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1 Introduction

Japanese expresses inchoative and causative voice with overt morphology on many verbs, forming what is known as inchoative-lexical causative verb pairs (Jacobsen 1992). Furthermore, Japanese also has a syntactic causative morpheme *sase* which forms a causative predicate when suffixed to a verb stem. Thus, for a Japanese inchoative verb with a lexical causative counterpart, there are two ways of forming single causative constructions – by the lexical causative, or by suffixing the syntactic causative morpheme *sase* on the inchoative verb stem.1

(1a)  Inchoative verb

Rukia-ga  tom-at-ta  (tom-ar ‘stop-INCH’)
Rukia-NOM  stop-INCH-pst
‘Rukia stopped.’

(1b)  Lexical causative verb

Ichigo-ga  Rukia-o  tom-e-ta
Ichigo-NOM  Rukia-ACC  stop-LC-pst
‘Ichigo stopped Rukia.’

(1c)  Inchoative + syntactic causative verb

Ichigo-ga  Rukia-o  tomar-ase-ta
Ichigo-NOM  Rukia-ACC  stop-INCH-CAUS-pst
‘Ichigo made Rukia stop.’

Although (1b) and (1c) are both single causative constructions, they differ in a number of ways which will be explained later. Most notably, the lexical causative in (1b) is monoclausal in nature, having the causative meaning inherent to the verb stem. In contrast, the syntactic causative in (1c) is biclausal in nature and the causative meaning is

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1 Due to morphophonological constraints, *sase* may surface as *ase*. Phonological changes on verb stem may also occur with the past tense morpheme -*ta*. For clarity, I will provide the form of the verb stem where such changes occur in the example sentences.
always compositional. It is an important difference which should be structurally represented.

Using the framework of the Minimalist Program (Chomsky 1995), this essay aims to use data from Japanese causative constructions to investigate the possible syntactic relations that will be able to represent the difference between (1b) and (1c), and from that, to explore the possible structures of VP shell in Japanese. I will suggest that some constructions in Japanese may possibly involve two VP shells, and that some of these VP shells have just one vP instead of both vP and VP. The syntactic difference between the constructions such as (1b) and (1c) would be indicated by the difference in the structure of the VP shell, and also by the different features that may fill the v head node.

As the discussion is focused on complex verbs in Japanese, I have excluded the internal structure of the nouns, specifically Kase Phrase, and have just labeled the nouns with their case marking as DPs in the trees shown in the rest of the paper. I will also not discuss the morphophonological changes that occur in the verbal suffix system since this discussion is confined to the derivation that obtains before Spell-Out; for simplicity however, all verb and noun forms shown in trees are the surface forms.

2 Fundamentals

For the purpose of the discussion in this paper, this section provides a brief outline of the framework and basic assumptions of the Minimalist Program (Chomsky, 1995) as well as a short description VP shells and the little v. As these are only brief outlines focusing mainly on areas relevant to the problem and discussion, please refer to the original works for the complete details.

2.1 Minimalist Assumptions

The Minimalist Program (MP) is a framework for linguistic theory which assumes an architecture of grammar that is strictly derivational. It consists of the lexicon which provides lexical resources, and the computational system which selects and integrates lexical items to form linguistic expressions. In the process that takes place within the computational system, Spell-Out is a point where the derivation splits off to PF and LF, the interface levels which connect with the semantic-conceptual system and the articulatory-perceptual system respectively.

The Lexicon is assumed to contain phonological, semantic and syntactic features, and these features on a lexical item are interpreted at the relevant levels during the derivation. Lexical items are added into the numeration by two operations. One is Select, which takes an item from the lexicon and puts it into the numeration. Merge is the other operation where two objects from the lexicon are put together.

In the Computational System, no operations occur explicitly in any derivation to avoid a violation of a principle at the interfaces. Instead, individual constituents might have particular needs that motivate them to move, as a failure to meet these needs can lead to a derivation that is uninterpretable at one of the interfaces levels. For example, a

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derivation must converge by the time it reaches Spell-Out. A derivation crashes (fails to converge) when the strong or weak syntactic features that accompany lexical items are not eliminated by checking, a process which takes place when two matching features are in the same local relation, a result of the operation Move that takes a feature of a lexical item from one structural position to another. This operation Move is governed by Shortest Move, one of the three major economy principles in the MP. The basic idea of this principle is that constituent must move to the first position of the right kind up from its source position.

Where PF is concerned, strong features must be invisible, and hence the output condition of the PF interface is for strong features to be checked, which has to be done before Spell-Out. Weak features on the other hand are checked after Spell-Out before LF in order to fulfill the LF interface’s output condition. This is the result of the economy principle Procrastinate, which stipulates that movements on a derivation be held off until after Spell-Out. This is naturally subject to the convergence of the derivation which may crash if movement does not take place in time for features to be check in fulfillment of the output condition.

An assumption of the MP which is crucial for the discussion here is this: the lexical items selected for a numeration (the set of lexical items entered for a derivation) are assumed to be fully inflected, which means that any inflectional features must be added in the lexicon before numeration; no new feature may be added after numeration because it is assumed that all the features needed for computation are already present. More specifically for the purposes here, the assumption is that inflectional affixes are already added onto lexical items when they are selected for numeration (Chomsky 1995, p. 236).

Since the MP is the framework that this paper is based on, the tree structures used for the purpose of the discussion are all in line with minimalist assumptions. This will be addressed in the section below.

2.2 On VP shells and little \( v \)

The VP shell refers to the complex internal constituent structure of verb phrases. Adopting a proposal first suggested by Chomsky’s (1955/1975), Larson (1988) presented his analysis of the structure of double object constructions, such as \( \text{John sent Mary a letter} / \text{John sent a letter to Mary} \), which involved embedding a VP in another VP. For the dative sentence John sent a letter to Mary the higher VP consists of an empty V head which takes a VP complement. This lower VP has \( a \text{ letter} \) as its specifier, \( \text{send} \) as its head which takes \( \text{to Mary} \) as complement. This is illustrated in the tree representation below:
The central assumption made is that the correct surface form arises by movement of the verb send from the lower V head to the empty V position by head-to-head movement to fulfill conditions such as case and agreement requirements (Larson 1988, p. 342-4).

Since Larson, this structure has been further developed and exploited. The empty V head in the higher VP that Larson proposed is now known as little v (Chomsky 1995, 1998. Its role is two fold – to introduce an external argument and enter into a relation with the object. The syntactic motivation for proposing little v instead of having just V is to capture the correlation between the presence of an external argument and object case. Semantically, little v is motivated by the observation that the external argument is not an argument of the verb, but its interpretation is from the composition of the verb phrase (Arad 1999).

This proposal of the little v, which projects to vP, is what creates a complex VP shell. In this VP shell, internal arguments that are complements of V are now distinguished from external arguments that are not. Internal arguments of the verb (e.g. theme) originate within the lower VP as the complement of V, while external arguments (e.g. agent) originate within the upper vP in [Spec, vP].

Harley (2002) proposes that there are two main types of little v – agentive/causative v, which has the meaning of make, do or cause, and eventive/unaccusative v, which has the meaning of either become or happen (Harley 2002). The agentive/causative v heads typical transitive constructions, and also unergative constructions (Mary laughed), while the eventive/unaccusative v heads unaccusative constructions (Mary arrived). These various the meanings of the two types of little v will come into play in the discussion later.

Taking into account the proposals of agreement and tense projections in Koizumi’s (1995) Split VP Hypothesis, the structure of the VP shell is shown in the tree representation below, which will be the structure used in the discussion later.
3 Discussion

3.1 The Problem

Although both the lexical and the syntactic single causative constructions mentioned in (1) license the same number and types of arguments, and essentially mean ‘cause to V’, there are some differences that can be found between them. Japanese lexical causatives are monoclausal in nature. They have the causative meaning inherent to the verb stem and speakers have a strong intuition of wordhood for them. On the other hand, the syntactic causative sase does not induce a sense of wordhood to the speakers. The causative meaning is compositional and thus it is biclausal in nature, similar to English biclausal constructions formed with ‘let’ or ‘force’ (Harley 1996).

Semantically, the lexical causative verb usually has a stronger nuance of causation than the syntactic causative formed with sase and the inchoative counterpart of the lexical causative verb. Shibatani (1990, p. 317) explains that the lexical causative typically expresses manipulative causation where the causer physically manipulates the causee to bring about the caused event, while the syntactic causative expresses directive causation where the causer gives a direction to the causee to being about the caused event.  

The problem can be clearly seen when we examine the tree structures for the sentences in (1). I begin by explaining the tree structures for the inchoative clause in (1a) and the lexical-causative clause in (1b).

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(4) shows the tree structure for the inchoative sentence in (1a). I suggest that this structure is the split-VP structure for unaccusative verbs, and that the feature in the v head in (4) is BECOME. The verb enters the numeration fully inflected, and moves from the base position to Agro head, and then to the v head to check BECOME, and then to T and Agrs heads in order for all the features to be checked. No external argument is licensed in this vP when it is headed by BECOME, and the internal argument raises first to [Spec, AgroP] and then to [Spec, AgrsP] to check off the phi-features according to the verb that has moved into the head positions of those projections.

For the lexical causative construction shown in (1b), the tree representation is shown in (5):
Causativity is syntactically represented as a ‘causative’ light verb $v$ (Chomsky 1995; Hale & Keyser 1993). In this tree, the feature in the $v$ head is CAUS which licenses the causer as the external argument in [Spec, vP] that moves to [Spec, AgrsP] to check phi-features. The complement of $V$ in base position also moves to check phi-features, but to [Spec, AgroP]. The verb moves to Agro head and to the $v$ head to check CAUS, and then to T and Agrs heads in that order to check other features.

What would the structure for the sentence formed with the syntactic causative on the inchoative verb be like? Given that it is also a single causative construction, the structure for (1c) may conceivably be of the same structure as that in (5). The following tree shown in (6) has the exact same structure as (5), and the movement for the argument and verbs in (6) will be that which is described for (5) as well.
Note however that the verb in (6) is different from the lexical causative verb in (5) which results in a difference in meaning ('made stop' vs 'stopped'). This biclausal and monoclausal difference should be reflected by the tree structures and it is thus inadequate for both the sentences to be represented by the same structure as seen in (5) and (6). What is needed is a tree structure that can better represent the biclausal nature of the single causative construction formed by the syntactic causative *sase* with the inchoative verb, such as the verb in (6). With this in view, I will begin the investigation by first exploring what the tree structures of a transitive verb and its syntactic causative construction are, followed by our problem of the tree structures of the inchoative verb and its syntactic causative construction.
3.2 The Investigation

(7)

(7) shows the tree structure of a simple transitive sentence, where the internal argument of the verb is base-generated as its complement. I suggest that the little v head for transitive verbs such as the one in (7) has the feature DO which licenses the external argument in [Spec, vP]. The verb moves into Agro and then the v head to check DO, and then to T and Agrs heads to check off the features there. The internal argument and the external argument move to the specifiers of AgroP and AgrsP respectively to check phi-features.

I propose now that the verbs constructed with the syntactic causative *sase* has the structure where the CP structure without *sase* is embedded under a vP structure with the relevant agreement phrases. I will look at different examples in turn to illustrate this proposal, beginning with the causative construction with the transitive verb that was just discussed in (7).

Given that the structure in (7) is a complete clause and projects to a CP, I suggest that for its syntactic causative construction, this CP is embedded directly into an AgroP
which, along with AgrsP, accompanies the higher vP that I propose. This is clearly shown in (8):

(8)

Syntactic causative clause:
Ichigo-ga Rukia-\textbf{ni} kusuri-o nom-ase-ta
Ichigo-\textit{NOM} Rukia-\textit{DAT} medicine-\textit{ACC} drink-CAUS-pst
‘Ichigo made Rukia drink the medicine.’

Transitive sentence in (6):
Rukia-\textit{ga} kusuri-o non-da
Rukia-\textit{NOM} medicine-\textit{ACC} drink-pst
‘Rukia drank the medicine.’

Ichigo-ga Rukia-ni kusuri-o nom-ase-ta
Ichigo-\textit{NOM} Rukia-\textit{DAT} medicine-\textit{ACC} drink-CAUS-pst
‘Ichigo made Rukia drink the medicine.’
In (8), a broken line on the tree have been used to indicate the boundary between the structures for the basic transitive sentence in (7) and the syntactic causative construction formed with the same transitive verb. The part of the tree marked below the broken line shows the full CP projection of the transitive sentence, which may be paralleled with the structure and description for the tree in (7). The higher CP (marked above the line) is headed by the vP with the feature CAUS in the v head. This licenses an external argument in [Spec, vP] which has the semantic role of the causer, which will eventually move to the higher [Spec, AgrsP] to check case and phi-features. The main verb, which enters the derivation fully inflected for the entire complex clause, moves through all the head nodes of Agr, v, and T in both clauses to check the features at each node. The DP *Rukia* which is base-generated in [Spec, vP] of the lower VP shell is both the semantic agent of the lower clause and the causee of the higher clause. For the given verb in (8), the DP needs to check case, and the appropriate position where this checking relation can be established is the specifier of the AgroP in the higher CP, which is embedded in the vP headed by CAUS.\(^4\)

I propose that the transitive clause in the lower CP must be minimally embedded in the AgroP of the higher CP as the sister of the Agro head in order for the necessary checking relations to be established for the causative clause. This is because for a given transitive clause, there is only one pair of AgrsP and AgroP in the structure since agreement and case features only need to be checked once for each of the internal and external arguments of the verb.\(^5\) When a single causative construction is formed from a transitive sentence such as (7) with the syntactic causative *sase*, a new argument (causer) is introduced. Because all arguments have to check off their case features, among other phi-features, in some [Spec, Agr] position, there will be insufficient number of appropriate specifier positions for a transitive+sase verb construction if the construction is still projected under a single CP. Furthermore, while the DP *Rukia* in (8) is base-generated as the external argument of the lower clause, it has to move to an appropriate position to check off the features as the causee of the syntactic causative clause, which has to be in a different specifier position. This can be seen in the difference in case marking for the DP *Rukia* in sentences (7) and (8). Hence, only when the lower CP is embedded in AgroP will there be sufficient and appropriate specifier positions that are needed for the checking of phi-features.

Note that this proposal of a large tree structure with a CP embedded in a VP shell is still in line with MP assumptions. Instead of having the idea that the starting point of the derivation is a single-constituent tree structure, the MP claims that syntactic structures are built through generalized transformations that may insert already formed trees into trees (Marantz, 1995, p. 359). In other words, lexical items that have been merged and projected into trees may fill in as a head’s complement in another tree, which is what I

\(^4\) It is worthly to make a brief note at this point that in Japanese causative constructions, there is a difference in the case-marking on the causee between causative constructions formed with transitive verbs and those formed with intransitive verbs. With transitive verbs, the causee is always marked with the dative case because two occurrences of accusative case is generally disallowed in Japanese. On the other hand, the causee in causative constructions with intransitive verbs can be either marked with dative or accusative case, and the difference between the two can generally be seen in terms of the force of the causation or the volition of the causee.

\(^5\) For di-transitive verbs, there is one AgrsP but two AgroPs.
have done here in (8). The structure shown in (8) does not violate economy principles and shows the minimal structure needed for the derivation to converge. This is also the reason behind why only a little vP headed by CAUS in the higher clause has been proposed instead of a VP, as is the case for the lower clause which has both vP and VP. There is no item in the numeration that can be inserted into a V head that projects onto a VP in the higher clause as there is only one complex verb for this derivation.

To address the problem of how to represent the single causative construction formed with the syntactic causative on inchoative verbs, differently from the lexical causative verbs, I suggest that this proposed structure can also be applied to the syntactic causative with the inchoative verb. This structure is shown below in (9).

The tree structure shown in (9) has a structure that is comparable to (8), except that in the case of (9), the embedded clause is the inchoative clause. As explained previously, the verb moves to each of the head nodes Agr, v and T to check features. I suggest that the argument that is generated in VP as the complement of V actually raises straight into the [Spec, AgroP] of the higher VP shell. That is the position where the DP can check its ACC case. Note that this does not violate Shortest Move even though there are potentially two other lower specifier positions of AgrP, because the raising of the verb renders these specifier positions equidistant to the verb.

With the proposed tree structure in (9), the structural differences between the lexical causative construction and the construction formed with the syntactic causative on the inchoative verb are clearly represented. The structure of the lexical causative shown earlier in (5) is reproduced in (10) for a comparison with (9).
Inchoative sentence in (1a):
Rukia-ga  tom-at-ta
Rukia-NOM  stop-INCH-pst
‘Rukia stopped.’

Ichigo-ga  Rukia-o  tom-ar-ase-ta
Ichigo-NOM  Rukia-ACC  stop-INCH-CAUS-pst
‘Ichigo made Rukia stop.’
From the comparison between (9) and (10), the monoclausal nature of the lexical causative and the bi-clausal nature of the syntactic causative is clearly seen from the differing tree structures. The syntactic causative formed with the inchoative verb in (9) is represented by two CPs, with the vP in the lower VP shell headed by BECOME while the upper vP is headed by CAUS. The lexical causative in (10) is represented by only one CP and has only one VP shell, and its only vP is headed by CAUS. Furthermore, the inherent causative meaning for the lexical causative and the compositional causative meaning for the syntactic causative can be accounted for by the distance between the the CAUS feature and the verb on the tree structure. For the former, the CAUS feature is found within the same VP shell as the base position of the verbs as seen in (10), thus giving the verb its inherent meaning of causation; for the latter, the CAUS feature is not generated in the same VP shell as the verb, but in the higher CP instead, making the causative meaning a compositional one. It also fits the idea of manipulative and directive causation by the causer very neatly: the lexical causative which has the nuance of manipulative causation has the causer generated within the same VP shell as the causee whereas in the for the syntactic causative, the causer is generated in a different VP shell of a separate CP that is higher than the VP shell where the causee is base generated.

I have shown that by proposing an embedded CP structure, the difference between the lexical causative and the syntactic causative with inchoative verb are accounted for.
This analysis will now be extended to see how it can also be applied to Japanese double causatives.

As mentioned, the Japanese single causatives can be formed by either the lexical causative or the syntactic causative with the inchoative verb. There is however only one structure for double causatives in Japanese: it must be formed with the lexical causative verb with the syntactic causative *sase*; two syntactic *sase* cannot be used on the inchoative counterpart to form double causatives.

Going along the same line of argument in the previous section, I extend the proposal to the double causatives and suggest that the double causative construction also have the same structure as (9) with corresponding movements of the items in the numeration, but both *v* heads of the upper and lower VP shells have the feature CAUS.
Kon-ga  Rukia-ni  Ichigo-o  tom-e-sase-ta
Kon-NOM  Rukia-DAT  Ichigo-ACC  stop-1C-CAUS-pst
‘Kon made Rukia stop Ichigo.’
4 Conclusion

To recap, I have shown through my proposal in this discussion how the differences in structures of the various Japanese constructions are shown by difference in terms of the VP shell, and when the structure is the same, by what is filled in the \( v \) heads. The following table is a summary of what I have found in my investigation:

\[
\begin{array}{|c|c|c|c|}
\hline
\text{Type of construction} & \text{# of arguments} & \text{# of VP shells} & \text{Feature in } v \text{ head(s)} \\
\hline
\text{Unaccusative} & 1 & 1 & \text{BECOME} \\
\text{Lexical causative} & 2 & 1 & \text{CAUS} \\
\text{Transitive} & 2 & 1 & \text{DO} \\
\text{Unaccusative+syn.caus} & 2 & 2 & \text{upper: CAUS lower: BECOME} \\
\text{Transitive+syn.caus} & 3 & 2 & \text{upper: CAUS lower: DO} \\
\text{Double causatives (lex.caus+syn.caus)} & 3 & 2 & \text{upper: CAUS lower: CAUS} \\
\hline
\end{array}
\]

The table illustrates that when syntactic sase is involved in the causative construction, my proposal of the upper VP shell is present in the structure. As previously shown in the trees for each of the last three constructions listed on the table, the [Spec, AgroP] in the upper VP shell is the appropriate position for checking the case of the causee.

In this essay, I have proposed different structures within the framework of the Minimalist Program to account for the difference between the clausality of single causative constructions formed with lexical and syntactic causatives in Japanese. I set out to address the unsatisfactory situation where one verb stands for one clause, when clearly, Japanese verbs can have bi-clausal effects. For that, I have proposed a higher VP shell that consists only of vP and the Agr phrases, but not VP, in order to provide the necessary specifier positions for checking relations to be established. I have suggested that the syntactic single causative has two separate VP shells, reflecting the bi-clausal nature; the upper VP shell consist of only a vP, which is headed by CAUS, while the lower VP shell has both vP and VP, and the v head has the feature BECOME. The lexical single causative has only one VP shell with feature CAUS in the v head. The difference in structure is not only shown by the VP shells for those two constructions, but also by the feature that is found in the v heads for other constructions sharing the same syntactic structures.

However, the proposal that I suggest here still leaves the fundamental problem that we are faced with unsolved. Given the MP assumptions of lexical items being fully-inflected morphophonological words, the causative must be monoclausal because it is entered into the syntax as one verb. It is difficult to reconcile the monoclausal definition
of a ‘word’ that is a verb with the biclausal effect that it can have. This conundrum is reflected in my proposal of two VP shells, where the verb actually rises beyond its CP clausal boundary. Note that the assumption of VP shells where the external argument is introduced by the functional head little v already implies that some aspects of a verb’s meaning are determined by the syntax, and not in the lexicon (Arad 1999). One might also argue that little v features such as DO, CAUS or BECOME are somewhat semantic in nature themselves, but they could be construed as endpoints on abstract scales and on these grounds counted as syntactic. These raise the questions as to what is in the ‘lexical’ verb, what information there is in the lexicon, as well as the problem that the computational element of the lexicon in the MP has not really been explored or defined, and whether this computational element is essentially the same as that of MP syntax as proposed in the DM framework or of an entirely different nature.

In addition, this proposal addresses only one of the many observations made regarding Japanese causative verbs, most of which are controversial for the framework of MP. It is inadequate at accounting for the established distributional differences between lexical causatives and syntactic causatives in double causative constructions, where only one occurrence of the causative morpheme will surface if both morphemes are syntactic causatives. Neither is this proposal or the MP framework able to give a suitable analysis of the distribution of the causative morphemes sas and sase as ‘lexical’ causatives. While I have attempted to give an analysis of one observation with the Japanese causative verb in this paper, namely the biclausality of syntactic single causative constructions, the root of the various problems may be identified if the theoretical priorities of MP and some of the its lexicalist assumptions are reviewed.

References

---- 1998 Minimalist inquiries: the framework. MITOPL, MIT.

6 Harley (2005) has more precise problems and implications of the lexicalist approach to analysing Japanese causatives.
7 For a detailed discussion, see Miyagawa (1998; 1999) and Koh (2005).


Shibatani M 1990 The languages of Japan Cambridge University Press Cambridge.