Doubly-Oriented Secondary Predicates in Japanese

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1 Introduction

There are quirky secondary predicates in Japanese that consist of an adjective and the suffix *–ku* and describe a personal taste of the referent of the object argument from the perspective of the subject argument. For example, in (1a), *omosiro-ku* 'interesting-Aff' denotes an impression of the paper that I got while reading it (the secondary predicates in question are bold-faced).

(1) a. Boku-wa ronbun-o **omosiro-ku** yon-da.
I-Top paper-Acc interesting-Aff read-Past
'I read the paper and found it interesting.'

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b. Taroo-ga sakana-o **oisi-ku** tabe-ta (koto)
Taro-Nom fish-Acc delicious-Aff eat-Past fact
'(the fact that) Taro ate the fish and found it delicious'

These are different from the familiar depictive or resultative secondary predicates, which describe a state of the referent from the perspective of the speaker and are construed with either the subject or the object argument of the verb, not both.

The adjectival predicates in (1) are called 'predicates of personal taste' in the literature of semantics, according to which the truth values of the sentences involving them depend on the 'personal tastes' of the relevant individual (Lasersohn 2005, Bouchard 2012).[1] The individual is called the 'judge' and sometimes appears overtly with a postposition such as *nitotte* 'for' when the adjectives occur as primary predicate, as shown in (2):

(2) John-nitotte sono hon-ga omosiro-i (koto)
John-for that book-Nom interesting-Pres fact
'(the fact that) the book is interesting for John'

However, the judge argument cannot be realized in this way when the adjectives occur as secondary predicate as in (3), where it must be interpreted as referring to the same individual as the subject of the verb:

(3) Mary-wa (*John-nitotte) sono hon-o **omosiro-ku** yon-da.
Mary-Top (John-for) that book-Acc interesting-Aff read-Past
'Mary read the book and found it interesting (for her/*for John).'

Thus, the secondary predicates in (1) seem to have an orientation toward both the subject and the object of the verb.

This paper addresses the question of how the secondary predicates in (1), which I will refer to as the personal-taste secondary predicate (PSP), are associated with the subject and the object of the verb. First, I provide evidence that the PSP is externally merged in the lowest position in VP, which is distinguished from the position of depictive predicates (Section 2). Next, I propose the structure of the PSP constructions, where the PSP forms a complex predicate with V (Section 3). Finally, noting that resultative predicates occur in the same position as the PSP, I suggest the possibility that the positions of secondary predicates in Japanese are accounted for on the basis of the predicative function of their suffixes (Section 4).

[1] I thank Walter Pedersen (p.c.) and Junko Shimoyama (p.c.) for bringing Bouchard's (2012) study and related works to my attention.

2 The Distribution of the PSP

In this section, we examine the structural position of the PSP by applying three kinds of syntactic or semantic tests. It is also compared with the position of depictive predicates.

2.1 VP-preposing

It is argued by Koizumi (1994) that depictive secondary predicates in Japanese, which consist of an NP and the suffix *–de*, appear in different positions in the underlying structure, depending on whether they are construed with the subject or the object argument of the verb. This view is supported by the following examples involving VP-preposing. A subject-oriented depictive predicate (SDP) may be preposed along with the VP-internal elements, but does not have to, as shown in (4). On the other hand, an object-oriented depictive predicate (ODP) must undergo the process, as shown in (5) (Koizumi 1994: 34-35):

(4) a. [**hadaka-de** katuo-o tabe-sae]$_i$ Taroo-ga t_i sita.
naked-Aff bonito-Acc eat-even Taro-Nom did
'What Taro did was he even ate the bonito naked.'

b. [katuo-o tabe-sae]$_i$ Taroo-ga **hadaka-de** t_i sita.
bonito-Acc eat-even Taro-Nom naked-Aff did
'What Taro did naked was he even ate the bonito.'

(5) a. [**nama-de** katuo-o tabe-sae]$_i$ Taroo-ga t_i sita.
raw-Aff bonito-Acc eat-even Taro-Nom did
'What Taro did was he even ate the bonito raw.'

b. * [katuo-o tabe-sae]$_i$ Taroo-ga **nama-de** t_i sita.
bonito-Acc eat-even Taro-Nom raw-Aff did
'What Taro did raw was he even ate the bonito.'

Assuming the vP-internal subject hypothesis, Ko (2005, 2011) takes these facts as indicating that the SDP may be externally merged inside or outside vP, whereas the ODP must be inside vP.

Now if VP-preposing is applied to the PSP constructions, we can find that the PSP must undergo the process, as shown in (6):

(6) a. [**oisi-ku** katuo-o tabe-sae]$_i$ Taroo-ga t_i sita.
delicious-Aff bonito-Acc eat-even Taro-Nom did
'What Taro did was he even ate the bonito and found it delicious.'

b. * [katuo-o tabe-sae]$_i$ Taroo-ga **oisi-ku** t_i sita.
bonito-Acc eat-even Taro-Nom delicious-Aff did
'What Taro did and found it delicious was he even ate the bonito.'

This fact indicates that the PSP must be externally merged within vP in the same way as the ODP.

2.2 The Object and Numeral Quantifier

Unlike what we have seen in examples of VP-preposing, the PSP shows a different distribution from the ODP relative to the positions of the object and a numeral quantifer associated with the object (NQ_{obj}). The ODP may either precede or follow the object and the NQ_{obj}, as shown in (7a,b), or intervene between them, as in (7c) (see Ko 2011: 769). On the other hand, the PSP may not appear between the object and the NQ_{obj}, as shown in (8c), though it may precede or follow them (with some marginality when it precedes them), as in (8a,b):

(7) a. Taroo-ga katuo-o san-kire **nama-de** tabe-ta.
Taro-Nom bonito-Acc 3-Cl raw-Aff eat-Past
'Taro ate three pieces of bonito raw.'
b. Taroo-ga **nama-de** katuo-o san-kire tabe-ta.
Taro-Nom raw-Aff bonito-Acc 3-Cl eat-Past
c. Taroo-ga katuo-o **nama-de** san-kire tabe-ta.
Taro-Nom bonito-Acc raw-Aff 3-Cl eat-Past

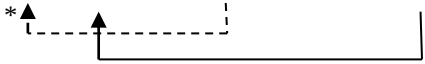
(8) a. Taroo-ga katuo-o san-kire **oisi-ku** tabe-ta.
Taro-Nom bonito-Acc 3-Cl delicious-Aff eat-Past
'Taro ate three pieces of bonito and felt them to be delicious.'
b. ? Taroo-ga **oisi-ku** katuo-o san-kire tabe-ta.
Taro-Nom delicious-Aff bonito-Acc 3-Cl eat-Past
c. * Taroo-ga katuo-o **oisi-ku** san-kire tabe-ta.
Taro-Nom bonito-Acc delicious-Aff 3-Cl eat-Past

This fact suggests that the PSP and the ODP are merged in different positions within vP.

Ko (2005, 2011) draws a generalization concerning the distribution of numeral quantifiers associated with the subjects of primary and secondary predication. In particular, as shown in (9), if the subject and the NQ are merged together within the specifier of a predication domain αP, neither of them can undergo movement within αP, not being in the search domain (i.e. c-command domain) of α. As a consequence, their domain-mate XP can

either precede the subject and the NQ (via movement) or follow both of them (without movement), but cannot intervene between the two:

(9) $[_{\alpha P}$ $[_{\alpha'}$ XP $[_{\alpha'}$ $[_{DP}$ Subj NQ] $[_{\alpha'}$ α $[_{\beta P}$ $t_{XP}]$]]]]



Assuming that predication constitutes a domain of cyclic Spell-out (see Fox and Pesetsky 2005) and information concerning linear orderings of the whole domain (including the specifier, complement, and head) is shipped to PF, Ko claims that the orderings at αP must be preserved in the higher domains.

Given Ko's (2011) generalization, the distribution of the PSP in (8) indicates that it is merged within the complement of a predication domain and the object is merged in the specifier of the domain. On the other hand, the examples in (7) suggest that the ODP and the object are not in a comparable structural relation.[2]

2.3 The Object and Quantificational Adverb

If the PSP is within the complement and the object is the specifier of the same predication domain, as suggested above, one might wonder whether they constitute a small clause in which the object (the accusative DP) is the subject and the PSP is the predicate. However, there is evidence that the object is merged as direct object of the verb in the PSP constructions.

It is observed by Kishimoto (2005) that the quantificational adverb *ippai* 'a lot' in Japanese can be interpreted as modifying an internal argument of a verb by specifying the quantity of its referent, whereas the adverb cannot be construed with an external argument. He then notes that the argument modified by *ippai* corresponds to a delimited expression in the sense of Tenny (1994) and is defined by aspectual terms. We can find that the object argument in the PSP constructions can be modified by *ippai*, as shown in (10a), indicating that it is an internal argument. On the other hand, when the root adjective of the PSP occurs as primary predicate, the subject argument cannot be construed with the adverb, as shown in (10b), suggesting that it is an external argument:

[2] Hideki Kishimoto (p.c.) informed me that the example comparable to (8c) in which the PSP is preceded by the NQ_{Obj} and followed by the object is acceptable. Ishii (1999) argues that NQs that precede their host NPs do not form a constituent with them and are adverbials. I suspect that the NQ_{Obj} preceding the object may be subject to the same analysis.

(10) a. Taroo-ga sakana-o *ippai* **oisi-ku** tabe-ta.
Taro-Nom fish-Acc a.lot delicious-Aff eat-Past
'Taro ate a lot of fish and felt them to be delicious.'
b. * Sakana-ga *ippai* oisi-katta.
fish-Nom a.lot delicious-Pred.Past
'A lot of fish were delicious.'

If the object argument in (10a) were merged as subject of the PSP in a small clause configuration, it would behave in the same way as the subject in (10b) and could not be modified by *ippai*. Thus, these examples provide evidence that the object argument in the PSP constructions is the direct object of the verb.

3 The Structure of the PSP Constructions

The data presented in Section 2 have suggested that the PSP constructions have the underlying structure in which the object DP is the specifier of VP and the PSP is within the complement of V and the whole VP constitutes a predication domain, which counts as a Spell-out domain.

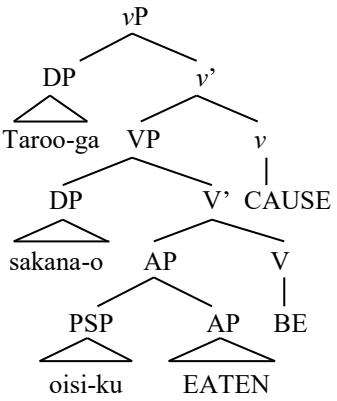
With this in mind, I would like to propose the structure of the PSP constructions below. First, following Baker (2003), I assume that standard transitive verbs are decomposed into three elements, CAUSE, BE, and ADJECTIVE, in the underlying structure and are conflated into a single head by successive head movement, as illustrated in (11b) for the example in (11a):

(11) a. John wiped the table.
b. [$_{vP}$ John CAUSE [$_{VP}$ the table BE [$_{AP}$ WIPED]]]

CAUSE is a causative light verb. BE corresponds to Pr in Bowers (1993), which is another functional head mediating predication relationships. ADJECTIVE is an adjective describing the resulting state inherent in the verb meaning. As shown in (11b), BE selects the maximal projection of ADJECTIVE as the complement and takes the theme DP in the specifier, which establishes predication between AP and the DP in the constituent corresponding to VP. CAUSE selects the VP as the complement and takes the agent DP in the specifier, which constitutes *v*P.

Furthermore, I would like to claim that if the PSP occurs in the structure of transitive verbs in (11b), it is adjoined to the AP, that is, the projection of the adjectival component of the verb. This is illustrated in (12) for the example in (1b):

(12)



(= (1b))

Note that the object DP *sakana-o* 'fish-Acc', the AP, and the PSP are in the minimal domain of BE in this structure (see Chomsky 1995: 178). This allows both the AP and the PSP to establish predication relationships with the DP under the theory of predication proposed by Bowers (1993) and Den Dikken (2006). Thus, the AP and the PSP compose a complex predicate that is associated with a single DP.[3]

With this structure, we can account for why the PSP precedes or follows the object DP and the NQ_{obj}, but does not intervene between them, as shown in (8). Since the PSP is in the search domain of BE, it can be probed by BE and moved to the edge of VP. However, being in the specifier of VP, neither the object nor the NQ_{obj} is probed by BE and moved within VP (see (9)). Since the VP constitutes a predication domain for the AP and the PSP, the linear ordering at the VP undergoes Spell-out and is fixed.

Next, let us consider how the PSP is construed with the subject DP, in particular, how the subject is identified with the judge argument of the PSP. It is noted by Williams (1987) that implicit arguments may be interpreted as pronominal (or anaphoric) without being realized syntactically. For example, the agent argument of the nominal predicate is controlled by the matrix subject in (13) despite the fact that the specifier position of the predicate, which potentially hosts a controlled element, is filled by another argument:

(13) John performed Mary's operation.

Then Williams claims that the matrix subject directly controls the agent role of the embedded predicate without involving a pronominal or anaphor in

[3] Baker (2003) proposes a structure similar to (12) for resultative constructions. See Section 4 for resultative predicates in Japanese.

this kind of example. I speculate that the same mechanism is involved in the PSP constructions and the judge role of the PSP is controlled by the subject of the verb without being realized syntactically.

4 Comparing the PSP with depictive and resultative predicates

With the analysis of the PSP above in mind, let us consider the structural position of the ODP. The data presented in Section 2 have indicated that the ODP is merged in a different position from the PSP, though both originate within *v*P. I assume that the ODP is adjoined to an intermediate projection of *v* (i.e. CAUSE) outside VP (see Ko (2005) for a similar analysis). Moreover, since the ODP is not in the minimal domain of BE and cannot hold a predication relationship with the object in the specifier of VP, the ODP is assumed to be predicated of an empty pronominal (PRO) coindexed with the object, as illustrated in (14b):

(14) a. John-ga **nama-de** sakana-o tabe-ta.
John-Nom raw-Aff fish-Acc eat-Past
'John ate the fish raw.'

b. [$_{vP}$ John-ga [$_{v'}$ [PRO$_i$ **nama-de**] [$_{VP}$ sakana$_i$-o [$_{AP}$ EATEN]BE]*v*]]

With this structure, it is predictable under Ko's (2005, 2011) theory of cyclic linearization that the ODP can not only precede or follow the object DP and the NQ$_{obj}$ but also intervene between them, as we saw in (7). Since the object DP and the NQ$_{obj}$ are merged in the specifier of VP, they can be probed by *v* and moved to the edge of *v*P (may be tucked in under the subject DP (cf. Richards (2001)). If both the object and the NQ$_{obj}$ are moved, the ODP follows both. However, if only the object is moved, the ODP intervenes between them.

Now a question arises as to why the PSP and the ODP are merged in different positions in the underlying structure. It seems to be instructive to compare these with the resultative secondary predicate (RSP) in Japanese. The RSP consists of an adjective (or a so-called nominal adjective (NA)) and the suffix *-ku* (or *–ni* for an NA) and describes a state of the object argument at the end of the event named by the verb. Koizumi (1994) observes that the RSP must be preposed along with VP-internal elements when VP-preposing applies. It is also noted by Ko (2005) that the RSP may either precede or follow the object and the NQ$_{obj}$, but may not intervene between them (see Takezawa (1993)). Furthermore, the object argument in the RSP constructions can be modified by *ippai*, as shown in (15a), though the corresponding argument cannot when the root adjective or NA occurs as primary predicate, as shown in (15b):

(15) a. Taroo-wa teeburu-o *ippai* **kirei-ni** hui-ta.
Taro-Top table-Acc a.lot clean-Aff wipe-Past
'Taro wiped a lot of tables clean.'

b. * Teeburu-ga *ippai* kirei-datta.
table-Nom a.lot clean-Cop.Past
'A lot of tables were clean.'

These properties of the RSP constructions are parallel to those of the PSP constructions discussed in Section 2. Thus, it seems that the RSP is merged in the same position as the PSP in (12), that is, the adjectival component of the verb. The RSP is then predicated of the object DP mediated by the BE head (see Baker 2003).

It seems possible that the difference in the position between the PSP and the RSP, on the one hand, and the ODP, on the other hand, is attributed to the nature of the suffixes attached to these secondary predicates. If we assume with Nishiyama (1999) that the suffix *–de* of the ODP is a Pr head in the sense of Bowers (1993), it can mediate a relationship between the NP predicate and the PRO subject independently of another head. On the other hand, if the *–ku* and *–ni* endings of the PSP and the RSP are not Pr (departing from Nishiyama's view), they cannot be directly merged with their subject arguments. Instead, the PSP and the RSP must occur in the minimal domain of a Pr head to be associated with their subjects through the head. This could be the reason why the PSP and the RSP need to be merged in the complement domain of V, where they can be predicated of the object DP through the BE element of the verb, as we have seen in (11) and (12).

It is notable that the *–ku* and *–ni* endings of the PSP and the RSP are also found with adverbs derived from adjectives or NAs (e.g. *haya-ku* 'quick-Aff/quickly' and *sizuka-ni* 'quiet-Aff/quietly' (Nishiyama 1999: 205)). As is well known, adjectives in English cannot function as predicates by themselves when they become adverbs with the suffix *–ly* (e.g., *The reading of the verdict was slow*/**slowly*. (Rothstein 2004: 129)). The PSP and the RSP may also be adverbs. I leave further investigation into this matter for future research.

5 Concluding Remarks

I have argued in this paper that personal-taste secondary predicates in Japanese are externally merged in the complement domain of V, where they are associated with the object argument of the verb by forming a complex predicate with a decomposed element of the verb. The personal-taste predicates are also construed with the subject argument of the verb by having their judge role controlled by the subject. Furthermore, the

predicates have been compared with depictive and resultative secondary predicates in Japanese, which are also predicated of the object of the verb. I have claimed that resultative predicates are merged in the same position as the personal-taste predicates, whereas depictive predicates can be merged outside VP. It has been suggested that this difference may be attributed to whether their suffixes have a predicative function or not.

References

Baker, M. 2003. *Lexical Categories: Verbs, Nouns, and Adjectives*. Cambridge: Cambridge University Press.

Bouchard, D.-É. 2012. Long-Distance Degree Quantification and the Grammar of Subjectivity. Doctoral dissertation, McGill University.

Bowers, J. 1993. The Syntax of Predication. *Linguistic Inquiry* 24: 591-656.

Chomsky, N. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.

Dikken, M. den. 2006. *Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas*. Cambridge, MA: MIT Press.

Fox, D., and D. Pesetsky. 2005. Cyclic Linearization of Syntactic Structure. *Theoretical Linguistics* 31: 1-45.

Ishii, Y. 1999. A Note on Floating Quantifiers in Japanese. *Linguistics: In Search of the Human Mind,* eds. M. Muraki and E. Iwamoto, 236–67. Tokyo: Kaitakusha.

Kishimoto, H. 2005. *Toogokoozoo to Bunpookankei* [Syntactic Structure and Grammatical Relations]. Tokyo: Kurosio Publishers.

Ko, H. 2005. Syntactic Edges and Linearization. Doctoral dissertation, MIT.

Ko, H. 2011. Predication and Edge Effects. *Natural Language and Linguistic Theory* 29: 725-778.

Koizumi, M. 1994. Secondary Predicates. *Journal of East Asian Linguistics* 3: 25-79.

Lasersohn, P. 2005. Context Dependence, Disagreement, and Predicates of Personal Taste. *Linguistics and Philosophy* 28: 643-686.

Nishiyama, K. 1999. Adjectives and the Copulas in Japanese. *Journal of East Asian Linguistics* 8: 183-222.

Richards, N. 2001. *Movement in Language*. Oxford: Oxford University Press.

Rothstein, S. 2004. *Predicates and Their Subjects*. Dordrecht: Kluwer.

Takezawa, K. 1993. Secondary Predication and Locative/Goal Phrases. *Japanese Syntax in Comparative Grammar*, ed. N. Hasegawa, 45-77. Tokyo: Kurosio Publishers.

Tenny, C. 1994. *Aspectual Roles and the Syntax-Semantics Interface*. Dordrecht: Kluwer.

Williams, E. 1987. Implicit Arguments, the Binding Theory, and Control. *Natural Language and Linguistic Theory* 5: 151-180.