

8-6-2015

Pleonastic Merger

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Pleonastic Merger

Tsuyoshi Sawada, Ph.D.

University of Connecticut, 2015

The thesis examines the structure of Japanese between tense and the main predicate, focusing on the order of the heads of the relevant phrases, appearing at the right edge of the sentence. This part of structure is superficially rather chaotic, and appears to raise serious problems for the assumption that there is a fixed universal phrase structure hierarchy, i.e. the phrases between tense and the predicate in Japanese appear to have a more complicated distribution than what can be readily explained merely by adopting fixed, universal selectional properties for the heads in question. This thesis shows that once certain factors are taken into consideration, in particular the pleonastic nature of certain elements, it is possible to put order into the superficially messy picture. This leads to a re-examination of the theoretical status of pleonastics, in particular, how they are merged into the structure. Several proposals to this effect are made, the gist of which is that pleonastics are not present in the numeration; they are inserted into the structure as last resort when the derivation can no longer proceed with lexical insertion from the numeration. The dissertation also proposes an approach to phases which combines some aspects of the existing approaches but still significantly departs from them. The gist of the approach to phases argued for is that a θ -role assigner starts a phasal domain, with the highest projection in the domain functioning as the phase. The domain is closed when the next θ -role assigner is merged, with the sister of the θ -role assigner functioning as a phase.

Regarding the empirical domain of investigation, the thesis examines the distribution of a number of heads in the right periphery of the Japanese sentence, including (but not limited to) gerundive *te*, *i* that is attached to adjectival roots, negative *ana*, past tense *ta*, and non-past tense *ru* (focusing on the cases where a sentence appears to have two occurrences of tense regarding the last two). One of the main ingredients of the proposed analysis is that certain elements that have not previously received such a treatment, like *te* and *ru*, are pleonastics.

Pleonastic Merger

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A Dissertation

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

at the

University of Connecticut

2015

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2015

APPROVAL PAGE

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In memory of Sawada Kinya (1992.12.22–2010.4.21).

He always greeted me with love and encouraged me.

■ Acknowledgments

Before stepping into linguistics, I had wanted to become a physicist. Physics is supposed to describe the rules of everything in the universe; that is what people say, and I had believed so. However, becoming a physicist turned out not to be that straightforward, and after I entered university, I gradually became detached from physics. At the same time, I started to feel that there is something missing in physics. Physics only describes a half of the universe: the material phenomena. What, then, is the academic field that describes the other half of the universe: the mental phenomena, I wondered. After a while, I came to the conclusion that linguistics is the discipline that describes the mental phenomena most generally and most precisely among the disciplines available as of today. I was probably affected by the first book that I had borrowed from the main library of the university, which was the Japanese translation of Ferdinand de Saussure's *Cours de linguistique générale*. I am sure I was also influenced by the fact that I had become a constant reader of the monthly journal *Gengo* 'language' by then. Thus, during my undergraduate years, I became inclined towards linguistics, and took courses taught by teachers such as Yamanashi Masaaki, Togo Yuji, to name a few. Among the courses that I took at the time, those taught by Fujita Koji and Suiko Masanori were the most impressive to me. They took good care of me, even though I was in the agriculture department, hence was in a way a stranger to them. It was confusing but fun to do chemical experiments in the northern part of the campus in the morning, and then rush into these linguistics classes in the southern part of the campus in the afternoon. By the time I was to graduate, it was more natural for me to go to graduate school in linguistics than to make another try at physics.

The help from my family Sawada Masako, Sawada Tozaburo, Sawada Akie, and Sawada Kinya have been crucial throughout my career in linguistics as well as in my whole academic life. They waited patiently for a long time, and are the ones who are the happiest about my completion of Ph.D.

At graduate school, I was taught by professors Nakajima Heizo and Takami Ken'ichi, whom I had known through articles in *Gengo* and some introductory books

in linguistics. Hasegawa Hiroshi constantly clarified the details and introduced us to new works of Noam Chomsky. It was a pleasure to work with my colleagues Matsuyama Tetsuya, Saito Chika, and Utsuboe Shizuka. Maekawa Kikuo and Kubozono Haruo's classes on phonetics and phonology, respectively, were good opportunities for me to widen my understanding of linguistics. While I was still in Japan, I had opportunities to attend Christopher Tancredi's semantics class and Namiki Takayasu's intensive lectures on word formation. Studying with Miyashita Harumasa and Kuno Masakazu was also helpful.

At the University of Connecticut, the first person I saw in the department when I arrived at the Arjona building was Niinuma Fumikazu. Later, he would be teaching me linguistics as well as tennis. Then I met Judy Marcus, whose beautiful script handwriting I was amazed at. She had been very helpful. After she retired, Catalina Ritton came to fill her position. Catalina was friendly, and constantly cared about us. I spent a lot of time talking with her. She did a lot of complicated paperwork for me. Without her, I would not have been able to come this far. She occasionally asked me and other students what we needed to make the department a better place. Despite having so many jobs to do, she did not forget to care about each one of us. For some events, she would try new decoration, furniture settings, food, etc. to surprise us. Tamara Cohen, the present department assistant, helped me a great deal in preparation for the defense and the dissertation. I would also like to thank people at the international office, counseling and mental health services, and graduate school at UConn, who helped me many times.

Željko Bošković has always been powerful and encouraging. Whenever I had a difficulty, having a quick meeting with him would result in encouragement. It was amazing to see that, whenever there appears to be a difficulty with something, either with someone's work we are discussing, or something in daily life, he would quickly come up with a working solution. He is so quick in thinking, talking, as well as driving. Yet, he does not miss anything. He is perfect. He constantly helped me at all stages towards the completion of my Ph.D. I could not have come this far without his help. Jonathan Bobaljik has been so sharp in academics. He pin-points a logical flaw so precisely, and his presentation was always clear. His lectures were interesting, stimulating me to come up with lots of questions, but there were too many of them for a class so that I often ended up not being able to ask all of them. At the same time, he is always considerate about other people. It was during writing of my second general paper under his guidance that I started to think about the ideas that have developed into this dissertation. Whenever I talked with Susanne Wurmbrand about my work in her class, she always had something to teach me about Japanese regarding that topic. And in many occasions, it was surprising to see

that she already had a work related to whatever topic I was trying to work on. Saito Mamoru greeted me not only at UConn but also at Nanzan University, and I was lucky to have many meetings with him for a long time (most UConn students can only meet him for about a week per year). He spent a great deal of time talking with me, and his advice was crucial in deciding on the direction of this dissertation. And besides the dissertation, he has been constantly encouraging me. Andrea Calabrese has also been encouraging me, and he kept caring about my work. When I read his works, I always find the ideas neat, and like them. His class co-taught with Jonathan invited me into morphology, which has influenced me a lot. I was happy when I came back to Storrs and saw him again at my dissertation defense. Harry van der Hulst gave me useful comments when I was writing my second generalizations. I was also happy to see him at the defense. While I was in Nanzan, I had opportunity to discuss my work with Peter Sells, who was very helpful.

Diane Lillo-Martin and William Snyder helped me at various occasions at UConn. Sometimes, we had visiting scholars at UConn, like Yatsushiro Kazuko, who wanted to do a reading group and teach us. I was happy I could talk with her. I also learned from other teachers at UConn like Barbara Citko, Sigrid Beck, Jon Gajewski, Takahashi Daiko, and Jairo Nunes. Murasugi Keiko helped me a great deal at Nanzan University. I would also like to thank Haraguchi Tomoko and the linguistics teachers and students that I met while I was visiting Nanzan University.

Some of my UConn colleagues took continuous care of me, almost like my mothers. As one of them would graduate or leave the campus, another one would appear, so that they kept on taking care of me. It started with Oda Toshiko, to Simona Herdan, to Nina Radkevich, to Winnie Cheung, to Lyn Tieu. If they are my mothers, then my fathers would be Zoran Pavlović and Johnny Cheng Hsu-Te.

I would usually hang around and talk with my friends An Duk-Ho, Ana Bastos-Gee, Zhanna Glushan, Taguchi Shigeki, Cynthia L. Zocca DeRoma, Natalia Fitzgibbons, Chris Hsieh I-Ta, Kang Jungmin, Xu Ting, Corina Goodwin, Eom Soyoung, Nomura Masashi, Takahashi Masahiko, and Chung Inkie.

At various occasions, I was helped by Oh Sei-Rang, Park Bum-Sik, Mariana Lambova, Jeff Bernath, Alexandre Vaxman, Iseda Takako, Shen Zheng, You Yong Suk, Nilufer Sener, Serkan Sener, Otaki Koichi, and Sakamoto Yuta. Mona Anderson and David Michaels offered rides for Shibata Yoshiyuki and me to MIT to attend Noam Chomsky's lectures.

Other people that I enjoyed talking to at UConn were Eva G. Bar-Shalom, Sarah Felber, Sandra Wood, Lara Reglero, Karen O'Brien, Tanaka Takuro, Tanaka Saori, Yanin Sawana, Chommanad Int, Carlos Buesa, 273UNW, Jelena Runić, Krzysztof Migdalski, Miloje Despić, Vanessa Petroj, Helen Koulidobrova, Mary Beriša, Neda Todrović, Beata Moskal, Julio Villa-Garcia, Aida Talić, Hisagi Miwako, Kadir Gökgöz, and Emma Nguyen.

I also had a few opportunities to talk with or received help from Gunji Takao, Abe Jun, Takehisa Tomokazu, Mike Putnum, Jan-Wouter Zwart, Barbara Partee, Kitao Yasuyuki, Munakata Takashi, Howard Lasnik, Blake Rogers, Kim Yoon Jung, Takamine Kaori, Fujii Tomohiro, and Tanaka Hidekazu.

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Chapter 1

Introduction:

Selectional Requirement and Clause Periphery

Certain grammatical expressions are assumed to be phases, where language is standardly assumed to have a small set of items that can head a phase. The phrase projected by a phase head dominates a sequence of projections headed by functional elements such that one dominates another. Each of these items has its own selectional requirements such that its complement must be among the small set of elements it specifies, whose head, in turn, has its own selectional requirements. We can follow this chain of selection downwards to a point where a lexical category is selected as the most embedded complement. In this respect, the selectional properties

of functional heads play a central role in narrowing down the possible permutations of syntactic elements.

The aim of this dissertation is to show that there is another restriction on functional heads, and that this restriction plays a central role during lexical insertion/merger. Because of selection, syntactic heads cannot always be put together directly satisfying their semantic needs. In some cases, there may be semantic need for syntactic head *A* to c-command another syntactic head *B*, which it cannot select. In such cases, language utilizes a few types of lexical items to bridge the syntactic heads. These bridge items have no semantic contribution (i.e., they are pleonastics), but are often inserted in order to realize certain hierarchies of syntactic heads while satisfying the selectional requirements of the heads. Since the bridges have no semantic contribution, intuitively, it is imaginable that they are used only when there is no other way to construct the structure with the required semantics. I argue for the existence of such a restriction.

It is standardly assumed that the choice of a syntactic head to be inserted at a certain step in the syntactic derivation is restricted by the elements present in the numeration; i.e. the derivation in this respect is assumed not to have access to the whole lexicon (see Chomsky 1995). I argue that pleonastic elements, i.e. elements without semantic content, are different in this respect. They are not present in the numeration. They are introduced into the structure only as last resort, when the derivation can no longer proceed with lexical insertion from the numeration. This approach to

the lexical insertion of pleonastics will also lead me to propose a new approach to phases in general. While the approach to phases that will be argued for in this thesis to some extent combines the phasal systems proposed in Bošković (2013, 2014a) and Chomsky (2000, 2001), it also significantly departs from both of them. The approach to phases argued for here will incorporate Chomsky's (2000, 2001) notion that phase can be dependent on θ -role assignment and Bošković's (2013, 2014a) proposal that the highest phrase in the extended domain of a lexical head is a phase, still significantly modifying both of these. The approach to phases argued for here will rest on the following, which will be deduced from independent assumptions.

(1)

- a. A phasal head is a θ -marking element.
- b. A phase is the highest phrase in the extended domain of a phasal head. The phasal domain is closed when the next phasal head is merged.

The gist of the approach is that a θ -role assigner starts a phasal domain, with the highest projection in the domain functioning as the phase. The domain is closed when the next θ -role assigner is merged, with the sister of the θ -role assigner functioning as a phase.

Empirically, the thesis will focus on the sentence structure of Japanese, in particular, on the structure between tense and the main predicate of the sentence, focusing on the order of the heads of the relevant phrases, which appear at the right edge of the sentence. To set the stage for the investigation, in the next section I introduce some of the major issues in Japanese inflectional morphology (i.e. the right edge of the Japanese sentence), examining them from the perspective of the main issues that this thesis is concerned with.

■ 1.1. Selectional Requirements and the Clausal Periphery

Within the Principle and Parameters theory, it is standardly assumed that (2) holds (see Pollock 1989, Rizzi 1997, Cinque 1999, among many others):

(2)

- a. Morphemes responsible for inflectional/functional features belong to particular functional categories.
- b. The arrangement of functional elements is determined by the selectional requirements of the functional heads involved.

Relevant to (2a), it has become standard since Pollock (1989) to assume specific syntactic elements to be responsible for certain semantics such as NegP for (negative) polarity. However, when we examine how, e.g., negative polarity and politeness are expressed in Japanese, it becomes immediately clear that there is no fixed syntactic element/category that is responsible for these meanings. Negative polarity is expressed either by adjective *ana* or inflectional ending *en*, and politeness is expressed either by the affix to a verb *mas* or nominal/clause selecting verb *des*. Which one of these items is used depends on the category of the predicate and the semantics of other non-predicate items together. (2a) then does not appear to fully hold for Japanese. Other cases are, however, more straightforward. Thus, past and non-past tenses are expressed uniquely by the morphemes *ta* and *ru*, respectively. In some

areas of Japanese syntax, things are straightforward; in others, they are not. Below, I will first discuss the cases that fit, then those that do not.

The selectional requirement from (2b) can be defined in terms of semantic properties and/or syntactic categories (Grimshaw 1981, Pesetsky 1982, Bošković 1997). When the restrictions are tight, we get a fixed hierarchy such as those proposed by Rizzi (1997), Cinque (1999), among others. For example, Rizzi (1997) argues for the structure in (3), where TopP can be iterated.¹ It is often assumed that such tight selectional restrictions hold universally.

(3) [ForceP [TopP [FocP [TopP [FinP [TP . . .]]]]]]]

In the next section, I will briefly examine the validity of (2a) and (2b) for Japanese.² I observe that neither appears to be fully correct. They are correct above the tense phrase. However, we will see that the arrangement of functional elements at the clause periphery of Japanese (i.e. at the end of the Japanese sentence) appears to be much more complicated than what can be explained in terms of selectional requirements once we consider the tense phrase and the phrases located below it.

¹Rizzi refers to TP as IP.

²The discussion will not be comprehensive. I will keep it at an informal level, without discussion of the rich literature on the phenomena considered below (noting only a few works), merely to illustrate the main issues that this thesis is concerned with.

■ 1.2. Universal Hierarchy and Japanese

Throughout this thesis, I assume that the linear order of affixes after a stem reflects the hierarchical order of the heads in the phrase structure, following Baker's (1985) mirror principle. For Japanese, an affix linearly preceding another entails that the affix is lower than (i.e., asymmetrically c-commanded by) the other affix.

Several attempts (such as Hiraiwa and Ishihara 2002, Saito 2007, Endo 2010, Saito and Haraguchi 2012) have been made to adopt Rizzi's hierarchy or something similar to it for Japanese. Thus, Hiraiwa and Ishihara (2002) assume that Rizzi's hierarchy holds for Japanese quite transparently. Their arguments are based on the existence of the *no da* focus construction and the cleft construction in Japanese. The *no da* focus construction is exemplified in (4).

- (4) *tanaka ga kono ringo o tabe-ta no da*
 Tanaka NOM this apple ACC eat-PST NO DA

'It is the case that Tanaka ate these apples.'

Hiraiwa and Ishihara propose that this construction realizes the functional heads *Fin* and *Foc* as in (5).

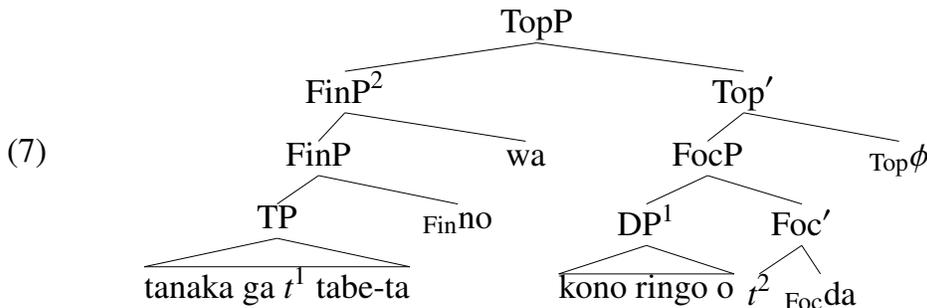
- (5) [_{TopP} [_{FocP} [_{FinP} [_{TP} ... T_{ta}] _{Fin}no] _{Foc}da] _{Top}φ]

Consider also an example of the cleft construction in (6).

- (6) tanaka ga tabe-ta no wa kono ringo o da
Tanaka NOM *eat-PST* NO TOP *this* apple ACC DA

‘It is these apples that Tanaka ate.’

Hiraiwa and Ishihara argue that this construction is derived by starting with a structure similar to (5) (difference being the existence of the topic marker on FinP),³ moving the focus *kono ringo o* to the Specifier of FocP, and then moving the remnant FinP (with the topic marker) to the Specifier of TopP as in (7).



While Hiraiwa and Ishihara’s claim appears to have some rationale, there is difficulty in maintaining the claim that the *da* in question is the focus head. What they claim to be the Foc head *da* is homophonous to the non-past form of the copula *da*, and other forms of the copula have the same distribution as the *da* in focus and cleft constructions. The form *da* is merely one among the different forms of the copula

³Hiraiwa and Ishihara do not discuss how the topic marker is inserted and whether it heads a projection. Here, it is assumed that it adjoins to a phrase. This does not affect the discussion.

sharing a distribution. Thus, the copula *da* has the past tense form *datta*, and the *da* in the *no da* focus construction and the cleft construction can be replaced with the past tense form.

(8)

- a. tanaka ga kono ringo o tabe-ta no datta
Tanaka NOM *this* *apple* ACC *eat-PST* NO DA.PAST

‘It was the case that Tanaka ate these apples.’

- b. tanaka ga tabe-ta no wa kono ringo o datta
Tanaka NOM *eat-PST* NO TOP *this* *apple* ACC DA.PAST

‘It was these apples that Tanaka ate.’

Furthermore, the copula *da* is contracted from *de aru* (cf. Urushibara 1993), where *de* is standardly claimed to be a form of the copula, and *aru* is a pleonastic verb. The non contracted form *de aru* using the non-past tense as well as the one using the past tense of *aru* can appear with the constructions.

(9)

- a. tanaka ga kono ringo o tabe-ta no de ar-u
Tanaka NOM *this* *apple* ACC *eat-PST* NO COP AR-NPST

- b. tanaka ga tabe-ta no wa kono ringo o de ar-u
Tanaka NOM *eat-PST* NO TOP *this* *apple* ACC COP AR-NPST

(10)

- a. tanaka ga kono ringo o tabe-ta no de at-ta
Tanaka NOM *this* *apple* ACC *eat-PST* NO COP AR-PST
- b. tanaka ga tabe-ta no wa kono ringo o de at-ta
Tanaka NOM *eat-PST* NO TOP *this* *apple* ACC COP AR-PST

In order to account for (8–10) under Hiraiwa and Ishihara’s assumption, we would have to claim that a tense head can appear within the Foc head, but that contradicts the analysis.

Alternatively, assuming another tense phrase immediately above FocP as in (11) departs from the hierarchy that Rizzi posits (but see Koopman 2006 on split TP).

(11) [TopP [TP [FocP [FinP [TP . . .]]]]]

It may be tempting to save the analysis by assuming that the lower tense is the interpretable tense and the tense that appears on the Foc head is a manifestation of optional agreement with the lower tense. However, this cannot be maintained because the lower tense can appear in non-past tense and the Foc head can still optionally be past tense.

(12)

- a. tanaka ga kono ringo o tabe-ru no da/de ar-u
Tanaka NOM *this* *apple* ACC *eat-NPST* NO DA COP AR-NPST

‘It is the case that Tanaka will eat these apples.’

- b. tanaka ga tabe-ru no wa kono ringo o da/de ar-u
Tanaka NOM *eat-NPST* NO TOP *this* *apple* ACC DA COP AR-NPST

‘It is these apples that Tanaka will eat.’

(13)

- a. tanaka ga (kimatte) kono ringo o tabe-ru no datta /de at-ta
Tanaka NOM *as.always* *this* *apple* ACC *eat-NPST* NO DA.PAST COP AR-PST

‘It was the case that Tanaka would eat these apples.’

(habitual action of the past)

- b. (kimatte) tanaka ga tabe-ru no wa kono ringo o de at-ta
as.always *Tanaka* NOM *eat-NPST* NO TOP *this* *apple* ACC COP AR-PST

‘It was these apples that Tanaka would eat.’

(habitual action of the past)

This indicates that the lower tense and the tense in the Foc head are syntactically independent of one another.

Thus, it looks like that what Hiraiwa and Ishihara argue to be the Foc head is the copula after all, and the hierarchy they argue for turns out to be a clause embedded under another one.

■ 1.3. Category and Feature Dependency of the Hierarchy

I now turn to other semantic features such as tense and negation and their interaction with politeness.

Consider a verbal predicate with negation. Without politeness, negation is expressed by an adjective *ana*, and non-past and past tenses are expressed as affixes on it.

(14)

- a. *tabe-na-i*
 eat-NEG-NPST

 ‘does not eat’
- b. *tabe-na-kat-ta*
 eat-NEG-KAT-PST

 ‘did not eat’

In polite expressions, negation is expressed as an affix *en* that attaches to a morpheme that expresses politeness. Non-past does not need additional structure, but only the past tense requires another morpheme that expresses politeness, to which it attaches.

(15)

- a. *tabe-mas-en*
 eat-POL-NEG
- ‘does not eat’ (polite)
- b. *tabe-mas-en desi-ta*
 eat-POL-NEG POL-PST
- ‘did not eat’ (polite)

That does not mean that the negation *en* and *ana* are chosen solely depending on whether the expression is polite. When the predicate is an adjective, the negation can indeed be expressed by *en* as in (16a, b), but besides that, *ana* can also be used as in (16c, d)⁴.

(16)

- a. *samu-ku ari-mas-en*
 cold-KU AR-POL-NEG
- ‘is not cold’ (polite)
- b. *samu-ku ari-mas-en desi-ta*
 cold-KU AR-POL-NEG POL-PST
- ‘was not cold’ (polite)
- c. *samu-ku na-i des-u*
 cold-KU NEG-NPST POL-NPST

⁴These are prescriptively considered not the best way to express politeness, but nevertheless, used.

‘is not cold’ (polite)

- d. samu-ku na-kat-ta des-u
cold-KU NEG-KU.AR-PST POL-NPST

‘was not cold’ (polite)

Thus we observe that polarity is expressed by an adjective or by an inflectional ending, depending on the category of the predicate and the politeness of the expression. Structure of the clause periphery of Japanese thus seems to be more complicated than what can be easily explained in terms of a universal fixed hierarchy among the functional elements (and (2)).

■ 1.4. Universal Hierarchy for Higher Elements

However, this does not necessarily mean that Japanese lacks any fixed hierarchy at the clause boundary. Notice that the elements involved in the discussion so far are all located within the tense phrase or below it. It thus appears that an account that applies Rizzi-style universal hierarchy to Japanese clause periphery is problematic as long as it deals with elements located at the tense phrase or lower positions.⁵ It seems that we have to consider two types of elements separately for the Japanese clause periphery: elements that inflect for tense and those that do not.

⁵By clause periphery I mean the edge of the clause that contains the predicate with various affixes.

In fact, a similar distinction within modal elements has been proposed by Nitta (1991), Masuoka (1997), and Nitta and Masuoka (1998) on different grounds. Nitta (1991) proposes three conditions for genuine modals as opposed to quasi-modals in Japanese.

- (17) A genuine modal:
- a. Expresses the speakers psychological attitude towards the utterance,
 - b. Does not inflect for polarity, and
 - c. Does not inflect for tense.

The criterion (17a) is subjective and is not without exceptions, so we shall dismiss it below. Regarding the criterion (17b), Japanese negation is normally expressed by an adjectival affix *ana*, which inflects for tense, and should be considered together with quasi-modals. Quasi-modals appear lower in the structure than genuine modals, so genuine modals do not inflect for polarity; (17b) automatically follows once we acknowledge that the negation *ana* is included among quasi-modals. In other words, solely the criterion (17c) is important.

Ueda (2008) notes that Nitta's genuine modals cannot cooccur with each other.

- (18) * tanaka wa daigaku e iku daroo nasai yoo
Tanaka TOP *university to go seem IMP HORT*

‘Tanaka will go’ (with imperative, invitation, and direct surmise)

On the other hand, quasi-modals can appear multiply.

- (19) tanaka wa daigaku e ik-itagaru beki datta youda
Tanaka TOP university to do.on.the.way.going-want should PST seem

‘It seems that Tanaka should have wanted to go to a university.’

Upon further observation, Ueda splits Nitta’s genuine modals into two categories: Epistemic modals and Utterance modals. Utterance modals are distinguished from Epistemic modals by the following criteria.

- (20) An utterance modal:
- a. Must not cooccur with a second person subject, and
 - b. Must not appear in embedded clause.

Ueda argues for the hierarchical structure in (21) above the structure involving quasi-modals and/or TP.

- (21) [Utterance ModalP [Epistemic ModalP . . .]]

Saito (2007) extends the observation, assuming the projections FinP, TopP, ForceP, and ReportP.⁶ The elements *no*, ϕ , *ka*, *to* respectively belong to these categories. The assignment of Fin to *no* and Top to ϕ coincides with Hiraiwa and Ishihara’s analysis, but crucially, none of the assumed heads involves an element that can inflect for tense.

⁶See also Saito (2007) for ways of deducing the hierarchy in question.

(22) Elements beyond genuine modals (Saito 2007)

- a. Finite: *no*
- b. Topic: ϕ
- c. Force: *ka* (interrogative)
- d. Report: *to* (quotation, report)

Building on Endo (2010), Saito and Haraguchi (2012) further extend the hierarchy to include what are traditionally called sentence final particles, which they refer to as SpeechAct heads.

(23)

- a. Speech Act: *ne*
- b. Evaluative: *yo*
- c. Evidential: *na*
- d. Epistemic: *wa*

The hierarchical structure they argue for is summarized in (24).

(24) [SpeechActP [Evaluative [Evidential [Epistemic [ReportP [ForceP [TopP [FinP [U-ModalP
[E-ModalP . . .]]]]]]]]]]]

Still not included in this hierarchy are few other elements such as conditional *ra*, *ba*, but it is presumably not difficult to position them in the hierarchy.

The gist of the above discussion is that a Rizzi-style universal selection is narrow enough in Japanese to result in a fixed phrase structure hierarchy for elements higher than the tense phrase, but the phrases between the tense phrase and the predicate have a more complicated distribution than what can be readily explained merely by such a universal selection. Syntactic heads within this area should have selectional restrictions, but at least in the case of Japanese, the selection does not seem to be narrow enough to determine the hierarchy.

The goal of this thesis is to show that once certain factors are taken into consideration, in particular the pleonastic nature of certain elements in this part of the structure, it is possible to put order into the superficially rather messy picture. This will lead me to examine the theoretical status of pleonastics, in particular, how they are merged into the structure. Several proposals to this effect will be made in the thesis, which will also lead to a new approach to phases. While relying on some aspects of several previous approaches to phases, the theory argued for here is quite different from other approaches to phases and has consequences that go well beyond the empirical issues regarding Japanese syntax discussed in this work, exploring which I leave for future research.

The thesis is organized as follows. Chapter 2 examines a restriction on the sequence of functional verbal elements in Japanese, in particular, a restriction in connection with the Japanese morpheme *te*, establishing a new generalization regarding the distribution of *te*. Chapter 3 provides an account of the generalization (as well as an

account of another usage of *te* that is not discussed in chapter 2 and polite *mas*). The account is based on a new approach to insertion of pleonastic elements into the structure, which restricts the occurrence of pleonastics in the structure, as well as a new approach to phases. Chapter 4 discusses Japanese adjectives, focusing on the non-past ending *i* that is attached to adjectival roots and the negative *ana*, analyzing them from the perspective of the approach to pleonastics and phases argued for in chapter 3. Chapter 5 examines the distribution of past tense *ta* and non-past tense *ru*, focusing on the curious cases where a sentence appears to have two occurrences of tense phrase. The facts discussed in this section will also be analyzed from the perspective of the system developed in chapter 3. The crucial ingredient of the analyses proposed in chapters 3–5 will be the proposal that certain elements that have not received such a treatment in the previous literature, like gerundive *te* and non-past tense *ru*, are in fact pleonastics. Finally, chapter 6 examines some consequences of the approach to phases from chapter 3, including its consequences for the phasehood of CP (since chapters 2–5 focus on the structure up to the level of TP), also reconsidering the status of tense in Japanese and its implications for the phase theory.

Chapter 2

Japanese Gerundive *Te*

So far we have observed that, between the position of a tense and that of a predicate, Japanese does not have specific syntactic positions or categories that are dedicated to closed-class non-predicate meanings. These meanings include polarity, aspect, modality, voice. When such meanings are expressed below the TP position, they are expressed by general categories such as verbs, adjectives, or nouns (with the help of pleonastic elements).

In this chapter, I discuss the syntactic position of closed-class verbs used with a predicate verb, focusing on the fact that some of these verbs need the gerundive morpheme *te*. In section 2.3, I briefly look at the preceding studies by Sugioka (1984)

and Miyagawa (1989a), who discuss direct and indirect passive morphemes and some aspectual verbs. They observe that *te* cannot precede the direct passive *rare*, but can precede the indirect passive *rare*. In section 2.3, I extend the observation to the inventory of functional verbs. Sugioka's analysis based on selection is examined in section 2.4.1. Miyagawa's analysis is examined in section 2.4.2. Then, section 2.4.3 presents a new proposal to deal with the distribution of the gerundive morpheme *te*, which explains the full paradigm. Fully describing the idea is postponed until chapter 3.

■ 2.1. Stem-Selecting Verbs and Gerund-Selecting Verbs

Japanese has two classes of functional verbs that can be used after a predicate verb to add functional (non-predicational) meaning such as modality, polarity, politeness, voice (Kageyama 1989, Kageyama 1993, Miyagawa 1989b, among many others). Loosely following Miyagawa's terminology, I call the first class *stem-selecting verb*. These verbs select a verb phrase, which morphologically realizes as verb attached to a verb stem. An example is *kake* in (25).

- (25) *tabe-kake-ru*
 eat-be.about.to-NPST

 'be about to eat'

The other class will be called *gerund-selecting verb*. These verbs select a phrase headed by the element *te*. The morpheme *te* is known in the literature as a gerundive (Bloch 1946, Martin 1975). The function of *te* seems comparable to past participle, and it is realized attached to a verb stem. An example of a gerund-selecting verb is *i* in (26).

- (26) (ima) tabe-te i-ru
 now eat-TE PROG-NPST
 ‘be eating (now)’

These selectional restrictions are strict so that they do not allow the opposite selections.

- (27) * tabe-te kake-ru

- (28) * tabe-i-ru

In this section, I examine the distribution of *te* within a sequence of verbal elements. The distribution becomes non-trivial when both a stem-selecting verb and a gerund-selecting verb are attached to a single main verb. I show that under certain situations, the gerundive *te* (and a gerund-selecting verb following it) cannot precede a stem-selecting verb. Under other situations, *te* can precede or follow a stem-selecting verb.

When two stem-selecting verbs are to be used in combination, there is no general restriction against placing either of them after the other (although certain ordering between particular combinations of verbs may not be allowed for individual reasons. For example, see Shibatani 1973, 1978, Kageyama 1993, Nishigauchi 1993, Fukuda 2006 for conditions on the direct passive *rare*).

(29)

- a. kangaruu ga anakonda ni tabe-kake-rare-ta
kangaroo NOM anaconda by eat-be.about.to-PSV-PST
 ‘A kangaroo was about to be eaten by an anaconda.’
- b. kangaruu ga anakonda ni tabe-rare-kake-ta

Similarly, when we have a combination of two gerund-selecting verbs, there is no general syntactic restriction on their order.

(30)

- a. tanaka wa sibaraku sagasi-te i-te mi-ta
Tanaka TOP for.while search-TE PROG-TE try.and.see-PST
 ‘Tanaka was trying to look and see for it for a while.’
- b. tanaka wa sibaraku sagasi-te mi-te i-ta

However, when we have a combination of a stem-selecting verb and a gerund-selecting verb, the order in which they can appear is sometimes syntactically restricted, and sometimes not. The combination *kake* and the progressive *i* is an example of the former. The stem-selecting verb *kake* may precede the gerund-selecting verb *i*, but the order cannot be the other way around.

(31)

- a. tanaka ga tabe-kake-te i-ru
Tanaka NOM *eat-be.about.to-TE* PROG-NPST

‘Tanaka is about to eat.’

- b. * tanaka ga tabe-te i-kake-ru

The combination *kake* and *simaw* is an example of a case that is not restricted like this. Either order is possible here.

(32)

- a. tanaka ga tabe-kake-te sima-u
Tanaka NOM *eat-be.about.to-TE* *happen.unfortunately-NPST*

‘Unfortunately, Tanaka is about to eat.’

- b. tanaka ga tabe-te simai-kake-ru

■ 2.2. Excluding Lexical Compounds

Before examining the full range of combinations of a stem-selecting verb and a gerund-selecting verb regarding whether they are subject to the order restriction, we

need to make sure that the stem-selecting verbs that we are dealing with are syntactic affixes and are not involved in lexical compounding since, if the predicate verb and what appears to be a stem-selecting verb turn out to constitute a compound, then it is a trivial matter that a gerund-selecting verb cannot intervene between them. Among the Japanese verbs that adjoin to a verb, there are some that constitute an idiosyncratic compound as in (33a) and some whose semantics is compositional as in (33b).

(33)

a. tanaka ga hasiri-mawar-u

Tanaka NOM *run-revolve*-NPST

‘Tanaka runs around.’

b. tanaka ga hasiri-tuduke-ru

Tanaka NOM *run-continue*-NPST

‘Tanaka continues running.’

Since the traditional work by Sakakura (1952) and the generative work by Kageyama (1989), Kageyama (1993), there has been a consensus that the two types of compounding have different structures as in (34a, b), respectively.

(34)

a. [... [v hasir-mawar]]

b. [... hasir] tuduke]

Kageyama assumes that the former are created in the lexicon and the latter are handled in the syntax, referring to them as lexical and syntactic compounding, respectively. Lexically compounded verbs do not allow syntactic intervention of *te i* in the first place.

(35) * hasit-te i-mawaru-u

(36)

- a. tanaka ga hasiri-mawat-te i-ru
Tanaka NOM *run-revolve-TE* PROG-NPST

‘Tanaka is running around.’

- b. * tanaka ga hasit-te i-mawaru-u

When we see a pair like (36), the example (36b) may be ungrammatical because syntactic elements *te i* are intervening within a lexical compound. I will not be concerned with such cases here. In order to focus on syntactic compounding, we will examine criteria that distinguish the two structures in this section. From section 2.3, we will only deal with stem-selecting verbs that are not created in lexical compounding according to the criteria to be discussed.

2.2.1. *Soo-Substitution*

As described by Kageyama (1989, 1999) and Kageyama (1993), the predicate verb and its complement in a syntactic verb compound can be substituted by *soo* ‘so’ as in (37a), but this substitution is not possible with lexical compounds as in (37b).

(37)

- a. *soo si-tuduke-ru, soo si-tagar-u*
so do-continue-NPST so do-want-NPST
- b. **soo si-mawar-u, *soo si-kom-u, *soo-si-agar-u*
so do-revolve-NPST so do-push.into-NPST so-do-rise-NPST

2.2.2. *O...ni naru-Subject Honorifics*

As described by Kageyama (1989, 1999) and Kageyama (1993), the *o...ni naru* form of subject honorifics can be created with syntactic compound elements as in (38a), but not with lexical compound elements as in (38b).

(38)

- a. *o-tabe ni nari-hajime-ru, o-tabe ni nari-das-u, o-tabe ni*
ACC-eat NI become-start-NPST ACC-eat NI become-initiate-NPST ACC-eat NI
nari-tuduke-ru
become-continue-NPST
- b. **o-tabe ni nari-mawar-u, *o-tabe ni nari-kom-u*
ACC-eat NI become-revolve-NPST ACC-eat NI become-put.into-NPST

2.2.3. *Su-Insertion*

As described by Kageyama (1989, 1999) and Kageyama (1993), the light verb *su* can be inserted before verbs that appear in the second position of a syntactic compound as in (39a), but the light verb cannot be inserted before lexical compound elements in (39b).⁷

(39)

- a. kenbutu-si-tuduke-ru, benkyou-si-hajime-ru, toukan-si-wasure-ru
watch-do-continue-NPST study-do-start-NPST post-do-forget-NPST

‘continue watching, start studying, forget to post’

- b. *syokuji-si-mawar-u, *kansei-si-agar-u
meal-do-revolve-NPST completion-do-rise-NPST

- c. syokuji-su-ru, kansei-su-ru
meal-do-NPST completion-do-NPST

‘eat, complete’

- d. tabe-mawar-u, deki-agar-u
eat-revolve-NPST complete-rise-NPST

‘eat while hanging around, complete’

⁷The light verb takes a noun whereas the compound elements in question take a verb, so a minimal pair with and without *su* cannot be constructed using the same verbal elements. The examples in (39c) show that the nouns in (39b) are possible in the light verb construction. The examples in (39d) have verbs with the same/similar semantics as the verb compound elements in (39a), showing that there is no semantic problem with the combination in (39a).

■ 2.3. The Paradigm

Let us examine the restrictions on stem-selecting verbs and gerund-selecting verbs in more detail. Some limited cases were studied by Sugioka (1984) and Miyagawa (1989a). They observed cases where a sentence includes a direct or indirect passive morpheme and an aspectual functional verb. I first review their observations. Then I generalize the observations using the full inventory of stem-selecting verbs and gerund-selecting verbs.

2.3.1. *Direct versus Indirect Passive Rare*

As has been known since Mikami (1959), Kuno (1973) and others, Japanese has two types of passives: direct passive (40) and indirect passive (41). In both passive constructions, the passive morpheme is a stem-selecting verb *rare*.

- (40) tanaka wa yamada ni tatak-are-ta
Tanaka TOP *Yamada* by hit-DPSV-PST

‘Tanaka was hit by Yamada.’

- (41) tanaka wa ame ni fur-are-ta
Tanaka TOP *rain* by fall-IPSV-PST

‘Tanaka got the rain fall.’

Direct passives have a surface subject that is an internal argument of the predicate verb, whereas indirect passives have a surface subject that is not an internal argument of the predicate verb but is rather an experiencer argument of *rare*.

Sugioka (1984: 225) observes a contrast between two stem-selecting verbs, direct passive *rare* and the indirect passive *rare* when these are used with an aspectual verb like the progressive *i*. The progressive has to follow the direct passive as in (42a). The converse order is not possible as in (42b).

(42)

- a. tanaka wa yamada ni mitume-rare-te i-ta
Tanaka TOP *Yamada* by watch-DPSV-TE PROG-PST
‘Tanaka was being watched by Yamada.’
- b. * tanaka wa yamada ni mitume-te i-rare-ta

With the indirect passive, Sugioka observes that the progressive can either precede or follow the indirect passive as in (43a, b).

(43)

- a. tanaka wa yamada ni yodousi sawag-are-te i-ta
Tanaka TOP *Yamada* by all.night make.noise-IPSV-TE PROG-PST
‘Tanaka got Yamada make noise all night.’

- b. tanaka wa yamada ni yodousi sawai-de i-rare-ta

From this observation, Sugioka makes a generalization that the direct passive has to precede the aspectual verb, but the indirect passive is freely ordered with respect to the aspectual verb.

Miyagawa (1989a:181) makes a distinction between stem-selecting verbs and gerund-selecting verbs, which Sugioka did not do, and extends Sugioka's observation. He notes that Sugioka's restriction on the morpheme ordering between the direct passive and an aspectual verb holds only when the aspectual verb is a gerund-selecting verb. Just as Sugioka observes, the direct passive morpheme must precede a gerund-selecting aspectual verb, for example the progressive *i*, as in (43a, b). However, when the aspectual verb is a stem-selecting verb such as *tuduke* 'continue,' it can either precede or follow the direct passive as in (44a, b).⁸

(44)

- a. tanaka wa yamada ni tatak-are-tuduke-ta
Tanaka TOP *Yamada* by hit-PSV-continue-PST
 'Tanaka got continuously been hit by Yamada.'
- b. tanaka wa yamada ni tataki-tuduke-rare-ta

This exemption of stem-selecting aspectual verb from the order restriction also holds when the verb is used with an indirect passive. The morpheme order is free in such cases.

⁸Sugioka (1984) marks an example similar to (44b) ungrammatical. Miyagawa (1989a) claims it is grammatical. I accept such examples, agreeing with Miyagawa.

(45)

- a. tanaka wa yamada ni kodomo o tatak-are-tuduke-ta
Tanaka TOP *Yamada* by *child* ACC *hit-PSV-continue-PST*

‘As for Tanaka, her child was continuously threatened by her friend.’

- b. tanaka wa yamada ni kodomo o tataki-tuduke-rare-ta

This also falls under Sugioka’s generalization that indirect passives are free from the order restriction anyway, but as is discussed immediately below, Miyagawa notes that Sugioka’s observation regarding indirect passives apparently fails to hold in some cases. Nevertheless, as long as the aspectual verb is a stem-selecting verb, it is exempt from the ordering restriction even under the relevant cases that Miyagawa notes.

Miyagawa also claims that the exemption of indirect passives from the ordering restriction (when used with a gerund-selecting verb) does not hold when the predicate verb is transitive. When the predicate verb is intransitive as in (43a, b), the order is free, in accordance with Sugioka’s generalization. However, when the predicate verb is transitive and the aspectual verb is a gerund-selecting verb, the indirect passive must precede the aspectual verb.

(46)

- a. tanaka ga yamada ni itinitijuu kodomo o kenas-are-te i-ta
Tanaka NOM *Yamada* by *all.day* *child* ACC *speak.ill-PSV-TE* PROG-PST

‘Tanaka got her child being spoken ill all day by Yamada.’

- b. * tanaka ga yamada ni itinitijuu kodomo o kenasi-te i-rare-ta

To show his point, Miyagawa provides other examples similar to the following.

(47)

- a. tanaka ga yamada ni itinitijuu rombun o hihan-s-are-te i-ta
Tanaka NOM *Yamada* by all.day thesis ACC criticize-do-PSV-TE PROG-PST

‘Tanaka got her thesis being criticized all day by Yamada.’

- b. * tanaka ga yamada ni itinitijuu rombun o hihan-si-te i-rare-ta

(48)

- a. tanaka ga yamada ni itinitijuu kukkii o kakus-are-te i-ta
Tanaka NOM *Yamada* by all.day cookie ACC hide-PSV-TE PROG-PST

‘Tanaka got her cookie hidden all day by Yamada.’

- b. * tanaka ga yamada ni itinitijuu kukkii o kakusi-te i-rare-ta

I would like to point out that in all of the relevant examples that Miyagawa provides, the matrix subject is the possessor of the accusative phrase. When the accusative phrase has no possessor relation with the matrix subject as in (49–51), the indirect passive is exempt from the order restriction.

(49)

- a. tanaka wa yamada ni itinitijuu soon o tate-rare-te i-ta
Tanaka TOP *Yamada* by *all.day* noise ACC *emit-PSV-TE* PROG-PST

‘Tanaka was affected by Yamada making noise all day.’

- b. tanaka wa yamada ni itinitijuu soon o tate-te i-rare-ta

(50)

- a. tanaka wa yamada ni sakimawari o s-are-te i-ta
Tanaka TOP *Yamada* by *forestall* ACC *do-PSV-TE* PROG-PST

‘Tanaka was affected by Yamada’s forestall.’

- b. tanaka wa yamada ni sakimarawi o si-te i-rare-ta

(51)

- a. tanaka wa yamada ni yowane o hak-are-te i-ta
Tanaka TOP *Yamada* by *diffidence* ACC *exhaust-PSV-TE* PROG-PST

‘Tanaka was affected by Yamada’s speaking in a diffident manner.’

- b. tanaka wa yamada ni yowane o hai-te i-rare-ta

When the subject is ambiguous regarding whether it is a possessor of the accusative phrase, the ordering restriction applies only under the interpretation with a possessor relation as in (52).

(52)

- a. tanaka wa yamada ni ippunkan mimi o husag-are-te i-ta
Tanaka TOP *Yamada* by *one.minute* ear ACC *block-PSV-TE* PROG-PST

‘Tanaka¹ got her¹ ears closed by Yamada for one minute.’
(possessor relation)

‘Tanaka got her² ears closed by Yamada² for one minute.’
(no possessor relation)

b. tanaka wa yamada ni ippunkan mimi o husai-de i-rare-ta

* ‘Tanaka¹ got her¹ ears closed by Yamada for one minute.’
(possessor relation)

‘Tanaka got her² ears closed by Yamada² for one minute.’
(no possessor relation)

I conclude that the exemption of indirect passives from the ordering restriction (when used with a gerund-selecting verb) does hold even when the predicate verb is transitive. In the cases where the restriction is exempted as Miyagawa claims, the matrix subject is not base generated as an argument of *rare* as with the indirect passive *rare*, but is possessor-raised from the underlying accusative phrase as in (53), and the *rare* involved in these constructions is the direct passive.

(53) [tanaka ga]¹ yamada ni itinitijuu [t¹ kodomo] o kenas-are-te i-ta
Tanaka NOM *Yamada* by all.day *child* ACC *speak.ill-PSV-TE* PROG-PST

‘Tanaka got her child being spolen ill all day by Yamada.’

While there are some studies (e.g., Hiraiwa 2010) that claim that possessor raising from a direct object is possible in Japanese, some studies (Shibatani 1976, Ura 1996) claim that Japanese lacks possessor raising from a direct object, based on examples like (54b).

(54)

- a. tanaka ga [yamada no atama] o tatai-ta
Tanaka NOM Yamada GEN head ACC hit-PST

‘Tanaka hit Yamada’s head.’

- b. * tanaka ga [yamada o]¹ [t¹ atama] o tatai-ta
Tanaka NOM Yamada ACC head ACC hit-PST

‘Tanaka hit Yamada on his head.’

Ura’s claim against possessor raising from an object is based on ungrammatical examples like (54b), where the raised possessor (as well as the remnant noun phrase) bears accusative case, and his explanation regarding the ungrammaticality of (54b) is that a single v head in Japanese does not allow multiple specifiers (i.e., cannot assign accusative case to two nominals). Notice however that examples like (53), where the possessor is in the subject position and bears nominative case, are irrelevant to Ura’s argumentation, hence are not excluded even if such account is correct.

My analysis also entails that the direct passive *rare* does not (necessarily) absorb accusative case; in (53), the remnant object phrase bears accusative case despite the direct passive *rare*. This goes against Burzio’s (1986) generalization which states that the lack of external argument assignment accompanies the lack of accusative case assignment; see however, Burzio (2000) and Woolford (2003) for arguments against Burzio’s generalization in the original form.

2.3.2. *General Cases*

Miyagawa and Sugioka observed a positional restriction on aspectual verbs and the direct and indirect passive morphemes, but the morphemes in question are just a small portion of stem-selecting or gerund-selecting verbs that are used to modify a predicate verb. In fact, they are not the only verbs that are subject to the positional restriction. In this section, I consider various combinations of stem-selecting verbs and gerund-selecting verbs mostly based on the list of syntactic compound verbs that Kageyama (1993) provides. This leads me to the conclusion that there is a restriction that applies to certain combinations of a stem-selecting verb and a gerund-selecting verb.

2.3.2.1. *Verbs Subject to Restriction*

Let us first expand the observation to the stem-selecting verbs in (55) and the gerund-selecting verbs in (56).

(55) **List** Stem-selecting verbs subject to restriction

rare (direct passive)

aw (reciprocal)

e/u (potential)

das ‘initiate’

kake ‘be about to’

kir ‘do completely’

tukus ‘do exhaustively’

(56) **List** Gerund-selecting verbs subject to restriction

i (progressive/perfect)

ar (perfect)

With any combination of a stem-selecting verb from (55) and a gerund-selecting verb from (56), the order in which the stem-selecting verb precedes the gerund-selecting verb is grammatical and the opposite order is ungrammatical, as in the following examples (examples (57, 61) are repetitions of (31, 42), respectively).

(57) *rare* (direct passive) × *i*

- a. ima, tanaka ga yamada ni tatak-are-te i-ru
now Tanaka NOM Yamada by hit-DPSV-TE PROG-NPST

‘Tanaka is being hit by Yamada now.’

- b. * ima, tanaka ga yamada ni tatai-te i-rare-ru

(58) *aw* (reciprocal) × *i*

- a. ima, tanaka to yamada ga hihansi-at-te i-ru
now Tanaka with Yamada NOM criticize-RECP-TE PROG-NPST

‘Tanaka and Yamada are criticizing each other now.’

- b. * ima, tanaka to yamada ga hihansi-te i-a-u

(59) *e/u* × *i*

- a. ima, tanaka ga tyookyori o hasiri-e-te i-ru
now Tanaka NOM long.distance ACC run-POT-TE PROG-NPST

‘Tanaka is being able to run long distance now.’

- b. * ima, tanaka ga tyookyori o hasit-te i-e-ru

(60) *das* × *i*

- a. ima, ressyga ga hasiri-dasi-te i-ru
now train NOM run-initiate-TE PROG-NPST

‘The train is starting to move now.’

- b. * ima, ressyga ga hasit-te i-das-u

(61) *kake* × *i*

- a. ima, sakura ga saki-kake-te i-ru
now cherry NOM bloom-be.about.to-TE PROG-NPST

‘Cherries are in the middle of blooming now.’

- b. * ima, sakura ga sai-te i-kake-ru

(62) *kir* × *i*

- a. ima, tanaka ga go-hun de gohan o tabe-kit-te i-ru
now Tanaka NOM five-minute in food ACC eat-complete-TE PROG-NPST

‘Tanaka is completely eating the meal in five minutes now.’

- b. * ima, tanaka ga go-hun de gohan o tabe-te i-kir-u

(63) *tukus* × *i*

- a. ima, sakura ga saki-tukusi-te i-ru
now cherry NOM bloom-do.exhaustively-TE PROG-NPST

‘Cherries are exhaustively blooming now.’

- b. * ima, sakura ga sai-te i-tukus-u

2.3.2.2. *Verbs Exempt from Restriction*

Next, consider the stem-selecting verbs in (64).

(64) **List** Stem-selecting verbs exempt from restriction

rare (indirect passive)

(ra)re (potential)

sase (causative)

oe ‘finish’

agune ‘fail’

kane ‘fail’

sobire ‘fail’

sokonaw ‘fail’

sokone ‘fail’

sonji ‘fail’

naos ‘redo’

ayamar ‘do wrongly’

tagar ‘want’ (non-first person’s desire)

wasure ‘forget’

aki ‘get bored’

tuke ‘be used to’

nare ‘be used to’

nokos ‘unfinish’

nuk ‘do thoroughly’

toos ‘do thoroughly’

okure ‘delay’

When a stem-selecting verb in (64) is combined with a gerund-selecting verb in (56), the systematic ordering restriction is not observed. In the following examples, the stem-selecting verb and the gerund-selecting verb can appear in either order (example (65) is repetition of (43)).

(65) *rare* (indirect passive) \times *i*

- a. *tanaka wa yamada ni yodoosi sawag-are-te i-ta*
Tanaka TOP *Yamada* by all.night *make.noise-IPSV-TE* PROG-PST

‘Tanaka was affected by Yamada making noise all night.’

- b. *tanaka wa yamada ni yodoosi sawai-de i-rare-ta*

(66) *(ra)re* (potential) \times *i*

- a. *ima, tanaka ga hasir-e-te i-ru*
now Tanaka NOM *run-POT-TE* PROG-NPST

‘Tanaka is being able to run now.’

- b. *ima, tanaka ga hasit-te i-rare-ru*

(67) *sase* \times *i*

- a. *ima, tanaka wa yamada o hatarak-ase-te i-ru*
now Tanaka TOP *Yamada* ACC *work-CAUS-TE* PROG-NPST

‘Tanaka is making Yamada work now.’

- b. ima, tanaka wa yamada o hatarai-te i-sase-ru

(68) *oe* × *i*

- a. ima, sakura wa saki-oe-te i-ru
now cherry TOP bloom-finish-TE PROG-NPST

‘Cherries are finishing blooming now.’

- b. ima, sakura wa sai-te i-oe-ru

(69) *agune* × *i*

- a. ima, tanaka wa kangae-agune-te i-ru
now Tanaka TOP think-in.loss-TE PROG-NPST

‘Tanaka is thinking and thinking now.’

- b. ima, tanaka wa kangae-te i-agune-ru

(70) *kane* × *i*

- a. ima, mise wa tyuumon o uke-kane-te i-ru
now shop TOP order ACC accept-unable-TE PROG-NPST

‘The shop is hesitating to accept orders now.’

- b. ima, mise wa tyuumon o uke-te i-kane-ru

(71) *sobire* × *i*

- a. ima, tanaka wa yakusoku o mamori-sobire-te i-ru
now Tanaka TOP promise ACC keep-fail-TE PROG-NPST

‘Tanaka is failing to keep the promise now.’

- b. ima, tanaka wa yakusoku o mamot-te i-sobire-ru

(72) *sokonaw* × *i*

- a. ima, tanaka wa yakusoku o mamori-sokonat-te i-ru
now Tanaka TOP promise ACC keep-fail-TE PROG-NPST

‘Tanaka is failing to keep the promise now.’

- b. ima, tanaka wa yakusoku o mamot-te i-sokona-u

(73) *sokone* × *i*

- a. ima, tanaka wa yakusoku o mamori sokone-te i-ru
now Tanaka TOP promise ACC keep fail-TE PROG-NPST

‘Tanaka is failing to keep the promise now.’

- b. ima, tanaka wa yakusoku o mamot-te i-sokone-ru

(74) *sonji* × *i*

- a. ima, tanaka wa tegami o kaki-sonji-te i-ru
now Tanaka TOP letter ACC write-fail.doing-TE PROG-NPST

‘Tanaka is failing to write a letter now.’

- b. ima, tanaka wa tegami o kai-te i-sonji-ru

(75) *naos* × *i*

- a. ima, tanaka wa tegami o kaki-naosi-te i-ru
now Tanaka TOP letter ACC write-redo-TE PROG-NPST

‘Tanaka is rewriting a letter now.’

- b. ima, tanaka wa tegami o kai-te i-naos-u

(76) *ayamar* × *i*

- a. ima, tanaka wa tegami o kaki-ayamat-te i-ru
now Tanaka TOP letter ACC write-make.mistake-TE PROG-NPST

‘Tanaka is making a mistake writing a letter now.’

- b. ima, tanaka wa tegami o kai-te i-ayama-ru

(77) *tagar* × *i*

- a. ima, tanaka wa tabe-tagat-te i-ru
now Tanaka TOP eat-want-TE PROG-NPST

‘Tanaka wants to eat now.’

- b. ima, tanaka wa tabe-te i-tagar-u

(78) *wasure* × *i*

- a. ima, tanaka wa tabe-wasure-te i-ru
now Tanaka TOP eat-forget-TE PROG-NPST

‘Tanaka forgot to be eating now.’

- b. ima, tanaka wa tabe-te i-wasure-ru

(79) *aki* × *i*

- a. ima, tanaka wa tabe-aki-te i-ru
now Tanaka TOP eat-get.bored-TE PROG-NPST

‘Tanaka is bored of eating now.’

- b. ima, tanaka wa tabe-te i-aki-ru

(80) *tuke* × *i*

- a. ima, tanaka wa sore o tabe-tuke-te i-ru
now Tanaka TOP that ACC eat-be.used.to-TE PROG-NPST

‘Tanaka is used to eating that now.’

- b. ima, tanaka wa sore o tabe-te i-tuke-ru

(81) *nare* × *i*

- a. ima, tanaka wa sore o tabe-nare-te i-ru
now Tanaka TOP that ACC eat-get.used.to-TE PROG-NPST

‘Tanaka is used to eating that now.’

- b. ima, tanaka wa sore o tabe-te i-nare-ru

(82) *nokos* × *i*

- a. ima, tanaka wa tabe-nokosi-te i-ru
now Tanaka TOP eat-leave.leftover-TE PROG-NPST

‘Tanaka is uncompletely eating the meal now.’

- b. ima, tanaka wa tabe-te i-nokos-u

(83) *nuk* × *i*

- a. ima, tanaka wa marason o hasiri-nui-te i-ru
now Tanaka TOP marathon ACC run-do.throughout-TE PROG-NPST

‘Tanaka is running through the marathon now.’

- b. ima, tanaka wa marason o hasit-te i-nuk-u

(84) *toos* × *i*

- a. ima, tanaka wa marason o hasiri-toosi-te i-ru
now Tanaka TOP marathon ACC run-go.throughout-TE PROG-NPST

‘Tanaka is running through the marathon now.’

- b. ima, tanaka wa marason o hasit-te i-toos-u

(85) *okure* × *i*

- a. ima, ressywa wa syuppatusi-okure-te i-ru
now train TOP start-delay-TE I-NPST

'The train's start is delayed now.'

- b. ima, ressywa wa syuppatusi-te i-okure-ru

Verbs in (86) are gerund-selecting verbs.

(86) **List** Gerund-selecting verbs exempt from restriction

simaw (perfect), 'have done unfortunately'

ik 'do on the way going'

ku 'do on the way coming'

ok (perfect) 'have done in preparation'

mi 'try and see'

kure 'do a favor' (to the first person's side)

kudasar 'do a favor' (to the first person's side, with honorification)

age 'do a favor' (subject belongs to the first person's side)

yar 'do a favor' (subject belongs to the first person's side, benefactee is disrespected)

moraw 'be done a favor' (subject belongs to the first person's side)

When a gerund-selecting verb in (86) is combined with a stem-selecting verb in (55), the systematic ordering restriction is not observed. In the following examples, either verb can precede the other.

(87) *rare* (direct passive) × *simaw*

- a. kangaroo ga anakonda ni tabe-rare-te simat-ta
kangaroo NOM *anakonda* by eat-PSV-TE *happen.unfortunately-PST*

‘Unfortunately, a kangaroo has been eaten by an anakonda.’

- b. kangaroo ga anakonda ni tabe-te simaw-are-ta

(88) *aw* (reciprocal) × *simaw*

- a. tanaka to yamada ga hinansi-at-te sima-u
Tanaka with Yamada NOM *criticize-RECP-TE* *happen.unfortunately-NPST*

‘Unfortunately, Tanaka and Yamada are criticizing each other.’

- b. tanaka to yamada ga hihansi-te simai-a-u

(89) *e/u* × *simaw*

- a. teki ga angoo o toki-e-te simat-ta
enemy NOM *cryptogram* ACC *solve-POT-TE* *happen.unfortunately-PST*

‘Unfortunately, the enemy was able to decypher the cryptogram.’

- b. teki ga angoo o toi-te simai-e-ta

(90) *das* × *simaw*

- a. ressyga ga hasiri-dasi-te simat-ta
train NOM *run-initiate-TE* *happen.unfortunately-PST*

‘Unfortunately, the train has started to move.’

- b. ressyga ga hasit-te simai-dasi-ta

(91) *kake* × *simaw*

- a. sakura ga kare-kake-te simat-ta
cherry NOM *die-be.about.to-TE* *happen.unfortunately-PST*

‘Unfortunately, the cherries have died half way.’

- b. sakura ga kare-te simai-kake-ta

(92) *kir* × *simaw*

- a. sakura ga kare-kit-te simat-ta
cherry NOM *die-complete-TE* *happen.unfortunately-PST*

‘Unfortunately, the cherries have fully died.’

- b. sakura ga kare-te simai-kit-ta

(93) *tukus* × *simaw*

- a. sakura ga kare-tukusi-te simat-ta
cherry NOM *die-do.exhaustively-TE* *happen.unfortunately-PST*

‘Unfortunately, the cherries have exhaustively died.’

- b. sakura ga kare-te simai-tukusi-ta

And finally, when a stem-selecting verb in (64) and a gerund-selecting verb in (86) are combined, there is no systematic ordering relation. The following are examples using the relevant combination of such verbs, and either verb can come before the other.

(94) *rare* (indirect passive) × *simaw*

- a. tanaka wa yamada ni yodoosi sawag-are-te simat-ta
Tanaka TOP *Yamada* by *all.night* *make.noise-PSV-TE* *happen.unfortunately-PST*

‘Unfortunately, Tanaka got Yamada be make noise all night.’

- b. tanaka wa yamada ni yodoosi sawai-de simaw-are-ta

(95) *(ra)re* (potential) × *simaw*

- a. teki ga angoo o tok-e-te simat-ta
enemy NOM *cryptogram* ACC *solve-POT-TE* *happen.unfortunately-PST*

‘Unfortunately, the enemy was able to decypher the cryptogram.’

- b. teki ga angoo o toi-te sima-e-ta

(96) *sase* × *simaw*

- a. tanaka wa yamada o hatarak-ase-te simat-ta
Tanaka TOP *Yamada* ACC *work-CAUS-TE* *happen.unfortunately-PST*

‘Unfortunately, Tanaka made Yamada work.’

- b. tanaka wa yamada o hatarai-te simaw-ase-ta

(97) *oe* × *simaw*

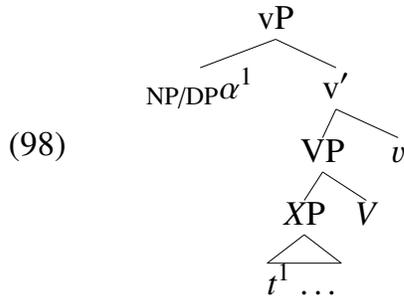
- a. sakura wa saki-oe-te simat-ta
cherry TOP *bloom-finish-TE* *happen.unfortunately-PST*

‘Unfortunately, cherries have finished blooming.’

- b. sakura wa sai-te simai-oe-ta

2.3.2.3. θ -Assigner

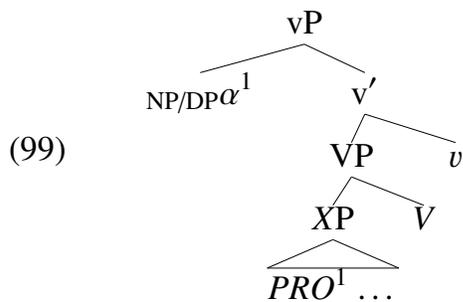
We see from the cases above that a combination of a stem-selecting verb and a gerund-selecting verb is subject to the ordering restriction when both verbs are from the lists (55, 56), and is free of the ordering restriction when at least one of the verbs is from the lists (64, 86). It is then natural to expect that the verbs in (55, 56) and the verbs in (64, 86) are divided by some property. I argue that this property is θ -role assignment.⁹ The verbs in (55, 56) do not seem to be assigning a θ -role; they seem to lack an external argument. Given that they take an embedded clause with an implicit subject, these verbs have the raising structure in (98).¹⁰



⁹The issue has been discussed in the literature since the 1970's; see e.g. Koizumi (1995) and references therein. For a more general discussion, see Wurmbrand (1998, 2003).

¹⁰Since I am not concerned with the categorical status of the traditional noun phrase in Japanese, I simply have NP/DP here. Notice also that since the issue of whether there is internal θ -role assignment with some of the elements under consideration is rather murky, in the discussion and the analyses below, I will simply focus on external θ -role assignment (the analyses and the proposals below can, however, be adjusted to take into consideration potential internal θ -role assignment).

The verbs in (64, 86) seem to be assigning an external θ -role. Given that they take an embedded clause with an implicit subject, these verbs have the control structure in (99).



The relevant evidence for the structures will be provided in section 2.3.3. Before doing that, I note that there also is a class of verbs, namely those given in (100), that allow both raising and control structures.

(100) **List** Stem-selecting verbs that are ambiguous

tuduke ‘continue’

hajime ‘start’

owar ‘finish’

makur ‘do and do’

sugi ‘do exceedingly’

Interestingly, we observe a correlation between their interpretation as raising or control verb and the existence of the positional restriction. If a stem-selecting verb in (100) is combined with the a gerund-selecting verb in (56) and is interpreted as raising as indicated by an inanimate subject as in the following examples (see the discussion below), then the combination is subject to the restriction.

(101) *tuduke* (raising) × *i*

- a. ima, hokori ga sora o mai-tuduke-te i-ru
now dust NOM sky ACC flow-continue-TE PROG-NPST

‘Dust is continuing to flow in the air now.’

- b. *ima, hokori ga sora o mat-te i-tuduke-ru

(102) *hajime* (raising) × *i*

- a. ima, hokori ga tati-hajime-te i-ru
now dust NOM raise-start-TE PROG-NPST

‘Dust is starting to raise in the air now.’

- b. *ima, hokori ga tat-te i-hajime-ru

(103) *owar* (raising) × *i*

- a. ima, sakura ga saki-owat-te i-ru
now cherry NOM bloom-finish-TE PROG-NPST

‘Cherries finished blooming now.’

- b. *ima, sakura ga sai-te i-owar-u

(104) *makur* (raising) × *ar*

- a. ima, kono kabe wa rakugaki ga kaki-makut-te ar-u
now this wall TOP graffiti NOM write-do.extremely-TE PERF-NPST

‘As for this wall, graffiti has been written on it on and on now.’

- b. * ima, kono kabe wa rakugaki ga kai-te ari-makur-u

(105) *sugi* × *i*

- a. ima, ressyga ga nimotu o tumi-sugi-te i-ru
now train NOM luggage ACC load-do.too.much-TE PROG-NPST

‘The train is carrying too much luggage now.’

- b. * ima, ressyga ga nimotu o tun-de i-sugi-ru

If the same combination is used with control interpretation of the stem-selecting verb as indicated by an animate subject as in the following examples, then the combination is free of the ordering restriction.

(106) *tuduke* (control) × *i*

- a. ima, choo ga sora o mai-tuduke-te i-ru
now butterfly NOM sky ACC flow-continue-TE PROG-NPST

‘A butterfly is continuing to flow in the air now.’

- b. ima, choo ga sora o mat-te i-tuduke-ru

(107) *hajime* (control) × *i*

- a. ima, tanaka wa oki-hajime-te i-ru
now Tanaka TOP wake.up-start-TE PROG-NPST

‘Tanaka is starting to wake up now.’

- b. ima, tanaka wa oki-te i-hajime-ru

(108) *owar* (control) × *i*

- a. ima, tanaka wa hottodoggu o tugitugito tabe-owat-te i-ru
now Tanaka TOP hot.dog ACC one.after.another eat-finish-TE I-NPST

‘Tanaka is completing eating hotdogs one after another now.’

- b. ima, tanaka wa hottodoggu o tugitugito tabe-te i-owar-u

(109) *makur* (control) × *i*

- a. ima, tanaka wa tabe-makut-te i-ru
now Tanaka TOP eat-do.extremely-TE I-NPST

‘Tanaka is eating on and on now.’

- b. ima, tanaka wa tabe-te i-makur-u

(110) *sugi* (control) × *i*

- a. ima, tanaka wa tabe-sugi-te i-ru
now Tanaka TOP eat-do.too.much-TE I-NPST

‘Tanaka is eating too much now.’

- b. ima, tanaka wa tabe-te i-sugi-ru

2.3.3. *Diagnostics*

In the last section, I proposed that the crucial factor for whether the ordering restriction exists is whether there is a θ -role assigner among the functional verbs in the sequence. This section examines diagnostics that distinguish θ -assigning verbs and non- θ -assigning ones. The examples I have discussed have one overt surface subject for the matrix and the embedded clauses. This means that whether or not the matrix verb assigns a θ -role corresponds to whether the structure is control or raising. Some of the diagnostics separate control verbs and raising verbs while others work only in one direction: some diagnostics only ensure that a certain subset of the verbs claimed to be control verbs are actually control verbs while remaining neutral about other verbs that are also claimed to be control verbs and the verbs that are claimed to be raising verbs. The diagnostics presented in this section work together to improve reliability.

2.3.3.1. *Semantic Restriction on Subject*

A sufficient condition for a construction to have a control structure rather than a raising structure is that its external argument is subject to a semantic restriction imposed by the matrix verb. When such requirement can be confirmed, it entails that the matrix verb assigns a θ -role to the external argument and the construction is a control structure. In fact, there are some verbs that require their external argument to be animate. In the following, I use this fact as a test to examine the verbs that I

classified as raising, control, or as ambiguous between the two. We will observe that some of the verbs that I claimed to be unambiguously control verbs impose such restrictions, and hence are indeed control verbs. When such semantic restriction is not observed, it does not mean that the structure is raising because the test is only a sufficient condition for control structure; in fact, in sections 3.6, 4.2, I argue for existence of elements that do not have a semantic restriction on the external argument but nevertheless take control structure. Furthermore, such a restriction should not be observed with unambiguous raising verbs or ambiguous verbs (in an isolated context), the reason for the latter being that the semantic restriction on the external argument in the control option, if any, can be avoided by taking the raising option, hence would not be detected.

The stem-selecting verbs in (55), which I claimed to be raising verbs, satisfy the necessary condition that they allow inanimate subjects as in the following. There is no conflict here with the earlier claim that these verbs are raising verbs.

(111) *rare* (direct passive)

miti ga tukur-are-ta
road NOM *make*-PSV-PST

‘A road was made.’

(112) *aw* (reciprocal)

futatu no isi ga butukari-at-ta
two GEN *rock* NOM *hit*-RECP-PST

‘Two rocks hit each other.’

(113) *e/u* (potential)

tikyuu wa taiko kara taiki o ittee ni tamoti-e-ta
earth TOP ancient.times from atmosphere ACC constant to maintain-POT-PST

‘The earth was able to keep the atmosphere constant from ancient times.’

(114) *das* ‘initiate’

ame ga huri-dasi-ta
rain NOM fall-initiate-PST

‘It started to rain.’

(115) *kake* ‘be about to’

yuki ga tumori-kake-ta
snow NOM pile-be.about.to-PST

‘Snow almost piled up.’

(116) *kir* ‘do completely’

huusen ga hukurami-kit-ta
baloon NOM inflate-complete-PST

‘A baloon inflated completely.’

(117) *tukus* ‘do exhaustively’

yuki ga mati o ooi-tukusi-ta
snow NOM town ACC cover-do.exhaustively-PST

‘The snow exhaustively covered the town.’

The same can be said for the gerund-selecting verbs in (56), which I also claimed to be raising verbs. They allow inanimate subjects as in the following, hence there is no conflict with the claim that they are raising verbs.

(118) *i* (progressive)

ame ga hut-te i-ru
rain NOM *fall-TE* PROG-NPST

‘Rain is falling.’

(119) *ar* (perfect)

rakugaki ga kai-te ar-u
graffiti NOM *write-TE* PERF-NPST

‘Scribble has been written.’

Most of the stem-selecting verbs from (64), which I claimed to be control verbs, disallow inanimate subjects as in the following. This test shows that these verbs are control verbs.¹¹

(120) *rare* (indirect passive)

- a. tanaka ga kinjyo no hito ni sawag-are-ta
Tanaka NOM *neighborhood* GEN *person* by *speak.loud-PSV-PST*

‘Tanaka was affected by a neighbor being noisy.’ (animate subject)

- b. * miti ga kinjyo no hito ni sawag-are-ta
road NOM *neighborhood* GEN *person* by *speak.loud-PSV-PST*

‘The street was affected by a neighbor being noisy.’
(inanimate subject)

¹¹The reader should, however, bear in mind that we are dealing here with a one-way correlation: allowing inanimate subject does not necessarily mean that the verb cannot be a control verb.

- (121) *oe* ‘finish’
- a. tanaka ga tabe-oe-ta
Tanaka NOM *eat-finish-PST*
- ‘Tanaka finished eating.’ (animate subject)
- b. * ame ga huri-oe-ta
rain NOM *fall-finish-PST*
- ‘It finished raining.’ (inanimate subject)
- (122) *agune* ‘fail’
- a. tanaka ga keturon o dasi-agune-ta
Tanaka NOM *conclusion* ACC *emit-fail-PST*
- ‘Tanaka failed to reach a conclusion.’ (animate subject)
- b. * pasokon ga keturon o dasi-agune-ta
personal.computer NOM *conclusion* ACC *emit-fail-PST*
- ‘The computer failed to reach a conclusion.’ (inanimate subject)
- (123) *kane* ‘fail’
- a. tanaka ga tabe-kane-ta
Tanaka NOM *eat-money-PST*
- ‘Tanaka failed to eat.’ (animate subject)
- b. * ame ga huri-kane-ta
rain NOM *fall-money-PST*
- ‘It failed to rain.’ (inanimate subject)
- (124) *sobire* ‘fail’

a. tanaka ga tabe-sobire-ta
Tanaka NOM *eat-fail-PST*

'Tanakak failed to eat.' (animate subject)

b. * ame ga huri-sobire-ta
rain NOM *fall-fail-PST*

'It failed to rain.' (inanimate subject)

(125) *sokonaw* 'fail'

a. tanaka ga tabe-sokonat-ta
Tanaka NOM *eat-fail-PST*

'Tanaka failed to eat.' (animate subject)

b. * ame ga huri-sokonat-ta
rain NOM *fall-fail-PST*

'It failed to rain.' (inanimate subject)

(126) *sokone* 'fail'

a. tanaka ga tabe-sokone-ta
Tanaka NOM *eat-fail-PST*

'Tanaka failed to eat.' (animate subject)

b. * ame ga huri-sokone-ta
rain NOM *fall-fail-PST*

'It failed to rain.' (inanimate subject)

(127) *sonji* 'fail'

a. tanaka ga tegami o kaki-sonji-ta
Tanaka NOM *letter* ACC *write-fail.doing-PST*

‘Tanaka failed to write a letter.’ (animate subject)

- b. * *ame ga huri-sonji-ta*
rain NOM fall-fail.doing-PST

‘It failed to rain.’ (inanimate subject)

(128) *naos* ‘redo’

- a. *tanaka ga tegami o kaki-naosi-ta*
Tanaka NOM letter ACC write-redo-PST

‘Tanaka rewrote the letter.’ (animate subject)

- b. * *ame no ato, taiyoo ga teri-naosi-ta*
rain GEN after sun NOM shine-redo-PST

‘The sun re-shined after rain.’ (inanimate subject)

(129) *ayamar* ‘do wrongly’

- a. *tanaka ga tegami o kaki-ayamat-ta*
Tanaka NOM letter ACC write-do.wrongly-PST

‘Tanaka wrote a letter in a wrong way.’ (animate subject)

- b. * *ame ga huri-ayamar-u*
rain NOM fall-do.wrongly-NPST

‘Rain fell wrongly.’ (inanimate subject)

(130) *tagar* ‘want’

- a. *tanaka ga tabe-tagar-u*
Tanaka NOM eat-want-NPST

‘Tanaka wants to eat.’ (animate subject)

- b. * huusen ga ware-tagar-u
baloon NOM *break-want-NPST*
 ‘The baloon wants to burst.’ (inanimate subject)
- (131) *wasure* ‘forget’
- a. tanaka ga tegami o kaki-wasure-ta
Tanaka NOM *letter* ACC *write-forget-PST*
 ‘Tanaka forgot to write a letter.’ (animate subject)
- b. * ame ga huri-wasure-ta
rain NOM *fall-forget-PST*
 ‘Rain forgot to fall.’ (inanimate subject)
- (132) *aki* ‘get bored’
- a. tanaka ga tabe-aki-ta
Tanaka NOM *eat-get.bored-PST*
 ‘Tanaka got bored eating.’ (animate subject)
- b. * rondon de ame ga huri-aki-ta
London COP *rain* NOM *fall-get.bored-PST*
 ‘Rain got bored falling in London.’ (inanimate subject)
- (133) *tuke* ‘be used to’
- a. tanaka ga aruki-tuke-ta
Tanaka NOM *walk-be.used.to-PST*
 ‘Tanaka got used to walk.’ (animate subject)
- b. * sengetu wa ame ga huri-tuke-ta
last.month TOP *rain* NOM *fall-be.used.to-PST*

- ‘Rain used to fall last month.’ (inanimate subject)
- (134) *nare* ‘be used to’
- a. tanaka ga aruki-nare-ta
Tanaka NOM *walk-get.used.to-PST*
- ‘Tanaka got used to walk.’ (animate subject)
- b. * rondon de ame ga huri-nare-ta
London COP *rain* NOM *fall-get.used.to-PST*
- ‘Rain is used to fall in London.’ (inanimate subject)
- (135) *nokos* ‘unfinish’
- a. tanaka ga tabe-nokosi-ta
Tanaka NOM *eat-leave.leftover-PST*
- ‘Tanaka ate incompletely.’ (animate subject)
- b. * taiyoo ga yuki o tokasi-nokosi-ta
sun NOM *snow* ACC *melt-leave.leftover-PST*
- ‘The sun melted the snow incompletely.’ (inanimate subject)
- (136) *nuk* ‘do thoroughly’
- a. tanaka ga marason o hariri-nui-ta
Tanaka NOM *marathon* ACC *run-do.throughout-PST*
- ‘Tanaka ran through a marathon.’ (animate subject)
- b. * gogatu wa ame ga huri-nui-ta
May TOP *rain* NOM *fall-do.throughout-PST*
- ‘Rain fell thoroughly in May.’ (inanimate subject)

- (137) *toos* ‘do thoroughly’
- a. tanaka ga marason o hasiri-toosi-ta
Tanaka NOM *marathon* ACC *run-go.throughout-PST*
- ‘Tanaka ran through a marathon.’ (animate subject)
- b. *gogatu wa ame ga huri-toosi-ta
May TOP *rain* NOM *fall-go.throughout-PST*
- ‘Rain fell thoroughly in May.’ (inanimate subject)
- (138) *okure* ‘delay’
- a. tanaka ga hasiri-okure-ta
Tanaka NOM *run-delay-PST*
- ‘Tanaka was late running.’ (animate subject)
- b. *hi ga nobori-okure-ta
sun NOM *raise-delay-PST*
- ‘The sun was late rising.’ (inanimate subject)
- (139) *(ra)re* (potential)
- a. tanaka wa hasir-e-ta
Tanaka TOP *run-POT-PST*
- ‘Tanaka was able to run.’ (animate subject)
- b. kono kinoko wa tabe-rare-ru
this mushroom TOP *eat-POT-NPST*
- ‘This mushroom is edible.’ (inanimate subject)
- (140) *sase* (causative)

- a. yamada ga tanaka no yaruki o nakus-ase-ta
Yamada NOM *Tanaka* GEN *motivation* ACC *lose-CAUS-PST*
 ‘Yamada removed Tanaka’s motivation.’ (animate subject)
- b. ? sippai ga tanaka no yaruki o nakus-ase-ta
failure NOM *Tanaka* GEN *motivation* ACC *lose-CAUS-PST*
 ‘His failure removed Tanaka’s motivation.’ (inanimate subject)

The gerund-selecting verbs in (86), which I also claimed to be control verbs, except for *simaw*, *ik*, and *ku*, disallow inanimate subjects. For these verbs, this test indicates that they are control verbs. For verbs *simaw*, *ik*, and *ku*, this test remains neutral regarding whether they are control verbs.

(141) *ok* (perfect)

* ame ga hut-te oi-ta
rain NOM *fall-TE* *retain-PST*

‘It rained in advance.’

(142) *mi* ‘try and see’

* ame ga hut-te mi-ta
rain NOM *fall-TE* *see-PST*

‘It tried to rain and saw.’

(143) *kure* ‘do a favor’

* ame ga hut-te kure-ru
rain NOM *fall-TE* *for.first.person’s.sake-NPST*

‘Rain falls for courtesy.’ (without personification)

(144) *kudasar* ‘do a favor’

* *ame ga hut-te kudasar-u*
rain NOM fall-TE for.courtesy-NPST

‘Rain falls for courtesy.’

(145) *age* ‘do a favor’

* *ame ga hut-te age-ru*
rain NOM fall-TE for.courtesy-NPST

‘Rain falls for courtesy.’

(146) *yar* ‘do a favor’

* *ame ga hut-te yar-u*
rain NOM fall-TE for.courtesy-NPST

‘Rain falls for courtesy.’

(147) *moraw* ‘do a favor’

* *kabe ga penki o nut-te moraw-u*
wall NOM paint ACC paint-TE have.been.done.in.favor-NPST

‘Wall is being painted for courtesy.’

(148) *simaw* (perfect)

ame ga hut-te simat-ta
rain NOM fall-TE happen.unfortunately-PST

‘Unfortunately, it has rained.’

(149) *ik* ‘do on the way going’

sora ga hare-te it-ta
sky NOM *clear-TE do.on.the.way.going-PST*

‘The sky gradually cleared.’

(150) *ku* ‘do on the way coming’

ame ga hut-te ki-ta
rain NOM *fall-TE do.on.the.way.coming-PST*

‘It gradually rained.’

The stem-selecting verbs from (100), which I claimed to be ambiguous between raising and control, allow inanimate subjects as in the following. This is expected, as discussed above.

(151) *tuduke* ‘continue’

hokori ga mai-tuduke-ru
dust NOM *flow-continue-NPST*

‘Dust is continuing to flow.’

(152) *hajime* ‘start’

sakura ga saki-hajime-ta
cherry NOM *bloom-start-PST*

‘Cherries started to bloom.’

(153) *owar* ‘finish’

sakura ga saki-owat-ta
cherry NOM *bloom-finish-PST*

‘Cherries finished blooming.’

(154) *makur* ‘do and do’

sakura ga saki-makut-ta
cherry NOM *bloom-do.extremely-PST*

‘Cherries grew and grew.’

(155) *sugi* ‘do exceedingly’

sakura ga saki-sugi-ta
cherry NOM *bloom-do.too.much-PST*

‘Cherries grew too much.’

2.3.3.2. *Neutral Descriptive Ga*

Kuroda (1965) recognized two usages of the nominative particle *ga*: neutral description and contrastive focus (= exhaustive listing). He further observed a restriction on the former as in (156).

(156) **Generalization (Kuroda 1965 in modern terminology)** An individual level predicate in the matrix clause does not allow a definite argument to be marked with the neutral descriptive *ga*, (but allows the focus marking *ga*). A stage level predicate allows a definite subject to be marked with the neutral description *ga* (as well as with the focus marking *ga*).

Examples are given in (157).

(157)

a. tanaka ga gakusee da

Tanaka NOM *student* COP.NPST

* ‘Tanaka is a student.’ (individual level, neutral description)

‘It is Tanaka who is a student.’ (individual level, focus marking)

b. tanaka ga ki-ta

Tanaka NOM *come*-PST

‘Tanaka came.’ (stage level, neutral description)

‘It is Tanaka who came.’ (stage level, focus marking)

To express a neutral definite subject with a matrix individual level predicate, the neutral topic *wa* is usually used in place of *ga*.

(158) tanaka wa gakusee da

Tanaka TOP *student* COP.NPST

‘Tanaka is a student.’ (neutral descriptive)

From (156), we can tell that if a matrix predicate does not allow a definite subject to be marked with the neutral description *ga*, then the matrix structure must not involve stage level predication, hence must be individual level.

Furthermore, an individual level predicate P must θ -mark an external argument α that predicates P . Such α is the subject of P and may appear with the neutral topic marker *wa*. If P takes an embedded clause whose subject is implicit and coreferential/identical to α , then the embedded subject must be a pronominal (*PRO*) and not a trace. The entire structure is a control structure as in (159).

(159) [Individual level α^1 wa [*PRO*¹ ...] *P*]

Using this, I will examine the functional verbs I have noted above. There is a one-way entailment such that if a structure does not allow a definite subject to be marked with neutral descriptive *ga*, then that structure must be a control structure. If neutral descriptive interpretation is allowed, then the test remains silent regarding whether the structure is control or raising.

Following are the stem-selecting verbs in (55), which I claimed to be raising verbs. They allow neutral descriptive interpretation of a definite subject with *ga*. This is compatible with the claim that they are raising verbs.

(160) *rare* (direct passive)

tanaka ga yamada ni tatak-are-ta
Tanaka NOM *Yamada* by hit-PSV-PST

‘Tanaka was hit by Yamada.’ (neutral descriptive)

(161) *aw* (reciprocal)

tanaka to yamada ga hihansi-at-ta
Tanaka with *Yamada* NOM criticize-RECP-PST

‘Tanaka and Yamada criticized each other.’ (neutral descriptive)

(162) *e/u* (potential)

tanaka ga tyookyori o hasiri-e-ta
Tanaka NOM *long.distance* ACC run-POT-PST

‘Tanaka was able to run long distance.’ (neutral descriptive)

(163) *das* ‘initiate’

tanaka ga hasiri-dasi-ta
Tanaka NOM *run-initiate*-PST

‘Tanaka started to run.’ (neutral descriptive)

(164) *kake* ‘be about to’

tanaka ga hasiri-kake-ta
Tanaka NOM *run-be.about.to*-PST

‘Tanaka was about to run.’ (neutral descriptive)

(165) *kir* ‘do completely’

tanaka ga marason o harisi-kit-ta
Tanaka NOM *marathon* ACC *run-complete*-PST

‘Tanaka completely ran a marathon.’ (neutral descriptive)

(166) *tukus* ‘do exhaustively’

tanaka ga karee o tabe-tukusi-ta
Tanaka NOM *curry* ACC *eat-do.exhaustively*-PST

‘Tanaka ate up the curry.’ (neutral descriptive)

The following are stem-selecting verbs from (64), which I categorized as control verbs. Among them, *rare* (indirect passive), *(ra)re* (potential), *sokone*, *aki*, *tuke*, and *nare* allow neutral descriptive interpretation of a definite subject with *ga*. Regarding these verbs, this test shows that they can only take control structure. For the other verbs in (64), some of which are exemplified below, the test does not provide relevant information.

(167) *rare* (indirect passive)

* tanaka ga yamada ni yodoosi sawag-are-ta
Tanaka NOM *Yamada* by all.night make.noise-PSV-PST

‘Tanaka was affected by Yamada making noise all night.’ (neutral descriptive)

(168) *(ra)re* (potential)

* tanaka ga hasir-e-ta
Tanaka NOM run-POT-PST

‘Tanaka was able to run.’ (neutral descriptive)

(169) *sokone* ‘fail’

* tanaka ga yakusoku o mamori-sokone-ta
Tanaka NOM *promise* ACC keep-fail-PST

‘Tanaka failed to keep the promise.’ (neutral descriptive)

(170) *aki* ‘get bored’

* tanaka ga karee o tabe-aki-ta
Tanaka NOM *curry* ACC eat-get.bored-PST

‘Tanaka got bored eating curry.’ (neutral descriptive)

(171) *tuke* ‘be used to’

* tanaka ga karee o tabe-tuke-ta
Tanaka NOM *curry* ACC eat-be.used.to-PST

‘Tanaka got used to eating curry.’ (neutral descriptive)

(172) *nare* ‘be used to’

tanaka ga syaberi-nare-ta
Tanaka NOM *talk-get.used.to*-PST

* ‘Tanaka got used to talking.’ (neutral descriptive)

(173) *sase* (causative)

tanaka ga yamada ni /o hasir-ase-ta
Tanaka NOM *Yamada* DAT ACC *run*-CAUS-PST

‘Tanaka made Yamada run.’ (neutral descriptive)

(174) *sokonaw* ‘fail’

tanaka ga yakusoku o mamori-sokonat-ta
Tanaka NOM *promise* ACC *keep-fail*-PST

‘Tanaka failed to keep the promise.’ (neutral descriptive)

(175) *ayamar* ‘do wrongly’

tanaka ga tegami o kaki-ayamat-ta
Tanaka NOM *letter* ACC *write-do.wrongly*-PST

‘Tanaka made a mistake writing a letter.’ (neutral descriptive)

(176) *tagar* ‘want’

tanaka ga karee o tabe-tagat-ta
Tanaka NOM *curry* ACC *eat-want*-PST

‘Tanaka wanted to eat curry. (neutral descriptive)

(177) *wasure* ‘forget’

tanaka ga gohan o tabe-wasure-ta
Tanaka NOM *rice* ACC *eat-forget*-PST

‘Tanaka forgot to eat rice.’ (neutral descriptive)

The following are stem-selecting verbs from (100), which I claimed are ambiguous between raising and control. These examples allow neutral descriptive interpretation of a definite subject with *ga*. This is expected because they have the raising option, which makes such interpretation possible.

(178) *tuduke* ‘continue’

tanaka ga gohan o tabe-tuduke-ta
Tanaka NOM *food* ACC *eat-continue-PST*

‘Tanaka continued to eat the meal.’ (neutral descriptive)

(179) *hajime* ‘start’

tanaka ga gohan o tabe-hajime-ta
Tanaka NOM *food* ACC *eat-start-PST*

‘Tanaka started to eat the meal.’ (neutral descriptive)

(180) *owar* ‘finish’

tanaka ga gohan o tabe-owat-ta
Tanaka NOM *food* ACC *eat-finish-PST*

‘Tanaka finished eating the meal.’ (neutral descriptive)

(181) *makur* ‘do and do’

tanaka ga tabe-makut-ta
Tanaka NOM *eat-do.extremely-PST*

‘Tanaka ate and ate.’ (neutral descriptive)

(182) *sugi* ‘do exceedingly’

tanaka ga gohan o tabe-sugi-ta
Tanaka NOM *food* ACC *eat-do.too.much-PST*

‘Tanaka ate the meal too much.’ (neutral descriptive)

2.3.3.3. *Embedded Adjunct Extraction*

Bošković (2014b) shows that adjunct extraction is possible from control infinitives but not from raising infinitives. Following Lasnik and Saito (1992) and Martin (1996, 2001), Bošković argues that traditional raising infinitives as in (183a) are ambiguous between raising and control, but raising interpretation can be forced by using an expletive as in (183b).

(183)

- a. John is likely to fix the car tomorrow (raising/control)
- b. there is likely to arrive someone tomorrow (raising)

Bošković then shows that long extraction of an adjunct is possible in (183a) as illustrated in (184a), but it is not possible in (183b) as illustrated in (184b).

(184)

- a. how is John likely [to fix the car *t* tomorrow]
- b. * how is there likely [to arrive someone *t* tomorrow]

He claims that the extraction in (184a) is possible due to the control structure the verb can take.

- (185) **Generalization (Bošković 2014b)** Extraction of an adjunct phrase is possible from a control infinitive but not from a raising infinitive.

Using this as a test, I will examine the verbs mentioned in the earlier sections, and confirm that the key distinction is indeed raising versus control.

Among the verbs in (55), I have classified the direct passive *rare* as not having control structure. Since it is difficult to consider the relevant relation between the passive morpheme and the manner ('how'), the test cannot be applied to the direct passive. Extraction is possible as in (186), but it is not clear whether long extraction is possible. For this verbal element, the test does not provide any information.

- (186) *rare* (direct passive)

donoyooni miti ga tukur-are-ta to omo-u no
how road NOM *make-DPSV-PST* C *think-NPST* NO

'How do you think the road was [made *t*]?'

Following are the other stem-selecting verbs from (55), which I claimed to be raising verbs. They disallow long extraction, which indicates that they are indeed raising verbs.

(187) *aw* (reciprocal)

donoyooni tanaka to yamada ga hihansi-at-ta to omo-u no
how Tanaka with Yamada NOM criticize-RECP-PST C think-NPST NO

* ‘How do you think Tanaka and Yamada [criticized *t*] each other?’

(long extraction)

—go-hun zutu
five-minute each

‘Five minutes each.’

‘How do you think Tanaka and Yamada [criticized each other] *t*?’

(short extraction)

—mukai-at-te
facing-mutually-TE

‘Facing each other.’

(188) *e/u* (potential)

donoyooni tanaka wa karee o tabe-e-ta to omou no
how Tanaka TOP curry ACC eat-POT-PST C think NO

* ‘How do you think Tanaka was able to [eat curry *t*]?’ (long extraction)

—geki-kara no tare o kuwae-te/mizu nasi de
extremely-spicy GEN sauce ACC add-TE water without by

‘Adding extremely spicy sauce/Without water.’

‘How do you think Tanaka was able to [eat curry] *t*?’ (short extraction)

—hana o tuman-de/mizu o takusan nomi-nagara
nose ACC pinch-TE water ACC much drink-while

‘Pinching the nose/While drinking a lot of water.’

(189) *das* ‘initiate’

donoyooni ame ga huri-dasi-ta to omou no
how rain NOM fall-initiate-PST C think NO

* ‘How do you think it started to [rain *t*]?’ (long extraction)

—hagesiku/taema-naku
furiously pause-without

‘Furiously/Continuously.’

‘How do you think it started to [rain] *t*?’ (short extraction)

—totuzen/kumo ga de-te
suddenly cloud NOM emit-TE

‘Suddenly/When clouds appeared.’

(190) *kake* ‘be about to’

donoyooni ame ga huri-kake-ta to omou no
how rain NOM fall-be.about.to-PST C think NO

* ‘How do you think it was about to [rain *t*]?’ (long extraction)

—hagesiku/taema-naku
furiously pause-without

‘Furiously/Continuously.’

‘How do you think it was about to [rain] *t*?’ (short extraction)

—totuzen/kumo ga de-te
suddenly cloud NOM emit-TE

‘Suddenly/When clouds appeared.’

(191) *kir* ‘do completely’

donoyooni huusen ga hukurami-kit-ta to omou no
how baloon NOM inflate-complete-PST C think NO

* ‘How do you think the baloon completed [inflating *t*]?’ (long extraction)

—heriumu de/oto o tate-nagara
helium by sound ACC emit-while

‘By helium/While making a sound.’

‘How do you think the baloon completed [inflating] *t*?’

(short extraction)

—nezumi no katati ni/ware-soo na kurai ni
mouse GEN shape to burst-like COP around to

‘Into the shape of a mouse/Around to the point that it may burst.’

(192) *tukus* ‘do exhaustively’

donoyooni tanaka ga chaahan o tabe-tukusi-ta to omou no
how Tanaka NOM fried.rice ACC eat-do.exhaustively-PST C think NO

* ‘How do you think Tanaka exhaustively [ate fried rice *t*]?’

(long extraction)

—te de/mizu o nomi-nagara
hand by water ACC drink-while

‘By hand/While drinking water.’

‘How do you think Tanaka exhaustively [ate fried rice] *t*?’

(short extraction)

—hito-tubu mo nokos-azu
one-grain even leave-NEG

‘Without even leaving a grain.’

The following are stem-selecting verbs in (64), which I categorized as control verbs. The examples allow long extraction, which indicates that they can take control structure.

(193) *rare* (indirect passive)

donoyooni tanaka wa sawag-are-ta to omou no
how Tanaka TOP make.noise-PSV-PST C think NO

‘How do you think Tanaka was affected by [someone being noisy *t*].’

(194) *(ra)re* (potential)

donoyooni tanaka wa karee o tabe-rare-ta to omou no
how Tanaka TOP curry ACC eat-POT-PST C think NO

‘How do you think Tanaka was able to [eat curry *t*]?’

(195) *sase* (causative)

donoyooni tanaka wa yamada ni tabe-sase-ta to omou no
how Tanaka TOP Yamada DAT eat-CAUS-PST C think NO

‘How do you think Tanaka made [Yamada eat *t*]?’

(196) *oe* ‘finish’

donoyooni tanaka wa tabe-oe-ta to omou no
how Tanaka TOP eat-finish-PST C think NO

‘How do you think Tanaka finished [eating *t*]?’

(197) *agune* ‘fail’

donoyooni tanaka wa kangae-agune-ta to omou no
how Tanaka TOP think-fail-PST c think NO

‘How do you think Tanaka failed to [think *t*]?’

(198) *kane* ‘fail’

donoyooni tanaka ga tabe-kane-ru to omou no
how Tanaka NOM eat-money-NPST c think NO

‘How do you think Tanaka hesitates to [eat *t*]?’

(199) *sobire* ‘fail’

donoyooni tanaka wa tabe-sobire-ta to omou no
how Tanaka TOP eat-fail-PST c think NO

‘How do you think Tanaka failed to [eat *t*]?’

(200) *sokonaw* ‘fail’

donoyooni tanaka wa tabe-sonokat-ta to omou no
how Tanaka TOP eat-fail-PST c think NO

‘How do you think Tanaka failed to [eat *t*]?’

(201) *sokone* ‘fail’

donoyooni tanaka wa tabe-sokone-ta to omou no
how Tanaka TOP eat-fail-PST c think NO

‘How do you think Tanaka failed to [eat *t*]?’

(202) *sonji* ‘fail’

donoyooni tanaka wa kaki-sonji-ta to omou no
how Tanaka TOP write-fail.doing-PST c think NO

‘How do you think Tanaka failed to [write *t*]?’

(203) *naos* ‘redo’

donoyooni tanaka wa kaki-naosi-ta to omou no
how Tanaka TOP write-redo-PST c think NO

‘How do you think Tanaka re-[did the writing *t*]?’

(204) *ayamar* ‘do wrongly’

donoyooni tanaka wa kaki-ayamat-ta to omou no
how Tanaka TOP write-make.mistake-PST c think NO

‘How do you think Tanaka [wrote *t*] by mistake?’

(205) *tagar* ‘want’

donoyooni tanaka wa tabe-tagar-u to omou no
how Tanaka TOP eat-want-NPST c think NO

‘How do you think Tanaka wants to [eat *t*]?’

(206) *wasure* ‘forget’

donoyooni tanaka wa wasure-ta to omou no
how Tanaka TOP forget-PST c think NO

‘How do you think Tanaka forgot to [eat *t*]?’

(207) *aki* ‘get bored’

donoyooni tanaka wa tabe-aki-ta to omou no
how Tanaka TOP eat-get.bored-PST c think NO

‘How do you think Tanaka got bored of [eating *t*]?’

(208) *tuke* ‘be used to’

donoyooni tanaka wa tabe-tuke-ta to omou no
how Tanaka TOP eat-get.used.to-PST C think NO

‘How do you think Tanaka got used to [eating *t*]?’

(209) *nare* ‘be used to’

donoyooni tanaka wa syaberi-nare-ta to omou no
how Tanaka TOP talk-get.used.to-PST C think NO

‘How do you think Tanaka got used to [talking *t*]?’

(210) *nokos* ‘unfinish’

donoyooni tanaka wa tabe-nokosi-ta to omou no
how Tanaka TOP eat-leave.leftover-PST C think NO

‘How do you think Tanaka unfully [ate *t*]?’

(211) *nuk* ‘do thoroughly’

donoyooni tanaka wa marason o hasiri-nui-ta to omou no
how Tanaka TOP marason ACC run-do.throughout-PST C think NO

‘How do you think Tanaka [ran the marathon *t*] thoroughly?’

(212) *toos* ‘do thoroughly’

donoyooni tanaka wa marason o hasiri-toosi-ta to omou no
how Tanaka TOP marathon ACC run-go.throughout-PST C think NO

‘How do you think Tanaka [ran the marathon *t*] thoroughly?’

(213) *okure* ‘delay’

donoyooni tanaka wa hasiri-okure-ta to omou no
how Tanaka TOP run-delay-PST C think NO

‘How do you think Tanaka was late to [run *t*]?’

The following are stem-selecting verbs in (100), which I claimed are ambiguous between raising and control. These examples allow long extraction, which indicates that they allow control interpretation, which is expected.

(214) *tuduke* ‘continue’

donoyooni ame ga huri-tuduke-ta to omou no
how rain NOM *fall-continue-PST* C *think* NO

‘How do you think it continued to [rain *t*]?’

(215) *hajime* ‘start’

donoyooni ame ga huri-hajime-ta to omou no
how rain NOM *fall-start-PST* C *think* NO

‘How do you think it started to [rain *t*]?’

(216) *owar* ‘finish’

donoyooni ame ga huri-owat-ta to omou no
how rain NOM *fall-finish-PST* C *think* NO

‘How do you think it finished [raining *t*]?’

(217) *makur* ‘do and do’

donoyooni ame ga huri-makut-ta to omou no
how rain NOM *fall-do.extremely-PST* C *think* NO

‘How do you think it [rained *t*] and rained?’

(218) *sugi* ‘do exceedingly’

donoyooni tanaka wa tabe-sugi to omou no
how Tanaka TOP *eat-PST* C *think* NO

‘How do you think Tanaka [ate *t*] too much?’

2.3.3.4. *Scope of the Embedded Object*

I now turn to scope relations. Koizumi (1995) discusses an observation that can be described as follows:

- (219) **Generalization (Koizumi 1995)** If a verb cannot take scope over the direct object of its embedded clause, then the construction has a control structure.

I use this as a test to examine the verbs from the previous sections.

The following are the stem-selecting verbs from (55), which I claimed to be raising verbs. They can take scope over the direct object, which is required by the claim that they are raising verbs.

- (220) *rare* (direct passive)

tanaka ga katahoo no momiage dake o sor-are-ta
Tanaka NOM *one* GEN *sideburn* *only* ACC *shave*-PSV-PST

‘Tanaka had only one sideburn shaved.’ (DPSV ≫ only)

- (221) *aw* (reciprocal)

tanaka to yamada ga aite dake o hihansi-at-ta
Tanaka with *Yamada* NOM *opponent* *only* ACC *criticize*-RECP-PST

‘Tanaka and Yamada criticized only each other.’ (RECP ≫ only)

- (222) *e/u* (potential)

tanaka wa gohan dake o tabe-e-ta
Tanaka TOP *rice* only ACC *eat-POT-PST*

‘Tanaka could eat only rice.’ (can ≫ only)

(223) *das* ‘initiate’

tanaka wa gohan dake o tabe-dasi-ta
Tanaka TOP *rice* only ACC *eat-initiate-PST*

‘Tanaka started to eat only rice.’ (start ≫ only)

(224) *kake* ‘be about to’

tanaka wa gohan dake o tabe-kake-ta
Tanaka TOP *rice* only ACC *eat-be.about.to-PST*

‘Tanaka was about to eat only rice.’ (about to ≫ only)

(225) *kir* ‘do completely’

tanaka wa gohan dake o tabe-kit-ta
Tanaka TOP *rice* only ACC *eat-complete-PST*

‘Tanaka completely ate only rice.’ (completely ≫ only)

(226) *tukus* ‘do exhaustively’

tanaka wa gohan dake o tabe-tukusi-ta
Tanaka TOP *rice* only ACC *eat-do.exhaustively-PST*

‘Tanaka exhaustively ate only rice.’ (exhaustively ≫ only)

The following are stem-selecting verbs from (64), which I categorized as control verbs. Except for *rare* (indirect passive), *(ra)re* (potential), *sase* (causative), *agune*, *kane*, *tagar*, *aki*, and *nare*, all these verbs cannot take scope over the direct object, hence can involve control structure. For the exceptional verbs, this test does not really say anything.

(227) *oe* ‘finish’

tanaka wa gohan dake o tabe-oe-ta
Tanaka TOP *rice* only ACC *eat-finish-PST*

* ‘Tanaka finished eating only rice.’ (finish ≫ only)

(228) *sobire* ‘fail’

tanaka wa gohan dake o tabe-sobire-ta
Tanaka TOP *rice* only ACC *eat-fail-PST*

* ‘Tanaka failed to eat only rice.’ (fail ≫ only)

(229) *sokonaw* ‘fail’

tanaka wa gohan dake o tabe-sokonat-ta
Tanaka TOP *rice* only ACC *eat-fail-PST*

* ‘Tanaka failed to eat only rice.’ (fail ≫ only)

(230) *sokone* ‘fail’

tanaka wa gohan dake o tabe-sokone-ta
Tanaka TOP *rice* only ACC *eat-fail-PST*

* ‘Tanaka failed to eat only rice.’ (fail ≫ only)

(231) *sonji* ‘fail’

tanaka wa iti-mai dake o kaki-sonji-ta
Tanaka TOP *one-sheet* only ACC *write-fail.doing-PST*

* ‘Tanaka failed to write only one sheet.’ (fail ≫ only)

(232) *naos* ‘redo’

tanaka wa iti-mai dake o kaki-naosi-ta
Tanaka TOP *one-sheet* only ACC *write-redo-PST*

* ‘Tanaka re-wrote only one sheet.’ (redo ≫ only)

(233) *ayamar* ‘do wrongly’

tanaka wa iti-mai dake o kaki-ayamat-ta
Tanaka TOP *one-sheet only* ACC *write-do.wrongly-PST*

* ‘Tanaka wrongly wrote only one sheet.’ (wrongly ≫ only)

(234) *wasure* ‘forget’

tanaka wa iti-mai dake o kaki-wasure-ta
Tanaka TOP *one-sheet only* ACC *write-forget-PST*

* ‘Tanaka forgot to write only one sheet.’ (forget ≫ only)

(235) *tuke* ‘be used to’

tanaka wa hadagi dake o ki-tuke-ta
Tanaka TOP *innerware only* ACC *wear-be.used.to-PST*

* ‘Tanaka got used to wearing only the innerware.’ (used to ≫ only)

(236) *nokos* ‘unfinish’

tanaka wa gohan dake o tabe-nokosi-ta
Tanaka TOP *rice only* ACC *eat-leave.leftover-PST*

* ‘Tanaka unfinished eating only rice.’ (unfinish ≫ only)

(237) *nuk* ‘do thoroughly’

tanaka wa marason no hanbun dake o hasiri-nui-ta
Tanaka TOP *marathon GEN half only* ACC *run-do.throughout-PST*

* ‘Tanaka ran through only a half of the marathon.’ (through ≫ only)

(238) *toos* ‘do thoroughly’

tanaka wa marason no hanbun dake o hasiri-toosi-ta
Tanaka TOP *marathon* GEN *half* only ACC *run-go.throughout*-PST

* ‘Tanaka ran through only a half of the marathon.’ (through ≫ only)

(239) *okure* ‘delay’

tanaka wa kata-te dake o age-okure-ta
Tanaka TOP *one-hand* only ACC *raise-delay*-PST

* ‘Tanaka delayed raising only one hand.’ (delay ≫ only)

(240) *rare* (indirect passive)

tanaka wa myooji dake o kisai-s-are-ta
Tanaka TOP *family.name* only ACC *document-do*-PSV-PST

‘Tanaka was affected by having only the family name documented.’ (IPSV
≫ only)

(241) *(ra)re* (potential)

tanaka wa gohan dake o tabe-rare-ta
Tanaka TOP *rice* only ACC *eat*-PSV-PST

‘Tanaka was able to eat only rice.’ (POT ≫ only)

(242) *sase* (causative)

tanaka wa yamada ni gohan dake o tabe-sase-ta
Tanaka TOP *Yamada* DAT *food* only ACC *eat*-CAUS-PST

‘Tanaka let Yamada eat only rice.’ (CAUS ≫ only)

(243) *agune* ‘fail’

tanaka wa kono mondai no keturon dake o dasi-agune-ta
Tanaka TOP *this* *problem* GEN *conclusion* only ACC *initiate-fail*-PST

‘Tanaka failed to reach only the conclusion for this problem.’ (fail ≫ only)

(244) *kane* ‘fail’

tanaka wa gohan dake o tabe-kane-ta
Tanaka TOP *rice* only ACC *eat-money-PST*

‘Tanaka failed to eat only rice.’ (fail ≫ only)

(245) *tagar* ‘want’

tanaka wa gohan dake o tabe-tagat-ta
Tanaka TOP *rice* only ACC *eat-want-PST*

‘Tanaka wanted to eat only rice.’ (want ≫ only)

(246) *aki* ‘get bored’

tanaka wa gohan dake o tabe-aki-ta
Tanaka TOP *rice* only ACC *eat-get.bored-PST*

‘Tanaka got bored eating only rice.’ (bored ≫ only)

(247) *nare* ‘be used to’

tanaka wa hadagi dake o ki-nare-ta
Tanaka TOP *innerware* only ACC *wear-get.used.to-PST*

‘Tanaka got used to wearing only the innerware.’ (used to ≫ only)

The following are stem-selecting verbs from (100), which I claimed are ambiguous between raising and control. They can take scope over the direct object, in other words, as far as this test is concerned, there is no evidence that these verbs only take a control structure, which is compatible with my claim.

(248) *tuduke* ‘continue’

tanaka wa gohan dake o tabe-tuduke-ta
Tanaka TOP *rice* only ACC *eat-continue-PST*

‘Tanaka continued to eat only rice.’ (continue ≫ only)

(249) *hajime* ‘start’

tanaka wa gohan dake o tabe-hajime-ta
Tanaka TOP *rice* only ACC *eat-start-PST*

‘Tanaka started to eat only rice.’ (start ≫ only)

(250) *owar* ‘finish’

tanaka wa gohan dake o tabe-owat-ta
Tanaka TOP *rice* only ACC *eat-finish-PST*

‘Tanaka finished eating only rice.’ (finish ≫ only)

(251) *makur* ‘do and do’

tanaka wa gohan dake o tabe-makut-ta
Tanaka TOP *rice* only ACC *eat-do.extremely-PST*

‘Takaka ate and ate only rice.’ (do and do ≫ only)

(252) *sugi* ‘do exceedingly’

tanaka wa gohan dake o tabe-sugi-ta
Tanaka TOP *rice* only ACC *eat-do.too.much-PST*

‘Tanaka exceedingly ate only rice.’ (exceedingly ≫ only)

■ 2.4. Accounts

I now turn to the accounts of the data discussed so far.

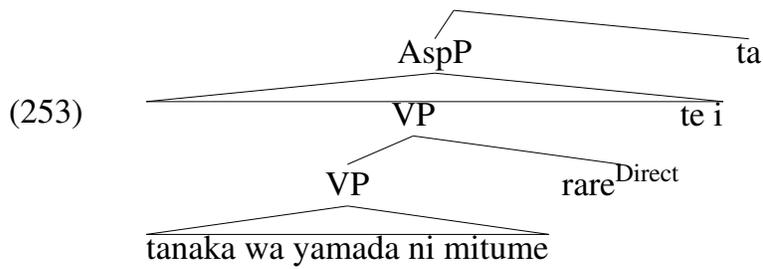
2.4.1. *Selection-Based Account*

In chapter 1, we have observed that the selectional restrictions of Japanese functional elements at the tense phrase or a lower position are not strict enough to result in a fixed hierarchy. An attempt to explain the positional restriction observed in section 2.3 in terms of selectional restriction is reviewed in this section, and it is confirmed that such an attempt fails.

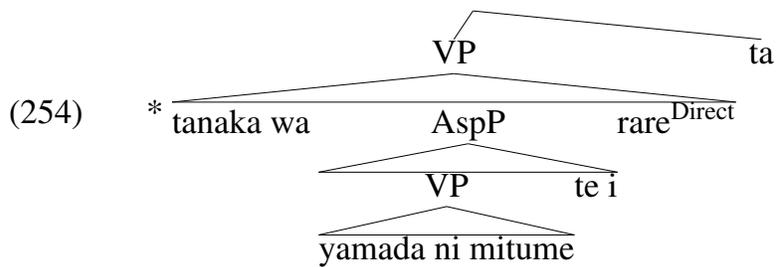
Based on her observation regarding modality verbs and the direct and indirect passive morphemes, Sugioka claims that the direct passive morpheme adjoins only to a certain type of verbal phrases (let us assume for simplicity that this is VP), whereas the indirect passive morpheme may adjoin to VP or to a higher verbal phrase (let us call this AspP), and aspectual morphemes select the lower projection (VP) and project into the higher one (AspP).¹²

If that is the case, then (42a) would be analyzed as (253). The aspectual verb *i* is selecting (via *te*) the projection VP, to which the direct passive is adjoined, which causes no problems.

¹²At the time of the original work, adjunction was assumed to be able to target an intermediate projection of a phrase. In Sugioka's original terms, the lower phrase is V' and the higher one is V'' . Sugioka then argues for a reanalysis operation, under which one head incorporates into the other.



On the other hand, since the aspectual morpheme *i* projects into AspP, to which the direct passive *rare* cannot adjoin, a structure like (254), intended to express (42b), would be illicit.



The aspectual verb *i* will always select VP and project into AspP. The indirect passive morpheme can adjoin either to the VP as in (255), which represents (43a), or to the AspP, as in (256), which represents (43b).

of the stem-selecting verb *tuduke* and the gerund-selecting verb *i* (progressive) is subject to the ordering restriction when *tuduke* does not take an external argument, resulting in a raising construction.

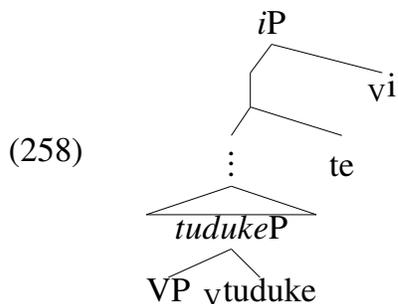
(257)

- a. ame ga furi-tuduke-te i-ru
rain NOM *fall-continue-TE* PROG-NPST

‘The rain keeps falling.’

- b. * ame ga fut-te i-tuduke-ru

From this fact, it may seem reasonable to assume that the raising *tuduke* is placed lower in the hierarchy than the progressive *i*.



Next, recall that there is no restriction between the raising *tuduke* and the stem-selecting verb *sase* (causative) as in (259) or between *sase* and the gerund-selecting verb *i* (progressive) as in (260).

(259)

- a. ame o furi-tuduke-sase-ru
rain ACC fall-continue-CAUS-NPST

‘let the rain continue falling’

- b. ame o fur-ase-tuduke-ru
rain ACC fall-CAUS-continue-NPST

‘continue to let the rain fall’

(260)

- a. tanaka ni tabe-sase-te i-ru
Tanaka DAT eat-CAUS-TE PROG-NPST

‘be letting Tanaka eat’

- b. tanaka ni tabe-te i-sase-ru
Tanaka DAT eat-TE PROG-CAUS-NPST

‘let Tanaka be eating’

In a Sugioka-style analysis, it should then be assumed that the raising *tuduke* and *sase* are not different with respect to what they can select/adjoin to, and *sase* and the progressive *i* are not different either. It follows that all three of the raising *tuduke*, the *sase*, and the progressive *i* should have the same selectional restriction and there is no hierarchy restriction between *tuduke* and the progressive *i*. This contradicts (258).

Any attempt to explain the ordering restriction by using a hierarchy derived from selectional requirements would fail because the free-order-ness (exemption from the restriction) found here is not transitive (i.e., free order between *A* and *B* and free order between *B* and *C* does not entail free order between *A* and *C*), so it is impossible to establish a hierarchy (order) between the relevant functional verbs.

2.4.2. *Case-Based Account*

Miyagawa (1989a : 172–188) gives an account for the ordering restriction by assuming (261).

(261) **Postulate (Miyagawa 1989a)**

- a. The passive morpheme must absorb case, either accusative or dative, if a case-assigning feature exists.
- b. The gerundive morphology *te* is an absolute barrier to adjacency.
- c. A productive morpheme is transparent for the purpose of adjacency if it does not alter the fundamental lexical properties of its base (i.e., lexical category, case, and thematic roles).

If the main verb is transitive, but not if it is intransitive, it has the accusative case feature, which according to (261a), must be absorbed by *rare*. According to (261b), this is blocked if *te* (followed by a gerund-selecting verb) intervenes between the verb and the passive morpheme. On the other hand, according to (261c), a stem-selecting verb (which is productive) does not block case absorption when it intervenes between the main verb and the passive morpheme.

When the passive morpheme *rare* absorbs case, it will then assign accusative case to the direct object on behalf of the main verb. The main verb loses the external theta-role, and the passive morpheme assigns experiencer theta-role, which manifests in indirect passive sentences.

Miyagawa thus accounts for the restriction on the distribution of *te*. There are several problems to Miyagawa's account though.

First, Miyagawa's account correctly rules out the cases where the main verb is transitive and the indirect passive morpheme follows a gerund-selecting verb, as observed in the contrast between (46a, b), repeated here as (262a, b).

(262)

- a. tanaka wa yamada ni kodomo o tatak-are-te i-ta
 Tanaka TOP *Yamada* by child ACC hit-PSV-TE PROG-PST
- ‘As for Tanaka, her child was being hit by her friend.’
- b. * tanaka wa yamada ni kodomo o tatai-te i-rare-ta
 Tanaka TOP *Yamada* by child ACC hit-TE PROG-PSV-PST

In (262b), the transitive verb *tatak* has accusative case, and has to be absorbed. Since *te* intervenes between this verb and *rare*, case absorption from *tatak* by *rare* fails, leading to ungrammaticality. However, as Miyagawa notes (198 note), if we replace similar constructions with a main verb that has both intransitive and transitive use such as *yom* ‘read,’ *nom* ‘drink,’ then the sentence is grammatical (even) under the transitive usage of the main verb as in (263b).

(263)

- a. tanaka wa yamada ni raburetaa o yom-are-te simat-ta
Tanaka TOP *Yamada* by love.letter ACC read-PSV-TE happen.unfortunately-PST
 ‘Tanaka had Yamada read his love letter.’
- b. tanaka wa yamada ni raburetaa o yon-de simaw-are-ta

Miyagawa’s account incorrectly rules out such sentences.

Second, Miyagawa’s explanation only deals with the cases where the stem-selecting verb relevant to the paradigm is the passive morpheme *rare*. His account in terms of case theory cannot be extended to cover all functional verbs.

2.4.3. *Economy-Based Account*

In this section, I propose an outline of an analysis of the ordering restriction. Formal definitions will be given in chapter 3. In this section, for simplicity, I abstract away from the different projections that constitute the traditional verb phrase, namely vP and VP, and describe only a single verbal head as corresponding to a verb phrase.

Given a predicate verb V_1 , a functional verb V_2 may be either a stem-selecting verb as in (264a) or a gerund-selecting verb as in (264b).

(264)

- a. ... V_1 - V_2
- b. ... V_1 -te V_2

When a predicate verb V_1 is followed by a functional verb V_2 , which is followed by another functional verb V_3 , we have the configurations in (265) to consider.

(265)

- a. ... V_1 - V_2 - V_3
- b. ... V_1 -te V_2 -te V_3
- c. ... V_1 - V_2 -te V_3
- d. (*) ... V_1 -te V_2 - V_3

We have seen that only one case of (265d) is prohibited while all the other cases in (265) are allowed. I have also shown that the θ -role assignning property of the functional verbs V_2 and V_3 is relevant.

In particular, for the offending case (265d), whether the configuration is prohibited is determined by whether V_2 and V_3 assign a θ -role, as in (266). Here, θ -role assigning heads are marked with θ . In all cases, the main predicate V_1 is a θ -role assigner.

(266)

- a. * ... θV_1 -te V_2 - V_3
- b. ... θV_1 -te θV_2 - V_3
- c. ... θV_1 -te V_2 - θV_3
- d. ... θV_1 -te θV_2 - θV_3

Observing (265, 266), I will argue for an account where what we are dealing with here is a restriction on the distribution of *te*. I characterize the peculiarity of (266a) as the situation in (267).¹³

(267) **Generalization** *Te* cannot be asymmetrically c-commanded by a stem-selecting verb within a single domain, where the relevant domain is defined as having a θ -role assigning head in its lowest position and extending over its dominating projections up to the next θ -role assigning head, if any, or to the final element.

The schema (266) is repeated in (268) with the relevant domain (from (267)) indicated by brackets.¹⁴

¹³Given the head-final nature of Japanese, (267) can also be restated as follows: '*Te* cannot precede a stem-selecting verb ...

¹⁴For relevant discussion of this kind of domains, see also Bobaljik and Wurmbrand (2005).

(268)

- a. * [... θV_1 -te V_2 - V_3]
- b. [... [... θV_1 -te] θV_2 - V_3]
- c. [... [... θV_1 -te V_2]- θV_3]
- d. [... [... [... θV_1 -te] θV_2]- θV_3]

In (268a), *te* is in the same domain as the stem-selecting verb V_3 and is asymmetrically c-commanded by it, so (268a) violates (267). In (268b–d), the only stem-selecting verb is V_3 , which is in a separate domain from *te*, so that (267) is satisfied.

Condition (267) is also satisfied in all other cases in (265a–c), in fact, the θ -role assigning properties of V_2 and V_3 , are irrelevant here; *te* is not asymmetrically c-commanded by a stem-selecting verb in any of these cases, so that none of them is prohibited by the ordering restriction in (267).

(269)

- a. ... V_1 - V_2 - V_3
- b. ... V_1 -te V_2 -te V_3
- c. ... V_1 - V_2 -te V_3

In (269a), with two stem-selecting verbs V_2 and V_3 , there is no *te*. In (269b), with two gerund-selecting verbs V_2 and V_3 , there is no stem-selecting verb. In (269c), the only *te* is not asymmetrically c-commanded by the only stem-selecting verb V_2 .

The intuition behind (267), which the analysis developed in the next chapter will capture, is that *te* is a pleonastic morpheme, and should be avoided (i.e., its merger should be avoided) at each derivational step if possible; it should be used only as last resort. What is relevant here is that the *te* and stem-selecting verbs share the same selectional restriction, namely they select a verb phrase. Therefore, *te* and a stem-selecting verb compete in a sense to be made more precise in the next chapter, and a stem-selecting verb has priority over *te*. However, that competition is limited to a certain domain defined in terms of the θ -role assigning property of a head. Examples of such domains are illustrated by brackets in (268). In the next chapter, I will spell out the details of the analysis.

Chapter 3

Avoid Pleonastic Merger

In chapter 2, we have observed data that suggest that selection by itself cannot explain the distribution of stacked functional verbs in Japanese; more precisely, it cannot explain the ordering restrictions among them. In section 2.4.3, I informally noted a restriction that pleonastic elements are inserted only when there is no other choice and that such a consideration is bounded by domains that are defined by the θ -role assigning property of the relevant heads. In this chapter, I spell out the formal specifications of the account. In section 3.1, I claim that this domain corresponds to *phase*. In section 3.3, I propose several conditions on merger. Then in section 3.5, the paradigm from chapter 2 is analyzed under these principles.

■ 3.1. Phase and Numeration

In section 2.4.3, I suggested that insertion of *te* is dispreferred to insertion of a stem-selecting verb and that that consideration is bound within a certain domain. I claim that this effect can be derived under the notion of phase and numeration by assuming certain conditions on merger.

I adopt the following standard assumptions held since Chomsky (2001):

(270) **Definition**

- a. A *numeration*¹⁵ is a set of lexical items¹⁶ that contains exactly one phasal head.
- b. A *phase* is a portion of a syntactic derivation that exhausts the corresponding numeration. A phase corresponds to a numeration.

In this chapter, I focus on the structure below CP. There have been varieties of approaches regarding phases in this domain in the literature. Some of these approaches are the following:

¹⁵In the sense that is relevant for a phase and not the whole sentence. This notion has been called subarray/lexical array in Chomsky 2000, but is taken over in the literature by the new usage of the term numeration.

¹⁶Under standard assumptions, this would not be able to describe how many instances of a certain lexical item appear in a phase. To prevent this problem, Chomsky (1995 : 225) defines numeration as a set of pairs of a lexical item and an index describing the number of time it appears. Using a set of lexical items as a numeration instead, the problem can be prevented by assuming that lexical insertion of a non- θ -role assigner (i.e., phasal head) only optionally removes that item from the numeration; an item would end up appearing n times in a phase if that item is removed by the n -th lexical insertion of it. Numeration would not have information for deciding n ; it would be the syntax that would optionally delete it.

(271) **Bošković (2013, 2014a)** A *phase* is the highest phrase in the extended domain of a lexical head.

(272) **Chomsky (2000, 2001)** vP is a phase only if it assigns a θ -role.

I will combine these two approaches. I adopt the notion of the highest phrase in the domain as a phase from Bošković (2013, 2014a) and the notion that a θ -marking head is a factor in defining a phase from Chomsky (2000). I also assume the following:

(273) **Postulate** When a *v* takes an external argument, its θ -role is assigned by the *V*, not the *v* (i.e., it is marked in the θ -grid of the *V*).

(274)

- a. $[_{VP} \alpha [_{VP} ([_{CP/TP} \dots]) \theta V] v]$ (unergative)
- b. $[_{VP} [_{VP} \alpha ([_{CP/TP} \dots]) \theta V] v]$ (unaccusative)
- c. $[_{VP} \alpha [_{VP} \beta ([_{CP/TP} \dots]) \theta V] v]$ (transitive)

This is in the spirit of Grimshaw and Mester's (1988) analysis of the light-verb constructions, where the light verb is not a θ -role assigner. I leave open the particular analysis of how θ -role assignment is possible from a head to the specifier position of a different head (V incorporation into *v* may be responsible). What is important for our purposes is that whenever a traditional verbal element takes a θ -marked argument, I assume that *V* is the sole θ -role assigner.

I also adopt (275), which will be deduced in section 3.3 from other assumptions.

(275) **Corollary** The first operation in a phase is merger of the θ -assigner from the numeration with another element.

The result of combining the above is the following, which is the phasal system to be argued for in this thesis:

(276) **Corollary** A phasal head is a θ -marking element.

(277) **Corollary** A phase is the highest phrase in the extended domain of a phasal head. The phasal domain is closed when the next phasal head is merged.

I will demonstrate in section 3.5 that this system accounts for the distribution of *te* given the approach to numeration described in the next section.

■ 3.2. Numeration and Pleonastic Elements

In this section, I discuss how pleonastic elements are brought into the syntactic derivation. Chomsky's (1995) original conception of numeration is that all lexical items are present in the numeration. On the other hand, Bošković (1997: 38) discusses the possibility that numeration includes only lexical elements and no functional elements to derive the effect that control infinitives lack a CP without resorting to global/representational principles (for other relevant discussion and arguments, see Bošković 2004 and Vukić 2003). I argue for a notion of numeration in between them, such that only pleonastic elements are absent, while other functional elements are present in the numeration as in (278) (see also Vukić 2003).

(278) **Postulate** Pleonastic elements are not present in the numeration. They are inserted directly from the lexicon/vocabulary.

Since I assume that pleonastic elements are absent from the numeration, analyses in the literature that crucially assume that pleonastics are present in the numeration will be affected. The main argument of this kind involves the explanation of the contrast in (279) by Chomsky (1995, 2000).

(279)

- a. there seems (*e*) to be a ghost in that mansion
- b. * there seems a ghost to be in that mansion
- c. a ghost seems to be in that mansion
- d. there is a possibility [_{CP} that a ghost is in that mansion]

Chomsky assumes that the specifier of the embedded T in (279a) has to be filled because infinitival T has an EPP feature. He also adopts a principle that prefers merger over movement. In principle, the EPP here can be satisfied by movement of *a ghost* or by *there* insertion. Because of the merge-over-move principle, the EPP must be satisfied by insertion of *there*, which then moves to the matrix clause, deriving (279a). The ungrammatical (279b) is then ruled out due to the merge-over-move preference. This account requires that expletives are present in the numeration. In (279c), the expletive is not present in the numeration, hence the example is acceptable since there is no possibility of expletive insertion, making the merge-over-move

preference irrelevant. Furthermore, in order not to rule out (279d), where *there* is in the matrix TP, but not embedded TP, Chomsky assumes that a numeration corresponds to a phase. The numeration that corresponds to the embedded CP does not have an expletive, hence there is no possibility of *there* insertion.

However, Bošković (2002) points out that Chomsky's account incorrectly rules out (280a) and incorrectly rules in (280b).

(280)

- a. there has been a book¹ put t^1 on the table
- b. * there¹ has been t^1 put a book on the table

Lasnik (1995) argues that the indefinite in (280a) moves to satisfy the EPP. In Chomsky's system, (280a, b) consist of only one phase, hence insertion of the expletive is expected to block movement of the indefinite, contrary to fact. Based on (280), Bošković argues against Chomsky's account of (279a). Instead, he argues that infinitival T does not have the EPP feature, so that its specifier is not filled in cases like (279a). What is important for us is that Chomsky's account for the contrast in (279) that is problematic for (278) does not go through.

■ 3.3. Conditions on Merger

Before going into the analysis of the paradigm observed in chapter 2, I propose here the main claims of the thesis. There have been various claims that redundant expressions are avoided or ungrammatical (such as last resort nature of *do*-support (Chomsky 1991), Minimal Structure Principle (Bošković 1997), Ban on F-redundancy (Gajewski 2009), to list a few). A conceptual problem about some of these proposals is that they do not provide the exact algorithm to compare the options or rule out the redundant options without resorting to global informal comparisons of entire potential sentences. Another problem with some of them is that they are construction-specific; it is not clear how they can be generalized to a principle of universal grammar. I would like propose a principle that shares the basic insight with these analyses, but I seek to propose a non-construction specific, i.e. universal, derivational principle. I propose the following.

(281) **Postulate**

- a. Merger must operate on a θ -role assigner from the numeration if there is such element.
- b. Avoid Pleonastic Merger: A pleonastic element cannot merge with α if a non-pleonastic element in the numeration can merge with α , satisfying other derivational principles (such as selectional requirements, motivation for secondary merge (move), among others).

The principles in (281), with other principles that are commonly assumed in the literature (such as selectional requirements, a certain motivation for secondary merge (move), among others) are the key mechanisms that drive the merge operation during the derivation. Recall that I have proposed above that pleonastic elements are not present in the numeration. What (281b) essentially does here is that it forces pleonastics to be used only as last resort, i.e., pleonastic insertion is a last resort mechanism.

Vukić (2003) proposes a condition similar to (281b). One argument he gives for such an approach is the following: English verb *remark* does not assign case as indicated by the ungrammaticality of (282) (see Bošković 1997). On the other hand, *know* can assign accusative case even to an element it does not θ -mark as in (283).

(282) * John remarked a new fact

(283) I've known John for a long time now to be a liar

Given this, Vukić notes that the ungrammatical (284a) cannot be ruled out for case reasons (*know* should be able to case mark *what*). However, (284a) can be ruled out if expletives are inserted only as last resort. In fact, under (281b), merger of pleonastic *it* is blocked by merger (movement) of *what*. That is, (284b) blocks (284a).¹⁷

¹⁷Regarding *there is a man in the garden*, Vukić assumes that the indefinite here bears partitive case, hence cannot move to the specifier of TP, a nominative case assigning position. *There* is thus inserted, satisfying the EPP and discharging the nominative case of the matrix T.

(284)

- a. * I know [what¹ it was remarked t^1]
- b. I know [what was remarked t]

As a reminder, the crucial assumption in the discussion above is (281b), repeated here as (285b), which regulates merger of pleonastics. Above, I proposed another condition on merger (281a). The effect of this condition will be discussed more in the next section.

(285) (= (281))

- a. Merger must operate on a θ -role assigner from the numeration if there is such element.
- b. Avoid Pleonastic Merger: A pleonastic element cannot merge with α if a non-pleonastic element in the numeration can merge with α , satisfying other derivational principles (such as selectional requirements, motivation for secondary merge (move), among others).

Under the notion of numeration developed in section 3.1, principle (281a) has the effect of deriving (275), repeated here as (286).

(286) **Corollary (= (275))** The first operation in a phase is merger of the θ -assigner from the numeration with another element.

A numeration can involve only one phasal head, which in the current system means only one θ -role assigner. Furthermore, a numeration corresponds to a phase.

Principle (281a) requires the first merger in a phase to operate on the single θ -role assigner in the numeration. Since the sole θ -role assigner will be removed from the numeration by this merger, no subsequent merger within the phase will operate on a θ -role assigner; a new θ -role assigner can then be merged only when the next θ -role assigner in a numeration is accessed, which means when the current numeration is exhausted, closing the phasal domain too. This derives the effect that the highest phrase in the extended domain of a θ -role assigner is a phase, which is similar to Bošković's (2013, 2014b).

■ 3.4. Consonant-Ending Verbs and *Ren'yoo*-Form

Before going into the analysis of the observed paradigm in the next section in terms of the proposed principles, I will first clarify the status of *i* that appears in verbal inflection.

The issue that will be discussed concerns a complication regarding *consonant-ending verbs* in Japanese. These verbs have a stem that ends with a consonant. They can be followed by a morpheme that starts with a vowel as in (287).

- (287) kak-anai
write-NEG

'not write'

There are morphemes that start with a consonant, and in such a case, vowel *i* is inserted.

- (288) kak-i-masu
write-I-POL

'write' (polite)

What this *i* is has not been made clear in modern studies of Japanese. Traditional accounts represented by Hashimoto (1969) consider the form *kaki* as an inflectional form *ren'yoo-kee* (ad-predicate form), whose purpose is to attach to certain morphemes that follow.¹⁸ Some generative analyses appear to follow this idea and acknowledge *i* as a morpheme.

This *i* can also appear alone as in the following construction, which Kuno (1973) calls the *i*-continuative form.

¹⁸Actually, they segment morphemes at wrong boundaries and call *ka* as the stem and *ki* as the inflectional ending. As Vance (1986) points out, this is due to the influence of Japanese orthographic system. The smallest unit in Japanese orthography is a phonogram (hiragana and katakana), which in the majority of cases expresses a mora such as *ki* rather than a phoneme such as *k* or *i*. Lacking a way to describe an individual phoneme, traditional analyses failed to recognize a boundary between the two phonemes *k* and *i* in the mora *ki*. Most modern analyses assume the segmentation *kak-i-mas(-u)*.

(289) tegami o kak-i, toukan-si-ta
letter ACC write-1 post-do-PST

‘Having written a letter, (she) posted (it).’

It also appears when a consonant verb is used in a compound. Thus, it does not look like *i* has a particular semantic purpose. A possibility might be, then, that *i* is a pleonastic derivational morpheme. However, Itô and Mester (1999) notice that a compound consisting of a consonant-ending verb can sometimes freely alternate between *i*-insertion and gemination without any difference in meaning.¹⁹

- (290)
- a. fuk-i-tobu ‘burst’
blow-1-fly
 - b. fut-tobu ‘burst’
blow-fly

Vowel insertion and gemination are among the phonological strategies often used in Japanese to accommodate a phonological sequence into the Japanese syllable structure. The alternation indicates that *i*-insertion is a strategy to repair syllable structure. In this thesis, I assume that phonological operations dealing with native Japanese morphemes (which inflection deals with) has *i* as the epenthetic vowel, and the *i* observed after a consonant-ending verb is such vowel.²⁰ Epenthetic vowel is inserted in the phonological component of the grammar, and has no independent morphological existence.

¹⁹The gemination option is colloquial, unlike the *i*-insertion option.

²⁰Since McCawley (1968), it has been commonly accepted that Japanese has different sets of phonological rules for different portions of the vocabulary. Epenthetic vowels *u* and *o* are common in Western-origin loan words in Japanese.

■ 3.5. Analysis

Having discussed a complication regarding Japanese inflectional morphology and established its treatment, I now turn to the analysis of the paradigm schematized in (265, 266). The configurations in (265) are repeated here as (291) with more detail (this time showing the verbal projections within traditional verb phrases and whether the V is a stem-selecting verb ‘S’ or a gerund-selecting verb ‘G’).

(291)

- a. ... $V_1 v_{1-S} V_2 v_{2-S} V_3 v_3$
- b. ... $V_1 v_{1-te_G} V_2 v_{2-te_G} V_3 v_3$
- c. ... $V_1 v_{1-S} V_2 v_{2-te_G} V_3 v_3$
- d. (*) ... $V_1 v_{1-te_G} V_2 v_{2-S} V_3 v_3$

A crucial assumption to be made is:

(292) **Postulate** The element *te* is a pleonastic element.²¹

In (291a), suppose V_1 and V_3 are θ -role assigning heads. Then, the first numeration in the derivation relevant to the discussion (possibly after building the part expressed as ‘...’) is $\{V_{1,S} V_2, v\}$, which is exhausted at the point structure (293a) has been built.²²

²¹Under usages that I have not discussed yet, there are cases where *te* is not a pleonastic. They will be discussed in section 3.6. Until then, I will put them aside.

²²The light verb *v* in the numeration is used multiple times as v_1 and v_2 . Recall note 16.

(293)

- a. [Phase₁ ... V₁ v₁-V₂ v₂]
- b. [Phase₂ ... [Phase₁ ... V₁ v₁-V₂ v₂]-V₃ v₃]

The second relevant numeration includes ${}_sV_3$, v_3 , (and possibly other elements), which results in (293b) in some stage of the derivation. None of the relevant numerations include a pleonastic element, hence (281b) is not relevant. The analysis extends to cases of (291a) with other combinations among V_1 and V_2 being θ -role assigners.

Similarly in (291b), suppose that V_1 and V_3 are θ -role assigning heads. The first relevant numeration is $\{V_{1,G} V_2, v\}$. At some point in the derivation, structure (294a) appears with the rest of the numeration being $\{{}_G V_2, v\}$ at that point.

(294)

- a. [_{vP} ... V₁ v₁]
- b. ... V₁ v₁-te V₂ v₂
- c. [Phase ... V₁ v₁-te V₂ v₂-te]

The category of (294a) is vP , which none of the items in the numeration can select (${}_G V_2$ selects a te -phrase and v selects a VP). Without violating (281b), te is merged with (294a). The derivation continues up to (294b), where the numeration has been

exhausted. The second numeration $\{{}_G V_3, v_3\}$ becomes active. ${}_G V_3$ is a θ -role assigner. Given (281a), it must be merged first, but it cannot be merged first, in fact, none of the elements in the numeration can be merged at this point, so merger of *te* occurs, resulting in (294c) without violating (281b). The derivation continues with the second numeration. The analysis extends to the cases of (291b) with other combinations among V_1 and V_2 being θ -role assigners.

In (291c), the derivation proceeds up to (295a) just as with (291a); crucially, (281b) is irrelevant because *te* does not appear in (295a). From that point, the derivation proceeds to (295b) just as with (291b); crucially, (281b) is not violated because nothing left in the numeration can select the vP (295a).

(295)

- a. $[_{vP} \dots V_1 v_1 - V_2 v_2]$
- b. $\dots V_1 v_1 - V_2 v_2 - te V_3 v_3$

The analysis extends to the cases of (291c) with other combinations among V_1 and V_2 being θ -role assigners.

The fourth case (291d) includes an offending case. The relevance of the ordering restriction depends on the θ -role assigning property of the functional verbal heads ${}_G V_2$ and ${}_S V_3$. The structures in (296) gives the details of the (291d) with the θ properties specified.

(296)

- a. * ... $\theta V_1 v_1$ -te $_G V_2 v_2$ -s $V_3 v_3$
- b. ... $\theta V_1 v_1$ -te $\theta, _G V_2 v_2$ -s $V_3 v_3$
- c. ... $\theta V_1 v_1$ -te $_G V_2 v_2$ - $\theta, s V_3 v_3$
- d. ... $\theta V_1 v_1$ -te $\theta, _G V_2 v_2$ - $\theta, s V_3 v_3$

In (296a) (see for example (57b)), the first relevant numeration $\{V_1, _G V_2, s V_3, v, \dots\}$ includes all of the verbal heads. The θ -role assigner V_1 is inserted first. At point (297), the remaining numeration $\{ _G V_2, s V_3, v, \dots\}$ contains $s V_3$, which selects vP.

(297) [_{vP} ... $\theta V_1 v_1$]

A stem-selecting verb can be merged with (297). Given (281b), *te* cannot be merged. The configuration in (296a) then, cannot be derived.

In (296b) (see for example (65b)), the first relevant numeration $\{V_1, v_1\}$ is exhausted at point (297). The first element that has to be merged in the next numeration is the θ -role assigner $_G V_2$, given (281a). However, the $_G V_2$ does not select vP. The vP (297) can then merge with *te* as in (298); the merger does not violate (281b).

(298) [Phase ... $\theta V_1 v_1-te$]

The derivation then continues to derive the grammatical (296b).

In (296c) (see for example (87b)), the first numeration $\{V_1, {}_G V_2, v\}$ becomes $\{{}_G V_2, v\}$ at the point derivation reaches (297). Since no element remaining in the numeration can select the vP (297) (${}_G V_2$ selects a *te*-phrase and v selects a VP), *te* is merged without violating (281b). The numeration is exhausted at point (299).

(299) [Phase ... $\theta V_1 v_1-te V_2 v_2$]

The derivation continues with the second numeration $\{{}_S V_3, v_3, \dots\}$ to derive the grammatical (296c).

In (296d) (see for example (94b)), the first relevant numeration $\{V_1, v_1\}$ is exhausted at point (297). The second numeration $\{{}_G V_2, v_2\}$ is introduced. According to (281a), the θ -role assigner ${}_G V_2$ has to be the first element to be merged in the numeration. The ${}_G V_2$ does not select vP, and cannot merge. Hence, *te* is merged without violating (281b) as in (298). The second numeration is exhausted when the derivation reaches (300).

(300) [Phase ... [Phase ... $\theta V_1 v_1$ -te] $\theta V_2 v_2$]

The derivation continues with the third numeration $\{S V_3, v_3, \dots\}$ to derive the grammatical (296d).

The above analysis thus captures all the configurations of *te* distribution in this section. The crucial ingredients of the analysis were a theory of phases that contains some aspects of Bošković (2014b) and Chomsky (1995), in particular (276, 277), and a proposal regarding numeration and lexical insertion that pleonastic elements are introduced by last resort, the first operation from the numeration being merger of the θ -role assigner.

■ 3.6. Pleonastic and Meaningful Uses of *Te*

When dealing with the gerund-selecting verb *i*, we have so far (implicitly) restricted our observation to the progressive interpretation. Kindaichi (1950) claims that the *te i* construction potentially has progressive and/or result state interpretations. He introduces a test such that if *te i* appears in the construction (301), then it has progressive interpretation.

(301) ima, ...-te i-ru saityuu da
now -TE I-NPST in.the.middle COP.NPST

‘Now, ... is in the middle of’

An example is as follows:

(302) ima, tanaka ga hasit-te i-ru saityuu da
now Tanaka NOM run-TE I-NPST in.the.middle COP.NPST

‘Now, Tanaka is in the middle of running.’

Kinsui, Kudou, and Numata (2000) introduce a test such that if *te i* appears in the construction (303) and the intended entailment holds, then it has result state interpretation.

(303) tuisakki ... node, touzen ima ...-te i-ru
a.while.ago because naturally now -TE I-NPST

‘Since ... a while ago, it naturally follows that ... now.’

An example is as follows:

(304) tuisakki tanaka wa sin-da node, touzen ima sin-de i-ru
a.while.ago Tanaka TOP die-PST because naturally now die-TE I-NPST

‘Since Tanaka died a while ago, it naturally follows that she is dead now.’

Kindaichi further claims that the interpretation of *te i* is restricted depending on the predicate verb. He claims there are four cases, to which Okuda (1977) makes a modification as in the following (also cf. Vendler 1967):

(305) **List (Kindaichi 1950, Okuda 1977)**

- a. Stative verbs (*i* ‘be,’ *ar* ‘be,’ *deki* ‘can do,’ ...) cannot cooccur with *i*.

Tanaka ga kooen ni i- (*te i)-ru
Tanaka NOM *park* at *be-* TE I -NPST

‘Tanaka is in the park.’

- b. The fourth-kind verbs (*sobie* ‘rise,’ *sugure* ‘be superior,’ *arifure* ‘be common,’ ...) must cooccur with *i*.

ki ga sobie-*(te i)-ru
tree NOM *rise-* TE I -NPST

‘A tree rises.’

- c. Durative (Kindaichi)/process (Okuda) verbs (*tabe* ‘eat,’ *hanas* ‘talk,’ *aruk* ‘walk,’ ...) can cooccur with *i*, and can give the progressive interpretation, but not the result state interpretation.

tanaka ga tabe-te i-ru
Tanaka NOM *eat-TE* I-NPST

‘Tanaka is eating.’

* ‘Tanaka has eaten.’

- d. Instantaneous (Kindaichi)/result (Okuda) verbs (*sin* ‘die,’ *oki* ‘wake up,’ *oti* ‘fall,’ ...) can cooccur with *i*, and cannot give the progressive interpretation, but can the result state interpretation.

‘tanaka ga sin-de i-ru
Tanaka NOM *die-TE* I-NPST

* ‘Tanaka is dying.’

‘Tanaka has died.’

Fujii (1966) notices that there is a third interpretation called experiential interpretation, and that both durative and instantaneous verbs can have that interpretation depending on the adverb it is used with. Progressive and result state interpretations can only occur with adverbs that express ongoing time, whereas experiential interpretation can only occur with adverbs that indicate completed events or past intervals.

(306)

- a. Current-time oriented adverbial × durative verb

tanaka ga ima hugu o tabe-te i-ru
Tanaka NOM *now* *globefish* ACC *eat-TE* I-NPST

‘Tanaka is eating globefish now.’ (progressive)

- b. Current-time oriented adverbial × instantaneous verb

tanaka wa ima kekkon-si-te i-ru
Tanaka TOP *now* *marry-do-TE* I-NPST

‘Tanaka is married now.’ (result state)

- c. Past-interval adverbial × durative verb

tanaka wa kyonen itido fugu o tabe-te i-ru
Tanaka TOP *last.year* once *globefish* ACC *eat-TE* I-NPST

‘Tanaka has eaten globefish once last year.’ (experiential)

d. Past-interval adverbial × instantaneous verb

tanaka wa kyonen kekkon-si-te i-ru
Tanaka TOP *last.year* *marry-do-TE* I-NPST

‘Tanaka has married last year.’ (experiential)

Result state and experiential interpretations may apparently look similar, but the crucial difference lies in their result. With result state interpretation in (306b), the direct result of the relevant event, i.e., Tanaka’s non-permanent property of being in a married state persists to the reference time, whereas with the experiential interpretation in (306d), Tanaka can possibly have divorced after the event denoted by the main predicate has taken place, before the reference time; what persists to the reference time is not Tanaka’s married state but Tanaka’s permanent property of having an experience of having married. Ogihara (1998, 1999) notes that progressive/result state interpretation and experiential interpretation resemble stage level and individual level predications (Milsark 1974, Carlson 1977), respectively.

Based on this observation, Ogihara claims that the difference between the progressive and result state interpretations are rather subtle or not significant compared to the difference between them and the experiential interpretation, and proposes a different classification as in (307), in which progressive and result state interpretations are grouped together as current situation.

(307) **List (Ogihara 1998, 1999)**

- a. Current situation interpretation (Progressive interpretation with durative verbs, or result state interpretation with instantaneous verbs): Can be used with current-time-oriented adverbials.
- b. Experiential interpretation: Can be used with past-interval adverbials.

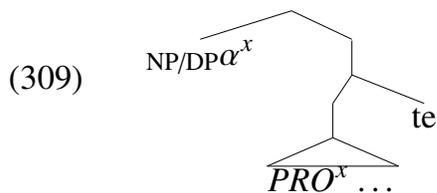
Notice that the factor that disambiguates/restricts the interpretation of *te i* has shifted from the cooccurring verb (Kindaichi) to the temporal adverbs (Ogihara). Under this classification, the difference between progressive and result state stems from the semantics of the verb, not the interpretation of *te iru*. Ogihara further claims that the ambiguity in interpretation of *te i* does not arise from ambiguity of *i*, but rather arises from *te*. The denotation of *i* stays constant for all interpretations in (307), while *te* has two interpretations: in the current situation interpretation, *te* is a pleonastic element. In experiential interpretation, *te* has the semantic content as follows:

(308) **Postulate (Ogihara 1998, 1999)**

$$\llbracket te \rrbracket = \lambda P. \lambda x. \lambda e. \exists e_1. P(x)(e_1) \wedge \text{IN}(x, e) \wedge \text{EXPERIENTIALSTATE}(e_1, e)$$

I give a syntactic interpretation to the semantic analysis (308) as follows. The variables e and e_1 are eventualities, and as usual, we are not concerned with the argument position of e in our syntactic analysis. The term $\text{EXPERIENTIALSTATE}(e_1, e)$, which only depends on the variables e and e_1 , thus has no significance to the syntactic analysis. The term $P(x)(e_1)$ corresponds to the denotation of the verb phrase with which *te*

is merged. What is crucial from the syntactic point of view for the denotation of *te* is the term $\text{IN}(x, e)$, which includes a predicate IN that is predicated of x , which is shared with $P(x)(e_1)$. The variable x corresponds to the nominal argument merged as the external argument of *te*. Thus, (308) can be understood to be expressing that *te* introduces a control structure (309), in which it assigns a θ -role to its own external argument.



In informal terms, *te* takes an embedded predicate (saturated with a *PRO* subject), then an argument nominal, and expresses that the argument has a property such that under the relevant eventuality, it satisfies the predicate (but see note 23).

This is further supported by the contrast in the acceptability of neutral descriptive *ga* in (310).

(310)

- a. tanaka ga ima hasit-te i-ru
Tanaka NOM now run-TE PROG-NPST

(neutral descriptive)

- b. * tanaka ga kyonen itido hugu o tabe-te i-ru
Tanaka NOM *last.year once blobefish* ACC *eat-TE* PROG-NPST

(neutral descriptive)

Following the definition of phasal head in (276), this means that the *te* under this usage introduces a new phasal domain. Depending on which of the two interpretations in (307) of the *te iru* constructions the *te* is used under, the relevant structure may or may not involve a phase boundary as in (311).

(311)

- a. *Te* is pleonastic (as in the current situation interpretation of *te iru*)
[NP/DP α^1 [Non-Phase t^1 ...] *te*]
- b. *Te* is a control predicate (as in the experiential interpretation of *te iru*)
[NP/DP α^1 [Phase *PRO*¹ ...] *te*]

This predicts that the restriction we have observed (i.e., a raising-type stem-selecting verb cannot occur after a raising-type gerund-selecting verb) holds when *te* is pleonastic (as in current situation interpretation), but should become irrelevant when *te* is a control predicate (as in experiential interpretation). This prediction is borne out. Ungrammatical examples from section 2.3.2.1, which I analyzed as having pleonastic *te*, show a contrast in grammaticality with their counterparts involving control *te*, as follows:

(312) *rare* (direct passive) × *i*

- a. * *ima, tanaka ga yamada ni tatai-te i-rare-ru* (= (57b))
now Tanaka NOM Yamada by hit-TE I-DPSV-NPST

‘Tanaka is being hit by Yamada now.’ (Pleonastic *te*)

- b. *kyonen, tanaka wa yamada ni tatai-te i-rare-ta*
last.year Tanaka TOP Yamada by hit-TE I-DPSV-PST

‘Tanaka has been being hit by Yamada last year.’ (Control *te*)

(313) *das* × *i*

- a. * *ima, ressyga ga hasit-te i-das-u* (= (60b))
now train NOM run-TE I-initiate-NPST

‘The train is starting to move now.’ (Pleonastic *te*)

- b. *kinoo, kono jikan ni, ressyga wa hasit-te i-dasi-ta*
yesterday this time at train TOP run-TE I-initiate-PST

‘The train has been starting to move at this time yesterday.’ (Control *te*)

(314) *kake* × *i*

- a. * *ima, sakura ga sai-te i-kake-ru* (= (61b))
now cherry NOM bloom-TE I-be.about.to-NPST

‘Cherries are in the middle of blooming now.’ (Pleonastic *te*)

- b. *kyonen no ima-goro, sakura wa sai-te i-kake-ta*
last.year GEN now-around cherry TOP bloom-TE I-be.about.to-PST

‘Cherries have been in the middle of blooming around this time last year.’

(Control *te*)

(315) *tukus* × *i*

- a. * ima, sakura ga sai-te i-tukus-u (= (63b))
now cherry NOM bloom-TE I-do.exhaustively-NPST

‘Cherries are blooming now.’ (Pleonastic *te*)

- b. kyonen no ima-goro, sakura wa sai-te i-tukusi-ta
last.year GEN now-around cherry TOP bloom-TE I-do.exhaustively-PST

‘Cherries had been blooming around this time last year.’ (Control *te*)

(316) *aw* (reciprocal) × *i*

- a. * ima, tanaka to yamada ga hihansi-te i-a-u (= (58b))
now Tanaka with Yamada NOM criticize-TE I-RECP-NPST

‘Tanaka and Yamada are criticizing each other now.’ (Pleonastic *te*)

- b. kyonen, tanaka to yamada wa hihansi-te i-at-ta
last.year Tanaka with Yamada TOP criticize-TE I-RECP-PST

‘Tanaka and Yamada have been criticizing each other last year.’

(Control *te*)

To summarize, I adopted Ogihara’s (1998) claim that the semantics of *te* is ambiguous: *te* can be either pleonastic or meaningful. For the latter case, I gave a syntactic interpretation according to which *te* introduces a control structure.²³ Then I have shown that the restriction that we have observed in chapter 2 applies only when *te* is pleonastic; when *te* has a meaningful interpretation, i.e., when it becomes a phasal head, insertion of it is not blocked by a stem-selecting verb.

²³It should however, be noted that what is crucial for the current analysis is simply that *te* in the latter case is meaningful. The gist of the analysis can in fact be preserved even without assuming a control structure, as long as this *te* is meaningful. The reader should bear this in mind.

■ 3.7. Inflectional Endings

The pleonastic *te* can be asymmetrically c-commanded within a phase by inflectional endings of a verb such as those in (317–322).

(317) *ru* (non-past)

tanaka wa takusan tabe-te i-ru
Tanaka TOP *much* *eat-φ* PROG-NPST

‘Tanaka is eating a lot.’

(318) *ta* (past)

tanaka wa takusan tabe-te i-ta
Tanaka TOP *much* *eat-φ* PROG-PST

‘Tanaka was eating a lot.’

(319) *ro/yo/e* (imperative)

tabe-te i-ro
eat-φ PROG-IMP

‘Be eating.’

(320) *yoo* (hortative)

takusan tabe-te i-yoo
much *eat-φ* PROG-HORT

‘Let us be eating a lot.’

(321) *mas* (polite)

tanaka ga tabe-te i-mas-u
Tanaka NOM *eat-φ* PROG-POL-NPST

‘Tanaka is eating.’ (polite)

(322) *en* (negation)

tanaka wa tabe-te i-mas-en
Tanaka TOP *eat-φ* PROG-POL-NEG

‘Tanaka is not eating.’ (polite)

If the pleonastic *te* and these inflectional endings share the property of selecting vP, then the inflectional endings other than *ru* (non-past) would be expected to block insertion of *te*, contrary to fact.²⁴ For example, with (318), if *ta* (past) selects vP, then the existence of *ta* in the numeration should block merger of the pleonastic *te* with *tabe*, giving the derivation for ... *tabe-ta* ... and blocking ... *tabe-te* ...

If the theory proposed in this thesis is correct, it predicts that there is a projection between vP and the projection of these elements, whose head is a pleonastic. The elements in question should select such projection and not vP. The elements would then not compete with the pleonastic *te* and block its insertion. One option that comes to mind regarding such a head is the agreement head Agr (Pollock 1989, Belletti 1990, Chomsky 1991).²⁵ With example (318), if *ta* selects AgrP but not

²⁴In chapter 5, I claim that non-past tense is pleonastic.

²⁵The analysis I pursue here assumes that the inflectional projections (such as TP) dominate AgrP in line with Pollock rather than with Chomsky, who assumes that Agr(S)P dominates TP.

vP, and AgrP (as well as *te*) select(s) vP, then the existence of *ta* in the numeration would not block merger of *te* with *tabe*; both the pleonastic *te* and the pleonastic Agr ϕ have the possibility of being merged with *tabe*, neither blocking the other as in (323a, b). If *te* is chosen, the derivation will continue as expected, and will reach (323c). Again, either *te* or Agr ϕ can be merged as in (323d, e). If the latter is chosen, then *ta*, being able to select only AgrP, selects (323e), resulting in (323f).²⁶

(323)

- a. [[vP ... *tabe*]-*te*]
- b. [AgrP [vP ... *tabe*] Agr ϕ]
- c. [vP [[vP ... *tabe*]-*te*] i]
- d. [[vP [[vP ... *tabe*]-*te*] i]-*te*]
- e. [AgrP [vP [[vP ... *tabe*]-*te*] i] Agr ϕ]
- f. [TP [AgrP [vP [[vP ... *tabe*]-*te*] i] Agr ϕ]-*ta*]

This will not affect the arguments from section 3.5 regarding *te*. I also assume that *ru*, as with the other inflectional endings, selects AgrP and not vP. The non-past *ru*

²⁶In chapter 6, I reconsider the categorial status of TP. The existence of AgrP for languages like Japanese will be motivated there.

and the past *ta* would equally require $\text{Agr}\phi$ to be inserted before they are inserted. This assumption becomes crucial in chapter 5.^{27,28}

I now turn to polite *mas*. *Mas* can be followed by *te* at the final position of a certain type of adverbial clause as in (324).

(324) ima, tonneru o nuke-masi-te, tonari-mati ni ki-masi-ta
now tunnel ACC come.out-POL-TE next.door-town to come-POL-PST

‘Coming out of the tunnel, I now came to the next town.’ (polite)

If *te* selects vP and not AgrP, the category of *mas* should be v. A sentence with *mas* followed by an inflectional ending given in (318–320, 322) then involves two instances of Agr.

²⁷It is worth noting here that under Bošković’s (2012) account where certain languages including Japanese lack the T head (see chapter 6), an issue arises what could be the source of nominative case in these languages. One position may be to assume that nominative case in these languages is not a structural case as is discussed by Kang (2014). However, there are arguments that rely on the assumption that nominative case in Japanese is structural. Assuming the existence of Agr at the edge of a clause may open a way to maintain that Japanese nominative case is structurally assigned, in particular by Agr, while still denying the existence of the T head in Japanese (see chapter 6).

²⁸Chomsky (1995) claims that Agr head does not exist on the basis of a conceptual argument that a syntactic head that lacks both the phonological form and the semantic interpretation should not exist, and this seems to be adopted in the literature. However, contrary to this claim, there are other elements that belong to this category whose existence is not as strongly denied in the literature: for example, the null C head or the light verb v where the external θ -role is not assigned. It is not clear why particularly Agr should not exist.

(325)

a. tanaka ga tabe-masi-ta

Tanaka NOM *eat*-POL-PST

‘Tanana ate.’ (polite)

b. [TP [AgrP [vP [AgrP [vP ... tabe]-Agr ϕ]-mas]-Agr ϕ]-ta]

The analysis proposed here that introduces Agr explains why *mas* cannot be asymmetrically c-commanded within a phase by a non-pleonastic element that selects vP as in (326b).

(326)

a. tanaka ga tabe-dasi-masi-ta

Tanaka NOM *eat-initiate*-POL-PST

‘Tanaka started to eat.’ (polite)

b. * tanaka ga tabe-masi-dasi-ta

Since *mas* selects AgrP but not vP, insertion of *mas* in (326b) must be preceded by the merger of *tabe* with pleonastic Agr, whose result, AgrP, can then merge with *mas*. However, this would be blocked by *dasi* in the numeration.

Chapter 4

Japanese Adjectives

This chapter discusses Japanese adjectives. Section 4.1 discusses the structure underlying the non-past ending *i* that is attached to an adjective root, which appears to be idiosyncratic as compared to other inflectional forms of adjectives, which are all followed by *k(u)*. Section 4.2 discusses the negative *ana*, which is an adjective, but in some respects behaves differently from other adjectives.

■ 4.1. Non-Past Adjective Ending *I*

As in (327), *i* is a non-past ending that attaches to an adjective.

(327) tanaka wa utukusi-i
Tanaka TOP *beautiful*-NPST

‘Tanaka is beautiful.’

In specific contexts, the non-past ending of an adjective takes the other form *ku ar-u* optionally or obligatorily. Such environments are: the complement position of *na* (negative imperative), *mai* ‘bet not,’ *beki* ‘ought,’ or *tame* ‘for the sake of,’ or when *ku* and *ar* are intervened by a particle *wa* (topic), *mo* ‘also,’ or *sae* ‘even’ (Cf. Nishiyama 1999).

(328)

a. utukusi-ku ar-u/*-i na
beautiful-KU AR-U -I IMP.*not*

‘Do not be beautiful.’

b. utukusi-ku ar-u/*-i mai
beautiful-KU AR-U -I *bet.not*

‘I bet it is not beautiful.’

c. utukusi-ku ar-u/*-i beki (da)
beautiful-KU AR-U -I *ought.to.do* COP

‘It ought to be beautiful.’

d. utukusi-ku mo ar-u
beautiful-KU *also* AR-NPST

‘It is also beautiful.’

Nishiyama (1999) considers *k* a copula, and Urushibara (1993) considers *ar* a pleonastic verb.²⁹

Inflection forms of an adjective other than the non-past *i* involve *k*, as in (328, 329), and *i* is irregular.

(329)

a. utukusi-k-at-ta
 beautiful-K-AR-PST

‘was beautiful’

b. utukusi-k-ereba
 beautiful-K-COND

‘if (it) is beautiful’

Hence it is natural to consider the possibility that the non-past *i* has undergone modification from an underlying form that includes *k* in some way.

Unlike the *i* that appears after consonant-ending verbs as discussed in section 3.4, the *i* after an adjective in (327) cannot be an epenthetic vowel that saves the adjective root. Adjective roots end with a vowel, hence there is no phonological motivation to insert the vowel *i*. In fact, unlike verb compounds exemplified in (290), adjective compounds do not need epenthesis to fix the syllable structure.

²⁹Nishiyama assumes that the *u* after *k* is an epenthetic vowel.

(330) niga-niga-si-i
bitter-bitter-ish-NPST

‘unpleasant’

Traditional grammars as well as Bloch (1946 : 18 n17) note the possibility that there is an underlying *k* before *i*, and this undergoes a phonological operation (*i*-ombin), which is a well known diachronic process for adjectives and synchronic process for verbs.

(331)

a. utukusi-ki
beautiful-KI

‘beautiful’ (archaic ad-nominal form (*rentai-kee*))

b. kai-ta < kaki-ta (< kak-ta)
write-PST

‘wrote’

Nishiyama (1999, 2005) (cf. Namai 2002) argues along this line, and further assumes that *k* as well as *i* are syntactic heads. This means that either the structure (332a) or (332b) is chosen during syntactic derivation depending on the context in which the adjective appears.

(332)

- a. [[...-k]-i]
- b. [[[...-k(u)]-ar]-u]

A problem with such an account is that it requires look-ahead in the derivation. At the point where (332a) or (332b) is to be created, we do not know whether the structure would later be embedded in a context such as (328a–c). A choice between (332a) and (332b) is required to be made before the context that determines the choice is created, which is problematic.

Furthermore, as proposed by Urushibara (1993), the copula *da* can be considered a contraction of *de ar-u*, and the environment that conditions their alternation is the same environment that conditions the alternation between *i* and *ku ar-u*. *De* here is the gerundive form of the copula, and *da* is the non-past form. *De ar-u* is allowed in general. The contexts in (328) that force the underlying *ku ar-u* and prohibit *i* with adjectives are the contexts that force the underlying *de ar-u* and prohibit *da* with nouns as in (333).

(333)

- a. gakusya de ar-u/*da na
student DE AR-U DA IMP.not

‘Do not be a scholar.’

b. gakusya de ar-u/*da mai
student DE AR-U DA bet.not

‘I bet she is not a scholar.’

c. gakusya de ar-u/*da beki (da)
student DE AR-U DA ought.to.do DA

‘She ought to be a scholar.’

In other contexts, *da* is allowed as in (334).

(334)

a. kare wa gakusya de ar-u/da
he TOP student DE AR-U DA

‘He is a scholar.’

b. kare wa gakusya de ar-u/da sou (da)
he TOP student DE AR-U DA said DA

‘It is said that he is a scholar’

c. kare wa gakusya de ar-u/da keredo
he TOP student DE AR-U DA although

‘although he is a scholar’

Environments in (334) are the same environments in which *i* can appear with an adjective as in (335).

(335)

- a. samu-ku mo ar-u/-i
cold-KU even AR-U -I

‘It is (even) cold.’

- b. soko wa samu-ku mo ar-u /-i sou (da)
there TOP cold-KU even AR-NPST -I said DA

‘It is said that it is (even) cold there.’

- c. samu-ku mo ar-u/-i keredo
cold-KU even AR-U -I although

‘although it is (even) cold.’

This parallelism between *de ar-u* versus *da* and *ku ar-u* versus *i* suggests that, just like *da* is derived from *de ar-u*, so is *i* derived from *ku ar-u*, rather than from *ki* as Nishiyama claims.

From such considerations, I propose that non-past adjective endings uniformly take the underlying structure (332b) (or (336) to be more precise), and in case the form (332a) appears, that is due to a post-cyclic operation that replaces the heads that correspond to *ar-u* with *i*, along the lines of fusion as assumed in distributed morphology (Halle and Marantz 1993).³⁰

³⁰Nishiyama assumes that *u* after *k* is an epenthetic vowel. However, *u* appears even before a vowel, where there is no phonological motivation for epenthesis, as in

tanaka wa utukusi-ku /*-k i-ru tame ni undoo-su-ru

Tanaka TOP *beautiful-KU* -K *be-NPST in.order to exercise-do-NPST*
‘Tanaka does exercise in order to be beautiful.’

In addition, as we observed with verb inflection in section 3.4, the epenthetic vowel used in native Japanese vocabulary is *i* rather than *u*. Hence I assume that *ku* is the underlying form, and *k* without *u* has undergone deletion/contraction.

(336) [TP [AgrP [vP [VP [[AP ...]-ku]-ar]-v ϕ]-Agr ϕ]-u]

■ 4.2. Negative *Ana*

In this section, I discuss an adjective *ana* (negation) that appears to select vP, hence can be expected to compete with *te*. As in (337), pleonastic *te* can be asymmetrically c-commanded by *ana*, which appears to select vP.

(337) ima, tanaka wa tabe-te i-na-i
now Tanaka TOP eat-TE PROG-NEG-NPST

‘Tanaka is not eating now.’

If it is assumed that *ana* selects vP and does not start a phase, then *tabe*, *i* (progressive), the light verb (used for the two verbs), and *ana* in (337) would all belong to the same numeration, and *ana* would be expected to block insertion of *te*, contrary to fact. This shows that at least one of these assumptions does not hold. In sections 4.2.1, 4.2.2, I discuss the possibility of dropping each of these assumptions. Contrary to (337), a derivation in which *ana* appears directly after the main verb and is asymmetrically c-commanded by *te* would be expected to be grammatical regardless of the assumptions. I discuss such constructions in section 4.2.3.

4.2.1. *Negative Ana as an Inflectional Element*

The fact that *ana* does not block pleonastic *te* in (337) is similar to the cases in section 3.7, in which inflectional endings do not block *te*. There, I discussed the possibility that the inflectional endings select AgrP but not vP. It is natural to extend this analysis and assume that the negative *ana* also selects AgrP but not vP. Then, (337) would have the structure (338).

(338) [TP [AP [AgrP [vP [VP [GrdP [vP ... *tabe*- $v\phi$]-*te*]- v_i]- $v\phi$]-Agr ϕ]-*na*]-Ti]

Ignoring the argument and the adverbial, (338) has the numeration {*tabe*, i , $v\phi$, *ana*},³¹ where *i* selects *te* phrase, $v\phi$ selects VP, and *ana* selects AgrP.

Merger of vP *tabe* with pleonastic *te* is not blocked because nothing in the numeration can select vP. Merger of vP *tabe te i* with pleonastic Agr is not blocked because nothing in the numeration can select vP.

4.2.2. *Negation as Control Predicate*

In this section, I discuss the possibility that *ana* can start a phase. Particularly, I claim that *ana* can be a gradable predicate; in this case it takes a control structure.

Degree modifiers can modify sentences with negation as in (339).

³¹The light verb in the numeration can be used multiple times in the derivation. Recall note 16.

(339)

- a. tanaka wa {hidoku /totemo/kanari} (gohan o) tabe-na-i
Tanaka TOP *extremely very quite* *food* ACC *eat-NEG-NPST*

‘Tanaka barely eats.’ (extremely/very/quite \gg NEG)

- b. gakusee no naka de, tanaka wa {mottomo/ichi-ban } (gohan o)
student GEN *inside at* *Tanaka* TOP *most* *one-ORDINAL* *food* ACC

tabe-na-i
eat-NEG-NPST

‘Among the students, Tanaka eats the least.’ (most \gg NEG)

- c. gakusee no naka de, tanaka wa ni-banme ni (gohan o) tabe-na-i
student GEN *inside at* *Tanaka* TOP *two-ORDINAL at* *food* ACC *eat-NEG-NPST*

‘Among the students, Tanaka eats the second from the least.’ (second
most \gg NEG)

In these examples, the degree modifier takes scope over the negation, in other words, the degree modifier is modifying the negative phrase. This indicates that the negation *ana* can project a gradable predicate.

McGloin (1976) observes other examples regarding degree and polarity. In particular, she notes that some predicates are compatible with degree modification in the affirmative form but not in the negative form.³² An example is (340).

³²McGloin claims that sentences like (340b) are ungrammatical because the degree modifiers are positive polarity items, and then (informally) claims that sentences like (339a) are grammatical because the degree modifiers take scope over the negation. She does not make clear why degree modifiers cannot take scope over negation in (340b), and it remains unclear, under her explanation, why it is ungrammatical.

(340)

- a. tanaka wa {hidoku /totemo/kanari} tukare-ta
Tanaka TOP *extremely very quite* *get.tired-PST*

‘Tanaka got extremely/very/quite tired.’

- b. * tanaka wa {hidoku /totemo/kanari} tukare-nak-at-ta
Tanaka TOP *extremely very quite* *get.tired-NEG-AR-PST*

‘Tanaka barely got tired.’ (extremely/very/quite \gg NEG)

I agree with McGloin that (340b) is unnatural (without specific context) even though I claim against her account that the sentence is syntactically illicit. The contrast in (340) is due to the difficulty of imagining a gradable notion of ‘not being tired’ in the ordinary context as opposed to a gradable notion of ‘being tired,’ which is easy to imagine. When provided an appropriate context as in (341), (340b) becomes acceptable.

- (341) tanaka wa itsumo wa marason o su-ru to hetoheto ni nar-u kedo,
Tanaka TOP *always* TOP *marathon* ACC *do-NPST* *if exhausted* *at become-NPST* *although*

konkai wa saishin’ee no kutsu o hai-te nozon-da no de, itsumo to
this.time TOP *cutting.edge* GEN *shoes* ACC *wear-TE* *try-PST* NO DE *always* *with*

kurabe-te {hidoku /totemo/kanari} tukare-nak-at-ta
compare-TE *extremely very quite* *get.tired-NEG-AR-PST*

‘Although Tanaka always becomes exhausted after she has run a marathon, since she attended this time wearing a pair of cutting-edge shoes, she barely got tired.’

The examples discussed above show that the negative *ana* is not (always) a logical negation over a proposition, having the semantic type $\langle t, t \rangle$ or $\langle \langle s, t \rangle, \langle s, t \rangle \rangle$. Rather, it can project a gradable phrase, which satisfies the semantic selectional restriction of the degree modifier. This indicates that *ana* is a gradable predicate.

The account that *ana* is a gradable predicate also fits well with the morphological fact that *ana* is an adjective; adjectives typically express a property rather than a proposition.

Furthermore, it is commonly known that a definite subject marked by the nominative *ga* in a negative sentence in Japanese (that uses either *ana* or *en*) cannot have neutral description interpretation and must have contrastive focus interpretation. In order to avoid contrastive focus with definite subject in a negative sentence, the *ga* is usually replaced with the neutral topic *wa*.

(342)

- a. tanaka *ga /wa takusan tabe-na-i
 Tanaka NOM TOP *much* *eat*-NEG-NPST

‘Tanaka does not eat a lot.’ (without focus on the subject)

- b. tanaka *ga /wa takusan tabe-mas-en
 Tanaka NOM TOP *much* *eat*-POL-NEG

‘Tanaka does not eat a lot.’ (polite, without focus on the subject)

This restriction should be regarded as a special case of Kuroda's generalization (156) that we have discussed in section 2.3.3.2. Incompatibility with neutral description *ga* indicates that the negative *ana* and *en* are individual level predicates. Recall (159). A structure involving *ana* or *en* is then a control structure (343).

(343) [Individual level α^1 wa [*PRO*¹ ...] *ana/en*]

This is also supported by the fact that the negation of an event (stage level) is not an event but is a property (individual level). For example, (344a) describes that there exists a relevant event denoted by the predication.

(344)

- a. tanaka ga ima tabe-te i-ru
Tanaka NOM now eat-TE PROG-NPST

‘Tanaka is eating now.’

- b. tanaka wa ima tabe-te i-na-i
Tanaka TOP now eat-TE PROG-NEG-NPST

‘Tanaka is not eating now.’

Its negation (344b) does not describe that there exists a certain event (in which Tanaka is not eating); rather, it describes a property of the subject Tanaka, such that Tanaka is not involved in any such events. Furthermore, negation of a property is a property. The negation (345b) of (345a) does not describe that there is a certain

event; rather, it describes another property, namely that the subject does not have the property described by the affirmative counterpart.³³

(345)

- a. tanaka wa gakusee da
 Tanaka TOP *student* COP.NPST

 ‘Tanaka is a student.’
- b. tanaka wa gakusee de na-i
 Tanaka TOP *student* COP NEG-NPST

 ‘Tanaka is not a student’

Based on this analysis, the fact that the negative *ana* can appear after the pleonastic *te* in (337) is expected under the economy-based account. Ignoring the nominal and adverbial elements, the numeration for the first phase for (337) is $\{tabe, i, v, \phi\}$. The numeration for the second phase is $\{ana\}$. Insertion of the pleonastic *te* is done while syntactic derivation is dealing with the first phase, so that the negation *ana*, which belongs to the second phase, does not interact with the pleonastic *te* to block its insertion (independently of the question whether they both have the property of selecting vP).

³³In this thesis, I do not discuss the structure of negation in languages other than Japanese. I do not (necessarily) claim that negation in every language is a control predicate.

4.2.3. Ana-i de Construction

It is possible for *ana* to be asymmetrically c-commanded by a gerund-selecting verb. This section discusses the structure between *ana* and the gerund-selecting verb in such constructions.

Gerund-selecting verbs that are listed as raising verbs in (56) have usages as in (346a, 347a) in which they take an adjective with an appropriate semantics followed by *ku*, but these usages are not possible with *ana* as in (346b, 347b).³⁴

(346)

- a. tanaka wa utukusi-ku i-ru
Tanaka TOP *beautiful*-KU I-NPST

‘Tanaka is being beautiful.’

³⁴Recall from section 4.1 that the sequence *ku ar-u* manifests only under certain environments. When the adjective is the negative *ana*, such environments, however, do not rescue the structure, as in (347b) with the relevant elements. Kishimoto (2013) claims that a particle intervening between *ku* and *ar* in (347b) blocks raising of the negative *ana* to a tense head, which he assumes to take place obligatorily. However, such requirement seems to be falsified by the following grammatical example:

tanaka no hanasi wa wakar-ana-ku wa na-i
Tanaka GEN *story* TOP *understand*-NEG-KU TOP NEG-NPST
‘Tanaka’s story is not unintelligible’

Here, the lower negation must move to the non-past ending, but the topic marker in between should block the movement, according to Kishimoto’s account. Furthermore, Kishimoto’s account does not extend to explaining the ungrammaticality when the relevant environment in (347b) is created by an element like *beki* following *ku ar-u* without any particle intervening between *ku* and *ar*. In addition, an explanation of ungrammaticality along this line does not extend to (346b), where there is no contracted form for *ku i-ru*.

- b. * tanaka wa tabe-na-ku i-ru
Tanaka TOP *eat*-NEG-KU I-NPST

‘Tanaka is not eating.’

(347)

- a. ie wa utukusi-ku (mo) ar-u (beki da)
house TOP *beautiful*-KU *also* AR-NPST *should* COP.NPST

‘Houses {ought to be/are being} (even) beautiful.’

- b. * ie wa koware-na-ku (mo) ar-u (beki da)
house TOP *break*-NEG-KU *also* AR-NPST *should* COP.NPST

‘Houses {ought not (also) break/are not (also) breaking}.’

The ungrammaticality of (346b, 347b) cannot be due to a selectional requirement in terms of syntactic category, and it appears that a gerund-selecting verb requires a verb with an appropriate semantics, e.g., *nar* ‘become,’ *su* (transitivizer) for *i*, and *su* for *ar*, in order to make it compatible with *ana* as in (348a, b, 349a).

(348) *ana* × *i*

- a. ima, taisin-kooji ni tomonai, ie ga dandan-to
now anti.earthquake-construction to accompanying house NOM *gradual-ly*
 koware-na-ku nat-te i-ru
break-NEG-KU *become*-TE PROG-NPST

‘The house is now gradually becoming unbreakable with the progress of seismic retrofit.’

- b. ima, tanaka ga ie o koware-na-ku si-te i-ru
now Tanaka NOM house ACC break-NEG-KU TRZ-TE PROG-NPST

‘Tanaka is making the house unbreakable now.’

(349) *ana* × *ar*

- a. tanaka ga ie o koware-na-ku si-te ar-u
Tanaka NOM house ACC break-NEG-KU TRZ-TE PERF-NPST

‘Tanaka has made the house unbreakable.’

A question arises regarding the structure of *i de* in (350, 351), which lets the gerund-selecting verbs asymmetrically c-command *ana*.

- (350) ima, tanaka ga ne-na-i de i-ru
now Tanaka NOM sleep-NEG-I DE PROG-NPST

‘Tanaka is being not asleep now.’

- (351) tanaka ga dezaato o tabe-na-i de ar-u
Tanaka NOM desert ACC eat-NEG-I DE PERF-NPST

‘Tanaka has kept the desert not eaten.’

As with examples (348a, b, 349a), the *i de* in this construction is expected to be satisfying the semantic requirement.

Given that *te* has an allomorph *de* as in (352), it might be tempting to analyze *de* in *i de* as an allomorph of *te* (Cf. Kishimoto 2013).

(352)

- a. kai-de < kag-te
smell-TE
- b. kan-de < kam-te
bite-TE

This possibility is unlikely because /t/ in *te* does not undergo voicing after the vowel /i/, regardless of whether /i/ is part of an underlying verb root as in (353a) or epenthetical vowel (ren'yoo-kee) as in (353b, c) unless there is an underlying voiced phoneme like (352a).

(353)

- a. mi-te
see-TE
- b. kasi-te < kas-te
lend-TE
- c. kai-te < kak-te
write-TE

To analyze *de* as *te*, we need to assume that the *i* in *i de* has an underlying phoneme such as /g/ in (352a) that triggers voicing assimilation of /t/ into /d/, and then be deleted. No conceivable morpheme with such property seems to exist.

Following Sells (1995), I analyze *de* in *i de* as the gerundive form of the copula. The copula *de* can be selected by the gerund-selecting verbs *i* and *ar* (pleonastic) as in (354, 355).

(354)

- a. tanaka wa gakusee de i-ru
Tanaka TOP *student* COP I-NPST

‘Tanaka is being a student.’

- b. tanaka wa siawase de i-ru
Tanaka TOP *heppy* COP I-NPST

‘Tanaka is being happy.’

(355)

- a. tanaka wa gakusee de ar-u
Tanaka TOP *student* COP AR-NPST

‘Tanaka is a student.’

- b. tanaka wa siawase de ar-u
Tanaka TOP *happy* COP AR-NPST

‘Tanaka is happy.’

Given (354, 355), we expect *de* in *i de* to be selectable by the gerund-selecting verbs *i* and *ar* if we assume that this *de* is the copula in gerundive form. Furthermore, the gerundive form copula *de* diachronically derives from *ni-te* (where *ni* is either the dative case or a copula), which includes *te*. This adds further support to selection of *de* by gerund-selecting verbs.

Next, I turn to *i* in *i de*. It may be tempting to analyze *i* as the non-past adjective ending T, which is underlyingly *ku ar-u*, as discussed in section 4.1. In fact, the gerundive form copula *de* can select TP under limited environments.³⁵

³⁵This should not be confused with the sentence-final particle *de* in the Kansai dialects (counterpart of *yo* in standard Japanese), which can select TP.

(356)

- a. utukusi-i de wa na-i ka
beautiful-NPST COP TOP NEG-NPST Q

‘Isn’t it beautiful?’ (exclamation)

- b. tabe-ru de na-i
eat-NPST COP NEG-NPST

‘Don’t eat.’ (prohibition)

- c. matigae-ta de wa sum-ana-i
make.mistake-PST COP TOP forgiven-NEG-NPST

‘It will not be accepted to make an excuse to have made a mistake.’
(quotative)

However, such usages are not productive. Furthermore, *i* in (350, 351) cannot be replaced with the non-contracted non-past form or the contracted or non-contracted past form.

(357) *de i*

- a. * tanaka ga ne-na-ku mo ar-u de i-ru
Tanaka NOM sleep-NEG-KU also AR-NPST DE I-NPST

‘Tanaka is being not to be asleep.’

- b. * tanaka ga ne-na-kat-ta de i-ru
Tanaka NOM sleep-NEG-KAT-PST DE I-NPST

‘Tanaka was being not to be asleep.’

- c. * tanaka ga ne-na-ku at-ta de i-ru
Tanaka NOM *sleep*-NEG-KU AR-PST DE I-NPST

(358) *de ar*

- a. * tanaka ga dezaato o tabe-na-ku (mo) ar-u de ar-u
Tanaka NOM *desert* ACC *eat*-NEG-KU *also* AR-NPST DE AR-NPST

‘Tanaka has (also) kept the desert not eaten.’

- b. * tanaka ga dezaato o tabe-na-kat-ta de ar-u
Tanaka NOM *desert* ACC *eat*-NEG-KAT-PST DE AR-NPST

‘Tanaka had kept the desert not eaten.’

- c. * tanaka ga dezaato o tabe-na-ku at-ta de ar-u
Tanaka NOM *desert* ACC *eat*-NEG-KU AR-PST DE AR-NPST

Hence, I analyze the *i* in *i de* as an underlyingly single T element that can be selected by the gerundive form copula *de*.

Furthermore, unlike the *i* derived from *ku ar-u*, which appears with adjectives in general as discussed in section 4.1, the *i* in *i de* only appears with *ana* but not other adjectives as in (359a) (there is nothing wrong with the combination of the adjective and the verb as shown by the grammaticality of (359b)). This provides further support to the claim that the two *i*-s are distinct.

(359)

- a. * tanaka ga utukusi-i de i-ru
Tanaka NOM *beautiful*-I DE I-NPST

- b. tanaka ga utukusi-ku i-ru
Tanaka NOM *beautiful*-KU I-NPST

‘Tanaka is being beautiful.’

Ana-i de can be asymmetrically c-commanded not only by the non-past *ru* as in (350, 351), but also by the past *ta* as in (360, 361).

- (360) tanaka ga ne-na-i de i-ta
Tanaka NOM *sleep*-NEG-I DE PROG-PST

‘Tanaka was being not asleep.’

- (361) tanaka ga dezaato o tabe-na-i de at-ta
Tanaka NOM *desert* ACC *eat*-NEG-I DE PERF-PST

‘Tanaka had kept the desert not eaten.’

Insertion of the pleonastic T element *i* after the negative *ana* in (360, 361) is not blocked because nothing in the numeration can select the adjective root *ana* (particularly the past T head *ta* does not select *ana*; see the following chapter for a more detailed discussion of T elements).

Chapter 5

Japanese Past Tense *Ta* and Non-Past Tense *Ru*

Some Japanese functional elements select an embedded clause. They are: *des* (polite), *hazu* ‘should’ (epistemic), *beki* ‘should’ (deontic), *mama* ‘as is,’ *rasi* ‘seem,’ *yoo* ‘seem,’ *mitai* ‘seem,’ and *soo* ‘seem.’ When these elements are used, the relevant structure has to have two occurrences of tense phrase. This chapter discusses such constructions. I claim that, among the two values claimed for tense heads in Japanese: past and non-past, non-past tense is not a value of tense but is a pleonastic whose distribution follows the principles proposed in chapter 3.

■ 5.1. The Paradigm

5.1.1. *Polite Copula Des*

In this section, I examine a clause-selecting verb *des* (copula, polite) used with different combinations of tense. We will observe that there is a restriction with the past tense *ta*.

The examples (362a, b) are adjectival predicates in non-past and past tenses respectively.

(362)

- a. *heya ga samu-i*
 room NOM cold-NPST
- ‘The room is cold.’
- b. *heya ga samu-k-at-ta*
 room NOM cold-KU-AR-PST
- ‘The room was cold.’

They can be selected by *des* followed by a second tense head if the tense is non-past, but not if the tense is past.

(363)

- a. heya ga samu-i des-u
 room NOM *cold*-NPST POL-NPST

 ‘The room is cold.’ (polite)
- b. heya ga samu-k-at-ta des-u
 room NOM *cold*-KU-AR-PST POL-NPST

 ‘The room was cold.’ (polite)
- c. * heya ga samu-i desi-ta
 room NOM *cold*-NPST POL-PST
- d. * heya ga samu-k-at-ta desi-ta
 room NOM *cold*-KU-AR-PST POL-PST

The same pattern also holds (but less clearly) when the main predicate is a verb. The examples (364a, b) are verbal predicates in non-past and past tenses respectively.

(364)

- a. tanaka ga takusan tabe-ru
 Tanaka NOM *much* *eat*-NPST

 ‘Tanaka will eat a lot.’
- b. tanaka ga takusan tabe-ta
 Tanaka NOM *much* *eat*-PST

 ‘Tanaka ate a lot.’

In (365a–d) they are used with *des*.

(365)

- a. ?? tanaka ga takusan tabe-ru des-u
Tanaka NOM *much* *eat-NPST* POL-NPST
‘Tanaka will eat a lot.’ (polite)
- b. ?? tanaka ga takusan tabe-ta des-u
Tanaka NOM *much* *eat-PST* POL-NPST
‘Tanaka ate a lot.’ (polite)
- c. * tanaka ga takusan tabe-ru desi-ta
Tanaka NOM *much* *eat-NPST* POL-PST
- d. * tanaka ga takusan tabe-ta desi-ta
Tanaka NOM *much* *eat-PST* POL-PST

When the past tense is added as the second tense head as in (365c, d), the examples are ungrammatical. A second tense head in non-past can be added as in (365a, b), which sound babyish, and are less favored than (366a, b), respectively, but are not ungrammatical.

(366)

- a. tanaka ga takusan tabe-mas-u
Tanaka NOM *much* *eat-POL-NPST*
‘Tanaka will eat a lot.’ (polite)
- b. tanaka ga takusan tabe-masi-ta
Tanaka NOM *much* *eat-POL-PST*
‘Tanaka ate a lot.’ (polite)

One may wonder whether the sequence *desi-ta* is grammatical at all. The morpheme *des* can be followed by the past tense *ta* after a nominal (such as a noun in (367a) or an adjectival noun in (367b)) or even after a clause as in (367c), which shows that there is no morphological or syntactic problem with the sequence *desi-ta*.

(367)

- a. tanaka wa gakusee desi-ta
Tanaka TOP *student* POL-PST
 ‘Tanaka was a student.’ (polite)
- b. tanaka wa sizuka desi-ta
Tanaka TOP *quiet* POL-PST
 ‘Tanaka was quiet.’ (polite)
- c. tanaka wa takusan tabe-mas-en desi-ta
Tanaka TOP *much* *eat*-POL-NEG POL-PST
 ‘Tanaka did not eat much.’ (polite)

Past tense morpheme used with *des* follows the restriction summarized in (368).

(368) **Generalization** With *des*:

- a. Past tense *ta* can only appear once.
 * [TP [TP ... -ta] desi-ta]
- b. Past tense *ta* cannot appear on the higher clause.
 * [TP [TP ... -ru] desi-ta]
- c. Non-past tense *ru* can appear on the higher clause.
 [TP [TP ...] des-u]

5.1.2. *Elements Exempt from the Restriction*

This section examines elements that select a clause and can be exempted from restrictions like (368) observed in section 5.1.1: modality elements and the element *mama*.

The modality nominal *hazu* ‘should’ (epistemic) can take non-past tense in the higher clause with the neutral descriptive *ga* on a definite subject, as in (369a, b). When the higher tense is past tense as in (369c, d), the neutral description *ga* with a definite subject is not allowed; *ga* would only be interpreted as the focus *ga*, and the neutral topic *wa* has to be used to remove the focus.

(369)

- a. tanaka ga takusan tabe-ru hazu {da /de ar-u }
Tanaka NOM *much* eat-NPST *should* COP.NPST COP AR-NPST

‘Tanaka should eat a lot.’ (epistemic)

- b. tanaka ga takusan tabe-ta hazu {da /de ar-u }
Tanaka NOM *much* eat-PST *should* COP.NPST COP AR-NPST

‘Tanaka should have eaten a lot.’ (epistemic)

- c. tanaka *ga /wa takusan tabe-ru hazu {d-at-ta /de at-ta }
Tanaka NOM TOP *much* eat-NPST *should* COP.NPST-AR-PST COP AR-PST

‘Tanaka should have eaten a lot.’ (epistemic, without focus on the subject)

- d. tanaka *ga /wa takusan tabe-ta hazu {d-at-ta /de at-ta }
Tanaka NOM TOP *much* eat-PST *should* COP.NPST-AR-PST COP AR-PST

‘Tanaka should have eaten a lot.’ (epistemic, without focus on the subject)

Similarly, another modality nominal *beki* ‘should’ (deontic) allows the higher tense to be non-past with a definite subject marked with the neutral description *ga* as in (370a), and allows the higher tense to be past as long as the neutral topic *wa* is used instead of the neutral description *ga* as in (370c).

(370)

- a. tanaka ga takusan tabe-ru beki {da /de ar-u }
Tanaka NOM *much* eat-NPST *should* COP.NPST COP AR-NPST
- ‘Tanaka should eat a lot.’ (deontic)
- b. * tanaka ga takusan tabe-ta beki {da /de ar-u }
Tanaka NOM *much* eat-PST *should* COP.NPST COP AR-NPST
- c. tanaka *ga /wa takusan tabe-ru beki {d-at-ta /de at-ta }
Tanaka NOM TOP *much* eat-NPST *should* COP-AR-PST COP AR-PST
- ‘Tanaka should have eaten a lot.’ (deontic, without focus on the subject)
- d. * tanaka ga /wa takusan tabe-ta beki {d-at-ta /de at-ta }
Tanaka NOM TOP *much* eat-PST *should* COP-AR-PST COP AR-PST

I will not discuss the reason the lower clause can only be in non-past tense with *beki* as in (370b, d); the reason is presumably semantic. In addition to this unknown restriction, *beki* is subject to the same restriction observed with *hazu*.

Contrary to *beki*, the nominal *mama* ‘as is’ prohibits non-past tense in the embedded clause presumably due to a semantic reason, but other than this restriction on the lower clause, non-past tense can appear on the higher clause with the neutral description *ga* on a definite subject, and past tense can appear on the higher clause if the neutral topic *wa* is used.

(371)

a. * *tanaka ga takusan tabe-ru mama da*
Tanaka NOM *much* *eat-NPST as.is* COP.NPST

b. *tanaka ga takusan tabe-ta mama da*
Tanaka NOM *much* *eat-PST as.is* COP.NPST

‘Tanaka is just as is after having eaten a lot.’

c. * *tanaka ga /wa takusan tabe-ru mama d-at-ta*
Tanaka NOM TOP *much* *eat-NPST as.is* COP.NPST-AR-PST

d. *tanaka *ga /wa takusan tabe-ta mama d-at-ta*
Tanaka NOM TOP *much* *eat-PST as.is* COP.NPST-AR-PST

‘Tanaka was just as is after having eaten a lot.’ (without focus on the subject)

To summarize, we observed (372).

(372) **Generalization** With the modality expressions *hazu* and *beki*, and the element *mama* ‘as is’:

- a. Past tense can appear on the higher clause only if the subject is not a definite subject followed by neutral descriptive *ga*.

[TP [TP ... *ga/wa ...] ... ta]

- b. Non-past tense can appear on the higher clause.

[TP [TP ...] ... u]

5.1.3. *Ambiguous Elements*

Next, I examine elements that induce the same restriction on the tense morphemes as section 5.1.1, but under the interaction with the type of predication. Four elements, each of which has a variant of ‘seem’ as its meaning, follow the restriction. The adjectival *rasi*, the nominal *yoo*, and the nominal *mitai* (informal) all mean ‘seem based on first person’s inference.’ The fourth element *soo* ‘seem according to a third person’ shows the same pattern. They can have the neutral description *ga* on a definite subject if the higher clause has non-past tense, but not if the higher clause has past tense.

(373) *rasi*

- a. tanaka ga takusan tabe-ru rasi-i
Tanaka NOM *much* eat-NPST *seem*-NPST

‘Tanaka seems to eat a lot.’

- b. tanaka ga takusan tabe-ta rasi-i
Tanaka NOM *much* eat-PST *seem*-NPST

‘Tanaka seems to have eaten a lot.’

- c. tanaka *ga /wa tokidoki takusan tabe-ru rasi-kat-ta
Tanaka NOM TOP *time.to.time* *much* eat-NPST *seem*-KU.AR-PST

‘Tanaka seemed to be used to eat a lot at the time.’ (without focus on the subject)

- d. tanaka *ga /wa tokidoki takusan tabe-ta rasi-kat-ta
Tanaka NOM TOP *time.to.time* *much* eat-PST *seem*-KU.AR-PST

‘Tanaka seemed to have eaten a lot at the time.’ (without focus on the subject)

(374) *yoo*

- a. tanaka ga takusan tabe-ru yoo {da /de ar-u }
Tanaka NOM *much* eat-NPST *seem* COP.NPST COP AR-NPST

‘Tanaka seems to eat a lot.’

- b. tanaka ga takusan tabe-ta yoo {da /de ar-u }
Tanaka NOM *much* eat-PST *seem* COP.NPST COP AR-NPST

‘Tanaka seems to have eaten a lot.’

- c. tanaka *ga /wa tokidoki takusan tabe-ru yoo {dat-ta /de at-ta }
Tanaka NOM TOP *time.to.time* *much* eat-NPST *seem* D.AR-PST COP AR-PST

‘Tanaka seemed to be used to eat a lot at the time.’ (without focus on the subject)

- d. tanaka *ga /wa tokidoki takusan tabe-ta yoo {dat-ta /de at-ta }
Tanaka NOM TOP *time.to.time* *much* eat-PST *seem* D.AR-PST COP AR-PST

‘Tanaka seemed to have eaten a lot at the time.’ (without focus on the subject)

(375) *mitai*

- a. tanaka ga takusan tabe-ru mitai {da /de ar-u }
Tanaka NOM *much* *eat-NPST* *seem* COP.NPST COP AR-NPST

‘Tanaka seems to eat a lot.’

- b. tanaka ga takusan tabe-ta mitai {da /de ar-u }
Tanaka NOM *much* *eat-PST* *seem* COP.NPST COP AR-NPST

‘Tanaka seems to have eaten a lot.’

- c. tanaka *ga /wa tokidoki takusan tabe-ru mitai {d-at-ta /de
Tanaka NOM TOP *time.to.time* *much* *eat-NPST* *seem* COP.NPST-AR-PST COP
at-ta }
AR-PST

‘Tanaka seemed to be used to eat a lot at the time.’ (without focus on the subject)

- d. tanaka *ga /wa tokidoki takusan tabe-ta mitai {d-at-ta /de
Tanaka NOM TOP *time.to.time* *much* *eat-PST* *seem* COP.NPST-AR-PST COP
at-ta }
AR-PST

‘Tanaka seemed to have eaten a lot at the time.’ (without focus on the subject)

(376) *soo*

- a. tanaka ga takusan tabe-ru soo {da /de ar-u }
Tanaka NOM *much* *eat-NPST* *seem* COP.NPST COP AR-NPST

‘Tanaka seems to eat a lot.’

- b. tanaka ga takusan tabe-ta soo {da /de ar-u }
Tanaka NOM *much* eat-PST *seem* COP.NPST COP AR-NPST

‘Tanaka seems to have eaten a lot.’

- c. tanaka *ga /wa tokidoki takusan tabe-ru soo {d-at-ta /de at-ta }
Tanaka NOM TOP *time.to.time* *much* eat-NPST *seem* COP-AR-PST COP AR-PST

‘Tanaka seemed to be used to eat a lot at the time.’ (without focus on the subject)

- d. tanaka *ga /wa tokidoki takusan tabe-ta soo {d-at-ta /de at-ta }
Tanaka NOM TOP *time.to.time* *much* eat-PST *seem* COP-AR-PST COP AR-PST

‘Tanaka seemed to have eaten a lot at the time.’ (without focus on the subject)

These four elements have a requirement on the predicate as in (377).

(377) **Generalization** With the elements meaning ‘seem’ such as *rasi*, *yoo*, *mitai* and *soo*:

- a. Past tense can appear on the higher clause only if the subject is not a definite subject followed by neutral descriptive *ga*, and the embedded clause is a certain kind of predicate.

[TP [TP [Certain Pred ... *ga/wa ...]] ... ta]

- b. Non-past tense can appear on the higher clause.

[TP [TP ...] ... u]

■ 5.2. Stage Level and Individual Level Interpretations

This section provides an analysis of the observations made in the previous sections. I would first like to recall Kuroda's (1965) generalization (156) mentioned in section 2.3.3.2. Considering (156), the restriction on the use of the neutral description *ga* with a definite subject that appears in observation (372, 377) indicates that whether or not individual level predication is involved in these constructions is relevant to the restriction.

In fact, only individual level predicates can appear in the embedded clause of the elements from (377) when the restriction is in effect. For example, in (373c, d) with *rasi*, which allow the past tense in the higher clause, a habitual property is predicated of the subject, which is an individual level predication. With a stage level predication such as episodic (= single event) interpretation, the past tense in the higher clause is not allowed as in (378c, d). Notice that, when the higher clause bears non-past tense, the episodic interpretation is allowed (as well as the neutral descriptive *ga*) as in (378a, b).

(378)

- a. tanaka ga ima takusan tabe-ru rasi-i
 Tanaka NOM now much eat-NPST seem-NPST

‘It seems that Tanaka would be eating a lot right away.’

- b. tanaka ga sono hi takusan tabe-ta rasi-i
Tanaka NOM *that day much* eat-PST *seem-NPST*

‘Tanaka seems to have eaten a lot that day.’

- c. * tanaka ga /wa sono hi takusan tabe-ru rasi-kat-ta
Tanaka NOM TOP *that day much* eat-NPST *seem-KU.AR-PST*

‘Tanaka seems to have eaten a lot that day.’

- d. * tanaka ga /wa sono hi takusan tabe-ru yoo dat-ta
Tanaka NOM TOP *that day much* eat-NPST *seem D.AR-PST*

‘Tanaka seemed to have eaten a lot that day.’

The same can be said for the other elements from generalization (377): *yoo*, *mitai*, and *soo*. In (374c, d, 375c, d, 376c, d), which allow the past tense in the higher clause, a habitual property is predicated of the subject. With a stage level predication, the past tense in the higher clause is not allowed.

(379) *yoo*

- a. tanaka ga ima takusan tabe-ru yoo da
Tanaka NOM *now much* eat-NPST *seem COP.NPST*

‘It seems that Tanaka would be eating a lot right away.’

- b. tanaka ga sono hi takusan tabe-ta yoo da
Tanaka NOM *that day much* eat-PST *seem COP.NPST*

‘Tanaka seems to have eaten a lot that day.’

- c. * tanaka ga /wa sono hi takusan tabe-ru yoo d-at-ta
Tanaka NOM TOP *that day much* *eat-NPST seem* COP-AR-PST
- d. * tanaka ga /wa sono hi takusan tabe-ta yoo d-at-ta
Tanaka NOM TOP *that day much* *eat-PST seem* COP-AR-PST

(380) *mitai*

- a. tanaka ga ima takusan tabe-ru mitai da
Tanaka NOM *now much* *eat-NPST seem* COP.NPST
 ‘It seems that Tanaka would be eating a lot right away.’
- b. tanaka ga sono hi takusan tabe-ta mitai da
Tanaka NOM *that day much* *eat-PST seem* COP.NPST
 ‘Tanaka seems to have eaten a lot that day.’
- c. * tanaka ga /wa sono hi takusan tabe-ru mitai d-at-ta
Tanaka NOM TOP *that day much* *eat-NPST seem* COP-AR-PST
- d. * tanaka ga /wa sono hi takusan tabe-ta mitai d-at-ta
Tanaka NOM TOP *that day much* *eat-PST seem* COP-AR-PST

(381) *soo*

- a. tanaka ga ima takusan tabe-ru soo da
Tanaka NOM *now much* *eat-NPST so* COP.NPST
 ‘It seems that Tanaka would be eating a lot right away.’
- b. tanaka ga sono hi takusan tabe-ta soo da
Tanaka NOM *that day much* *eat-PST so* COP.NPST
 ‘Tanaka seems to have eaten a lot that day.’
- c. * tanaka ga /wa sono hi takusan tabe-ru soo d-at-ta
Tanaka NOM TOP *that day much* *eat-NPST so* COP-AR-PST

- d. *tanaka ga /wa sono hi takusan tabe-ta soo d-at-ta
Tanaka NOM TOP *that day much* eat-PST *so* COP-AR-PST

I assume that the functional elements from (377) inherit the individual or stage level distinction of the predication of their embedded clause. This is supported by the fact that the examples without past tense such as (373a, 374a, 375a, 376a) would not allow the neutral description *ga* with a definite subject once the embedded clause is disambiguated to have a habitual (individual level) interpretation.

- (382) tanaka *ga /wa hudan takusan tabe-ru rasi-i
Tanaka NOM TOP *usually much* eat-NPST *seem*-NPST

‘Tanaka seems to eat a lot usually.’ (without focus on the subject)

- (383) tanaka *ga /wa hudan takusan tabe-ru yoo da
Tanaka NOM TOP *usually much* eat-NPST *seem* COP.NPST

‘Tanaka seems to eat a lot usually.’ (without focus on the subject)

- (384) tanaka *ga /wa hudan takusan tabe-ru mitai da
Tanaka NOM TOP *usually much* eat-NPST *seem* COP.NPST

‘Tanaka seems to eat a lot usually.’ (without focus on the subject)

- (385) tanaka *ga /wa hudan takusan tabe-ru soo da
Tanaka NOM TOP *usually much* eat-NPST *so* COP.NPST

‘Tanaka seems to eat a lot usually.’ (without focus on the subject)

Elements *hazu*, *beki*, and *mama* from (372) are different from (377) in that they (can) yield an individual level predicate interpretation regardless of whether the embedded clause is individual level predication, as observed in section 5.1.2.

The polite *des* allows the neutral description *ga* on a definite subject (with a stage level interpretation) as observed in (363, 365), but it also allows the neutral topic *wa* with an individual level interpretation, and shows no difference in the restriction of the past tense.

(386) Verb with individual level predication

- a. ?? *tanaka wa hudan takusan tabe-ru des-u*

Tanaka TOP *usually much* eat-NPST POL-NPST

‘Tanaka eats a lot usually.’ (polite)

- b. ?? *tanaka wa tokidoki takusan tabe-ta des-u*

Tanaka TOP *time.to.time much* eat-PST POL-NPST

‘Tanaka used to eat a lot in those days.’ (polite)

- c. * *tanaka wa tokidoki takusan tabe-ru desi-ta*

Tanaka TOP *time.to.time much* eat-NPST POL-PST

- d. * *tanaka wa tokidoki takusan tabe-ta desi-ta*

Tanaka TOP *time.to.time much* eat-PST POL-PST

(387) Adjective with individual level predication

- a. *kono heya wa hudan samu-i des-u*

this room TOP *usually cold*-NPST POL-NPST

‘This room is cold usually.’ (polite)

- b. kono heya wa tokidoki samu-k-at-ta des-u
this room TOP time.to.time cold-KU-AR-PST POL-NPST

‘This room used to be cold in those days.’ (polite)

- c. * kono heya wa tokidoki samu-i desi-ta
this room TOP time.to.time cold-NPST POL-PST
- d. * kono heya wa tokidoki samu-k-at-ta desi-ta
this room TOP time.to.time cold-KU-AR-PST POL-PST

Summarizing the individual/stage level distinction of the relevant elements, we get (388).

(388) **Postulate**

- a. The polite *des* is not a predicate.
[No predication . . . [Individual level . . .] des]
[No predication . . . [Stage level . . .] des]
- b. The modal nouns *hazu*, *beki*, and the element *mama* can project either an individual level or stage level predication regardless of the predication in the embedded clause.
[Individual level/Stage level . . . [Individual level . . .] hazu/beki/mama]
[Individual level/Stage level . . . [Stage level . . .] haze/beki/mama]
- c. Variants of ‘seem’ inherit the individual level or stage level distinction of the embedded clause.
[Individual level . . . [Individual level . . .] rasi/yoo/mitai/soo]

[Stage level ... [Stage level ...] rasi/yoo/mitai/soo]

I argued in section 4.2 that individual level predication has a control structure (389a). This claim is equivalent to the claim that a raising structure, which lacks an underlying external argument in the higher clause, is either a stage level predication (involving either an internal argument β or the embedded clause) as in (389c) or does not involve predication in the higher clause as in (389d).

(389) α, β are arguments, p_1, p_2 are predicates, q is a non-predicate

- a. [Individual level $\alpha^1 \dots [PRO^1 p_1] p_2]$
- b. [Stage level $\alpha^1 \dots [PRO^1 p_1] p_2]$
- c. [Stage level $\alpha^1 \dots (\beta) \dots [t^1 p_1] p_2]$
- d. [No predication $\alpha^1 \dots [t^1 p_1] q]$

Notice that the entailment is one way; a control structure (389b) should also be possible with certain stage level predicates. In fact, there are stage level predicates that take a control structure as in (390).

(390) sono hi tanaka ga [PRO kondo no paatii ni kuru to] yakusoku-si-ta
that day Tanaka NOM next.time GEN party to come C promise-do-PST

‘That day, Tanaka promised to come to the party next time.’

However, I claim that, whenever the same predicate has both individual level and stage level usages, the stage level structure is the raising structure (389c) and not the control structure (389b). The reasoning is as follows. Recall from section 3.6; Ogihara (1998, 1999) proposed that the current situation (stage level) interpretation and the experiential (individual level) interpretations of the functional verb *i* share the same denotation for *i* and their difference is due to whether the pleonastic *te* as in (391a) or the non-pleonastic *te* as in (391b) is used.

(391)

- a. tanaka ga ima gohan o tabe-te i-ru
Tanaka NOM now food ACC eat- ϕ I-NPST

‘Tanaka is eating meal now.’ (current situation)

- b. tanaka wa kyonen kekkon-si-te i-ru
Tanaka TOP last.year marry-do-TE I-NPST

‘Tanaka has the experience of having gotten married last year.’ (experiential)

Particularly, the functional verb *i* has as its denotation what would be interpreted as stage level predication. If the non-pleonastic *te* is used, then it provides an additional argument position, of which experiencer-hood is predicated. Interpreting Ogihara’s proposal in syntactic terms, this means that the non-pleonastic *te* introduces a control structure as in (392b) on top of the original structure similar to (392a).

(392)

- a. tanaka ga kekkon-si-(ta)
Tanaka NOM *marry-do-* PST

‘Tanaka got married.’ (current situation)

- b. [tanaka wa [*PRO* kekkon-si]-te] (i-ru)
TE

‘Tanaka has the experience of getting married.’ (experiential)

I assume likewise that the stage level and the individual level interpretations of a single predicate are related systematically, namely that the latter is derived from the former by addition of a semantic element similar to the control *te*. This element should be added to the stage level predicate within the lexicon without any effect on morphology (unlike the control *te*, which is added syntactically). The element provides an extra argument position and converts the stage level predicate into an individual level one. In order for that to be possible, the original stage level predicate must have the external argument position unoccupied. Otherwise, there would be no room for the additional argument for the individual level predicate. It follows then that, for a predicate that has both individual level and stage level usages, the stage level structure is a raising structure (389c) and not a control structure (389b). This will become relevant in the explanation below for (372, 377).

■ 5.3. Analysis

In the following, I will explain the generalizations (368, 372, 377). The crucial assumption to be made is:

(393) **Postulate** Japanese non-past is not a tense value. Non-past *ru* is a pleonastic element.

I also assume the following:

(394) **Postulate** A predicate can have at most one tense specification.

The polite *des* in (388a) appears in configuration (389d). The ban on multiple past tense with *des* in (368a) follows from the fact that the whole structure involves only one predication; then, from (394), there can be only one tense specification.

Next, I will explain why the past tense cannot appear in the higher clause. The analysis will crucially rely on (389) and the proposals made in chapter 3 regarding pleonastics. Sentences with a verbal predicate as in (365) and those with an adjectival predicate as in (363) work in essentially the same way, but since the latter requires an additional consideration regarding the non-past *i* after the adjective, I will first demonstrate the analysis using examples with adjectival predicates, then switch to examples with verbal predicates for ease of explanation.

(395) (part of (363))

- a. *heya ga samu-k-at-ta des-u*
room NOM cold-KU-AR-PST POL-NPST

‘The room was cold.’ (polite)

- b. **heya ga samu-i desi-ta*
room NOM cold-NPST POL-PST

As discussed in section 4.1, the non-past *i* following an adjective is underlyingly *ku ar*- $\nu\phi$ -Agr ϕ -*ru*. The structure for (395) before contraction would be (396).

(396)

- a. [TP [AgrP [ν P [VP [TP [AgrP [ν P [VP [[AP ... *samu*]-*ku*] *ar*]- $\nu\phi_1$]-Agr ϕ]-*ta*] *des*]- $\nu\phi_2$]-Agr ϕ]-*ru*]
- b. [TP [AgrP [ν P [VP [TP [AgrP [ν P [VP [[AP ... *samu*]-*ku*] *ar*]- $\nu\phi_1$]-Agr ϕ]-*ru*] *des*]- $\nu\phi_2$]-Agr ϕ]-*ta*]

In both (396a) and (396b), after the phrase *heya ga* has been created, the first numeration is {*samu*, *des*, $\nu\phi_2$, *ta*}; being a pleonastic, *ku*, *ar*, $\nu\phi_1$, Agr ϕ , and *ru* are not present in the numeration.³⁶ The first merger has to contain the θ -assigner, as discussed in chapter 3, hence *samu* is merged, giving (397).

³⁶Light verb $\nu\phi_1$ that appears with pleonastic *ar* should be pleonastic, but the light verb $\nu\phi_2$ that appears with *des* is not pleonastic.

(397) heya ga samu

The numeration becomes $\{\text{des}, {}_v\phi_2, \text{ta}\}$, none of which can select *samu*, so a pleonastic element *ku* merges, whose result still cannot be selected by an element in the numeration. In a similar manner, the pleonastic *ar*, ${}_v\phi_1$, and ${}_{\text{Agr}}\phi$ are merged, giving (398).

(398) heya ga samu-ku ar- ${}_v\phi_1$ - ${}_{\text{Agr}}\phi$

The past tense *ta* from the numeration merges with (398), blocking the pleonastic non-past *ru* as an alternative possibility. This excludes (399b) (a required step for (396b)); the structure becomes (399a), and the numeration becomes $\{\text{des}, {}_v\phi_2\}$.

(399)

- a. heya ga samu-ku ar- ${}_v\phi_1$ - ${}_{\text{Agr}}\phi$ -ta
- b. * heya ga samu-ku ar- ${}_v\phi_1$ - ${}_{\text{Agr}}\phi$ -ru

This is the reason for the latter part of (368b). *Des*, the only element in the numeration that can select TP, merges with (399a), followed by merger of ${}_v\phi_2$, giving (400), and the numeration is exhausted.

(400) heyga ga samu-ku ar- $\nu\phi_1$ -Agr ϕ -ta des- $\nu\phi_2$

The structure (400) is illformed because *des* is a bound morpheme. It needs to be selected by some element that leads to a morphologically free structure. Since there is no element in the relevant numeration, the pleonastic Agr ϕ and *ru* are merged with (400). Then, the subject *heyga ga* moves to its specifier, giving (395a) (after contraction).

The modal nominals *hazu* and *beki* and the element *soo* have individual level and stage level usages. From the argument I made above, these usages correspond to the control structure (389a) and the raising structure (389c). Let us consider a control example (401).

(401) tanaka wa *PRO* takusan tabe-ru hazu d-at-ta
Tanaka TOP *much* eat-NPST *should* COP-AR-PST

‘Tanaka should have eaten a lot.’ (epistemic, generic)

Given the above discussion, the first phase has the numeration $\{PRO, takusan, tabe, \nu\phi_1\}$. The θ -role marking *tabe* is merged with *takusan*, then $\nu\phi_1$ and *PRO* are merged, resulting in (402).

(402) *PRO* takusan tabe- $\nu\phi_1$

At some point, the phrase *tanaka wa* is created. After this, the numeration {hazu, d(e), ta} is introduced. The θ -role marking *hazu* shall be the first item to be introduced from this numeration, but it cannot select the verb stem *tabe*. Hence, the pleonastic $\text{Agr}\phi$ and *ru* are introduced, giving (403).

(403) *PRO* takusan tabe- $\nu\phi_1$ - $\text{Agr}\phi$ -ru

Then *hazu* selects (403), merging with it, after which *tanaka wa* and *d(e)* are merged. The numeration becomes {ta}. Since *ta* cannot select *d(e)*, the pleonastic verb *ar*, $\nu\phi_2$, and $\text{Agr}\phi$ are inserted. After that, *ta* is inserted, giving (401).

Let us next consider a raising example (404).

(404) tanaka ga *t* takusan tabe-ta hazu da
Tanaka NOM *much* eat-PST *should* COP.NPST

‘Tanaka should have eaten a lot.’ (epistemic, episodic)

Since *hazu* does not assign a θ -role, it belongs to the same numeration as *tabe*. After the phrase *tanaka ga* has been created, the numeration has {takusan, tabe, $\nu\phi$, ta, hazu, da}. The phase starts with the merger of the θ -role assigning *tabe* with *takusan* and with $\nu\phi$, then with *tanaka ga*, giving (405).

(405) tanaka ga takusan tabe $\nu\phi$

The numeration becomes {*ta*, *hazu*, *da*}. After merger with $\text{Agr}\phi$, the past tense *ta* can merge with the structure, and the pleonastic *ru* cannot merge. After merger with *ta*, the phase continues to merge *hazu*, and (the structure that underlies) *da*, resulting in (404). The above discussion of the structures (401, 404) thus explains (372). Similar explanation applies to (377).

■ 5.4. Summary

In this chapter, we have observed structures in Japanese that have a single main predicate (and functional elements that may be predicates) and two tense positions. These structures involve a functional element that selects a clause. In the paradigm under consideration, the traditional non-past tense (*ru* for verbs, *i* for adjectives) cannot occur in a clause embedded under a clause with past tense *ta* under certain conditions. Also under the same conditions, the higher clause cannot be in past tense even if the embedded clause is in past tense.

When the higher clause is in past tense, a definite subject cannot take the neutral description *ga*. Given Kuroda's (1965) generalization, this means that the higher clause can be in past tense only when the functional element in question induces an

individual level predication. I argued that when an element induces both individual level and stage level predication, the individual level predication has a structure that introduces a θ -marked subject in the higher clause whereas the stage level predication involves a structure that does not have a θ -marked subject in the higher clause.

I argued that the traditional non-past tense in Japanese is not a tense value, the non-past *ru* and *i* being pleonastic morphemes whose lexical insertion is restricted under the principle developed in chapter 3. In particular, non-past morpheme is prohibited if there is an instance of past tense in the active numeration.

As discussed in chapter 3, numeration is created for each phase. The definition of phases I assumed here incorporates Chomsky's (2000, 2001) notion that phase is dependent on (external) θ -role assignment, and Bošković's (2013, 2014a) notion that the highest phrase in the extended domain of a lexical head is a phase.

In the current system, a θ -role assigner starts a phasal domain with the highest projection in the domain functioning as the phase. The domain is closed when the next θ -role assigner is merged, with the sister of the θ -role assigner functioning as a phase. When the relevant structure does not involve a θ -marked argument in the higher clause, hence no θ -role assigner, the entire structure is created under a single phase, and existence of past tense morpheme in the numeration blocks insertion of non-past tense in the lower clause. If the structure involves a θ -marked argument in the higher clause, the two tense positions are created in different phases, which correspond to different numerations. An instance of a past tense in one numeration does not affect insertion of a non-past tense in the phase corresponding to the other numeration.

Chapter 6

Compatibility with Conventional Phasehood

I proposed a new notion of phase in chapter 3 (276, 277). Under the current conception of phase, a phase that starts with a θ -assigner will extend past any vP and CP until it reaches an element that assigns a θ -role. Merger of a new θ -role assigner will close a phasal domain, with the highest phrase in the phasal domain functioning as a phase. This differs from the standard literature that assumes that (some) vP and/or CP are phases. Bošković (2014a), whose definition is similar to the current one, adopts a disjoint definition of phase. The main idea is that the highest phrase in the extended domain of a lexical head is a phase. For verbal projections, this corresponds to vP phases (simplifying somewhat). In order to account for CP phases,

Bošković acknowledges that a disjunction regarding CP needs to be added to the definition. Bošković claims that there is a clausal phasal domain; the highest phrase in the clausal domain, i.e., CP, functions as a phase. Under my proposal, there is no need for a separate clausal phasal domain. As a result, the current conception of phases captures in a more natural way the phasehood of CP, as I will explain in section 6.1. However, an issue arises how to get a phase in the vP domain in the current system given the standard assumption that there is a phase in this area of the structure. This is discussed in section 6.2.

■ 6.1. Clause

Focusing on the phasehood of clauses, an issue related to the examples discussed in chapter 5 is that it is crucial that embedded clauses do not automatically become phases by being a clause. In the system that I proposed, a clause is a phase when the clause is the complement of a θ -role assigning element, whether or not this clause is a CP. If a clause merges with a θ -role assigning head, that merger is the first operation in a phase. This means that the merger that created the clause is the last merger operation in the previous phase, and the clause is a phase. CPs then may not necessarily be phases in the system. This is in a similar line with claims that CP is a phase only when certain contextual conditions are met (Despić 2011, Takahashi 2011, Wurmbrand 2013, Kang 2014). It should however be noted that the

clauses we have been concerned with do not have an overt C, which means that the analysis proposed here can be maintained even if CPs are always phases (this would be in addition to what counts as a phase in the system developed in chapter 3). In other words, if we assume that the relevant clauses do not have a CP, the current analysis may be irrelevant to the phasehood of CP, and could in fact incorporate the standard claim that CP is a phase. Notice in this respect the *to* and *ka*, whose existence may ensure existence of a CP, cannot appear in the constructions discussed in chapter 5.³⁷

(406) * *tanaka ga takusan tabe-ru to/ka des-u*
Tanaka NOM *much* *eat-NPST* C C POL-NPST

‘Tanaka eats a lot.’ (polite)

(407) * *tanaka ga takusan tabe-ru to/ka hazu da*
Tanaka NOM *much* *eat-NPST* C C *should* COP.NPST

‘Tanaka should eat a lot.’ (epistemic)

(408) * *tanaka ga takusan tabe-ru to/ka rasi-i*
Tanaka NOM *much* *eat-NPST* C C *seem-NPST*

‘Tanaka seems to eat a lot.’

The other traditional C head *no* also cannot be selected by *des* in a neutral sentence.

³⁷The same sequence as (406) with *to* is grammatical in the Hakata dialect, whose *to* corresponds to *no* in the standard dialect.

However, unlike *to* and *ka*, the other *no* can be selected by *des* or other variants of the copula under a specific interpretation of the sentence. This is the case with the *no da* construction mentioned in section 1.2 such as (4). Minimally changing the copula with the polite *des* yields (409).

(409) tanaka ga takusan tabe-ru no des-u
Tanaka NOM much eat-NPST C POL-NPST

‘It is the case that Tanaka eats a lot.’ (polite)

This sentence does not have a neutral interpretation but is akin to the cleft construction given in the English literal translation. As is observed by Kuno (1973), in the most natural interpretation (i.e., without assuming an implicit argument in this sentence, as in the cases that I discuss below), the *ga* marking a definite subject in this construction does not have neutral description interpretation, but has contrastive interpretation; as with other cases we have observed in this chapter, the *ga* must be replaced with the neutral topic *wa* in order to remove the focus from a definite subject. Following the logic that I used in section 5.3, which was based on Kuroda (1965) and Kuno (1973), this indicates that the matrix clause of the *no da* construction involves individual level predication, whose subject is the explicit subject of the sentence. Indeed, that seems to be a more accurate characterization of the semantics of a *no da* sentence (410b) as opposed to a simple sentence (410a).

(410)

- a. tanaka ga takusan tabe-ta
Tanaka NOM *much* eat-PST

‘Tanaka ate a lot.’

- b. tanaka wa/*ga takusan tabe-ta no da
Tanaka TOP NOM *much* eat-PST C COP.NPST

‘Tanaka is such that she ate a lot.’ (without focus on the subject)

While (410a) (which has the neutral description *ga*) denotes a (stage level) event, (410b) does not allow the neutral descriptive *ga* with a definite subject, and with the neutral topic *wa*, its matrix clause does not denote an event, but rather denotes an (individual level) property (characterization) of the subject of having been involved in an event.

Some instances of this construction have a neutral description *ga* on a definite subject as in (411), which may apparently seem to be counterexamples to this analysis.

- (411) minna ga yasyoku o tabe-ru no da
everyone NOM *midnight.supper* ACC eat-NPST C COP.NPST

‘It is such that everyone eats midnight supper.’

As Kuno discusses, there is an implicit argument in such cases. This argument would be marked with *wa* to avoid contrastive focus if it were explicit. Thus, (411) may have the structure (412) if the argument were to be explicit.

(412) sono kuni wa, minna ga yasyoku o tabe-ru no da
that country TOP everyone NOM midnight.supper ACC eat-NPST C COP.NPST

‘That country is such that everyone eats midnight supper.’

The sentence then describes an individual level property (characteristics) of the matrix argument. Likewise, it is possible to interpret (409) with a neutral descriptive *ga* by assuming an implicit subject of the matrix individual level predication. For example, assuming an implicit phrase as in (413), (409) expresses an individual level property of the implicit subject.

(413) kono gakyuu wa, tanaka ga takusan tabe-ru no des-u
this class TOP Tanaka NOM much eat-NPST C POL-NPST

‘This class is (characterised by the fact) that Tanaka eats a lot.’ (polite)

I claim that (410b) under the salient interpretation, and (411) or (412) have the structures (414a, b), respectively.

(414)

- a. tanaka¹ wa [*PRO*¹ takusan tabe-ta] no da
- b. *pro*/sono kuni wa [minna ga yasyoku o tabe-ru] no da

While (414a) has an explicit matrix subject and an implicit embedded subject (hence a control structure), (414b) has a possibly implicit matrix subject and an explicit

embedded subject. What is common to both structures is that a θ -role is assigned in the matrix clause. I claim that this additional semantics in the matrix clause is due to *no* rather than the copula since the copula in the *no da* constructions can be dropped in colloquial speech without changing the semantics. This also goes well with the predicate internal subject hypothesis, under which the copula in an adjectival or nominal predication is not a θ -role assigner. Furthermore, the *no* retains the nominal property as is discussed below. Especially, the control case (414a) would then be an extension of Ogihara's (1998) analysis of the non-pleonastic *te to no*.

Apart from *no* in *no da* construction, there is a nominal usage of *no*. The head *no* modified by a relative clause in (415a) is uncontroversially a nominal although the *no* heading an appositive clause as in (415b, c) (aka. formal noun) may have less consensus as being a nominal. They can be altered with a substantive noun, and as Saito (2010) observes for the latter cases, case is obligatory on them.

(415)

- a. [tanaka ga e¹ tabe-ta] {no¹/karee¹} *(ga) karak-at-ta
Tanaka NOM *eat*-PST *one* *curry* NOM *spicy*-AR-PST

‘The one/curry that Tanaka ate was spicy.’

- b. [tanaka ga oyatu o tabe-ta] {no /jijitu} *(ga) akiraka ni nat-ta
Tanaka NOM *snack* ACC *eat*-PST *one* *fact* NOM *evident* *to become*-PST

‘The fact that Tanaka ate the snack became obvious.’

- c. yamada wa [tanaka ga oyatu o tabe-ta] {no/himitu} *(o) sit-te
Yamada TOP *Tanaka* NOM *snack* ACC *eat-PST* *one secret* ACC *know-TE*
- i-ru
be-NPST

‘Yamada knows the fact/secret that Tanaka ate the snack.’

This shows that there is at least a nominal usage of *no*.

If my proposal that *no* in the *no da* construction is a nominal predicate is correct, then, not being an argument, it should not appear with case, and this is indeed the case. However, there is evidence that *no* in the *no da* construction is nominal. A clause appears in *rentaikee* ‘adnominal form’³⁸ only when it is adjacent to a noun as in a relative clause in (416a) or an appositive clause in (416b). Crucially, *no* in the *no da* construction appears with a clause in *rentaikee* as in (416c).

(416)

- a. [tanaka ga e¹ kirai na] {no¹/ryoori¹} ga das-are-ta
Tanaka NOM *hate* COP.RENTAIKEE *one food* NOM *serve-PSV-PST*

‘A dish that Tanaka does not like was served.’

³⁸In present Japanese, *rentaikee* can be distinguished from the indicative form only on the copula, which is used when the predicate is a noun or an adjectival noun.

- b. [tanaka ga ama-i mono ga kirai na] {no /jijitu} ga
Tanaka NOM *sweet-NPST* *thing* NOM *hate* COP.RENTAIKEE *fact fact* NOM
 hakkiri-si-ta
clear-do-PST

‘The fact that Tanaka does not like sweet things became clear.’

- c. tanaka wa ama-i mono ga kirai na no da
Tanaka TOP *sweet-NPST* *thing* NOM *hate* COP.RENTAIKEE NO COP.NPST

‘Tanaka is such that she does not like sweet things.’

Murasugi (1991) following Hoji (1990) argues that the *no* in cleft sentences as in (417) is a C head and is not N, unlike (415).³⁹ The *no* in cleft construction is similar enough to the *no* in *no da* construction so that Murasugi’s argument regarding the former, if correct, would apply to the latter.

- (417) [takusan tabe-ta] no wa tanaka da
much eat-PST NO TOP *Tanaka* COP.NPST

‘It is Tanaka that ate a lot.’

Below, I examine Murasugi’s arguments regarding the cleft construction as applied to the *no da* construction with slight augmentation. Then, I claim that her argumentation is not a problem for my claim.

³⁹As Murasugi discusses, neither *no* is the genitive case marker as it becomes clear in the Toyama dialect, where the genitive case marker is *no* as with the standard dialect but the counterpart of *no* in the cleft or the *no da* construction manifests as *ga*.

First, Murasugi observes a referential restriction on pronominal *no*. As in (418a), the nominal *no* cannot refer to a person (unless there is connotation of despise). The *no da* construction is not subject to this constraint as in (418b).

(418)

- a. * tanaka wa [^e soko de tabe-te orare-ru] no¹ to hanasi o si-ta
Tanaka TOP *there at eat-TE be.HON-NPST one with talk ACC do-PST*
 ‘Tanaka talked with the person that is eating there.’
- b. tanaka sensee wa soko de tabe-te orare-ru no da
Tanaka teacher TOP there at eat-TE be.HON-NPST NO COP.NPST
 ‘Professor Tanaka is such that she is eating there.’

Second, the clause modifying nominal *no* in (419a) allows optional conversion of nominative to genitive, but the clause in the *no da* construction as in (419b) does not allow genitive case to replace the nominative.

(419)

- a. [tanaka no ^e tabe-ta] no¹ ga karak-at-ta
Tanaka GEN eat-PST one NOM spicy-AR-PST
 ‘The one that Tanaka ate was spicy.’
- b. * tanaka no takusan tabe-ta no da
Tanaka GEN much eat-PST NO COP.NPST
 ‘Tanaka is such that she ate a lot.’

Furthermore, unlike the nominal *no* in (415), *no* in the *no da* construction cannot be replaced with another (substantive) noun.

(420) * tanaka wa takusan tabe-ta {koto/jijitu/dekigoto} da
Tanaka TOP *much* eat-PST *fact fact event* COP.NPST

And unlike (415), it cannot have a case.

(421) * tanaka wa takusan tabe-ta no {ga /o /ni } da
Tanaka TOP *much* eat-PST NO NOM ACC DAT COP.NPST

Murasugi's argumentation is that the *no* in the cleft construction (or the *no* in the *no da* construction) is not an N, hence it is of some other category, namely a C head. Notice however, that all the points examined above only exclude the possibility of the relevant *no* being an argumental N. Under my account where the relevant *no* is a predicational N, the observed facts are expected. The *no* can appear in (418b) with a person notwithstanding the restriction on referential *no* because the *no* here, being a predicate, is not referential. Genitive subject is not allowed in (419b) because the explicit subject does not belong to the subordinate clause. Interestingly, the *no da* construction of the type (411, 412), which has an explicit subject in the embedded clause, also does not allow nominative-genitive conversion.

(422) tanaka wa/pro [kodomono {ga /*no } sin-da] no da
Tanaka TOP *child* NOM GEN *die-COP.NPST* NO COP.NPST

'Tanaka is such that her child died.'

The contrast between (419a) and (422) regarding the availability of nominative-genitive conversion (despite the fact that both constructions take a *rentaikee* clause)

is naturally explained under the account on which the *no* in the former is an argument and the one in the latter is a predicate given Fujita's (1988) generalization on nominative-genitive conversion. Fujita observes that nominative-genitive conversion in a subordinate clause with an unergative verb requires the head nominal to be an argument in the matrix clause. In (423a, b), genitive case is possible because the *toki* phrase is an argument, but (423c) does not licence genitive case because the *toki* phrase there is not an argument.

(423)

- a. [tanaka no e^1 odot-ta] toki¹ ga inshooteki d-at-ta
Tanaka GEN *dance-PST* *time* NOM *impressive* COP-AR-PST

‘The time when Tanaka danced was impressive.’

- b. [tanaka no e^1 odot-ta] toki¹ o omoidasi-ta
Tanaka GEN *dance-PST* *time* ACC *remember-PST*

‘I remembered the time when Tanaka danced.’

- c. * [tanaka no e^1 odot-ta] toki¹, minna mo soo si-ta
Tanaka GEN *dance-PST* *time* *everyone* *even so* *do-PST*

‘When Tanaka danced, everyone did so too.’

As we have observed, the *no da* construction does not allow nominative-genitive conversion regardless of whether the subordinate predicate is an unergative verb. (424) is an example with an unergative verb.

(424) * tanaka wa/*pro* [kodomo no odot-ta] no da
Tanaka TOP *child* GEN *dance*-PST NO COP.NPST

‘Tanaka is such that her child danced.’

This can be explained given that the *no* in question is not an argument but is a predicate. Finally, *no* in (420) cannot be replaced with a substantive noun because the *no* here is not referential. Instead, as we observed in this chapter, *no* can be replaced with other nouns that introduce an individual level predication such as *hazu*, *beki*, and *mama* as in (425).

(425)

a. tanaka wa takusan tabe-ru {no/hazu /beki } da
Tanaka TOP *much* *eat*-NPST NO *should should* COP.NPST

‘Tanaka is such that she eats a lot./Tanaka should eat a lot. (epi-temic/deontic)’

b. kono heya wa zishin de chirakat-ta {no/mama} da
this room TOP *earthquake by mess.up*-PST NO *as.is* COP.NPST

‘This room was messed up by the earthquake./This room remains as is after being messed up by the earthquake.’

Since *no* assigns a θ -role, it follows from (277) that the embedded clause and *no da/no des-u* belong to different phases. It is then predicted that the lower and the higher tense positions in the *no da* construction are not subject to the restriction and

can independently take a non-past or a past tense. We have already observed this in (4, 8a, 12a, 13a).

Regarding the usage of the remaining C head *to*, Saito (2010) observes that it expresses paraphrases of quotes (cf. Plann 1982) or reports of direct discourse (cf. Lahiri 1991). It may follow from this that the constructions in which *to* appears involve a predicate that selects a clause and an agent who is quoted. This means that *to* only appears in the complement position of a θ -marking head. It is then predicted that the tense in the *to* clause may freely be past or non-past. This is indeed the case as in (426).⁴⁰

(426)

- a. {?yamada/watasi} wa [tanaka ga takusan tabe-ru to] omo-u
Yamada I TOP Tanaka NOM much eat-NPST C think-NPST

‘Yamada/I think that Tanaka eats a lot.’

- b. {?yamada/watasi} wa [tanaka ga takusan tabe-ta to] omo-u
Yamada I TOP Tanaka NOM much eat-PST C think-NPST

‘Yamada/I think that Tanaka ate a lot.’

- c. yamada wa [tanaka ga takusan tabe-ru to] omot-ta
Yamada TOP Tanaka NOM much eat-NPST C think-PST

‘Yamada thought that Tanaka eats a lot.’

⁴⁰Sentences such as in (426a, b) with certain verbs with non-first person subject and simple non-past ending in the matrix clause sound awkward. Usually, they take the *te iru* form.

- d. yamada wa [tanaka ga takusan tabe-ta to] omot-ta
Yamada TOP *Tanaka* NOM *much* eat-PST C *think*-PST

‘Yamada thought that Tanaka has eaten a lot.’

In such case, the *to* phrase is a phase not simply because it is a CP but because the matrix predicate is a θ -role assigner and starts a new phasal domain, making its complement CP a phase.

■ 6.2. Tense and Aspect

I turn now to the issue of how to get the phasehood in the vP area. I reconsider the status of the traditional past tense *ta* and the notion of tense in Japanese and its implication for the phase theory.

Bošković’s system, which has both the extended vP phasal domain and the clausal phasal domain, results in two phases within CP. While the current system is not like this, it is possible to incorporate this idea into the current system in a way that would leave the analysis proposed in this thesis unaffected. What is crucially important in the current system is that tense belongs with the verb in the same phase. Nothing would in fact go wrong with respect to the analysis proposed here if tense belongs in the same phasal domain as the verb, with the (split) CP being a separate phasal domain. In fact, this may follow from certain proposals made in Bošković (2014a).

Based on a number of crosslinguistic generalizations where languages with articles and languages without articles differ with respect to numerous syntactic and semantic phenomena, Bošković (2008, 2012, 2014a) argues that languages without articles like Japanese do not have DP. Bošković (2012) further suggests that such languages may lack TP, TP being the counterpart of DP in the clausal structure. Bošković (2014a) (note 43) notes that in such languages, traditional tense may be treated like aspect, and Kang (2014) argues extensively that this is indeed the case in Korean. That is, she shows that traditional tense elements are not tense elements in Korean. Rather, they generally correspond to aspectual elements. Suppose this is also true in Japanese. Interestingly, following Wurmbrand (2013), Bošković crucially argues that aspect belongs to the phasal domain of the verb, not the clausal phasal domain. This would in fact fit well with the current analysis which requires traditional tense (actually aspect under the approach under consideration) to belong to the same phase as the verb. And it would still be possible to have a separate clausal phasal domain where the highest projection in split CP would be a phase. This would then give us two phases in the clause, with the traditional tense belonging to the same phase as the verb. The current analysis could then be maintained as is within this phasal system (basically Bošković (2014a)).

Another possibility for introducing a phase in the lower part of the clausal structure that adheres to the phasal system proposed here, where merger of a θ -role assigner starts a new phasal domain, is to drop (273) and assume that an external argument is assigned its θ -role by *v*. Then, in a sentence with an external argument, *v*, whose

specifier receives a θ -role, starts a phasal domain. This would make VP (not vP) a phase, and the tense will still belong in the same phasal domain as the external θ -role assigner, hence nothing would change in the proposed analyses. However, this would also give us two phases per argumental CP; one will be the CP, and one will occur in the lower part in the argument structure. I leave for future research teasing apart the options discussed in this section.

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