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The Split VP Hypothesis, Verbal Nouns, and Japanese

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Abbreviations and Conventions

acc - accusative case
agr - agreement
AT - agent topic
Aux - auxilliary verb
caus - causative
CL - classifier
COP - copula
dat - dative case
fut - future
gen - genetive case
IP - inflection phrase
IT - instrumental topic
ISH - Internal Subject Hypothesis
nom - nominative case
pass - passive
pl - plural
pres - present
PST - past
ptc - particle
SG - singular
SVH - Split VP Hypothesis
t_x - trace
top - topic
TP - tense phrase
TT - theme topic
VN - verbal noun

Note: There may be inconsistencies in the spelling of Japanese examples due to differences in romanizations used by different authors. As well, inconsistencies in the glossing of particular words are due to the particular focus of the author from whom the example was taken.

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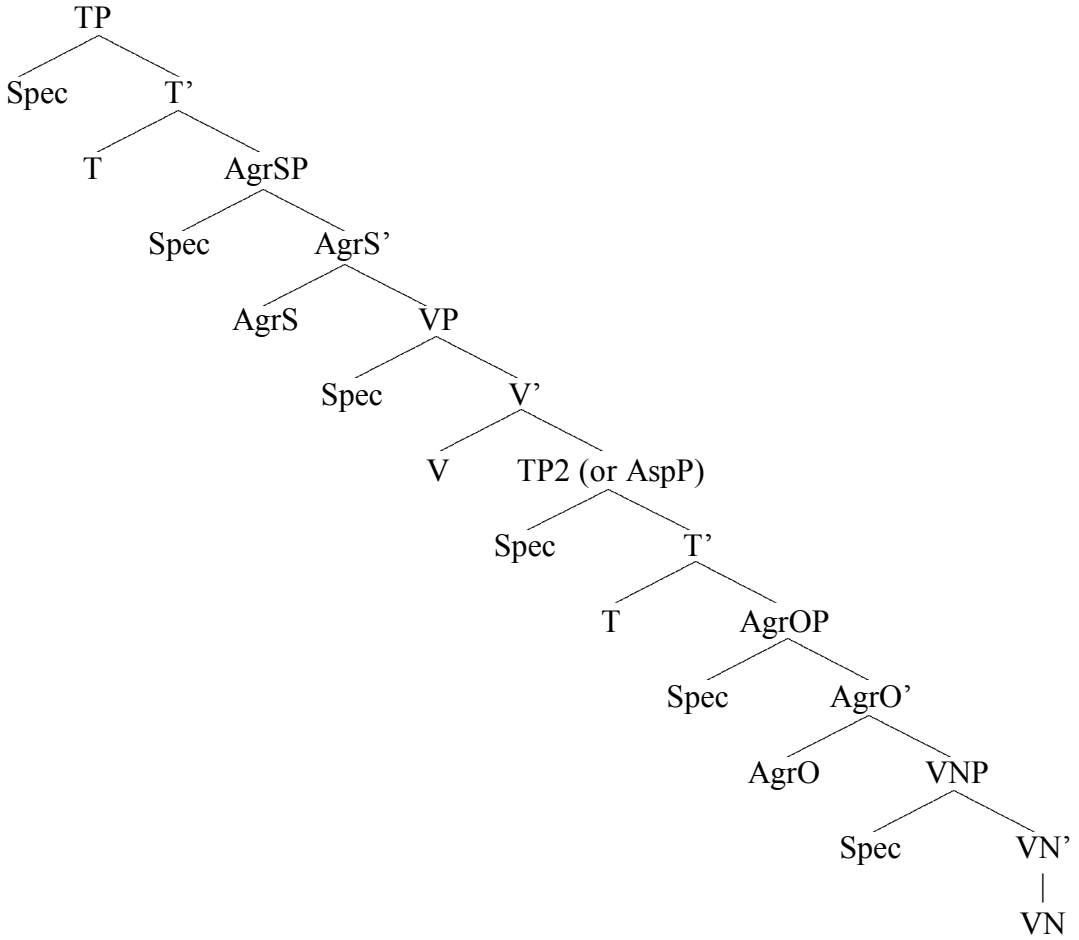
0. Introduction

A Split VP was originally proposed by Larson (1988) to deal with double object constructions. Since then, similar structures have been used to describe phenomena in various languages, particularly the Malayo-Polynesian languages (Travis 1991) and the Celtic languages (Guilfoyle ms; Carnie 1995). The "Split VP Hypothesis" (SVH) claims that verbal projections are bipartite, that is, a full verb phrase is a combination of two projections. In addition, in order to account for some of the facts of Irish, it has been suggested that the head of the lower projection of the bipartite structure is a "verbal noun" (VN). The VN has both nominal and verbal properties, and, in Irish, can surface without the higher VP. In combination with the structure of functional categories in Irish, Carnie (1995) presents the tree in (1) as the full structure of the Irish VP. This tree structure accurately and elegantly accounts for a great many facts of these languages as well as typological differences between dialects of Irish. The implication of this version of the SVH is that this structure is universal.

In this paper, I explore how the SVH and VNP analyses can account for verbal structures in Japanese. Section 1. contains a brief outline of some background characteristics of Japanese, particularly Japanese particles. The base-generated position of the subject is of great importance in the formulation of the SVH, and so in section 2., I discuss the controversy surrounding this issue, concluding that the SVH is the most advantageous analysis to adopt. In section 3. I explain the arguments behind the proposal that Japanese has few, if any, functional categories (Fukui 1986; Fukui and Speas 1986) and how that proposal affects Japanese structure with regards to the SVH. In section 4. I discuss the lexical category "VN" as it is found in Irish and explore elements in Japanese that exhibit similar

cross-categorial properties: i) the stem form of the verb, ii) the light verb construction, and iii) the nominal predicate. I then demonstrate that the VNP analysis provides a unified structure for all of these superficially diverse elements. In order to extend the validity of the VNP analysis in Japanese, in section 5., I show how it can accurately account for the passive and causative constructions as well as predict the grammaticality of passive + causative and causative + passive combinations. In section 6. I conclude my findings.

(1)



1. Some Background on the Structure of Japanese

Japanese is a topic-drop language, so arguments that are contextually clear are usually omitted. It is head final and the canonical word order is SOV; however, Japanese also allows a degree of argument scrambling as long as the verb is final. The ability to scramble in Japanese is due, at least in part, to overt argument-marking in the form of the particles described in section 1.1.

1.1. Japanese Particles

All arguments in Japanese are marked with particles that show the arguments' grammatical function within the sentence. The status of Japanese particles is extremely ambiguous - in some ways they seem to act as overt case-markers, at other times they seem to act as postpositions, and in still other instances they seem to resemble complementizers. The only indisputable fact is that they mark the relationship between an NP (or a clause) and the verb. For example:

(2) Taroo-**ga** Hanako-**ni** hon-**o** ageta.
Taroo-**nom** Hanako-**dat** book-**acc** gave
'Taroo gave a book to Hanako.'

In (2) the particles are the suffixes attached to each argument - *-ga* marks the subject, *-ni* marks the indirect object, and *-o*, the direct object. Other particles include: *-kara*, 'from'; *-de*, 'with'; *-mo*, 'too, also'; *-no*, the genitive marker; *-ka*, the question particle; and the topicalization particle, *-wa*. Difficulty in the analysis of particles comes from data such as that in (3).

(3)

a. Kyoto-**ga** tatemono-**ga** iro-**ga** utsukushii
Kyoto-**nom** building-**nom** colour-**nom** beautiful
'It is Kyoto where the colours of buildings are beautiful.'

(Tateishi 1994:20)

b. John-no Tookyoo-**kara-no** syuppatu
John-gen Tokyo-**from-gen** departure
'John's departure from Tokyo'

(Grimshaw and Mester 1988:207)

c. Doko-**ka-e** pikunikku-ni ikoo
where-**question-at** picnic-dat go-presumptive
'Let's go on a picnic somewhere.'

(Young and Nakajima-Okano 1985:212)

(3)a is an example of the so-called "Multiple Subject" construction found in Japanese, where it seems that the iterability of nominative "case" is limited only by semantic factors. This is difficult to explain theoretically since, traditionally, there is only one subject position. This phenomenon is described in greater detail in section 2.2. In (3)b and (3)c we have examples of more than one particle attached to the same NP.

Within the context of this discussion, the exact nature of particles is of little consequence. Whether particles and the NPs they modify appear structurally as NPs or PPs affects only the command relationships in the tree, and command relationships do not figure highly in the argument presented here. In accordance with Fukui's (1986) claims about Japanese functional categories (described in section 3.0), I shall assume that particles are in

some way responsible for the case of NPs and I refer the reader to Tsujimura (1996) for a more complete discussion of Japanese particles.

It is also not likely that the arguments remain in their base-generated positions, certainly not in cases of scrambling. Here, I am primarily concerned with the base position of arguments and consequently, I shall not address issues raised by scrambling, nor derived argument positions.

2. The Base Position of Subjects

When it was first proposed that "S" was in fact a projection of the head "Infl", it was assumed that subjects were based generated in Spec IP position (Chomsky 1986). However, since then, a great deal of evidence has been presented that suggests that the subject is not generated in Spec IP, but rather in the Spec VP, and that it may raise to Spec IP for case reasons. In the formulation of the Split VP Hypothesis (SVH), subject position is of great importance and so in this section I shall detail some of the arguments for VP internal (section 2.1.) and external (section 2.2.) subjects and how they interact with the SVH (section 2.3.). Section 2.4. summarizes the conclusions reached and their effect on the discussion here.

2.1. VP Internal Subjects

The notion that subjects are generated not in Spec IP, but rather in Spec VP (commonly referred to as the "Internal Subject Hypothesis" (ISH)), was proposed independently by several researchers (Fukui and Speas 1986; Kitigawa 1986; Kuroda 1988; Koopman and Sportiche 1991) and has become quite influential.

Koopman and Sportiche's (1991) arguments in favour of the ISH include "Quantifier Float". In English, NP quantifiers do not always occur adjacent to the NPs they quantify:

(4) **All** the children must go to school.
The children must **all** go to school.

Must, being a modal verb, is generated in Infl. Thus, *the children* that appears to the left of *must* must be higher in the tree and is assumed to be in Spec IP as the standard analysis would suggest. However, if the subject was generated in that position, it would be very difficult to explain how its quantifier, *all*, manages to appear below Infl. If the subject is generated in Spec VP, however, the presence of *all* below Infl is easily explained: the quantifier was generated with the subject in Spec VP and when the subject raises to Spec IP it optionally pied pipes the quantifier. Indeed, it has been demonstrated that quantifiers may appear in any position that contains a trace of the modified NP.

This argument can be transferred to Japanese nominal classifiers (Koizumi 1995).

(5)

a. Gakusei-ga **san-nin** piza-o tabeta
student-nom **three-CL** pizza-acc ate
'Three students ate pizza.'

b. Gakusei-ga kinoo **san-nin** piza-o tabeta
student-nom yesterday **three-CL** pizza-acc ate
'Three students ate pizza yesterday.'

(Koizumi 1995:107-8)

Japanese nominal classifiers are subject to the same restrictions as English quantifiers: they must be adjacent to (if not the NP itself) a trace of the NP they modify. In the process of

scrambling, the subject of the sentence in (5)b, *gakusei* may optionally strand its classifier *san-nin* below.

Koopman and Sportiche (1991) also present evidence from VSO languages such as Irish and Welsh in which it seems that the subject may remain in its base-generated Spec IP position because it is not required to move to Spec IP in order to receive case.

Within the X'-bar framework it is assumed that a verb and its internal argument are sisters. Consequently, we must assume that VSO word order is derived since the subject intervenes between the verb and the object. However, in Welsh, if there is an auxiliary verb in the sentence, the word order is AuxSVO as in the example in (6).

(6) [$_{IP}$ Gwnaeth [$_{VP}$ Siôn weld draig]]
did-3SG-PST John see dragon
Aux S V O
'John saw a dragon.'

(Sproat 1985:176)

Moreover, this word order occurs in both root clauses and in non-root clauses including those that have overt complementizers. Since Comp is filled in these cases, we can rule out the possibility that Aux has raised to C. Therefore, Aux (and by a similar argument, a raised V) must be in Infl. That leaves us with the conclusion that the subject is in a position lower than Infl in the tree, i.e. Spec VP.

There are many theoretical advantages to the ISH - Fukui (1986) and Fukui and Speas (1986) point out that having all arguments within the verb phrase greatly simplifies ɵ-

assignment of the external argument since we do not need a mechanism by which the subject can be licensed through the VP. As well, they claim that Japanese lacks the variety of functional categories present in English and therefore it is possible to simply characterize many of the typological distinctions between the two languages. However, since not all functional categories are present in Japanese, it is crucial to their argument that the subject be generated within a lexical projection. Koopman and Sportiche (1991) point out that the ISH provides an unified analysis of Infl and raising verbs such as seem, and Burton and Grimshaw (1992) and McNally (1992) use the ISH to provide an analysis of VP Coordination. The ISH provides a great deal of explanatory power of phenomena that are otherwise problematic for the standard model of grammar.

The arguments for the ISH are quite persuasive and it is widely (if not universally) accepted that subjects are not generated in Spec IP position. Those that support a VP external subject do not claim that it is generated in Spec IP; most arguments against the ISH claim that there must be an intermediate projection between VP and IP in which the subject is generated (Bowers 1993, Johnson 1991, Koizumi 1993, Kratzer 1994, Tateishi 1994, Pesetsky 1994, Harley 1995). In the following section, I shall detail some of the arguments for this analysis.

2.2. VP External Subjects

Tateishi (1994) argues that subjects cannot be generated in Spec IP if we are to adopt a version of X'-theory. He presents the following data from Japanese to support his claim.

(7)

a. Kyoto-ga tatemono-ga iro-ga utsukushii
Kyoto-nom building-nom colour-nom beautiful
'It is Kyoto where the colours of buildings are beautiful.'

b. Nihon-no tabemono-ga sakana-ga umai
Japan-gen food-nom fish-nom good
'It is Japanese food among which fish are good.'

(Tateishi 1994:20-21)

The sentences in (7) are examples of the "Multiple Subject" construction that appears to have more than one nominatively marked subject. However, the two examples differ in important respects. In (7)a, a genitive relationship can be established between the nominatively marked arguments and the number of "subjects" is limited only by semantic factors. Kuno (1973) proposes an analysis in which these arguments are base-generated in a genitive relationship and are then moved to adjoin to IP. Consequently, Tateishi refers to this sort of Multiple Subject construction as "Genitive Raising." In (7)b, however, no genitive relationship may be established between the nominatively marked arguments, and the number of "subjects" is limited in all cases to two. Tateishi dubs this type of Multiple Subject construction the "Major Subject."

If, for the moment, we assume that subjects are generated in the Spec of IP and that that position is not iterable, it is possible to avoid a theoretical conflict in the Major Subject construction by claiming that only the θ-marked subject need be generated in the Spec IP position. However, we are then left with the requirement that the other subject must be base generated in a position other than Spec IP. Tateishi suggests that there are two possible

generation positions: i) Spec of CP and ii) Spec of a projection between CP and IP. He goes on to demonstrate that neither is a possibility and consequently, we must assume that at least some subjects are not generated in Spec IP position.

Despite the fact that Tateishi claims that the subject cannot be generated in the Spec of IP, he claims that it cannot be generated within the VP either. Evidence for this claim comes from two sources: i) the *soo suru* construction that is equivalent to the English do so construction, and ii) verb movement.

(8)

a. Taroo-wa terebi-o mi-ta. Jiroo-mo terebi-o mi-ta.
Taroo-top television-acc watch-past Jiroo-also television-acc watch-past
'Taroo watched television. Jiroo watched television too.

b. Taroo-wa terebi-o mi-ta. Jiroo-mo **soo** **shi-ta**.
Taroo-top television-acc watch-past Jiroo-also so do-past
'Taroo watched television. Jiroo did so too.'

c. *Taroo-wa terebi-o mi-ta. Jiroo-mo terebi-o **soo** **shi-ta**.
Taroo-top television-acc watch-past Jiroo-also television-acc so do-past
'*Taroo watched television. Jiroo did so (to) television, too.'

(Nakau 1973:45)

(9) $[_{VP}$Sushi-o tabe$]_i$-**wa** John-wa t_i **shi-ta**
sushi-acc eat-**top** John-top **do-past**
'Eat sushi is what John did.'

(Tateishi 1994:64)

The data in (8) illustrates the *soo suru* construction. In (8)b, the verb and the accusative-marked argument, *terebi-o mita*, that are present in (8)a, are replaced by *soo suru*. The ungrammaticality of (8)c demonstrates that it is impossible to retain any of the verb's

internal arguments in this construction. This structure is parallel to a similar construction in English, *do so*, that has been used to demonstrate the existence of the VP projection (Lakoff and Ross 1966).

The sentence in (9) is an example of VP movement that in Japanese requires the help of "*Suru*-Support". Basically, a VP can be preposed to the beginning of the sentence if it is topicalized and a form of the light verb *suru* 'do', follows the trace of the VP.[1]

Tateishi rejects the possibility that the subject may be generated in the Spec of VP and raises out of the VP (a position taken by Kitigawa (1986)) based on the exceptions to VP movement in Japanese. It is not possible to prepose a VP that contains the trace of a moved NP since that trace would no longer be properly governed and that would constitute a violation of the ECP. This fact is corroborated in Japanese by the impossibility of preposing regular passives as in (10) and unaccusatives as in (11):

(10) Sono hon$_i$-wa [$_{vp}$ minna-ni t_i yom-are]-ta
that book-top everyone-dat read-pass.-past
'That book was read by everyone.'

*[$_{VP}$ Minna-ni t_i yom-are]$_j$-wa sono hon$_i$-wa t_j shi-ta
everyone-dat read-pass.-top that book-top do-past
* 'Read by everyone, that book was.'

(Tateishi 1994: 73)

[1] It should be noted that I do not agree with this analysis of Japanese VP movement and I present another analysis in Section 4.2.4.).

(11) Hanako$_i$-wa [$_{vp}$ t_i shin-da]
Hanako-top die-past
'Hanako died.'

* [$_{VP}$ t_i Shini]$_j$-wa Hanako$_i$-wa t_j shi-ta
die-top Hanako-top do-past
* 'Die, is what Hanako did.'

(Tateishi 1994: 72)

If, in fact, the subject of regular transitive sentences is generated within the VP and subsequently raises, all cases of VP preposing would be ungrammatical since all VPs would contain an NP trace.

Tateishi concludes that the subject is generated in neither Spec IP nor Spec VP, but in the Spec position of an intermediate projection, AgrP. Similar claims of an intermediate projection between VP and IP in which the subject is generated have been made by several other researchers (Bowers 1993, Johnson 1991, Koizumi 1993, Kratzer 1994, Pesetsky 1994, Harley 1995). A variation of this analysis labels this intermediate projection a VP. This analysis is the topic of the following section.

2.3. The Split VP Hypothesis (SVH)

The arguments for the SVH almost exactly parallel arguments that support the claims that subjects are generated in a projection between IP and VP. The difference between the two positions is only that in the SVH, the intermediate projection is a VP. Both analyses have the basic structure: [$_{IP}$ [$_{XP}$ [$_{VP}$]]]. However, the SVH, in addition to accounting for all of the VP external arguments above, also maintains the advantages of the ISH: ɵ-assignment is

made easier and the typological differences between languages like English and Japanese are easier to characterize (Fukui 1986, Fukui and Speas 1986); the analysis of raising verbs can be unified with Infl (Koopman and Sportiche 1991); and a better analysis of VP Coordination can be provided (Burton and Grimshaw 1992, McNally 1992).

2.3.1. Koizumi's SVH Arguments

One major proponent of the SVH, Koizumi (1995), draws arguments primarily from three languages: English, Japanese, and Zarma.[2] In the following sections I summarize his primary arguments for the SVH.

2.3.1.1. Floating Quantifiers and Nominal Classifiers Revisited

We saw above that floating quantifiers in English and nominal classifiers in Japanese provide evidence that the subject is not generated in Spec IP. However, in their distribution, they also provide evidence for the SVH.

(12)
a. The men will all have given a book to John
b. The men will have all given a book to John
c. * The men will have given all a book to John
d. * The men will have given a book all to John

(Koizumi 1995:106)

As mentioned previously, a floating quantifier, if not adjoined directly to the NP it modifies, must be adjacent to a trace of the NP. Koizumi assumes the ISH and argues early

[2]Zarma is a Songhay language of the Nilo-Saharan family spoken in the western part of Niger.

in his thesis that, in English, both the subject and the object move from within the VP to the Spec of their associated AgrPs which, under the standard analysis, both dominate the VP. Consequently, in order to maintain SVO order, the verb also raises. Therefore, he argues, a non-split VP structure predicts that there must be a trace of the subject below the final positions of both the verb and the object, incorrectly predicting the grammaticality of (12)c and (12)d. The different structures are illustrated in (13) below:

(13)
Non-Split VP Structure:

$[_{AgrSP}$ Subject NP_i $[_{TP}$ $Verb_j$ $[_{AgrOP}$ Object NP_k $[_{VP}$ t_i t_j t_k]]]]

Split VP Structure:

$[_{AgrSP}$ Subject NP_i $[_{TP}$ $Verb_j$ $[_{VP}$ t_i t_j $[_{AgrOP}$ Object NP_k $[_{VP}$ t_j t_k]]]]

In Koizumi's Split VP structure, like the structure in (1) on page 2, the external argument is discharged in the upper VP Spec position and the internal argument is discharged in the lower VP[3] Spec position. Koizumi argues that an AgrP intervenes between the two projections, again, similar to the structure in (1). This structure, then, correctly predicts the ungrammaticality of (12)c and (12)d because the subject is generated in a position already higher than the final position of the object.

Similarly, Koizumi uses this argument to account for the distribution of nominal classifiers in Japanese. In addition to the grammatical examples in (5), the following is ungrammatical:

[3]The lower projection in Koizumi's system is headed by a verb.

(14) *Gakusei-ga piza-o san-nin tabeta
student-nom pizza-acc three-CL ate
'Three students ate pizza.'

(Koizumi 1995:107-8)

In the above example, *san* 'three', and *nin* the classifier for counting people, are combined in order to define the number of students that 'ate pizza.' As mentioned before, Japanese classifiers are subject to the same principles as floating quantifiers in English, that is, that it must be adjacent to (at least) the trace of the moved NP. Again, if both the subject and the object have been raised out of the VP, there would be a subject trace below the final position of the object, incorrectly predicting that the classifier could occur in a position below the object as in (14). Again, this problem is averted in Koizumi's Split VP analysis since the object's final position is below the position where the subject is generated.

2.3.1.2. Participle Agreement in French

In French passive and unaccusative sentences, participles agree with their derived subjects as shown in (15) and (16) respectively.

(15) Les livres de Jules Verne ont tous été imprimés / * imprimé.
The books of Jules Verne have all been published-agr / *published
'All of the books of Jules Verne have been published.'

(16) Ils sont déja partis / *parti
They are already left-agr / * left
'They have already left.'

(Koizumi 1995:114)

However, as shown in (17) and (18), participles in transitive and unergative sentences do not show any agreement.

(17) Jeanne a repeint / *repeinte la table
Jeanne has repainted / *repainted-agr the table
'Jeanne has repainted the table'

(18) Ils ont ri / *ris
They have laughed / *laughed-agr
'They have all laughed.'

(Koizumi 1995:114)

Chomsky (1991) suggests that this agreement is triggered by the movement of the subject through the Spec of AgrOP on its way from the internal argument position (sister to V) to the Spec of AgrSP. (Chomsky assumes a non-split VP structure like the one in (13) in which both AgrSP and AgrOP dominate a single VP.) However, this presents a problem for the standard ISH since a VP-internal subject would move through the Spec of AgrOP in all sentences, thereby predicting that all subjects would trigger participle agreement.

The SVH, however, accurately predicts the distribution of participle agreement in French since a VP intervenes between the two AgrPs ($[_{AgrSP}\ [_{VP}\ [_{AgrOP}\ [_{VP}\ ]]]]$). The analysis of passive and unaccusative sentences holds. Agreement is triggered by the movement of the derived subject (which is generated in the lower VP) through the Spec of AgrOP. The subject of transitive and unergative sentences, however, is generated in the upper VP, already higher than AgrOP, and consequently, never triggers participle agreement.

2.3.1.3. Chain Conditions

The reciprocal *otagai* 'each other' in Japanese is subject to Condition A of the Binding Theory that states that reciprocals must be locally bound. Therefore, the intended antecedent must c-command the reciprocal and if it does not, the sentence becomes ungrammatical.

(19)

a. John to Bill-ga otagai-no sensee-o hihansita
John and Bill-nom each other-gen teacher-acc criticized
'John and Bill criticized each other's teachers.'

b. * Otagai-no sensee-ga John to Bill-o hihansita
Each other-gen teacher-nom John and Bill-acc criticized
* 'Each other's teachers criticized John and Bill.'

c. John to Bill-o otagai-no sensee-ga hihansita
John and Bill-acc each other-gen teacher-nom criticized
* 'Each other's teachers criticized John and Bill.'

(Koizumi 1995:115)

(19)a and (19)b behave as they would in English - *each other*, when not c-commanded by its antecedent, is ungrammatical. However, Japanese's relatively free word order allows the scrambling of the object to the front of the sentence in which case the reciprocal in the subject is C-commanded by its antecedent and the sentence in (19)c then becomes grammatical. In these examples, though, the reciprocal is a part of the argument. In examples in which *otagai* is an argument unto itself, the scrambling of the antecedent to a position from which it c-commands the reciprocal does not result in grammaticality.

(20) * John to Bill-o_i otagai-ga t_i hihansita
John and Bill-acc each other-nom criticized
* 'Each other criticized John and Bill.'

(Koizumi 1995:116)

This fact is attributable to Rizzi's (1990) Chain Condition that states that a trace must be bound by the closest available binder. In this example, *otagai* is the closest binder to t_i and so the sentence is ungrammatical. The same facts hold true with direct and indirect objects and in passive examples. Antecedents that could not otherwise bind their reciprocals

may scramble to a position from which they may bind their reciprocal as long as the Chain Condition is maintained.

However, the following examples pose a problem for this analysis.

(21)

a.	John to Bill-ga	Mary-ni	otagai-o		syookaisita
	John and Bill-nom	Mary-dat	each other-acc		introduced
	'John and Bill introduced each other to Mary.'				
b.	John to Bill-ga	otagai-o_i	Mary-ni	t_i	syookaisita
	John and Bill-nom	each other-acc	Mary-dat		introduced
	'John and Bill introduced each other to Mary.'				

(Koizumi 1995:119)

Within the standard ISH framework, it is surprising that (21)b is grammatical since its structure with regards to the Chain Condition is identical to that of (20), i.e.:

(22) $[_{AgrSP}$ John to $Bill_i$ ... $[_{AgrOP}$ $otagai_j$ ... $[_{VP}$ t_i ... t_j...]]]

However, this fact provides evidence for Koizumi's SVH. The grammaticality of (21)b is predicted because it would have the structure shown in (23).

(23) $[_{AgrSP}$ John to $Bill_i$ ... $[_{VP}$ t_i ... $[_{AgrOP}$ $otagai_j$ ... $[_{VP}$ t_j ...]]]

Because *John to Bill* is generated higher than *otagai*'s derived position, *John to Bill* remains the closest available binder to t_i.

2.3.1.4. Conclusion

Koizumi demonstrates that the ISH does not accurately account for data in several languages and his arguments parallel many of those detailed above for a VP-external base subject position. However, he does not discard the ISH. He instead presents a bipartite verb

structure that can account for all of the data presented and still maintains the ISH. We turn now to evidence for the SVH found in Austronesian languages and in Irish.

2.3.2. The Split VP Hypothesis: Evidence from Austronesian Languages

Derived objects have been a problem for X'-Theory because, as in the sentence in (24), they often seems to involve movement to a complement position that should only be created when there is a argument to fill it.

(24) Mary believes [the children]$_i$ [$_{IP}$ t_i to be lying]

(Travis 1991:1)

This effect is even clearer in other languages such as Malagasy (a Western Austronesian language) in which it is not possible to analyse the derived object as an embedded subject:

(25)

a. Nanantena iRakoto [fa nianatra tsara **ny ankizy**]
pst-hope-AT Rakoto comp pst-study good the children
'Rakoto hoped that the children studied well.'

b. Nanantena an' **ny ankizy** [ho nianatra tsara] iRakoto
pst-hope-AT acc the children comp pst-study good Rakoto
'Rakoto hoped that the children studied well.'

(Travis 1991:1)

In addition, Travis (1991) claims that in Kalagan, a Philippine language, the boundaries of the VP are transparent, marked on the left by the Agent and the right by the end of the sentence. The canonical word order in Kalagan is [Verb-Agent-Object-Instrument-Beneficiary-Locative-Time], however; it is also possible to topicalize an element

in the sentence thereby changing the word order. When it is not the agent that has been topicalized, the topicalized element appears directly following the agent.

(26)

a. Kumangin aku **ya tubig** na lata kan Ma' adti balkon na lundis
TT-get I **the water** with the can for Father on the porch on Monday

b. Pagkamang aku **ya lata** sa tubig kan Ma' adti balkon na lundis
IT-get I **with the can** the water for Father on the porch on Monday

'I'll get the water with the can for Dad on the porch on Monday.'

(Travis 1991:5)

Travis uses this data to support her claim that there must be a derived position within the VP. Based on data from Tagalog, a language that has two aspect markers, Travis claims that there must be two corresponding functional projections, each dominating a VP. This suggests the VP structure in (27).

(27) $[_{VP}\ [_{AspP}\ [_{VP2}]]]$

As we shall see in the following section, this structure is quite similar to the structure proposed for Irish (shown in (1)) in that the VP is comprised of two lexical projections each of which is dominated by at least one functional projection.

2.3.3. The Split VP Hypothesis: Evidence from Irish

In Irish finite clauses, word order is always VSO; however, in non-finite clauses, there are differences between the two dialects of Northern and Southern Irish.

In Northern Irish non-finite clauses, the word order is SOV as in (28) and (29)[4].

(28) Ba mhaith liom PRO an doras a^{L} phéinteáil
COP good with me the door ptc paint (VN)
'I would like to paint the door'

(29) Ba mhaith liom sibh an doras a^{L} phéinteáil
COP good with me you-pl the door ptc paint (VN)
'I would like you to paint the door'

(Guilfoyle ms:6)

Phéinteáil, in the above examples, is the VN (the issues and data surrounding the ambiguity in their categorical status are discussed in greater detail in section 4.1.). Chung and McCloskey (1987) propose that VNs are nominal in that they cannot assign case. Therefore, the particle that appears after the object in these two examples has been analysed as a case assigner that appears in order to assign accusative case to the object. This claim is substantiated by the fact that in Northern Irish, a^{L} does not appear in intransitive, non-finite clauses as in the example in (30).

(30) B'fhearr liom tú fanacht sa bhaile inniu
COP-better with me you remain-VN home today
'I would rather you remain at home today'

(Guilfoyle ms:5)

The pattern of non-finite clauses in Southern Irish differs in a few critical ways. The first is in the appearance of the particle a^{L}. The sentence shown in (28) is well-formed in Southern Irish, just as it is in Northern Irish. However, sentence (30) is ungrammatical in

[4]The superscript 'L' on the particle *a* in the Irish data indicates that it triggers the phonological process of lenition.

Southern Irish; the particle, a^L, appears between the subject and the intransitive VN in Southern Irish:

(31) B'fhearr liom tú a^L fanacht sa bhaile inniu
COP-better with me you ptc remain-VN home today
'I would rather you remain at home today'

(Guilfoyle ms:7)

Even though both subjects and objects precede the VN in Southern Irish, there can be at most one lexical NP before the VN. Thus (29) above is ungrammatical in Southern Irish, and speakers would usually[5] use a finite clause in order to express that notion:

(32) Ba mhaith liom gur péinteann sibh an doras
COP good with me that paint-pres you-pl the door
'I would like that you paint the door'

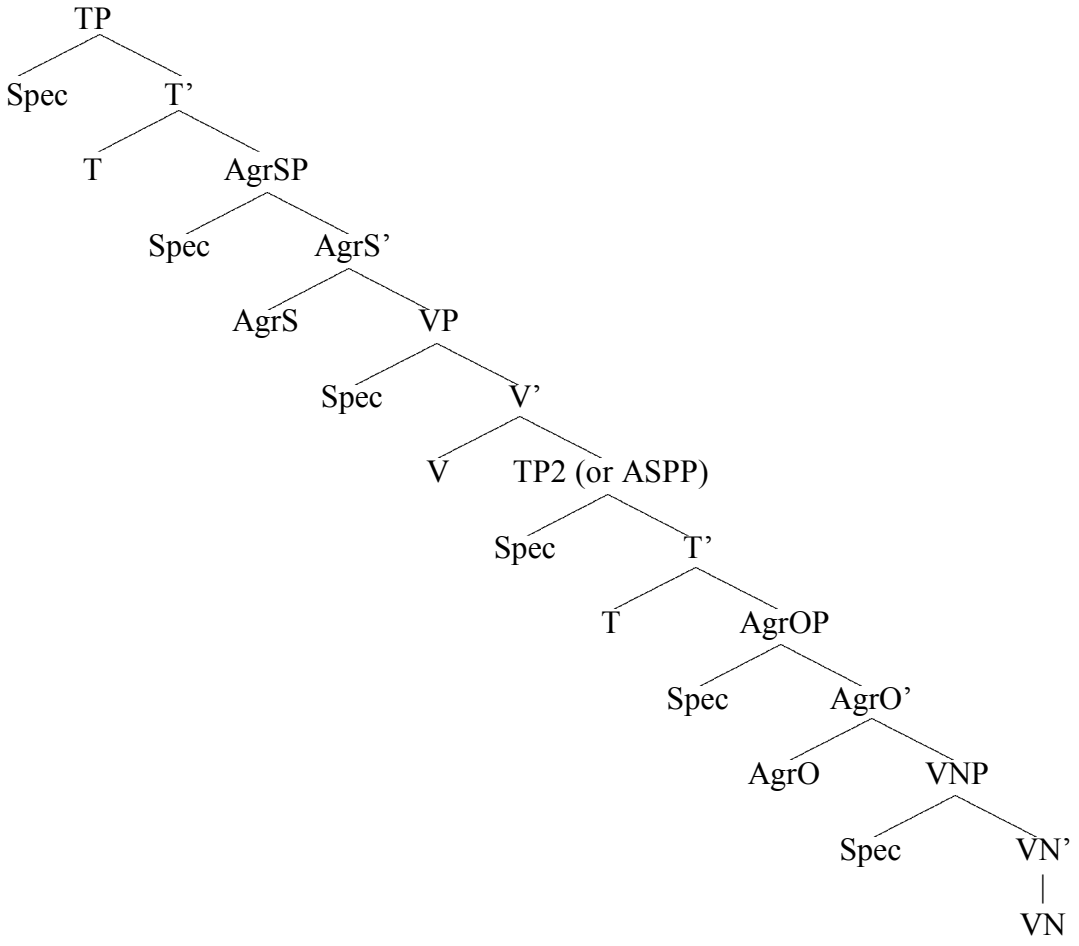
(Guilfoyle ms:8)

In order to deal with this data, Guilfoyle (ms), following Travis (1991), suggests that Irish verb phrases are comprised of two projections, within each of which one argument is discharged. The typological difference between Northern and Southern Irish is that in Northern Irish, non-finite clauses have full VP, whereas Southern Irish non-finite clauses have only the lower portion of the bipartite structure. This analysis explains why only one argument can occur in a non-finite clause in Southern Irish. As well, if we accept that the particle a^L assigns case to the argument of the lower projection - either the subject of an intransitive VN, or the object of a transitive VN - it also accounts for the variation in the occurrence of a^L.

[5]It is also possible for the Southern Irish speaker to use a VN structure to express this notion, however; it is marked and limited to formal usage.

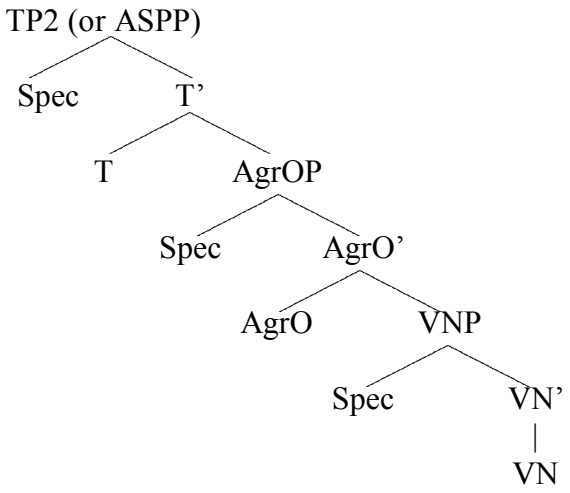
In combination with the Split Infl Hypothesis (Pollock 1990; Chomsky 1991) the basic structure of the Irish clause would look like that in (1), repeated here as (33) (Carnie 1995)

(33)



To recapitulate, Northern Irish non-finite clauses, therefore, have the full tree structure shown in (33) that has two argument positions, whereas Southern Irish non-finite clauses have a truncated structure - shown in (34) - and have only one argument position.

(34)



2.4. Conclusion

Throughout section 2., we have seen various arguments pertaining to the base position of subjects. We have seen that although it cannot be generated in Spec IP, there must also be a projection that includes the verb and its internal objects, but not the subject. It is therefore necessary to generate an additional projection between VP and IP within which the subject is generated. Several possibilities have been proposed, but only one maintains the ISH - the Split VP Hypothesis. The ISH is central to Fukui's (1986) and Fukui and Speas' (1986) claims about functional categories in Japanese and the typological differences between Japanese and English and since I adopt Fukui/ Fukui and Speas' assumptions, it is important for this discussion that the ISH be maintained. In the following section I detail the claims made by Fukui and Speas and explain how they interact with the SVH.

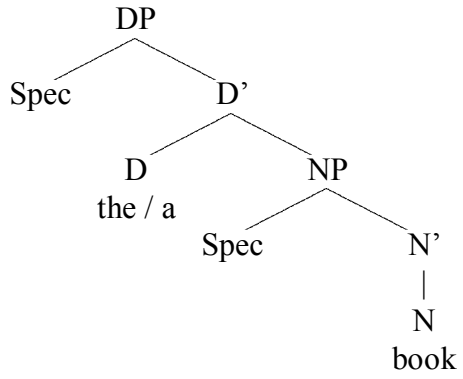
3. The Status of Functional Categories in Japanese

Fukui (1986) claims that one of the typological differences between Japanese and English is that Japanese has few, if any, functional categories. I explore the evidence for this claim below, beginning with the category Det and then moving to Infl and Comp in sections 3.1. - 3.3. respectively. Section 3.4. summarizes Fukui's conclusions and how they affect the discussion presented here.

3.1. The Functional Category "Det"

English articles are often assumed to be instances of the category Det. The structure of a typical English DP is given in (35).

(35)



Fukui begins his argument by noting that Japanese has no element corresponding to the English articles *a* and *the*. The only other possible candidates for Det in Japanese are the demonstratives *kono* 'this', *ano* 'that (distant)', and *sono* 'that (proximate)'. However, unlike their English counterparts, Japanese demonstratives do not restrict further prenominal modifiers such as adejctives and possessors. Therefore, the sentence in (36) in which there

are two modifiers preceding the demonstrative, is grammatical in Japanese (even though it is a little odd when taken out of context) while the English is not.

(36) akai John-no kono hon
red John-gen this book
*Lit. 'red John's this book.'

(Fukui 1986: 205)

According to Fukui, this means that Japanese demonstratives are no different from other pre-nominal modifiers and consequently should not be analysed as Det.

3.2. The Functional Category "Infl"

Fukui lists the various sources of evidence for the functional category Infl in English and other languages: i) the occurrence of modals, ii) Subject-Verb agreement, iii) Nominative case assignment, iv) Sub-Aux inversion, v) that the existence of Infl simply explains both the Nominative Island Effect and the distribution of PRO, and vi) the scopal ambiguity of elements like *even* and *only*. He then notes that Japanese lacks all of these properties. Therefore, there is no point in positing a structure when there are no indications of its existence.

He does, however, concede that it is still necessary to posit an "impoverished Infl" to account for various facts, most importantly, to provide a position for the tense morphemes and to predict their distribution (i.e. the final verbal morpheme). In characterizing the difference between the two Infl's, Fukui claims that the regular Infl has both "tense" and "agreement" features, whereas the Japanese Infl has only tense features. "Impoverished Infl" is therefore the only functional element in Japanese.

3.3. The Functional Category "Comp"

There are two particles in Japanese that have been traditionally analysed as being complementizers; *-ka* the question morpheme, and *-to* 'that'. Fukui, however, does not agree that these two particles are in the head of Comp.

Japanese does not overtly show WH-movement and thus every yes/no question or sentence containing a WH-word (whether it is a matrix or subordinating clause) must terminate with *-ka*. Some examples of questions/sentences containing *-ka* follow in (37).

(37)

a. dare-ga sore-o kaimasita **ka**
who-nom it-acc bought **Q**
'Who bought it?'

b. John-wa dare-ga sore-o katta **ka** siranai
John-top who-nom it-acc bought **Q** know-not
'John does not know who bought it.'

c. John-wa sore-o kaimasita **ka**
John-top it-acc bought **Q**
'Did John buy it?'

(Fukui 1986:218)

However, *-ka* clauses appear marked by nominative, accusative, and other particles - all of which attach only to nominal elements (see (3)c for an example). In addition, verbs like *siru*, 'to know' in (37)b subcategorize for a noun, not a clause. Based on these facts, Fukui claims that *-ka* is better analysed as a noun with a [+Q] feature than a complementizer.

Similarly, *-to* can occur with the topicalization particle *-wa* that cannot be attached to a clause, but only to an NP or PP. And since *-to* already occurs as a postposition meaning

'together' or 'with', Fukui claims that *-to* should, even in this case, be analysed as a postposition.

Fukui's strongest evidence against analyzing *-ka* and *-to* as complementizers is the fact that they can occur together.

(38) gengogaku-o yaru koto-ni imi-ga aru **ka to** wa ii situmon da
linguistics-acc do fact-in meaning-nom have **Q that** top good question COP
'Whether or not there is meaning in doing linguistics is a good question.'

(Fukui 1986: 225)

If *-ka* and *-to* were complementizers, the structure in (38) would include a CP[6] complement to a Comp - a structure that does not fit in any version of X'-theory thus far hypothesized.

3.4. Conclusion

Thus, Fukui argues that in the absence of any elements or properties that can be analyzed as functional categories, or that indicate the existence of functional categories (with the notable exception of "impoverished Infl") there is no reason to believe that Japanese has any functional categories. That is not to say that Japanese is in any way impoverished in its grammar; the relations and notions expressed by functional categories in languages like English, are simply expressed using lexical categories in Japanese.

Fukui's arguments are quite persuasive; however, the nature of his "impoverished Infl" is unclear. He points out that the most important characteristic of "impoverished Infl" is that it contains no agreement features, but does contain tense features. As these proposals

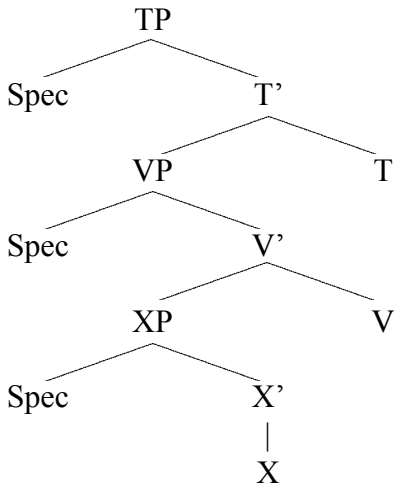
[6]A C' complement to C within Fukui's analysis.

and arguments were made before the Split Infl Hypothesis came to be accepted, I propose that Japanese lacks Agr and that Fukui's "impoverished Infl" is really T. This accounts for the tense and agreement facts of Japanese as well as accounting for the fact that Japanese case assignment is very different from that of a language like English since there is no Agr.

It is also important to note that within Fukui (1986) and Fukui and Speas' (1986) system of projection, empty Spec positions are not generated in lexical projections. Tateishi (1988) argues that this cannot be the case based on certain LF phenomena and, although his arguments are too involved to be summarized here, in keeping with his conclusions, I assume a more traditional notion of lexical category projection; i.e. that XP -> Spec X' in all cases.

Based on the arguments above, consequently, I assume that Japanese S = TP and that TP subcategorizes for a bipartite VP as shown in (39).

(39)



The exact nature of the lower projection of the bipartite VP is the topic of section 4. where I claim that it is really the projection of the head VN (verbal noun) - a lexical category proposed to deal with facts of Irish.

4. Verbal Nouns and the VNP

From the arguments in Section 2., it seems necessary to adopt the SVH (Split VP Hypothesis) if we are to accept the ISH (Internal Subject Hypothesis). However, as was alluded to earlier, the evidence seen in Irish suggests that the lower projection in the bipartite structure is not headed by a verb, but instead by a verbal noun. Indeed, it seems in Southern Irish this lower projection surfaces alone in non-finite clauses. Of course, it is possible to assert that Irish is unique in having a VNP, and that this is a typological difference between Irish and other languages. However, the possibility that the lower projection is universally a VNP should be explored.

In 4.1. I outline the arguments that the lower projection of the Split VP structure is a VNP in Irish as well as some of the problems in categorizing Irish VNs. In 4.2. I demonstrate that there are elements in Japanese that exhibit cross-categorial properties, and that it is beneficial to analyse these elements as occurring in the head, VN, lending weight to the claim that VNPs are a universal structure. Section 4.3. contains a summary of my findings.

4.1. Verbal Nouns and the VNP in Irish

There are structures in Irish that exhibit properties of both nouns and verbs and appear in both nominal and verbal contexts. Traditionally, Irish grammars have referred to these structures as "verbal nouns" (VN) (Christian Brothers 1980).

VNs appear in many constructions that are clearly verb-like and that are, in most languages, expressed using verbal forms, such as in progressive and non-finite structures.

(40) Tá siad ag tógáil tithe úra i nDoire
be-pres at build-VN houses new in Derry
'They are building new houses in Derry'

(41) Ba mhaith leo tithe úra a thógáil i nDoire
COP-pst good with them houses new to build-VN in Derry
'They would like to build new houses in Derry.'

(Guilfoyle 1990:3)

In (40), the VN combines with the verb 'be' in order to express the progressive; in (41) it is used as a non-finite verb form. In both cases, it is the source of the argument structure of the clause and its arguments receive synthetic case, all properties of verbs. However, the object of the VN in progressive constructions is realized with genitive case as in (42) and (43):

(42) Tá sé ag cuartú madaidh
be-pres he ptc seek (VN) dog (gen)
'He is looking for a dog.'

(McCloskey 1983:35)

(43) Bhí siad á bhualadh
be-pst they his beating
'They were beating him.'

(Guilfoyle 1990:6)

Even more surprising is the alternation found in (44).

(44)

a. Ba mhaith liom teach a thógáil
COP good with me house (acc) ptc build (VN)
'I would like to build the house'

b. Ba mhaith liom Seán a thógáil an tí
COP good with me John ptc build (VN) house (gen)
'I would like John to build the house'

(Carnie, personal communication)

As can been seen in (44), examples from Southern Irish, the same internal argument receives accusative case when there is no external argument and genitive case when there is an external argument. Clearly, the fact that the VN can assign genitive case demonstrates that it has nominal properties. In addition to being able to assign genitive case, the VN can act as a possessor in many nominal constructions, thereby receiving genitive case.

(45) fonn troda
desire fight (VN-gen)
'desire to fight'

(46) lá breithe
day birth (VN-gen)
'birthday'

(Guilfoyle ms:14)

The categorial status of the verbal noun is contraversial; while McCloskey (1983) and Sproat (1985) view it as a verb, Guilfoyle (1993) and Carnie (1995) view it as a VN. See Guilfoyle (ms) and Borsley (1993) for discussion. The status of verbal nouns is what has prompted the claim that in Irish, the lower of the two lexical projections in the SVH is a VNP.

4.2. Verbal Nouns and the VNP in Japanese

There are constructions in Japanese that have elements that can be associated with the VN position in the structure in (1) and demonstrate cross-categorial properties: i) the "stem form" of the verb, ii) light verb constructions, and iii) nominal predicate constructions. In addition, a VNP analysis of Japanese verb phrases can better account for the *"soo suru"* construction and verb movement previously seen in Section 2.2. Each construction is discussed in the following sections.

4.2.1. The Stem-form of the Verb

Japanese verbs are comprised of a stem followed by one or more morphemes. For example, the stem of the verb 'eat' in Japanese is *tabe*. (47) shows some examples of *tabe* in combination with other morphemes.[7]

(47)

a. Taroo-wa tabe**ru**
Taroo-top eat-**pres./fut.**
'Taroo eats / will eat.'

b. Taroo-wa tabe**te** iru
Taroo-top eat-**gerund** exist-pres./fut.
'Taroo is eating'

c. Taroo-wa tabe**ta**
Taroo-top eat-**past**
'Taroo ate.'

[7]There are two classes of Japanese verbs - "Consonant" verbs and "Vowel" verbs. The stem form of Consonant verbs all end in a consonant + *i*. When certain suffixes are added to Consonant stems, the stem's final *-i* and the first consonant of the suffix are regularly deleted. For example: *hanasi* is the stem of the verb 'talk'. When the present / future tense morpheme *-ru* is added, the resultant form is *hanasu*, not *hansiru*.

In addition to tense and aspect, there are two basic levels of politeness that are differentiated by suffixation to the verbal stem: the "direct" (or "dictionary") form and the "distal" (or "polite") form. The distal form is used when speaking to someone of a higher status.

(48)

a. Taroo-wa tabeta.
Taroo-top eat-past
'Taroo ate.'

b. Taroo-wa tabe**masi**ta.
Taroo-top eat-**polite**-past
'Taroo ate (polite).'

The stem is also used in verbal compounds such as that in (49).

(49) John-ga mikan-o tabe-hajimemasita
John-nom orange-acc eat-start-polite-pst
'John started to eat an orange.'

This same stem can also be used as a noun, able to assign genitive case to arguments.

(50) John-no Mary-e-no hanasi
John-gen Mary-to-gen talk
'John's talk to Mary.'

(Grimshaw and Mester 1988:207)

The stem also seems to have nominal characteristics in some verbal constructions. There is a prefix *o-* that attaches to nouns that increases the politeness register, for example: *otya* 'tea', *odenwa* 'telephone', and *omaturi* 'festival'. This prefix also attaches to the stem in other "honorific" and "humble" constructions.

(51)

a. Tegami-o kakimasita
letter-acc wrote-polite-pst
'I wrote the letter.'

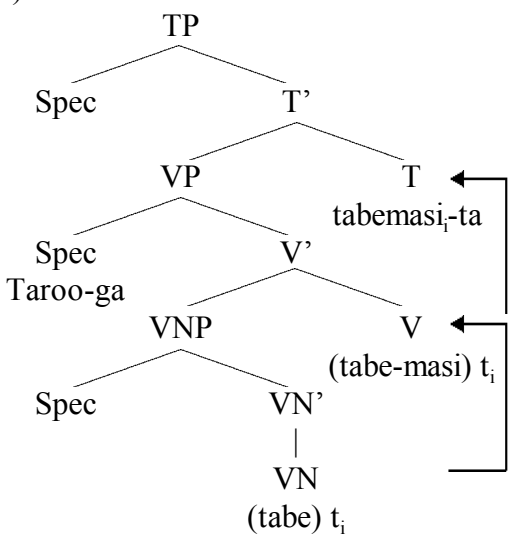
b. Tegami-o o-kaki simasita
letter-acc polite-write do-polite-pst
'I (humble) wrote the letter.'

c. Tegami-o o-kaki-ni narimasita
letter-acc polite-write-dat become-polite-pst
'You (honourific) wrote the letter.'

The humble and honourific constructions shown above are used in discourse when the status of the listener is greater than that of the speaker. Thus, the humble construction is used when a speaker of lower status is speaking of their own actions and the honourific construction is used when a speaker of lower status is speaking of the listener's actions. This is also the reason for the variation in the non-overt subjects in (51)a and (51)b. It is clear who the subject of the action is ('I' vs. 'You') because of the construction used.

Clearly, in addition to its verbal properties, the stem has many nominal characteristics. In (51)b and (51)c, the stem has a nominal prefix attached to it, and in (51)c, it is marked with a dative particle. In (50) the stem is being used as a noun and can assign genitive marking to its arguments. In this respect, it behaves much like the Irish VN. I, therefore, propose that Irish is not unique in having an bipartite verb structure in which the lower projection is headed by a VN. All "full verbs" in Japanese are created when a VN raises and incorporates with V. This process is exemplified in the structure in (52).

(52)



Taroo-ga tabe-masi-ta
Taroo-nom eat(VN)-polite-past
'Taroo ate (polite).'

In this structure, the VN raises to V and incorporates with, in this case, the polite suffix, *masi*. It is from this position that the outermost argument of *tabe* is discharged in subject position. The compound in V then raises to T to receive tense marking.

Further evidence that there are VN-like elements in Japanese come from the 'light-verb constructions' discussed in the following section.

4.2.2. Japanese Light Verb Constructions

A light verb (according to Grimshaw and Mester (1988)) is a verb that subcategorizes and case-marks a direct object without assigning it a ɵ-role. ɵ-marking occurs through a process of "Argument Transfer" in which the nominal direct object "lends" some or all of its

arguments to the light verb. Japanese has a light verb, *suru* 'do', that has some interesting syntactic alternations.

(53)

a. John-ga nihongo-o benkyoo suru
John-nom Japanese-acc studies do
'John studies Japanese.'

b. John-ga nihongo-no benkyoo-o suru
John-nom Japanese-gen study-acc do
'(lit.) John does study of Japanese.'

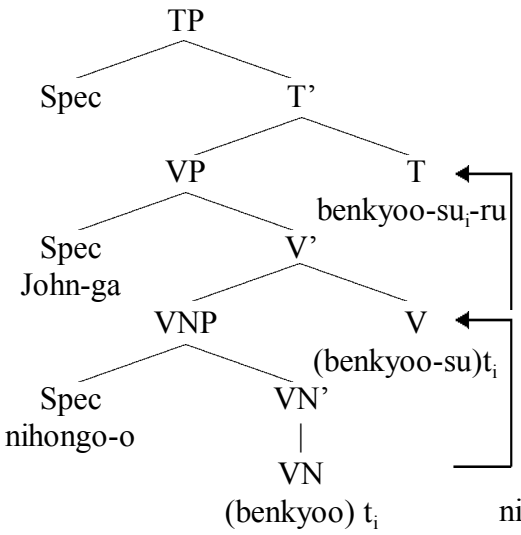
In (53)a there is a noun, *benkyoo*, whose direct object is marked with accusative case. A similar construction in (53)b shows the same noun receiving accusative case and licensing its direct object with genitive case. This alternation can be accounted for within a VN framework by hypothesizing that there are two verbs with the same phonological content, /suru/ - one with a full argument structure and the other, a light verb - and that nouns that exhibit these alternations are, in fact, VNs.[8] Similar "dual-*suru*" analyses are presented by Grimshaw andMester (1988) and by Miyagawa (1987). Note the similarity between Japanese and the Irish data discussed in section 3. There is an element that in one context assigns accusative case and in another, similar, context assigns genitive case like the Irish examples in (44).

Within the "dual-*suru*" analysis proposed here, there are two verbs 'do', one of which is a light verb that subcategorizes for a VN that performs ɵ-assignment, the other, a verb with

[8]I owe a debt of gratitude to Dr. Andrew Carnie for invaluable discussion in the development of this analysis.

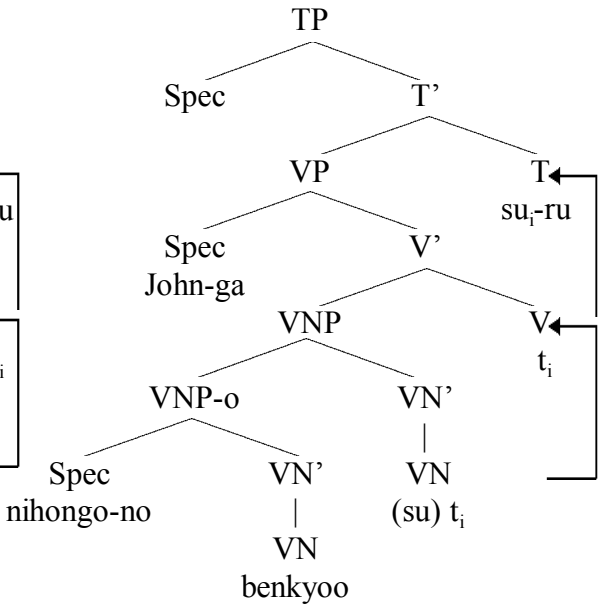
a similar meaning but an argument structure of its own. Thus the structure of the two examples in (53) would be as in (54) and (55).

(54)



John-ga nihongo-o benkyoo suru.
'John studies Japanese.'

(55)



John-ga nihongo-no benkyoo-o suru.
'John does study of Japanese.'

In (54), *benkyoo* is in a VN position from which it can license its argument in its Spec position. There are a number of reasons why the Spec of VNP should be treated as the internal argument position instead of the usual sister to the verb. The first reason is simply symmetry. The external argument under the ISH is licenced in the Spec position by V and if we also generate the internal argument in a similar position, ɵ-assignment occurs in a consistent fashion for all arguments. In addition, current developments in syntactic theory emphasize the relationship between heads and Specs with regards to feature checking and case assignment. Therefore, suggesting that Spec VNP is where a VN discharges its

argument is in line with the general hypothesis that there is significance in the Spec-Head relationship. The second reason for generating of internal arguments in Spec VNP will become clearer further in section 5. where I discuss the analyses of more complex causative and passive constructions. In these structures it is important that all arguments are licensed to Spec positions. Although an in-depth discussion is beyond the scope of this paper, note that positing Spec VNP as a ɵ-position has an intriguing side-effect; if we maintain that the sister of a head is also a ɵ-position, in the lowest projection of a verbal construction there are two possible ɵ-positions. This has obvious potential in the analysis of double-object constructions and verbs that seem to ɵ-mark oblique arguments in addition to direct objects. In fact, a similar analysis for double-object constructions has been proposed by Larson (1988).

Returning to the structure in (54), the VN (*benkyoo*), after discharging its argument to Spec VNP, then raises and incorporates with the light verb, *su-*, in the head of VP. From this position, the VN can then license its final argument in the Spec of VP position. The incorporated VN-V then raises again to T where it receives its tense marking (*-ru*). It is also interesting to note that even though Japanese is a language that consistently shows overt case (cf. section 1.), the VN, *benkyoo*, in (53)a appears without overt case marking, an apparent violation of the case filter. The incorporation of the VN and the light verb can explain this

apparent violation because the incorporation of the VN into the V precludes its need for case (Baker 1988).[9]

The structure shown in (55), an analysis of (53)b, differs from (54) because *suru* is a full verb, not a light verb and consequently there is an extra VNP corresponding to the VN that underlies the full verb. *Su*'s internal argument is licensed to its Spec position and is marked with accusative case. In this case, its internal argument is a VNP headed by the VN, *benkyoo*, that has its own argument to discharge. *Benkyoo* licenses its internal argument in its Spec position, however, in this instance it does not receive accusative case-marking because accusative case has already been assigned to the entire argument VNP. Instead, it enters a genitive relationship with the VN, an option allowed by the VN's nominal properties.

At first glance, it is not completely transparent why in the full-verb construction, the complement must be a VNP instead of simply an NP; in (53)b, *benkyoo* does not seem to be exhibiting any verb-like behaviour. However, consider the example shown in (56) below.

[9]In Irish, there exist bare, unincorporated VNPs that do not seem to receive case either. Perhaps it is not surprising that VNPs do not require case - the whole point in defining a category "VN" is because there are elements that appear to have both verbal and nominal characteristics and it seems that one of the verbal characteristics of VNPs is that they do not necessarily require case marking. Indeed, as we shall see in the analysis of (53)b, there seems to be a correlation between the case-marking of a VNP and whether or not it receives a ɵ-role.

(56)

a. John-ga Tookyoo-kara syuppatu-o sita
John-nom Tokyo-from departure-acc do-pst
'John departed from Tokyo.'

b. John-no Tookyoo-kara-no syuppatu
John-gen Tokyo-from-gen departure
'John's departure from Tokyo.'

(Grimshaw and Mester 1988:207)

In (56)a, the argument of the VN is a PP and even though the VN is receiving accusative case, the PP does not have a genitive relationship to the VN. It is clear from (56)b, however, that in a complex NP construction, the PP argument does bear genitive case. This fact implies that even in the full-verb construction, *benkyoo* must be treated as a VN because it still exhibits verbal properties. It seems then that PP arguments of a VN appear to be more similar to PP arguments of a V than of an N, that is, PP complements of an N require a genitive relationship to be marked whereas the PP complement of a V requires no marking.

4.2.3. The Nominal Predicate

In addition to verbs, Japanese allows nouns and adjectives to act as the predicate of a clause. In most cases, the nominal predicate is formed by adding the copula to the noun as in the example in (57).

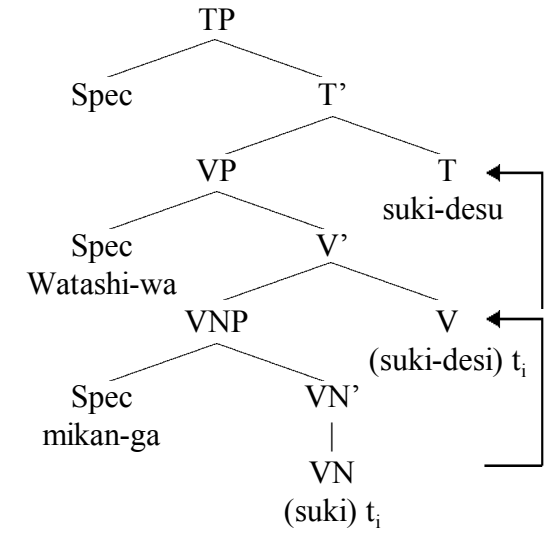
(57) watashi-wa gakusei desu
I-top student COP
'I am a student.'

This example mimics the English copula construction in which there is simply a subject and predicate. However, a few nouns, such as *suki* 'like', add more arguments to the structure:

(58) watashi-wa mikan-ga suki desu
I-top oranges-nom like (N) COP
'I like oranges.'

The example in (58) is similar to the light-*suru* construction in 4.2.2. A noun seems to be licensing an argument that is not receiving inherent case. Consequently, it can be analysed similarly as shown in (59).

(59)



'Watashi-wa mikan-ga suki desu.'
'I like oranges.'

Within this analysis, the copula is simply another light verb and the ɵ-assigning noun is a VN. This is also an example of the double subject construction discussed in section 2.2. and although a VNP analysis, itself, cannot explicitly explain why there appears to be two instances of nominative case marking, it does explain where the extra argument position came from. In a traditional VP, or even a split VP in which both projections are headed by

a verb, this structure is difficult to explain since *suki* would always have to occupy one of a limited number of argument positions from which it could only license genitively-marked arguments. If ɵ-assigning nouns like *suki* appear in the head of a VN projection, this problem is easily solved since the noun no longer occupies an argument position and can license arguments to the Spec VNP position.

4.2.4. VP Movement and *Soo Suru* Revisited

In section 2.2., we looked at some constructions in Japanese that demonstrate that there must be a maximal projection that includes both the verb and its internal arguments, but excludes its external argument. The relevant examples are reproduced here. (60) is an example of the *soo suru* construction and (61) is an example of VP-movement.

(60)

a. Taroo-wa terebi-o mi-ta. Jiroo-mo terebi-o mi-ta.
Taroo-top television-acc watch-past Jiroo-also television-acc watch-past
'Taroo watched television. Jiroo watched television too.

b. Taroo-wa terebi-o mi-ta. Jiroo-mo **soo** **shi-ta**.
Taroo-top television-acc watch-past Jiroo-also **so** **do-past**
'Taroo watched television. Jiroo did so, too.'

c. *Taroo-wa terebi-o mi-ta. Jiroo-mo terebi-o **soo shi-ta**.
Taroo-top television-acc watch-past Jiroo-also television-acc **so do-past**
'*Taroo watched television. Jiroo did so (to) television, too.'

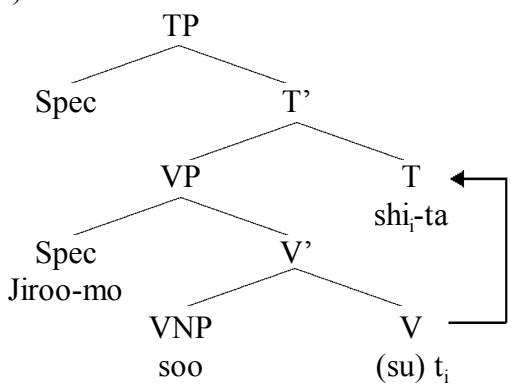
(Nakau 1973:45)

(61) [$_{VP}$Sushi-o tabe]$_i$-**wa** John-wa t_i **shi-ta**
sushi-acc eat-**top** John-top **do-past**
'Eat sushi is what John did.'

(Tateishi 1994:64)

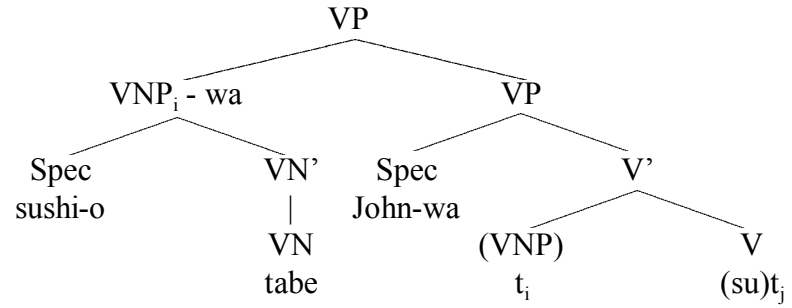
This data has been used to demonstrate that subjects cannot be generated internal to the VP since the verb and its internal arguments have moved or been replaced but the subject has not. However, there are two incongruous facts concerning these examples. In both cases:(61), VP pre-posing, (60), and the *soo suru* construction, there is still a verb, *suru*, in the position that the original VP occupied. As we saw in section 4.2.2., *suru* is a light verb and exists only in the head of V, in contrast to full verbs that are a combination of a VN and a V. In the VP preposing example in (61), the "verb" that is preposed is really only the stem of the verb. As well, as is widely known and was discussed earlier, particles (such as the topicalization particle, *-wa*) only attach to nominal elements. This creates a conflict in (61); it appears that *-wa* has attached to a VP. With these facts in mind, I propose that what is really happening in these constructions is that the VNP, not the VP, is the projection that is affected. In the case of "VP preposing", it is the VNP that is topicalized, not the VP. This accounts for why the particle *-wa* can attach to a superficially verb-like element and why the "verb" that has been preposed is in its stem form, the form that I have argued is really a VN. In both constructions, it also explains why "*suru*-support" is required - the subject cannot be licensed if V is empty, and so a light verb is used to avoid a violation of the EPP. Therefore, the structure of the second sentence in (60)b and the VNP preposing example in (61) would be as in (62) and (63) respectively.

(62)



Jiroo-mo soo shita.
'Jiro did so, too.'

(63)



Sushi-o tabe-wa John-wa shita.
'Eat sushi is what John did.'

4.3. Conclusion

At the beginning of this section, we saw that there are clearly elements in Irish that appear to have both nominal and verbal characteristics and we saw how they can be accounted for by positing the lexical category "VN". In the examination of Japanese we have also seen that there are several elements that clearly demonstrate cross-categorical characteristics: i) the stem form of the verb, ii) light verb constructions, and iii) the nominal predicate. By

extrapolating the bipartite VP / VNP structure proposed in Irish, we saw that these superficially diverse elements can be analysed in a simple and unified way. In each case, there is a VN that discharges its internal argument to the Spec VNP position and then incorporates with the head, V, where the subject can be licensed in Spec VP. In addition, we saw that we can provide a better analysis of *suru*-support in "VP"-movement, and the *soo suru* construction. Instead of the VP being the affected projection in these constructions, it is the VNP that is moved or replaced. This accounts for the nominal properties of the preposed element in 'VNP'-movement and provides a position for the light verb, *suru*, that is inserted in both cases. In the section 5., we shall also see that the VNP analysis can be extended to provide a unified analysis of Japanese morphological passive and causative constructions.

5. Japanese Passive and Causative Constructions

The VNP analysis presented above provides a simple and unified analysis of verb constructions, light verb constructions, nominal predicates, and *suru*-support in VNP (formerly VP) preposing and *soo suru* constructions. In the following sections, I argue that both the causative and passive morphemes in Japanese are also VNs and demonstrate that the VNP analysis also provides an efficient and unified account for the variations seen in the more complex passive, causative, passive-causative, and causative-passive constructions.

5.1. The Causative Construction

The Japanese causative construction is created by adding the suffix *-sase* to the stem of the verb and it has the expected effect of adding an argument to the structure.

(64)

a. Taroo-ga sushi-o tabeta
Taroo-nom sushi-acc eat-past
'Taroo ate sushi.'

b. Hanako-ga Taroo-ni sushi-o tabe**sase**ta
Hanako-nom Taroo-dat sushi-acc eat-**caus.**-past
'Hanako let / made Taroo eat sushi.'

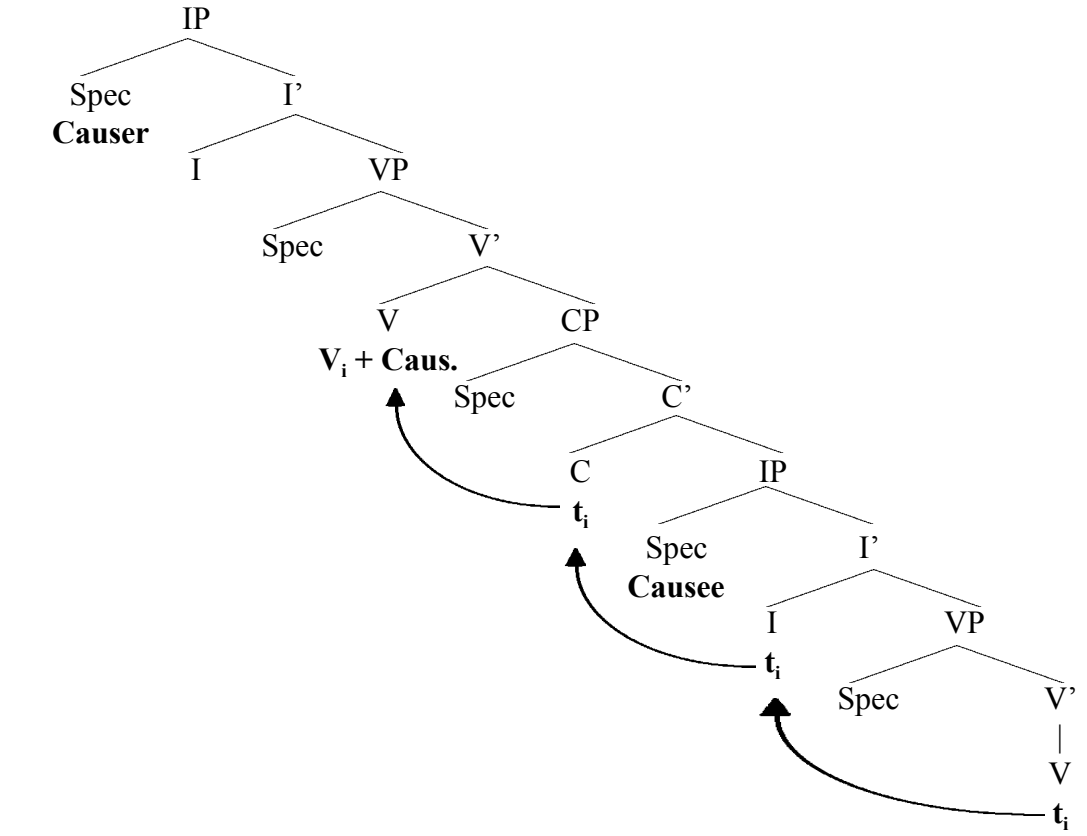
c. Hanako-ga Taroo-ni ko**sase**ta
Hanako-nom Taroo-dat come-**caus.**-past
'Hanako let / made Taroo come.' (Emphasis on the event)

d. Hanako-ga Taroo-o ko**sase**ta
Hanako-nom Taroo-acc come-**caus.**-past
'Hanako made / let Taroo come.' (Emphasis on Taroo)

In (64)a, we see a simple transitive sentence, and in (64)b we see that the addition of the causative morpheme, *-sase*, has allowed the addition of the "causer" argument, *Hanako*. In (64)c and (64)d, we see two examples of intransitive causative constructions. When causatives are created from intransitive verbs, there are two options for case-marking the "causee" - either accusative or dative. The difference between the two is not entirely clear and is still quite controversial; however, it seems to be primarily one of emphasis. If the dative particle, *ni*, is used, as in example (64)c, emphasis is on the event. Hanako made/let *someone* come, it doesn't really matter who, only the action is significant. On the other hand, if the accusative particle is used, emphasis is placed on the fact that it was *Taroo*, that was made/allowed to come as opposed to anyone else.

Baker (1988) presents a biclausal analysis of morphological causatives in which the lower clause is occupied by the matrix verb and its arguments and the higher clause is occupied by the causative morpheme and its extra argument. This sort of structure is shown below in (65).

(65)



Baker's analysis is problematic in that it requires the generation of a great deal of empty structure in order to house one verb-like element and its argument, the former of which subsequently moves up into the higher clause. As well, Baker's claim that morphological causatives are verbs stems from the Uniformity of Theta-Assignment Hypothesis (UTAH)

which implies that both morphological and analytic causatives share a common deep structure; however, there is no analytic causative in Japanese. It would therefore be more beneficial for our analysis of Japanese to examine *sase*'s characteristics before we assume that it is a verb.

Sase, in most cases, behaves as a verbal stem. In fact, the causative form of the verb, *suru* 'do/make', is *saseru*.

(66)

a. Hanako-ga Taroo-ni eigo-o benkyoo saseta.
Hanako-nom Taroo-dat English-acc study (do-)**caus.**-past
'Hanako made/let Taroo study English.'

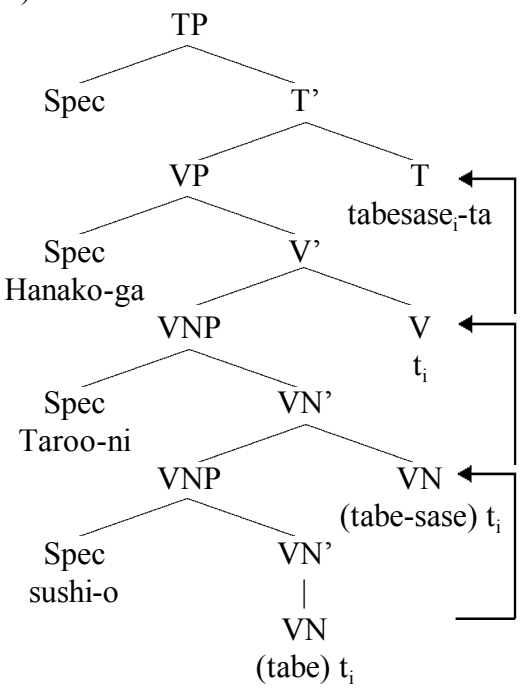
b. Hanako-ga Taroo-ni sushi-o tabe**sase**-hajimeta
Hanako-nom Taroo-dat sushi-acc eat-**caus.**-start-past
'Hanako started making Taroo eat sushi.'

c. John-ni sushi-o tabe**sase-wa** Mary-wa **shita**
John-dat sushi-acc eat-**caus.-top** Mary-top **do-past**
'Make John eat sushi is what Mary did.'

d. Haha-ga Taroo-ni tegami-o kak**ase**ta. Titi-mo **soo shita**
Mother-ga Taroo-dat letter-acc write-**caus.**-past Father-too **so do-past**
'Taroo's mother made him write a letter. His father did so too.'

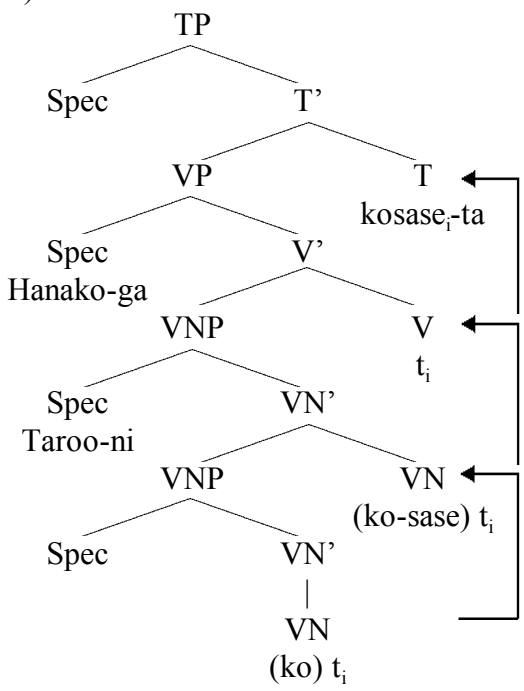
Not only can *sase* receive the same tense (*-ru* - pres., *-ta* - past), aspect (*-te* - gerund), and politeness (*-masi*) markings as a regular verb-stem, it can also participate in stem compounding such as (66)b, and is part of the projection that is affected in VNP-preposing, (66)c, and *soo suru* constructions, (66)d. Because of these similarities, it is plausible that the causative morpheme is a type of verb-stem, i.e. that it is a VN. The structures of (64)b through (64)d under this analysis are presented in (67) through (69) respectively.

(67)



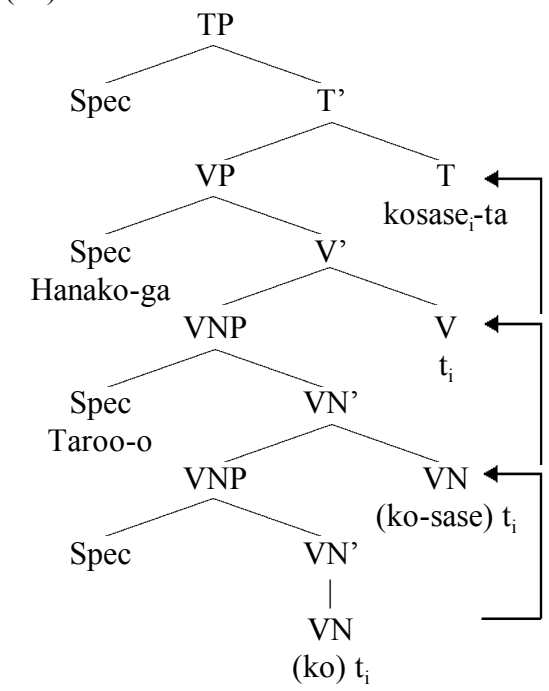
Hanako-ga Taroo-ni sushi-o tabesaseta.
'Hanako made Taroo eat sushi.'

(68)



Hanako-ga Taroo-ni kosaseta.
'Hanako made Taroo come.'

(69)



Hanako-ga Taroo-o kosaseta.
'Hanako made Taroo come.'

The difference between the structure of the causative construction and the structure of a normal verb construction is that there are two VNs. In the example in (67), the VN *tabe* first discharges its internal argument to its Spec position and then raises to incorporate with the causative VN, *sase*. According to Baker (1988), the fact that all arguments are preserved during incorporation follows from the Projection Principle. The ɵ-grid of *tabe* is [Agent, (Theme)] and the Theme has already been discharged. *Sase*, on the other hand, has only one argument: [Agent]. When *tabe* incorporates with *sase*, its Agent ɵ-role, which has not yet been discharged, must still be retained in the argument structure of the compound because

of the Projection Principle. Consequently, the ɵ-grid of *tabesase* would have to be [$Agent_{sase}$ ($Agent_{tabe}$)]. In this way, the Agent argument of *tabe* has become the internal argument of *tabesase*, and can therefore be discharged to *tabesase*'s Spec position. *Tabesase* then raises V, where it discharges its last argument to the Spec VP position, and then raises to T to obtain tense marking. In the transitive example, the internal argument of *tabesase* is marked by a dative particle because accusative marking has already been assigned to *tabe*'s internal argument, *sushi*. However, in the intransitive examples in (68) and (69), there is no argument discharged in the lower VNP and the incorporated VN compound can optionally assign dative or accusative marking based on semantic factors.

The benefit of this analysis over Baker's dual-clause analysis is that no extraneous, empty structure is created. As well, it characterizes the similarity in form and behaviour of the causative morpheme and the verb-stem, an element that has been shown to be a VN in section 4.2.1.

5.2. The Passive Construction

Like the causative, the passive in Japanese is formed by a morphological process. It is expressed by adding a suffix, *-rare*, to the stem form of the verb.

(70)

a. Taroo-ga sushi-o tabeta
Taroo-nom sushi-acc eat-past
'Taroo ate sushi'

b. Sushi-ga Taroo-ni tabe**rare**ta.
Sushi-nom Taroo-dat eat-**pass.**-past
'Sushi was eaten by Taroo.'

We see in (70) the expected alternation between a regular and passive sentence: the passive morphology is attached to the verb, the theme is marked with a nominative particle, and the agent is reduced to oblique status. However, in Japanese, there is another "adversative" passive construction. Examples are below in (71).

(71)

a. **Watashi-wa** Taroo-ni **sushi-o** tabe**rare**ta
I-top Taroo-dat **sushi-acc** eat-**pass.**-past
'Sushi was eaten by Taroo (and this has a negative effect on me).'
? 'Taroo ate the sushi on me.'

b. **Watashi-wa** Taroo-ni ko**rare**ta
I-top Taroo-dat come-**pass.**-past
* '- was come by Taroo (and this has a negative effect on me).'
* 'I was come on by Taroo.'

The term "passive" in this structure is a little misleading in that it appears to be *adding* an argument to the structure, not suppressing one. In this it resembles the causatives discussed in section 5.1. In the above examples, *watashi* 'I', was added as a topic and the meaning is that 'I' was negatively affected by the outcome of the event described. From here on, I shall refer to this added argument as the "adversative topic"[10]. The most common referent for the adversative topic is 'I' although it need not be - any referent may be the adversative topic as long as it is specified in a *-wa* phrase or is contextually clear. It is also important to note that the adversative topic can never be a ɵ-marked participant in the event.

[10]It is important to note that the adversative topic, if overt, may only be marked with the topic particle *-wa* and not the nominative particle *-ga*. The full implications of this fact are beyond the scope of this discussion; however, it is clear that the adversative topic is not part of the original argument structure and I assume that it is inserted into the structure later by the process of topicalization.

There are two other characteristics of the adversative passive that regular passives do not exhibit. It is possible to passivize intransitive verbs such as in the example in (71)b, and when passivizing transitive verbs, the verb's direct object does not move and retains accusative marking as in (71)a.

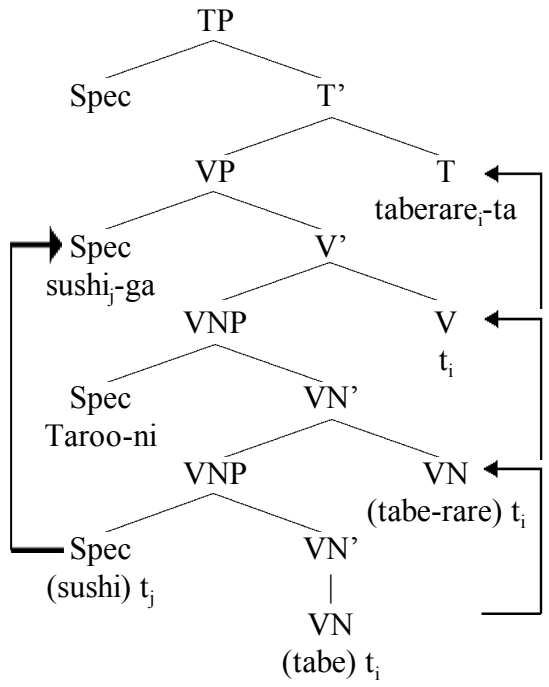
A standard view of the passive (Jaeggli 1986) claims that in the derivation of the passive, the verb's external argument and its ability to assign case are absorbed and consequently, the direct object must raise to subject position in order to receive case. Obviously, this in itself cannot account for adversative passives since in the transitive example the direct object still receives its accusative marking. Miyagawa (1989) extends the standard view by claiming that because *-rare* absorbs the verb's ability to assign case, *-rare* gains that ability and uses it optionally; when *-rare* does not assign case to the direct object, the regular passive is formed; when it does assign case to the direct object, the adversative passive is formed. However, this is not sufficient either, at least within the framework that I have been proposing - case is not assigned by the verb (cf. section 1.1.).

Although it is not possible for a passive verb to participate in many of the constructions detailed above for the verb-stem and the causative morpheme[11], it still behaves like a stem in that it is marked by all the same tense, aspect, and politeness morphemes as other stems. It is also similar to the causative morpheme *sase* in form and usage, and, at least in the adversative passive, it seems similar in function: it adds an extra argument to the structure. Based on this similarity it is possible to categorize *rare* as being of the same

[11]In at least one case, the passive's ability to participate in these constructions is ruled out by an independent rule of the grammar, cf. the discussion of the exceptions to VP movement in section 2.2.

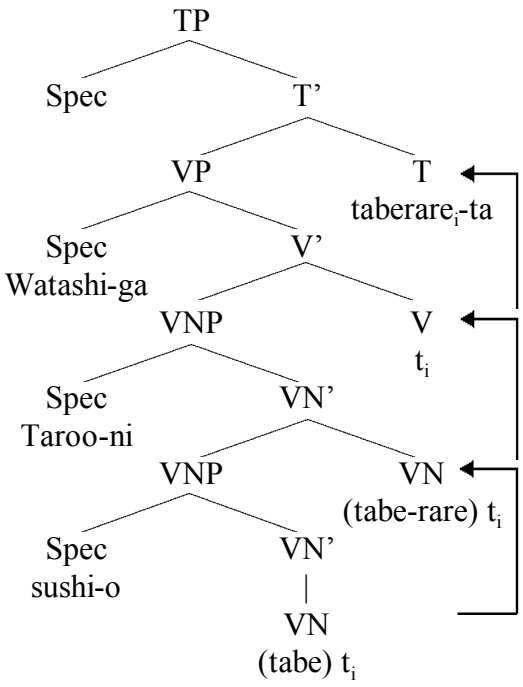
lexical class as *sase* and the verb-stem, that is, *rare* is a VN. Under this analysis, passivization in Japanese is simply another process of incorporation and, as we shall see further on, this allows us to simply characterize the difference between the causative and passive morphemes in Japanese, and provide a unified account for all Japanese causative and passive constructions. The structures of the VN analysis of the passive examples in (70) and (71) are shown below in (72) through (74).

(72)



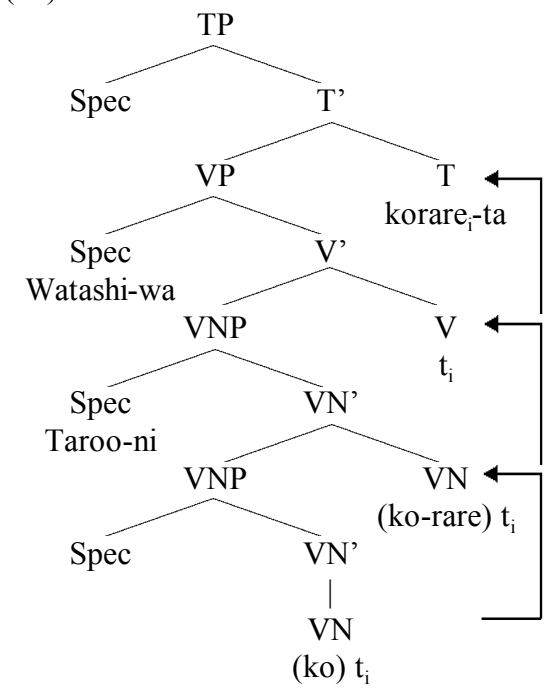
Sushi-ga Taroo-ni taberareta.
'Sushi was eaten by Taroo.'

(73)



Watashi-wa Taroo-ni sushi-o taberareta.
? 'Taroo ate the sushi on me.'

(74)



Watashi-wa Taroo-ni korareta.
* 'I was come on by Taroo.'

The analysis here is exactly the same as that of *sase* except in one respect: where the ɵ-grid of *sase* specifies an agentive argument, *rare*'s ɵ-grid only requires that the argument position be filled. The effect of this is that when the compounded VN raises to V, there is no argument to assign. Consequently, an argument must be drawn from another source. In the case of the regular passive, the direct object discharged in the lower VNP is moved into the subject position. However, in the structure of the adversative passives in (73) and (74), a different strategy is used. The subject is drawn from context instead of from further down the tree in order to convey the adversative meaning (Young and Nakajima-Okano 1985).

This analysis differs from the standard passive analysis in several ways: i) The passive sentence is not derived from the corresponding non-passive sentence - the passive is base generated; ii) the oblique phrase that is used to express the "original" subject is still discharged in an argument position; and iii) the passive morpheme does not "absorb" any arguments, not does it prevent case from being assigned. These differences all provide theoretical advantages in analyzing Japanese. First, in allowing the passive to be base generated, we can generate a position for the passive morpheme. As this framework has few functional categories that could act as the generation position of *rare*, the alternate analysis would require a vague insertion rule to derive the passive morphology.

Second, this analysis allows the oblique phrase to be generated in an argument position and to receive a ɵ-role, thus accounting for its appearance with dative case-marking. The alternative analysis views the dative particle, *ni*, as being of a different class from the other case-marking particles, *ga* and *o*, which is counterintuitive.

Third, under this analysis, the verb-stem is not affected with regard to its ɵ-grid or properties. We therefore do not need any complex rules to account for the suppression of ɵ-roles and the transfer of case-assigning ability to the passive morpheme. All the facts of both regular and adversative passives in Japanese are derivable from a single, simple, property of the passive morpheme, i.e. that its argument position must be filled and that there are two options for satisfying that requirement. Finally, this analysis also allows us to provide a unified account of two similar-appearing morphemes and to simply characterize the difference between the two. This is of particular benefit in the analysis of the more complex

constructions in which the passive and causative are used together. These constructions are discussed in the following section.

5.3. Causative - Passive and Passive - Causative Constructions

In Japanese, the passive and causative are not mutually exclusive; they occur in several combinations which appear in (75) to (79) below:

(75) **Regular Passive + "ni" Causative:**

Hahaoya-wa	kodomo-ni	Hanako-obasan-ni	dak**aresase**ta
mother-top	child-dat	Aunt Hanako-dat	hold-**pass.-caus.**-past

'The mother allowed the child to be held by Aunt Hanako.'

(76) **Regular Passive + "o" Causative:**

Chichioya-wa	Mariko-o	otto-ni	nagu**raresase**ta
Father-top	Mariko-acc	husband	hit-**pass.-caus.**-past

'The father made Mariko be hit by her husband.'

(77) **"o" Causative + Regular Passive:**

Akiko-wa	Takashi-ni	tonarimachi-made	ik**aserare**ta
Akiko-top	Takashi-dat	neighbouring town-to	go-**caus.-pass.**-past

'Akiko was made by Takashi to go to the neighbouring town.'

(78) **"o" Causative + Adversative Passive:**

Yuriko-wa	Takashi-ni	kodomo-o	tonarimachi-made	ik**aserare**ta
Yuriko-top	Takashi-dat	child-acc	neighbouring town-to	go-**caus.-pass.**-past

'Yuriko was disturbed by the fact that Takashi made the child go to the neighbouring town'

(79) **"ni" Causative + Adversative Passive**

Tom-wa	Takashi-ni	Yuriko-ni	paatii-e	ik**aserare**ta
Tom-top	Takashi-dat	Yuriko-dat	party-to	go-**caus.-pass.**-past

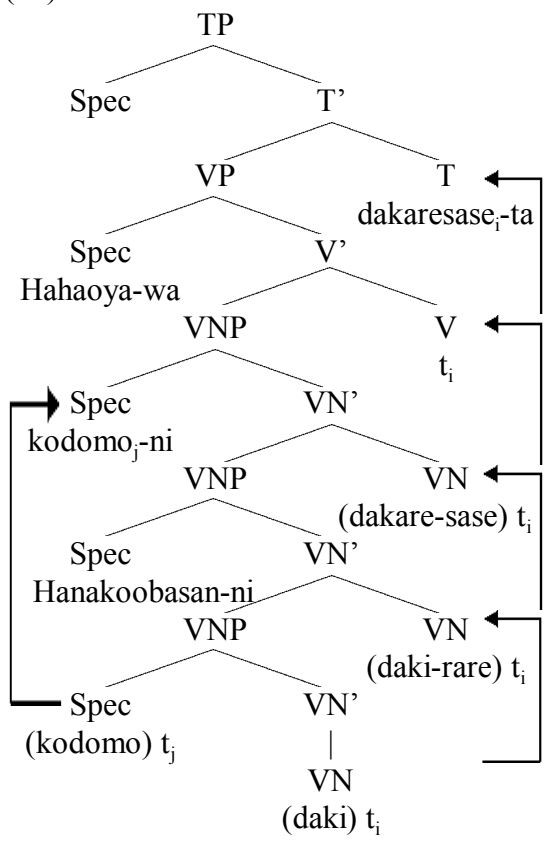
'Tom was disturbed by the fact that Yuriko was allowed to go to the party by Takashi.'

(Terada 1990)

The VN analysis so far put forward accurately accounts for the grammaticality of the examples in (75) through (79)[12]. In all cases, there are three VNP projections, one for each of the verb-stem, the passive morpheme, and the causative morpheme. Each VN discharges an internal argument within its own projection and then raises to incorporate with the next VN. Examples of this analysis follow in (80) and (81).

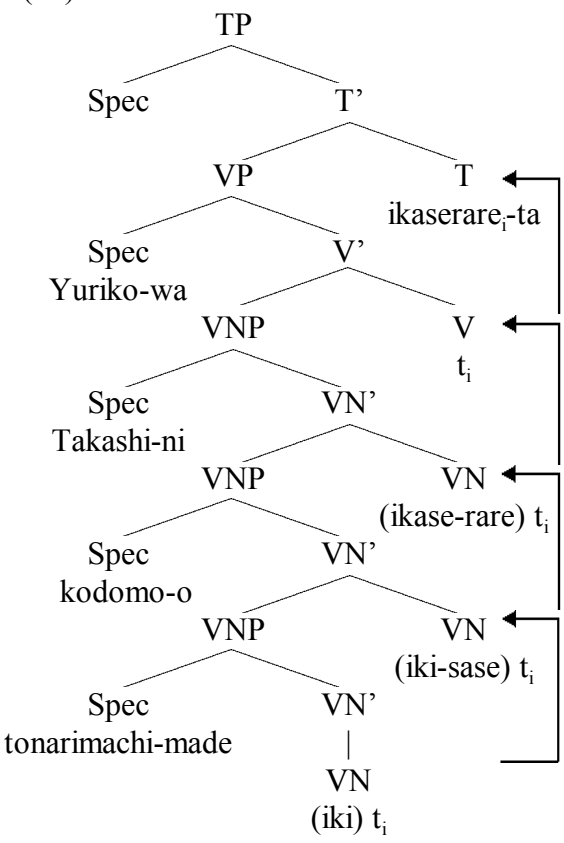
[12]For an alternative analysis of causative and passive structures, see Terada 1990.

(80)



Hahaoya-wa kodomo-ni Hanako-obasan-ni dakaresaseta.

(81)



'Yuriko-wa Takashi-ni kodomo-o tonarimachi-made ikaserareta.'

The structure in (80) is of the example shown in (75). The lowest VN, *daki*, discharges its direct object in its argument position and then raises and incorporates with the passive VN, *rare.* Consequently, *daki*'s remaining argument becomes an internal argument of the compound *dakare* and is discharged bearing dative case in the Spec position of *dakare*. This passive compound then raises and incorporates with the causative *sase*. The passive's requirement that its argument position be filled is transferred to the internal argument of *dakaresase* and so, since this is not an adversative passive, the direct object discharged below

is raised to *dakaresase*'s Spec position and reassigned dative case. The compound then raises to V and discharges its final remaining argument, the "causer" contributed by *sase*. The structure of (76) is the same as (80) except that when the direct object is raised, for emphasis, it remains a direct object of the compound and is not reduced to oblique status.

Shown in (81) is the structure of the example in (78). The VN, *iki*, discharges its internal argument to its Spec position and incorporates with the causative *sase.* In doing so, its remaining argument becomes the internal argument of *ikase* and is discharged, in this case, as a direct object since emphasis is to be placed on it. The compound incorporates with the passive *rare* and its remaining argument, the "causer", becomes an internal argument that can be discharged within *ikaserare*'s projection. The new compound raises to V and since an adversative meaning is intended, the adversative topic is drawn from a contextual source. The structure of (77) and (79) are similar: in (77) instead of an adversative topic being drawn from context, the position is filled by raising the direct object of the causative compound; in (79) the argument of the causative compound VN is discharged as an oblique instead of as a direct object.

Not all combinations of the passive and causative constructions are grammatical in Japanese. Some ungrammatical examples are shown below in (82) to (84):

(82) **Adversative Passive + "ni" Causative:**

*Taroo-wa	Akiko-ni	hahaoya-ni	nak**aresase**ta
Taroo-top	Akiko-dat	mother-dat	cry-**pass.-caus.**-past

'Taroo allowed Akiko to be disturbed by the fact that her mother cried.'

(83) **Adversative Passive + "o" Causative:**

*Taroo-wa	Akiko-o	hahaoya-ni	nak**aresase**ta
Taroo-top	Akiko-acc	mother-dat	cry-**pass.-caus.**-past

'Taroo made Akiko disturbed by the fact that her mother cried.'

(84) **"ni" Causative + Regular Passive:**

*Yuriko-wa	Takashi-ni	paatii-e	ik**aserare**ta
Yuriko-top	Takashi-dat	paatii-to	go-**caus.-pass.**-past

'Yuriko was allowed by Takashi to go to the party.'

(Terada 1990)

The ungrammaticality of the adversative passive + causative examples in (82) and (83) can be explained by where in the tree they attempt to insert an adversative topic. The only possible way to introduce a non-ɵ-marked argument into the structure is to insert it into the Spec of VP and mark it with the topic particle, *wa*, in the process of topicalization. In the construction presented in these two examples, an adversative topic is being drawn into the structure in a position other than the Spec of VP, and being given a particle other than *wa*; hence, these constructions are ungrammatical.

The example in (84) is ungrammatical because, since the internal argument of the causative compound has been discharged as an oblique and not as a direct object, there is no available direct object to be raised into subject position as per the requirements of the passive morpheme in the creation of a regular passive.

5.4. Conclusion

As has been demonstrated in sections 5.1. through 5.3 above, if we categorize the stem form of the verb, the causative morpheme *sase*, and the passive morpheme *rare*, together as VNs based on their similar form and behaviour, we gain a great deal of explanatory power when these forms are used together. All of the above constructions can be accounted for by allowing the iterability of the VN projection, and by discharging arguments in a standard way based on the properties of the particular VN. Thereby, the VN analysis provides a single, unified analysis of all Japanese regular, causative, and passive verb forms.

6. Conclusion

In section 2. above, we saw that the Internal Subject Hypothesis (ISH)is not sufficient, in itself, to account for the data presented. However, the ISH has theoretical advantages over the external subject hypothesis: it simplifies the mechanism by which θ-roles are assigned, and allows us to simply characterize the typological differences between Japanese and English in terms of the functional categories that they possess (Fukui 1986; Fukui and Speas 1986); the analysis of raising verbs can be unified with Infl (Koopman and Sportiche 1991); and we can provide a better analysis of VP Coordination (Burton and Grimshaw 1992; McNally 1992) (cf. section 2.1.). By assuming a Split VP structure that has been independently proposed to deal with double object constructions (Larson 1988) and Austronesian languages (Travis 1991), we can account for all of the problematic data, as well as maintaining the ISH.

We saw in section 4. that Irish exhibits cross-categorical elements that have been accepted as been partly nominal and partly verbal and have been labeled VNs (McCloskey 1983). In the extrapolation of the SVH to Irish, it was determined that the most advantageous way to deal with VNs was to place them in the head of the lower projection of the split-VP structure (Guilfoyle ms; Carnie 1995). The implication of this hypothesis was that the VNP analysis of the SVH is a universal structure.

In the extension of this analysis to Japanese, it was determined that Japanese does, indeed, exhibit structures that show both nominal and verbal properties and that parallel the Irish VN in behaviour. In section 4. it was proposed that the Japanese verb-stem, the ɵ-assigning noun in light-verb constructions, and the noun of the nominal predicate are all best analysed as VNs that head their own projections in which they can license arguments. These otherwise problematic constructions receive a unified analysis as VNP structures. In addition, the VNP analysis can better account for "*suru*-support", the Japanese equivalent of "*do*-support" in English.

In section 5. the VNP analysis was extended to account for all Japanese passive, causative, passive-causative, and causative-passive forms by assuming that VNPs are iterable. Under this analysis, the Japanese passive and causative morphemes can be treated in an identical fashion, their differences characterized simply by the contents of their individual ɵ-grids. Ungrammatical combinations of the passive and causative constructions are ruled out by independent principles already present in the grammar.

In summary, the benefits of the VNP analysis are:

i) The VNP analysis is a form of the SVH, a proposal that has been independently motivated in a number of languages to deal with a variety of structures. It can account for all of the problematic data presented as arguments against the ISH. In maintaining the ISH, it allows us to also maintain the claims made about Japanese's functional categories by Fukui and Speas.

ii) The VNP analysis accounts for the cross-categorical elements found in Irish and Japanese.

iii) The VNP analysis provides a unified and accurate account of many Japanese verbal constructions including full verbs, light verbs, regular and adversative passive constructions, "ni" and "o" causative constructions, all grammatical and ungrammatical combinations of the passive and causative, "*suru*-support", and the nominal predicate.

iv) Baker's (1988) notion of incorporation and the morphological causative no longer requires the generation of empty structure in order to obtain an extra argument position.

v) The Japanese passive, under the VNP analysis, no longer requires complex notions of case and ɵ-role absorption. Nor does it rely on the transfer of case-assigning ability in order to account for the adversative passive. The passive is simply a VN that is characterized by its ɵ-grid.

The fact that this analysis so aptly accounts for data from both Irish and Japanese, two completely unrelated languages, lends support to the claim that the VP / VNP bipartite verb

structure is universal. It may be that the study of other languages may benefit from this analysis and a cross-linguistic exploration of the VN and SVH should continue.

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