACC break(tr)-PAST
 'Hanako_i broke her_i arm.' (C)
 b. Kyoko_i-ga sono hitokoto-ni ({*kanozyo_i-no/*?zibun_i-no/0_i})
 -NOM that one=word-DAT her-GEN / self-GEN
 kimoti-o nagom-ase-ta (H. (53b))
 feeling-ACC calm-CAUSE-PAST
 'Kyoko_i got her_i feelings calmed by that word.' (D)

- (35)a. Hanako-ga ($\{*\text{kanojo}_i\text{-no}/*\text{zibun}_i\text{-no}/0_i\}$)asi-ga naga-i. (H. (54a))
 -NOM her-GEN /self-GEN leg-NOM long-PRES
 'Hanako, her legs are long.'
- b. Hanako-no asi-ga naga-i (H. (54b))
 -GEN leg-NOM long-PRES
 'Hanako's legs are long.'

On the basis of the analyses given so far, Hasegawa gives the following structures for the causal subject construction (A and B), and the Experiencer subject construction (C and D) in (36a) and (36b) respectively.





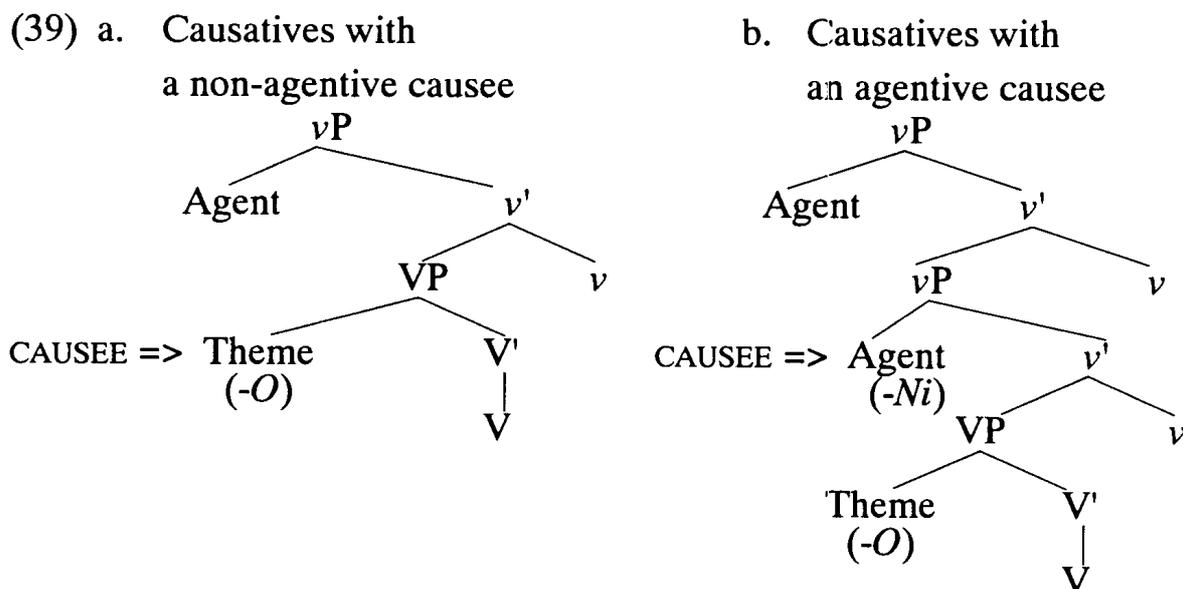
In (34) the English translations retain the pronoun *her* in the extraction sites where the Japanese examples do not permit any kind of pronominals. This fact is accounted for by assuming that the English pronoun in this context “is a kind of trace or resumptive pronoun left after movement”. In this way the superficial difference between Japanese and English is treated as a reflection of the same phenomenon. This assumption has a further consequence in accounting for the obligatory uses of bound anaphora in the following English idiomatic expressions.

- (37) a. Jane_i lost her_i way. (H. (66a))
 b. John_i craned his_i neck.
 c. Mary_i absorbed herself_i in computer games. (H. (67a))
 d. They_i devoted themselves_i in politics. (H. (67b))

One more consequence relevant to our discussion is her analysis of causatives with agentive and non-agentive causees. The contrast is shown by the sentences in (38).

- (38) a. Hanako-ga kuruma {-o/*-ni} hasir-ase-ta (H. (69b))
 -NOM car-ACC/DAT run-CAUSE-PAST
 'Hanako made the car run.'
- b. Hanako-ga Taro {-o/ -ni} hasir-ase-ta (H. (69c))
 -NOM -ACC/DAT run-CAUSE-PAST
 'Hanako made Taro run.'

The underlying structures (39a) and (39b) are given by Hasegawa to these causatives:



As was explained at the beginning of this section, Hasegawa uses v as a functional and lexical category with the specifications [\pm Obj Case] and [\pm external role]. She also follows a convention that V is a lexical category, standing for verbs, whose external argument position is marked with the theta role Theme²³. An unergative verb like *hasir-* is supposed

²³ This assumption is partially based on the Universal Alignment Hypothesis originally proposed by Perlmutter and Postal (1984). It reads as follows: There exist principles of universal grammar which predict the initial relation borne by each nominal in a given clause from the meaning of the clause. (Perlmutter and Postal 1984, p. 97) Coupled with the idea of VP shell analysis (started with Larson (1988)) and configurational theta role assignment, this principle predicts that the meaning of a predicate and the syntactic structure in which it appears decide theta roles of the arguments of the predicate. On the basis of these ideas, Hale and Keyser (1993) gives the Lexical Relational Structures (i) and (ii) for verbs of intransitive / transitive alternation.

to assign the theta role Agent to its external argument position. If this verb appears only as the complement of a *Ni*-causative, there would be no problem. However, as is shown by (38b), it can serve as the complement of an *O*-causative, which implies that unergatives can have non-agentive subjects²⁴, contrary to the general agreement on the agentivity of unergative subjects. This fact makes the analysis of *Ni*-causatives very difficult.

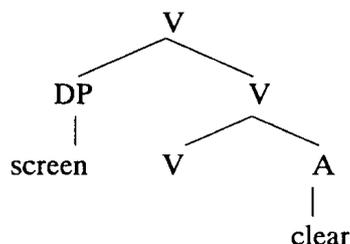
Hasegawa's (2001) contributions are (i) redefinition of the functional category *v*, (ii) introduction of the features [\pm Obj Case] and [\pm external role] making it possible to classify verb types on the basis of significant generalizations.

<IV> A proposal for a new analysis

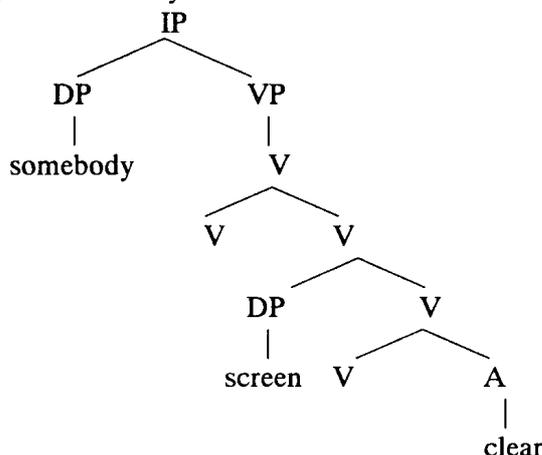
4.1. Introduction

Inoue (2000a) made a proposal to classify functional predicative affixes (FPA) into six classes on the basis of their capacity of projecting an external argument position. The method of such categorization has its own weakness, mainly failure to capture a broader generalization. The

(i) a. The screen cleared.



(ii)a. Somebody cleared the screen.



Hoshi (2001 among a few other papers by the same author) claims that the non-configurational theta role assignment comprises part of the universal grammar, which permits free theta role assignment within lexical projections. If this claim is correct, the structural representations given in this section must be reconsidered.

²⁴ This is exactly what Hasegawa claims. The fact that unergatives can be complement sentences of both *Ni*- and *O*-causatives means that their subjects can bear the theta-role Agent or Theme. In other words, unergatives can be unaccusatives, while unaccusatives sometimes appear with agentive subjects as in (22) and (23). It may be safe to conclude that with animate subjects unaccusatives are always ambiguous, and unergatives get the agentivity of their subjects suppressed in contexts like *O*-causatives.

six categories are independent objects, rejecting cross-categorical generalization. Section 4.2 discusses the introduction of a new feature [\pm Case absorption], whose independent status was already discussed in Section II. Now the six classes can be given appropriate feature specifications. Section 4.3 presents a new analysis of all the relevant structures proposed in Section II, followed by discussion of the two alternative analyses of *Ni*-causatives. Section 5 summarizes the contents of this paper.

4.2. Feature specifications for FPAs

Hasegawa's table of feature specifications is reproduced in (40).

(40)

	+ external role	-external role
+ Obj Case	(a) transitives	X
- Obj Case	Y	(b) unaccusatives

With the addition of the feature [\pm case absorption] to deal with complex predicates yields the following sets of feature specifications. In (41) given below, (a) – (d) are for simple predicates, with (a') - (d') for Japanese complex predicates²⁵.

(41)	Hasegawa	Inoue
a. [+ external role] [+ Obj Case]:	transitives	transitives,
a'. [+ external role] [+ Obj Case] [- case absorption]:		<i>O</i> -causative
b. [- external role] [- Obj Case]:	unaccusatives	unaccusatives

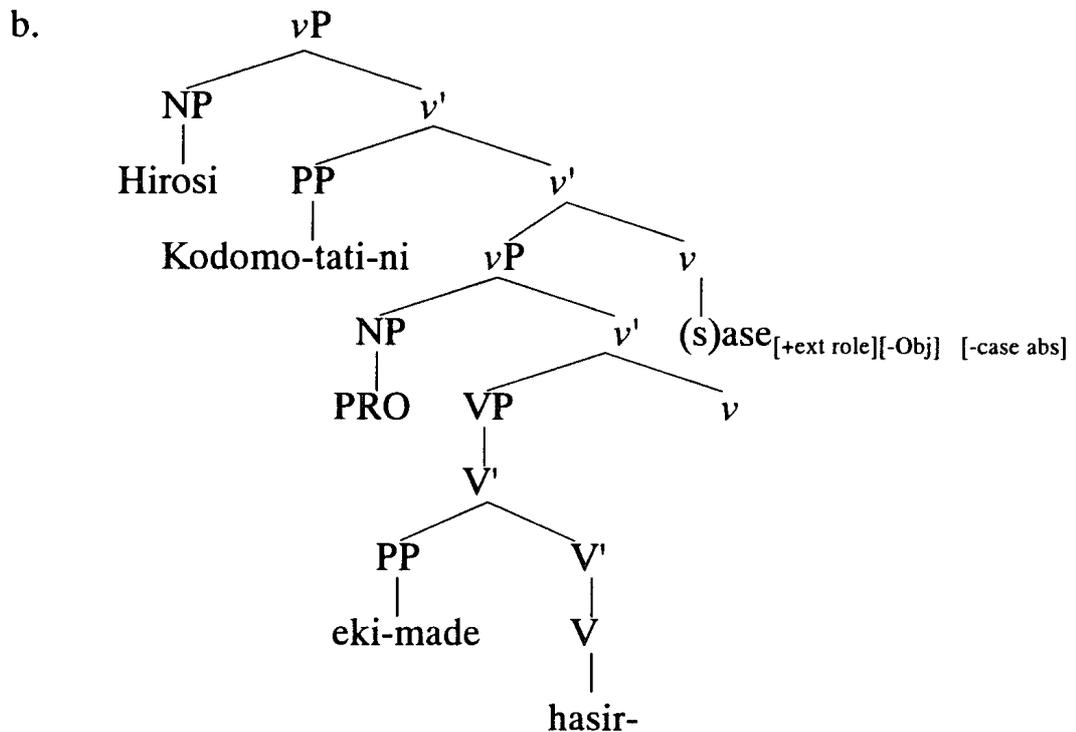
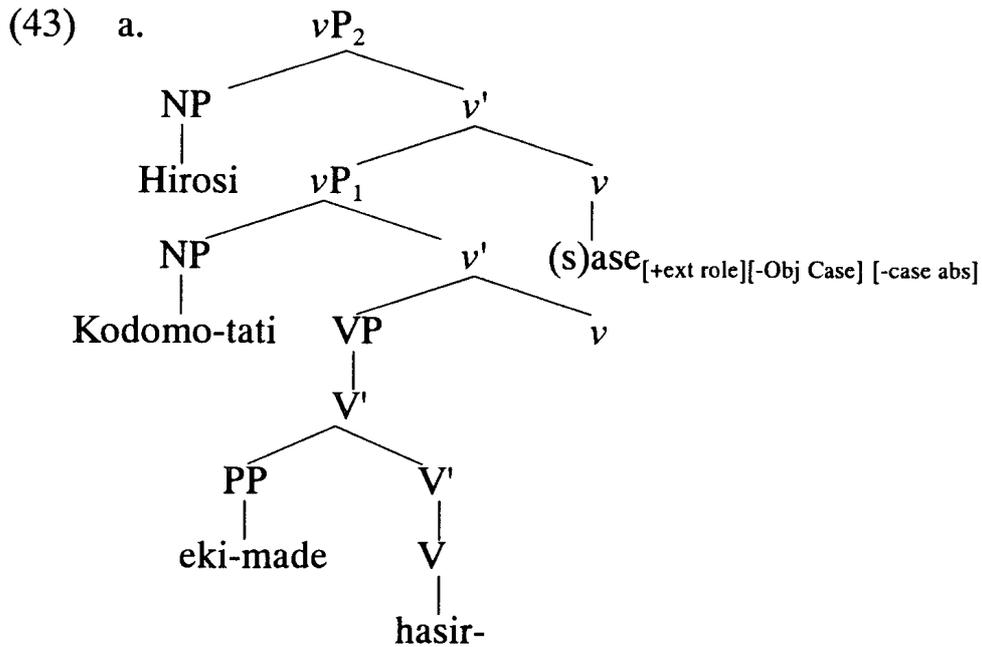
²⁵ Since there are no complex predicates of the Japanese type in English, a', b', b'', c', d', and d'' stand only for Japanese complex predicates.

b'. [- external role] [- Obj Case] [+ case absorption]:		direct passives the <i>ni-ga</i> sequence in potentials, desideratives and 'tough' sentences
b'' [- external role] [-Obj Case] [- case absorption]:		*the <i>ni-o</i> sequence
c. [- external role] [+ Obj Case]:	X	transitives with causer and experiencer subjects
c' [- external role] [+ Obj Case] [- case absorption]:		*the <i>ni-o</i> sequence
d. [+ external role] [- Obj Case]:	Y	simple unaccusatives with agentive subjects intransitives with Experiencer subjects and with the <i>ga-ga</i> sequence (e.g. sentences with <i>hosi-i</i> , <i>zyoozu-da</i> <i>suki-da</i> , etc.)
d'. [+ external role] [- Obj Case] [+ case absorption]:		the <i>ga-ga</i> sequence in potentials, desideratives, and 'tough' sentences

d". [+ external role] [- Obj Case] [- case absorption]:	indirect passives, <i>Ni</i> -causatives, the <i>ga-o</i> sequence in potentials, desideratives
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The table (41) shows that the (a) and (b) sentences (transitives and unaccusatives), both simple and complex, comply with B's generalization. The combination [+Obj Case] and [-case absorption] in (41a), and [- Obj Case] and [+ case absorption] (41b) mean that the specifications on the matrix predicates win out over those of the complement predicates, making no difference between simple and complex predicates in terms of specifications concerning the case. The same holds with the case (d'), which results in the same feature specification with unaccusatives with agentive subjects in (d). It is worth noting that the *ni-o* sequence in (d'') and (c') is ruled out, while English ones like those in (3) with the specification [- external role][+Obj Case] on the predicates are permitted. This fact indicates that the feature combination [-external role] [-Obj Case] disallows [- case absorption], that is, this combination induces case absorption. On the other hand the combination [+ external role][-Obj Case] permits [\pm case absorption]. The unacceptable combination in b'' and c' involving *the *ni-o* sequence might be traced back to the English-Japanese contrast in permissibility of expletives. To be more specific, *ni* in the **ni-o* sequence follows the general rule of licensing the *ni*-marked agentive complement subject by matrix predicates with the feature [- Obj Case]. The problem with the **ni-o* sequence can be assumed to be the result of the empty subject position permitted by this type of predicates, which prevents licensing the accusative case due to its dependence on the presence of the nominative case assigned to subject. This is exactly what the dependent case is meant by Marantz (1992)²⁶. In English, on

²⁶ Marantz (1991) introduced the idea of "dependent" case in his case realization hierarchy. Case realization disjunctive hierarchy; (a) lexically governed case (so called inherent case), (b)



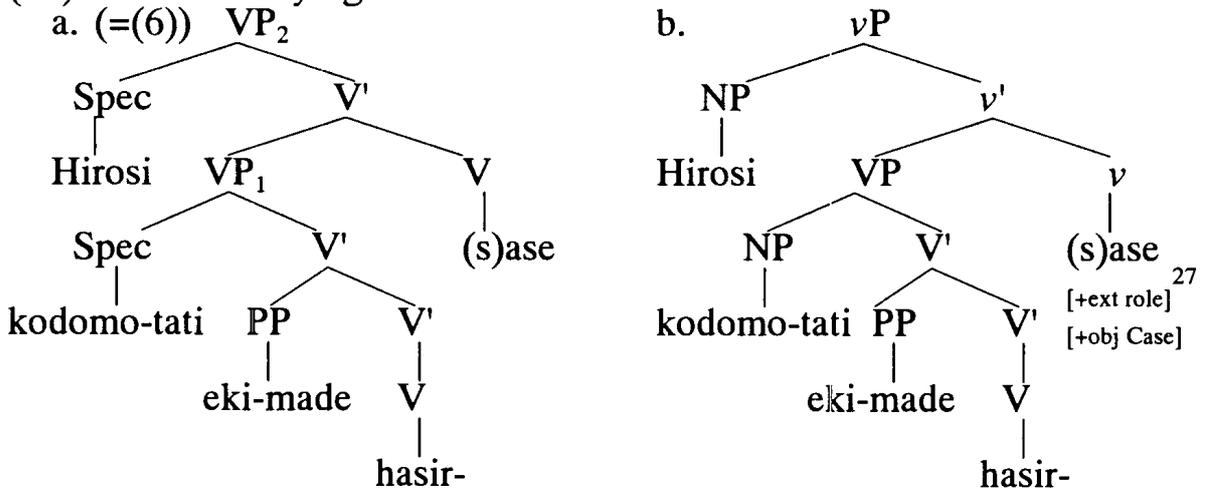
The structure (43a) differs from (42b) only in the use of vP_1 in place of VP in the latter. This change is induced by the assumption that the vP -Spec position is marked with the theta-role Agent, while the VP-Spec has Theme. The problem involved in (42b) is that the subject of an unergative sentence is treated as non-agentive, bearing the theta-role Theme. If we adopt (43a) both for *O*- and *Ni*-causatives, we are back to our original proposal to let the complex predicate with the *O*-causative

the contrary, expletives function as place holders, and in fact bearers of the nominative case, supporting licensing of the accusative case.

4.3. A proposal for a new analysis

Now let us cast the structures given in Section II into the new model. (Since the IP-Spec is always empty in the underlying structure of this grammar, IP is omitted in the following reformulation. The structures given in Section II have their previously given numbers in the parentheses.)

(42) The underlying structure of *O*-causatives



According to the convention mentioned above the external argument position of VP is marked with the theta-role Theme, which is realized either as the subject of an unaccusative sentence, or the object of a transitive when this VP is embedded in a transitive structure. The structure (42b), therefore, is not adequate, because the subjects of unergatives must bear the theta-role Agent. Before considering an alternative let us take up the case of *Ni*-causative.

Even though the same structure was proposed for both types of causatives in Section II, a different structure must be given to the *Ni*-causatives if we follow the convention concerning VP. Two alternatives are given below.

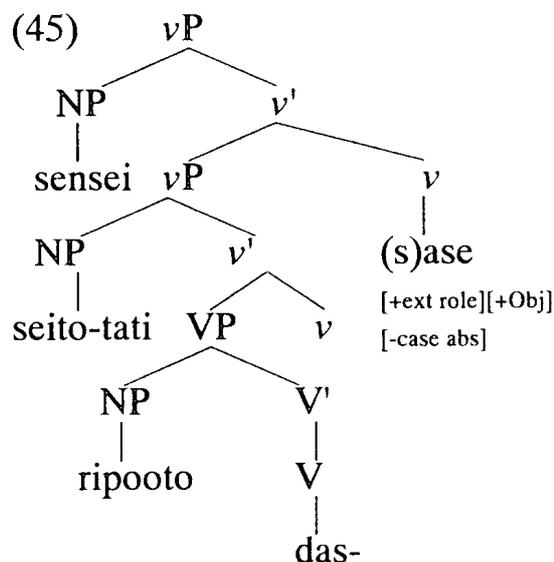
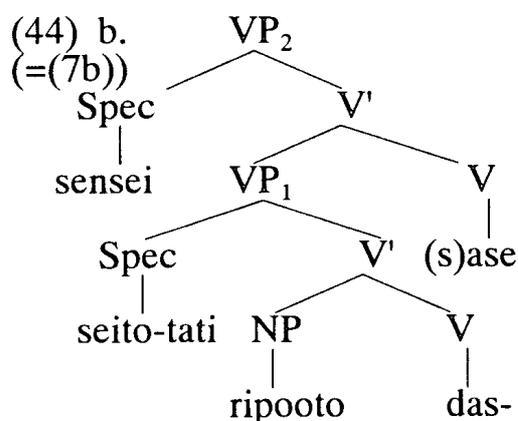
“dependent” case (accusative and ergative), (c) unmarked case (environment-sensitive), (d) default case. Aoyagi (1998) illustrates the “dependent” case marking using Japanese.

²⁷ The features [external role] and [case absorption] are abbreviated as [ext role] and [case abs] respectively.

(s)ase assign the accusative *o* to the complement subject, and give the feature [+ Subj *ni*-assignment] to the *Ni*-causative (s)ase. However, the feature specifications given in (40) solves this problem nicely. That is, the *O*-causative (s)ase has the specification [+external role][+Obj Case] and [-case absorption], while (s)ase of the *Ni*-causative carries [+external role][-Obj Case] and [-case absorption]. The only difference between the two types of causatives is the plus or minus value of [Obj Case]. The feature [-Obj Case] of the latter triggers licensing of *ni* attached to the complement subject.

For *O*-causatives with transitive complements, such as the example (7a), a drastic change is brought about by adopting this new model. (7a) is repeated below with its underlying structure (7b) as (44a, b). (45) shows the new analysis.

(44) a.(=(7a)) Sensei-ga seito-tati-ni ripooto-o das-ase-ta
 teacher-NOM pupils to report-ACC submit-CAUS-PAST
 'The teacher made pupils submit their reports.'



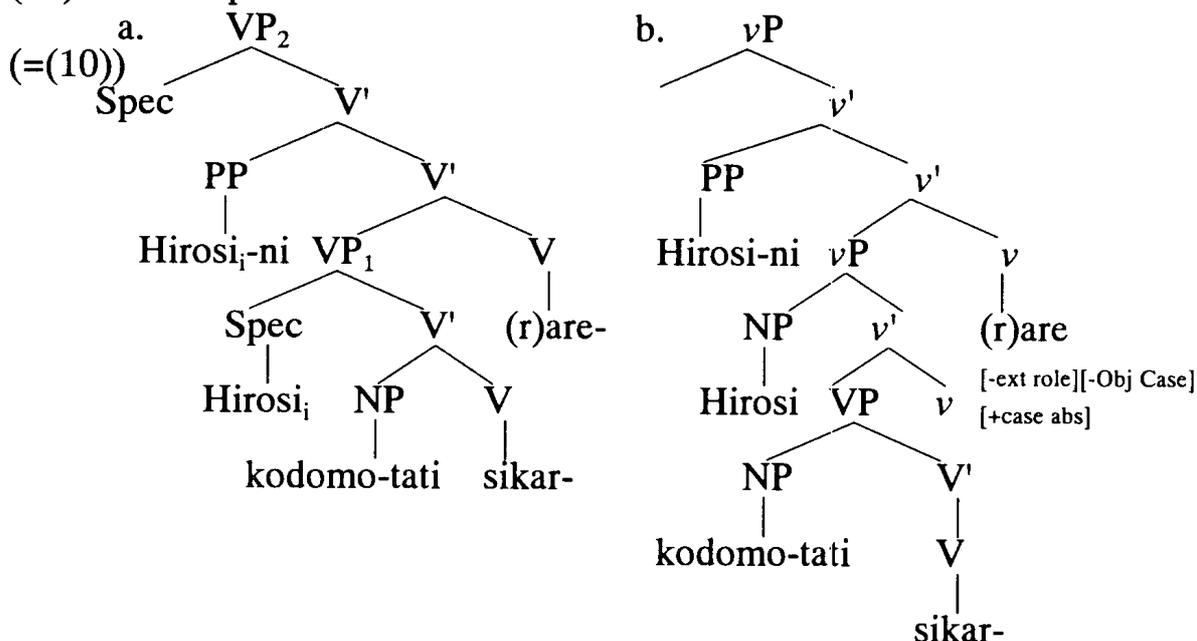
The resulting *o-o* sequence is changed to the *ni-o* sequence in PF due to the double *o* constraint.

Now let us turn to the second alternative given as (43b) with the particle *ni*, an inherent case selected by the *Ni*-causative *sase*, deriving an adjunct phrase. The embedded subject PRO is co-referential with *kodomo-tati*. This alternative seems to be reasonable as a solution to our

problem. However, if we choose this analysis, the characteristics shared by *Ni*-causative, indirect passives, and the *ga-o* sequence in potentials and desideratives will not be accounted for.

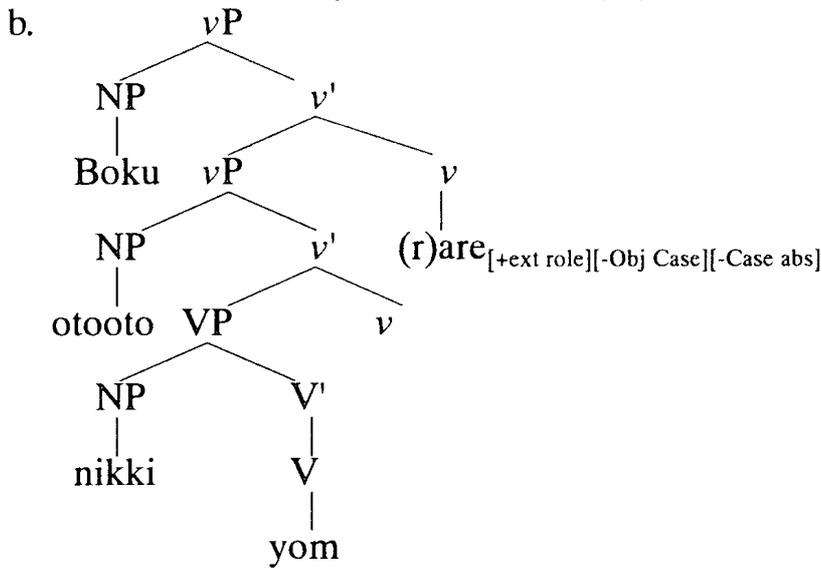
All the other structures given in Section II can be cast into this framework. Let us take them one by one contrasting the structures given in Section II and the newly proposed ones.

(46) Direct passives



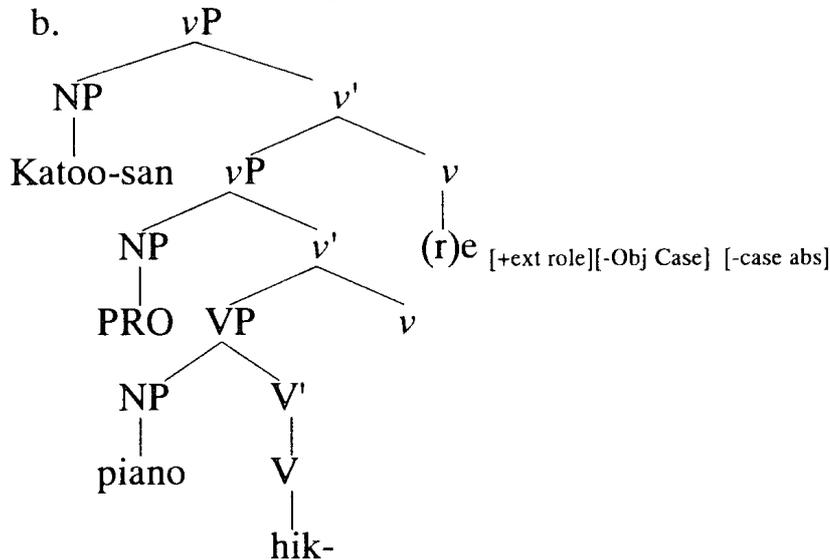
The underlying structure of the indirect passive is not given in Section II, only mentioning that it behaves in the same way as *Ni*-causatives. Among the two alternatives for the analysis of *Ni*-causatives, the first one, that is, the same structure as that of *O*-causatives can be assumed here without any problem. Since the indirect passive *(r)are* is with [-Obj Case] there is no danger of its licensing *o* attached to the complement subject. It obeys the general rule of licensing *ni* of the complement subject by a predicate with the feature [- Obj Case]. (47b) is its underlying structure shared by *O*- and *Ni*-causatives. Unfortunately, the second alternative, unique to *Ni*-causatives, do not work appropriately here.

- (47) a. (=9c) Boku-wa ootoo-ni nikki-o yom-are-ta
 'I had my brother read my (or someone's) diary.'

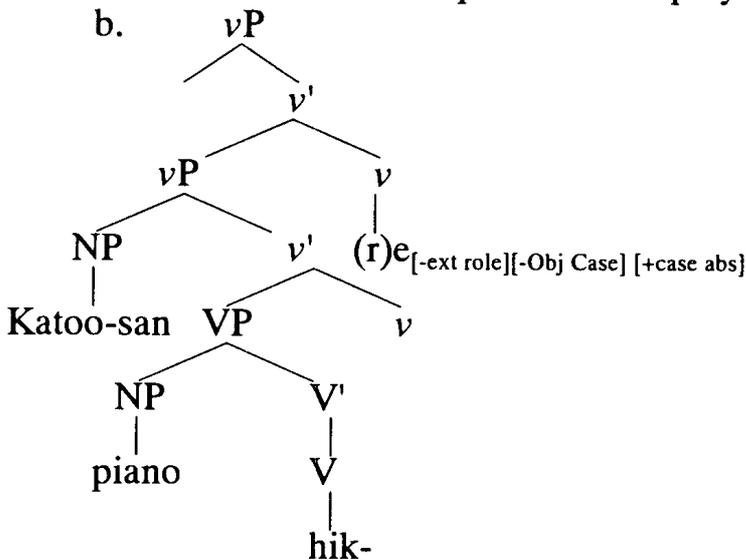


Ga-o potentials like (11a), repeated as (48a) has the following structure (48b) in the new model. *Ni-ga* potentials have (49b) as their underlying structure.

- (48) a. Katoo-san ga piano o hik-e-ru
 'Mr. Kato can play the piano.'



- (49) a. *Katoo-san-ni piano-ga hik-e-ru*
 ?‘To Mr. Kato the piano can be played.’



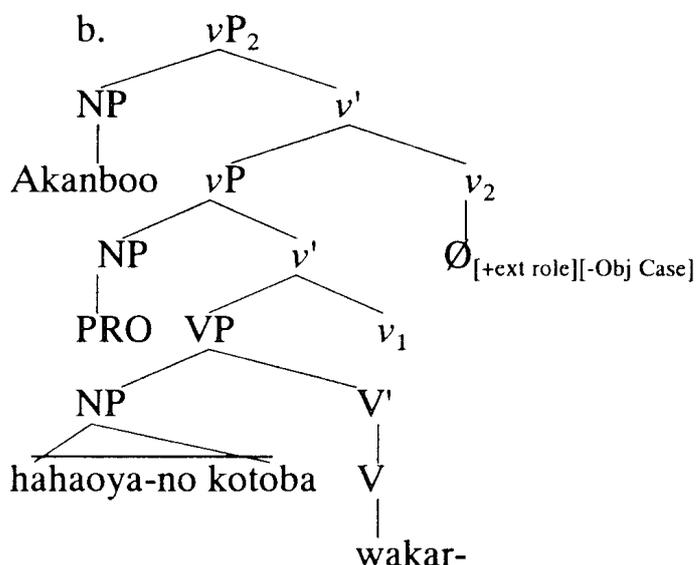
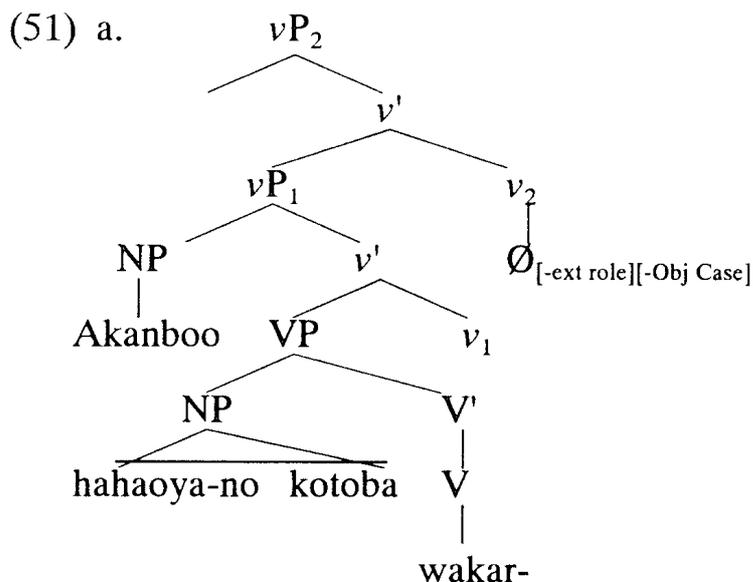
In the case of (48a) the complex predicate *hik-e* does not absorb the case licensing capacity of the complement affix *hik*, but inherits this capacity and licenses *o* attached to the object *piano*. The matrix subject *Katoo-san* gets the default case particle *ga*.

Ga-ga potentials have underlying structure (48b), the same as *ga-o* potentials, but this time the complex predicate *hik-e* absorbs case, inducing the *ga-ga* combination.

The underlying structure (49b) of *ni-ga* potentials is similar to that of direct passives. The significant difference is that the PP adjunct phrase does not appear in (49b). In this case the potential affix absorbs case and the complement subject has *ni* licensed by the aforementioned general rule.

Finally, let us turn to the analysis of sentences with simple predicates *wakar-u* and *deki-ru*. The sentences (16a, b) are repeated below as (50 a, b). The structures (51a, b) are assumed to underlie the (a) and (b) sentences in (50)

- (50) a. (=16a) *Akanboo-ni hahaoya-no kotoba-ga wakar-u* (koto)
 'Babies understand what their mothers say.'
 b. (=16b) *Akanboo-ga hahaoya-no kotoba-ga wakar-u* (koto)



The derivations of (50a, b) are the same as *ni-ga* and *ga-ga* potentials. Only difference in the underlying structure is the empty v_2 in (51a) and (51b) to which V is raised.

<V> Conclusion

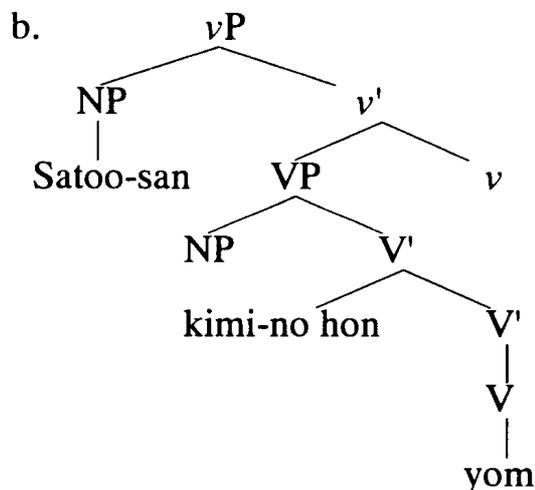
It was shown in this chapter that Burzio's generalization does not necessarily hold in all the cases of diverse clause structures of Japanese. Regarding predicative affixes as functional categories with or without the accusative Case checking function and the lexical property of external theta-marking, we were able to give a unified account for the data

supporting and refuting B's generalization. Hasegawa's formalization made it possible to capture basic properties of this type of functional categories.

Casting some of the relevant findings concerning functions of various predicative affixes in Hasegawa's framework, a certain problem involved in this type of analysis became clear. First of all, as Hoshi (2001) points out, the model we adopted here assumes configurational theta-marking, based on the Universal Alignment Hypothesis given in Note 23, together with Larson's proposal for VP shell analysis (1988). The categorial distinction in terms of transitivity is made by means of *v* with feature specifications [\pm ext role], [\pm obj Case] and so on, which are in some cases intermediate landing sites of raised verbs and verb complexes before they get incorporated into predicative affixes. Actually all the verb roots, both transitive and intransitive, are deemed to be category neutral. Take for example (52a) with a simple transitive root.

- (52) a. Satoo-san-ga kimi-no hon-o yon-da.
 -NOM you-GEN book-ACC read-PAST
 'Mr. Sato read your book.'

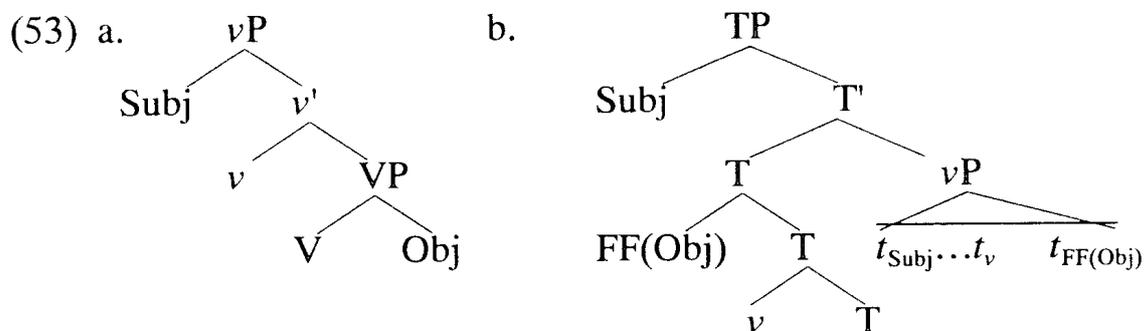
The revised model given in Section IV gives (52b) as the underlying structure of (52a). Though *yom* is a simple transitive root, it is treated as a neutral root getting its property as a transitive verb after it is raised and incorporated into *v*. The same applies to simple intransitive roots.



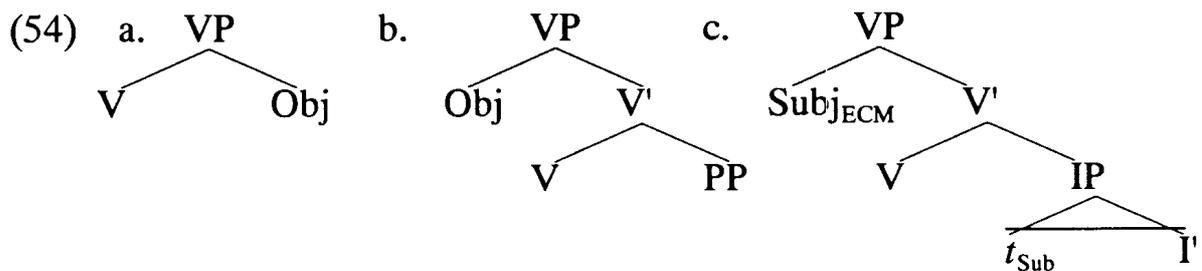
As a result, there emerges a question as to whether the category Adjective is a syntactic primitive or not. In the preceding sections, adjectival derivational affixes like *ta-i* (want), *yasu-i* (easy), *-asi-i* (a pure adjective marker without semantic content) were all treated as *vs* with [\pm ext role] and [\pm Obj Case]. To make sure that inflectional distinctions among verbs, adjectives, and adjectival nouns are specified, it is necessary to assign categorical features in terms of [\pm V] and [\pm N] to all predicative roots and affixes. Unless roots and stems carry the basic categorical features, their compatibility with certain other derivational affixes cannot be specified. For example, adjectival affixes can never be attached to adjectival roots and stems. This means that there are no category neutral predicates, suggesting adequacy of a proposal like López (2001) to let transitive verbs retain the capacity of θ -role²⁸ assignment to objects and accusative Case checking.

Two proposals to relieve *v* of the load of accusative Case checking, López (2001) and Bowers (2002), are relevant to the discussion of our problem, both claiming inadequacy of interdependence of θ -theory and Case checking theory, as is implied by B's generalization.

López criticizes Chomsky's assumption that the light verb *v* is responsible for both accusative Case checking and θ -role assignment to its external argument, thus relying on "the complementarity of θ -theory and checking theory". In contrast to Chomsky's structure for transitives, given in (53a), López proposes the three configurations in (54) for accusative Case checking in English. (53b) is Chomsky's LF configuration in which accusative Case feature is checked.



²⁸ We follow López' symbolization from now on, using " θ " in place of "theta".



In (54) V is responsible for both Obj- θ -marking and accusative Case checking. (54b) is the structure of V with two complements. (54c) shows that ECM subjects are assumed to raise to [Spec, V] overtly. Thus, López claims, "objects and exceptional-Case-marking subjects check their formal features with a lexical verb, whose domain is therefore both θ -role assignment and Case feature checking." (López, 694)

Three pieces of evidence are given to support the above claim on the basis of facts about the ECM construction, causatives, and absolute small clauses. Concerning ECM, this assumption accounts for distribution of *there* in this construction.

- (55) a. There arrived three men.
 b. *I there expected three men. / *I expected there three men.
 c. I expected there to be three men.
 d. I take it that John will be the next president.

As is indicated by (55a), *there* appears only in subject position. (55b) is not grammatical because *there* is in a non-subject position. In the Minimalist framework, when *expected* merges with *three men*, all the relevant features are checked, leaving no place for *there* to occupy. In (55c) *there* (the ECM subject) is raised to the matrix [Spec, V] position. The two standard ideas, one assuming that *expect* selects for an infinitival complement and the other about θ -role assignment to sentential complements by ECM predicates, are cast into the Minimalist framework in the following way (López 702): (a) the infinitival complement is formed, with *there* merged in [Spec, T], satisfying the EPP: (b) the verb *expect* merges with the infinitival complement, assigning it a θ -role. And here comes López' assumption of the ECM subject raising to [Spec, V] (V=*expect*) and getting accusative Case checked there. (55d) is accounted for in a similar way: the verb *take* selects for CP complement,

which receives a θ -role from *take* but cannot have a Case feature. The verb *take* with the feature [assign accusative] induces insertion of *it* for Case checking.

Another piece of evidence comes from the data like those in (56) revealing that ECM Subjects receive two θ -roles, one from complement verbs and the other from matrix verbs.

- (56) a. Sue estimated Bill's weight.
 b. *Sue estimated Bill.
- (57) a. Sue estimated Bill's weight to be 150 lbs.
 b. *Sue estimated Bill to weigh 150lbs.

The contrast between (56a) and (56b) indicates that the verb *estimate* selects for a complement denoting a measurable quantity. This selectional restriction is preserved in the ECM construction with *estimate*, as shown by the sentences in (57). This means that the ECM subject *Bill* has to be in the position where the matrix verb *estimate* can discharge a θ -role. Thus, the ECM subject carries both the θ -roles assigned by matrix and complement verbs. If we assume, following Chomsky, that *v* is only the accusative Case checker of the ECM subject, no explanation can be given to this fact²⁹. Japanese has the ECM construction, exemplified by (58b), but only the Case checking of the ECM subject has been discussed so far. This suggests that there is in the Japanese ECM construction no obvious semantic parallel to this type of double θ -role interpretation.

- (58) a. kyoozyukai-wa [Kato-kyoozyu-ga tekinin da] to
 faculty meeting-TOP Prof. Kato-NOM well qualified as
 handan-si-ta
 judge-do-PAST
 'The faculty meeting judged that Prof. Kato is well qualified.'
- b. kyoozyukai-wa Kato-kyoozyu-o [*t*_i tekinin da] to handan-si-ta
 'The faculty meeting judged Prof. Kato to be well qualified.'

²⁹ However, this does not mean that the introduction of *v* is an obstacle to theta-role assignment and case checking. See the statement at the end of this section.

On the other hand, there is an adjectival construction which suggests a possibility of similar θ -role assignment.

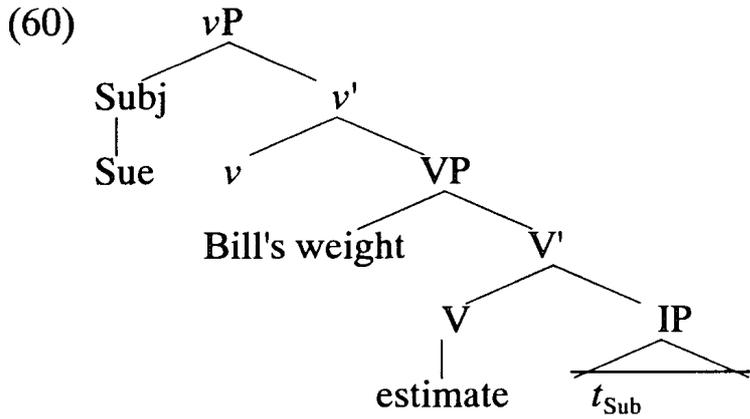
- (59) a. *watasi-wa* [*kodomo-tati-ga hayaku kaette-kite-*] *hosi-i*.
I-TOP children-NOM soon come home want-PRES
'I want that my children will come home soon.'
- b. *watasi-wa kodomo-tati_i-ni* [*t_i hayaku kaette-kite-*] *hosi-i*³⁰.
'I want my children to come home soon.'

Since *kodomo-tati ni* in (59b), not *kodomo-tati-ga* in (59a), carries the sense of being affected, it is appropriate to assume that it carries the θ -roles Agent and Affectee assigned by the complement and matrix verbs respectively. This fact will be accounted for later within our own theoretical framework.

Next López uses the fact of double θ -role assignment to the causee of causative constructions of Spanish, for which she assumes the complement subject raising to the matrix [Spec, V] position as in the case of the English ECM construction. A similar observation has been reported in regard to the Japanese *Ni*-causative, since the *ni*-phrase denoting causee receives dual interpretation as Agent and Affectee. An analysis similar to the ECM subject raising was proposed by Kuroda (1965) as the Subject-*ni* raising. However, it is shown later that the ECM subject raising is unnecessary in our framework.

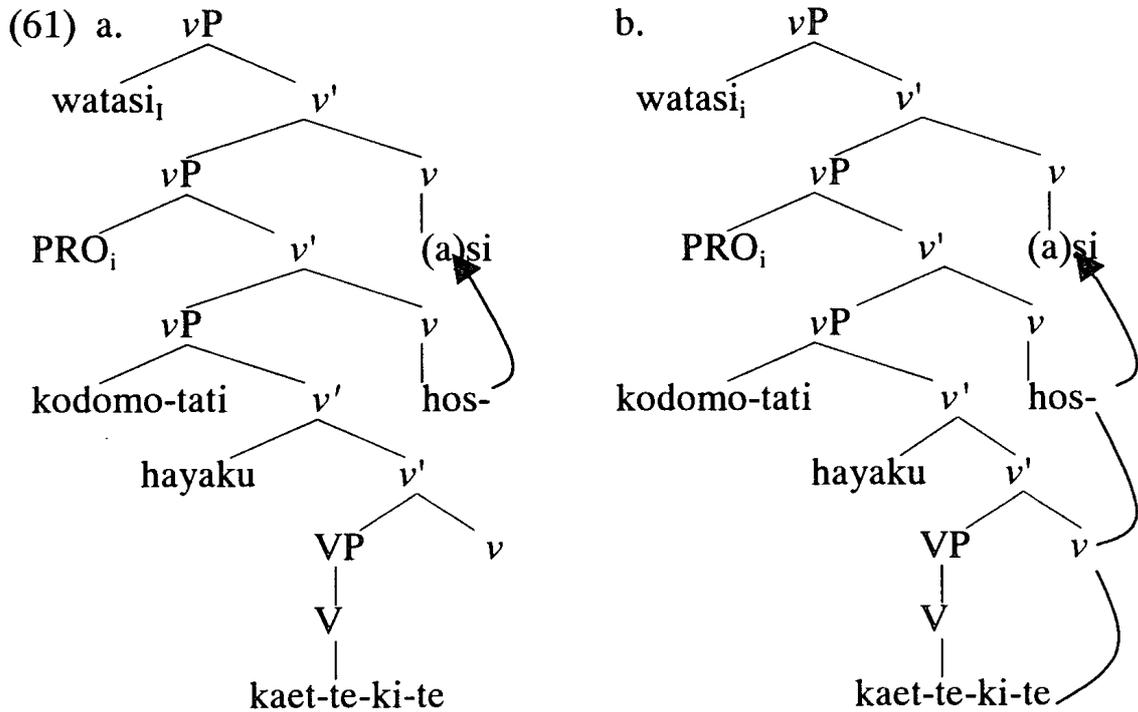
López certainly gives persuasive arguments for her assumption of the lexical transitive verb assigning a θ -role and checking accusative Case. However, a close look at her ECM structure (54c) reveals that as far as this structure is concerned no problem is involved in the use of the functional category *v*. Observe (60), the structure of (56c) relevant with respect to the presence of *v*.

³⁰ In our analysis *kodomo-tati* is assigned *ni* in situ by the complex predicate *kaet-te-ki-te*. It is not raised to the matrix object position. See the structure (61b). The structure presented here follows the assumption by López.



Bill's weight raised to the [VP, Spec] position receives a θ -role from the matrix verb *estimate*, as well as another one from the complement verb. The presence of the functional category *v* does not affect θ -role assignment at all.

The Japanese data in (59) with the double θ -role interpretation pose an interesting syntactic problem, but they are not counterexamples to the analysis with *v*. The analysis proposed in this chapter gives the following structures for (59a, b).



The structure (61a) stands for both (59a) and (62) given below.

- (62) Watasi-wa [kodomo-tati-ga hayaku kaet-te-kuru] koto-o hos-su-ru
 I-TOP children-NOM early come home that-ACC want-do-pres
 'I want that the children come home early.'

In (61a) verb incorporation takes place only between *hos-* and *-(a)si-* deriving *hos-i*³¹. In its complement sentence the external argument is marked with *ga*. On the other hand, in (61b) the complement verb *kaet-te-ki-te* is incorporated to *hos-* and the derived complex verb *kaet-te-ki-te-hos-* is incorporated to *(a)si*, deriving *kaet-te-ki-te-hos-i*. This contrast means that in (61a) the final *-te* in *kaet-te-ki-te* functions in parallel with the finite verb ending *ta* (Past) blocking an element outside its domain IP from having access to elements within it, so the assignment of *ni* by a complex predicate outside of it is impossible. In (61b), on the contrary, the complement verb complex *kaet-te-ki-te* is incorporated into *hos-*, resulting in *kaet-te-ki-te-hos-*, which now governs the complement subject *kodomo-tati*, and assigns *ni* as well as the θ -role Affectee. As the result, *kodomo-tati* renders interpretation both Agent and Affectee. Now, this analysis shows that there is no need for assuming the raising construction for ECM sentences like (59b). Thus, López' analysis does not give crucial counterexamples against the introduction of ν .

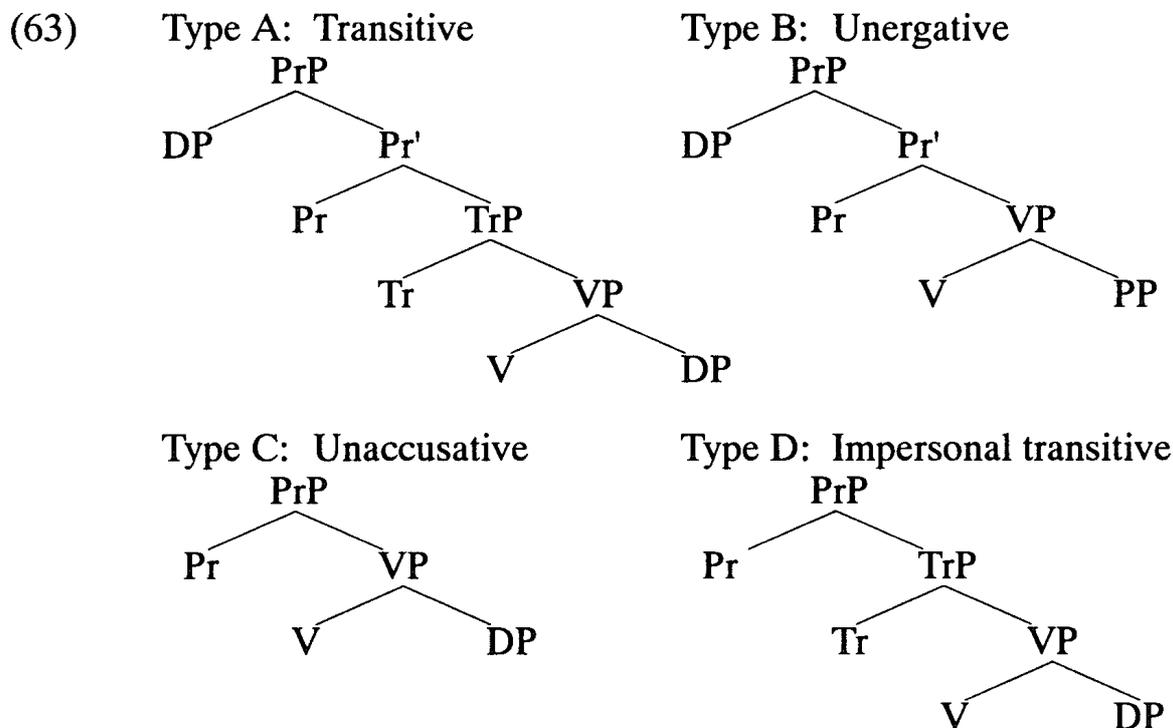
Moreover, in light of the fact that the substantial number of Japanese predicates (verbs and adjectives) are derived through affixation of derivational affixes, López' proposal does not seem to win out over the analysis with the functional category ν , which dominates functional predicative affixes.

Bowers claims that Chomsky's functional category ν ³² should be analyzed into Pr (Predication) and Tr (transitive), the former providing subject position and the latter checking accusative Case. Bowers shares with López the idea that ν should not have a dual function of discharging a θ -role to its external argument and at the same time as the probe for

³¹ *Hosi-* is analyzed into *hos-* (want) and *(a)si*. The morphophonemic changes are: *hos-(a)si* → *hos-i* (Adjective; 'desirous'); *hos-su* → *hos-su* (Verb, 'want'). With the present tense marker *i* for an adjective and *ru* for a verb, they are changed to *hos-i-i* (be desirous), and *hos-su-ru* (want).

³² Bowers' use of non-italicized ν is used in the following discussion. His basic structures (63) are much simplified. See (65)-(70) for details.

accusative Case checking. It is assumed here that Pr is obligatory for every clause and Tr is optional. His basic structures are given in (63), with the summary (64) of specifications given to syntactic categories relevant to the syntactic operations within his framework.



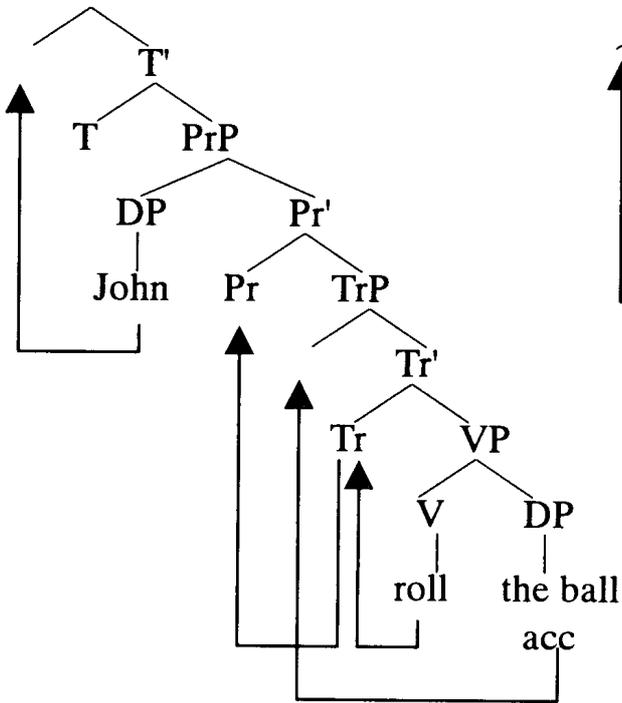
- (64) (a) Tr: (i) may contain a probe with (object) ϕ -features and assign accusative Case.
(ii) does not assign a θ -role to its specifier position
(iii) may contain EPP-feature
- (b) Spec, Tr: the position accusative Case marked NPs move to
(c) T, Tr: probes with ϕ -features
(d) T, Pr, Tr: with EPP-feature
(e) CP, PrP: strong phases
(f) Pr: the position verbs obligatorily move to
(g) NP_{nom}: raised to Spec, Pr and then to Spec, T
(h) NP_{acc}: raised to Spec, Tr to get its Case feature checked.

The example sentences and their derivations are given in (65) through (70). It should be noted that all the verbs end up in the position dominated by Pr. Each DP moves to the specifier positions of TrP, PrP and TP satisfying the Case checking condition it has to meet.

(65) transitives

a. John rolled the ball.

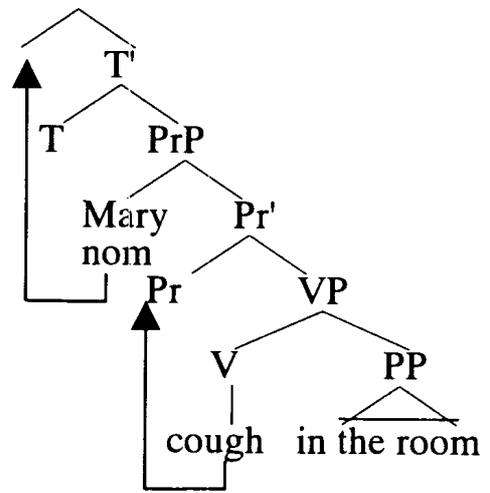
b. TP



(66) unergatives (Bowers (10))

a. Mary coughed in the room

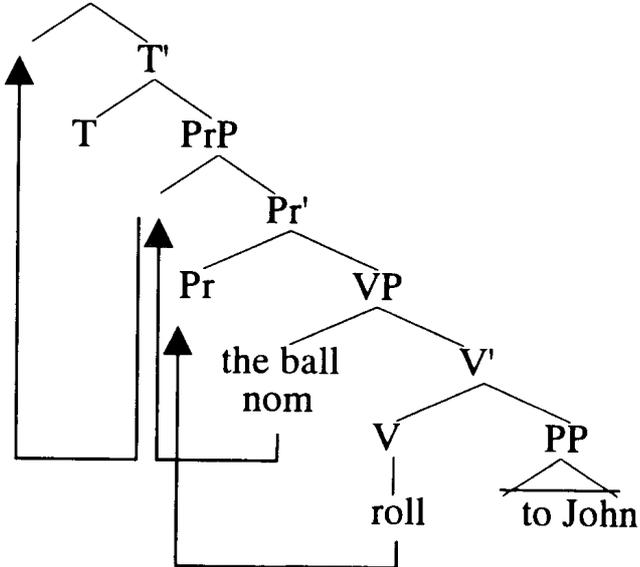
b. TP



(67) unaccusatives (B. (79))

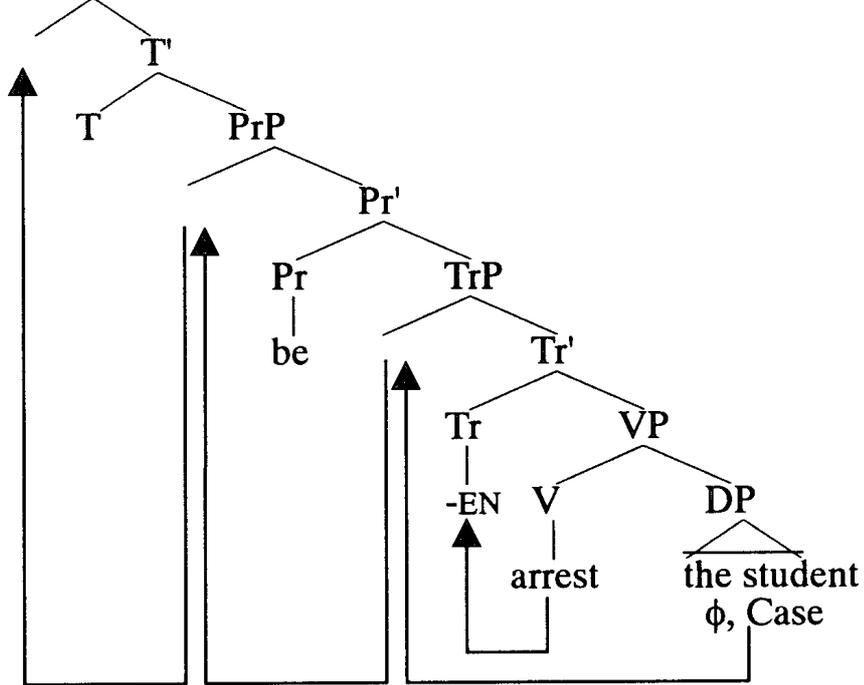
a. The ball rolled to John.

b. TP



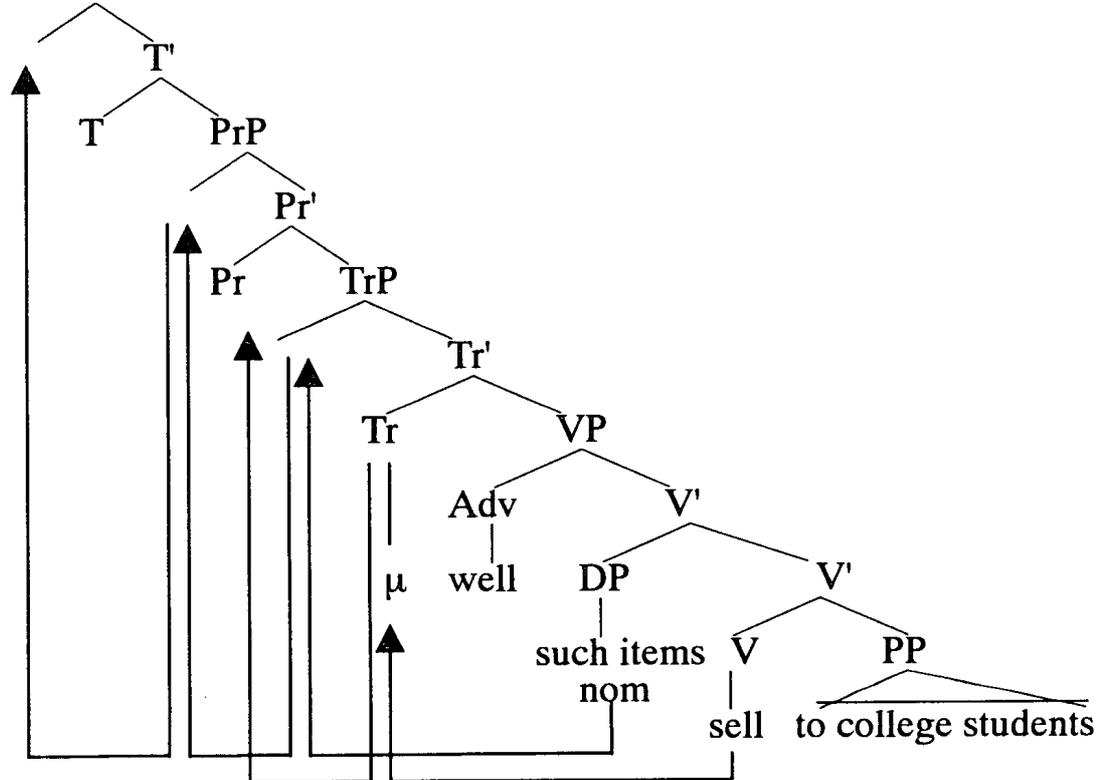
(68) passives (B. (58))

- a. Students were arrested.
 b. TP

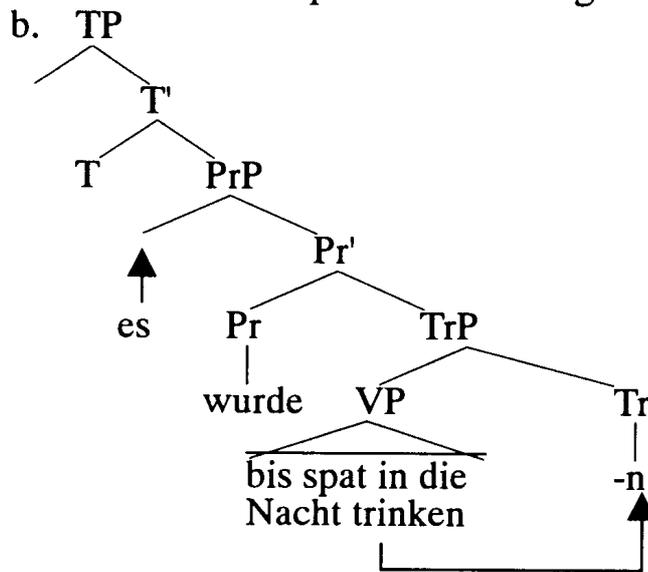


(69) middles (B. (78))

- a. Such items sell well to college students.
 b. TP



- (70) impersonal passives (B. (65))
 a. Es wurde bis spat in die Nacht getrunken.



Very persuasive arguments are given, first using the shared characteristics of the expletive construction with *there*, sentences with inverted locatives, passives, and middles. The former two constructions share the distributional peculiarity, namely compatibility with only unaccusatives. Since unaccusatives leave the [Spec, Pr] position vacant, *there* and inverted locatives can utilize this position, while transitives and unergatives fill this position with their subjects keeping other elements out of this position. The latter two, passives and middles, are based upon transitive underlying structures, even though their transitivity is revealed only indirectly by an agentive *by*-phrase (in the case of passives) or action oriented adverbs like *well* or *easily* in middles. To be more specific, the category Tr is chosen by transitives for accusative Case checking as well as by passives and middles as the position for the passive morpheme -EN and the zero middle morphemes μ . This analysis also accounts for intransitive passives in languages like German and accusative marked passive subjects in Ukrainian.

Although this analysis is very attractive especially from the point view of universal grammar, Tr and Pr are subclasses of the functional category ν , so there is no immediate answer to our problem. With a further research, Bowers' proposals may turn out to give supports to our analyses.

Without committing to technical details of Saito and Hoshi's approach, we have to investigate the possibilities of non-configurational theta-marking for Japanese, which claims that "A predicate can discharge theta-roles from anywhere." (Hoshi 2001) In this framework all relevant information concerning theta-roles a predicate has to discharge and the question whether or not it can project an external theta position resides in the specification carried by each predicate, without depending on the empty functional category. Unless a detailed study of the data used by Hoshi is carried out, we cannot decide whether this model present relevant data refuting the idea of using the functional category v . However, counterevidence might not be expected to come out from this attempt, since at any rate elements belonging to v as well as V must have the theta grids of their own and the manner and timing of discharging them do not concern the basic analyses.

Thus, we can conclude that at the present moment there is no evidence found against our analysis using v with functional and lexical features.

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