

**Non-locality between Psych Adverbs and the Verb in the Transitive Structure:
Evidence from Japanese Adjunct-V Compounds**

Introduction: There has been a controversy surrounding the analysis of Object-Controlled Psych Adverbs (O-PAs) in Japanese (e.g. *oisi-ku taberu* ‘eat (something) deliciously’). The point of contention lies in the relation between the VP and the adverbs: Whether the adverb and the object form a constituent (Matsuoka 2016) or the adverb is serving as an adjunct of VP (Sugioka 2001). This study demonstrates that the O-PA is merged to a complement of the small clause PrP (Bowers 1993) whose subject is PRO. The given PRO can be controlled by either the subject or the object. This analysis is supported by the following three facts: (i) O-PAs can undergo any syntactic movement (e.g. scrambling) leaving the object behind, (ii) the O-PA cannot form a compound with the verb (e.g. **oisi-tabe* ‘delicious-eat’) and (iii) the O-PA cannot be interpreted within a scope of VP created by a serial verb and the object (Kishimoto 2014).

Matsuoka (2016): Matsuoka (2016) proposes that O-PAs are merged within *vP* as they must be preposed together with the verb and the object as in (1).

- (1) a. [oisi-ku katuo-o tabe-sae]_i Taro-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 Taro-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.’

(Matsuoka 2016, (6a) & (6b): 3-4)

Since Resultative Predicates (RPs) shows the same paradigm as in (1), Matsuoka treats O-PAs on a par with RPs, as an abstract result head EATEN in his structure (2) represents.

- (2) [_{VP} [_{DP} Taro] [_{V'} [_{VP} [_{DP} sakana] [_{V'} [_{AP} PSP *oisi-ku* [_{AP} EATEN]]] [_V *tab-*]]]]_v

However, in a typical O-PA Clause (OPAC) such as (3), a resultative reading (i.e. the fish has become tasty after eating) cannot be obtained, as Matsuoka (2017) himself noticed.

- (3) Taro-ga sakana-o oisi-ku tabe-ta kekka sakana-ga oisiku-nat-ta
-Nom fish-Acc deliciously eat-Past result fish-Nom delicious-become-Past
‘(the fact that) Taro ate some fish and found them tasty.’
‘#As a result, the fish have become tasty.’

Although (1b) is marked as unacceptable, the adverb and the object can be disjoined as shown in (4b) and (5b). Thus, the OPAC must be examined more.

Syntax and semantics of O-PAs: In a typical Small Clause (SC) with an epistemic verb *omoi* ‘think’ in Japanese the O-PA cannot be separated from the object as in (4a) and (5a), while in an OPAC it can be separated from the object as in (4b) and (5b).

- (4) a. *Omosiro-ku_i [Taro-wa [ronbun-o t_i omot]-ta] (Scrambling with SC)
interestingly -Top paper-Acc think-Past
‘Taro thought the paper interesting.’
b. Omosiro-ku_i [Taro-wa [ronbun-o t_i yon]-da] (Scrambling with O-PA)
interestingly -Top paper-Acc read-Past
‘Taro read the paper and found it interesting.’
(5) a. *Taro-wa [Op_i sakana-o t_i omot-ta] yorimo niku-o oisi-ku omot-ta (CD with SC)
-Top fish-Acc think-Past than meat-Acc deliciously think-Past
‘Taro considered the meat delicious than the fish.’
b. Taro-wa [Op_i sakana-o t_i tabe-ta] yorimo niku-o oisi-ku tabe-ta (CD with O-PA)
-Top fish-Acc eat-Past than meat-Acc deliciously eat-Past
‘Taro ate the meat and found it delicious than the fish.’

Furthermore, the O-PA and the verb cannot form a compound (e.g. **omosiro-yomi* ‘*interesting-read,’ **oisi-tukuri* ‘*delicious-make’, **utukusi-kazari* ‘*beautiful-decorate’), which is mysterious since adjuncts in Japanese can form a compound with the verb such as

usu-giri ‘thin-cut’ and *kuro-nuri* ‘black-paint’ (Sugioka 2001). Finally, the O-PA cannot modify a VP created by a compound verb and the object. Kishimoto (2014) claims that adjuncts can be hierarchically ordered with respect to a scope of the adjunct against VP created by a compound verb (i.e. V₁-V₂) and the object. For instance, in (6a), a compound verb *tabe*(V₁)-*sokone*(V₂)- ‘eat-fail.to’ takes the object *asagohan* ‘breakfast.’ In (6b), a locative phrase *ie-de* ‘at home’ describes the compounded event [Taro fail to eat breakfast], whereas an O-PA *oisi-ku* cannot do so. But the same adverb can modify a compounded event [Taro start to eat breakfast] involving a different V₂ such as *tajimer-* ‘begin’ or *ta-* ‘want’ as in (6c).

- (6) a. Taro-ga asagohan-o tabe-sokone-ta
 -Nom breakfast-Acc eat-fail.to-Past
 ‘Taro failed to have breakfast.’
- b. Taro-ga {ie-de / *oisi-ku} asagohan-o tabe-sokone-ta
 -Nom {home-at / deliciously} breakfast-Acc eat-fail.to-Past
 ‘Taro failed to have breakfast {at home / *deliciously}.’
- c. Taro-ga {ie-de / oisi-ku} asagohan-o tabe-hajime-ta
 -Nom {home-at / deliciously} breakfast-Acc eat-begin-Past
 ‘Taro began to have breakfast {at home / deliciously}.’

Proposals: Since the O-PA has an adjective stem (e.g. *oisi-*); and the suffix *-k* appears in its predicative use (i.e. *oisi-k-ar-u* ‘delicious-K-be-Pres’), I argue that the O-PA forms an AP. Following Nishiyama (1999), I assume *-ku* is divided into *-k* and *-u* and the former is the adjective stem and the latter is a copula *be*. Given these facts, I propose an internal structure of the O-PA such as (7).

- (7) [_{PrP} PRO [_{Pr} [_{AP} *oisi-k*] [_{Pr-u}]]]

In (7), the AP that contains the O-PA is merged as a complement of the small clause PrP (Bowers 1993). The Pr head consists of the copula *-u*. The subject of the PrP is a PRO which can be controlled by a DP that can serve as a subject of the predication structure in (7). Assume that the adjunct can attach to an XP that it semantically modifies (Kishimoto 2014). We say that the O-PA cannot be attached to the VP containing the object and *sokone*. The verb *sokone* is attached to a projection lower than the vP, while the verb *hajime* is attached to a projection higher than the vP, which is independently discussed in Kishimoto (2014). Given this, I argue that the O-PA must be located higher than VP containing the object as in (8).

- (8) [_{vP} [_{DP} *Taro*]_i]_v [_{PrP} PRO_i [_{Pr} [_{AP} *oisi-k*]] [_{Pr -u}]]] [_v [_{VP} [_{DP} *sakana*] [_V *tab-*] v]]

Since PRO must be c-commanded by its local controller, from (8) we see that the given PRO is c-commanded by the subject *Taro*. This control relation induces a reading such that Taro had some fish while feeling them tasty which is a regular non-obligatory control reading. But the structure (8) cannot induce an object-oriented reading of the given adverb such that the fish is tasty. I stipulate that the given reading can be obtained when the object is dislocated to a position at which it can c-command the PRO, assuming that a non-obligatory PRO can take split antecedent. How can (8) explain the facts of discontinuity and compounding? Since the O-PA constitutes a maximal projection, AP but not governed by the verb, it can be extracted (Chomsky 1995). The O-PA is already compounded with *-k* and *-u* within PrP, and it cannot conflate any further. This may be taken as an effect of Fabb’s observation (Fabb 1988). A head of an adjunct participle cannot be compounded with the main clause verb, for example, a compound **singing-coming* cannot be derived from *John came into the room singing*. This phenomenon can be analyzed in the same manner; *sing- and -ing* formed a compound already and hence, it cannot conflate anymore.

Conclusion: In this study, I have proposed a non-constituency analysis for a structural relation between O-PAs and the object, contrary to Matsuoka (2016).

Selected references: Matsuoka, M. (2016) Doubly-oriented secondary predicates in Japanese. *Korean/Japanese Linguistics* 23: 1-10.