

On Depictive Secondary Predicates: Comparative Study of Two Types of Depictive Secondary Predicates

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On Depictive Secondary Predicates: Comparative Study of Two Types of Depictive Secondary Predicates

Mai Kubota

1. Introduction

This paper offers an analysis of Secondary Predicates in English and in Japanese, which appear in sentences optionally. I will shed light on their syntactic behaviors and structures.

In English, there are three types of Secondary Predicates, which are illustrated in (1). For convenience, Secondary Predicate is abbreviated as SP hereafter.

- (1) a. John painted the roof red.
b. John ate the meat raw.
c. John drove the car sober.

(Nakajima (2001: 469))

In these three sentences, the subject of the main clause is *John*, and they include the primary predicates *painted*, *ate* and *drove*. Besides, they have SPs, which are underlined in (1). SPs have two subtypes: *resultatives* and *depictives*. The SP in (1a) is called resultative-SP, which represents the resulting state caused by the occurrence of primary predicates. In contrast, the SPs in (1b) and (1c) are called depictive-SP. Furthermore, depictive SPs can be classified into object-oriented depictive SP (= as in (1b)) and subject-oriented depictive SP (= as in (1c)). The former modifies a direct object, while the latter modifies the subject of the sentence.

As noted above, SPs can be categorized into three types and show different syntactic behaviors. The differences among the three types of SP can be attributed to their syntactic structural positions. Recent approaches to SP constructions are roughly divided into two patterns: one employs PRO and the other relies on predication rules. In this paper, however, I will analyze the syntactic derivations of two kinds of depictive SP constructions without employing either PRO or predication rules. In so doing, they can be explained by adopting a movement-based analysis instead, where the predication relation between SP and its subject is guaranteed by the merger operation of the two. I also adopt Sideward Movement to derive the subject-oriented depictive SP constructions in this paper.

This paper is organized as follows. Chapter 2 introduces the syntactic behaviors of two kinds of depictive SP in English and investigates the syntactic positions for them through constituency tests involving either VP- or V'-constituency. Chapter 3 reviews previous research on SPs, especially the PRO-based and predication rules approaches. Chapter 4 proposes the derivation and the syntactic structural positions for each of the depictive SPs in English in terms of the recent framework integrating Labeling Algorithm. Finally, Chapter 5 concludes this paper.

2. Secondary Predicates in English

2.1. Syntactic behavior of SPs in English

First, I introduce the different behaviors of the two kinds of depictive English SPs in this subsection. These two kinds of depictive SPs show different syntactic behaviors from one another. The first difference concerns *wh*-extraction, as illustrated in (2).

- (2) a. *How angry did John leave the room?
b. ?? How raw did John eat the meat?

(cf. Hoshi (1992: 2))

According to the contrast in (2), *wh*-extraction is impossible with the subject-oriented depictive SP as in (2a). In contrast, in the case of the object-oriented depictive SP, the judgement of its acceptability varies across speakers. Although some speakers allow such a structure in (2b), the acceptability of *wh*-extraction of an object-oriented depictive SP is significantly degraded.

The second difference is that, when two or more depictive SPs co-occur in one sentence, the ordering of depictive SPs is also fixed, as illustrated in (3).

- (3) a. John ate the salad undressed naked.
b. * John ate the salad naked undressed.

(Hasegawa (1991: 5))

In (3a), the Adjective-*undressed* modifies the direct object and the AP *naked* modifies the subject. As is clear from here, when the object-oriented depictive SP precedes the subject-oriented one, the sentence is grammatical. In contrast, the acceptability of the reversed ordering decreases as in (3b).

From the examples in (3), it is possible to generalize the ordering of depictive SPs below in (4).

- (4) V > (object-oriented depictive SP) > (subject-oriented depictive SP)

In addition, SPs which modify the same element can co-occur in a sentence iff they are depictive ones as illustrated below.

- (5) * He hammered the metal flat wide. (Tsuzuki (1989: 38))

- (6) a. They eat the meat raw tender.
b. John sketched the model naked drunk as a skunk.

(Carrier and Randall (1992: 221))

In (6a), the AP *raw* and the AP *tender* both modify the direct object *the meat*. In the

case of (6b), it can be interpreted in one of three ways. The first is the interpretation in which *naked* and *drunk* both modify the subject *John*. The second is the interpretation in which both SPs modify the object *the model*. The third is the interpretation in which *naked* modifies the object *the model* and *drunk* the subject *John*. The interpretation in which *naked* is the subject-oriented depictive SP and *drunk* is the object-oriented depictive SP is ruled out because such a configuration conflicts with the ordering in (4).

Next, I shall introduce more complex examples that involve depictive SP constructions with ambiguous interpretations. Roberts (1988) provides the data below to reinforce his analysis of the structure of the SP construction.

(7) John met Mary angry. (Nakajima (2001: 479))

(8) a. John met Mary angry at herself.

b. John met Mary angry at himself.

(cf. Roberts (1988: 708))

(9) a. John met Mary angry at her.

b. John met Mary angry at him.

(Nakajima (2001: 479))

The SP *angry* in (7) can be interpreted in two ways: either as a subject-oriented depictive SP or an object-oriented depictive SP. However, only one interpretation is available if an anaphor or a pronoun co-occurs with the SP within the same AP as illustrated in (8) and (9). More concretely, in (8a), the interpretation in which *angry* modifies *John* is not available. In the cases of (8a) and (9b), the interpretation of SPs as the subject-oriented depictive SP is not allowed, and they are interpreted only as object-oriented depictive SPs. The converse judgements are obtained in (8b) and (9a), i.e., the interpretations are restricted to subject-oriented depictive SP. The reason for this is to avoid conflict with Binding Principle A and B, respectively.

- (10) a. Binding Principle A:
An anaphor must be bound in its domain. (Sportiche (2014: 168))
- b. Binding Principles B:
A pronoun cannot be bound in its domain. (Sportiche (2014: 170))

The above-mentioned interpretations concur with the Binding Principles and predication relation between SP and its subject.

If the SP in (8a) is interpreted as a subject-oriented depictive SP, this sentence is judged to be ungrammatical because the anaphor *herself* cannot be c-commanded by the antecedent *Mary* in its domain. This causes a violation of Binding Principle A.

So far, I have discussed crucial syntactic characteristics of depictive SPs and differences in their syntactic behavior, which will be attributed to their syntactic structural positions in the present analysis.

2.2. The Structural Position of SPs in English.

Andrew (1982), Roberts (1988), and Tsuzuki (1989), among others, have provided the syntactic structural positions of each of the SPs based on several tests for VP-constituency and V'-constituency. Consider the following examples in (11) with regards to VP-constituency.

(11) VP-fronting

- a. John said that he would paint the door red – and in fact paint the door red he did.
- b. * John said that he would paint the door red. – and in fact paint the door he did red.
- c. John said that he would eat the meat raw – and in fact eat the meat raw he did.
- d. * John said that he would eat the meat raw – and in fact eat the meat he did raw.
- e. We expected John to visit us sober – and visit us sober he did.

- f. * We expected John to visit us sober – and visit us he did sober.

(All examples are taken from Tsuzuki (1989: 35))

It turns out from the example in (11) that the three kinds of SPs are included in VP since all of them must be fronted when VP-fronting is applied.

I will further show a test for V'-constituency with *do so* substitution. Consider the examples in (12).

- (12) a. * John painted roofs red, but Mary did so yellow.
b. * John often eats apples whole, but I often do so sliced.
c. John may visit us sober, or he may do so drunk.

(All examples are taken from Tsuzuki (1989: 36))

The minimum constituent that *do so* substitution can be applied to is V'. Hence the contrast in (12) suggests that resultative SP and object-oriented depictive SP are inside of the V'-domain: in contrast, subject-oriented depictive SP is outside the V'-domain.

To summarize the main point, resultative SP and object-oriented depictive SP are both inside the V'-domain, while subject-oriented depictive SP is outside the V'-domain but included within the VP domain. In the next section, I will look at some previous research on SPs based on various syntactic characteristics noted above.

3. Previous Research of SPs

Numerous attempts have been made to explain the syntactic characteristics of SP (see Roberts (1988) among others). The analysis of the SP construction can be roughly divided into two approaches: either with PRO or rules for predication. The former suggests that a SP has PRO as its predicative subject, while the latter adopts several complicated predication rules to explain the idiosyncratic behavior of SPs. In what follows, I will review how these two approaches have shed light on SP constructions and point out their problems from an empirical and theoretical perspective.

3.1. Chomsky's (1981) PRO analysis

Chomsky (1981) proposes that SP has PRO as its predicative subject to overcome the conflict between SP constructions and the θ -criterion. He shows the following examples:

- (13) a. John [_{VP} left the room [PRO angry]].
b. John [_{VP} left the room [PRO empty]].

In configurations such as (13a, b), *John* cannot receive two θ -roles in terms of the θ -criterion, defined as in (14).

- (14) θ -criterion
Each argument bears one and only one θ -role, and each θ -role is assigned to one and only one argument.

(Chomsky (1981: 36))

If the predicative subject of SP is PRO in (13), V assigns a θ -role to John and PRO receives its θ -role from the SP. Thus, the θ -criterion is satisfied.

However, such an analysis is not plausible because the SP construction shows behavior different from control constructions that are generally assumed to have PRO. Now let us consider the following examples presented by Hornstein (2010).

- (15) a. John hates to meet angry.
b. John wants to meet ready for all contingencies.

The structures for (15) are characterized as below.

- (16) a. John_i hates [PRO_{i+j} to meet angry].

- b. John_i wants [PRO_{i+j} to meet ready for all contingencies].

In both sentences above, SPs modify the subject *John*. Given that SPs are clause-bounded, they can modify elements only within the bracketed part in (16). Thus, the SPs in (16) cannot modify the matrix subject directly. If one assumes that a SP has PRO as its subject, SPs in (16a) and (16b) must modify PRO. It must be noted here that in (16), the verbs *hate* and *want* both allow partial control. Therefore, PRO in (16a, b) essentially can indicate not only the coindexed subject *John*, but also some others specified pragmatically. Crucially, however, the SPs in (16) can modify only the subject *John*, while the other interpretation is never obtained. Such an empirical fact indeed cannot be captured if we employ PRO as SP's predicative subject. In that point, the SP construction seems to be different from the control construction.

Other empirical data also suggest that PRO cannot be assumed in the SP construction.

- (17) a. I_i told her_j the truth drunk_{i/*j}.
 b. John_i baked Mary_j a cake drunk_{i/*j}.
 c. I_i wrote him_j a message to [PRO_{i/j} show his friend].

(Marušič *et al.* (2008: 3))

The depictive SP cannot modify the indirect object in the double-object construction. In contrast, however, the PRO in (17c) can select the indirect object as its controller. Therefore, it can be said that SP constructions are different from sentences with PRO.

The empirical data in this section prove that the PRO analysis is not plausible for the SP construction: it must be explained in some alternative way. In the following subsection, I will outline another approach to the SP construction, which relies on predication rules.

3.2. Predication Rules of SPs

It has been suggested that the structural position for SP is defined by predication

rules. Williams (1980) has proposed rules for predication in terms of c-commanding and thematic relations.

(18) The C-command Condition on Predication.

If NP and X are coindexed, NP must c-command X or a variable bound to X.

(19) Second Subrule of Predication

If X is in the VP, X is predicated of the theme of V.

However, notice the fact that subject-oriented depictive SPs can modify the subject of the sentence regardless of its θ -role. Williams (1980) suggests that the subject-oriented depictive SP is adjoined not to VP but to TP in order to avoid the condition in (19). His analysis, nevertheless, is inconsistent with the empirical fact that the subject-oriented depictive SP must be included in VP as shown in subsection 2.2. Williams's (1980) rules for predication have been modified by Tsuzuki (1989). Other linguists have been trying to clarify where SPs can occur, grounded on unique predication rules. However, such rules are introduced only as a means of explaining the structural position for SP, i.e., those are merely descriptive. Furthermore, adopting rules only to deal with the SP construction brings unneeded complexity into the analysis of language, which should be optimally designed. If the SP construction can be captured with respect to movement, it is more economical than assuming construction-specific predication rules. This paper, therefore, sheds light on their characteristics in a more principled way keeping to the central notion of the Labeling Algorithm framework and adopting Movement Theory of Control (cf. Hornstein (1999), Nunes (2001)). The predication relation between the SP and its own subject is established by Merge.

4. Proposal

4.1. POP+ and Labeling Algorithm

Chomsky (2013, 2015) has argued that Merge is an essential operation for the human language faculty. He suggests that it has to be freely applicable as long as it

confirms with optimality: all syntactic objects must have a label for the interpretation at the sensorimotor (SM) and Conceptual-Intentional (C-I) interfaces. According to Chomsky (2013, 2015), the label is determined by the Labeling Algorithm (LA) at the timing of Minimal Search (MS). MS is applied when the derivation is completed up to phase-level (traditionally, v*P and CP) and is applied in a top-down fashion.

Now let us consider how the label is determined. Chomsky (2013, 2015) offers the typical configurations of the set as $\{H, XP\}$ and $\{XP, YP\}$. H is a head and XP and YP are phrases. First, consider the former case, which forms a set of head and phrase.

$$(20) \quad \{H, XP\}$$

In this case, the head is regarded as the label, because MS first finds the head when it is applied in a top-down fashion. Next, consider the latter case, which forms a set of phrase and phrase.

$$(21) \quad \alpha = \{XP, YP\}$$

If the label for $\{XP, YP\}$ like (21) remains to be undetermined, it leads the derivation to crash at the interfaces. In this case, its label is determined in two possible ways. One possible solution is that one phrase is moved out of α , and merges to somewhere else (Internal Merge), as illustrated below.

$$(22) \quad \{XP \{_{\alpha} XP, YP\}\}$$

In (22), If XP is raised out of α , MS cannot see the copy so that it only finds the head of YP, and then the label is determined to be Y. The other possible way to solve the so-called $\{XP, YP\}$ problem is as follows.

$$(23) \quad \text{a. } \alpha = \{XP, YP\}$$

- b. $\alpha = \{ \{X_{[F]}, WP\}, \{Y_{[uF]}, ZP\} \}$

Note that the [F] in (23b) represents a syntactic feature; with [F] as the interpretable one and [uF] its uninterpretable counterpart. If heads of XP and YP have the prominent shared feature, detected as in (23b), the label of α is determined as $\langle F, F \rangle$ via Agree by MS.

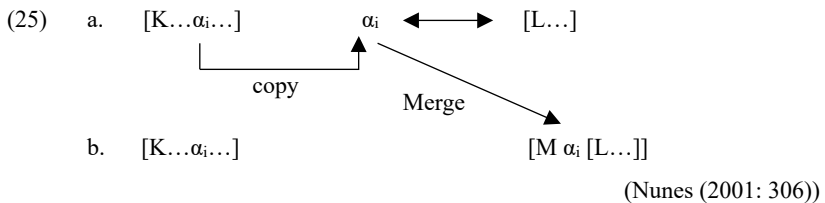
4.2. Sideward Movement

This subsection introduces the notion of Sideward Movement before presenting an alternative approach to the SP construction. The operation is originally proposed by Nunes (1995, 2001).

- (24) The computational system copies a given constituent α of a syntactic object K and merges α with a syntactic object L, which has been independently assembled and is unconnected to K.

(cf. Nunes (2001: 305))

In other words, it is a movement of a syntactic object across an unconnected syntactic object. The copy c-commanded by its structurally higher copy is deleted for purposes of linearization. That is to say, the c-commanded lower copy is deleted and not phonologically realized. Nunes schematizes this operation as follows:



Sideward Movement is theoretically motivated by the Copy + Merge theory of movement as follows.

- (26) “Move” should not be understood as a primitive singular operation of computational system, but as the mere reflex of the independent operation like *Copy*, *Merge* and *Form Chain* and so on.

(cf. Nunes (2001: 305))

This theory makes it possible to move a syntactic element across the unconnected syntactic object by copying it. Nunes (2001) suggests that the Copy + Merge theory of movement has broader empirical coverage, showing that Sideward Movement is plausible. In this paper, based on Takano (2020), which discusses Sideward Movement (and double Sideward Movement) in the LA framework, I assume that Sideward Movement operation also holds in the LA framework. The following section provides the syntactic structure of the two types of depictive SP constructions, one of which is analyzed with Sideward Movement.

4.3. Alternative Proposal

This subsection offers alternative proposals for the syntactic structures of SP constructions to capture the fact that the interpretation of an SP with anaphor and a pronoun is restricted to only one. The crucial data are repeated as (27) -(29) below.

- (27) John met Mary angry. (Nakajima (2001: 479))

- (28) a. John met Mary angry at herself.
b. John met Mary angry at himself.

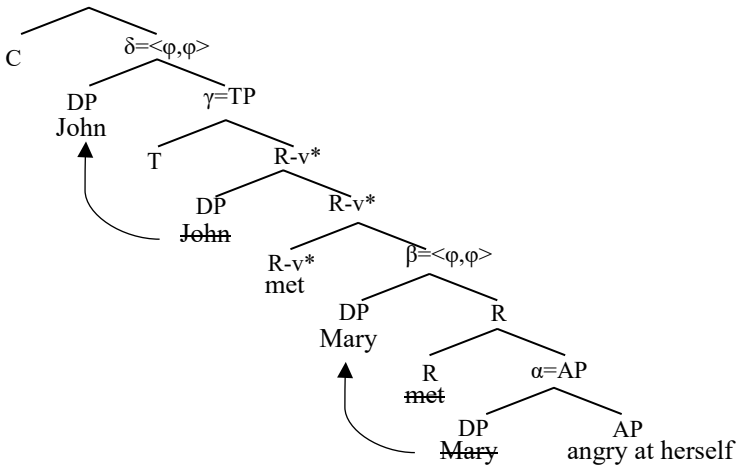
(cf. Roberts (1988: 708))

- (29) a. John met Mary angry at her.
b. John met Mary angry at him.

(Nakajima (2001: 479))

In the case of (28a), *Mary* must c-command *herself* within the relevant domain so as to obey Binding Principle A. In addition, in (28a) and (29b), the Small Clause [*Mary* angry at herself/ him] seems to be the binding domain of anaphor and pronoun. Taking this into consideration, the syntactic structure of the object-oriented depictive SP is illustrated below:

(30) John met Mary angry at herself.



The steps to derive (30) are as follows. To begin with, the DP and AP are merged with each other and the set of {DP, AP} is represented as α . Then the root R is merged with α . R is too weak to be a label, and as such, it requires the DP in its spec position to get strengthened via Agree. Therefore, DP ‘*Mary*’ is moved out from α and merged to spec R- v^* position. After that, v^* is merged to the set and the derivation is completed up to traditional v^*P . Then, DP ‘*John*’ is merged in the spec of R- v^* . At this point, the phi-features of v^* is inherited to R, and MS is applied to determine labels for the sets. First, the label of β is determined as $\langle \phi, \phi \rangle$ because DP ‘*Mary*’ and R share phi-features. Then, the label R is served for the set of {R, α }. Since DP ‘*Mary*’ is raised, the label of α is determined to be AP. Then R to v^* movement takes place and R

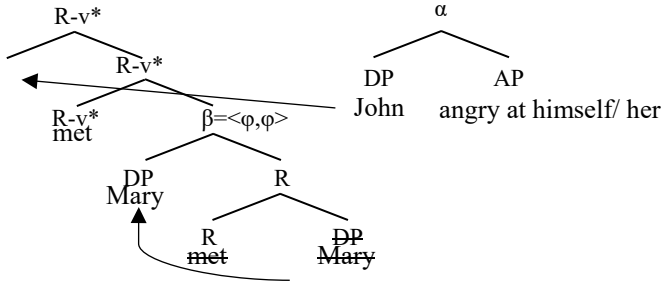
takes over phase hood from v^* . At this stage, the complement of R is transferred to the SM/C-I interfaces. After that, T is merged to the set. T requires the DP in its specification because of the weakness of T in English. Therefore, the subject DP ‘*John*’ in the spec R- v^* position is raised into the spec T position to strengthen T via Agree, and then C is merged with the set and the derivation reaches CP. The phi-features in C is moved to T. After the derivation reaches the phase-level CP, MS is applied. First, the label of δ is determined to be $\langle \varphi, \varphi \rangle$ and that of γ is determined to be TP. Then the complement of C is transferred, and the internal syntactic objects become invisible to further syntactic operations. This is how the object-oriented depictive SP construction is constructed.

With this derivation, *Mary* properly c-commands *herself* within the relevant domain. Moreover, the SP and object AP are merged and enter the derivation at the same time in (30). Therefore, it can be said that the predication relation is established between them. Besides, the structure in (30), which shows that object-oriented depictive SP is in V' , is compatible with the empirical data.

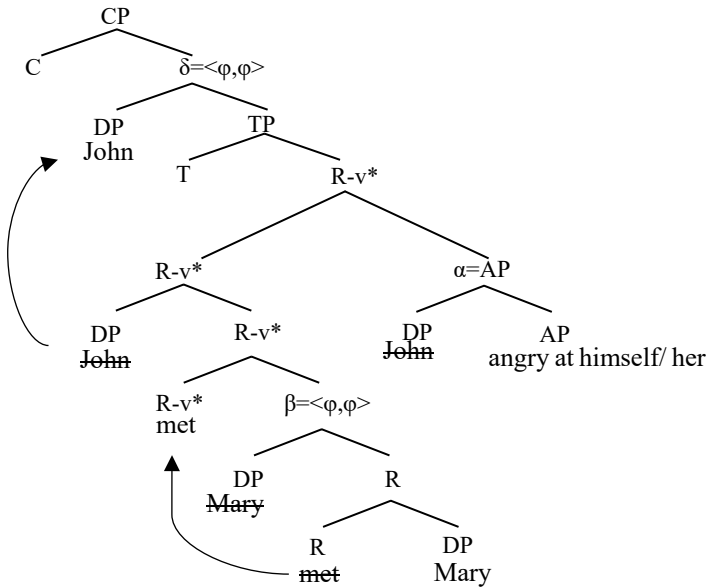
I should consider here if the SP, interpreted as subject-oriented, is introduced into the derivation with maintaining the predication relation between SP and its predicative subject DP like in (30), the word order within the AP phrase including SP is thought to be ‘*John angry at herself*’, for example. However, this configuration conflicts with Binding Principles A, so it is impossible to interpret the SP in (28b) as subject-oriented.

Next, I will consider how the subject-oriented depictive SP construction is derived. For an alternative proposal, this paper adopts Sideward Movement to explain the syntactic characteristics of the subject-oriented depictive SP. The derivational process is illustrated below.

- (31) a. ___met Mary.
b. John angry at himself/ her.



- (32) John met Mary angry at himself/ her



Let us see how the subject-oriented depictive SP construction is derived step by step. First, in (31b), SP '*angry at himself*' and its subject '*John*' are merged, and there arises the {XP, YP} problem. Simultaneously, the main clause is built in a separate plane in

(31a). It starts with the merger of the object DP ‘*Mary*’ and R. Since R is weak, it requires the DP in its spec position for the labeling purpose. To satisfy this requirement, the DP ‘*Mary*’ is internally merged into the spec-R position. After that, v^* is merged to them and derivation is completed up to v^*P . Then ‘*John*’ in the separate plane is subsequently moved out from the set of {*John*, angry at himself} and merged into R- v^* spec position here (via Sideward Movement), and then in (32), the remnant {*John*, angry at himself} pair-merges with R- v^* . At this time, the phi-features of v^* is inherited to R. Then MS is applied for labeling and β is determined to be $\langle \varphi, \varphi \rangle$ and then R serves as the label of the set of {R, DP}. After that, R to v^* raising happens and the phase hood in v^* is shifted to R, and therefore, the complement of R is transferred. Next, T is merged with R- v^* and it requires the DP in its spec, because it is thought to be a weak head for labeling in English. Then the DP ‘*John*’ in the v^*P spec position is merged with spec T position. C is finally merged with the set, and the phase-level CP is completed. At this time, the phi-features in C is passed on to T. After the adjunction, the MS is applied in a top-down fashion, and the first label for δ is determined to be $\langle \varphi, \varphi \rangle$. Then the label of the next node serves TP and α gets labeled as AP because DP ‘*John*’ is moved out from the set. After all labels are determined, the complement of C is transferred to the SM/C-I interfaces. The subject-oriented depictive SP construction is generated in this way. In such a derivation, the predicative relation between the subject-oriented SP and its subject is established by their merging with each other.

Assuming the tree diagrams in (31) and (32) above, the empirical evidence that the ordering within the two types of depictive SP is fixed is derived. Moreover, the difference between them with respect to the acceptability of *wh*-extraction can also be explained based on the current approach in the LA framework.

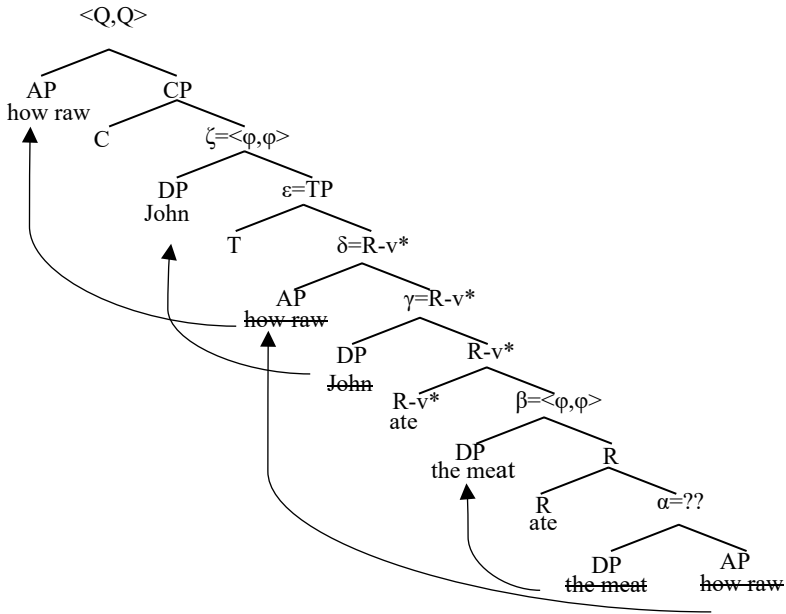
- (33) a. ?? How raw did John eat the meat?
 b. * How angry did John leave the room?

(cf. Hoshi (1992: 2))

Again, the *wh*-extraction is impossible with the subject-oriented depictive SP. In contrast, though the *wh*-extraction of the object-oriented depictive SP is also degraded, it is not completely ruled out. The gradation of acceptability can be grasped in our approach within the LA framework.

In the first place, consider the *wh*-extraction of the object-oriented depictive SP as illustrated below.

(34) ?? How raw did John eat the meat?

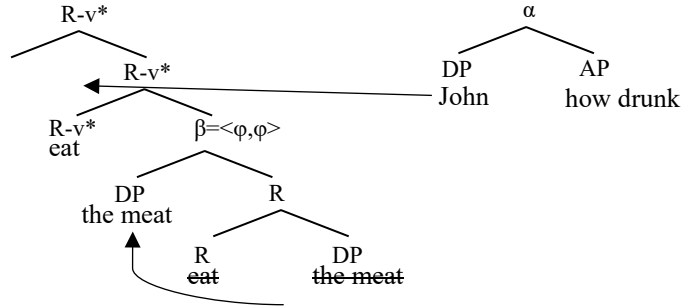


The first step of this derivation is the merger of DP ‘*the meat*’ and AP ‘*how raw*’, which causes the {XP, YP} problem. Then R is merged with the set and it requires DP in its spec position to support it for LA. Hence, the object DP ‘*the meat*’ is merged to the spec position of R. In the next step, *v** merges and *v**P is constructed, with its phi-features inherited to R here. After that, the subject DP ‘*John*’ is merged in spec *R-v**

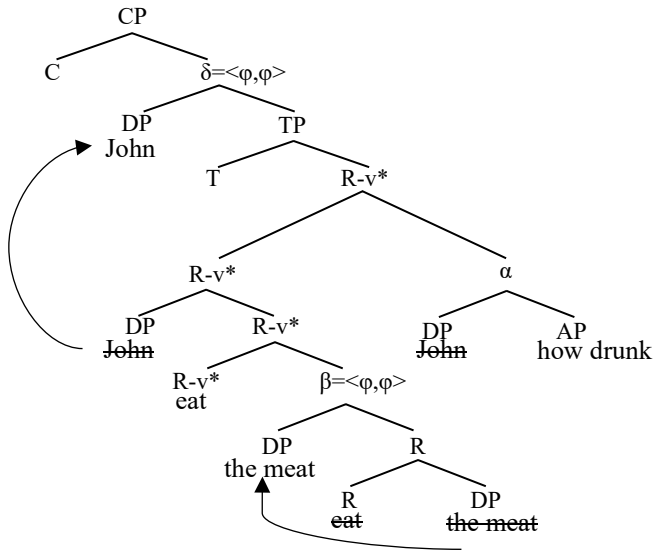
position. Before MS is applied, the AP ‘*how raw*’ has to be raised to the spec position of R-v* so as not to be trapped in the transfer domain. Following this, the MS is applied in a top-down fashion and the labels are to be determined. At this process, however, the label of α cannot be specified because the content of α has moved out and only includes traces. Therefore, the label, which is necessary information for the interfaces, remains undetermined when α is transferred; nevertheless, the label for β is determined here as $\langle\varphi,\varphi\rangle$. After MS, R to v* movement takes place and the complement of R is transferred to the SM/C-I interfaces. Therefore, in (34), the syntactic object whose label is underspecified is transferred to the interfaces, and the derivation possibly crashes. Then the acceptability of *wh*-extraction of the object-oriented SP is degraded. After that, T is merged with the set. The DP ‘*John*’ in the spec R-v* position is moved into the spec-T position to support T. Then C is merged with the set and its phi-features are inherited to T. Subsequently, AP ‘*how angry*’ is raised to CP-spec position, and then MS is applied to the derivation. Both labels for γ and δ are determined to be R-v*P because DP and AP have moved out to CP-spec position. Labeling for ε and ζ is successful due to Agree, and determined to be TP and $\langle\varphi,\varphi\rangle$, respectively. Finally, the $\langle Q,Q\rangle$ label is served for the set of {AP, CP} via a shared feature. Once the labeling has finished, the complement of C is transferred and becomes invisible in syntax. In this way, the *wh*-expression with the object-oriented SP can successfully move to sentence-initial position. However, the problem that the undetermined label is transferred to the SM/C-I interfaces remains unsolved. Then the derivation will crash, which conforms to the empirical observation.

Next, I will discuss why *wh*-extraction with the subject-oriented depictive SP is completely ruled out. Specifically, compared to the case of the object-oriented SP, why does *wh*-extraction of the subject-oriented depictive SP lead the sentence to a more severe deviance? Consider the following derivation:

- (35) a. ___ eat the meat
b. John how drunk



- (36) * How drunk did John eat the meat?



In the tree diagram in (35), the *wh*-expression with SP and its predicative subject are first merged with each other. This generates the set of {DP, AP} structure. At the same time, the main clause is derived in a separate plane. First, the object DP and R are merged and construct the set of {R, DP}. Then the object DP is moved out and merged

to the set of $\{R, DP\}$ to support R, which is the weak head in labeling. After that, v^* is merged with them and its phi-features is inherited to R. Then the DP ‘*John*’ is moved from the set $\{John, how\ drunk\}$ and merged into spec R- v^* here. After the derivation reaches v^*P , MS is applied, and labels are determined. In the tree diagrams in (35), the label of β is determined to be $\langle\phi, \phi\rangle$ and the label immediately below is determined to be R. Once the label is served and R to v^* movement takes place, the complement of R is transferred and becomes invisible to syntax. And then, remnant $\{John, how\ drunk\}$ is pair-merged with the set. Subsequently in (36), T is merged with the set and requires the DP in its spec. Therefore, the DP ‘*John*’ in the spec R- v^* is moved into the spec T position. This is followed by the merger of C with the set and the AP ‘*how drunk*’ in the adjunct clause is expected to move into CP-spec position before MS and Transfer is applied. However, such a syntactic operation corresponds to the extraction of the non-argument from the adjunct clause, which is prohibited. Notice, if it should move out from the adjunct, the content inside α would only include traces, which do not contribute to labeling. Thus, the label of α would remain underspecified, as is the case with the object-oriented depictive SP. Then, the unlabeled syntactic object is transferred and it leads the derivation to crash at the SM/C-I interfaces. The process of *wh*-extraction of the subject-oriented depictive SP includes the violation of adjunct condition in addition to a weird structure ($\{trace, trace\}$ structure), the latter of which is the same as the case of the object-oriented depictive SP. This is why (33b) is worse than (33a).

To sum up, *wh*-extraction of the object-oriented depictive SP and subject-oriented depictive SP both generate a weird structure ($\{trace, trace\}$ structure). The label of such a structure remains undetermined after MS is applied. It seems that the judgement of its acceptability varies across speakers. The acceptability of *wh*-extraction of the object-oriented depictive SP depends on the speakers. Moreover, *wh*-extraction of the subject-oriented depictive SP involves extraction from the adjunct island; such an extraction is completely unacceptable. *Wh*-extraction of the object-oriented depictive SP involves a single deviance, whereas that of subject-oriented SPs involves double deviance. Therefore, the acceptability of the *wh*-extraction of the latter is more

degraded than the former.

5. Conclusion

I have introduced several syntactic characteristics of two kinds of depictive SPs in English. Chapter 1 and 2 confirm the syntactic structural positions of SPs grounded on constituency tests for either V' or VP. Then, in Chapter 3, I have surveyed the previous literature on SPs, which is roughly divided into two patterns. One is a PRO-based approach and the other is based on predication rules. They are, however, not theoretically welcome due to *ad hoc* stipulation. The present analysis overcomes such a problem and explains the fact without employing PRO or predication rules. Instead, a movement-based approach has been adopted in this paper. In more detail, in Chapter 4, I have proposed that the object-oriented depictive SP is merged with its predicative subject in the first step in the derivation. On the other hand, with respect to the subject-oriented depictive SP, the operation of Sideward Movement contributes to how the syntactic procedure proceeds to build the construction. Supposing the derivation for depictive SPs described above, the predicative relation between SP and its subject is successfully guaranteed. In addition, the interpretation of depictive SPs that co-occur with anaphors or pronouns are appropriately grasped in relation to Binding Principles A and B. Moreover, the different syntactic behaviors of two types of depictive SPs are explained by the syntactic constructions in this paper.

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