

Psych-adverbs as left-adjoining small clauses

KAORI MIURA

Kyushu Sangyo University

1 Introduction

There is a type of adverbs in Japanese (and potentially in Korean) often dubbed as Psych Adverbs (henceforth, PAs) as in (1) (Doragana 2005; Nagatani 2015; Matsuoka 2016; 2017).¹

- (1) a. Taroo-wa sakana-o **oisi-ku** tabeta.²
Taro-TOP fish-ACC tasty-*k* ate
'Taro ate fish and found it tasty.'
b. Taroo-wa ronbun-o **omosi-ro-ku** yonda.
Taro-TOP paper-ACC interesting-*k* read
'Taro read a paper and found it interesting.'

PAs in Japanese are adjective-based adverbs with an ending *-k(u)*. In Korean a morpheme *-key* is added. They show some peculiar semantic properties

¹ These adverbs are also known as 'predicates of personal taste' and there is much debate on this type of predicates in the semantic literature (Lasersohn 2005; Kennedy 2013).

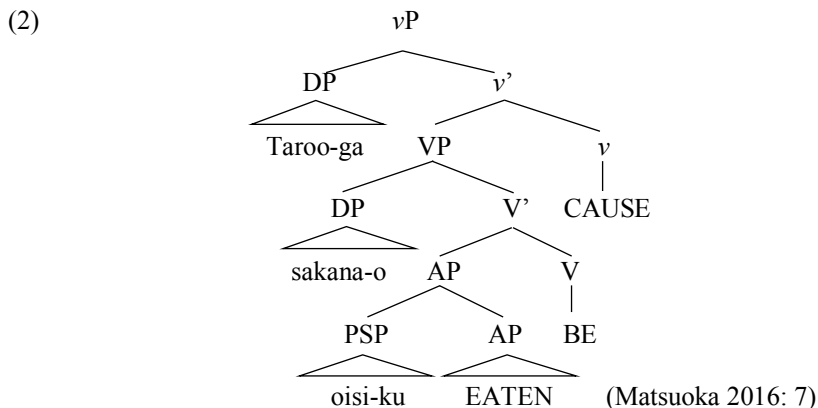
² PAs are bold-faced throughout discussions in this paper.

when they occur with transitive verbs such *tabe-* ‘eat’, *yom-* ‘read’ among others (Matsuoka 2016; 2017). In such constructions, PAs are used to express subject’s personal-taste or judgement toward the object. In (1), for example, a PA *oisi-ku* ‘tasty-*k*’ suggests that the subject Taro felt that the fish was tasty, which can be semantically decomposed into two sub-events in which Taro ate the fish and his eating of the fish caused him to feel it was tasty.

Matsuoka (2017) divides PAs into two types. One is O-PAs (Object-oriented PAs) in which PAs describe something about the object. In O-PA constructions, PAs are generated within VP. The other S-PA (Subject-oriented PAs) where PAs describe something about the subject, and they are merged outside VP. Matsuoka argues that the O-PA is potentially analyzed similarly to the resultative predicate such as *red* in *John painted the wall red*, thereby *red and painted* composing a complex predicate (Matsuoka 2016). Thus, in O-PA constructions, the O-PA and the verb are composed into a complex predicate. Against this background, this study alternatively argues that the result meaning of PAs crucially differs from the one denoted by genuine resultative predicates (Section 3). Rather, this study proposes that PAs constitute a small clause whose subject is PRO that is solely controlled by the subject (Section 4).

2 Matsuoka (2016) and Matsuoka (2017)

Matsuoka (2016) claims that the PA and the object form a constituent within VP as illustrated in (2).



In (2) the abstract head EATEN+BE+CAUSE gives the result reading to the object and the PA (=PSP in (2)) modifies EATEN; that is Taro caused an

eating event such that Taro ate some fish and as a result, the fish becomes tasty, whereby the PA and the EATEN form a complex predicate with the verb *tab-*, which take the object as its subject.

Matsuoka's analysis is motivated by two observations by comparison with PAs and secondary depictive predicates.³ First, following Koizumi (1994), Matsuoka (2016) assumes that these predicates appear in different positions according to whether they are compatible with the subject or the object argument of the verb. As in (3), the subject-oriented depictive may or may not be preposed along with the object that is VP-internal. On the other hand, as in (4), the object-oriented depictive must undergo this process.

- (3) 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 delicious-AFF did
 'What Taro did naked was he even ate the bonito.'
- (Matsuoka 2016: 3)

- (4) 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 naked was he even ate the bonito.'
- (Matsuoka 2016: 3)

In (5), PAs pattern alike with the object-oriented depictive predicate in (4). Therefore, PAs must be a VP-internal element.

- (5) 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.'
- (Matsuoka 2016: 3-4)

PAs differ from object-oriented depictives with respect to the relative positions of the object and its associated Numeral Quantifier (henceforth, NQ).

³ Japanese depictive predicates often consist of an NP and the ending *-de*.

The object-oriented depictive may either follow or precede a set of object and its NQ as in (6a) and (6b), respectively, or intervene between them as in (6c). On the other hand, the PAs may either follow or precede the same set as in (7a) and (7b), whereas it cannot intervene between them as in (7c).

- (6) a. Taroo-ga katuo-o san-kire nama-de tabeta.
 Taro-NOM bonito-ACC 3-CL raw-Aff ate
 ‘Taro ate three pieces of bonito raw.’
- b. Taroo-ga nama-de katuo-o san-kire tabeta.
 Taro-NOM raw-Aff bonito-ACC 3-CL ate
- c. Taroo-ga katuo-o nama-de san-kire tabeta.
 Taro-NOM bonito-ACC raw-Aff 3-CL ate
 (Matsuoka 2016: 4)
- (7) a. Taroo-ga katuo-o san-kire **oisi-ku** tabeta.
 Taro-NOM bonito-ACC 3-Cl delicious-Aff ate
 ‘Taro ate three pieces of bonito and felt them to be delicious.’
- b. ? Taroo-ga **oisi-ku** katuo-o san-kire tabeta.
 Taro-NOM delicious-Aff bonito-ACC 3-Cl ate
- c. * Taroo-ga katuo-o **oisi-ku** san-kire tabeta.⁴
 Taro-NOM bonito-ACC delicious-Aff 3-Cl ate
 (Matsuoka 2016: 4)

From the different distribution of object-oriented secondary depictives in (6) and that of PAs in (7), Matsuoka (2016) argues that they appear in a different position within *vP*. Drawing on Ko’s (2011) generalization on the distribution of NQs, he ascribes the difference in distribution of PAs and object-oriented depictives to the fixed structural position of the object and the PA within a predication domain (Fox and Pesetsky 2005).⁵ Namely, the PA is merged in the complement domain and the object is merged in the specifier of the domain.

⁴ Although Matsuoka (2016) marks (7c) as illicit, it is acceptable among some native speakers of Japanese including the author. In his account in tandem with the Edge generalization (Ko 2011) a sequence such as i) should be judged as ungrammatical, contrary to the fact.

i) [Sakana-o oisi-ku san-kire]_i [_{TP} Taroo-ga [_{VP} t_i tabeta]
 fish-ACC tasty-*k* three-CL Taro-NOM ate
 ‘Taro ate three pieces of fish and found them tasty.’

⁵ According to Matsuoka (2016: 4-5), Ko (2001) claims that ‘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 .

Matsuoka (2017) makes an argument for two types of PAs: S-PAs and O-PAs. In general, it is allowed for a clause-level element to appear between the subject and its NQ, whereas it is not for a VP-internal element to intervene between the subject and its NQ (Miyagawa 1989, Ko 2011). PAs such as *tanosi-ku* ‘fun-*k*’ may appear between the subject and its NQ *san-nin* ‘3-CL’ in (8b), therefore he claims that such PAs are VP-external elements and called subject-oriented PAs. On the other hands, PAs such as *oisi-ku* cannot intervene between the subject and its NQ as in (9b), therefore they are VP-internal elements and called object-oriented PAs.

- (8) a. Kodomo-ga san-nin **tanosi-ku** bentoo-o tabeta.
 child-NOM 3-CL fun-*k* lunch-ACC ate
 ‘Three children had lunch with fun.’
 b. ? Kodomo-ga **tanosi-ku** san-nin bentoo-o tabeta.
 (Matsuoka 2017: 114)
- (9) a. Kodomo-ga san-nin **oisi-ku** bentoo-o tabeta.
 child-NOM 3-CL tasty-*k* lunch-ACC atet
 ‘Three children had lunch and found them tasty.’
 b. * Kodomo-ga **oisi-ku** san-nin bentoo-o tabeta.
 (Matsuoka 2017: 114)

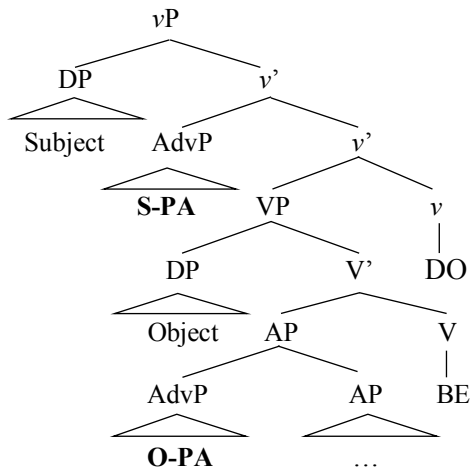
Second, Matsuoka (2016) observes that O-PAs behave like resultative predicates with respect to the distribution of NQs as in (10).

- (10) a. Gakusei-ga san-nin aka-ku kuruma-o nutta.
 student-NOM 3-CL red-Aff car-ACC painted
 ‘Three students painted the car red.’
 b. * Gakusei-ga aka-ku san-nin kuruma-o nutta.
 student-NOM red-Aff 3-CL car-ACC painted
 (Matsuoka 2017: 113)

From the discussions above, Matsuoka (2017) claims that the S-PA is generated outside of the VP, while the O-PA, inside of the VP as in (11).⁶

⁶ The structure (11) is an elaborated version of Matsuoka (2017: 117) by the author, but this modification causes no harm on Matsuoka’s original structure.

(11)



3 Issues

There are certain problems with Matsuoka's analysis. First, as given in (12b), the VP with O-PAs do not denote the change of state and O-PAs do not necessarily denote the result state of the object.⁷ A result construction such as (12a) means that Taro painted a car yellow and now the car is yellow, whereas an O-PA construction such as (12b) does not imply that a tuna sandwich became tasty as a result of Taro's eating it.

- (12) a. (Taroo-ga nutta kekka) kuruma-ga ki-ro-ku natta.
 (Taro-NOM painted as.a.result) car-NOM yellow-AFF became
 'as a result of Taro's painting) the car has become yellow.'
- b. # (Taroo-ga tabeta kekka) tunasando-ga **oisi-ku**
 (Taro-NOM ate as.a.result) tuna.sandwich-NOM tasty-k
 natta.
 became
 '(as a result of Taro's eating) the tuna sandwich has become tasty.'

Similarly, there is a difference in the telicity of the event with the PA and that with the resultative predicate. First observe (13) in which the PA cannot be compatible with a complex predicate such as *tabe-tukusi-te-arū* 'eat-exhaust-ASP-be'.

⁷ To be fair, Matsuoka (2017) denies this assumption.

- (13) a. * (reizooko-no) yasai-ga **oisi-ku** tabe-tukusi-te-arū.
 fridge-GEN vegetable-NOM tasty-*k* eat-exhaust-ASP-be
 ‘*some vegetables (in the fridge) has been completely eaten in a
 tasty manner.’
- b. * (sara-no ue-no) sakana-ga **oisi-ku** tabe-tirasi-te-arū.
 plate-GEN above-GEN fish-NOM tasty-*k* eat-scatter-ASP-be
 ‘*fish (on the plate) has been messed with half-eaten food in a
 tasty manner.’

As in (14a), the verb that can co-occur with the resultative predicate such as *nur-* ‘paint’ that can denote an end point of an action or event in nature; therefore these verbs can be connected to the *te-arū* morpheme that expresses the stative, perfective and aspectual meaning. On the other hand, the verb that can appear with the PA such as *tab-* may not naturally be telic, thus, it cannot go well with the *te-arū* aspectual morpheme as in (14b).

- (14) a. Kuruma-ga nut-te-arū.
 car-NOM paint-ASP-be
 ‘A car has been painted.’
- b. * Sakana-ga tabe-te-arū.
 fish-NOM eat-ASP-be
 ‘A fish has been eaten.’

The same PA verb can denote a telic event when it is combined with a verb that represents a completeness such as *tukus-* or *tirakas-* ‘scatter’ as in (15).

- (15) a. (reizooko-no) Yasai-ga tabe-tukusi-te-arū.
 fridge-GEN vegetable-NOM eat-exhaust-ASP-be
 ‘some vegetables (in the fridge) has been completely eaten.’
- b. (sara-no ue-no) Sakana-ga tabe-tirakasi-te-arū.
 plate-GEN above-GEN fish-NOM eat-scatter-ASP-be
 ‘fish (on the plate) has been messed with half-eaten.’

As given in (13), the O-PA cannot be construed with the complex predicate that even denotes a complete event. This means that PAs in question do not semantically co-occur with the resulted state. As (16) shows, the resultative predicate has no problem appearing in such a clause.

- (16) Kuruma-ga aka-ku nuri-tukusi-te-arū
 car-NOM red-*k* paint-exhaust-ASP-be
 ‘The car has been painted completely in red.’

Second, O-PAs are not necessarily modifying the object. Observe that the PA *oisi-ku* can co-exist with the object with the adjective *mazui* ‘awful’ which contradicts the denotation of the PA in (17a). In other words, in (17a) even if Taro felt the fish being tasty, fish could still be awful. Thus, this example suggests that the direct object fish does not undergo change of state, and *oisi-ku* is not denoting the state of fish as a result of Taro’s eating of it. Similarly, in (17b), the O-PA *omosiro-ku* is excluded from the predication between the object *ronbun* ‘paper’ and the adjective *tumaranai* ‘boring’ since the clause in (17b) has no contradiction at all.

- (17) a. Taroo-wa (sio-o futte) mazui sakana-o **oisi-ku** tabeta.
 Taroo-TOP salt-ACC adding bad fish-ACC tasty-*k* ate
 ‘Taro ate some awful fish tasty by adding some salt.’
- b. Taroo-wa (dounikasite) tumaranai ronbun-o **omosiro-ku** yonda.
 Taroo-TOP somehow boring paper-ACC interesting-*k* read
 ‘Taro read a boring paper with interest by using all his wits.’

Third, the PA may compose a small clause with verbs like *omo-* ‘think’ and *kanji-* ‘feel’ as in (18) (Kikuchi & Takahashi 1991; Sode 2002; Koizumi 2002; Fujii 2006; Sugioka 2007). Importantly, in (18), *adorable* clearly does not denote the result state of *Noriko*.

- (18) Taroo-wa Noriko-o **itoosi-ku** {omotta/kanjita}.
 Taroo-TOP Noriko-ACC adorable-*k* thought/felt
 ‘Taro though/felt Noriko adorable.’

According to Koizumi (2002), the predicate adverb such as *itoosi-ku* ‘adorable’ and the ECM verb compose a complex predicate in SC (Small Clause). Due to this nature, it cannot be separated from the object that it is predicated of in various syntactic operations. Observe (19).

- (19) a. * **itoosi-ku**_i [Taroo-wa Noriko-o [_{t_i} {omotta/kanjita}].
 adorable-*k* Taroo-TOP Noriko-ACC thought/felt
- b. * Taroo-wa [Op_i Noriko-o t_i omotta] yorimo Hanako-o
 Taroo-TOP Noriko-ACC thought than Hanako-ACC
itoosi-ku omotta.
 adorable-*k* thought
 ‘Taro considered Hanako was adorable than Noriko was.’
- c. * [**itoosi-ku** omoi]-i-sae [Taroo-ga Noriko-o t_i] sita.
 adorable-*k* think-even Taro-NOM Noriko-ACC did
 ‘Taro thought even Noriko was adorable.’

As in (19a), the PA *itoosi-ku* resists being scrambled over the TP. In the same line, the same PA alone cannot be omitted in a comparative clause as in (19b). Finally, the PA cannot be preposed to the exclusion of the object *Noriko* as in (19c).

We should expect the O-PA to pattern alike with the adverb in SC, provided that the PA composes a complex predicate with the verb. However, as the examples in (20) illustrate, the O-PA may freely scramble (see (20a)), in contrast to the predicate adverb of SC in (19a). The same holds true with Comparative Deletion in (20b) and VP-preposing in (20c).

- (20) a. **oisi-ku**_i [Taroo-wa sakana-o [t_i tabe]] ta.
 tasty-*k* Taro-TOP fish-ACC eat-Past
 b. Taroo-wa [Op_i sakana-o t_i tabeta] yorimo niku-o **oisi-ku** tabeta.
 Taro-TOP fish-ACC ate than meat-ACC tasty-*k* ate
 ‘Taro ate the meat and found it delicious than the fish.’
 c. [**oisi-ku** tabe]_i-sae [Taroo-ga sakana-o t_i] sita.
 tasty-*k* eat-even Taro-NOM fish-ACC did
 ‘Taro ate some fish and even found them tasty.’

I have shown that the existence of the category of O-PAs is still obscure and has no strong motivation.⁸

4 Proposal

Where is the PA generated in the structure? How is it licensed? In this section, I show that the PA is generated within the complement of *v* (i.e. an edge of VP) and licensed by the agent via PRO within a small clause.

Kubota (2015) observes that the distinction of a clausal or a manner reading of subject-oriented adverbs in Japanese can be detected morphologically. If an adverb can be attached by the morpheme *-mo* ‘also’ (e.g. *orokani-mo* ‘stupidly-*mo*’), it receives a clausal interpretation, whereas if not, it receives

⁸ There is, however an exceptional case in which the PA may have object orientation. Examine the case in (i), where the verb is a creation type such as *yak-* ‘bake’ and *kak-* ‘write.’ In this type of construction, the tastiness of *keeki* ‘cake’ is an inalienable property of the object itself.

- i) Taroo-wa (kodomo-no tameni) keeki-o **oisi-ku** yaita.
 Taroo-TOP child-GEN for cake-ACC tasty-*k* baked.
 Sono yakiagatta keeki-wa oisii.
 the.baked cake-TOP tasty.
 ‘Taro baked the cake which is tasty. The baked one is tasty.’

a manner interpretation. This leads to the assumption that *mo*-marked adverbs in Japanese always attach outside of VP.⁹ Two pieces of evidence are given to support this proposal.¹⁰ First, as Ernst (2015) observes, when a *mo*-less manner adverb such as *riroseizen-to* ‘articulately’ is preceded by a *mo*-attached clausal adverb, the sentence is degraded. This indicates that the adverb resists being located lower than the VP.

- (21) a. Taro-wa **orokani-mo** rironseizen-to situmon-ni kotaeta.
Taro-TOP stupidly-*mo* articulately answers-to answered
‘Taro stupidly answered the questions articulately.’
- b. * Taro-wa riroseizen-to situmon-ni **orokani-mo** kotaeta.
Taro-TOP articulately answers-to stupidly-*mo* answered
‘Taro stupidly answered the questions articulately.’

Furthermore, Kubota observes that *mo*-attached adverbs can be restrictively controlled by the surface subject but not by the agent in passive constructions. The sentence (22) unambiguously means that who is stupid is the surface subject *Mary* but not *John*, the demoted agent.

- (22) Mary-wa **orokani-mo** John-ni dakisime-rareta.
Mary-TOP stupidly-*mo* John-by hug-PASSIVE.PAST
‘Stupidly Mary was hugged by John.’
- a. It was stupid of Mary to have been hugged by John.
b. NOT: it was stupid of John to have hugged Mary.
(Kubota 2015: 1037)

PAs cannot be attached by *-mo* as in (23). Given that *mo*-less adverbs adjoin to VP, PAs are supposed to be included within VP.

- (23) **oisi-ku-mo* ‘tasty-*k-mo*,’ **omosiro-ku-mo* ‘interesting-*k-mo*,’ **tanosi-ku-mo* ‘fun-*k-mo*,’ **kanasi-ku-mo* ‘sad-*k-mo*’

The base-generated position of the subject can be detectable via the distribution of its NQ (Miyagawa 1989). (24) shows that PAs cannot cross over subject-oriented NQs, which in turn means that they cannot cross over the base-generated position of the agent.

⁹ Kubota (2015) claims that the *mo*-attached adverb specifically adjoins to a specifier of T.

¹⁰ I thank Tomohiro Fujii for the discussion of the data in (21) and (22).

- (24) a. * Gakusei_i-ga **oisi-ku** [[_{DP} t_i san-nin] gohan-o tabeta].
 student-NOM tasty-*k* 3-CL meal-ACC ate
 ‘Three students ate meals and found them tasty.’
- b. * Gakusei_i-ga **omosiro-ku** [[_{DP} t_i san-nin] hon-o yonda].
 student-NOM interesting-*k* 3-CL book-ACC read
 ‘Three students read books and found them interesting.’

Funakoshi (2016) observes that adjuncts contribute to the interpretation of a clause albeit it is elided, which is called a Null Adjunct Reading (henceforth, NAR). The second clause in (25a) in which the verb is stranded receives an interpretation that John also didn’t wash his car with care. The null adjunct reading disappears when the direct object is pronounced, as in (25b), which means that arguments alone can be a target of ellipsis, but adjuncts alone cannot be (Fujii 2016). When arguments of the verb is unpronounced, their clause-mate adjuncts should be unpronounced.

- (25) a. Bill-ga teineini kuruma-o arawa-nakat-ta. (^{OK}NAR)
 Bill-NOM carefully car-ACC wash-NEG-PAST
 John-mo \varnothing arawa-nakat-ta.
 John-also wash-Neg-PAST
 ‘Bill didn’t wash his car carefully. John also didn’t wash \varnothing .’
- b. Bill-ga teineini kuruma-o arawa-nakat-ta. (*NAR)
 Bill-NOM carefully car-ACC wash-Neg-Past
 John-mo \varnothing baiku-o arawa-nakat-ta.
 John-also motor.bike-ACC wash-Neg-PAST
 ‘Bill didn’t wash his car carefully. John also didn’t wash his motor bike.’

If a PA is a clause-mate adjunct of the direct object, it should be a target of ellipsis together with the object, providing an NVR to the clause in question. This expectation is indeed the case. Examine (26).

- (26) a. Taroo-ga sakana-o **oisi-ku** tabe-nakat-ta.
 Taro-NOM fish-ACC tasty-*k* eat-NEG-PAST
 Jiroo-mo φ tabe-nakat-ta
 Jiroo-also eat-NEG-PAST
 ‘Taro ate the fish and found them not tasty. Jiroo also did not eat and find φ , too.’
- b. Taroo-ga sakana-o **oisi-ku** tabe-nakat-ta
 Taro-NOM fish-ACC tasty-*k* eat-NEG-PAST
 #Jiroo-mo φ niku-o tabe-nakat-ta
 Jiroo-also meat-ACC eat-NEG-PAST
 ‘Taro ate the fish and found them not tasty. Jiroo also did not eat the meat and find them φ , too.’

There is a construction in Japanese that serves as an equivalent of English *what*-clefts (which is often dubbed as Pseudo-clefts). Kishimoto (2014) claims that the focus portion of this cleft can be up to *vP*. In (27), a subject-oriented adverb *yorokon-de* ‘happily’ may either constitute a focus or a pre-supposition of this cleft that precedes the copula *no-wa* ‘GEN-TOP’. This means that the adjunct may stay within *vP* or may be outside of *vP*.

- (27) a. Taroo-ga yorokonde sita no-wa
 Taro-NOM happily did GEN-TOP
 [_{vP} sigoto-o hikiukeru koto] da.
 job-ACC take thing COP
 ‘What Taro did happily is to take the job.’
- b. Taroo-ga sita no-wa [_{vP} yorokonde sigoto-o hikiukeru koto] da.
 Taro-NOM did GEN-TOP happily job-ACC take thing COP
 ‘What Taro did is to take the job happily.’

As in (28), a PA can be a focus of the cleft but cannot be a component of the presupposition, which means that it must stay within *vP*.

- (28) a. * Taroo-ga **omosi-ro-ku** sita no-wa
 Taro-NOM fun-*k* did GEN-TOP
 [_{vP} ronbun-o yomu koto] da.
 paper-ACC read thing COP
 ‘What Taro did with interest is to read a paper.’
- b. Taroo-ga sita no-wa [_{vP} **omosi-ro-ku** ronbun-o yomu koto] da.
 Taro-NOM did GEN-TOP fun-*k* paper-ACC read thing COP
 ‘What Taro did is to read a paper with interest.’

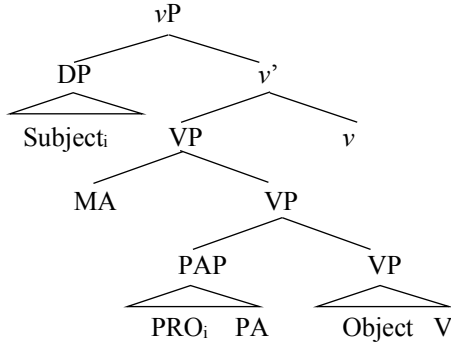
So far, we have observed that PAs cannot be attached higher than the base-generated position of the subject. They also cannot serve as composing the smallest VP. How deep can PAs go inside of the VP? As in (29) and (30), the PA cannot move over manner adverbs or instrumental PPs. These adverbs are called VP-adverbs and it is generally considered that they are adjoined to the edge of the VP (Ura 2000, Kishimoto 2014). Thus, PAs must stay lower than manner adverbs.

- (29) a. Taroo-wa hasi-de **oisi-ku** gohan-o tabeta.
 Taro-TOP chopsticks-with tasty-*k* meal-ACC ate
 b. * Taroo-wa **oisi-ku** hasi-de gohan-o tabeta.
- (30) a. Taroo-wa yukkuri **omosiro-ku** hon-o yonda.
 Taro-TOP take.time interesting-*k* book-ACC read
 b. * Taroo-wa **omosiro-ku** yukkuri hon-o yonda.

I propose that the PA is attached to somewhere outside of the smallest VP comprising of the object and the verb but lower than where the manner adverb is merged in the structure.

How is the PA licensed in the structure? First of all, PAs are adjective-based adverbs and the morpheme *-i* on a base adjective of a PA may carry tense information, since *oisi-i* ‘adj-PRES’ can alternate with *oisi-k-at-ta* ‘adj-*k*-BE-PAST’ in the present-past alternation (Nishiyama 1999). This analysis of past-tense marker in Japanese reveals that the morpheme *-k* does not contribute the tense information at all. I rather propose the morpheme *-k* may transform an adjective into an adverb thereby depriving its tense information on *i*, in much the same way as the passive morpheme *-rare* absorbs the Case-assigning ability of *v*. Since a PA has no tense information, we can assume that it may constitute a small clause. Following Bower’s (1993) predicate structure, I argue that the PA constitutes a small clause. I further claim that the subject of the PAP is PRO and is controlled by the agent of the verb by the assumption that the subject control can be established between the argument and its predicate via PRO (Koizumi 1994) as (31) illustrates.

(31)



A potential piece of evidence of subject control of PAs in (31) can be found in the word formation of the type of adverbs with a verbal morpheme *-gar-* ‘eager.to’ (Urushibara 2006; Sugioka 2007), since this morpheme describes a perception or feeling, and an attitude of the subject argument.¹¹

(32) *omosiro-garu* ‘interesting-eager.to’, *oisi-garu* ‘tasty-eager.to’, *tanosigaru* ‘fun-eager.to’ and *kanasi-garu* ‘sad-eager.to’

5 Conclusion and Implications

This study has provided much debate on cases in which O-PAs are not controlled by the object; that is, they cannot compose a complex predicate with the verb, contrary to Matsuoka (2016; 2017). Therefore, Matsuoka’s (2017) dichotomy of PAs in Japanese is still inconclusive. Alternatively, I have argued that the PAs are adjoined to the edge of VP that is lower than the position of manner adverbs. PAs constitute a small clause whose subject is PRO which is controlled by the subject of the verb.

PAs are available in Korean as in (33a), whereas it is not in English as in (33b). A similar clause is construed in English when it receives a generic interpretation such as (34).¹² To test the hypothesis of the current study with these facts, in particular references to what universal and language-specific effects will be left for future research.

¹¹ I owe gratitude to Masaya Yoshida for this data.

¹² I thank Tohru Seraku (p.c.) for providing me with the Korean data and for Chung-hye Han (p.c.) for more detailed discussions on the data. I also thank Caroline Heycock (p.c.) for bringing the English data to my attention and for suggesting a potential direction of the analysis.

- (33) a. Thalo-nun ku mwulkoki-lul **masiss-key** mekessta.
 Thalo-TOP that fish-ACC **tasty-key** ate
 ‘Thalo ate the fish and found it tasty.’
 b. * John ate the fish **tasty**.
- (34) a. I drink my coffee **sweet**.
 b. * I drank a cup of coffee **sweet**.

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