

ON SECONDARY PREDICATION IN JAPANESE*

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1. Introduction

In Japanese, just like English, certain types of adjuncts serve as secondary predicates. Secondary predicates are divided into the two classes of “depictives” and “resultatives”. Depictives describe the states of affairs pertaining to subjects or objects, and resultatives describe the resultant states that occur subsequent to events described by primary predicates. Depictives are further divided into the two groups of subject-oriented and object-oriented depictives. The syntactic behaviors of depictives and resultatives are sometimes discussed in the Japanese literature (e.g. Koizumi 1994, Shibagaki 2013, and others), but to my knowledge, there is not much substantial discussion about their internal organization.

The major purpose of the present paper is to show that secondary predicates have distinct internal structures according to whether they are derived from nouns or (nominal) adjectives. For the purpose of this demonstration, I first show that depictives and resultatives appear in distinct structural positions of vP and VP according to whether they have subject or object orientation, and then argue that their structures differ depending on their lexical categories. Depictives derived from nouns have predicate structures comprising vP, which accommodates a PRO subject and an invisible copular predicate *aru* ‘be’. But adjectives and nominal adjectives, even if usable on depictive interpretation, do not have such predicate structures, i.e. they are adverbial modifiers (in syntactic terms), which do not include an invisible verb and PRO (due to the lack of vP projected over them). Further, it is shown that resultatives have predicate structures comprising vP, which accommodates a PRO subject and an invisible change-of-state verb *naru* ‘become’, irrespective of whether they are constructed on nouns, adjectives, or nominal adjectives.

The discussion proceeds as follows. In section 2, I will go over some basic properties of secondary predicates. Section 3 shows that subject-oriented depictives occur in vP, while object-oriented depictives and resultatives are added to VP. In section 4, I will discuss the internal structures of depictives and resultatives. It is argued that depictives constructed on nouns and all types of resultatives have predicate structures comprising an invisible PRO subject, while adjectives and nominal adjectives used for depictives are construed as adverbial modifiers, which do not include PRO subjects inside syntactically. A conclusion is presented

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in section 5.

2. Some characteristics of secondary predicates

Secondary predicates are divided into two classes of depictives and resultatives according to whether they describe a transitory state overlapping the event described by the primary predicate or a state that results from the event described by the primary predicate. Depictives are either subject-oriented or object-oriented.

- (1) a. Eri-wa kimono-sugata-de zyugyoo-o uke-ta.
 Eri-Top kimono-figure-Cop class-Acc receive-Past
 ‘Eri attended her class in kimono.’
- b. Eri-wa kuruma-o tyuuko-de kat-ta.
 Eri-Top car-Acc used-Cop buy-Past
 ‘Eri bought a car used.’

In (1a), *kimono-sugata-de* ‘in kimono’ describes a state pertaining to the subject, and thus is identified as a subject-oriented depictive. In (1b), on the other hand, *tyuuko-de* ‘used’ describes a state related to the object, and hence is identified as an object-oriented depictive.

Resultatives also fall into the class of secondary predicates. Resultatives describe a resultant state that emerges subsequent to the event described by the primary predicate, as in (2), and stand in contrast to depictives used to describe a transitory state that arises concomitantly with the event described by the primary predicate.

- (2) Gakusei-ga tyawan-o konagona-ni kudai-ta.
 student-Nom teacup-Acc pieces-Cop break-Past
 ‘The student broke the teacup into pieces.’

Resultatives are primarily object-oriented. This property of resultatives comes from the fact that objects are the most typical arguments which are construed as referring to entities that undergo a change of state (see Levin and Rappaport Hovav 1995).

Depictives and resultatives are non-verbal, at least on the surface. Depictives and resultatives in English can be formed on adjectives appearing in the bare form (e.g. *John ate the meat raw*, *John pounded the metal flat*), adjectives having participial forms (e.g. *John ran naked*), and PPs (e.g. *John pushed her out of the house*) (Arts 1995). In Japanese, nouns (Ns), adjectives (As), and nominal adjectives (NAs) (to the exclusion of verbal predicates) may function as depictives and resultatives. Depictives and resultatives constructed on nouns and nominal adjectives occur with copulas. A-based depictives and resultatives, on the other hand, appear in the adverbial form with no copula.

Some representative examples of depictives and resultatives formed on nouns, adjectives, and nominal adjectives are given in (3).

(3) a. Depictives

N-based: *hadasi-de* ‘barefoot’, *hadaka-de* ‘naked’, *sirahu-de* ‘sober’, *barabara-de* ‘separate’, *genki-de* ‘with vigor’, *mukuti-de* ‘without talking’, *bisyonure-de* ‘soaking wet’, *hanzuku-de* ‘soft-boiled’; *nama-de* ‘raw’, *burakku-de* ‘black’, *tyuuko-de* ‘used’; A-based: *sabisiku* ‘alone’, *otonasiku* ‘calm’, *zuuzuusiku* ‘impudent’, *darasinaku* ‘untidy’, *omosiroku* ‘interesting’, *oisiku* ‘tasty’, *utokusiku* ‘beautiful’; NA-based: *anzen-ni* ‘safe’, *sizuka-ni* ‘quiet’, *kokoro-odayaka-ni* ‘calm’, *nonki-ni* ‘without care’, *kimama-ni* ‘frank’, *barabara-ni* ‘separate’, *kirei-ni* ‘clean’, *heta-ni* ‘clumsy’, *rippa-ni* ‘nice’, *sinsen-ni* ‘fresh’

b. Resultatives

N-based: *hetoteto-ni* ‘exhausted’, *konagona-ni* ‘into pieces’, *mapputatu-ni* ‘in half’, *pikapika-ni* ‘shiny’; A-based: *akaku* ‘red’, *kuraku* ‘dark’, *tiisaku* ‘tiny’; NA-based: *sizuka-ni* ‘quiet’, *kirei-ni* ‘clean’

Notably, one and the same expression may often belong to more than one class, and its classification may differ depending on the context in which it is used.¹

In Japanese, depictives and resultatives occur in the middle of sentences and have adverbial forms. Thus, the examples in (4), where the depictive and the resultative appear in the sentence-final form, are not acceptable.

- (4) a. *Eri-wa kimono-sugata-da zyugyoo-o uke-ta.
Eri-Top kimono-figure-Cop class-Acc receive-Past

‘Eri attended her class in kimono.’

- b. *Gakusei-ga ita-o aka-i nut-ta.
student-Nom board-Acc red-Pres paint-Past

‘The student paint the board red.’

The fact that depictives and resultatives appear in the adverbial form suggests that their morphology is licensed by some predicative element that follows them. This fact raises the issue of whether adverbial adjuncts having depictive and resultative interpretations should be construed as predicates or modifiers (see Himmelmann and Schultze-Berndt 2005).

¹ While expressions usable for secondary predication are not abundant, it is worthwhile to note that depictive predicates can be formed fairly productively using the nominal *mama* ‘remaining’, e.g. *hadasi-no mama-de* ‘in bare feet’, since different kinds of expressions can be embedded. It is claimed by Matsui and Kageyama (2008) that they are not depictives, but given that their syntactic behaviors are the same as those of N-based depictives, it is reasonable to say that nominal *mama*-expressions fall into the class of depictives, contrary to Matsui and Kageyama’s (2008) claim.

For present purposes, adverbial adjuncts are treated as depictives (in a broad sense) if they are understood to provide descriptions on subjects or objects, and if they can be used as primary predicates taking them as their subjects (although there is much controversy on the status of the adverbials derived from adjectives and nominal adjectives; see Matsui and Kageyama 2008, Shibagaki 2013). As I will argue in section 4, while nouns can construct depictives which have predicate structures syntactically, adjectives and nominal adjectives do not. Adjective depictives are adverbial modifiers syntactically even if they have “depictive” interpretation. Nevertheless, such adverbial modifiers are referred to as “depictives” in this paper for the sake of discussion, since they occur in the same syntactic position as depictive predicates when they have depictive interpretation, as I will discuss in section 3.

One important property of depictives and resultatives is that they are adjuncts in syntactic terms, and as such, they are optional and can be omitted without affecting the grammaticality of the clauses in which they appear, as shown in (5).

- (5) a. Ken-ga (hadasi-de) hasit-ta.
Ken-Nom (barefoot-Cop) run-Past
'Ken ran (barefoot).'
- b. Ken-ga kono kabe-o (akaku) nut-ta.
Ken-Nom this wall-Acc (red) paint-Past
'Ken painted this wall (red).'

Primary predicates, by contrast, are obligatory. When *hadasi-de* ‘barefoot’ and *akaku* ‘red’ in (5) serve as primary predicates, it is not possible to elide them, as exemplified by (6).

- (6) a. Ken-ga kodomo-o *(hadasi-ni) si-ta.
Ken-Nom child-Acc (barefoot-Cop) do-Past
'Ken made his child (barefoot).'
- b. Mari-ga *(kawaiku) nat-ta.
Mari-Nom (cute) become-Past
'Mari became (cute).'

In (6a), *hadasi* ‘barefoot’ serves as a primary predicate embedded under the causative verb *suru* ‘make’, and in (6b), *kawaiku* ‘cute’ functions as a primary predicate subordinate to the verb *naru* ‘become’. Since primary predicates are not freely elided, the difference in acceptability between (5) and (6) illustrates that depictives and resultatives have the syntactic status as adjuncts.

In addition, depictives and resultatives can readily be moved by scrambling, as exemplified in (7).

- (7) a. Hadasi-de_i Ken-ga t_i hasit-ta.
 barefoot-Cop Ken-Nom run-Past
 (lit.) ‘Barefoot, Ken ran.’
- b. Ken-ga akaku_i kabe-o t_i nut-ta.
 Ken-Nom red wall-Acc paint-Past
 (lit.) ‘Red, Ken painted the wall.’

When nominal and adjectival predicates are embedded under the verbs that immediately follow them, they cannot be separated via scrambling, as shown in (8).

- (8) a. *Hadasi-ni Ken-ga Mari-o si-ta.
 barefoot-Cop Ken-Nom Mari-Acc do-Past
 (lit.) ‘Barefoot, Ken made Mari.’
- b. *Kawaiku Mari-ga nat-ta.
 cute Mari-Nom become-Past
 (lit.) ‘Cute, Mari became.’

As Kishimoto (2014) suggests, when two primary predicates are contiguous with each other, they can be seen as forming complex predicates, which cannot be separated by scrambling. Then, the data in (7) illustrate that depictives and resultatives do not form complex predicates even if they are placed in a position contiguous with higher predicates.

Let us now turn to the discussion of where depictives are located in clause structure. First of all, the examples in (9) illustrate that while N-based depictives can be associated with subjects or direct objects, they cannot be associated with PPs or indirect objects.

- (9) a. *Eri-wa *hahaoya-kara* kimono-sugata-de zyogen-o morat-ta.
 Eri-Top mother-from kimono-figure-Cop advice-Acc get-Past
 ‘Eri got advice from her mother in kimono.’
- b. *Eri-wa *tomodati-ni* kimono-sugata-de book-o age-ta.
 Eri-Top friend-Dat kimono-figure-Cop book-Acc give-Past
 ‘Eri gave a book to her friend in kimono.’

The depictive *kimono-sugata-de* cannot be associated with the PP *hahaoya-kara* ‘from her mother’ in (9a) and the indirect object *tomodati-ni* ‘to her friend’ in (9b), although it can be predicated of the subject *Eri*.

Depictives are distinguished from instrumental/locative PPs, which cannot be predicated of subjects or objects. PPs and adverbial modifiers modifying constituents other than subjects or

objects cannot function as copular predicates on the intended senses, as seen in the examples in (10).

- (10) a. Ken-ga {ohasi-de/rooka-de} tabe-ta.
 Ken-Nom {chopstick-with/corridor-in} eat-Past
 ‘Ken ate {with chopsticks/in the corridor}.’
- b. *Ken-wa {ohasi-de/rooka-de} ar-u.
 Ken-Top {chopstick-with/corridor-in} be-Pres
 ‘Ken is {with chopsticks/in the corridor}.’

In (10a), the instrumental and locative PPs are accompanied by *de*, so they look similar to depictives (see Takezawa 1993). Nevertheless, they cannot appear in the basic sentence counterparts, as shown in (10b).²

Manner/degree adverbials derived from adjectives and nominal adjectives are adverbial modifiers, but they often have both predicative and adverbial uses (cf. Nitta 2002). Thus some, if not all, manner/degree modifiers behave in a way similar to depictives, as shown in (11).

- (11) a. Ken-wa {hadasi-de/karoyaka-ni/naname-ni} kono torakku-o hasit-ta.
 Ken-Top {barefoot-Cop/light-Cop/diagonal-Cop} this track-Acc run-Past
 ‘Ken ran on this track {barefoot/lightly/diagonally}.’

² *Kara*-marked phrases can be used for designating a starter, in which case they function as adjuncts appended to arguments (Kishimoto 2017). Semantically, the *kara*-marked argument in (i) indicating a starting person is understood to be a member of the group denoted by the subject *gakusei* ‘student’.

- (i) Gakusei-ga Eri-kara kimono-sugata-de hanasi-ta.
 student-Nom Eri-from kimono-figure-Cop talk-Past
 ‘Students, starting with Eri, talked in kimono.’

Since the depictive can be anchored to the subject, (i) can carry the meaning that all the students were in kimono. Accordingly, it can be inferred that Eri was also in kimono. Note that the interpretation that Eri was in kimono is not derived by the depictive being syntactically anchored to the *kara*-marked argument, as the unacceptability of (ii) suggests.

- (ii) *Eri-kara kimono-sugata-de ar-u.
 Eri-Nom kimono-figure-Cop be-Pres
 (lit.) ‘From Eri is in kimono.’

Since the depictive cannot be predicated of *Eri-kara* ‘from Eri’ (when used as a primary predicate), it can be stated that in (i), the interpretation that Eri was in kimono is derived by pragmatic inference rather than secondary predication.

- b. Ken-wa {hadasi-dat-ta/karoyaka-dat-ta/*naname-dat-ta}.
 Ken-Nom {barefoot-Cop-Past/light-Cop-Past/diagonal-Cop-Past}
 ‘Ken was {in bare feet/light/diagonal}.’

The depictive *hadasi-de* in (11a) is an authentic N-based descriptive predicate, as I will discuss in section 4, and can be a main predicate in the corresponding clause in (11b). The adverbial *karoyaka-ni* ‘light’ (derived from a nominal adjective) specifies a manner of motion (i.e. running), which provides a characterization of a transitory state of affairs on the subject at the same time. Since *karoyaka-ni* is predicated of the subject, it can appear as the predicate of the copular clause in (11b). By contrast, *naname-ni* ‘diagonally’ specifies a manner of motion, but does not specify a state pertinent to the subject. Therefore, *naname-ni* cannot occur as the predicate of the basic sentence in (11b).

Adverbial adjuncts appear in distinct syntactic positions depending on the meanings they carry (see e.g. Ernst 2002). The difference in acceptability, which is conditioned by the choice of nominal-adjective predicate in (11b), suggests that *karoyaka-ni* appears in the same syntactic position as depictive predicates, while *naname-ni* does not. The adequacy of this view is confirmed by looking at (12).

- (12) a. Ken-ga {hadasi-de/karoyaka-ni/*naname-ni} si-ta no-wa kono
 Ken-Nom {barefoot-Cop/light-Cop/diagonal-Cop} do-Past that-Top this
 torakku-o hasiru koto-da.
 track-Acc run that-Cop
 ‘What Ken did {barefoot/lightly/diagonally} was run on this track.’
- b. Ken-ga si-ta no-wa {hadasi-de/karoyaka-ni/naname-ni} kono
 Ken-Nom do-Past that-Top {barefoot-Cop/light-Cop/diagonal-Cop} this
 torakku-o hasiru koto-da.
 track-Acc run that-Cop
 ‘What Ken did was run on this track {barefoot/lightly/diagonally}.’

As discussed by Kishimoto (2016), adjuncts added to vP can appear in the presupposition clause as well as in the focus position of pseudo-cleft constructions with vP-focusing. Thus, subject-oriented depictives derived from nouns are allowed to appear in these two positions (see section 3). Similarly, a manner adverbial like *karoyaka-ni* having subject-oriented depictive interpretation can appear in the presupposition clause as well as in the focus position. On the other hand, a manner adverbial like *naname-ni* modifies the verb, but not the subject. This type of manner modifier appears in a lower structural position, i.e. VP located below vP, and hence cannot occur in the presupposition clause of the vP-focus pseudo-cleft construction.

Before proceeding, note that the terms of “subject orientation” and “object orientation” used for depictives and resultatives in the present paper (and many works on secondary predication) refer not to surface grammatical relations but to underlying grammatical relations. This should

be apparent in view of the fact that object-oriented depictives can be predicated of subjects when they are rendered as passive subjects.

(13) a. Kare-ga kono niku-o nama-de tabe-ta.
he-Nom this meat-Acc raw-Cop eat-Past

‘He ate this meat raw.’

b. Kono niku-ga nama-de tabe-rare-ta.
this meat-Nom raw-Cop eat-Pass-Past

‘This meat was eaten raw.’

Resultatives also have object orientation, but can be anchored to subjects when they are originated from underlying object positions, as seen in (14).

(14) a. Kare-ga kutu-o pikapika-ni migai-ta.
he-Nom shoe-Acc shiny-Cop polish-Past

‘He polished the shoes shiny.’

b. Kutu-ga pikapika-ni migak-are-ta.
shoe-Acc shiny-Cop polish-Pass-Past

‘The shoes were polished shiny.’

In light of these facts, it can be stated that depictives have subject orientation if they are associated with external arguments and object orientation if they are related to internal arguments, and that resultatives have object orientation since they are associated with internal arguments (Williams 1980).

In this section, I have illustrated some of the basic properties of Japanese secondary predicates. In the next section, it will be shown that subject-oriented depictives take subjects referring to individuals that have control over the described states, and that psychological adjective adjuncts show subject orientation if they take experiencers (i.e. sentient individuals) as their subjects on the intransitive use.

3. The syntactic positions of secondary predicates

In light of data pertaining to vP-focus pseudo-cleft constructions, it is argued in this section that object-oriented depictives and resultatives are adjoined to VP, where a theme argument (i.e. an internal argument) is included, and that subject-oriented depictives are adjoined to vP, where an agent argument (i.e. an external argument) is merged by base-generation (and can also be adjoined to VP in some cases).

Semantically, depictives describe some transitory states pertaining to either subjects or

objects. N-based depictives are accompanied by *de*, and in their basic sentence counterparts, *iru* ‘be’ and *aru* ‘be’ may follow them, as shown in (15b).

- (15) a. Eri-ga kimono-sugata-de arui-ta.
 Eri-Nom kimono-figure-Cop walk-Past
 ‘Eri walked in kimono.’
- b. Eri-ga kimono-sugata-de {ar-u/i-ru}.
 Eri-Nom kimono-figure-Cop {be-Pres/be-Pres}
 ‘Eri is in kimono.’

In (15a), *kimono-sugata* is a noun, which is followed by the copula *de*. Depictives derived from nouns have the same sentence-final form as nominal adjectives. Nevertheless, N-based depictives are distinguished from nominal adjectives, since they end in *-no*, but not *-na*, when they modify nouns, as in (16a) (Iwasaki 2013, Hasegawa 2015).

- (16) a. kimono-sugata-**{no/*na}** ano hito
 kimono-figure-**{Cop/Cop}** that man
 ‘that man in kimono’
- b. Ano hito-wa kimono-sugata-de ar-u.
 that man-Top kimono-figure-Cop be-Pres
 ‘That man is in kimono.’

In (16a), *no* is considered to be a form of copula, although it is homophonous with the genitive marker *no*. These two markers can be distinguished, for instance, by looking at whether *no* can be replaced by *de aru* (Masuoka and Takubo 1992).

- (17) a. kimono-sugata-**{no/de}** ar-u} ano hito
 kimono-figure-**{Cop/Cop be-Pres}** that man
 ‘that man in kimono’
- b. kinoo-**{no/*de}** ar-u} sinbun
 yesterday-**{Gen/Cop be-Pres}** paper
 ‘yesterday’s paper’

When a nominal predicate modifies another noun, it is accompanied by *no*. As shown in (17a), *no* can be replaced by *de aru*, which shows that *no* is an attributive form of the copula. This fact suggests that N-based depictives have the sequence of “NP+copula”.

When nominal adjectives modify nouns, they appear in the *na*-form rather than the *no*-form, as seen in (18).

- (18) kirei- $\{na/*no\}$ hana
 pretty- $\{Cop/Gen\}$ flower
 ‘the pretty flower’

Since nominal adjectives occur not with *no* but with *na*, which is another attributive form of the copula, it is easy to see that they have the sequence of “Nominal+copula”. (One obvious difference observed between nominal predicates and nominal-adjective predicates is that the former can include a phrasal element inside the copula, but the latter cannot. Thus, I assume that nominal predicates are formed by the copula taking an NP as its complement, while nominal adjectives are formed by the copula combining with a qualified nominal head.)

When the stative verb *iru* ‘be’ occurs with an N-based depictive predicate, the sentence expresses a volitional meaning, and the subject is understood to be an individual that can be in control of the described state. This fact is readily confirmed by the (un)acceptability of (19), which includes the agent-oriented adverb *mizukara-no isi-de* ‘by one’s own choice’.

- (19) Eri-wa *mizukara-no isi-de* kimono-sugata-de $\{i\text{-}ru/*ar\text{-}u\}$.
 Eri-Top self-Gen intention-by kimono-figure-Cop $\{be\text{-}Pres/be\text{-}Pres\}$
 ‘Eri is in kimono by her own choice.’

The fact that the adverb *mizukara-no isi-de* is consonant with the depictive when it is accompanied by *iru*, but not *aru*, indicates that *iru* adds a volitional meaning to the nominal-predicate clause.

A different pattern is observed for object-oriented depictives. An object-oriented depictive, just like a subject-oriented depictive, is combined with *de*, as shown in (20a). When it is followed by *aru*, it can be used as a primary predicate, but the verb *iru* cannot be substituted for *aru*, as exemplified in (20b).

- (20) a. Eri-ga burakku-de koohii-o non-da.
 Eri-Nom black-Cop coffee-Acc drink-Past
 ‘Eri drank coffee black.’
 b. Koohii-wa burakku-de $\{ar\text{-}u/*i\text{-}ru\}$.
 coffee-Top black-Cop $\{be\text{-}Pres/be\text{-}Pres\}$
 ‘The coffee is black.’

When the depictive *burakku-de* ‘black’, which can occur only with the verb *aru*, is used as a primary predicate, it expresses a stative meaning, and the sentence is not acceptable if it comprises *mizukara-no isi-de*, as illustrated in (21).

- (21) **Koohii-wa mizukara-no isi-de burakku-de ar-u.*
 coffee-Top self-Gen intention-by black-Cop be-Pres

‘The coffee is black by its own choice.’

The unacceptability of (21) is naturally expected, since the subject is inanimate. This type of subject is not compatible with the verb *iru*, which carries a volitional meaning if combined with a nominal predicate.

Importantly, sentences in which an N-based depictive occurs with *aru* are construed as copular constructions, while sentences with *iru* are existential constructions, which assert the existence of an individual characterized by the *de*-marked argument. The difference in their status can be ascertained by (22).

- (22) a. *Ken-i-wa kare-i-no konomi-no kakko-de i-ru.*
 Ken-Top he-Gen favorite-Gen appearance-Cop be-Pres

‘Ken is in his favorite clothes.’

- b. **Ken-i-wa kare-i-no konomi-no kakko-de ar-u.*
 Ken-Top he-Gen favorite-Gen appearance-Cop be-Pres

‘Ken is his favorite clothes.’

When the verb *iru* follows a nominal predicate, as in (22a), it is possible for the subject to be the antecedent of the pronoun *kare* ‘he’. By contrast, when *aru* follows it, the subject cannot be coreferential with *kare*, as shown in (22b). It is well-observed that the subject of copular sentences, unlike the subject of non-copular sentences, constitutes a domain where the binding theory does not apply, as suggested by a contrast in acceptability between **John_i is his_i supporter* and *John_i likes his_i supporter* (see e.g. Moro 2001). Given that (22b), but not (22a), displays the type of binding anomaly observed for copular constructions, it is fair to say that (22a), but not (22b), is a copular sentence.

Both subject-oriented and object-oriented depictives constructed on nouns include the copula *de*, which is licensed when it occurs in combination with the verb *aru*. In view of this fact, it is fair to state that nominal predicates with the form of “NP + *de aru*” and nominal-adjective predicates with the form of “Nominal + *de aru*” can be used as depictives if the verb *aru* is dropped on the surface (see section 4).

Furthermore, observe that depictives usable for subject-oriented depictives can be associated with objects when they appear in a clause whose main predicate is a transitive verb of motion, as (23) illustrates.

- (23) Titioya-wa kodomo-o Mikkii-san-no kakko-de doobutuen-ni
 father-Top child-Acc Mickey-Mr-Gen appearance-Cop zoo-to
 ture-te it-ta.
 take-Ger go-Pres

‘The father took his child to the zoo in the Mickey Mouse costume.’

In (23), when the N-based depictive is taken to be predicated of the subject, the sentence means that the father wore the Mickey Mouse costume. When it is predicated of the object, the sentence means that the child wore the Mickey Mouse costume. The fact suggests that depictives that can be construed as subject-oriented may be associated with subjects or objects in some transitive clauses.³

For the syntactic position of depictives in clauses, there are several pieces of evidence that subject-oriented depictives occupy in a higher structural position than object-oriented depictives and resultatives (see Koizumi 1994). Here, I will confirm this by appeal to pseudo-cleft constructions placing vP in their focus position (Shibagaki 2013, Kishimoto 2016). First, the examples in (24) illustrate that in the pseudo-cleft constructions with vP-focusing, subject-oriented depictives can occur in the presuppositional clause, as well as in the focus position.

- (24) a. Kodomo-ga si-ta no-wa hadasi-de hasiru koto-da.
 child-Nom do-Past Noml-Top barefoot-Cop run that-Cop
 ‘What the child did was run barefoot.’
- b. Kodomo-ga hadasi-de si-ta no-wa hasiru koto-da.
 child-Nom barefoot-Cop do-Past Noml-Top run that-Cop
 ‘What the child did barefoot was run.’

³ Some A-based and NA-based depictives as well can be associated with either subjects or objects. This can be confirmed by looking at the examples in (i), which involve the A-based depictive *otonasiku* ‘calm, obedient’ and the NA-based *buzi-ni* ‘safe’.

- (i) a. Ano hito-wa {otonasiku/buzi-ni} seikatu-o okut-te i-ru.
 that man-Top {calm/safe-Cop} life-Acc lead-Ger be-Pres
 ‘That man is leading a {calm/safe} life.’
- b. Titioya-wa kodomo-o {otonasiku/buzi-ni} gakkoo-made ture-te ik-u
 father-Top child-Acc {obedient/safe-Cop} school-up.to take-Ger go-Pres
 koto-ga deki-ta.
 that-Nom can.do-Past
 ‘The father was able to take his child to the school {obediently/safely}.’

In (ia), the A-based depictive *otonasiku* and the NA-based depictive *buzi-ni* can be associated with the subject. (ib) shows that they can be associated with the object as well.

On the other hand, object-oriented depictives can occur only in focus position, as illustrated in the examples in (25).

- (25) a. Ano hito-ga si-ta no-wa *nama-de* sakana-o taberu koto-da.
 that man-Nom do-Past Noml-Top raw-Cop fish-Acc eat that-Cop
 ‘What that man did was eat the fish raw.’
- b. *Ano hito-ga *nama-de* si-ta no-wa sakana-o taberu koto-da.
 that man-Nom raw-Cop do-Past Noml-Top fish-Acc eat that-Cop
 ‘What that man did raw was eat the fish.’

As argued by Kishimoto (2016), when an adjunct is adjoined to vP, it can appear either in the presuppositional clause or in the focus position of pseudo-cleft constructions involving vP-focusing. This is because two layers of vP are created by way of adjunction. When the lower vP is placed in the focus position, the adjunct appears in the presupposition component. When the upper vP is placed in the focus position, the adjunct occurs in the focus position. On the other hand, when an adjunct is adjoined to VP, it is included in the projection lower than vP, and can appear only in the focus component. The data in (24) and (25) suggest then that subject-oriented depictives are adjoined to vP, while object-oriented depictives are adjoined to VP.

Furthermore, when vP-clefting applies to (23), there arises a difference in interpretation. When the depictive appears in the presupposition clause, as in (26a), it can be related only to the subject of the predicate *ture-te iku* ‘take’. When the depictive is placed in focus position, as in (26b), it can be associated with either the subject or the object.

- (26) a. Titioya-ga *Mikkii-san-no kakko-de* si-ta no-wa kodomo-o
 father-Nom Mickey-Mr-Gen appearance-Cop do-Past Noml-Top child-Acc
 doobutuen-ni ture-te ik-u koto-da.
 zoo-to take-Ger go-Pres that-Cop
 ‘What the father did in the Mickey Mouse costume is to take the child to the zoo.’
- b. Titioya-ga si-ta no-wa *Mikkii-san-no kakko-de* kodomo-o
 father-Nom do-Past Noml-Top Mickey-Mr-Gen appearance-Cop child-Acc
 doobutuen-ni ture-te ik-u koto-da.
 zoo-to take-Ger go-Pres that-Cop
 ‘What the father did is to take the child to the zoo in the Mickey Mouse costume.’

The difference in possible interpretations in (26) is obviously a reflection of the fact that subject-oriented depictives are adjoined to vP, while object-oriented depictives are adjoined to VP.

Depictives provide a description on externally observable states, but there is a class of psychological adjectives which behave like depictives (Matsuoka 2016, Miura 2020). It is

argued below that such psychological adjectives display either subject or object orientation according to whether they can take an experiencer or a theme subject on the intransitive use.

First, the examples in (27) illustrate that adjectives like *sabisii* ‘lonely’ and *tanosii* ‘happy’ behave like subject-oriented depictives, in that they can describe a state pertinent to the subject (cf. Yamakido 2013).

- (27) a. Mari-ga {sabisiku/tanosiku} syokuzi-o si-ta.
 Mari-Nom {lonely/happy} meal-Acc do-Past
 ‘Mari had a meal {alone/happily}.’
- b. Mari-wa {sabisikat-ta/tanosikat-ta}.
 Mari-Top {lonely-Past/happy-Past}
 ‘Mari was {alone/happy}.’

These psychological adjectives can appear in the presupposition clause, as well as in the focus position of vP-focus pseudo-cleft constructions.

- (28) a. Kodomo-ga {sabisiku/tanosiku} si-ta no-wa syokuzi-o suru koto-da.
 child-Nom {lonely/happy} do-Past Noml-Top meal-Acc do that-Cop
 ‘What the child did {alone/happily} was have a meal.’
- b. Kodomo-ga si-ta no-wa {sabisiku/tanosiku} syokuzi-o suru koto-da.
 child-Nom do-Past Noml-Top {lonely/happy} meal-Acc do that-Cop
 ‘What the child did was have a meal {alone/happily}.’

The facts in (28) illustrate that subject-oriented psychological adjectives occur in vP, where the subjects are merged by base-generation.

In contrast, *kyoomibukai* ‘interesting’ and *omosiroi* ‘interesting’ behave like object-oriented depictives even when they are taken to characterize the mental states possessed by the subject.

- (29) a. Mari-ga sono hon-o {kyoomibukaku/omosiroku} yon-da.
 Mari-Nom that book-Acc {interesting/interesting} read-Past
 ‘Mari read that book with interest.’
- b. Sono hon-wa {kyoomibukakat-ta/omosirokat-ta}.
 that book-Top {interesting-Past/interesting-Past}
 ‘That book was interesting.’

The adjectives *kyoomibukai* and *omosiroi* differ from *sabisiku* and *tanosiku*, in that they can occur in the focus position, but not in the presupposition clause of pseudo-cleft constructions with vP-focusing.

(30) a. Ano hito-ga si-ta no-wa {*kyoomibukaku/omosiroku*} hon-o
 that man-Nom do-Past Noml-Top {interesting/interesting} book-Acc
 yomu koto-da.
 read that-Cop

‘What that man did was read the book with interest.’

b. *Ano hito-ga {*kyoomibukaku/omosiroku*} si-ta no-wa hon-o
 that man-Nom {interesting/interesting} do-Past Noml-Top book-Acc
 yomu koto-da.
 read that-Cop

‘What that man did with interest was read the book.’

The data illustrate that object-oriented psychological adjectives occur in VP, which differs from subject-oriented psychological adjectives.

The psychological adjectives *sabisii* and *tanosii* show syntactic behaviors akin to subject-oriented depictives, and *kyoomibukai* and *omosiroi*, object-oriented depictives. This fact raises the question of how these psychological adjectives are distinguished. A key to the answer to this question lies in the fact that the two types of adjectives differ as to whether they take experiencer subjects or theme subjects when used intransitively. To make this point, observe that *sabisii* and *tanosii* can be followed by the verb *suru* ‘do’, as shown in (31).

(31) Mari-wa {*sabisiku/tanosiku*} si-te i-ru.
 Mari-Top {lonely/happy} do-Ger be-Pres

‘Mari is feeling {lonely/happy}.’

In (31), the verbal complex *si-te iru* ‘be doing’ behaves in a way similar to *iru* ‘be’ appearing with the copula *de*, in the sense that it adds a volitional meaning to the clause. (The verb *suru* ‘do’ can most naturally be combined with a subject-oriented depictive when it is used in the progressive form *si-te iru* ‘be doing’.) When *suru* is added to the adjectives, the subject is taken to be a volitional experiencer that can have control over the described state, and the sentence carries the meaning that Mari is feeling lonely/happy.

The adjectives *kyoomibukai* and *omosiroi* differ from *sabisii* and *tanosii* in this respect. When psychological adjectives are combined with *suru*, their subjects are restricted to arguments denoting animate entities, and thus, it is not possible for *hon* ‘book’, which refers to an inanimate entity, to stand as the subject of *kyoomibukai* and *omosiroi*, as in (32a). Even if the subject refers to an animate entity, it is not understood to be an experiencer. (32b) is acceptable if the subject is *Mari* is taken to be a theme rather than an experiencer.

- (32) a. *Hon-wa {kyoomibukaku/omosiroku} si-te i-ru.
 book-Top {interesting/interesting} do-Ger be-Pres
 ‘The book is being interesting.’
- b. #Mari-wa {kyoomibukaku/omosiroku} si-te i-ru.
 Mari-Top {interesting/interesting} do-Ger be-Pres
 ‘Mari is doing something interesting.’

Since the subject in (32b) counts as the theme that causes some interest, the sentence means that Mari did something of interest to someone else, and does not convey the sense that Mari was interested. This fact shows that the nominative argument of the adjectives *kyoomibukai* and *omosiroi* can be interpreted only as the theme when they are used intransitively. This fact in turn suggests that the adjectives *kyoomibukai* and *omosiroi* used as depictives modify the internal arguments of the primary predicates.⁴

The data indicate that the syntactic behavior of psychological adjectives is determined depending on the type of subject they take when used as intransitive adjectives. Adjectives like *sabisii* and *tanosii* take an experiencer (i.e. the external argument) as their nominative subject, and thus behave like subject-oriented depictives that occur in vP. On the other hand, adjectives like *kyoomibukai* and *omosiroi* take a theme (i.e. the internal argument) as their nominative subject, so that they behave like object-oriented depictives appearing in VP.

One problem that arises with object-oriented psychological adjectives, as discussed by Matsuoka (2016) and Miura (2020) is that some individual is identified as the possessor/experiencer of the mental states described by the adjectives. In (29a), which involves *kyoomibukai* and *omosiroi*, the subject is construed as an argument referring to an individual who has an interest. Nevertheless, (33) shows that the argument identified as the possessor of the mental state can be a non-subject.

⁴ Adjectives like *tanosii* ‘pleasing’ and *omosiroi* ‘interesting’ have both intransitive and transitive uses. When they are used intransitively, the only argument, i.e. the nominative theme, is targeted for subject honorification, but when it is used transitively, the dative experiencer is the target of subject honorification.

- (i) a. Sato-sensei-wa totemo {tanosiku-te/omosiroku-te} irassyar-u.
 Sato-teacher-Top very {pleasing-Ger/interesting-Ger} be.Hon-Pres
 ‘Professor Sato is very {pleasing/interesting}.’
- b. Sato-sensei-ni-wa sore-ga totemo {tanosiku-te/omosiroku-te} irassyar-u.
 Sato-teacher-Dat-Top that-Nom very {pleasing-Ger/interesting-Ger} be.Hon-Pres
 ‘That is very {pleasing/interesting} to Professor Sato.’

- (33) Sensei-wa kodomo-*{ni/nitaisite}* sono hanasi-o omosiroku katat-ta.
 teacher-Top child-*{to/toward}* that story-Acc interesting tell-Past

‘The teacher told that story to the child.’

In (33), the child rather than the teacher is interested, which shows that an indirect object or a PP can be the possessor. In contrast, in (34), only the subject is identified as the possessor of the mental state in the case of the N-based depictive *kanasii kimoti-de* ‘with the sad feeling’.

- (34) Sensei-wa kodomo-*{ni/nitaisite}* sono hanasi-o kanasii kimoti-de katat-ta.
 teacher-Top child-*{to/toward}* that story-Acc sad feeling-with tell-Past

‘The teacher told that story to the child with the sad feeling.’

The N-based depictive *kanasii kimoti-de* in (34) follows the syntactic constraint imposed on secondary predication, since it cannot be anchored to a PP or an indirect object, but *omosiroku* in (33) is not constrained by this syntactic constraint. This fact suggests that for a psychological adjective like *omosiroku*, the individual who has the sentiment, i.e. the possessor of the mental state, is not identified syntactically.

If, as discussed above, the syntactic target of modification by the psychological adjective *omosiroi* is determined on the basis of its intransitive use, it must be the case that the individual who has the sentiment is identified in semantic terms. Although I do not go into a full discussion of the problem, it is conceivable that the individual who receives the information is identified as the possessor of the mental state described by the psychological adjective *omosiroi*.⁵ In (29a), the subject represents such an individual, but in (33), the goal is such an individual. If the possessor of the mental state is determined semantically, it is naturally expected that its identification is not constrained by the syntactic constraint imposed on secondary predication. The fact that psychological adjectives can modify arguments other than subjects and objects suggests that the depictive interpretation is one of the various semantic interpretations available for adverbial modifiers.

Psychological nominal adjectives behave in the same way as psychological adjectives. For instance, *kokoro-odayaka-ni* ‘calm’ can have depictive interpretation and is allowed to be

⁵ No experiencer is expressed when the psychological adjectives are used intransitively, in which case the possessor of the mental state is fixed contextually. (i) shows that the possessor can occur outside the clause in which the adjectives is included.

- (i) Sensei-wa monogatari-o kyoomibukaku hanasi-ta node, seito-wa yorokon-da.
 teacher-Top story-Acc interesting tell-Past because pupil-Top pleased-Past

‘Because the teacher told the story interestingly, the pupils were pleased.’

In (i), the possessor of the mental state can be taken to be *seito* ‘pupil’, which appears outside the clause containing the adjective. This fact also illustrates that the possessor is not determined syntactically. Note that if the possessor of the mental state is not identified contextually, a generic interpretation is assigned, i.e. the possessor may be any individual.

combined with *si-te iru*.⁶

- (35) a. Sono hito-wa kokoro-odayaka-ni zizitu-o katat-te i-ta.
 that man-Top heart-peaceful-Cop fact-Acc tell-Ger be-Past
 ‘The man was telling the fact calmly interestingly.’
- b. Sono hito-wa kokoro-odayaka-ni si-te i-ru.
 that man-Top heart-peaceful-Cop do-Ger be-Pres
 ‘The man is being calm.’

When used adverbially, nominal adjectives take the adverbial *ni*-form, as in *kokoro-odayaka-ni* in (35a), which differs from the inflectional form realized when *aru* follows them (see section 4). The nominal adjective *kokoro-odayaka-ni* appears in vP, which is confirmed by (36).

⁶ Some expressions like *genki* ‘vigor’ and *buzi* ‘safe’ are ambiguous in their lexical categories. Since *genki* can be either a noun or a nominal adjective, it can have two attributive forms, as in *genki-no moto* [vigor-Cop source] ‘the source of vigor’ and *genki-na hito* [vigorous-Cop man] ‘vigorous man’. Accordingly, *genki* can be combined with *iru* or *si-te iru*, as in (i).

- (i) a. Ano hito-wa genki-de {ar-u/i-ru}.
 that man-Top vigor-Cop {be-Pres/be-Pres}
 ‘That man has a vigor.’
- b. Ano hito-wa genki-ni si-te i-ru.
 that man-Top vigor-Cop do-Ger be-Pres
 ‘That man is doing fine.’

Needless to say, *genki* occurring with *iru* is a nominal, and *genki* occurring with *si-te iru* is a nominal adjective. Note that the nominal adjective *sizuka-ni* is allowed to occur with *aru*, but not *iru*.

- (ii) Sono hito-wa sizuka-de {at-ta/*i-ta}.
 that man-Top calm-Cop {be-Past/be-Past}
 ‘That man was calm.’

Nominal adjectives, unlike N-based depictives, do not normally combine with *iru* ‘be’, but this does not indicate that they can never be combined with *iru*. The combined form with *iru* is allowed for nominal adjectives in certain grammatical contexts, for a sentence like (iii) is acceptable.

- (iii) Sono hito-wa kokoro-odayaka-de-wa i-rare-nakat-ta.
 that man-Top heart-peaceful-Cop-Top be-Poten-Neg-Past
 ‘That man was not able to be calm.’

(36) a. Ano hito-ga si-te i-ta no-wa kokoro-odayaka-ni zizitu-o
 that man-Nom do-Ger be-Past Noml-Top heart-peaceful-Cop fact-Acc
 kataru koto-da.
 tell that-Cop

‘What that man did was tell the fact calmly.’

b. Ano hito-ga kokoro-odayaka-ni si-te i-ta no-wa zizitu-o
 that man-Nom heart-peaceful-Cop do-Ger do-Past Noml-Top fact-Acc
 kataru koto-da.
 tell that-Cop

‘What that man did calmly was tell the fact.’

The facts of the pseudo-cleft construction with vP-focusing in (36) suggest that *kokoro-odayaka-ni* modifies the subject by occurring in vP.

Thus far, the discussion shows that subject-oriented and object-oriented depictives display different syntactic behaviors in pseudo-cleft constructions with vP-focusing. The facts follow if subject-oriented depictives are included in vP, and object-oriented depictives occur in VP projected below vP.

(37) [TP [vP SDP [vP ODP V] v] T]

Pseudo-cleft constructions with vP-focusing include a vP projection in the presupposition clause as well as in the focus component. Therefore, subject-oriented depictives can appear in the presupposition clause as well as in the focus position. By contrast, object-oriented depictives appear in VP, so that they can appear only in the focus position.

Let us now turn to the discussion of resultatives. N-based resultatives appear with the copula in the *ni*-form, as shown in (38a). This *ni*-form is realized when the copula is followed by a verb like *naru* ‘become’, as in (38b).

(38) a. Ken-ga osara-o konagona-ni kudai-ta.
 Ken-Nom plate-Acc pieces-Cop break-Pres

‘Ken broke the plate into pieces.’

b. Osara-ga konagona-ni nat-ta.
 plate-Nom pieces-Cop become-Past

‘The plate broke into pieces.’

The resultative *konagona* has a result meaning rather than a simple stative meaning. The copula combined with the noun occurs in the *ni*-form, which suggests that an invisible verb follows the copula. In light of these facts, it is reasonable to assume that the resultative predicates acquire the result meaning, i.e. a change of state meaning, with the help of an invisible verb,

corresponding to the verb *naru* ‘become’.

Adjectives and nominal adjectives used as resultatives appear in the *ku*-form and in the *ni*-form, respectively. These forms are identical to the ones which are licensed when they are followed by the verb *naru*, as shown in (39).

- (39) a. Ano hito-ga kabe-o {akaku/makka-ni} nut-ta.
that man-Nom wall-Acc {red/bright.red-Cop} paint-Past

‘That man painted the wall (bright) red.’

- b. Kabe-ga {akaku/makka-ni} nat-ta.
wall-Nom {red/bright.red-Cop} become-Past

‘The wall became (bright) red.’

The inflectional forms of adjectives and nominal adjectives are invariant irrespective of whether they are grouped into depictives or resultatives. N-based secondary predicates are distinguished from them in this respect, since they have the *de*-form when used as depictives and the *ni*-form when used as resultatives.

Resultatives are object-oriented. Thus, resultatives can occur in the focus position but not in the presupposition clause of pseudo-cleft constructions with vP-focusing. (40) represents a case of N-based resultatives.

- (40) a. Ken-ga si-ta no-wa osara-o *konagona-ni* kudaku koto-da.
Ken-Nom do-Past Noml-Top plate-Acc pieces-Cop break that-Cop

‘What Ken did was break the plate into pieces.’

- b. *Ken-ga *konagona-ni* si-ta no-wa osara-o kudaku koto-da.
Ken-Nom pieces-Cop do-Past Noml-Top plate-Acc break that-Cop

‘What Ken did into pieces was break the plate.’

The same distribution is observed for resultatives formed on adjectives and nominal adjectives, as shown in (41).

- (41) a. Ano hito-ga si-ta no-wa {akaku/makka-ni} kabe-o nuru koto-da.
that man-Nom do-Past Noml-Top {red/ bright.red-Cop} wall-Acc paint that-Cop

‘What that man did was paint the wall {red/bright red}.’

- b. *Ano hito-ga {akaku/makka-ni} si-ta no-wa kabe-o nuru koto-da.
that man-Nom {red/bright.red-Cop} do-Past Noml-Top wall-Acc paint that-Cop

‘What that man did {red/bright red} was paint the wall.’

The data illustrate that resultatives behave in the same way as object-oriented depictives, in that they can occur only in the focus position in the pseudo-cleft constructions with vP-focusing. The facts follow if the resultatives are adjoined to VP.

(42) [TP [VP [VP RES V] v] T]

In the pseudo-cleft construction where vP is placed in the focus position, no VP projection occurs in the presupposition clause since VP is a projection located below vP. Thus, the resultative can appear only in the focus position, and if it is placed in the presupposition clause, unacceptability results.

To summarize, it has been argued in this section that subject-oriented depictives are positioned in vP, while object-oriented depictives and resultatives are located in VP. It has also been shown that psychological adjectives used as depictives have subject orientation when they take an experiencer subject (i.e. a sentient subject) on the intransitive use, but when they take a theme subject on the intransitive use, they have object orientation.

4. The internal structure of secondary predicates

In this section, I argue that N-based depictives have predicate structures that include an invisible PRO subject, but that adjectives and nominal adjectives function as adverbial modifiers syntactically even if they are taken to provide “depictive” descriptions on subjects or objects. On the basis of data regarding subject honorification, it is shown that N-based depictives include their subjects in them, but adjectival depictives do not. It is also shown that resultatives comprise an invisible PRO subject regardless of whether they are constructed from nouns, adjectives, or nominal adjectives.

To begin, observe that secondary predicates display distinct inflectional patterns according to their syntactic categories. The morphological forms of depictives and resultatives, derived from nouns, adjectives, and nominal adjectives, are given in (43).

(43)		<u>N-based</u>	<u>A-based</u>	<u>NA-based</u>
	depictives	<i>-de</i>	<i>-ku</i>	<i>-ni</i>
	resultatives	<i>-ni</i>	<i>-ku</i>	<i>-ni</i>

Depictives and resultatives occur in adverbial forms, and not in sentence-final forms. This fact suggests that their inflectional forms are licensed by some external verbal elements that follow them. What is of interest to the present discussion is that N-based depictives have different inflectional forms from NA-based depictives, but N-based and NA based resultatives share the same inflectional form. I suggest that the discrepancies between depictives and resultatives with regard to their inflectional forms arise because they are licensed by different types of predicate.

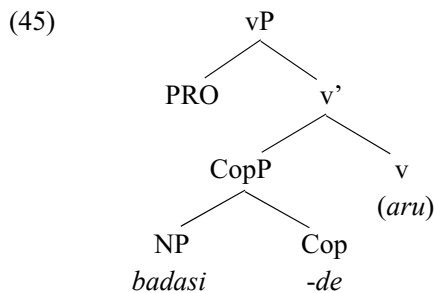
Prior to discussing depictives and resultatives, note that the copula appears in the adverbial

form, but it has different morphological realizations according to the type of verb that follows it, as exemplified in (44) (cf. Hasegawa 2015).

- (44) a. Ano hito-wa hadasi-**de** {ar-u/i-ru}.
 that man-Top barefoot-Cop {be-Pres/be-Pres}
 ‘That man is in bare feet.’
- b. Ano hito-wa hadasi-**ni** {nar-u/mie-ru}.
 that man-Top barefoot-Cop {become-Pres/look-Pres}
 ‘That man {becomes/looks} barefoot.’

When the copula occurs before the verb *iru* or *aru*, it appears in the *de*-form, as shown in (44a), but the copula appears in the *ni*-form when it is followed by other verbs, as shown in (44b).

N-based depictives appear in the *de*-form. This inflectional form is realized only when the verb *aru* or *iru* follows them. Given that depictive predicates describe transitory states with no volitional meaning involved, I propose that N-based depictives have the structure where vP is projected over CopP, as illustrated in (45) (cf. Nishiyama 1999).



It is reasonable to postulate that the head position of vP is filled by the invisible version of the verb *aru*, which licenses the *de*-form of the copula (see section 3). I suggest that PRO is placed in Spec of vP to serve as the invisible subject to be controlled by the subject or the object of the primary predicate. Under the view held here, the vP projection can be thought of as functioning as a “relator” which mediates a subject-predicate relation (in the sense of den Dikken 2006; see also Bowers 1993, Kishimoto and Kikuchi 2008).

There are two different analyses for the syntactic structures of secondary predicates that have been proposed in the literature. One type of analysis postulates a null subject PRO inside the secondary predicate (e.g. Bowers 1993, 2010), and another type of analysis does not posit any subject inside it (e.g. Williams 1980, Rothstein 1983, 2001). The present proposal on N-based depictives is in conformity with the first analysis. In the following discussions, I present empirical evidence showing that invisible subjects indeed appear inside N-based depictive predicates.

Evidence in favor of the present analysis may be adduced from the facts of subject

honorification. To make this point, observe that subject-honorific forms of non-verbal predicates are formed by attaching the prefix *o-* or *go-* to them.

- (46) a. Tanaka-sensei-ga gakusei-ni {o-yasasi-i/go-sinsetu-da/go-rippuku-da}.
 Tanaka-teacher-Nom students-Dat {Hon-nice/Hon-kind-Cop/Hon-anger-Cop}
 ‘Professor Tanaka is {nice to/kind to/angry about} the students.’
- b. *Gakusei-ga Tanaka-sensei-ni {o-yasasi-i/go-sinsetu-da/go-rippuku-da}.
 student-Nom Tanaka-teacher-Dat {Hon-nice/Hon-kind-Cop/Hon-anger-Cop}
 ‘The students are {nice to/kind to/angry about} Professor Tanaka.’

In (46a), the subject is the target of subject honorification and the sentence is acceptable. By contrast, (46b) is not acceptable because the honorific target is the complement argument of the predicates. The examples in (46) show that deference is directed to subjects when the subject-honorific prefixes *o-* and *go-* are attached to adjectives (*yasasii* ‘nice (A)’, *sinsetu* ‘kind (NA)’) and nominals (*rippuku* ‘anger (N)’).⁷

There is another syntactic restriction imposed on subject honorification, besides the subject condition. The target of subject honorification is confined to a local subject. The examples in (47) illustrate the extent of the phenomenon.

- (47) a. Sono gakusei-wa Ito-sensei-o o-utokusiku omot-te i-ru.
 that student-Top Ito-teacher-Acc Hon-beautiful think-Ger be-Pres
 ‘That student thinks Professor Ito beautiful.’
- b. *Sono gakusei-wa Ito-sensei-o utokusiku o-omoi-ni-nat-te i-ru.
 that student-Top Ito-teacher-Acc beautiful Hon-think-Cop-become-Gerbe-Pres
 ‘That student thinks Professor Ito beautiful.’

⁷ The prefixes *o-* and *go-* have ‘beautification’ uses (Harada 1977). When the prefixes are used for the purpose of beautification, they can be associated with nominals denoting entities which cannot be worthy of respect, as in (ia). On the other hand, when the prefixes are used for subject honorification, a contrast in acceptability emerges depending on the type of nominal they are associated with, as in (ib).

- (i) a. {sensei-no/seito-no} o-hasi
 {teacher-Gen/student-Gen} Hon-chopstick
 ‘{the teacher’s/the pupil’s} chopsticks’
- b. {sensei-no/*seito-no} o-kaban
 {teacher-Gen/pupil-Gen} Hon-bag
 ‘{the teacher’s/the pupil’s} bag’

- c. *Ito-sensei-wa sono gakusei-o o-utokusiku omot-te i-ru.
 Ito-teacher-Top that student-Acc Hon-beautiful think-Ger be-Pres
 ‘Professor Ito thinks that student beautiful.’

In (47a), the accusative argument is the subject of the small clause, and when the embedded predicate bears a subject-honorific marker, subject honorification is legitimate. But if the main predicate bears a subject-honorific marker, as in (47b), the embedded subject cannot be targeted for subject honorification. (47c) shows that if the embedded clause has a subject-honorific marker, the matrix subject cannot be a target for honorification, illustrating that long distance subject honorification is not possible.

Furthermore, observe that if the subject of the embedded small clause is rendered as a matrix subject via direct passivization, it is possible for the main predicate, as well as the embedded predicate, to bear a subject-honorific marker, as shown in (48).

- (48) a. Ito-sensei-ga sono gakusei-ni utokusikiku o-omow-are-ni-nat-te
 Ito-teacher-Nom that student-by beautiful Hon-think-Pass-Cop-become-Ger
 i-ru.
 be-Pres
 ‘Professor Ito is thought to be beautiful by that student.’
- b. Ito-sensei-ga sono gakusei-ni o-utokusiku omow-are-te i-ru.
 Ito-teacher-Nom that student-by Hon-beautiful think-Pass-Ger be-Pres
 ‘Professor Ito is thought to be beautiful by that student.’

The data illustrate that subject honorification may be anchored to a trace (or a copy) of the passive subject when the embedded predicate has a subject-honorific form, and that in the passive clause, deference can also be directed to a derived subject appearing in the matrix clause (if the matrix predicate bears a subject-honorific marker).⁸

Subject orientation of subject honorification is fairly pervasive, but apparent exceptions are found in control constructions. In the object control construction in (49), the matrix object can be targeted for subject honorification.

- (49) [PRO sinzitu-o o-hanasi-ni-nar-u yoo] karera-wa Ito-sensei-o
 truth-Acc Hon-tell-Cop-become-Pres Comp they-Top Ito-teacher-Acc
 settoku-si-ta.
 persuade-do-Past
 ‘They persuaded Professor Ito that she should tell the truth.’

⁸ Although I resort to the small clause construction to illustrate how subject honorification behaves in complex-predicate constructions, it is worth noting that exactly the same distributions are observed for ECM constructions.

In (49), the subject-honorific marker appears on the embedded predicate, and the matrix object is understood to be the target of subject honorification. This interpretation is derived via the object controlling PRO in the embedded clause. Note that the object is not directly targeted for honorification in (49), which can be confirmed by the unacceptability of (50a), where the matrix verb appears in an honorific form.

- (50) a. *Sono gakusei-wa Ito-sensei-o settoku-nasat-ta.
 that student-Top Ito-teacher-Acc persuade-do.Hon-Past
 ‘That student persuaded Professor Ito.’
- b. Ito-sensei-wa sono gakusei-o settoku-nasat-ta.
 Ito-teacher-Top that student-Acc persuade-do.Hon-Past
 ‘Professor Ito persuaded that student.’

In (50a), subject honorification is not legitimate because the object cannot be an honorific target even if it refers to a person worthy of respect. On the other hand, (50b) shows that when the matrix subject refers to a person worthy of respect, subject honorification is legitimate because of its subject orientation.

Given that the object of *settoku-suru* ‘persuade’ cannot be a potential target for subject honorification if the primary predicate bears a subject-honorific marker, as in (50a), it can be stated that in (49), subject honorification targets a PRO subject in the embedded clause syntactically, satisfying the subject condition, so that the object controlling PRO is interpreted as the target for subject honorification. The data illustrate that an unpronounced pronoun PRO can satisfy the subject condition imposed on subject honorification.

As for secondary predicates, I suggest that whether secondary predicates comprise PRO subjects can be assessed by subject honorification.⁹ If secondary predicates to which a subject-

⁹ Another well-known subject diagnostic is reflexivization. Nevertheless, reflexivization is not usable for checking the presence or absence of PRO inside secondary predicates because their invisible subject lies in the domain where the binding conditions do not apply.

- (i) Titioya_i-wa kodomo_j-o zibun_{i/*j}-no konomi-no kakko-de doobutuen-ni ture-te
 father-Top child-Acc self-Gen favorite-Gen appearance-Cop zoo-to take-Ger
 it-ta.
 go-Past
 ‘The father took his child to the zoo in his own favorite clothes.’

In (i), the subject is the antecedent of the reflexive *zibun* regardless of whether the depictive is interpreted as describing the state pertaining to the subject or the object. As discussed in section 3, the subject of a copular clause lies outside the domain where pronominal binding applies. This holds true of reflexive binding, as shown in (ii).

honorific marker is attached include PRO subjects, subject honorification is anchored to PRO. Since PRO may be controlled by either the subject or the object of the primary predicate, the target of subject honorification could be the object if object control is involved. On the other hand, if secondary predicates do not include a PRO subject, an object cannot be a possible target for subject honorification. This suggests that whether secondary predicates include an invisible subject PRO can be determined by looking at whether objects can be targeted for subject honorification when object-oriented depictives and resultatives carry a subject-honorific marker.

N-based depictives readily allow the target of subject honorification to be changed to an object. (51a) shows that the object *Sato-sensei* can be a target for subject honorification when the secondary predicate has a subject-honorific marker, and (51b) shows that when the N-based depictive is used as a primary predicate, its subject is targeted for subject honorification.

- (51) a. Kyuukyusya-ga Sato-sensei-o isikihumei-no go-zyootai-de
ambulance-Nom Sato-teacher-Acc unconsciousness-Gen Hon-condition-Cop
hakon-de i-ru.
carry-Ger be-Pres

‘The ambulance is carrying Professor Sato unconscious.’

- b. Sato-sensei-wa ima isikihumei-no go-zyootai-de ar-u.
Sato-teacher-Top now unconsciousness-Gen Hon-condition-Cop be-Pres

‘Professor Sato is unconscious now.’

In (51a), the PRO subject is controlled by the matrix object, and hence, the object is interpreted as an individual to which deference is directed. This fact suggests that subject honorification targeting the object is allowed if the real syntactic target for subject honorification is PRO appearing inside the N-based depictive predicate.

NA-based depictives bear resemblance to N-based depictives, in that both types of depictives occur with the copula. Nevertheless, NA-based depictives appear in the *ni*-form rather than in the *de*-form, as shown in (52a).

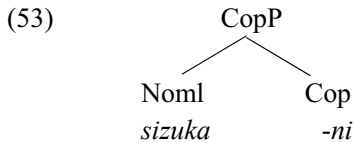
-
- (ii) *Ken_i-wa zibun_i-no konomi-no kakko-de ar-u.
Ken-Top self-Gen favorite-Gen appearance-Cop be-Pres

‘Ken is in his own favorite clothes.’

(ii) shows that the subject of a copular clause cannot be bound by the reflexive *zibun* embedded in the nominal predicate, which indicates that the reflexive *zibun* cannot be bound by PRO appearing as the invisible subject of the depictive. Accordingly, the reflexive *zibun* can take only the subject of the clause as its antecedent even when secondary predicates carry a subject-honorific marker.

- (52) a. Ano hito-wa nonki-ni gohan-o tabe-te i-ta.
 that man-Top optimistic-Cop rice-Acc eat-Ger be-Past
 ‘That man was having a meal optimistically.’
- b. *Ano hito-wa nonki-ni {ar-u/i-ru}.
 that man-Top optimistic-Cop {be-Pres/be-Pres}
 ‘That man is optimistic.’
- c. Ano hito-wa tikagoro nonki-ni {nat-ta/mie-ta}.
 that man-Nom recently optimistic-Cop {become-Past/look-Past}
 ‘That man {became/looked} optimistic recently.’

The data in (52b) and (52c) show that the *ni*-form of nominal adjectives is licensed by verbs other than *aru/iru*. In light of this fact, I suggest that when nominal adjectives are used as depictives, no vP is projected over them, so that neither invisible verb nor PRO subject is included in the depictives, as illustrated in (53).



If NA-based depictives lack the vP projection which accommodates PRO, it can be stated that they function as adverbial modifiers syntactically while their inflectional forms are licensed by the primary predicates.

The present analysis makes the prediction that subject honorification cannot target an object even if an object-oriented depictive carries a subject-honorific marker. This prediction is indeed borne out, as seen in (54).

- (54) Sono gakusei-wa Saito-sensei-o (*go-)buzi-ni eki-made okuritodoke-ta.
 that student-Top Saito-teacher-Acc Hon-safe-Cop station-to send-Past
 ‘That student sent Professor Saito to the station safely.’

In (54), *buzi-ni* ‘safely’ can be interpreted as describing the situation pertaining to the object *Saito-sensei* if no subject-honorific marker appears on it. When *buzi-ni* bears the subject-honorific marker *go-*, the sentence in (54) is unacceptable.

On the other hand, *Saito-sensei* can be the target of subject honorification when it is realized as the subject of the clause, even if the subject-honorific marker *go-* is attached to the NA-based depictive.

- (55) a. Saito-sensei-wa hibi-o (go-)buzi-ni kurasi-te irassayar-u.
 Saito-teacher-Top every.day-Acc Hon-safe-Cop live-Ger be.Hon-Pres
 ‘Professor Saito is leading a safe everyday life.’
- b. Saito-sensei-wa sudeni (go-)buzi-ni tui-te irassayar-u.
 Saito-teacher-Top already Hon-safe-Cop arrive-Ger be.Hon-Pres
 ‘Professor Saito has already arrived safely.’

The two sentences in (55) are fine with the subject-honorific marker on the secondary predicate, because the subject is a direct target of subject honorification.¹⁰ Given this fact, it is fair to state that (54) is found unacceptable because deference cannot be directed to the object when the nominal adjective depictive bears a subject-honorific marker. The data regarding *buzi-ni* ‘safely’ in (54) and (55) illustrate that an invisible subject pronoun PRO, which is a potential target for subject honorification, is lacking in nominal adjectives possessing the *de*-adverbial form even if they have depictive interpretation.

The same analysis that applies to nominal adjectives can be extended to adjectives which have depictive interpretation. The examples in (56) show that the adverbial form of adjectives used as depictives is not licensed by the verb *aru*, which contributes to licensing the adverbial *de*-form of nominal adjectives.¹¹

- (56) a. *Ano hito-wa zuuzuusiku {ar-u/i-ru}.
 that man-Top impudent {be-Pres/be-Pres}
 ‘That man is impudent.’
- b. Ano hito-wa tikagoro zuuzuusiku {nat-ta/mie-ta}.
 that man-Nom recently impudent {become-Past/look-Past}
 ‘That man {became/looked} impudent recently.’

Since the adverbial form of the adjective is licensed by verbs other than *aru/iru*, it is reasonable to state that vP, which mediates the relation between the predicate and the subject, is *not* projected above the adjective, i.e. the adjective has the structure [_{AP} *zoozuusiku*] rather than [_{VP}

¹⁰ When subject honorification is involved, it is necessary for the main predicate to have a subject honorific form in addition to the nominal adjective.

¹¹ When the adjective has an adverbial particle like *mo*, the verb *aru* can appear, as in (i).

- (i) Ano hito-wa zuuzuusiku-mo ar-u.
 that man-Top impudent-also be-Pres
 ‘That man is also impudent.’

Note that the verb *aru* in (i) is not a copular verb but a supportive verb inserted for the purpose of morphological support.

[_{AP} *zoozusiku*]].¹² This being the case, it can be postulated that adjectives appearing in the adverbial form do not include PRO even if they have depictive interpretation.

The present analysis leads to the prediction that direct objects cannot be targeted for subject honorification even if object-oriented depictive adjectives carry a subject-honorific marker. This prediction is in fact borne out, as seen in (57).

- (57) a. *Ano hito-wa Saito-sensei-o (*go-)insyoobukaku syookai-si-te i-ta.*
 that man-Top Saito-teacher-Acc Hon-impressive introduction-do-Ger be-Past
 ‘That man introduced Professor Saito impressively.’
- b. *Ano hito-wa Saito-sensei-o (*go-)kyoomibukaku mi-te i-ta.*
 that man-Top Saito-teacher-Acc Hon-interesting look-Ger be-Past
 ‘That man was looking at Professor Saito with interest.’

The adjectives *insyoobukaku* and *kyoomibukaku* in (57) are interpreted to describe the state pertaining to the object if no subject-honorific marker appears on them. If the subject-honorific marker *go-* is added to the adjectives, the sentences are rendered unacceptable.

On the other hand, (58) shows that subject honorification targets the subject when the adjectives are used as primary predicates.¹³

- (58) *Sono toki Saito-sensei-wa {go-insyoobukaka-ta/go-kyoomibukakat-ta}.*
 that time Saito-teacher-Top {Hon-impressive-Past/Hon-impressive-Past}
 ‘Professor Saito was {impressive/interesting} at that time.’

Furthermore, the adjectives *insyoobukai* and *kyoomibukai*, which can have depictive interpretation, can carry a subject-honorific marker if subject honorification targets subjects, as shown in (59).

¹² When adjectives are used as primary predicates, the subject is allowed to occur. I assume that the subject is merged with the aP projection, as in [_{AP} SUBJ [_{AP} Adj]].

¹³ The adjectives *kyoomibukai* and *insyoobukai* can be used both intransitively and transitively. When they are intransitive, the nominative argument is the subject-honorific target, but on its transitive use, the dative argument rather than the nominative argument counts as the target for subject honorification.

- (i) a. *Yamada-sensei-wa taihen go-kyoomibukakat-ta.*
 Yamada-teacher-Top very Hon-interesting-Past
 ‘Professor Yamada was very interesting.’
- b. *Yamada-sensei-ni-wa sore-ga go-kyoomibukaka-ta.*
 Yamada-teacher-Dat-Top it-Nom Hon-interesting-Past
 ‘Professor Yamada was interested in it.’

- (59) a. Saito-sensei-ga go-insyoobukaku syookai-s-are-te irassyat-ta.
 Saito-teacher-Nom Hon-impressive introduction-do-Pass-Ger be.Hon-Past
 ‘Professor Saito was introduced impressively.’
- b. Saito-sensei-ga minna-kara go-kyoomibukaku mir-are-te irassyat-ta.
 Saito-teacher-Nom all-from Hon-impressive look-Pass-Ger be.Hon-Past
 ‘Professor Saito was looked at impressively by everyone.’

The data suggest that adjectives describing the state of affairs pertaining to objects cannot change their honorific target. In light of these data given above, it can be stated that in a sentence like (57a), the object to which *insyoobukaku* modifies cannot be a potential target for subject honorification because the adjective does not include a PRO subject.

Note further that the adjective *insyoobukaku* can provide a description of a PP in a sentence like (60).

- (60) Gakusei-wa Ito-sensei-nituite insyoobukaku katat-ta.
 student-Top Ito-teacher-about impressive talk-Past
 ‘The student talked about Professor Ito impressively.’

(60) suggests that *insyoobukai* does not have strict subject orientation. When the subject-honorific marker *go-* is added to the adjective, it fails to target the object argument, and thus (61) is not acceptable.

- (61) *Gakusei-wa Ito-sensei-nituite go-insyoobukaku katat-ta.
 student-Top Ito-teacher-about Hon-impressive talk-Past
 ‘The student talked about Professor Ito impressively.’

The data in (60) and (61) also suggest that the adjective depictive *insyoobukai* does not have a predicate structure containing an invisible PRO subject, but functions as an adverbial modifier with no PRO subject inside.

Resultatives differ from depictives in this regard. Resultatives have morphological forms licensed by the verb *naru* ‘become’ regardless of whether they are formed on nouns, adjectives, or nominal adjectives. (62a) represents a case which involves N-based and NA-based resultatives.

- (62) a. Gakusei-ga tukue-o {mapputatu-ni/kirei-ni} wat-ta.
 student-Nom desk-Acc {half-Cop/beautiful-Cop} break-Past
 ‘The student broke the desk {in half/beautifully}.’

- b. Tukue-wa {mapputatu-ni/kirei-ni} nat-ta.
 desk-Top {half-Cop/beautiful-Cop} become-Past
 ‘The desk was made {in half/beautiful}.’
- c. Tukue-wa {mapputatu-de/kirei-de} ar-u.
 desk-Top {half-Cop/beautiful-Cop} be-Pres
 ‘The desk is {in half/beautiful}.’

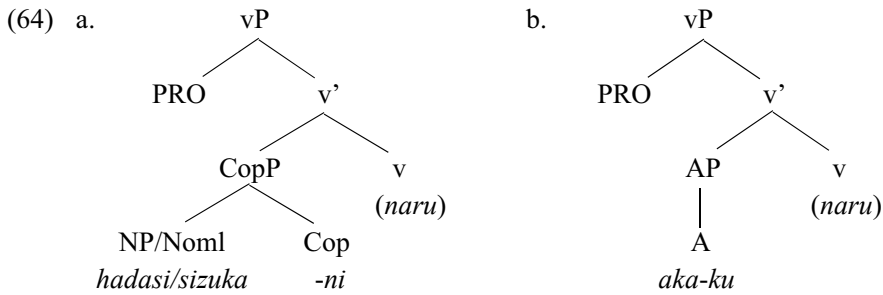
The N-based resultative *mapputatu* and the NA-based resultative *kirei* in (63a) both appear in the *ni*-form. A comparison of (62b) and (62c) shows that this inflectional form is licensed by *naru*, but not the verb *aru*. Nouns and nominal adjectives express stative meanings, which suggests that the resultative predicates acquire the result meanings by virtue of the invisible change-of-state verb *naru* ‘become’, which licenses the *ni*-form of the copula.

In the same vein, it can be hypothesized that adjectives used as resultatives have the predicate structure including the invisible change-of-state verb *naru*, since they appear in the adverbial form, as in (63a).

- (63) a. Gakusei-ga kabe-o akaku nut-ta.
 student-Nom wall-Acc red paint-Past
 ‘The student paint the wall red.’
- b. Kabe-wa akaku {nat-ta/*at-ta}.
 desku-Top red {become-Past/be-Past}
 ‘The wall {became/was} red.’

As shown in (63b), the adverbial form of A-based resultatives is licensed by the verb *naru*, but not *aru*, so it can be postulated that the resultative predicates express the result meaning by virtue of the invisible change-of-state verb *naru* ‘become’.

The data discussed thus far suggest that all types of resultatives have the predicate structure where vP comprising the null verb *naru* is projected above them. If vP, which comprises an invisible change-of-state verb *naru*, is projected over the copula (for N-based and NA-based resultatives) and the adjective (for A-based resultatives), it is plausible to postulate that PRO appears in the specifier position of vP to serve as the subject of the resultative predicate, as illustrated in (64).



Under the present proposal, it is expected that resultatives with a subject-honorific marker will be able to have the deference directed to the objects of which they are predicated regardless of whether they are formed on nouns, adjectives, or nominal adjectives. This expectation is in fact fulfilled.

In the first place, when a resultative predicate carries a subject-honorific marker, an object to which it is anchored can be targeted for subject honorification regardless of the syntactic category of the resultative, as shown in (65a). (65b) shows that when resultatives are used as primary predicates, subject honorification targets their subjects.

- (65) a. Kare-wa Sato-sensei-o mitame-yori {(o-)wakaku/(go-)zyoohin-ni/
 he-Top Sato-teacher-Acc look-than Hon-young/Hon-decent-Cop/
 (o-)tosiyori-ni} egai-ta.
 Hon-old.person-Cop} draw-Past
 ‘He drew Professor Sato {younger/more decent/older} than she looks.’
- b. Sato-sensei-wa mitame-yori {o-waka-i/go-zyoohin-de ar-u/
 Sato-teacher-Top look-than {Hon-young-Pres/Hon-decent-Cop be-Pres/
 o-tosiyori-de ar-u}.
 Hon-old.person-Cop be-Pres}
 ‘Professor Sato is {younger/more decent/older} than she looks.’

On the other hand, (66) shows that when the primary predicate bears subject-honorific marking, its object cannot be a target for subject honorification.

- (66) *Gakusei-wa Sato-sensei-o mitame-yori {wakaku/zyoohin-ni/tosiyori-ni}
 student-Top Sato-teacher-Acc appearance-than {young/decent-Cop/old.person-Cop}
 o-egaki-ni-nat-ta.
 Hon-draw-Cop-become-Past
 ‘The student drew Professor Sato {younger/more decent/older} than she looks.’

Taken together, the facts suggest that resultatives can have subject honorification target the objects of the main predicates with which they are associated because of their predicate structures that include PRO subjects inside.

In a nutshell, I have argued in this section that the morphological form of N-based depictives is licensed by the invisible verb *aru* ‘be’. A-based and NA-based depictives have their morphological forms licensed by main predicates. It has also been argued that the inflectional forms of resultatives are licensed by the invisible verb *naru* ‘become’ irrespective of whether they are constructed on nouns, adjectives, or nominal adjectives.

(67)		<u>N-based</u>	<u>A-based</u>	<u>NA-based</u>
	depictives	- <i>de</i> (<i>aru</i>)	- <i>ku</i> MV	- <i>ni</i> MV
	resultatives	- <i>ni</i> (<i>naru</i>)	- <i>ku</i> (<i>naru</i>)	- <i>ni</i> (<i>naru</i>)

Structurally, N-based depictives include vP comprising a PRO subject and the invisible verb corresponding to *aru* ‘be’, but A-based and NA-based depictives are adverbial adjuncts that do not have vP projections over them and hence do not include PRO subjects. Resultatives, which provide descriptions of resultant states for objects, have predicate structures where vP comprises a PRO subject and the invisible verb corresponding to *naru* ‘become’, regardless of whether they are N-based, A-based, or NA-based.

5. Conclusion

In this paper, on the basis of pseudo-cleft constructions involving vP-focusing, it has been shown that secondary predicates appear in distinct constituent positions of vP and VP according to whether they have subject or object orientation. Subject-oriented depictives (i.e. N-based depictives and adjective/nominal-adjective modifiers possessing depictive interpretation) furnish depictive descriptions to subjects while appearing in vP. Object-oriented depictives provide depictive descriptions for objects, appearing in VP. In light of the data regarding subject honorification and the morphological forms of depictives and resultatives, it has been argued that the internal structures of depictives and resultatives vary depending on whether they are constructed on nouns or (nominal) adjectives. N-based depictives have predicate structures comprising vP, where a PRO subject and an invisible copular predicate *aru* ‘be’ are included. By contrast, adjectives and nominal adjectives used as depictives are adverbial modifiers which do not include PRO subjects. They can modify arguments other than subjects and objects, which confirms that their depictive interpretation is not derived syntactically, but is one of various semantic interpretations available for adverbial modifiers. On the other hand, I have suggested that resultatives possess predicate structures with vP, consisting of a PRO subject and an invisible change-of-state verb *naru* ‘become’, irrespective of whether they are constructed on nouns, adjectives, or nominal adjectives.

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