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ON THE SO-CALLED SMALL CLAUSE CONSTRUCTIONS
IN JAPANESE

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Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
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* * * * *
The Ohio State University
1999

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This dissertation investigates the Japanese Small Clause (SC) constructions within a theory of generative grammar. The two main issues discussed are the properties of the adjectival predicates which appear in the SC complement positions and the structures of such complements. The structural analysis focuses on two types of sentences: the *omou* sentence, in which the SC is the complement of epistemic verbs such as *omou* 'think'; and the sentences with *suru* 'make'/ *naru* 'become', in which the two verbs have been proposed in the literature to be raising verbs taking SC complements.

Following the introduction, Chapter 2 presents a critical summary of major works on SCs in English and Japanese. The two main analyses of SCs in the literature, phrasal and clausal, are contrasted with each other as well as with two non-SC analyses, i.e., the complex predicate analysis and the predication-based analysis.

Chapter 3 looks at the restrictions on the adjectival predicates in the SC complements of epistemic verbs in Japanese, e.g., [NP-o Adj-u *omou*]. It is observed that, semantically, such adjectives describe the feeling experienced by the Subject-NP referent toward the entity represented by the -o marked NP. We call this type of adjectives the Subject-Feeling adjectives. It is claimed that there are three classes of adjectives: strictly one-place predicate (1P), strictly two-place predicate (2P), and those ambiguous between one-place and two-place predicates (1P/2P), and that only the 2P and 1P/2P adjectives of feeling can occur in the [NP-o Adj-u *omou*] construction. In the latter half of Chapter 3, we propose that the inflectional endings -i and -u of Japanese adjectives
are variants of the copula -da. This conclusion is supported by the distribution of -u, -i, and the auxiliary aru in adjectival sentences as contrasted with nominal copular sentences. The data include the present/past forms of adjectival predicates and sentences with emphatic elements -sae ‘even’ and -mo ‘also’.

Chapter 4 presents a structural analysis of the SC in Japanese. After establishing that the copula in Japanese is an element with semantic content rather than a semantically void tense carrier, we present a clausal analysis of the SC. It is further suggested that the SC in Japanese is either an IP or a CP, depending on the subcategorization of the epistemic verb used. Omou ‘think’ takes a CP-SC, while kanzuru ‘feel’ takes an IP-SC. The omou sentence is proposed to be a subject control structure.

Chapter 5 challenges the raising analyses of suru/naru constructions. The raising analysis of naru ‘become’ is examined and refuted on the basis of the agentivity of naru as shown by its occurrence in the imperative sentence, desiderative -tai, resultative -te aru, preparatory -te oku, and the actor frame “X-ga nani-o sita ka to iu to ...” (what X did was ...). The structure suggested for suru ‘make’ is that of a verb taking a SC (an IP) as its complement, as in [John-ga [sc musuko-o sensei ni] suru], rather than that of a raising verb. Finally in Chapter 5, we discuss whether the SC/raising analysis of copular ‘be’ in English can be applied to the Japanese copula -da. It is suggested, on the basis of scope interaction facts, that the copula -da does not lend to the raising analysis.

Chapter 6 provides concluding remarks.
Dedicated to my father
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FIELDS OF STUDY

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Studies in Japanese Linguistics
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LIST OF ABBREVIATIONS

A      Adjective
Acc    Accusative Case marker
ADV    Adverb
AN     Adjectival Nominal (*keiyodoshi*)
Asp    Aspect
CJ     Classical Japanese
Comp   Complementizer
Cop    Copula
Dat    Dative Case marker
ECM    Exceptional Case Marking
Gen    Genitive Case marker
ModJ   Modern Japanese
N      Noun
NM     Nominalizer (*no*)
Nom    Nominative Case marker
P      Preposition/Postposition
Past   Past tense
Pol    Polite style morpheme
Pot    Potential
Pres   Present/non-past tense
Q      Question marker
SC     Small Clause
SFP    Sentence-final particle
Top    Topic
V      Verb
XP     X Phrase, where X is one of the major categories
CHAPTER 1

INTRODUCTION

1.0. Purpose of the study

The purpose of this dissertation is to study the properties of the so-called Small Clauses (SCs) in Japanese. Although there is a large body of literature on SCs which cites examples from a variety of languages including English, Italian, and Hebrew (e.g., Cardinaletti and Guasti 1995), relatively little has been studied on such constructions in Japanese (cf. Kikuchi and Takahashi 1991). The two major contributions of the present study to the area of Japanese linguistics are the following: (i) the structure of the SC in Japanese and (ii) the restrictions on the semantic types of adjectival predicates which can occur as SC predicates. We will propose that the SC-like constituents in Japanese are full clauses, either a CP or an IP. The adjectives which can occur in the SC complements will be claimed to be both semantically and syntactically unique: a type of two-place adjective which takes NP objects denoting the entity toward which the subject’s feeling is directed. The adjectival predicates in SC constructions will also be claimed to be a type of copular predicate. Thus, in addition to explaining the SC-like constructions of Japanese, this study will further our understanding of copular constructions and predication structures in Japanese.
1.1. Theoretical Assumptions

This dissertation is written within a framework of generative grammar which has been called Government and Binding theory (GB) or the Principles and Parameters (P&P) approach, based on Chomsky (1981, 1986b). Basic features of the GB theory will be assumed, including the following model of grammar:

\begin{equation}
\text{(1)}
\begin{array}{c}
\text{D-structure} \\
\text{S-structure} \\
\text{Phonetic form (PF)} \\
\text{Logical Form (LF)}
\end{array}
\end{equation}

\text{Move } \alpha

In particular, the arguments in this study assume the following major components of GB theory:

- **Projection Principle:**

  Representations at each syntactic level (i.e., LF, and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items (Chomsky 1981:29).

- **X-bar theory:**

  The lexical categories (V, A, N, P) and non-lexical categories (I or AGR, C) project according to the following schemata, where X''* stands for zero or more occurrences of some maximal projection and X is a zero-level category.

\begin{equation}
\text{(2)}
\begin{align*}
a. & \quad X' = X X''* \quad \text{(X'' is the complement of X)} \\
b. & \quad X'' = X''' X' \quad \text{(X''' is the specifier of X)}
\end{align*}
\quad \text{(Chomsky 1986b:3)}
\end{equation}

- **Adjunction and adjuncts:**

  An adjunction structure with \( \alpha \) adjoined to \( \beta \) is of the form (3):
In a phrase XP, adjuncts (YP) may occur in structures schematized as follows:

(4)
- a. $\text{XP} = \text{YP} \text{XP}$ (where YP is an XP adjunct)
- b. $\text{X}' = \text{YP} \text{X}'$ (where YP is an X' adjunct)
- c. $\text{X} = \text{YP} \text{X}$ (where YP is a word-level adjunct)

• Binary branching:

Following a major tradition in generative linguistic theory, we will assume binary branching in all of the structural analyses we propose.

• Structural Subject:

Unless specified otherwise, the term “subject” is defined in structural terms, not semantic. For instance, the subject of IP is the NP dominated by IP and the sister of I', as shown below:

(5)  
```
   IP
   /  \  
  NP   I'
   \   \  
   Subject I   VP
```

1.2. Background: Small Clause Theory

The term “small clause” was originally introduced into the literature by Williams (1975), to refer to gerunds, i.e., clauses in English which end in -ing. More generally, the term refers to a subset of subject-predicate relations which lack inflected verbs (Cardinaletti and Guasti 1995). Within the generative tradition, Stowell (1983) has proposed that the sequence [NP XP] in the construction [V NP XP] (e.g., [consider John competent]) is a constituent. Historically, the debate on SCs has centered around two

---

1 This is a summary of Radford (1988:255-258).
issues: (i) whether [NP XP] is a constituent, that is, whether a SC exists, and (ii) whether there is a "complex predicate" at some syntactic level which consists of V and the XP. Those who advocate the constituency of [NP XP] are, with Stowell, proponents of the so-called "Small Clause theory" (SC theory). Williams represents the opponents of the SC theory in arguing that [NP XP] should not be analyzed as a constituent, and proposes a theory of predication according to which the NP and XP are not a syntactic unit but arguments of V; he views the relation between NP and XP as that of predication. In this dissertation, we will take the SC theory to be basically correct, and attempt to clarify the structure of the SC-like constructions in Japanese by objectively re-examining the SC theory as it applies to Japanese.

Consider some typical examples of SCs in English:

(6) a. I consider [John competent].
    b. I consider [John to be competent].

(7) a. I consider [John a specialist in this field].
    b. I consider [John to be a specialist in this field].

The sentence (6a) is synonymous to (6b) and (7a) is synonymous to (7b). [John competent] in (6a) and [John to be competent] in (6b) correspond to the proposition "John is competent", while [John a specialist in this field] in (7a) and [John to be a specialist in this field] in (7b) correspond to the proposition that "John is a specialist in this field." In addition to representing the same propositions, the bracketed sequences in (6a) and (7a) can be argued to be also structurally equivalent to those of (6b) and (7b), respectively.¹ When the verbless bracketed sequences in (6a) and (7a) are viewed as syntactic units, these units are called Small Clauses (SC's).

Two major claims of the SC theory are:

¹ The semantics/syntax isomorphism is an issue we are not addressing directly in this dissertation. However, we are adopting Uniformity (Culicover 1997:13), a methodological premise according to which two phenomena sharing some properties are the same phenomena at some level of abstraction. Such a premise underlies the view that the two propositions about John in (4) and (5) correspond to complements in the syntactic structure.
(8)  
   a. The postverbal NP and the lower predicate form a structural constituent (= the SC) and  
   b. The postverbal NP is the subject of the SC, rather than the object of the matrix clause verb.  

Applying (8) to (6a) and (7a), [John] forms a unit (i.e., the SC) with the adjective [competent] in (6a) and with the noun phrase [a specialist in this field] in (7a) respectively. In both sentences, [John] would be the subject of the SC.  

Among those who assume the constituency of the SC, there are two competing views on its structure: clausal and phrasal. Representatives of both positions will be outlined in Chapter 2. In addition to verbless SCs exemplified in (6a) and (7a) above, complements containing gerundives, bare infinitivals, or participials have also been analyzed as SCs (e.g., Stowell 1981, Radford 1988):  

(9)  
   a. I won't have [there being any noise after dark].  
   b. I won't let [you go to the disco].  
   c. I can't imagine [you dominated by anyone].  

(Radford 1988:359)  

All bracketed sections in (9) contain verbs, although they are not tensed or inflected for person or number. Therefore, at least for English and like languages, the term “SC” should not be limited to verbless clauses but as complement clauses (or phrases) lacking verb forms which are fully inflected for tense and person/number agreement.  

In English, SC’s can be complements of a number of so-called “epistemic verbs,” i.e., verbs of belief or knowledge such as consider, find, regard, deem, judge, and  

---  

3 This interpretation of SC matches Chomsky’s definition (1981:107): “a small clause (is) a clausal structure lacking INFL and the copula.” Other candidates for SC constructions include the raising verb seem, the copula be, and adjuncts with null subject PROs:  

   (i) Johni seems [t_i clever].  
   (ii) Johni is [t_i sick].  
   (iii) [PRO_i angry at everyone], Johni left the party.  

(Stowell 1995)  

(Heggie 1988)  

(Stowell 1995)  

Of the above three, (i) and (ii) will be discussed in this study.
think. In Japanese, *omou* ‘think’ is the typical epistemic verb which can select a SC-like complement in the constructions [NP-ga NP-o Adj-u *omou*]. For example:

(10) a. Taroo-wa Hanako-o natukasik-u omot-ta.
   Taro-Top Hanako-Acc dear think-Past
   (Lit.) ‘Taro thought of Hanako as dear (Taro thought back to Hanako with nostalgia).’

b. Jiroo-ga kyoosooaite-o nikurasik-u omot-ta.
   Jiro-Nom competitor-Acc hateful think-Past
   (Lit.) ‘Jiro thought of the competitor as hateful (Jiro hated the competitor).’

*Kanziru* ‘feel’ is another verb which has similarities with *omou*, but the two verbs appear to be different in their subcategorization: *kanziru* selects an IP complement, while *omou* selects a CP complement. The difference between *omou* and *kanziru* will be treated in Chapter 4.

### 1.3. Organization

Following this introductory chapter, Chapter 2 presents an overview of major works on SCs in English and SC theory in general, as well as previous analyses of SC-like constructions in Japanese. Chapter 3 looks at the restrictions on the adjectival predicates in the SC complements of epistemic verbs; it is also proposed that the adjectival predicate contains a copula. In Chapter 4 our structural analysis of the “SC” in Japanese is proposed. Chapter 5 evaluates the SC/raising analysis of copular ‘be’ in English and its application to the Japanese copula *da*, and to the verbs *naru* ‘become’ and *suru* ‘make.’

---

4 See also Quirk et al. (1985:1196), in which they are called “verbs of intellectual state.”

5 Also note that there is a variant of *omou*, with the meaning ‘pine for’ or ‘feel nostalgic about,’ which selects for a direct object NP rather than taking a clausal complement:

\[ \text{(i) Taro-wa maiban kokyoo-o omotte naita.} \]
\[ \text{Taro-Top every night home-Acc think cried} \]
\[ \text{‘Taro cried every night thinking about home.’} \]

As this kind of *omou* is not relevant to the purpose of this study, it will be referred to only for the sake of contrast.
Chapter 6 provides a conclusion and a statement of some implications of this study to the theory of predication.
CHAPTER 2

PREVIOUS STUDIES

2.0. Introduction

In this chapter we will provide a critical summary of major works on Small Clauses. Representative theories on SCs in English are summarized in Section 1. Although most claims are specifically about English and some other European languages, they are intended to apply to other languages in principle. In Section 2, we look at Kikuchi and Takahashi’s (1991) analysis of similar structures in Japanese. Throughout the chapter, the grammaticality judgments of the sentences cited from the previous studies are those of the original authors, unless specified otherwise.

2.1. Small Clauses in English

2.1.1. Jespersen (1924, 1940)

Jespersen (1924) observed that there are matrix sentences in English lacking tense or agreement, as in (1), which he calls "nexus of deprecation":

(1) (Did you dance with her?) Me dance! He arrogant! (No, never! or Not he!)

(Jesperesen 1924:130)

(1) is a rhetorical exclamation/question uttered in response to a comment, with negative connotations. It appears uncontroversial that me and dance in (1) constitute a special kind of clause. Jespersen (1940:7-8) was also among the earliest to discuss embedded

---

1 In American English, "Him arrogant!" is used instead of "He arrogant!" (Peter Culicover, p.c.).
Small Clauses, which have incited more linguistic debates than matrix SCs. He expressed the insight that the bracketed sequence in “I found [him a true friend]” forms a clausal constituent despite lack of an inflected verbal element. For example:

(2) a. They judged me a happy man.
   b. I believe him as honest as myself.
   c. This will make her happy.
   d. They elected Tom their chief.
   e. He slept himself sober.
   f. I want this done at once.

(Jespersen 1940: (1)-(6))

It is stated that in each of the above sentences, the matrix verb is not followed by two elements, i.e., it does not take an NP object (e.g., me in (2a)) and another object (e.g., a happy man in (2a)) (or complement of the object), but that the two parts as a whole constitute the one and only object of the verb. In Jespersen’s (1924) theory a “nexus” is a sequence like a dog barks furiously, which contrasts with a combination like a furiously barking dog in that the former but not the latter forms a complete piece of communication (pp. 87, 97). In (2a)-(2f), the complex object is a “simple nexus” (p.9), a complete clause without any verbal form. Roughly speaking, the “simple nexus” corresponds to what in current literature is called Small Clause.

---

2 Some authors maintain that SC constructions are nothing but an object followed by an “object-complement.” For instance, Quirk et al. (1985: 1195) group such constructions under “complex transitive complementation” and state that her father to be dead does not form a single constituent, although in (iib) her father (O) and dead (C) are equivalent in meaning to the that-clause in (ia). The reason given is that her father can be passivized because it is governed by the matrix verb presumed, thus the trace of the moved NP her father is appropriately bound in the domain containing its governor, the verb. Thus the notion of being a verb’s object and that of being governed by the verb can be separated (Stowell 1991).
Jespersen's claim for the entity called "simple nexus" is based on the semantic equivalence between the Small Clauses and the full clauses. He compares (2b) with "I believe that he is as honest as I" to make this point. He also draws attention to the fact that in resultative expressions like (2e), the result of the sleeping is that "he became sober." Thus, it does not make sense to consider "him" alone the object of "slept."

Jespersen's observations predate much ensuing research on the syntactic structure of various sentences which contain object NPs which are also interpreted as if they were logical subjects of the embedded predicates. There is disagreement in the literature regarding the very existence of non-matrix Small Clauses. Stowell (1983) and Williams (1983), reviewed below, are representative of such points of disagreement.


Stowell's works on Small Clause theory are representative of the view that the postverbal "subject" and predicate form a syntactic unit. What distinguishes Stowell's theory from other Small Clause theories (e.g., Haegeman 1994, Kitagawa 1985; see section 2.1.4 below) is that this syntactic unit is a phrase (an XP) rather than a clause. The XP is the maximal projection projected from the lexical category X which heads the lower predicate. The subject-predicate relation, in both full clauses (IPs) and SCs, is assigned a uniform X-bar structure, as defined in (3):

(3) A domain of predication is an XP, such that the X' category directly dominated by XP is predicated of the SPEC of XP. (Stowell 1991:183)

Stowell refers to (3) as the clausal theory of predication. (4) summarizes his structural view of the subject-predicate relationship:

(4) a. The subject is [Spec, XP].
   b. The predicate is X'.
   c. The head of the predicate is X.

---

3 A major difference between Stowell (1983) and Stowell (1991) is that in the latter, a complex predicate analysis at LF is proposed. See 2.1.5 for a summary of this analysis.
The structures (5a) and (5b) exemplify Stowell's analysis of a Small Clause complement and a full-clause (IP) complement structures, respectively (1991:183):

(5)

a. consider John foolish
b. believe Mary to have left

Stowell says that (3) by itself does not state whether an adjectival predicate must have a subject. Rather, (3), combined with Rothstein's (1983) requirement that every predicate must be predicated of a subject, forces analysis (5a) for Small Clauses, where the accusative marked NP is the subject of the lower adjectival predicate, not the object of the matrix verb. By "every predicate" Rothstein means not just the fully inflected ones and the clausal infinitive predicate (e.g., the IP complement in (5b)) but also all others, such as foolish in (5a). Thus, the subject of the predicate X' is [SPEC, XP] for both ordinary clauses (IPs) and Small Clauses (XPs headed by X).

Summing up Stowell (1991), his SC analysis is motivated theory-internally by two factors. The first is compliance with Chomsky's Projection Principle: "If D-structure is a pure representation of theta-structure, (...) then Small Clauses should be true constituents at D-Structure, (...) since the matrix verb (seem and consider) is dyadic, taking an external human argument and an internal clausal complement" (Stowell
1991:184-5). The analyses (5a) and (5b) are thus supported by the Projection Principle, because they represent the argument structures of the verbs *consider* and *seem*, respectively.

The diagram (6) shows Stowell’s analysis of *seem* as a raising verb, in which *seem* takes a Small Clause as an internal argument:

(6)

```
(IP
  (NP John
  (INFL (I'
    (VP (V seems
    (AP (NP r
      foolish)))
))))
```

It is the parallelism between the IP complement and the SC complement that unifies the complementation structures of verbs such as *consider* and *find*. Both infinitival and SC complements are interpreted as clauses, either at D-structure (Stowell 1991) or at LF (Stowell 1983).

The second and more narrowly theory-internal motivation is that the predicate phrase analysis of the SC, in which the SC is the maximal projection of the head of the SC predicate, gives support to Stowell’s subject-across-categories theory under the X-bar framework. Stowell (1983:285) proposes that “all major syntactic categories (S, NP, AP, VP, etc.) may contain a structural subject position, conforming to a general pattern determined by principles of X-bar theory.” Thus, the specifier of the AP in (5a) is the subject position for that AP, just as the IP specifier in (5b) is that IP’s subject position.

As for empirical evidence for the SC analysis, Stowell (1991) lists the following:
a. Subject Condition effects
   a-1 "Which book did you find [[the author of t_1] very eloquent]?

b. Binding data
   b-1 Mary considers [Bill, kind to himself].
   b-2 *Mary, considers [Bill kind to herself].

c. Subject Small Clauses
   c-1 [Workers angry about their pay] is precisely the situation that the ad
      campaign was supposed to avoid.

d. Irish facts (pseudo-clefting, focusing)
   d-1 Seard an chonaic me na tusa ar meisce.
       what COMP see (Past) I PTC you drunk
       ‘What I saw was you drunk.’

e. Main clause construal diagnostic of matrix adverbs
   e-1 John believed [Mary repeatedly to have left]. (she left repeatedly)
   e-2 *John believed [Mary sincerely to have left].
       (‘she left sincerely’ is the only possible albeit unnatural reading, while the
       intended reading ‘John believed sincerely’ is unavailable.)
   e-3 John considers [Bill sincerely foolish]. (Bill’s foolishness is sincere.)
   e-4 John found [Bill repeatedly annoying]. (Bill is repeatedly annoying.)

f. Italian reflexive clitics
   f-1 *Gianni, si, sembra [t_i intelligente].

(7a-1) shows that extraction out of the subject of a SC is ungrammatical just as in normal
subjects. (7b-1) and (7b-2) show that an anaphor in a SC predicate must be bound by the
subject within the SC. (7c-1) shows that a SC can be a subject (thus a constituent) when
the matrix verb is ‘be’ which asserting identification relation between the two arguments.
In Irish, as shown in (7d-1), a SC can occur in a pseudo-clefted or focused position. (7e-
1) as contrasted with (7e-2) shows that a manner adverb occurring within a subconstituent
of VP is interpreted as modifying that subconstituent, not the matrix VP as a whole. Thus
(7e-3) and (7e-4) show that the bracketed strings are constituents. (7f-1) is evidence that
there is an NP-trace, as a reflexive clitic may not intervene between an NP-trace and its
antecedent; this in turn supports the clausal theory of predication as opposed to William’s
predication theory (which does not require the presence of the NP trace in (f-1), thus
cannot account for the ungrammaticality). Evidence (7a) and (7b) refer to the subject-like
properties of the postverbal NP, while (7c)-(7f) are evidence for the constituency of the NP-predicate sequence. Stowell states that only the last two constitute unambiguous support for the clausal theory of predication as defined in (3). As we shall see later, the kind of evidence cited for English and other European languages are not always available in Japanese.

Although the phrasal analysis has its merits, as shown above, it has some problems, too. One of Stowell’s strongest arguments for the phrasal analysis is based on the observation that different matrix verbs select the category of the SC as a whole (1983:301), e.g., consider subcategorizes for AP complements and expect subcategorizes for PP complements, as shown in (8):

(8)  
a. *I consider [pp that sailor off my ship by midnight].
   b. I consider [AP him honest].
   c. I expect [pp that sailor off my ship by midnight].
   d. *I expect [AP him honest]

(Stowell 1981/83 cited in Kitagawa 1985:211)

One important objection against Stowell’s categorial selection approach comes from Kitagawa (1985). Kitagawa argues that Stowell’s predicate-phrasal analysis is incorrect by showing that what a verb selects is not the category of the SC predicate but its aspectual property. For instance, consider selects predicates which denote a state of affairs, while expect selects those of change of state, as shown in (9):

(9)  
a. *The doctor considers [that patient dead tomorrow].
   b. Unfortunately, our pilot considers [that island off the route].
   c. *I expect that island [off the route].
   d. I expect [that man dead by tomorrow].

(Kitagawa 1985:212)

The grammaticality of (9b) (consider with the PP complement) and (9d) (expect with the AP complement) and the ungrammaticality of (9a) (consider with the AP complement) and (9c) (expect with the PP complement) would be unexplained if the categorial selection hypothesis were correct. According to Kitagawa, there is nothing that prevents
the selection of a particular type of lower predicate, such as state versus change of state, across a clausal boundary. See Section 2.1.4 below for Kitagawa's clausal analysis of SCs.

A consequence of the phrasal SC analysis is the nonmaximal projection level assigned to the SC predicate (A', N', etc.). If there were only one Specifier position, such a structure would be incompatible with the modifiers of the adjectival SC predicate, e.g., very in "He found [John [very reliable]]." This is because adverbial elements like very are usually analyzed as specifiers occupying [Spec, AP] (e.g., Radford 1988:243), but this position is unavailable for adverbs in Stowell's structure, since the [Spec, AP] position is filled by the SC subject. Thus, if the X' analysis of SC predicates is adopted, one must say that very reliable is one complex A with the structure [\( \lambda \) [\( \lambda \) very] [\( \lambda \) reliable]] or that there are more than one Specifier position. If, on the other hand, maximal projections such as AP and NP were assigned to the SC predicates (with the SC subject outside the phrase), the adverbial could be the Specifier, and there would be no need to posit more than one Specifier position in the theory, or to claim that "very reliable" is one word.\(^4\) For instance, an AgrP analysis (e.g., Haegeman 1994, see Section 2.1.4 below) is one example of the clausal analysis of the SC.

\(^4\)Three possible positions of the adverb very are illustrated below:

(i) \[
\begin{array}{c}
\text{NP} \\
| \downarrow \text{(Spec)} \\
\text{John} \\
| \downarrow \text{AP} \\
\text{ADVP} \\
| \downarrow \text{very} \\
\text{reliable} \\
\end{array}
\]

(ii) \[
\begin{array}{c}
\text{NP} \\
| \downarrow \text{AP} \\
\text{A'} \\
| \downarrow \text{ADVP} \\
\text{very} \\
\text{reliable} \\
\end{array}
\]

(iii) \[
\begin{array}{c}
\text{IP} \\
\downarrow \text{A'} \\
| \downarrow \text{ADVP} \\
\text{very} \\
\text{reliable} \\
\end{array}
\]
2.1.3. Against Small Clauses: Williams (1980, 1983)

Williams (1983) refers to Stowell’s (1981) and Chomsky’s (1981) approaches to the consider construction as “the Small Clause theory (the SC theory)” and argues against it. In particular, he disputes the analysis that the two postverbal elements are a constituent. Williams’ analysis of the consider constructions includes a ternary branching structure, shown in (10):

(10)

```
John VP
   \       \       \  
  V      NP    AP  
  consider Bill sick
```

(Williams 1983: 292, (16a))

According to the definition of “subject” in Williams’ predication theory, the postverbal NP is allowed to be both the object of the matrix verb and the subject of the lower predicate. Thus his theory does not require positing a Small Clause as a structural constituent. This analysis stands in sharp contrast to Stowell’s (1983, 1991) X-bar theory-based analysis, summarized in the previous section.

In Williams’ theory, the subject is defined as an external argument, as per (11), and the subject-predicate relation is defined by a “rule of predication,” which includes (12):

(11) Subject as an external argument:
The subject of a predicative phrase XP is the single argument of X that is located outside of the maximal projection of X.  

(Williams 1983:287)

(12) a. The subject must be an NP.

---

b. The predicate must be a maximal projection, XP.
c. The subject must c-command the predicate.

In short, Williams' view of the subject-predicate relationship is the following:

(13)  
\begin{align*}
a. & \text{The subject is the NP which c-commands the predicate.} \\
   b. & \text{The predicate is an XP.}
\end{align*}

In the ternary structure (10), the NP John is both the matrix object as well as the subject of the lower predicate, the AP sick. This is possible because the definition of predicate-subject is not "Specifier of XP." Rather, V[consider] and NP[Bill] are sisters, thus NP[Bill] is the object of V[consider]; NP[Bill] is also the subject of AP[sick] since NP[Bill] c-commands AP[sick], as required by the rule of predication (12c).\(^6\)

Williams has two major arguments against the SC theory: the phenomenon of scope lowering in raising constructions and the distribution of "thematically independent predicates."

The scope argument challenges the analysis that there is a postverbal unit [t sick] in John seems sick. It is based on the ambiguous scope interpretation of raising constructions like (14a):\(^7\)

\(^6\) The NP[Bill] and AP[sick] also satisfy the mutual c-command condition, a stricter restriction on predication proposed by Williams (1980), which also requires that the predicate c-command the subject. Williams (1980:204) proposes that "a predicate has to c-command its subject, except where a predicate is contained in and coindexed with another predicate." This formulation allows for (ia) to be ruled in while (ib) is ruled out. In (ia) rich does not c-command John but the VP[became rich] which contains rich does, thus John and rich are correctly accorded a predication relation. By contrast, John and gold in (ib) are not interpreted as a predication relation, since the predicate gold does not c-command John, nor is gold contained in and coindexed with another predicate of John:

\begin{align*}
   (i) & \begin{align*}
      a. & \text{John, [became rich].} \\
      b. & \text{I gave John, [gold, apples].}
   \end{align*}
\end{align*}

\(^7\) Williams does not disagree with the raising analysis per se; he disagrees with the analysis that the trace of the raised subject and the infinitival predicate form a constituent.
(14)  
a. Someone seems [t] to be sick.
   b. There is someone who seems sick.
      (∃x (seems (x sick))) — Quantifier someone has wide scope over seem
   c. There seems to be someone sick.
      (seems (∃x(x sick)) — Quantifier someone has narrow scope over seem

(Based on Williams 1983:293)

The interpretation (14b) is possible because the surface position of the raised quantifier someone is higher than that of seem. The other interpretation, (14c), is made possible by an operation which could be called “Quantifier Lowering,” shown in (15):*

(15)

```
S
  VP
    x₁
      V
        seems
          S₂
            NP
              someone
                t₁ to be sick
```

In (15), as seem is a raising verb, the NP someone is raised at S-structure from the original subject position in S₁. At LF the NP someone, which is a quantifier, is “lowered,” i.e., adjoined to the complement S₁, leaving a trace (x₁) at [Spec, S]. The lowered quantifier binds the variable[t₁], the trace of raising, thus defining its narrow scope with respect to seem.

Williams claims that the narrow scope reading of the quantifier is unavailable for (16a), the Small Clause counterpart of (14a) (where “*” indicates unavailable reading):

(16)  
a. Someone seems sick.
   b. ‘There is someone who seems sick.’ = (14b)
   c. *‘There seems to be someone sick.’ = (14c)

---

* We call this operation “Quantifier Lowering” for clarity, although this is not the term Williams uses. Williams (1981:293) discusses the lowering of the quantified NP as a special case of the rule of Quantifier Raising (QR) (May 1977).
Small Clause theory assigns the constituent structure [Someone<sub>i</sub> seems [t<sub>i</sub> sick]] to (16a). If (16a) had such a structure, parallel to the infinitival structure, it should be able to undergo "Quantifier Lowering" as shown in (17), analogous to (15), by lowering and adjoining *someone* to the SC node:

(17)

If so, the narrow scope interpretation (16c) should be available. Since it is not, Williams concludes, the SC analysis [t sick] is unwarranted.

The above scope argument against the constituency of the Small Clause is refuted by Kitagawa (1985:210) as an instance of wrong generalization. According to Kitagawa, both kinds of readings are available in both the SC and the to-infinitival constructions, as shown in (18), and there are also cases in which neither can have narrow scope reading, as shown in (19):

(18)  
\begin{align*}
    a. & \text{I need someone dead.} \\
    b. & \text{I need someone to be dead.} \\
         & \text{= There is someone such that I need him/her to be dead.} \\
         & \text{or} \\
         & \text{= I need a situation such that there is someone who is dead.} \\
\end{align*}

(19)  
\begin{align*}
    a. & \text{I consider someone dishonest.} \\
    b. & \text{I consider someone to be dishonest.} \\
         & \text{= There is someone such that I consider that he/she is dishonest.} \\
         & \neq \text{I consider that there is someone who is dishonest.} \\
\end{align*}

Although this debate is inconclusive, it appears that different analyses may be needed depending on the matrix verbs.
There is also evidence that disparities in quantifier scope-related interpretations arise from the structural difference between a to-infinitive complement and a SC complement. For example:

(20) a. Everyone considers someone to be sick.
    b. Everyone considers someone sick.

Regarding the scope interaction of everyone and someone in (20a) vs. (20b), the to-infinitive and the "SC" complements of consider differ in the range of available interpretations. Namely, while the to-infinitive allows for both the wide and narrow scopes of someone over everyone, the "SC" construction has only the reading in which someone has narrow scope (Nick Cipollone, personal communication). This suggests that someone cannot raise out of the "SC" and land above everyone to assume wide scope at LF. That is, assuming that [someone sick] forms a constituent, the SC is a barrier to the raising of the quantifier at LF, while IP is not. This fact is compatible with the analysis that the "SC" is a constituent (since a non-constituent would not be a barrier). It also suggests that the SC node differs from the IP node of the infinitival complement in terms of barrierhood.9

Williams' second argument against Small Clause theory concerns the prediction it makes regarding the distribution of PRO. His strategy is to point out the fact that the SC constituent analysis [sc PRO predicate] makes wrong predictions within the GB theory. Williams refers to two predicates which appear to theta-mark the same argument as "thematically independent predicates." In GB theory, thematic independence always involves control structures, in which one predicate assigns a theta role to the overt NP, and the other predicate assigns one theta role to a PRO controlled by that NP. See examples (21a) and (19b) (Williams' (7)):

9 We assume that the to-infinitival is an IP, following, for instance, Stowell's analysis of the to-infinitival complement of believe shown in (5b) above.
(21)  a. John wants [PRO to be dead].
    b. *John wants [sc PRO dead]

According to Williams, both the matrix verb *want and the embedded predicate *dead assign a thematic role to the matrix subject *John in (21a). The two predicates are "thematically independent."

The SC theory explains that PRO can occur only in un gover n ed positions. It predicts that (21b) is ungrammatical because PRO in a SC subject position; [Spec, XP] would be governed by X, the predicate heading the SC (in this case, by *dead).

According to Williams, however, the correct generalization is that thematically independent predicates occur only in non-argument positions, regardless of whether the positions are governed or not. Thus, for Williams, the crucial reason for the ungrammaticality of (21b) is that [PRO dead] is in an argument position. The non-occurrence of PRO in un gover n ed argument positions (e.g., (22a)) and the occurrence of PRO in governed non-argument positions (e.g., (22b-d)) support Williams' claim:

(22)  a. *[s [sc PRO sad] to surprise Mary] would be unfortunate.  (Williams' (31))
    b. John Agr [vp ate the meat] [s PRO raw]  (Williams' (33))
    c. John [PRO bashful] Agr wouldn't leave.  (Williams' (36a))
    d. the man [PRO to do the job]  (Williams' (36b))

(The underlined items in (22b-d) are the governors.)

Williams' PRO argument against the SC theory does not directly support his Predication theory, but somewhat weakens the theoretical support for the SC approach in general, and Stowell's phrasal SC analysis in particular.

2.1.4. Small Clauses as "full" clauses

Some linguists, while agreeing with Stowell (1983, 1991) on the constituency of the unit [post verbal NP + lower predicate], oppose the phrasal analysis and claim that
"Small Clauses" are in fact full clauses containing functional categories. We will cite two proponents of the clausal analysis of the Small Clause, Kitagawa (1985) and Haegeman (1994).

Kitagawa (1985) proposes that a SC is fully clausal, and that it is an $S'$ (= CP).

Three arguments support Kitagawa's analysis: (i) Obligatory pleonastic subjects, (ii) Subjacency, and (iii) "Subcategorization Dilemma." The argument (i) suggests that SC is at least an $S$; (ii) further suggests that the SC is not only $S$ but an $S'$ (= CP).

The first argument, obligatory pleonastic *it* subjects in SCs, are exemplified in (23):

(23) [I prefer *[it hot] in summer]

If the sequence *[it hot] were an adjectival phrase, the required presence of the expletive *it* is unexplained, since (in Kitagawa's view, unlike in Stowell's view) an adjectival phrase does not have a subject. However, if *[it hot] were a clause complete with INFL, at least an $S$ (= IP), the obligatoriness of *it* is predicted by Chomsky's (1982) Extended Projection Principle, which requires that every clause contain a structural subject.\(^{10}\)

The second argument, the Subjacency argument is based on instances such as (24a):

(24) a. [[[How competent], does John consider [Bill t,]]]
   b. $[CP [IP John considers [SC Bill competent]]].$

   (24a) is derived from (24b) by *wh*-extracting the predicate of the Small Clause [Bill competent]. If the SC were merely an ordinary clause, i.e., an $S$ (= IP), the movement would cross two bounding nodes, the SC and the matrix $S$, resulting in

---

\(^{10}\) Stowell (1983) explains the requirement of the pleonastic *it* in SCs by extending the Extended Projection Principle to predicate phrases. Kitagawa points out that such approach amounts to claiming that NPs are exceptional in requiring subjects only when occurring as SCs, while disallowing pleonastics in other cases (e.g., +its hotness (the NP counterpart of "It is hot.")).
violation of the Subjacency Condition. It is argued that the grammaticality of (24a) is explained only under the assumption that the SC is an S' (= CP) containing Comp. The lower cycle movement out of the SC would then go through the lower Comp position, eschewing Subjacency violation.

The "Subcategorization Dilemma" constitutes Kitagawa's third argument in favor of clausal over phrasal SC analysis. It is based on observations originally presented in Hornstein and Lightfoot (1987:33) and cited in Contreras (1995):

(25) a. We expected the President.
b. *We expected the President our best friend.
c. We consider the President our best friend. (Contreras 1995)

(26) We considered that possibility / the President. (Kitagawa 1985)

Sentences (25a) and (25b) show that the verb expect can take an NP complement but it cannot take a Small Clause complement with a nominal predicate (i.e., a nominal SC). The verb consider, by contrast, can take either a SC complement as in (25c) or an ordinary NP as in (26). The point of the argument is that if the nominal SC [the President our best friend] in (25c) were an NP (headed by friend), the distinction between the subcategorization of expect, which can only take a plain NP, and consider, which can take also a Small Clause NP complement, becomes problematic. If the matrix verb were to select a particular phrasal category (NP, AP, etc.) and the nominal SC were NP, one would have to state that expect selects only NPs with no subject unless the "subject" is possessive (as in [We expected [the President's arrival]]). Such a complicated statement appears unsuitable as a lexical specification. A clausal analysis of SCs can avoid this problem by recognizing the nominal SC as a clause rather than an NP, and stating that
expect subcategorizes for an NP complement, while consider subcategorizes for either an NP, as in (26), or a Small Clause, as in (25c).11

Haegeman’s crucial example is from French (1994: 125, (63c), (64b)):

(27) a. Je considère la fille très intelligente.
   ‘I consider the girl very intelligent.’

   b. 
   \[
   \begin{array}{c}
   \text{AgrP (= SC)} \\
   \text{NP} \\
   \text{la fille} \\
   \text{Agr} \\
   \text{très intelligent} \\
   \text{[fem sing]}
   \end{array}
   \]

   c. cf. * Je considère les filles très intelligente.
   ‘I consider the girls very intelligent.’

In French, predicational adjectives agree in number and gender with the subject, as shown by the contrast between the grammatical (27a) and the ungrammatical (27c). Thus, the overt agreement seen in SCs is evidence that the NP with which the adjective agrees is its subject. Generalizing from the fact that French adjectival Small Clauses require agreement in number and gender, Haegeman concludes that the SC is a maximal projection of the functional head Agr. The analysis is extended to English, as shown in (28) (Haegeman, 171-2, (33a), (33d)):

---

11 Contreras cites these examples to support a Larsonian VP-shell analysis of structures like (25c): expect selects a single DP, while consider selects one or two DPs. His theory calls for a SC analysis for adjectival and verbal predicates, but a complex predicate analysis for nominal and prepositional predicates.
(28) Maigret considers [the taxi driver [entirely innocent]].

(28) shows Haegeman’s analysis of the consider construction. Although in English the SC predicate shows no overt agreement with the subject, it is assumed that there is an abstract agreement, i.e., an Agr containing the agreement features and projecting its phrase AgrP.12

2.1.5. Complex Predicate analysis

In addition to the SC analysis and the ternary branching analysis, a third possible approach to constructions like “Mary considers John foolish” is to regard the postverbal NP as the direct object of a complex predicate consisting of the matrix verb and the SC predicate. For instance, in the above example, [consider foolish] would take [John] as its object. However, in languages like English, the complex predicate is discontinuous on the surface. Since there exist lexicalized instances of similar semantic components (e.g., “The fans idolize that singer” = “The fans regard (or worship) that singer as an idol,” on an intuitive level it is not difficult to posit a semantic chunk such as [consider foolish]. To

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12 Haegeman further suggests that Agr is the position where as in English and comme in French appear (1994:126, (64b, c)):

(i) a. I consider him as my best friend.
   b. Je considère Louisa comme ma meilleure amie.

25
relate the notion of complex predicate with the discontinuous surface structure, Stowell (1991) proposes that the adjectival head adjoins to the matrix verb to form a complex predicate. He proposes a restructuring operation which maps a D-structure representation like (29a) onto LF structure (29b):

(29) ... consider John foolish
   a. [D-structure]  b. [LF]

\[
\begin{array}{c}
\text{consider} \\
\hline
\text{John} \\
\hline
\text{foolish}
\end{array}
\quad
\begin{array}{c}
\text{consider} \\
\hline
\text{foolish} \\
\hline
\text{John} \\
\hline
\text{A}
\end{array}
\]

Stowell's restructuring incorporation analysis of SCs is particularly problematic in the Principles and Parameters framework because the range of sentences such analysis accounts for is limited to those involving head movement, such as the example shown as (29b): [A foolish], the head of the AP, adjoins to the verb [v consider] by an incorporation process. It is problematic for more complex SC predicates. For instance, in sentences such as [John considers [Joe very/extremely efficient]], the adverb very or extremely could be considered to be part of a complex adjectival head, e.g., [A very [A efficient]]. However, this solution would not work for even more complex constructions such as “John imagined [Joe [angry [at the people who criticized him]]]” or “John imagined [Joe [fond [of them]]].” Such examples show that there is no way (in the Principles and

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14 This idea and these examples were brought to my attention by Peter Culicover (p.c.).
Parameters framework) to treat the adjectival phrase as a complex head. In Japanese, too, it would be equally problematic for phrasal modifiers of adjectival SC predicates such as [kanozyo-o [donna sasaina koto demo soodan sitai hodo [tanomosik-u]] omou] (Lit. '(consider her) as reliable as (he) wants to consult (her) about even minor matters').

2.2. Small Clauses in Japanese

In this section we review Kikuchi and Takahashi (1990) (hereafter K&T), a representative paper on SCs in Japanese. After summarizing it, we will point out some problems of their analysis.\(^{15}\)

2.2.1. Kikuchi and Takahashi (1990)

Japanese has constructions which at first glance look quite similar to the English adjectival ECM-type SC sentences.\(^{16}\) K&T discuss three types of SCs in Japanese: adjectival SCs in the complement position of transitive epistemic verbs such as kanziru 'feel' in (30a) and omou 'think' (30b), adjectival SCs with suru 'make' and naru 'become' (30c, d), and Nominal and Adjectival Nominal SCs with suru and naru (30e-h).

   -Nom that problem-Acc difficult feel-Past
   'John felt that problem to be difficult.'

   -Top -Acc very intelligent think-Past
   'John thought Mary very intelligent.'

See Saito (1982) for an earlier approach to SC-like structures based on controlled PRO; Saito (1983) for the proposal that in the sentence [John-wa [\_A sono koto-o] [\_o totemo uresiku] omotteiru] 'John considers that matter very pleasant', the -o marked NP may receive a theta role from the matrix verb, i.e., it is not a 'raising-to-object' structure. Also see Takezawa (1987:153-154) for an ECM account of Case-marking in SC complement structures.

SCs with nouns and adjectival nouns as predicates (e.g., John-ga musuko-o isya ni si ta. 'John made his son a doctor.' will be discussed in Chapter 4.

27
c. John-ga [SC Mary-o [A utukusik-u]] si-ta
   -Acc beautiful make-Past
   'John made Mary beautiful.'

d. Maryi-ga [SC t_i [A utukusik-u]] nat-ta.
   beautiful become-Past
   'Mary became beautiful.'

   -Acc teacher make-Past
   'John made Mary a teacher.'

f. Maryi-ga [SC t_i [N sensei] -ni] nat-ta
   teacher become-Past
   'Mary became a teacher.'

g. John-ga [SC Mary-o [AN yuumei] -ni] si-ta
   -Acc famous make-Past
   'John made Mary famous.'

   famous become-Past
   'Mary became famous.'

(Kikuchi & Takahashi 1991)

K&T claim that (30a) has a SC complement, parallel to the English sentence [I consider [sc John competent]]. They define Small Clause as "clauses without Tense" (p. 79). As they assume that the lower predicate of (30a) is headed by the -ku form of the adjective, and the -ku form is tenseless, the complement of kanziru is a SC.

For the sentences (30d, f, and h) K&T assume that the verb naru 'become' is a raising verb like English seem. It assigns no Case to the D-structure position of the SC subject, thus the SC subject moves to the matrix subject position where it receives Nominative Case.

Based on their hypothesis that languages are parametrized as to the presence or absence of Agr, and on the specific assumption that Japanese lacks Agr, K&T propose a combination of the clausal and phrasal SC analyses summarized in sections 2.1.2. and

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17 In Chapter 5 we will argue against the raising analysis of naru 'become' and suru 'make'.

28
2.1.4. That is, the SC in Japanese is a phrasal constituent such as an AP, headed by the SC predicate. By contrast, in languages which have the category Agr (e.g., English), the SC is an AgrP which contains a predicate phrase. They propose the structures (31) for English and (32) for Japanese:

(31) a. ... consider [\text{AgrP} \text{Mary}_{i} \text{Agr} \text{AP} \text{t}_{i} \text{intelligent}]]

\begin{figure}[h]
\centering
\begin{tikzpicture}
  \node {AgrP (= SC)};
  \node {NP \text{Agr'}} child {node {\text{Mary}_{i}} child {node {\text{Agr}} child {node {\text{AP}} child {node {t}_{i}} child {node {A'}}}}}};
  \node {intelligent};
\end{tikzpicture}
\end{figure}

(i) a. ?*Watasi-wa [\text{sc sono kaigi-o} \text{pp hatizi kara ni]} \text{omotta.}
  \text{I-Top that meeting-Acc 8-o'clock from Cop think-Past}
  \text{(Lit.) I thought that meeting (to be) from eight o'clock.}

b. Watasi-wa [\text{sc sono kaigi-o} \text{pp hatizi kara ni]} \text{si tai}
  \text{I-Top that meeting-Acc 8-o'clock from Cop make want}
  \text{I want to make that meeting (to be) from eight o'clock.}

(ii) a. ?*Watasi-wa[\text{sc Taro-o} \text{np isya ni]} \text{omotta.}
  \text{I-Top Taro-Acc doctor Cop thought}
  \text{(Lit.) I thought Taro (to be) a doctor.}

b. Watasi-wa [\text{sc Taro-o} \text{np isya ni]} \text{si tai}
  \text{I-Top Taro-Acc doctor Cop make want}
  \text{I want to make Taro a doctor.}

\footnote{See 2.1.2. for Stowell's XP analysis of English SCs. In Japanese, postpositions (e.g., \text{kara 'from,' made 'to'}) have a distribution similar to nouns with respect to SC constructions, as shown below. The PP (postpositional phrase) predicates in SC complements of \text{omou 'think'} shown in (i-a), like the NP predicates of (ii-a), are much less acceptable than the AP predicates like (32). On the other hand, when PP predicates and NP predicates occur in SCs which are complements of \text{suru 'make'} and \text{naru 'become'}, shown in (i-b) and (ii-b) respectively, both are perfectly acceptable:}
   -Nom -Acc beautiful think
   (John) considers Mary beautiful.

b. AP (= SC)
   NP  A'
      Mary-o utukusiku

In the English structure (31), the SC subject is base-generated in [Spec, AP] then raises to [Spec, AgrP] to receive Case from the matrix verb consider. (31) is partially similar to Stowell's (1983, 1991) structure for SCs in that the base position of the SC subject is [Spec, XP] and the SC predicate is X'. In Stowell's SC analysis there is no AgrP dominating the predicate phrase.

Note that the structure (32) proposed for Japanese is identical to Stowell's (1981, 1983) structure of English SC as XP (= AP, PP, NP). As shown in (32), the subject of a SC in Japanese remains in the base position [Spec, AP]. The accusative Case is assigned to the SC subject by the matrix verb omou.

According to K&T, it is the above contrast in the structures of Japanese and English SCs that accounts for the following differences between the two languages:

(33) a. Japanese allows extraction from SC subjects, while English does not (p.90);
   b. Movement of SC predicates is possible in English, but it is generally impossible in Japanese (p.91, 93).

The generalization (33a) is exemplified by (34a) and (34b):

(34) a. ?Sono hooseki-o John-ga [sc [NP Mary-ga t, kattesimatta koto]-o haradatasi-ku]
   jewelry-ACC -NOM fact-ACC irritating
   omotte-i-ru (koto)
   thinking (fact that)
   '(the fact that) John thinks it irritating that Mary bought the jewelry'
   (K&T's (22a))
b. ?*Who do you consider [SC [np stories about t] dull] (K&T's (16b))

The possibility of extracting from SC subjects, as exemplified in (34a), is attributed to the non- (or weak) barrierhood of the SC subject in Japanese, as opposed to the barrierhood of the SC subject in English. In general, extraction out of a subject results in a Subjacency violation, i.e., the so-called Subject Condition violation. Why are the Subject Condition effects weak in Japanese SCs? K&T explain that the SC subject (in fact all subjects) in Japanese is L-marked by the head of the SC, thus it is not a barrier.

The generalization (33b) is illustrated by the following contrast:

(35) a. How intelligent do you consider [Mary t]?

b. ?* Kasikoku, John-ga [Mary-o t] omotta.
   'Intelligent, John considered Mary.'

In (35a), the wh-phrase which corresponds to the SC predicate is fronted. In the Japanese example (35b), the fronting of the SC predicate kasikoku results in ungrammaticality. According to K&T, this is because in English what is fronted is a maximal projection, i.e., the whole SC predicate phrase including the trace of the raised subject ([AP t intelligent] in (31) above). In Japanese, where no subject raising is involved (see structure (32)), the fronting would move an A'. Thus, K&T attribute the ungrammaticality of cases like (34b) to the fact that the fronted constituent is a non-maximal constituent.

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19 In Chomsky (1986:14-15), L-marking, Blocking Category (BC), and barriers are defined as follows:

**L-Marking**
A L-marks B if and only if A is a lexical category that theta-governs B.

**Blocking Category**
C is a BC for B if and only if C is not L-marked and C dominates B.

**Barriers**
A is a barrier for B if and only if (a) or (b):

(a) A is a maximal projection and A immediately dominates C, C is a BC for B.
(b) A is a BC for B, A is not IP.
The authors also discuss apparent counterexamples to (33b). It is claimed that in Japanese, the movement of SC predicates is allowed in SC constructions just in case the matrix predicate is *suru* 'make' or *naru* 'become.' (36a) (derived from (36a')) and (36b) are both grammatical according to K&T’s judgment:

(36) a. \[\text{[\text{NP} t_i [N sensei-ni]], [John-wa [\text{VP} musuko-o [\text{NP} t_j]] suru]} \text{ (tumori da).} \]
\[
\text{DAT -Top son-Acc make intention is}
\]
\[
\text{(Lit.) ‘\text{(His intention is that) A teacher, John makes his son.’ (K&T’s (50))}
\]
\[a'. \text{John-wa [\text{VP} musuko-o [N v [\text{NP} t_i [N sensei-ni]] e]] suru.} \text{ (K&T’s (49b))}
\]

\[b. \text{[\text{AP} t_i totemo muzukasiku], [\text{NP} siken-ga [\text{AP} t_j] natte kita].}
\]
\[
\text{very difficult exam-Nom become-Asp}
\]
\[
\text{(Lit.) ‘Very difficult, the exams have become.’ (K&T’s (51))}
\]

According to K&T, the alleged grammaticality of (36a) and (36b) is based on the raising analysis of *suru* and *naru*. Assuming that in the *suru* 'make'/*naru* 'become' sentences (but not in the epistemic verb sentence (35b)) the fronted constituent is a maximal phrase, i.e., the whole SC containing the trace of the raised subject, like in English SCs. For *suru* in (36a), the SC subject [NP musuko-o] has risen to the specifier position of the VP containing the SC in order to receive Case from the matrix verb (shown in (36a')). For *naru* in (36b), the subject [NP siken-ga] has risen to the matrix subject position, on a par with the English rising verb *seem*.

2.2.2. Comments on K&T

First, I’d like to point out a problem in K&T’s argumentation about fronting. Contrary to their claim, all their Japanese examples with fronted lower predicates are

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20 The verbs *suru* ‘make’ and *naru* ‘become’ will be discussed in detail in Chapter 5.
unacceptable — not just (35b) but also (36a) and (36b).\(^1\) In other words, there are no exceptions to generalization (33a) which states that the movement of SC predicates is disallowed in Japanese. Assuming that (35b), (36a) and (36b) are all ungrammatical, there are two possible directions to take, depending on whether one accepts the subject raising analysis of SCs. If we assume that the SC subject raises in (35b) as well as in (36a) and (36b), their ungrammaticality can uniformly be attributed to as violation of the Proper Binding condition (PB) (e.g., Fiengo 1977), which requires that an anaphor, including traces, must be properly bound by its antecedent.\(^2\) The proposed raising of the SC subject and the subsequent fronting of the SC (containing the subject trace) past the raised subject (i.e., the \(-\sigma\) marked NP) causes the SC-subject trace to land in a higher position where it fails to be c-commanded by its antecedent, thus violating PB. This account weakens K&T’s claim that the SC complements of epistemic verbs have structures different from the SC complements of ‘become’ and ‘make’, assuming that the SC analysis of naru/suru holds.

A piece of evidence which suggests that the unacceptability of (35b) cannot be ascribed to the non-maximality of the adjectival predicate comes from \(-sae\) attachment. According to Ogino (1990), the emphatic particle \(-sae\) ‘even’ attaches only to maximal projections.\(^3\) Note the two possible structures for an adjectival "SC" with \(-sae\), shown as (37a) and (38a) with their respective readings (37b) and (38b):

---

\(^1\) Osamu Fujimura and Mineharu Nakayama (p.c.) pointed out that (36b) may be slightly more acceptable than (36a) due to the aspectual element \(-te-ki-ta\) ‘has (gradually) become’ in (36b). Without such aspectual ending, (36b) would be as unacceptable as (36a):

(i) a. *Totemo muzukasiku siken-ga nat-\(-\)ta.
   
   (Lit.) ‘Very difficult, the exams became.’

\(^2\) It is a violation assuming that PB applies at S-structure. Crucially for K&T, PB is satisfied at LF for the examples cited. The raising is discussed above just for the sake of argumentation. We are not suggesting that SCs in Japanese (or English) have obligatory raising.

\(^3\) See Kuroda (1969) for discussion on constructions containing \(mo\) ‘also’, \(sae\) ‘even’, and \(dake\) ‘only’.
     -Nom -Acc beautiful even thought
b. 'John (did not only consider Mary to have other qualities but) thought (Mary) to be even beautiful.'

(38)  a. John-ga [Mary-o utukusiku]-sae omotta.
b. 'John (did not only consider other qualities about other people but) even thought that Mary was beautiful.

What is maximal, that is, what -sae attaches to can be either the adjectival predicate *utukusiku* by itself, as in (37a), or the whole SC *Mary-o utukusiku*, as represented in (38a). Since a reading is available (as in (37a)) where the scope of *sae* is restricted to the adjective, the *sae* sentence provides evidence that *utukusiku* can indeed be a maximal projection. This in turn weakens K&T's argument that SCs in Japanese have the phrasal structure shown in (32).24

Summing up this section, since the alleged difference in grammaticality between the *naru/suru* 'become/make' sentences on one hand and the epistemic *omou* 'think' sentences on the other is nonexistent, the claim that the former but not the latter involve subject raising is not well supported. Moreover, if the ungrammaticality of (35b) and (36a, b) is due to a Proper Binding violation rather than to the non-maximality of the SC predicate, K&T's proposed difference between English and Japanese SC structures (that English has Agr but Japanese has no Agr, therefore the SC subject raises in English but it does not in Japanese) becomes unmotivated. This opens up the possibility that, pending theoretical assumptions about the existence of Agr in Japanese, the so-called SC in Japanese may be AgrP, as has been claimed for English (e.g., Haegeman 1994).

24 A question which arises in connection to this subject-raising analysis of English SCs is why the wh-movement in English (35a) does not violate the Proper Binding Condition, since it involves the raising of the SC predicate including the trace of the raised subject NP, past the subject NP. K&T, discussing the potential violation of ECP by (35a), refers to Rizzi's (1990) idea that antecedent government may be satisfied via LF reconstruction. As mentioned in section 2.1.4, Kitagawa (1985) views the possibility of wh-movement in such constructions as evidence to support clausal over phrasal status of SCs.
For instance, Koizumi (1995) offers an argument for the existence of Agr in Japanese couched in the Minimalist framework. Koizumi argues for the existence of Agr in Japanese by presenting an account of the scope facts of embedded objects in compound predicates. According to Koizumi, the fact that the object of the Raising construction may take either matrix or embedded scope, as opposed to the fact that the object of a Control or Stative verb can only take either matrix or embedded scope, is readily explained by adopting a Case theory in which the presence of AgrO is assumed. Examples of a raising verb (sugi ‘overdo’), control verb (wasure ‘forget’), and stative verb ((rar)-e ‘can’) are cited in (39), (40), and (41) respectively:25

(39) John-wa niku-dake-o tabe-sugi-ta.
   John-Top meat only -Acc eat-overdo-Past
   a. only > overdo (Among many things John ate, it is only meat that he overate.)
   b. overdo > only (For too long time, John ate nothing but meat.)

(40) John-wa ringo-dake-o tabe-wasure-ta
    apple-only-Acc eat-forget-Past
    a. only > forget (Among many things John was supposed to eat, it is only apples that he forgot to eat.)
    b. *forget > only (It is eat only apples that John forgot to do.)

(41) (i) John-ga migime-dake-o tumur-e-ru
    John-Nom right eye-only-Acc close-can -Pres
    a. can > only (John can wink his right eye.)
    b. ?* only > can (It is only his right eye that he can close.)

(ii) John-ga migime-dake-ga tumur-e-ru
    right eye-only-Nom
    a. *can > only
    b. only > can

25 The examples in (41) are originally from Tada (1992). The quantified object "only the right eye" of the potential verb "can close" can take either the Nominative particle -ga or the Accusative particle -o. The readers are referred to Koizumi (1993) for a detailed account of the above paradigm.
More detailed structures of the SC predicates will be discussed in Chapter 4, in which we will consider IP as well as CP as the structure of the Japanese SC constructions.

2.3. Summary

In this chapter we reviewed major analyses of SC structures. In Section 1, we reviewed Jespersen's (1940) early insight on embedded SCs; Stowell's (1983, 1991) phrasal SC analysis as well as Kitagawa's (1985) and Haegeman's (1994) clausal SC analyses; and Williams' (1980, 1983) arguments against the SC constituent analysis and his ternary analysis based on his predication theory. In Section 2, a critical review of Kikuchi and Takahashi's work on Japanese SC structures was presented. Since Japanese can be argued to have an Agr(reement) phrase (cf. Koizumi 1995), K&T's assumption that Japanese SCs are non-clausal is not well supported. Some problems of K&T's arguments were pointed out, and the possibility of a clausal analysis of Japanese SCs was suggested.
CHAPTER 3

ADJECTIVAL PREDICATES

3.0. Introduction

The focus of this chapter is adjectival predicates in Japanese. In particular, we attempt to identify the syntactic and semantic properties of the adjectives which can occur in SC complements of the form [NP-o Adj-u V], as opposed to those which cannot. We will review two classifications of adjectives which have appeared in the literature and evaluate their relevance to such restrictions. Although it has been recognized in previous studies that some adjectives denoting human feeling behave somewhat differently from other adjectives, there is not enough information about their distribution in various syntactic constructions. The classification of adjectives we propose in section 3.1.6 takes into account all of the following properties, most of which have been mentioned in the literature but not in a comprehensive manner:

(1) Whether an adjective
   a. Can occur in the SC complement structure
   b. Can take -garu
   c. Can take -ga-marked object in [NP1-ga NP2-ga Adjective] pattern
   d. Can have a -ni marking on the NP preceding the -ga-marked object
   e. Can only be a one-place predicate
   f. Can only be a two-place predicate
   g. Is ambiguous between a one-place predicate and a two-place predicate

The proposed classification and characterization of the adjectives appearing in the SC-complement structure will provide a basis for the structural analysis of SC structures, the topic of Chapter 4.
In the latter half of this chapter, we will turn to the "inflectional endings" of the adjectives and propose that the tenseless -u and tensed -i are variant forms of the copula -da. The analysis of the ending -u as a copular verb is another important building block for the analysis of the SC construction [[NP-o Adj-u] omou] in Chapter 4.

3.1. Adjectives

The adjective is one of the three major lexical categories of Japanese -- N (Noun), V (Verb), and A (Adjective). As in English, adjectives in Japanese can occur either as predicates or as adnominal attributes:

(2) a. Sono ringo-wa oisii.
   that apple-Top tasty-Pres
   'That apple is tasty.'

   b. [NP oisii ringo]
      tasty apple
      'tasty apple(s)'

The most visible difference between English and Japanese adjectives in the predicative use is the presence versus absence of co-occurring copulas:

(3) a. That apple *(is) tasty.

   b. That apple *(was) tasty.

   c. I think [that apple is tasty].

   d. I found [that apple to be tasty].

   e. I found [that apple tasty].

An adjectival predicate in English requires the verb 'be' in both the present and past tenses when the predicate occurs in a matrix sentence, as shown in (3a) and (3b) respectively, or

---

1 Some linguists also regard Adjectival Noun (=AN, also called Adjectival Verb (keiyoodoosi)) and Verbal Noun as independent categories (e.g., Shibatani 1990; Martin 1975). Miyagawa (1985) proposes that AN has the lexical feature [+V, +N], while A has the single feature [+V] and is neutral as to [+N]. In this dissertation, we adopt the view that the AN stem is a kind of Noun. Adjectival Nominals in SC structures will be briefly addressed in Chapter 4. See Sode (1995) for an analysis of Verbal Noun + suru predicates. See Uehara (1998) for a detailed treatment of grammatical categories in Japanese.

2 In the examples of this dissertation, the notation *( ) shows that the presence of the element in parentheses is obligatory in that particular linguistic context; ( ) shows that the sentence is ungrammatical when that element occurs in that position.
in a tensed embedded clause as in (3c). In a tenseless subordinate clause with the
adjectival predicate, the copula is in the infinitival form 'to be', as shown in (3d). The
only predication construction that appears to contain no overt 'be' is the Small Clause, as
in (3e). Comparable Japanese sentences are presented in (4):

(4) a. Sono ringo-wa oisi-i .
tasty-Pres
'That apple is tasty.'

b. *Sono ringo-wa oisi-i da.
   Cop (Pres)

(5) a. Sono ringo-wa oisik-atta.
tasty -Past
'That apple was tasty.'

b. *Sono ringo-wa oisi-i datta.
   Cop (Past)

(6) Sono ringo-wa oisi-i (*da) to omou.
tasty  Cop Comp think
'I think that apple is tasty.'

(7) Watasi-wa sono ringo-o oisik-u kanzi-ta.
I-Top that apple-Acc tasty feel-Past
(Lit.) 'I felt the apple tasty.'

As the examples show, the copula da is not only unnecessary but also ungrammatical in
an adjectival predicate, both in a matrix sentence as in (4a) (present-tense) and (5a) (past
tense), and in an embedded tensed clause as in (6).\(^3\) In sum, an adjective does not co-
occur with da.

A second area of difference between English and Japanese adjectival predicates,
related to the first, is tense. In English, the tense of the matrix adjectival predicate is

\(^3\) The polite-style equivalent of (4a), "Sono ringo-wa oisi-i desu," contains "-desu," which has the same
morphology as the polite equivalent of the copula -da. However, there is some agreement in the literature
that the -desu which optionally follows an adjective merely functions as a style-marker rather than as a
real copula; while the -desu in nominal predicates is a real copula with predicative function (e.g., Ano
hito wa sensei da/desu 'That person is a teacher' (e.g., Makino 1968:2, Konomi 1994). We adopt this
view and exclude [adjective-desu] from this discussion. For -desu and -masu in interrogative sentences,
indicated by the tense morphology on the 'be' verb, as shown in the is/was contrast in
(3a) "That apple is tasty" versus (3b) "That apple was tasty." By contrast, in Japanese, it
is the so-called inflectional ending of the adjective that apparently encodes the tense
information, not the copula da. This is shown by the ungrammaticality of (4b) and (5b)
as opposed to the grammaticality of (4a) and (5a). Sentence (7) shows the Japanese
counterpart of the English SC complement clause; it has a tenseless Adj-u form occurring
as the embedded predicate.4

In traditional Japanese grammar, it is widely accepted that the adjective belongs to
yoogen, the class of grammatical categories which can be a predicate by itself.5 Yoogen
includes adjectives and verbs, both of which have inflectional endings.6 For instance,
Tokieda (1950) notes that "The adjective is a kind of yoogen; the difference from the verb
is that its declensional endings are -ku/-i/-kere, which are unrelated to the syllabary
sequence" [translated by R.S.].7 Yoogen contrasts with taigen, the cover term for the
categories which do not inflect and do not constitute a predicate by themselves. Nouns

4 The tenseless [adjective-u] form (renyookei) is sometimes called "adverbial form," as it may occur as
manner adverbials premodifying the verb, as in "hayaku hasiru" 'to run fast' and "oisik-u taberu" 'to eat
something deliciously (in a way that it tastes delicious).’ This function of the adjective’s -u form is not
included in the scope of this dissertation.

5 See, for instance, Suzuki and Hayashi (1984) for a comprehensive discussion on Adjectives and
Adjectival Nouns from the perspective of traditional Japanese grammar.

6 Traditionally, Japanese grammarians have disagreed on whether to include the Adjectival Noun as an
independent part of speech. For instance, Tokieda (1950) treats the so-called AN as a taigen (see above)
followed by a kind of zyodoosi ‘auxiliary verb’.

7 The term "syllabary sequence" refers to the endings in the traditional inflectional paradigm
(katuyohyoo) of verbs and auxiliary verbs. For instance, the last syllable of the ‘five-row-declension’
godankatuyoo verb forms follow the /a/-/u/-/e/-/o/ pattern when listed in the particular order of mizen
‘irrealis’/ renyoo adverbial’/ syuusi ‘conclusive’/ rentai ‘attributive’/ katei ‘hypothetical’/ meirei
‘imperative’ categories (these category terms and translations are from Shibatani 1990). See Quinn (1987)
for a more in-depth discussion of the functions of the inflectional paradigm and of the individual
categories.

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and pronouns are *taigen* (numerals and demonstratives are sometimes included in this class).

Thus, the traditional classification of adjectives as *yoogen* captures the observation that apparently, adjectives do not co-occur with copulas. However, when one claims that adjectives do not co-occur with copulas, what is really being said is that the -*i* or -*(k)u* ending is part of the word categorized as Adjective, [Adj stem + ending], rather than two words, [adjective] + [copula]. In section 3.2.2 and in the next chapter we will take the latter position, i.e., that what seems like one inflected adjective may be better analyzed as the adjective’s stem plus a copula; in other words, the inflectional ending is the copula, a variant of the typical copula -*da*. In generative linguistic terms, we will claim that the copula attached to the adjectival stem heads its own phrase, VP, and that the “adjectival phrase” is at least a VP, rather than an AP.

### 3.1.1. The issue: restrictions on adjectival predicates in SCs

Adjectives which can occur in the tenseless -*u* form in the SC-complement structure as exemplified in (8a) are the focus of our discussion in this chapter.\(^8\) Compare the acceptable examples of (8) with the unacceptable ones of (9).\(^9\)

(8) a. Taro-ga Hanako-o *natukasiku/ kawaiku/ nikurasiku/ haradatasiku/ -Nom -Acc nostalgic/ lovable/ hateful/ irritating/*

    *tanomosiku* omotta.

    reliable think-Past

    '(Lit.) Taro thought Hanako (to be) dear/ cute/ hateful/ irritating/ reliable.'

b. Watasi wa sono hito no enzyo -*o* *arigataku* omotta.

    I-Top that person’s help-Acc grateful think-Past

    '(Lit.) I thought that person’s help (to be) welcome.'

\(^8\) We will refer to the [[NP-o Adj-*u* omou] pattern as the “SC-complement structure” for short, postponing the actual structural analysis to Chapter 4.

\(^9\) Some speakers find sentences like (9a) acceptable, though less so than (8a) and (8b). See Chapter 4 for a possible explanation.
Not all adjectives can occur as predicates of SC complements to the verb omou ‘think’. Such variation in the distribution of adjectives suggests that adjectives are more diverse, syntactically and semantically, than often assumed. It appears that the type of adjectives which have the same distribution in terms of this construction also share semantic characteristics. At first sight, it is at least clear that the SC-compatible adjectives of (8) all denote some human emotion or perception about someone (as in (8a)) or something (as in (8b)), whereas the adjectives in (9), which do not occur in SC complement structures, are simple descriptions of general attributes of people or things.

We will call the group of adjectives that occur in the [NP-o Adj-u omou] construction the Subject Feeling adjectives (SF adjectives). Using this and other constructions, we will examine what kind of unifying semantic/syntactic characteristics the members of this group have. We will also find out whether it is better to consider them as one homogenous group or it is more reasonable to separate them into multiple subgroups. The term Subject Feeling is used as a shorthand for the longer description given above.

In what follows we will review and evaluate two previous classifications of Japanese adjectives and one universal classification of predicates in general, which may be relevant to the inquiry at hand, then propose our own classification. The proposed classification is compatible with the generalizations on the nature of the SF adjectives.
3.1.2. Feeling/emotion adjectives: Oyama’s analysis

There are two earlier papers in the Japanese linguistics literature which attempt to classify adjectives into meaningful groups and describe the peculiar traits of adjectives of human feeling: Oyama (1966) and Teramura (1993). Both are important in that they are representative of the widely-accepted two-way division of adjectives into those of feeling and general attributes. In her article on various sentence types containing the particles -wa and -ga, Oyama (1966) proposes that Japanese adjectives fall into the following two classes:

(10) (Oyama 1966, p. 73, Table (4))

<table>
<thead>
<tr>
<th>Group I</th>
<th>Group II</th>
</tr>
</thead>
</table>
| *Ippan-zokusei keiyooosi*  
‘general attribute adjectives’ | *Kanzyoo keiyooosi*  
‘adjectives of feeling’ |
| Affix -garu cannot attach to stem | Affix -garu can attach to stem |
| Examples: *aoi* ‘blue,’ *utukusii*  
‘beautiful,’ *katai* ‘hard’ | Examples: *uresii* ‘happy,’ *kurusii*  
‘painful,’ *hosii* ‘want (something),’ Verb-tai ‘want to (Verb)’ |

According to Oyama, Group II adjectives are defined by the ability to take the affix -garu. Group II adjectives occurring as main-clause predicates denote the feelings of the speaker but not those of other persons; thus, the subject must be in the first person, not second or

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10 According to Nishio (1983), who also adopts a division between adjectives of objective attributes vs. subjective feelings, similar two-way distinctions have been widely recognized in traditional literature, including the reference dictionary *Kokugogaku Jiten* [The Dictionary of Kokugogaku (Japanese grammar studies)]. Nishio also cites Yamamoto’s (1955) study which suggests that in pre-classical Japanese, the -ka inflection adjectives and -siku inflection adjectives corresponded to property description and psychological adjectives, respectively; by the Heian period (8th-12th centuries) the correspondence had disappeared.

11 The ending -tai attaches to a verb’s infinitive form and adds the desiderative meaning ‘want (to -)’. Although it is an affix-like element, it inflects in the same way as adjectives.
third persons. In order to describe the feelings of third persons, it is usually necessary to attach the suffix -garu to the adjective, or to add the nominalizer (NM) -no and copula -da:

(11) a. *Ano hito-wa uresii.
    that person-Top happy
    (Intended) ‘That person is happy.’

b. Ano hito-wa uresii no da.
    happy NM Cop
    ‘(It is that) that person is happy.’

c. Ano hito-wa uresi-garu.
    happy-apparently
    ‘That person appears happy.’
    (Oyama 1966:73, (15))

d. Ano hito-wa utukusii.
    that person-Top beautiful
    ‘That person is beautiful.’

e. *Ano hito-wa utukusii-garu / -gatte-iru.
    that person-Top beautiful-apparently / apparently-Asp
    (Intended) ‘That person acts / is acting as if s/he were beautiful.’

The pattern -no-da consists of the nominalizing particle (NM) -no and the copula -da.

Pragmatic contexts largely determine the occurrence of this pattern, which is variously called an “assertive predicate” (McGloin and Terakura 1978), “extended predicate” (Jorden and Noda 1987), or “commentary predicate” (Maynard 1992).12

Garu means that the subject-referent’s feeling (‘glad,’ ‘sad,’ etc.) is transparent to others through that person’s attitude, outward appearance, speech, etc. The attachment of -garu is an appropriate formal filter for identifying the adjectives which have the semantic element of feeling. As shown in (11e), general attribute adjectives cannot take -garu.13

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12 See these references and Kuno (1973) for discourse-pragmatic explanations of -no-da.

13 One exception to this test is adjectives of perception such as itai ‘painful, in pain’ and samui ‘cold,’ which are a special type of general attribute adjectives. These adjectives take -garu as in “Kodomo-ga samu-gat-te-iru” ‘The child looks like (or ‘is acting like’) he is (too) cold.’ In addition to -garu, adding yooda or sooda to an adjective of feeling also makes it possible to refer to a third-person’s feeling. Both -yooda and -sooda roughly mean ‘it seems that...’.
Although Oyama’s classification is basically correct, it is problematic (for our purpose) in two ways: first, not all Group II adjectives, i.e., those singled out by -garu attachment, can occur in the SC-complement structure. Compare (12a, b) with (12c, d):

\[(12)\]

a. Taro-ga Hanako-o natukasik-u omotta.
   -Nom -Acc dear think-Past
   (Lit.) ‘Taro thought (of) Hanako (as being) dear.’
   (Taro remembered Hanako with fondness.)

b. Taro-ga Hanako-o natukasi-gatteiru.
   -Nom -Acc dear-apparently
   ‘(Apparently) Taro remembers Hanako with fondness.’

c. *Taro-ga Hanako-o samisik-u omotta.
   -Nom -Acc lonely think-Past
   (Intended) ‘Taro thought (of) Hanako (as being) lonely.’

d. Taro-ga samisi-gatteiru.
   -Nom lonely-apparently
   ‘(Apparently) Taro is lonely.’

Both natukasii ‘dear’ and samisii ‘lonely’ are Group II adjectives since -garu can attach to them, as shown in (12b) and (12d), but only natukasii is acceptable in the SC complement structure, as shown in (12a) as opposed to (12c). Thus, using the SC-complement structure as a diagnostic test, it is clear that the adjectives of feeling are of two kinds, at least. Oyama’s two-way classification is thus too rough-grained for our purpose. (We come back to this point later.)

Another problem with Oyama’s analysis has to do with the Dative -ni marking of the first NP in the sentence. According to Oyama, another characteristic of Group II adjectives is that they can occur in the [NP1-ni (-wa) NP2-ga Adjective] pattern:

\[(13)\]

Watasi -ni-wa/-ni kazi-ga/-wa kowai.
   I -Dat-Top/-Dat fire-Nom/-Top scary
   ‘I am scared of fires.’ (Lit. ‘To me, fires are scary.’) (Oyama 1966: 73, ex.19)

According to Oyama’s judgment, (13) is grammatical. The -ga marked NP in (13) (which is the subject in Oyama’s view) is the referent which has caused the speaker to experience
the feeling denoted by the adjective. However, considering the occurrence of the -ni marked NP as a defining characteristic of the Group II adjectives is problematic in two ways: first, some Group II adjectives, including the desiderative verbal ending -tai and the adjective hosii ‘want’, are clearly unacceptable in the [NP1-ni NP2-ga Adjective] pattern, as shown in (14a); secondly, many other adjectives of feeling are also ungrammatical in this construction, as shown in (14b):

(14) a. Watasi *-ni/*-ni-wa/-wa sukiyaki-ga tabe-tai/ hosii.
   I Dat Dat-Top Top sukiyaki-Nom eat-want/want
   ‘I want to eat/sukiyaki.’

   b. Watasi *-ni/*?-ni-wa/-wa kazi-ga kowai.
   I fire-Nom scary
   ‘I am scared of fires.’ (= (13); judgment of (14b) is mine)

Although the distribution of the Dative -ni marking in what appear to be subject or topic NPs is not the focus of this study, the above data and variation in judgments require an explanation, because they point to a clearer understanding of the adjectives themselves.

Acceptability judgment regarding the -ni marking on the sentence-initial NP in adjectival predicates allowing -ga object is notoriously disparate among native speakers.

---

14 Oyama assumes that unlike in the Indo-European languages, a “subject” is not a required element in Japanese sentences. In her analysis of (13), the Dative -ni marked NP is an adjunct and the Nominative -ga marked NP, the subject. Following Kuno’s (1973) and Takezawa’s (1987) views on stative predicates, we assume that in the [NP-ga NP-ga Adjective] construction with adjectives of feeling, the first -ga NP is the subject and the second -ga NP, the direct object. In a stative verb sentence such as “Watasi-ni-wa eigo ga wakaru” ‘I understand English’, the -ni (-wa) marked NP is the subject. See Takezawa (1987: chapter 4) for detailed argumentation for the existence of the -ni marked subject and -ga marked object.

15 For instance, Kuno (1973:91) lists nikurasii ‘to be hateful of’ among adjectives taking -ga object which “cannot undergo ga/ni alterations,” that is, cannot take -ni marked subjects. A quick survey on the native speaker judgment of nikui/nikurasii ‘hateful’ gave mixed results, with some speakers allowing NP1-ni (-wa) and others (myself included) considering it unnatural. Sugioka (1984) notes that “whether a certain adjective allows the nominative as well as dative marker on the first NP is rather subtle” (p. 131), without elaborating on this issue. Sugioka’s examples include the following:

(i) a. Boku-ni kore-ga omosiroi.
   ‘I am amused at this.’

b. Boku ni/ga hebi -ga kowai.
   ‘I am fearful of snakes.’

(continued on next page)
For instance, take *kowai* (translated as ‘scary’ or ‘scared’ depending on the sentence), which clearly can take a -*ga*- marked object. The acceptability judgment of NP-*ni* sentences is quite subtle: assuming that (14b) is intended to have the same reading as the [NP-*ga* NP-*ga* Adj] pattern, that sentence is unacceptable to me when the sentence-initial NP (hereafter NP1) is marked with -*ni* or -*ni-wa*. However, if (14b) is to be interpreted as “NP1-*ni-totte*” ‘for NP1’, the sentence becomes better. Before turning to the functional equivalence of Dative -*ni* with the formative -*ni-totte*, we will review Oyama’s position on the issue of NP-*ni*.

Oyama concedes that [NP1-*ni* NP2-*ga* Adj] is actually rarer than [NP1-*wa* NP2-*ga* Adj], especially in matrix sentences. It is explained that the dative -*ni* marked NP is “theoretically possible” in the pattern [NP1-*ni* NP2-*ga* Adj] for all Group II adjectives, but it has become more common to use just -*wa*, without -*ni*, due to the tendency to use -*wa* for the sentence’s topic and because of language’s inclination to simplify. Oyama states that simplification is due to frequency of usage, but this explanation is not clear. It is also claimed that this pattern is more acceptable in sentential subject constructions such as the following:

(15) *Watasi-ni kazoku-ga natukasikatta no wa tooi gaikoku-ni ita* kara desu.  
'I miss my family.'  
because

'It was because I was in a distant foreign country that I missed my family.'

In my judgment, (15) is no better than the unacceptable matrix sentence “*Watasi-ni (-wa)* kazoku-*ga* natukasii.” ‘I miss my family’. Oyama’s simplification-based explanation is rather unconvincing.

As with Otani’s example (13), (ia) and (ib) with -*ni* are not acceptable to me as paraphrases of the [NP1-*ga* NP2-*ga* Adj] version, but better if -*ni* is understood as -*ni-totte* (see above explanation).
Kuno (1973) refers to the -ga/-ni alternation in question as *Ga-Ni Conversion. According to Kuno, "Whether the NP-ga NP-ga V construction can undergo *Ga-Ni Conversion or not is an idiosyncratic matter determined by the verbal involved" (p.339). In Kuno's terminology, "verbals" are verbs, adjectives and adjectival nominals, although his examples of predicates which can occur in both [NP-ga NP-ga ___] and [NP-ni NP-ga ___] are all verbs. Is the availability of -ni marking purely idiosyncratic? If so, there would be no way of predicting which adjectives can and which cannot occur in the [NP1-ni NP2-ga Adj] pattern. However, it turns out that to a certain extent, -ga/-ni alternation is predictable. Consider two more examples, which suggest to us what type of adjectives allow for NP-ni:

    Mari for for-Top/ Top/ father-Gen words-Nom glad-Past
    'To Mari, her father's words were uplifting.' (Mari appreciated his words.)

b. Yooji ?-ni/ -ni-wa/ *wa kono geemu-wa muzukasii.
    toddler / -Top/-Top this game -Top difficult
    'For toddlers, this game is difficult.'

Note that not only some adjectives of feeling can occur with NP-ni, as shown in (16a), but so do some ordinary description adjectives such as muzukasii 'difficult', as in (16b). On the surface, (16a) and (16b) appear to have the same pattern. Actually, this is not the case. (16a) contains an adjective of feeling, uresii 'glad, pleased', which can occur with a nominative-marked object in the pattern [NP1-ga/-wa NP2-ga Adj]; it is a two-place adjective.

Muzukasii 'difficult', on the other hand, does not occur with -o marked objects. Sentence (16b) shows that an adjective of general attribute description such as muzukasii 'difficult' can also occur with a -ni-marked NP1, although it cannot take a -ga-marked object or the topicalized version thereof because it is a one-place adjective. The fact that

\[16\] Both adjectives are acceptable with -ni, especially when -ni is followed by -wa.
(16a) and (16b) are acceptable suggests a possible explanation for the mixed native-speaker judgments for adjectives such as nikui ‘hateful’ and kowai ‘scared, scary’.

What is important here is that uresii ‘glad’ can occur with or without an object. The usage with an object is shown in (16a), where [Giti-no kotoba] is the object. The object-less usage is, for example, “Watasi-wa uresii” ‘I am glad’ or “Sooyuu nyusuwa uresii ne” ‘That kind of news is uplifting.’ It is the latter use which permits the -ni phrase in (16a).

We propose that there are two kinds of -ni-marked NPs which occur in the [NP1-ni (-wa) NP2-ga Predicate]: one is a subject, the other an adjunct. When the predicate is a stative verb such as wakaru ‘understand’, kikoeru ‘can hear’, or hanaseru ‘can speak’, the -ni-marked NP is a subject. When the predicate is an adjective, as in (13a) or (13b) above, the dative -ni-marked NP1 is not a subject, but an adjunct phrase modifying the one-place predicate. Thus, the following sentences are two different structures despite superficial similarity:\(^{17}\)

\[
\begin{align*}
(17a) \text{a. } & \text{Taro-} & \text{ni (-wa) eigo-} & \text{ ga hanaseru. } \text{[hanaseru = stative verb]} \\
& \text{Dat Top English-Nom can-speak.} & \text{‘Taro can speak English.’} \\
& \text{‘Taro can speak English.’} \\
\text{b. } & \text{Taro-} & \text{ni (-wa) kaminari-} & \text{ ga kowai. } \text{[kowai = adjective]} \\
& \text{Dat Top lightning-Nom scary} & \text{‘To Taro, lightnings are scary.’} \\
\end{align*}
\]

\[^{17}\text{Takezawa (1987) cites Kuroda’s (1987) critique of Saito (1982) that in sentences such as the following, the -} \text{ga marked phrases are not objects:}\]

\[
\begin{align*}
(\text{i) } & \text{Kotosi-wa amerikazin-ni-wa yooroppa-ga yasuku ikemasu.} \\
& \text{this year-TOP Americans-Dat-Top Europe-Nom cheaply go-Pot-Pres} \\
& \text{‘This year, it is possible for Americans to go to Europe at a low price.’} \\
\end{align*}
\]

As evidence, Kuroda points to the fact that the NP-\text{ni} can be substituted with NP-\text{ni-totte}. This is similar to our argument that the -\text{ni} of adjectival predicates are not subjects. The difference is that our argument focuses on the difference between stative verbs and adjectival predicates, while Kuroda discusses only potential verbs (which he also considered stative).
The particle -ni in (17b) and in (13a, b) is equivalent to and can be substituted by the formative -ni-totte ‘for-, to-’. Ni-totte adds a meaning of relativity to the statement or phrase it precedes. The phrase [NP-ni-totte] modifies one-place predicates in clauses such as ‘this house is expensive’ yielding ‘To me, this house is expensive’ or ‘This house is expensive for me.’ Thus, if an adjective can be used with NP1-ni-totte, it can also occur in the [NP1-ni NP2-ga Adj] construction.

To see that -ni, just as -ni-totte, are able to occur with any one-place adjectival or adjectival-nominal predicate as long as it is semantically compatible, note the following examples:

(18) a. Taro-ni-totte ippai go-doru no kohii -wa takai.  
Taro for a cup five dollars-Gen coffee-Top expensive  
‘To Taro, a coffee which costs five dollars a cup is expensive.’

b. Mari-ni-totte wa, ano sigoto mo muzukasii.  
Mari for -Top that job even difficult  
‘To Mari, even that job is difficult.’

c. Watasitati-ni-totte taisetu-na no wa, kazoku no siawase da.  
we for important NM -Top family-Gen happiness Cop  
‘To us, what is important is the family’s happiness.’

In all three of the (18) sentences, -ni-totte can be substituted with -ni or -ni-wa without changing the overall meaning. None of the predicates in (18) -- ‘expensive’, ‘difficult’, ‘important’ -- denote human feeling per se, but relative values, judgments or descriptions from the viewpoint of the person(s) represented by the -ni marked NP. Thus it can be

---

18 In addition to adjectives used predicatively, this type of -ni phrase can also modify adnominal adjectives. For example:

(i) a. [kodomo-ni muzukasii] eiga  
children for difficult movie  
‘movies which are difficult for children’

b. [watasi-ni-wa taka-sugiru] uti  
I fort -Top expensive-overly house  
‘a house which is too expensive for me’
concluded that NP-ni in [NP1-ni NP2-ga Adjective] is not a subject, thus it has nothing to do with the adjective belonging to the group of “adjectives of feeling” or being able to take a -ga-marked object. On the contrary, -ni in such constructions marks an optional adjunct for adjectives other than the “adjectives of feeling” or the “adjectives of feeling” which are homophonous with description adjectives.\(^{19}\) This is why both (16a) and (16b) are acceptable.

Thus, assuming that -ni-marked NPs are not always the subject but are an adjunct when they occur with adjectives, it is possible that “adjectives of feeling” are not a uniform group but of two kinds: those which are strictly two-place predicates (2P for short), and those which can be either one-place predicate or two-place predicate (1P/2P). The former (e.g., natukasii and hosii) cannot take NP1-ni, while the latter (e.g., uresii

\(^{19}\) The subject-orientation of zibun ‘self’ provides some degree of support for the analysis that the -ni marked NP occurring with verbs like wakaru ‘understand’ is a subject. Compare (ib) with (iib):

(i) a. Taro-ni eigo-ga wakaru.
   English-Nom understand
   ‘Taro understands English.’

   b. Taro-ni (-wa) zibun-no eigo-ga wakaranai.
      self’s
      ‘Taro does not understand self’s English.’

(ii) a. Taro-ni sono geemu-ga muzukasii.
    that game-Nom difficult
    ‘To Taro, that game is difficult.’

   b. ?Taro-ni (-wa) zibun-no geemu-ga muzukasii
      self’s
      ‘To Taro, self’s game is difficult.’

The grammaticality of (ib) in the intended reading suggests that NP-ni in (ib) is a subject. On the other hand, the subject-orientation of zibun does not provide an unambiguous test to show that NP-ni of (iia/b) is a PP adjunct. That is, the coreference of zibun with what appears to be the adjunct NP-ni (synonymous with NP-ni-totte ‘to ---’) seems to be possible. The reading of (iib) in which zibun refers to Taro-ni is only slightly less natural than in (ib). According to Aikawa (1991, 1993), there are some non-subject “antecedents” of zibun which involve coreference without binding.
in (16a) and possibly *kowai* in (13)) can. This subdivision of adjectives of feeling will be part of the classification of adjectives, which we will propose later.

Next, (19a-d) and (20a-d) show how the [NP1-*ni* NP2-*ga* Adj] pattern may be derived, for 1P/2P adjectives such as *kowai* ‘scary’ or exclusively one-place (1P) adjectives such as *muzukasii* ‘difficult’:

(19) a. Kono eiga-ga *kowai*.  
   *This movie-Nom scary*  
   ‘This movie is scary.’
   
   [Add -ni phrase adjunct]  
   ↓  
   b. Kono eiga-ga *watasi-ni* *kowai*.  
      *I for this movie-Nom scary*  
      ‘This movie is scary to me.’
      
      [Fronting]  
      ↓  
   c. Watasi-ni kono eiga-ga *kowai*.  
      *I for to me this movie-Nom scary*  
      ‘To me this movie is scary.’
      
      [Topicalization]  
      ↓  
   d. Watasi-ni-wa kono eiga-ga *kowai*.  
      *To me, this movie-Nom scary*  
      ‘To me, this movie is scary. (I am afraid of this movie.)’

(20) a. Kono geemu-ga *muzukasii*.  
   *This game-Nom difficult*  
   ‘This game is difficult.’
   
   b. Kono geemu-ga *yoozi-ni* *muzukasii*.  
      *This gave-Nom toddler for difficult*  
      ‘This game is difficult for toddlers.’
   
   c. Yoozi-ni kono geemu-ga *muzukasii*.  
      *For toddlers this game-Nom difficult*  
      ‘For toddlers this game is difficult.’
   
   d. Yoozi-ni-wa kono geemu-ga *muzukasii*.  
      *Toddler for -Top this game-Nom difficult*  
      ‘For toddlers, this game is difficult.’

In the sentence “*Watasi-wa kono eiga-ga kowai*” ‘I am scared of this movie,’ the adjective *kowai* ‘scary’ is a two-place adjective. *Kowai* can also be a one-place
As a one-place predicate, *kowai* denotes an objective property of the referent. Then, the -ni phrase modifies it, adding the meaning of 'to/for (this person)'.

Although the above discussion of -ni subject is far from complete, it is at least clear that the ability to take a -ni marked NP1 cannot be part of the defining characteristics of the so-called “adjectives of feeling.” One must separate the issue of NP-ni from that of the -ga marked NP object. Since all adjectives of feeling can take a -ga marked object but only the 1P/2P adjectives can occur with a NP-ni/-ni-totte phrase, only the -ga object should be considered as a characteristic of all 2P adjectives of feeling.

### 3.1.3. Teramura’s classification: two kinds of adjectives of feeling

Now let us turn to Teramura (1993), which suggests a similar but slightly more detailed classification. It contrasts the “general attribute adjectives” with the “adjectives (and adjectival nouns) expressing human feelings” and then further separates the latter into two subgroups according to their semantic characterization. Table (21) summarizes Teramura’s classification:

<table>
<thead>
<tr>
<th>General attribute adjectives</th>
<th>Adjectives expressing human feelings (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g., <em>marui</em> ‘round’, <em>takai</em> ‘high’.</td>
<td><strong>Kanzyo keiyoshi</strong>&lt;br&gt;‘Adjectives of Feeling’ (B1)</td>
</tr>
<tr>
<td></td>
<td><strong>Kanzyo-handan keiyoshi</strong>&lt;br&gt;‘Adjectives of Feeling/Judgment’ (B2)</td>
</tr>
<tr>
<td>X-ni Y-ga Adj</td>
<td>(X-ni) Y-ga Adj</td>
</tr>
<tr>
<td>e.g., <em>kowai</em> ‘scary,’ <em>nikui</em> ‘hateful,’ <em>itosii</em> ‘beloved,’ <em>urayamasii</em> ‘envious,’ <em>kanasii</em> ‘sad,’ <em>uresii</em> ‘glad,’ <em>uramesii</em> ‘spiteful,’ <em>hosii</em> ‘want,’ <em>zannenda</em> ‘a pity,’ <em>kiraida</em> ‘dislike,’ <em>sukida</em> ‘like’.</td>
<td>e.g., <em>osorosii</em> ‘scary,’ <em>nikurasii</em> ‘hateful,’ <em>nozomasii</em> ‘desirable,’ <em>kawaiii</em> ‘cute,’ <em>kawairasii</em> ‘cute,’ <em>yoii</em> ‘good,’ <em>kekkoouda</em> ‘fine’.</td>
</tr>
</tbody>
</table>

---

20 Teramura includes both adjectives (A) and adjectival nouns (ANs) under the term “adjectives.”
The above classification is part of Teramura's (1993:11) functional description of various predicates in Japanese in terms of the speaker's role in the predication, such as objectivity and judgment. The "adjectives of feeling" (B1) are claimed to be closer to verbal predicates than to general attribute adjectival predicates in that "their emphasis is on expressing the feelings of a person (typically the speaker's feelings) rather than in defining some qualities of the object in the objective world." By contrast, "adjectives of feeling/judgment" (B2) are described as being "half feeling, half attribute." The assumption underlying his statement is that there is some kind of continuum of such functions over the nominal, adjectival, and verbal predicate types. Table (22) summarizes Teramura's continuum:

(22)

<table>
<thead>
<tr>
<th>Nominal predicates</th>
<th>Speaker makes subjective judgments about objects</th>
<th>e.g., Kujira-wa honyuudoobutu da 'The whale is a mammal.'</th>
</tr>
</thead>
<tbody>
<tr>
<td>General attribute adjectives</td>
<td>Speaker defines properties of objects</td>
<td>e.g., aoi 'blue,' utukusii 'beautiful,' katai 'hard.'</td>
</tr>
<tr>
<td>B2 adjectives: feeling/attributes [(X-ni) Y-ga Adj]</td>
<td>Speaker defines properties of objects based on emotions/feelings</td>
<td>e.g., osorosii 'scary,' nikurasii 'hateful,' kawaii 'lovable.'</td>
</tr>
<tr>
<td>B1 adjectives: feeling [X-ni /-ga Y-ga Adj]</td>
<td>Emphasis on the description of the speaker's feelings</td>
<td>e.g., kowai 'fearful/scared,' nikui 'hateful,' kanasii 'sad,' uresii 'glad.'</td>
</tr>
<tr>
<td>Verbal predicates</td>
<td>Speaker describes phenomena in the objective world</td>
<td>e.g., Sansyoouou-wa kanasinda 'the salamander was saddened.'</td>
</tr>
</tbody>
</table>

(Note: elements in parentheses are optional)

A major weakness of this classification is that it is rather unclear about the occurrence of NP-ni, or about particular structures in which the adjectives may occur. Teramura says that the -ni marked NP corresponding to the person who experiences the feeling described by the adjective is "optional" with the B2 adjectives, since that person is usually the speaker; by contrast, with the B1 adjectives the experiencer of the feeling is
typically present. Such statement is vague. Moreover, as we mentioned in the discussion of Oyama’s analysis ((13) and (14a)), -ni marked NPs are unnatural for many of the B1 adjectives as well as for the B2 adjectives. Thus, Teramura’s groups still fall short of being a clear classification in general, or a useful characterization of the adjectives of SC-complements in particular. Nonetheless, Teramura’s subdivision of the adjectives of feeling into two subclasses is more accurate than Oyama’s. In particular, the observation that some adjectives of feeling are more like general attribute adjectives is quite insightful. The 2P vs. 1P/2P distinction proposed in the previous section based on the number of possible arguments the adjective takes is similar to Teramura’s division between the B1 and B2 adjectives.

3.1.4. Temporary-state vs. permanent-state adjectives

Diesing (1992:17-19), following Carlson (1977b), classifies predicates including adjectives and verbs into two aspect-based groups: “stage-level” (i.e., temporary-state) and “individual-level” (permanent-state) predicates. In her theory the two kinds of predicates correspond to the availability of generic vs. existential interpretations of bare plural subjects, as follows:

(23)  a. Firemen are available. (temporary state)
      b. Violists are intelligent. (permanent state)

With the temporary-state predicate, the bare plural subject “firemen” are interpreted as existential, in that (23a) can be rephrased as “There are some firemen who are available (at the time being).” By contrast, the subject “violists” with the permanent-state predicate in (23b) is interpreted as generic, i.e., “All violists are (in general) intelligent.”

Japanese predicates can be characterized as either temporary-state or permanent-state, too. Observe the following:

(24)  a. Taro-wa saikin isogasii. (temporary state)
      -Top recently busy
      ‘Recently, Taro is busy.’
b. Watasi-wa saikin Mari-ga natukasii. (temporary state)
   I-Top recently -Nom dear
   ‘Recently I remember Mari with fondness.’

c. *Mari-wa saikin se-ga hikui. (permanent state)
   -Top always height-Nom short
   ‘Recently, Mari is short’.

   I-Top -Acc busy think
   (Lit.) ‘I think Taro (to be) busy.’

b. Watasi-wa Mari-o natukasiku omou.
   I-Top -Acc dear think
   ‘I think of Mari with nostalgia.’

Both isogasii ‘busy’ and natukasii ‘nostalgic’ can be considered to have “temporary-
state” qualities in Diesing’s terms, as suggested by the possibility of modification by
temporal adverbs such as saikin ‘recently’ in (24a) and (24b) (some other temporal
adverbs for this test are itumo ‘always’, ima ‘now’, and kyoo ‘today’). Note that a
permanent-state predicate such as hikui ‘short’ cannot co-occur with such adverbs, as
shown by (24c). Although both isogasii and natukasii appear in the temporary-state
sentences, only natukasii can also occur in the SC-complement structure, as shown in
(25). Thus, Diesing’s dichotomy seems to be irrelevant to the restrictions on the
occurrence of adjectives in the [NP-o Adj-ku omou] pattern.

3.1.5 Alternative analysis: transitive adjectives

As seen in the preceding sections, previously proposed classifications are not
useful for our attempt to account for the contrast at issue, shown initially in (4) and (5),
repeated here as (26) and (27), respectively:

(26) a. Taroo-ga Hanako-o natukasiku/ kawaiku/ nikurasiku/ haradatasiku /
   -Nom -Acc nostalgic/ lovable/ hateful/ irritating /
   tanomosiku omotta.
   reliable think-Past
   ‘(Lit.) Taro thought Hanako (to be) dear/ cute/ hateful/ irritating/ reliable.’
b. Watasi wa sono hito no enzyo -o arigataku omotta.
   I-Top that person's help-Acc welcome think-Past
   '(Lit.) I thought that person's help (to be) welcome.'

(27) a. *?Taroo-ga Hanako-o eraku kibisiku kasikoku situkoku
      -Nom -Acc great/ rigorous/ wise/ persistent
      omotta.
      think-Past
      (Lit.) 'Taro thought Hanako (to be) great/ rigorous/ wise/ persistent.'

   I-Top that book-Acc blue think-Past
   (Intended) 'I thought that book (to be) blue.'

Considering the semantics of the above sentences, it is clear that the adjectives in (26) express some feeling experienced by the subject-NP referent toward the entity represented by the -o marked NP in the construction [NP-ga NP-o Adj-u omou]. In (26), the feelings expressed by natukasiku 'dear/nostalgic,' kawaiku 'lovable,' etc. are those of Taro in (26a) and of watasi 'I' in (26b), respectively. In thematic terms, these adjectives are two-place predicates with two arguments: an Experiencer and another argument toward which the feeling is directed to. Although the latter argument is also often described in traditional grammar (e.g., Oyama 1966) as the “source” of the Experiencer’s feeling, we will consider this argument a Theme, since feeling is usually not considered as involving movement of some entity from Source to Goal. The adjectives of (27), by contrast, are one-place predicates, comparable to intransitive verbs.

The adjectives of (26) can all occur in sentences of the pattern [NP-ga NP-ga Adj], where the second -ga marked NP is the direct object of the adjective:

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21 In Chapter 4, we will propose that such thematic relationship are structurally reflected as a control structure.
There is evidence that the second -ga marked NP in the above pattern is an object and not a subject. In his discussion of the stative verb construction [NP-ni NP-ga V], Takezawa (1987) gives five types of evidence that in the -ni marked NP is the subject and the -ga marked NP, the object: zibun reflexivization, subject honorification, configurational evidence, quantifier float, and quantifier scope. Of these pieces of evidence, subject honorification, reflexivization, and configurational evidence can be directly applied to adjectives of feeling. First, note the subject honorification sentences:

   former students-Nom Hayasi teacher-Nom dear-Honorific
   ‘Former students think back to Mr. Hayasi with nostalgia.’

b. Hayasi-sensei-ga mukasi-no gakusei-ga natukasiku-te irassyaru.
   teacher-Nom former students-Nom dear-Honorific
   ‘Mr. Hayasi thinks back to former students with nostalgia.’

“Natukasiku-te irasyaru” is the subject-honorific form of natukasii ‘to think back with nostalgia; to miss’. This form obligatorily refers to the subject but not the object. (29a) shows that when the second -ga marked NP (rather than the first) is the target of honorification, the honorific form of the adjective results in an ungrammatical sentence. When on the other hand the first -ga marked NP is the “teacher,” as in (29b), the honorific sentence turns out acceptable. This contrast is easily accounted for if we assume that the two -ga marked NPs are not the same in grammatical function; that the first is the subject, while the second is the object (in canonical word order).

---

22 As both NP’s are marked with Nominative -ga, one can change the first -ga to topicalized -wa, or limit the reading to one in which the first -ga marked NP is the Experiencer, in order to avoid the possibility that scrambling has changed the typical word order of subject-ga object-o Adj.
An example of reflexivization follows:

(30) Taro-ga koibito-ga zibun-no ryoosin yori natukasii.  
    Taro-Nom sweetheart-Nom self-Gen parents than dear  
    ‘Taro, misses (his) sweetheart more than (he misses) self’s parents.’

In the [NP-ga NP-ga Adj] sentences, it is not the second -ga marked NP but the first -ga marked NP that is interpreted as the antecedent of the reflexive zibun. Given the subject orientation of zibun (e.g., Kuroda 1965), (30) shows that the first -ga marked NP and not the second one is the subject of the sentence.

Finally, note the configurational evidence from pronominal coreference facts:

    Taro-Gen friends-Nom he-Nom scared NM Cop  
    ‘(It is that) Taro’s friends are afraid of him.’

    he-Nom Taro-Gen friends-Nom scared NM cop  
    ‘(It is that) he is afraid of Taro’s friends.’

In sentence (31a), where the constituents are assumed to be in the original word-order, the NP Taro in the first -ga marked NP can be coreferential with the pronoun kare in the second -ga marked NP. By contrast, in (31b), also with no scrambling assumed, kare cannot be coindexed with Taro in [Taro-no tomodati-ga]. The contrast between (31a) and (31b) makes sense if [NP-ga NP-ga Adj] is assumed to have the skeletal structure (32), where NP1 is the subject and NP2 is the object of A (the transitive adjective):

(32)  

\[
\begin{array}{c}
X \\
NP1-ga \\
NP2-ga \\
Y \\
A
\end{array}
\]

The detailed structure of an adjectival predicate in the SC-complement structure will be proposed in Chapter 4. What is important here is the configuration as in (32), in which NP1 (the subject) c-commands NP2 (the object of A) but not vice-versa.
In addition to the above three types of evidence, the following examples provide another kind of support for the claim that the adjectives of (26) are transitive:

(33)  

a. Watasi-ga natukasii hito  
I-Nom nostalgic person  

b. (Lit.) ‘The person whom I am nostalgic of.’  
b’ [Watasi-ga [e.] natukasii] hito  

c. (Lit.) ‘The person who is nostalgic of me.’  
c’ [[e.] watasi-ga natukasii] hito  

The noun phrase (33a) is ambiguous between readings (33b) and (33c), with the structures shown in (33b’) and (33c’) respectively. For the reading (33b), the -ga marked NP is the subject of natukasii and the relativized NP is the object, while for the reading (33c), the -ga marked NP is the object of natukasii and it is the subject NP that is relativized, while watasi-ga is the object of kowai. The ambiguity is due to the double duty of the particle -ga between object and subject markers. The structural ambiguity of (33a) can be explained in this way only under the assumption that the adjective kowai is transitive, as represented by the constituent structures (33b’) and (33c’).23

We use the term “transitive” in the sense that the adjective takes a direct object, as transitive verbs do. We will claim in Chapter 4 that these adjectives assign Accusative Case to the -o marked NP in the construction [NP-o Adj-u omou], just as transitive verbs assign Accusative Case to their objects. In the P&P framework, Accusative Case assigners are categories with the feature [-N]; for English, the Case-assigning categories are verbs and prepositions (Chomsky 1981: 49, 170). Assuming Japanese adjectives can assign Case as we suggest, they must be [-N] or at least “not [+N],” since no [+N]

23 The term “transitive adjective” has been used before by Kuno (1973) with reference to adjectives of feeling which take -ga-marked objects (e.g., hosii, kowai) and “suffix -tai derivatives” (verbs with -tai attached, e.g., yomi-tai ‘want to read’).
categories are Case assigners. The possibility that Japanese adjectives are not specified for the feature \([+/-N]\) is proposed by Miyagawa (1987), too.

Next, to look in some more detail at the class of adjectives we call 1P/2P, i.e., those which can be either one-place or two-place predicates, consider the following examples with *kanasii* 'sad' and *uresii* 'glad':

(34)  

a. Watasi-ga kanasii/uresii.  
I-Nom sad / glad  
'I am sad/glad.'

b. Hanako-ga kanasii/uresii yoo da  
Hanako-Top sad/glad appearance Cop  
'It seems that Hanako is sad/glad.'

c. *Watasi-wa Hanako-o kanasikku/uresikku omotta.  
I-Top -Acc sad / glad think-Past  
(Lit.) 'I thought Hanako (as being) sad/glad.  
Intended reading: 'I thought that Hanako was sad/glad.'

d. Watasi-wa [Hanako-ga kanasii/uresii no da to] omotta.  
-Nom sad/ glad NMCop Comp think-Past  
'I thought that Hanako was sad/glad.'

(34) shows a range of constructions in which the adjectives *kanasii*/*uresii* may (or may not) be used as one-place predicates. They can have a first-person subject as in (34a), to denote the speaker/subject's feeling, or a third-person subject if accompanied by elements such as *yooda* 'it appears that', as in (34b), or *-garu* 'apparently' or *-no-da* 'it is the fact that'. They can appear in tensed embedded clauses such as in (34d). The structure they fail to occur in is tenseless, subordinate clauses of the SC-structure such as (34c).

Although (34c) is semantically equivalent to (34d), *kanasiku/uresiku* cannot occur in the structure to denote the emotion of the person described (the Accusative -o marked NP, i.e., *Hanako*).

That *kanasii*/*uresii* can be two-place predicates but cannot take a person as the object NP is shown in the contrast between (35a) and (35b) below. Only (35b) is
grammatical, with *koto ‘matter’* heading the object NP, making it an event rather than a
person:

(35)  

    
    -Nom sad / glad
    Intended reading: ‘I am sad about Hanako.’

b. Watasi-wa Hanako-no koto-ga kanasii/uresii.
    
    -Gen matter-Nom sad/glad
    ‘I am sad/glad about Hanako’s matter.’

Examples (36) and (37) show additional acceptable uses of these two adjectives as two-
place predicates:

(36)  

    
    I-Top Hanako’s university admission -Nom glad-Past
    ‘I was glad about Hanako’s admission to college.’

b. Watasi-wa Hanako-no daigaku gookaku-o uresiku omotta.
    
    -Acc glad think-Past
    ‘I was glad about Hanako’s admission into college.’

(37)  

    
    -Nom sad-Past
    ‘I was sad about (i.e., saddened by) Hanako’s misunderstanding.’

b. Watasi-wa Hanako-no gokai-o kanasiku omotta.
    
    misunderstanding-Acc sad think-Past
    ‘I was sad about (i.e., saddened by) Hanako’s misunderstanding.’

Unlike in (34a) and (34b), where the -ga marked subject is the Experiencer of the feeling
denoted by the adjectives, in (36a) and (37a) the -ga marked NPs are the event or situation
which are the sources of the feeling experienced by the matrix subject (*watasi ‘I’*). In
other words, *uresii/kanasii* in (36a/b) and (37a/b) are each related to two arguments: the
-wa marked NP, which is the Experiencer of the feeling; and the -ga or -o marked NP,
which semantically is the source of that feeling.

By contrast, *uresii/kanasii* in (34a, b, d) can only be interpreted as a one-place
predicate, with the Experiencer (Hanako) as the only argument. Since this reading of the
adjectives does not match with the SC-complement structure, (34c) is ungrammatical.
The difference in thematic structures suggests that the two kinds of kanasii/uresii should be considered as two different lexical items, one intransitive (one-place predicate) and the other, transitive (two-place predicate).

The important point of the above observations is that all and only the transitive adjectives, i.e., those which take -ga marked objects, can occur in the [NP-o Adj-u omou] pattern. In other words, the Subject Feeling adjectives are transitive adjectives. This explains the ungrammaticality of sentences such as (9a) and (9b) above, repeated here:

(9)  a. *Taro-ga Hanako-o eraku kibisiku kasikoku situkoku omottta.
    -Nom -Acc great/ rigorous/ wise/ persistent think-Past
    (Lit.) 'Taro thought Hanako (to be) great/ rigorous/ wise/ persistent.'

    -Top that book-Acc blue think-Past
    (Intended) I thought that book (to be) blue.'

The reason why (9a) and (9b) are ungrammatical is that the adjectives in the subordinate clause are not transitive. The Case assignment aspect of this analysis will be discussed in Chapter 4.

There is one apparent exception to the generalization that all transitive adjectives can occur in the SC-complement structure: the 2P adjectives hosii and (verb)-taii. It is not clear why they are unnatural in the SC complement structure like (38b).

(38)  a. Boku-wa eiga -ga/-o mi-tai
    -Top movie-Nom/Acc see-want
    'I want to see a movie.' (Kuno 1973:82 (11a))

    b. ??Boku-wa eiga -o mi-taku omou.
    -Acc see-want think
    'I think I want to see a movie.'

    see-want-Neg
    'I don’t want to see a movie.'

---

24 It is not the desiderative -taii per se that is incompatible with the matrix verb omou, as shown in the following example, where the embedded clause is tensed:

(i)  a. Boku-wa eiga -ga/-o mi-tai to omou.
    -Top movie-Nom/Acc see-want Comp think
    (Lit.) 'I think I want to see a movie.'
b. Boku-wa eiga-o mi-taku (-wa) omowa-nai.
     see-want (Top) think-Neg
     'I don't think I want to see a movie.'

It might be the case that (38a) is stylistically preferred over (38b). That (38b) is basically grammatical (although awkward) is suggested by the grammaticality of its negative version, (39b), which is perfectly acceptable alongside (39a), the negative of (38a).

Hosii 'want' behaves in the same way as -tai in the above contexts. Thus, the apparent exception to the above-mentioned generalization is non-existent.

3.1.6. A Classification of adjectives in Japanese

We propose a classification of adjectives in Japanese as follows:

(40)

<table>
<thead>
<tr>
<th>Adjectives of feeling</th>
<th>Adjectives of general attribute description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2P</td>
</tr>
<tr>
<td>Examples</td>
<td></td>
</tr>
<tr>
<td>Natukasii 'dear'</td>
<td>Yes</td>
</tr>
<tr>
<td>Kowai 'scary/scared'</td>
<td>Yes</td>
</tr>
<tr>
<td>Kanasii/Uresii 'sad/glad'</td>
<td>No</td>
</tr>
<tr>
<td>Utukusii 'beautiful'</td>
<td>No</td>
</tr>
<tr>
<td>Can take -garu [Adj-garu]</td>
<td>Yes</td>
</tr>
<tr>
<td>Can take -ga object [NP-ga NP-ga Adj]</td>
<td>Yes</td>
</tr>
<tr>
<td>Can take NP-ni adjunct [NP1-ni NP2-ga Adj]</td>
<td>No</td>
</tr>
<tr>
<td>One-place predicate</td>
<td>No</td>
</tr>
<tr>
<td>Two-place predicate</td>
<td>Yes</td>
</tr>
<tr>
<td>SC-complement [NP-o Adj-u omou]</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Listed below are a number of adjectives representing each group:

(41)

1P = Adjectives of general attribute description — always one-place:

- **akai** 'red' (color terms in general belong to this group)
- **erai** 'successful', 'in a high social position'
- **hikui** 'short', 'low'
- **kasikoi** 'clever'
- **kibisii** 'harsh',
- **yasasii** 'kind-hearted'
- **mazui** 'tasting bad'
- **muzukasii** 'difficult'
- **oisii** 'tasteful'
- **omosiroi** 'fun', 'interesting'
- **tumaranai** 'boring', 'uninteresting'
- **situkoi** 'annoyingly persistent'
- **takai** 'expensive'
- **tanosii** 'enjoyable'

2P = Adjectives of feeling which are strictly two-place:

- **hazukasii** 'embarrassed'
- **hosii** 'want'
- **itosii/itoosii** 'think tenderly of'
- **kutiosii** 'regretful'
- **natukasii** 'dear', 'think back with fondness'
- **netamasii** 'jealous'
- **nikui** 'hate'
- **omohayui** 'awkward'
- **terekusai** 'self-conscious'
- **urayamasii** 'envious'

1P/2P = Adjectives of feeling which may be one-place or two-place:

- **arigatai** 'be grateful of', 'welcome'
- **kawaii** 'lovable', 'cute'
- **kowai** 'be scared of', 'scary'
- **kuyasii** 'regretful'
- **nikurasii** 'hate', 'hateful'
- **osorosii** 'fear', 'fearful'
- **tanomosii** 'rely on', 'reliable'
- **kanasii** 'sad', 'regretful'
- **uresii** 'glad', 'cheerful'
- **samisii** 'lonely'

65
The Subject Feeling adjectives are the 2P and 1P/2P adjectives. The groups 2P and 1P/2P stand in contrast with the 1P adjectives in that the 1P adjectives do not occur in the SC-complement structure. The 2P adjectives differ from the 1P/2P adjectives in that only the latter, when used as one-place predicates, occur in the [NP1-ni NP2-ga Adj] construction. The class of 1P/2P adjectives is further subdivided into the kowai 'scary' type and the kanasii/uresii 'sad/glad' type. As shown in (34), when an adjective of the kanasii/uresii type is used as a 1P predicate, the subject is the experiencer, i.e., the person feeling sad or glad. By contrast, the subject of the adjective kowai, nikurasii, etc. is interpreted as the cause of other people's feeling 'scared', 'hateful', etc.

As mentioned above, adjectives of the class 1P/2P, such as kawaii 'cute/lovable' are the ones which can be used as one-place adjectives (e.g., kawaii meaning 'cute') or as two-place adjectives (e.g., kawaii meaning 'lovable'). The adjectives in this class may be considered as two lexical items, one transitive and the other intransitive. These pairs of transitive and intransitive adjectives are lexically ambiguous, and this may sometimes result in structural ambiguity. For instance:

(42) a. Mari-ga musume-ga kawaii.  
   -Nom daughter-Nom cute/lovable  
   b. ‘Mari adores her daughter.’  
   c. ‘It is Mari whose daughter is cute.’

(42a) can be interpreted as either (42b) or (42c) depending on whether kawaii is understood as a transitive adjective or intransitive adjective, respectively. For the reading (42b), the second -ga would be the object marker; by contrast, (42c) would be structurally equal to “Tanaka-san ga musuko-ga isya da” -- a typical “double-nominative” or “double-subject” construction involving two subject-marking Nominative -ga’s.
In sum, if an adjective can take a -ga marked NP as its object in a matrix sentence, it is an adjective which denotes a feeling/emotion experienced by the matrix NP, where the source of such feeling is the -ga marked object NP. Such an adjective, which we call a transitive adjective, can also occur in the construction [NP-ga [NP-o Adj-u] omou] where the Experiencer of the feeling is represented by the matrix subject, and the source of the feeling, by the -o marked NP object of the adjective.

3.1.7. Historical origin of Subject Feeling adjectives

To conclude section 3.1, two ways in which the Subject Feeling adjectives differ in derivation from the other adjectives are suggested. The meaning and argument structure of the SF adjectives which makes it possible for them to occur in the patterns [NP-ga Adj-i] and [NP-o Adj-u omou] are part of their lexical entry, thus highly idiosyncratic. Nonetheless, their morphology may suggest how, for a speaker or language learner, these adjectives are set apart from the others as two-place predicates.

As discussed above, Japanese adjectives categorized as transitive are semantically uniform in that they all express a person’s feelings toward something or somebody. One general characteristic common to most if not all of these adjectives is the existence of corresponding transitive verbs sharing morphological and semantic elements with the adjectives. The following exemplifies the adjectives with their corresponding verbs:

(43)  a. natukasii ‘dear’ vs. natukasimu ‘to remember with nostalgia; yearn for’
     b. tanomosii ‘reliable’ vs. tanomu ‘to rely on; ask’
     c. nikui ‘hateful’ vs. nikumu ‘to hate’
     d. kanasii ‘saddening’ vs. kanasimu ‘to feel sad (about)’

It is possible to describe the relationship between the adjective and the verb in each pair as derivational. Suppose the adjectives are derived from the verbs. That is, the above adjectives are deverbal. Two references -- the Daijirin dictionary and Nihongo Gogen
Jiten (Etymological Dictionary of Japanese) claim that natukasi(i) ‘yearned for’ is an “adjectivized form” of the verb natuku ‘feel comfortable with (someone)’. Daijirin also says that tanomosii ‘trustworthy’ is the adjectivized form of tanomu ‘to rely on.’ Further suppose that the transitivity of the verb is retained in the adjective, so that the adjective itself can assign Case as well as a theta role. This would explain their special characteristic.25

A second element to consider is derivation in the sense of diachronic change. Yamazaki’s (1973) article on the historical development of adjectives in Japanese mention a pattern of once productive derivation of certain adjectives from verbs:

(44)  a. atar + asi → atarasi ‘new’  
     b. yor + asi → yorosi ‘good’  
     c. ito f + asi → itofasi → itofosi → itoosi ‘lovable’  
     d. wok + asi → wokasi → okasi ‘funny’

[Yamazaki 1973:82-92. The meanings given are those of Modern Japanese.]

The schematic derivations in (44) roughly show that an old suffix of emotion, -asi, meaning ‘lacking ~’, ‘to want to ~’ is attached to the verbal root ataru ‘to correspond to,’ to yield the adjective atarasi, the original meaning of which was ‘to want something to correspond’. Later semantic changes resulted in the contemporary meaning of atarasi ‘new’. According to Yamazaki, it is likely that by the ninth century A.D., which is the earliest time the adjective wokasi is attested in the literature, the emotive meaning of the morpheme -asi itself was no more on the speaker’s consciousness. However, Yamazaki also states that -asi continued to be used to coin new emotive adjectives, by association with the morphological shape of the existing emotive adjectives with -asi endings. In

25 The historical derivation of these words certainly is not part of a native speaker’s linguistic knowledge. However, it may be that the obvious similarity between the adjective and its verbal counterpart plays a part in the fact that the transitivity of the verb is historically carried over to the adjective.
other words, -asi gradually turned into a purely grammatical derivational affix, having lost its semantic content. Thus it is only true for some of the SF adjectives that the etymology is visible on the part of the modern speaker. By looking at Modern Japanese adjectives such as atarasi ‘new’, it is clear that by the time such words came into being, the suffix -asi certainly had lost its semantic import and are now recognizable only as one of the morphological characteristics of adjectives in general.

While not all adjectives in Modern Japanese ending in -asii are SF adjectives, not all SF adjectives have derivations with retraceable verbal origins as in the adjectives of (43) or (44), either. The latter kind includes kawaii ‘lovable’ which does not contain any obvious verbal source, although it has a corresponding verb derived from the adjective itself and lexicalized as kawai-garu ‘to love’.26 The fact that kawaii (in the sense of ‘lovable,’ rather than ‘cute’) can occur in the [NP-o Adj-u omou] pattern just as the deverbal adjectives like natukasii shows that the deverbal origin is one of the possible roots of the transitivity of the Subject Feeling adjectives.

3.2. The Copula in the Adjectival Predicate

In this section we propose that the endings -i and -u of Japanese adjectives, which are traditionally considered part of the adjective’s inflectional ending, are better analyzed as variants of the copula -da/-ni.

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26 The fact that kawaii once was a Sino-Japanese word composed of two Chinese morphemes, ke- ‘-able’ and the verb ai ‘love’ does not help here, because the original components are not transparent, the word kawaii having naturalized, and behaving as a Native Japanese lexical item, with no apparent verbal element.
3.2.1. Adjectival conjugation: background

In traditional grammar, Modern Japanese adjectives are considered to have a conjugation (or 'inflection') which parallels that of verbs. The following table lists the standard inflectional categories and their paradigmatic forms (the endings in parenthesis are the auxiliary suffixes):\(^{27}\)

(45)

<table>
<thead>
<tr>
<th>Inflectional categories</th>
<th>Inflected forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mizen ‘irrealis’</td>
<td>aok-aro(-o)</td>
</tr>
<tr>
<td>Renyoo ‘adverbial/infinite’</td>
<td>aok-u(-nai)</td>
</tr>
<tr>
<td>Renyoo ‘adverbial/infinite’</td>
<td>aok-at(-t)</td>
</tr>
<tr>
<td>Syuusi ‘conclusive’</td>
<td>ao-i</td>
</tr>
<tr>
<td>Rentai ‘attributive’</td>
<td>ao-i</td>
</tr>
<tr>
<td>Katei ‘hypothetical’</td>
<td>aok-ere(ba)</td>
</tr>
<tr>
<td>Meirei ‘imperative’</td>
<td>-</td>
</tr>
<tr>
<td>Sikoo ‘cohortative’</td>
<td>-</td>
</tr>
</tbody>
</table>

The so-called ‘ending’ or ‘inflectional ending’ is the element between the root (in bold letters in (45)) and the auxiliary (in parentheses). For instance, in the above paradigm, the word *aokunai* ‘is not blue’ can be segmented into the root *aok*, the ‘inflectional ending’ *-u*, and the auxiliary suffix *-nai* (negative, non-past). Basically there are two endings, *-i* and *-u*. The *renyoo* or ‘adverbial’ form typically premodifies verbs. In Modern Japanese, the *syuusi* ‘conclusive’ and the *rentai* ‘attributive’ have the same form; the former occurs sentence-finally and the latter typically premodifies nouns. Most complex forms of specific tense or aspectual endings are contractions of the *renyookei* (infinitive) *-k-u* form + auxiliary verb *ar* ‘be’ (Martin 1975: 803). Thus, for example, the positive perfective form *aokatta* ‘was blue’ is underlingly *aok-u + ar-ta*.

\(^{27}\) The inflection table is based on Shibatani (1990:232) and *Shin Meikai Kokugo Jiten*. 70
Although called inflectional, these endings are different from the inflectional morphemes of English in a number of ways: they are not agreement markers for person and gender as in English verbs or French adjectives. The category names in (45) are descriptive labels for their typical functions, some aspectual/modal such as “irrealis” and “imperative,” others their position in the sentence, as in “adverbial” (i.e., modifies verbals) and “conclusive” (i.e., sentence-final). Although the conclusive form may express non-past or imperfective tense/aspect, the past tense or perfective is expressed only by combining the infinitive form with the tense/aspect element -atta (which derives from ar ‘be’ + past/perfect auxiliary -ta).

Whereas English verbal inflection morphemes such as -ed and -s have been assigned to such grammatical categories as T(ense), I(nflection), or Agr(eement), the category of the endings -i/-u is not self-evident. In the following section we will argue that adjectival endings -i/-u are actually copulas; in Chapter 4 the copulas will be analyzed as Verbs.

3.2.2 Adjectival “endings” -i and -u as copula

3.2.2.1 The copula da

Traditionally, da has been described as an auxiliary verb that functions as a copula, similar in function to the English copular verb be. For instance, Shibatani (1990:221) includes the copula in the part of speech zyodoosi ‘auxiliary verbs’. Auxiliary verbs in Japanese are morphologically bound forms which are suffixed to verbs, and which inflect like verbs themselves. There are two pieces of evidence that the copula is a verb and not an auxiliary verb: First, unlike typical Japanese auxiliaries (e.g.,
-nai (negative), -ta (perfective aspect/past tense), -masu (politeness marker, present tense)), the copula da never occurs suffixed to another verb:

   -Nom Sibuya-to go
   'Taro goes to Sibuya.'
   cf. a'. Taro-ga Sibuya-e iki-masu.
   go- Pol.
   'Taro goes to Sibuya.' (Polite style)

   -Nom laugh-Pres
   'Taro laughs.'
   cf. b'. Taro-ga warawa-nai.
   smile-Neg.
   'Taro does not laugh.'

c. Taro-wa gakusya da.
   -Top scholar Cop
   'Taro is a scholar.'

d. Taro-wa hosyuteki da.
   -Top conservative Cop
   'Taro is conservative.'

(46a) and (46b) show that da never immediately follows verbs, either in the infinitive (as in 46a) or in the irrealis (as in 46b), while (46a') and (46b') show that the auxiliaries -masu and -nai follow verbs in the infinitive and irrealis forms, respectively. (46c) and (46d) show that da either follows a noun or the stem of an adjectival noun, respectively.  

28 The inflectional paradigm of the copula da is summarized below. The verb column has been added for comparison (adapted from Shibatani (1990:232); -ni was added by R.S.):

<table>
<thead>
<tr>
<th>Categories</th>
<th>Forms</th>
<th>cf. Verb inflection kiku 'hear'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrealis</td>
<td>-</td>
<td>kik-a</td>
</tr>
<tr>
<td>Adverbial</td>
<td>de, (ni)</td>
<td>kik-i</td>
</tr>
<tr>
<td>Conclusive</td>
<td>da</td>
<td>kik-u</td>
</tr>
<tr>
<td>Attributive</td>
<td>na, no</td>
<td>kik-u</td>
</tr>
<tr>
<td>Hypothetical</td>
<td>nara</td>
<td>kik-e</td>
</tr>
<tr>
<td>Imperative</td>
<td>-</td>
<td>kik-e</td>
</tr>
<tr>
<td>Cohortative</td>
<td>da-ro</td>
<td>kik-o</td>
</tr>
</tbody>
</table>

Da is the conclusive, or sentence-final form of the copula da. The “adverbial” category is also called “formative” or “infinitive.” Ni has been treated as a variant of da (e.g., Tokieda 1950, Okutsu 1978), although some consider it a postposition. De in de aru has been analyzed in the literature as a gerundive form of the predicative copula da (Nishiyama, to appear), and as a postposition (Nakayama 1988b). Nakayama’s argument for considering de in de aru as postposition is internally motivated: since NP but not AP requires Case and since in his theory de but not ar assigns Case, de is best analyzed as a postposition.

However, the locative postposition de and copular de behave differently in sentences involving (i) topicalization, (ii) scrambling, and gapping. This suggests that copular de in ModJ is not a postposition.

(continued on next page)
The second reason we regard * as a verb is based on a particular assumption about sentences in general. That is, as proposed in Nakayama (1988a, b), we assume that every sentence has a verb. In predicative copular sentences, the copula * is the only element which can be the verb.

Now we will discuss the adjectival predicates compared with the nominal predicates. First, consider the following:

(47) a. Hanako-wa isyä da.  
    -Top doctor Cop  
    'Hanako is a doctor.'

b. Hanako-wa genki da.  
    healthy Cop  
    'Hanako is healthy.'

c. Hanako wa utukusii.  
    beautiful  
    'Hanako is beautiful.'

d. *Hanako wa utukusii da.  
    beautiful Cop

(i) a. Niwa-de-wa Taro-ga odotta.  
    garden-in-Top Taro-Nom dance-Past  
    'In the garden, Taro danced.'

b. *Gakusei-de-wa Taro-ga aru.  
    student-de -Top Taro-Nom Aux  
    (Intended) 'A student Taro is.'

(iii) a. Taro-ga niwa-de, Jiro-ga genkansaki-de, hanabi-o sita.  
    Taro-Nom garden in Jiro-Nom entranceway in firecrackers-Acc do-Past  
    'Taro (played with hanabi) in the garden, and Jiro played with hanabi in the entranceway.'

    Taro-Nom student de Jiro-Nom company employee de Aux.  
    (Intended) 'Taro is a student and Jiro, a company employee.'

29 The assumption that every sentence has a verb follows from the following conditions of universal grammar (Nakayama 1988a:78-80):

(i) a. Condition on Sentence: Every sentence contains INFL.
    b. Condition on Functional Features: Functional features (e.g., [+/-Tense]) require their adjacency to lexical features (e.g., [-N, +V]) at S-structure
    c. The functional feature [+/-Tense] dominated by I(NFL) selects the lexical feature [-N, +V]
The predicates in (47a), [isya da] 'is a doctor' consists of an NP and da. Similarly, in (47b) the predicate [genki da] 'is healthy' consists of an Adjectival Noun (AN) and da. (47c) contains an adjectival predicate, utkusii 'beautiful'. Adjectival predicates in Japanese apparently lack an overt copula, unlike their nominal and adjectival-nominal counterparts as well as English adjectival predicates. A sentence like (47c) has traditionally been considered as verbless in the sense that they lack regular verbs, as well as lack a copular element. Note that an adjective in the non-past form such as utkusii cannot be followed by da, as shown by the ungrammaticality of (47d). Our main concern here is the type of embedded tenseless adjectival sentences considered to be SCs in the literature, repeated below as (48):

   -Nom -Acc reliable think-Past
   'John thought (of) Mary (as being) reliable.'

If the SC predicate tanomosiku is indeed a plain adjective without any copular element, (48) is exactly like the English adjectival small clause of the type contained in [I consider [him competent]].

However, we would like to pursue the other possibility, i.e., that the Japanese adjectival predicates are verb phrases containing copulas. The status of the adjectival predicate has consequences for the analysis of SC-like constructions in that if an adjectival predicate is shown to contain a copula, the "SC" itself can then be analyzed as a clause rather than a phrase. First we briefly summarize Nakayama's (1988b, 1996) proposals on adjectives. While we support Nakayama's basic claim that adjectival predicates contain copulas, we will suggest an alternative analysis differing in details from Nakayama's.
3.2.2. Nakayama (1988b)

Based on the assumption that every sentence has a verb, Nakayama (1988b) proposes that an adjectival predicate sentence contains a verb, i.e., a copula, and that the copula shared by both nominal predicates (NPs) and adjectival predicates (APs) is \textit{aru}. The so-called copula \textit{da}, which occurs with nominals, is analyzed as having derived from the postposition \textit{de} and copula \textit{aru}.\(^{30}\) The present tense of AP's (e.g., \textit{kawaii} 'is cute') contains a zero copula, \(\emptyset\). In AP's, \textit{aru} is morphologically realized only in the past tense and \textit{sae}-type sentences, as follows:

\begin{equation}
(49) \begin{array}{ll}
\text{a.} & \text{kawai-katta} < \text{kawai} + \text{aru} + \text{ta} \quad \text{'was cute'} \\
\text{b.} & \text{kawai-ku sae atta} < \text{kawai} + \text{sae} + \text{aru} + \text{ta} \quad \text{'was even cute'}
\end{array}
\end{equation}

3.2.2.3. Nakayama (1996)

Nakayama (1996) presents another possible analysis, according to which there are two copulas in Japanese: \textit{da} and \textit{aru}. \textit{Da} occurs only with nominals and \textit{aru} only with adjectives. The distribution of the two copulas is attributed to the difference in Case requirement: \textit{da} assigns Case; \textit{aru} does not. Nominals require Case, adjectives do not (ibid. p.34, fn. 15). The following examples are from Nakayama (1990:33) ("\(\emptyset\)" in (50a) and the bold style have been added by R.S. for clarity):

\begin{equation}
(50) \begin{array}{ll}
\text{a.} & \text{John-ga gakusei} \emptyset. \\
& \text{Nom student} \\
& \text{John is a student.'}
\end{array}
\quad \begin{array}{ll}
\text{b.} & \text{John-ga gakusei-\textit{da}.} \\
& \text{Nom student \textit{is}} \\
& \text{John is a student.'}
\end{array}
\quad \begin{array}{ll}
\text{c.} & \text{John-ga kawaii.} \\
& \text{Nom cute-present} \\
& \text{John is cute.'}
\end{array}
\end{equation}

\(^{30}\) Nakayama (p.c.) notes that if \textit{de} is a postposition, it is not the \textit{-te}-form of \textit{da}, assuming Miyagawa's (1983) analysis that \textit{-te} in the \textit{-te} form ("gerund") of a verb is an inflectional suffix. In our analysis, \textit{-de} is a \textit{V}, like the other forms of the copula \textit{da}. \textit{De-aru} is thus analyzed as a copular verb plus auxiliary \textit{aru}; \textit{aru} may be in InfI; \textit{-u} is Tense under InfI. See next section for our claim that \textit{-i} and \textit{-u} in the \textit{-i/-u} forms of adjectives are also variants of the copula.
Based on the semantic equivalence of (50a) with (50b), and on the existence of the overt copula *da* in (50b), (50a) is analyzed as containing an empty copula following *gakusei*. The present tense of the adjective (50c) contains -i, assumed by Nakayama to be a variant of the copular verb *aru*. The copula is realized as *aru* only in the past form, as shown in (50d) and (50f) (in (50d), *atta* < *ar* + *ta*). When the adjectival stem and the copula are interrupted by elements such as *sae* ‘even’ (or *mo* ‘also’), as in ((50e), (50f)).

Unlike in the previous (1988b) analysis, in which Nakayama analyzes *ar* as the copula in both NP and AP sentences (except present tense AP, which has a null copula), the 1996 version argues for two overt copulas in complementary distribution, i.e., *ar* with variant -*i* for APs and *da* or null for NPs. The Case-theory based account is attractive, as it derives the facts of distribution from a universal principle. However, some data involving *sae* are problematic for the claim that *ar*/*i* and *da* are in complementary distribution, the former for APs and the latter for NPs. Compare the following two sentences:

(51)  
(a) *Sono sinamono wa kooka de sae aru.*

*b* that *item -Top expensive* ' That item is even expensive.'

(b) *Sono sinamono wa takak -u sae aru.*

*b* that *item -Top expensive* ' That item is even expensive.'
Extrapolating from Nakayama's (1996) analysis of *da* in nominal predicates as copula, *de* in the ANP predicate in (51a) must be the copula, a variant of *da*. On the other hand, in the AP sentence (51b), the copula is supposed to be *aru* according to Nakayama (1996). However, (51a) and (51b) are synonymous as well as completely parallel in construction. Therefore, it seems inconsistent to analyze the *aru* in (51b) as a copula and *aru* in (51a) as a non-copula. The other alternative, still based on the same assumption that both *da* and *aru* are copulas, is to say that *aru* is always a copula, whether it occurs with NPs as in (51a) or with APs as in (51b). Now one would have to say that (51a) has two copular elements, *de* and *aru*, or a discontinuous copula, *de--aru*, while (51b) has only one copula, *aru*. Such a discrepancy in the description between APs and NPs seems to be unwarranted.

### 3.2.2.4. The Adjectival Copula *-i/-u*

In this section we propose an alternative analysis of the copula in adjectival predicates: the endings *-i* and *-u* are forms of the copula, which we will call "adjectival copula" to distinguish them from the typical copula *da* (and its variants *de*, *ni*, *no/na*) which occurs with nominals. Considering *-i* as a copula is the obvious alternative to saying that an adjectival predicate such as *kawaii* in [Hanako wa kawaii] contains a null copula corresponding to *-da* in [Hanako wa gakusei da]. Sentences such as the following suggest that, in addition to *-i*, the "adverbial form" ending *-u* can be analyzed as a form of the copula:

(52) a. Hanako wa kawaiiku sae aru.
   -Top cute even ar-Pres.
   'Hanako is even cute.'

b. Hanako wa gakusei de sae aru.
   -Top student Cop even ar-Pres.
   'Hanako is even a student.'
c. Hanako wa kawaii mo at-ta.
   -Top cute also ar-Past
   'Hanako was also cute.'

d. Hanako wa gakusei de mo at-ta.
   -Top student Cop also ar-Past
   'Hanako was also a student.'

e. Hanako wa kawaii wa nai.
   -Top cute Neg
   'Hanako is not Cute.' ("cute" is contrasted with some other quality)

f. Hanako wa gakusei de wa nai.
   -Top student Cop -neg
   'Hanako is not a student.'

When emphatic elements such as sae 'even,' mo 'also,' or contrast/topic-marker wa occurs in a copular predicate, as in (52a-f), the tense and/or negation is realized as aru (present), atta (past), nai (negative), etc., as shown above. The distribution and position of the adjectival ending -u is exactly the same as that of -de, with respect to the emphatic elements. Thus, assuming that -de in (52b, d, f) is a form of the copula -da, it is reasonable to consider -u in the adjectival predicates (52a, c, e) to be instances of the copula, too.

Another piece of evidence that -i and -u are copulas comes from coordination.

Coordination usually involves two or more constituents of the same category.

(53)  a. Taro wa [vp kaigityuu de] [vp isogasii].
   -Top in-conference Cop busy
   'Taro is in a meeting and (he) is busy.'

b. Hanako wa [vp hosoku] [vp kirei da].
   -Top thin beautiful Cop
   'Hanako is thin and beautiful.'

c. [NP [vp hosoku] [vp kirei -na onnanoko]
   thin beautiful Cop girl
   '(a) thin and beautiful girl'
In the coordinated structure (53a), the two conjuncts [kaigityuu de] and [isogasii] must be of the same category, thus the nominal+-de predicate the adjectival predicate must be of the same category. Since de is a copula, -i must be a copula, too. Similarly, in (53b) the conjuncts [hosoku] and [kireida] must be of the same category, thus -u is a copula like da. In (53c), the pre-nominal modifier phrases [hosoku] and [kirei-na] are both VP’s, the former headed by the copular verb -u and the latter, the copular verb -na.

In sum, the distribution of -da/-de and -i/-u suggests that the adjectival endings -i and -u are forms of copula.

In this section we discussed copulas in Japanese adjectival predicates. We support the view that adjectival predicates, which superficially appear to lack verbs, are in fact quite similar to nominal predicates in that they too contain a copula, i.e., the adjectival copulas -i or -u.

3.2.3. On Adj-u vs. Nominal-ni and Nominal-de

A note must be added to the parallelism between the adjectival copula -u on one hand and the nominal copulas -ni and -de on the other.

31 According to Tokashiki (1989), the -i form (renyoo ‘infinitive’) of a verb can occur in a coordination structure (e.g., Taro-ga utai odotta. ‘Taro sang and danced’), while the -te (“gerund”) form in a similar sentence can only be in a subordinate clause (e.g., Taro-ga utatte odotta. ‘Taro sang and danced.’) Adjectives also have two different forms, Adj-u (infinitive) and Adj-k-u-te(‘gerund’) which correspond to the -i and -te form of the verbs respectively. However, in the case of Adjectival Nouns (and Nouns), the -de form doubles in function as both the infinitive and the gerund. Thus AN-de is ambiguous between coordination and subordination. For instance, (53a) can also be taken to mean ‘Taro is busy, (due to the circumstance of) being in a meeting.’ Such a reading suggests a structure in which the phrase headed by de is subordinated to [isogasii] rather than being coordinated with it as in the gloss provided above. The choice between the two readings is pragmatic: considering ‘being in a meeting’ the cause for being busy is a pragmatic knowledge which favors the subordination reading over the coordination reading, though in principle both are possible.

32 See Nakayama (1996:45) for the argument that -na of the Adjectival Nominal kirei-na is a copula, just like -no of the appositive nominal premodifier gakusei-no (as in gakusei-no Suzuki-kun ‘Suzuki, the student’) is.
(54) a. Hanako-wa gakusei ni mieru/ yasasik-u mieru.
   -Top student Cop looks/ nice Cop looks
   'Hanako looks like a student/ looks nice.'

   b. Hanako-wa gakusei ni natta / yasasik-u natta.
      student Cop became/ nice Cop became
      'Hanako became a student/ became nice.'

   c. Taro-wa Hanako-o gakusei ni sita / yasasik-u sita.
      -Acc student Cop made/ nice Cop made
      'Taro made Hanako a student/ made Hanako nice.'

As shown in (54a-c), -u corresponds to the copula -ni in the 'look like' and 'become'
sentences. For other constructions, such as a nominal followed by de aru, de wa
aru/nai, de sae aru/nai, etc., -u corresponds to the copula de, as shown in (55):

(55) a. Hanako-wa gakusei de atta/ yasasikatta (< yasasik-u atta)
    -Top student Cop was/ nice Cop was
    'Hanako was a student/ was nice.'

b. Hanako-wa gakusei de wa nai/ yasasik-u wa nai.
   -Top student Cop neg/ nice Cop neg
   'Hanako is not a student/ is not nice.'

3.3. Summary

In this chapter we discussed adjectival predicates in Japanese, in particular the
characteristics of the Subject Feeling adjectives which occur in the SC complement
structure [NP-ga NP-o Adj-u omou]. The adjectives which occur in such constructions
are transitive, either exclusively two-place or lexically ambiguous between one-place or
two-place; those which do not occur in this pattern are exclusively intransitive. We also
proposed that the adjectival endings -i and -u which are traditionally considered part of the
inflectional ending are actually forms of the copula, corresponding to da, de, and ni of
nominal predicates.

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CHAPTER 4

THE STRUCTURE OF SMALL CLAUSES IN JAPANESE

4.0. Introduction

In this chapter we will examine the structure of the Small Clause (SC) in Japanese, focusing on the \([\text{NP-o XP} \ V]\) construction. We will determine that the SC \([\text{NP-o XP}]\) is in fact a constituent and suggest that this constituent is clausal, that is, either an IP or CP. Evidence for the constituency and the clausal status will be provided. Finally, it will be proposed that there is a difference between the SC complements of matrix verbs \textit{omou} ‘think’ and \textit{kanziru} ‘feel’ will be discussed.

4.1. The copula as a meaningful element

One of the long-standing issues regarding the characterization of the copula is whether it is an element with some semantic content, like other ordinary verbs, or a special verb-like element devoid of semantic content. The purpose of this section is to provide the assumptions for the structural analysis of Japanese SCs we propose in the latter half of the chapter. In particular, it provides support for the account that the adjectival copula \(-i/-u\) is considered as a V which heads its phrase, VP.

Earlier studies identify \textit{be} as a special kind of auxiliary verb which is different from modals (e.g., Lasnik 1981:168), although it is also common practice to recognize a “main verb” use apart from its auxiliary use (e.g., Chomsky 1959:66). A related issue is
whether the copula participates in the assignment of the theta-role the subject receives.

The following is an overview of such issues.

Quirk et al.’s (1972) definition exemplifies a typical traditional notion of the copula as a dispensable or nonessential element. It says that “the verb in a sentence with subject complement” is “a 'copula' (or 'linking verb'), which of itself has little meaning but functions as a link between the complement and the subject.”

More recent studies on the copula have focused on one or more of the following three functions:

(1)  
  (a) Carrier of tense morphology  
  (b) Predication  
  (c) Modality

The alleged lack of “meaning” mentioned in the above quote from Quirk et al. is due to the fact that the copulas, unlike regular verbs, lack lexical meanings denoting any specific action or state. Those who have considered the copula “meaningful” refer to either (1b) or (1c): the former refers to the copula’s role as the link between the predication subject and its predicate; the latter, to the copula’s discoursal function of expressing the modality of assertion on the part of the speaker (see Makino 1968 below). Hereafter, when we refer to the copula as a “meaningful” or “semantically non-null” element, we will be referring to (1b).

There are two different views as to what role the copula plays in predication. One is that the copula is responsible for the predication relation between the subject and the complement, and the other is that it is not, although it has an ancillary function as carrier of tense features. The latter view is based on observations of the contrast between tensed copular sentences and untensed embedded SCs, as in the following sentences (Rapoport’s (1987) examples quoted in Nishiyama (to appear)):

(2)  
  a. Xeli *(is) a nut.  
  b. I consider Xeli *(is) a nut.
While (2a) shows that the verb *be* is obligatory in the matrix sentence and carries the tense morphology, (2b) shows that *be* must be absent in the SC complement of *consider*, within the clause [Xeli a nut]. Despite the absence of overt *be*, the embedded proposition in (2b), that “Xeli is a nut,” is the same as the proposition of (2a), which has an overt copula *be*. Based on such data, Rapoport asserts that *be* is an element inserted in Inflection (or Tense) at D-structure for the specific function of supporting tense features.

Nishiyama then cites Déchaine (1993), a different version of the tense-carrier analysis, according to which the copula heads its own VP projection, rather than being generated in Infl, and moves to Tense only when no modal is contained in Tense. Déchaine’s analysis is observationally more adequate than Rapoport’s since it accommodates cases like (3a), where the tense is carried by the modal *will*, as well as cases like (3b) where the tense is morphologically reflected in the past form of the copula.

If *be* were the D-structure tense-carrier, the obligatoriness of *be* in (3a) would be unexplained, since in this sentence the tense is expressed by *will*, not *be*:

(3)  

|   | a. Sal will *(be) strong.  
|---|---------------------------|
|   | b. Sal was strong.  

Whether *be* is base-generated under Infl or moved to Infl from within VP, Rapoport’s and Déchaine’s analyses share the view that the copula is a semantically void element.
In previous studies, Japanese *da* has also been considered to be a non-lexical element. For instance, Shibatani (1990:370) says that it is “simply a tense carrier, which appears when a nominal predicate, which cannot carry tense, is used.” It has also been called *keiji*, literally a ‘linking word,’ i.e., assumed to be the counterpart of the English copula (e.g., Inoue 1976).¹

The modality function of the copula is discussed in Makino (1968), who attributes to both Japanese and English copula “the function (or meaning) of stating a judgment or assertion on the part of the speaker-writer” (p. 13, parentheses original).² The tense-carrier and the modal analyses are not always mutually exclusive. For instance, Konomi (1994) claims that *da* has two functions: when it has the perfective form *datta*, it functions as a copula inserted under Tense, with the aspectual feature [+Perfective]; the non-inflected *da* is a modal, generated under Modal, with the feature [+Realis].

Nishiyama’s (to appear) proposal for the “Layered copula hypothesis” is based on the combination of two views, i.e., Déchaine’s hypothesis of the copula as a dummy verb (V), mentioned above, and Bowers’ (1993) theory that both main clause and SC predication are structurally defined as a predicate phrase (PredP). According to Nishiyama, there are two kinds of copulas in Japanese: one, a semantically null V, *ar*, referred to as the *dummy copula* (*du.cop*), which projects a VP; and the other, a

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¹ Inoue (1976:19) suggests the rule *da* + *ru* \(\rightarrow\) *da*, where *ru* is a present tense element which probably appears under Aux/T(ense). Inoue’s insight is thus similar to Rapoport’s “tense-holder” view.

² Also see Takahashi (1995:95) for the opinion that, in addition to having the function as a copula, *da* also indicates “a strong designative modality.” Takahashi agrees with Konomi that *da* has a modal function of “deliberate emphasis on the statement’s truthfulness” (Konomi 1994:4) but disagrees with her claim that (unlike *datta*, inflected in the past tense) *da* is always a modal, i.e., an auxiliary verb, and never a copula used as a main verb. Also see Nakayama (1996) and Takahashi (1995) for the possibility of an empty copula.
semantically non-null element, *de*, referred to as the *predicative copula* (*pred.cop*), which projects a PredP. The two co-occur in a hierarchical structure, as shown in (4):³

(4) a. *Yoru-ga sizuka de aru.* a'.

night-Nom quiet

'The night is quiet.'

Nishiyama offers two pieces of evidence that the copula in Japanese is indispensable for nominal predication sentences. First, observe the sentences (5a) through (6b). (5a) and (6a) are ungrammatical if *ni*, the *renyoo* (i.e., the "adverbial" or "infinitive") form of *da*, is missing.⁴ Nishiyama argues that the obligatory occurrence of *ni* in the non-tensed embedded clauses in (5a, b) suggests that the copula in Japanese is an element with semantic content, not a semantically empty tense-carrier:


-Nom -Acc happy Cop made

'John made Bill happy.'


-Nom wall-Acc crimson Cop painted

'John painted the wall crimson.' (Nishiyama, to appear: 5)

(6) a. *Bill-wa siawase da.*

-Top happy Cop

'Bill is happy.'

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³ According to Nishiyama, the basic form of the predicational copula is */de/* for nominals including Adjectival Nouns (which he calls Nominal Adjectives) and */k/* for adjectives (his Canonical Adjectives).

⁴ See Chapter 5 for discussion of evidence that *ni* in such sentences is a form of the copula *da*, and not the locative postposition *ni* or the dative marker *ni.*

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b. Kabe-ga makka da.
   wall-Nom crimson Cop
   'The wall is crimson.'

The subordinate clause in (5a) and (5b) have the same propositional content as (6a) and (6b), respectively. The related sentence pairs (5a/6a) and (5b/6b) support Nishiyama's claim that the copula is an indispensable element in Japanese. This becomes even clearer when compared with similar English sentences. Unlike Japanese *da*, the English copula *be* must be absent in the untensed subordinate clause sentences (except for infinitival structures), as shown in (2b) above. Thus the English copula is not central to predication the way *da* in Japanese is, regardless of whether it actually functions as a tense-carrier (compare (2a)/(3b) with (3a)).

Moreover, the distribution of the tensed form of the copula, *da*, also suggests that the copula has semantic import. Note that in (7c) the indirect quote [kanozyo wa tensai da to] 'that she is a genius' must have an overt *da*:6

\[(7)\]
\begin{align*}
\text{a. Kanozyo-wa tensai da.} \\
\text{She-Top genius Cop} \\
\text{‘She is a genius.’}
\end{align*}

\begin{align*}
\text{b. Kanozyo-wa tensai.} \\
\text{‘She’s a genius.’}
\end{align*}

\begin{align*}
\text{c. Watasi-wa kanozyo-wa tensai *(da) to omotta.} \\
\text{I-Top she-Top genius Cop Comp thought} \\
\text{‘(Lit.) I thought that she is a genius.’}
\end{align*}

5 Additional support for the above view is provided by the obligatory copula in the following adjectival noun construction:

\begin{align*}
\text{(i) a. Karera-wa hosyuteki da.} \\
\text{they-Top conservative Cop} \\
\text{‘They are conservative.’}
\end{align*}

\begin{align*}
\text{b. Watasi-wa karera-o hosyuteki *(ni) kanzita.} \\
\text{I-Top they-Acc conservative Cop felt} \\
\text{‘I felt them (to be) conservative.’}
\end{align*}

6 Mineharu Nakayama (p.c.) notes that (7b) can be analyzed as a sentence containing an empty copula. This alternative approach will not be pursued in this dissertation.

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d. Watasi-wa “Kanozyo-wa tensai!” to omotta.
   ‘I thought “She’s a genius!”.’

At first blush, it may appear that the copula *da* in a tensed main clause like (7a) is optional, since copula-less matrix clauses like (7b) exist. The apparent optionality of *da* may support the opinion that *da* is a tense carrier or purely modal, not the equivalent of the logical copula (e.g., Shibatani 1990:370). However, sentences like (7b) are acceptable only when used in informal or colloquial style. Moreover, the acceptability of (7b) is limited to matrix sentences. When embedded as an indirect quote as in (7c), the same clause clearly requires *da*, unless it is meant to be a direct quote sentence, shown as (7d). Since (7c) is unacceptable without *da*, we conclude that *da* is required, not optional.

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7 Shibatani (1990:266) cites traditional grammarians Yamada (1908) and Sansom (1928) in noting that the element which functions as the logical copula -- like *be* in English “*A is B*” is the particle *wa*, rather than *da*, in the corresponding proposition “*A wa B*.” ‘*A is B.*’ Although *wa* regularly occurs in copular sentences, the claim that *wa* is actually a copula, in particular that it is a copular verb, cannot be supported. Besides the unacceptability of (7c) without *da*, it is also clear that the case-marker *ga* is not a copula. Just like *wa*, *ga* appears in matrix copular sentences in certain styles where *da* may be ellipted, but *da* cannot be ellipted when embedded: “*A-ga B.*” vs. “*C wa A-ga B *(da)* to omotta.*”

8 Although the exact reason for the absence of *-da* in (7b) is unknown, it is at least clear that the ellipsis of elements such as the copula *-da* and the topic-marker *-wa* is limited to matrix sentences, i.e., it is a root phenomenon, even in colloquial style. Compare the following (all are colloquial):

(i)

<table>
<thead>
<tr>
<th>a. Kanozyo-wa tensai.</th>
</tr>
</thead>
<tbody>
<tr>
<td>she-Top genius</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. Kanozyo, tensai da.</th>
</tr>
</thead>
<tbody>
<tr>
<td>she genius Cop</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c. Kanozyo, tensai.</th>
</tr>
</thead>
<tbody>
<tr>
<td>she genius</td>
</tr>
</tbody>
</table>

‘She is a genius.

(ii)

<table>
<thead>
<tr>
<th>a. Kanozyo tensai da kara, watasi urayamasii.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cop because I envy</td>
</tr>
</tbody>
</table>

| ‘Since she is a genius, I am envious.’         |

| b. *Kanozyo tensai kara, watasi urayamasii.   |

(iia) and (iib) show that in an embedded clause, *-wa* (or *-ga*) may be ellipted, but *-da* cannot.

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In sum, the above discussion as a whole supports the view that the Japanese copula *da* is not a semantically empty element which appears only to support the tense feature or occurs optionally to add modality function. Hereafter, we adopt the position that the copula has semantic content, and in my analysis of SC-like constructions in this chapter, we treat the nominal copula *da* and the adjectival copula *-i* (as well as their variants *ni* and *-u* respectively) as V, a lexical category.9

4.2. Motivation for Small Clause Analysis: Constituency and clausehood

There are several arguments cited in the literature in favor of analyzing the [NP XP] sequence in [NP V NP XP] (e.g., *I consider [him innocent]*) as a constituent. Some of them specifically support the view that the SC is a clausal constituent. In this section we briefly summarize such arguments and identify which ones apply to SC-like constructions in Japanese. Although not all of the tests are applicable to Japanese, there is enough evidence supporting the hypothesis that SCs in Japanese are clauses. Sections 4.2.1-4.2.4 show diagnostics which may apply to some other languages but do not to Japanese; sections 4.2.5-4.2.9 list pieces of evidence that collectively suggest the constituency of Japanese SCs.

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9 Chomsky (1995) defines lexical category as the type of lexical element which has substantive content, as opposed to the functional category, which has no substantive content. The above discussion shows that the copula in Japanese is lexical.
4.2.1. Subject Condition effects

Kayne (1984, cited in Hoekstra 1992) discusses the subject as an extraction island. He points out that in English, extraction from a postverbal NP is ungrammatical when this NP is the SC subject, while a similar extraction out of a non-subject NP is allowed. This is shown in (8a) vs. (8b):

(8) a. *Who did you find [\textit{the brother of tJ}] stupid?  
   b. Who did you find [\textit{the brother of tJ}] in the attic?  
   c. *Who did you put [\textit{the brother of tJ}] in the attic?

The ungrammaticality of (8a) as contrasted with the grammaticality of (8b) shows that the NP [\textit{the brother of tJ}] in (8a) is a subject. This supports the analysis of the SC [\textit{the brother of tJ stupid}] as a constituent clause. However, it is not the case that the subject island is always the correct generalization. Culicover and Wilkins (1984) argue that extraction from the antecedent of a predicate is ill-formed regardless of the grammatical function. This is shown by (8c), which is ungrammatical despite the fact that the extracted NP originates in the object of \textit{put}. The difference between (8b) and (8c) is that the phrase [\textit{in the attic}] is predicated of the extracted NP in the latter, but not in the former.

Japanese does not allow for a diagnostic using the same structures as (8a) and (8b), since the counterpart of the NP [\textit{the brother of tJ}] involves a genitive NP, [\textit{NP-no oniisan}]; extraction of the genitive marked NP from its containing NP is prohibited even
when it is a non-subject, presumably due to some Case theory considerations, according to Kikuchi & Takahashi (1993). K&T suggest an alternative test involving a complex NP in subject position, since Japanese seems to allow, in principle, extraction out of a complex NP (e.g., \[_{NP} VP-koto\]). K&T conclude that Japanese SC subjects are not barriers for movement of elements out of the SCs. Their examples include (9), in which NP inside the SC has been scrambled to the sentence-initial position (Kikuchi and Takahashi 1993:84):

(9) Sono hooseki-o John-ga [\[_{SC} [\[_{NP} Mary-ga t, katte-simat-ta koto] -o jewelry-Acc -Nom buy-Asp-Past fact -Acc haradatasiku] omotte-i-ru (koto) irritating think-Asp-Pres fact

'(the fact that) John thinks it irritating that Mary bought the jewelry'

If Japanese disallowed extraction from subjects in general, examples such as (9) could be taken to disprove the subjecthood of the embedded NP-o in SC constructions. However, the following additional examples suggest that Japanese has no restrictions in general against movement out of subjects:¹²

(10) a. \[_{NP} [\[_{IP} Mary-ga sono hooseki-o katta] koto] -ga Taro-o odorokaseta. -Nom that jewel-Acc bought that -Nom -Acc surprised

(Lit.) 'That Mary bought that jewel surprised Taro.'

b. (Topicalization)
Sono hooseki-wa \[\[_{IP} Mary-ga t, katta] koto] -ga Taro-o odorokaseta.
that jewel -Top

(Lit.) 'That jewel, (the fact) that Mary bought surprised Taro.'

c. (Relativization)
Kore-ga \[\[_{IP} Mary-ga [\[_{e_i} katta] koto] -ga Taro-o odorokaseta] hooseki, This-Nom jewel

d.
Cop

(Lit.) 'This is the jewel which (the fact) that Mary bought surprised Taro.'

¹² Alternatively, (10b) and (10c) may be possibly analyzed as involving the binding of an empty resumptive pro, in which case these examples do not constitute evidence for extraction movement (Peter Culicover, p.c.).
In (10b) and (10c) the extraction sites are both clearly subject NPs: (10b) shows that an NP can be topicalized out of the subject NP [Mary-ga katta koto-ga]; (10c) shows that an NP can be extracted by relativization, out of a subject NP. If Japanese lacks Subject Condition restriction to start with, as (10b) and (10c) suggest, the non-barrierhood of NP-o in (9) fails to constitute evidence against the subjecthood of the NP \([_{np} Mary-ga ti katte-simat-ta koto-o]\) (and K&T do not consider (9) as such evidence).\(^{13}\)

In sum, Subject Condition effects do not provide evidence for or against SCs in Japanese.

4.2.2. "Honorary NP"

Direct evidence of SC constituency is difficult to find, and the "honorary NP" (HNP, Safir 1983) is one such evidence. It is well known that in English, a SC can be the subject of copular sentences, behaving as if it were an NP. Compare the following:

\[(11) a. [_{sc} Workers angry about their pay] seems to be the normal situation.\\ b. [_{np} Workers angry about their pay] usually bring their complaints to the personnel office.\]

An HNP like the bracketed subject of (11a) is syntactically distinct from a reduced relative clause construction such as the subject NP of (11b): in the reduced relative clause construction the matrix verb agrees in number with the head of the NP \((workers)\), while the HNP subject always shows singular agreement regardless of the number feature of the SC subject \((workers)\).

Japanese "SCs" do not show the same phenomenon:

\[(12) a. *[Osananazimi-o natukasiku] -wa yoku aru koto da. childhhood friends-Acc feeling nostalgic -Top often happens thing Cop (Lit.) “Childhood friends nostalgic” happens often.’\]

\(^{13}\) Citing Lasnik and Saito (1987), Kikuchi (1989), and Takahashi (1988), K&T state that it is likely that Japanese has no Subject Condition effects. As summarized in Chapter 2, in K&T the lack of Subject Condition effects in the SC subject is used as part of their argument supporting a phrasal over a clausal analysis of Small Clauses in Japanese. Note that the lack of this condition per se supports neither analysis.
b. "[Kodomotati-o takumasiku]"-wa taisetuna wadai da.
   children-Acc strong -Top important topic Cop
   (Lit.)"'(Let's make) The Children Strong" is an important topic.'

   c. "[Kodomotati-o takumasiku]"-o konkai-no kooenkai-no teema ni si-ta.
      children-Acc strong -Acc this time-Gen lecture-Gen theme made
      (Lit.)"'(Let's make) The Children Strong" was made the theme of this
      lecture.'

Sentences (12b) and (12c) are acceptable, but they are not counterparts of the English SC
collection (11a), either semantically or syntactically. The bracketed sequences in (12b)
and (12c) are interpreted as direct quotes of the sentence [Kodomotati-o takumasiku
siyoo] 'Let's make the children strong,' from which [siyoo] 'let's make' has been omitted
under appropriate discourse conditions. Unlike in the English counterpart (11a), the [NP-
o Adj-u] phrase in (12b) and (12c) lacks the reading [osananazimi-ga natukasii koto] '(the
fact) that childhood friends are missed.' In fact, unless an elliptic reading similar to (12b)
and (12c) is forced on it, (12a) is simply ungrammatical. This is probably because in
Japanese, the subject or topic NP must be an NP or PP, and the phrase [NP-o Adj-u] is
neither. Thus, HNP is unavailable as evidence for SC constituency in Japanese.

4.2.3. Absolute with-construction

   English has a construction traditionally called "absolute" construction, in which a
   constituent is linked semantically to the rest of the sentence, but lacks any apparent
   syntactic linkage (Trask 1993). For example:

(13)   a. [The day being cloudy], we decided to stay home.
   b. The two women, [their business completed], retired to the bar.

   (Trask 1993:2)

   When such adjunct phrase is introduced by the preposition with, as in (14b), it is called a
with-absolute construction. Compare (14a-c) with (14d-f):

(14)   a. John stayed home with Jane.
   b. Who, did you stay home with $e_i$?
   c. [With who], did you stay home $e_i$?
d. (John stayed home) [with [Dick Cavett on television]].
e. *Who, did you stay home [with [e, on television]]?
f. *[With who], did you stay home [e, on television]?

((14b, d, e) Beukema and Hoekstra 1984; (14c, f) Culicover p.c.)

It has been argued (Hoekstra 1992, Beukema and Hoekstra 1984) that the NP following with in the absolutive construction is not the preposition's complement, but the subject of the complement Small Clause. Beukema and Hoekstra explain that the ungrammaticality of (14e), where the NP [who] has been extracted out of the complement of with, is an ECP violation: unlike in (14b), the preposition with in (14c) fails to theta-mark [e], therefore the trace is not properly governed, assuming that categories other than V (i.e., N, A, and P) may only properly govern categories that they theta-mark.

Also note the contrast between (14c) and (14f). Apparently, (14c) is grammatical since it is the PP [with who] that is fronted. In the ungrammatical (14f), [with who] is not a constituent, assuming a SC construction with the constituent structure as shown in (14d).

Such an account is valid only on the assumption that the extractions in (14e) and (14f) involve the subject of a SC complement of with, rather than the object NP of with, as in (14b) and (14c). Thus the with-construction provides clear evidence of SCs occurring as constituents.

Let us look at a Japanese example:

(15) [Daidokoro -ga/*-o kitanaku] (te), tomodati-ga yobenai.
    kitchen Nom Acc dirty Conj friend Acc invite-potential-neg
    ‘The kitchen being dirty, (I) cannot invite friends over.’
As shown by the ungrammaticality of (15) with the -o marked NP, Modern Japanese does not have a counterpart of the with-absolute construction. Thus this construction is unavailable as evidence for SC in Modern Japanese.14

4.2.4. Thematic constancy and Projection Principle

The synonymous sentence pair shown in (16a) and (16b) offers evidence that a binary SC analysis as presented in (16c) is preferable to a ternary analysis such as the one proposed by Williams (1983), shown as (16d) and (16e):15

(16)  a. We believe John innocent.
        b. We believe [that John is innocent].

14 There is a similar construction in Classical Japanese which usually involves an Accusative -o marked NP followed by an adjectival stem plus the ending -mi. The suffix -mi attaches to an adjectival stem or to the stem of an auxiliary with adjectival ending (e.g., besi (conjecture), masizi (negative conjecture)). According to C. Quinn (p.c.), -mi was non-finite, possibly a grammaticalized form of the infinitive of the verb miru 'see'. The typical meaning of the phrase [NP-o Adj-mi] is cause or reason. The formal and semantic similarities of the -mi phrase to the English absolute with-construction suggest that the -mi phrase may involve a SC, like the with-absolutive:

(i) Kata o na mi asibe o sasite tazu nakiwataru. tideland absent-MI reed waterline pointing crain cry-fly
    ‘Because there is no tideland, crains are crying and flying toward the shore where the reeds grow.’
    [from Manyoshu; Reikai Kogo Jiten: 814]

(ii) Io no toma o ara mi waga koromode wa tsuyu ni nuretutu. cottage’s thatch coarse-MI my sleeves dew with drenching
    ‘Because the rash thatch on my cottage is coarse, my sleeves are drenched with dew.’
    [from Gosensyu; McCullough (1988:42)]

15 The notion of synonymy here is that of truth-conditional sameness: there is no circumstance in which (16a) is true but (16b) is not, etc. Thus one cannot say, “We believe John innocent but we do not believe that John is innocent.”

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Since the sentence pair (16a)/(16b) is synonymous, the matrix verb believe in the two sentences must be the same lexical item. Thus, believe of (16a) and (16b) have the same argument structure, i.e., it is thematically constant: both instances of believe have one external argument (= the subject We) and one clausal internal argument.\(^\text{16}\) The same thing can be said about the Japanese synonymous pair (17a)/(17b) below. The matrix verb omou ‘think’ has one external argument (i.e., the subject Taro) and one clausal complement:

\[(17)\begin{align*}
\text{a.} & \quad \text{Taro-ga Hanako-o tanomosiku omotta.} \\
& \quad \text{-Nom} -\text{Acc reliable thought} \\
& \quad \text{(Lit.) ‘Taro thought Hanako reliable.’}
\end{align*}\]

\[(17)\begin{align*}
\text{b.} & \quad \text{Taro-ga [Hanako-ga tanomosii to] omotta.} \\
& \quad \text{-Nom} -\text{Nom reliable Comp thought} \\
& \quad \text{(Lit.) ‘Taro thought that Hanako is reliable.’}
\end{align*}\]
As shown in (16c) and (17c), [John friendly] and [Hanako-o tanomosiku] are equivalent to the clausal complements of believe and omou, respectively. This is because the Projection Principle requires that lexical information of a verb be reflected uniformly at all levels of grammar.

By contrast, as Hoekstra (1992:127) mentions, a ternary structure analysis such as Williams’ (1980), shown schematically as (16e), goes against the Projection Principle. That is, since believe is lexically specified to take a clausal complement, if the ternary structure (16e) were adopted for (16a), the post-verbal NP [Bill] would receive no theta-role, while the theta-role assigned to the clausal complement in (16b) would remain unassigned. The SC analysis, which is binary, enables us to maintain the same argument structure of the matrix verbs between sentences (16a/16b) and (17a/17b), respectively. The SC analysis is also supported by Baker’s (1988) Uniformity of Theta Assignment Hypothesis (UTAH), which requires that [John innocent] in (16a) and [that John is innocent] in (16b) have the same structural relationship with the matrix verb believe, since they are both assigned the same thematic role by that verb. The same can be said for the Japanese counterparts [Hanako-o tanomosiku] in (17a) and [Hanako-ga tanomosii to] in (17b). That is, since omou is the same verb in (17a) and (17b), omou takes a clausal complement in both.

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17 Uniformity of Theta Assignment Hypothesis: Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure. (Baker 1988:46)
4.2.5. Word order

Word order provides another piece of evidence supporting the constituency of the sequence [NP-XP] in the small clause construction [V NP XP]. In terms of basic word order, Dutch is a SOV language and English is a SVO language. Hoekstra (1992) argues that if the postverbal NP were the matrix object, there would be expected to be a difference between English and Dutch in the order of the “object” and the secondary predicate in constructions such as (18):

\[(18)\]
\[
\begin{align*}
\text{a. } & \text{dat wij Jan aardig vonden} \\
& \text{that we John nice found} \\
& \text{‘... that we found John nice’}
\end{align*}
\]
\[
\begin{align*}
\text{b. } & \text{*dat wij aardig Jan vonden} \\
& \text{nice John found}
\end{align*}
\]

That is, if Jan were the object of the matrix verb vonden ‘found’, (18b) with the partial word order \([\text{Jan vonden}]\) should be possible, in fact even more likely than (18a), where \(\text{aardig ‘nice’ intervenes between O and V. However, (18b) is ungrammatical; the only possible word order is } \text{[Jan aardig (vonden)]} \text{ of (18a), just like the underlined segment in the English equivalent } \text{We found John nice. The lack of (18b) order is readily explained by the SC theory, according to which Jan is not the object of vonden but the subject of the SC, and aardig is the SC predicate. The SC’s Subject (Jan/John) precedes its predicate (i.e., the lower predicate aardig/nice) in both Dutch and English, as a subject precedes its verb in both SOV and SVO languages.}

The same applies to Japanese which, like Dutch, is a SOV language:

\[(19)\]
\[
\begin{align*}
\text{a. } & \text{Taro-ga Hanako-o tanomosiku omotta.} \\
& \text{-Nom -Acc reliable thought} \\
& \text{(Lit.) ‘Taro thought Hanako reliable.’}
\end{align*}
\]

---

\(^\text{18}\) See Zwaart (1993: Chapter 4) for the analysis of Dutch as an SVO language.
b. *Taro-ga tanomosiku Hanako-o omotta.
   reliable -Acc thought
   (Intended, Lit.) ‘Taro thought Hanako reliable.’

c. Taro-ga mainiti Hanako-o omotta.
   every day pined for.
   ‘Taro pined for Hanako every day.’

d. Taro-ga Hanako-o mainichi omotta.
   -Acc every day thought
   ‘Taro pined for Hanako every day.’

If Hanako-o in (19a) were the matrix clause object, that is, object of omou, (19b) should be possible, too, as the object typically precedes the verb in Japanese. However, (19b) is ungrammatical with the intended reading corresponding to (19a).19 (19b) could be interpretable if omou is taken as a different verb, a two-place verb meaning “to reminisce” or “to pine for,” which takes an NP, [NP Hanako-o], as its sole object. But even then, the sentence as a whole is quite marginal. (19c) and (19d) are examples of the latter kind of

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19 One may argue that (19b) should be derivable from (19a) by fronting the VP, since tanomosiku can be considered a VP if the adjectival copula -u is V. However, as discussed in 4.3.5, fronting of the SC predicate in Japanese results in unacceptable sentences. Unlike in English, VP-preposing in general is ungrammatical in Japanese unless -sae is attached to the VP, as shown in (ib) as contrasted with (ia):

(i) a. (John promised to read the book and) read the book he did.
   b. *[VP Sono hon-o yomi(i)][IP Taro-ga t-s ta]
      that book-Acc read Taro-Nom Past
      (Intended) ‘Read that book Taro did.’
   c. [XP [VP Sono hon-o yomi] sae][IP Taro-ga t-s si-ta]
      even do-Past
      (Lit.) ‘Even read that book Taro did.’ (He even read the book.)
   d. ??Taro-ga [XP tanomosiku-sae], Hanako-o t-s omotta.

Sentence (ic) shows that [hon-o yomi] can be fronted when the emphatic particle sae is attached to it and a tense-carrying verb suru ‘do’ is “inserted” before the bound perfective morpheme-ta. (Note that (ib) would be ungrammatical even with the insertion of suru to support -ta.) The grammaticality of (ic) appears to contradict the general unavailability of VP-fronting in Japanese. However, it is possible that what is fronted in (ic) is not a VP but some XP headed by sae, assuming that sae projects its own phrasal category XP. Then the difference in grammaticality between (ib) and (ic) follows naturally. On such account, the fronting of VP [tanomosiku-u] with sae attached to the VP, as in (id), should be grammatical. Why, then, is (id) less acceptable than (ic)? The reason may be processing: i.e., the adjacency of the verb omou to Hanako-o in (id) makes omou ambiguous between the verb which takes a clausal complement (the intended reading) and the verb which takes an NP object (meaning ‘pine for’); the latter reading ‘Taro pined for Hanako reliably’ does not make sense in (id), thus the sentence as a whole results in lowered acceptability.
omou, which takes an NP object \(_{np}\) Hanako-o and an optional adverbial modifier mainiti ‘every day’; note that in this case, both word orders are perfectly grammatical, since unlike in (19b), neither involves a predicate fronting. The different word order in (19d) results from the scrambling of the object \(_{np}\) Hanako-o past the adverbial.

In sum, the standard word order as per (19a) as contrasted with the impossible one of (19b) suggests that Hanako-o is not the matrix object. On the other hand, such word order makes sense if Hanako-o were either the SC-subject, followed by the lower predicate tanomosiku, or the object of tanomosiku, as in the canonical Japanese word order of S(O)V. Either way, the above facts are consistent with an analysis in which [NP-o Adjective-u] is a constituent.

### 4.2.6. Interpretation of -sae

As mentioned in Chapter 3, Ogino (1990) proposes that the Japanese emphatic particle -sae ‘even’ attaches only to maximal projections (except tensed IP). Our example for the SC complement construction is repeated here as (20):

(20) John-ga Mary-o utukusiku-sae omotta.
    -Nom -Acc beautiful even thought

(21) a. ‘John (did not only consider Mary to have other qualities but) thought (Mary) to be even beautiful.’
    b. ‘John (did not only consider other things about other people but) even thought that Mary was beautiful.’


Sentence (20) has two possible interpretations, (21a) and (21b), corresponding to the respective structures (21a’) and (21b’). What -sae is attached to is either the adjectival
predicate *utukusiku*, as in (21a/a'), or a larger phrase, as represented in (21b/b'). Ogino proposes that the semantic scope of *sae* is its c-commanding domain, therefore the interpretation (21b) suggests that the focus particle *-sae* 'even' can attach to [Mary-o *utukusiku*] as a whole, as in (21b'), as well as to [*utukusiku*] alone. That is to say, [Mary-o *utukusiku*] is a maximal projection; this in turn suggests that there is a SC constituent in Japanese.

4.2.7. Coordination

Coordination offers straightforward and strong evidence for the constituency of SCs in Japanese. Adj-*u* is, among other things, the coordinate form of the adjective. For instance:

(22) (a) Taro-ga musuko-o tuyoku, takumasiku sodateta.  
-Nom -Acc strong sturdy brought up  
'Taro brought his son up to be strong and sturdy.'

(b) Kawaiku, tiisana hako  
pretty small box  
'A pretty and small box'

---

20 In Ogino (1990:43), *utukusiku* is an AP by itself, unlike in our analysis, in which *-u* is the copular verb.
According to Tokashiki (1989), the infinitive form (*renyookei*) of the verb in Japanese can form a coordination structure (see 3.2.2.4). A VP coordination structure is shown in (23):

\[(23) \quad \text{a. Taroo-ga utai odot ta.} \]
\[\quad \text{-Nom sing dance -Past} \]
\[\quad \text{‘Taro sang and danced.’} \]

\[\quad \begin{array}{c}
\text{NP} \\
\text{Taroo-ga} \\
\text{VP} \\
\text{utai} \\
\text{odot} \\
\text{ta} \\
\end{array}
\]

Extending the above coordination structure to adjectival predicates, (24a) below can be assigned the structure (24b):

\[(24) \quad \text{a. Taroo-ga [Hanako-o tanomosik-u], [Akiko-o itosik-u] omot-ta.} \]
\[\quad \text{-Nom -Acc reliable -Acc beloved think -Past} \]
\[\quad \text{(Lit.) ‘Taro thought Hanako reliable and Akiko, lovable.’} \]

\[
\quad \begin{array}{c}
\text{NP} \\
\text{Taroo-ga} \\
\text{IP} \\
\text{I'} \\
\text{SC} \\
\text{CONJ} \\
\text{omow} \\
\text{Hanako-o tanomosiku} \\
\text{Akiko-o itosiku} \\
\text{V} \\
\text{ta} \\
\end{array}
\]

In general, conjuncts in a coordination structure are constituents of the same type (Radford 1988:90). Due to examples such as [I gave [the book to John] and [the magazine to Jane]] in which non-constituents are linked by *and*, coordination by itself is
not absolute proof for constituency. Nonetheless, the coordination of [Hanako-o tanomosiku] and [Akiko-o itosiku] is compatible with the analysis which treats the conjuncts in such sentences as (24a) as SC constituents.

4.2.8. Proforms soo su and soo da

In this section the proforms soo su ‘do so’ and soo da ‘it’s so’ will be discussed, then soo will be used to identify the constituency and category of the SC-complement.

4.2.8.1. Soo su

To support his hypothesis that the position in which modals like daroo/desyoo are generated is between IP and CP, Koizumi (1991) says that soo is a clausal proform replacing an IP. Consider his examples (25a,b) and (26a,b) (the grammaticality judgments are Koizumi’s):

   -Top English-Nom able probable
   ‘Probably Kiyomi can understand Japanese.’

      -also so probable
      ‘Probably Masami also speaks English.’

I am indebted to Peter Culicover for the English example of coordination of non-constituents. In the standard GB analysis at least, it is not possible to treat [the book to John] as a constituent. However, such [Direct Object + Indirect Object] sequence can be regarded as a constituent if one adopts Larson’s (1988) “VP-shell” analysis, which would assign a dative sentence a structure such as the following:

```
  VP
   \  /  \\
  V'  VP
       \   /
      give DP V'
          \ /  \
         a letter V PP
          \  /  \\
   t_i to Mary
```
(26)  
   a. Kiyomi-wa [IP e [V pizza-o taberu]] daroo.
      -Top pizza-Acc eat probable
         ‘Probably Kiyomi will eat pizza.’
      -also so probable
         ‘Probably Masami will also eat pizza.’

Koizumi supports the analysis of *soo* as pro-IP with the claim that the NP followed by the emphatic particle *-mo* in (25b) and (26b) is not a subject but a topic, focus, or major subject, generated outside the IP, like the NP-*wa* in (25a) and (26a). His analysis of NP-*mo* as a non-argument is in turn based on the observation that NP-*mo* fails to be the antecedent of the Subject-oriented secondary Depictive Predicate (SDP) [hadaka-de] ‘naked,’ as shown in (27b):

(27)  
   a. Kiyomi-wa hadaka-de pizza-o taberu desyoo.
      -Top naked pizza-Acc eat probable
         ‘Probably, Kiyomi will eat pizza naked.’
   b. *Masami-mo hadaka-de soo’o desyoo.
      -also naked soo so probable
         ‘Probably, Masami will also eat pizza naked.’

   (Koizumi’s (22b); the accent diacritics have been added.)

There are two problems with this analysis. First, what Koizumi treats as one and the same proform “*soo*” is actually two different forms. We propose that there are two kinds of proform *soo*, with two distinct accents and distributions: *sóo* (with Hi-Lo accent) and *soó* (with Lo-Hi accent). Secondly, Koizumi attributes the ungrammaticality of sentence (27b) to the non-subject status of NP-*mo*. However, this line of argument is untenable because the unacceptability of (27b) is not due to the inability of NP-*mo* to

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22 The historical derivations of *soo* (*sóo* and *soó*) are not clear to me. Both are likely to be related to CJ *sau* ‘that way, in that way’.

ModJ *sóo* < CJ *sau* < CJ *saku*: adverbial, ‘in that way/manner’ (= ModJ *sono yoo ni*)

ModJ *soó* < CJ *sayau* or *sau* < *saku*: nominal, ‘that way/manner’ (= ModJ *sono yoo*)

Charles Quinn (p.c.) suggests that *sóo* < *sau* picked up its own accent as it was reanalyzed as an N, because of predication with the copula as in *sóo da* ‘is so’.

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antecede the SDP, but rather, to the fact that sōo da ‘is so’ is not the appropriate proform for a non-stative predicate like [piza-o taberu] ‘eat pizza’ of (27a). In fact, counter to Koizumi’s judgment, (26b) above is equally unacceptable as a follow-up to (26a). Compare (28a) with (28b):

(28) a. Hanako-wa daigakuinsei da.
   -Top graduate student Cop
   ‘Hanako is a graduate student.’
Taro-mo sōo da.
   -also so Cop
   ‘Taro is a graduate student, too.’

b. Kiyomi-wa piza-o taberu daroo.
   -Top pizza-Acc eat probable
   ‘Probably Kiyomi will eat pizza.’
Masami-mo soō suru daroo.
   -also so do probable
   ‘Probably Masami will also eat pizza.’

In (28a), sōo da is used as the proform of a stative predicate (noun plus copula -da). In (28b), soō su is the appropriate proform for the nonstative predicate ‘eat pizza’.

Unlike (26b), (28b) is acceptable because it uses the correct proform soō suru to substitute for the nonstative predicate taberu ‘eat’. Similarly, sentence (27b) becomes acceptable if only sōo da is replaced by soō su ‘do so’. This is shown in (29b). (29b) also shows that NP-mo in (27b) is perfectly appropriate as the antecedent of the SDP:

(29) a. Kiyomi-wa hadaka-de piza-o taberu desyoo.
   -Top naked pizza-Acc eat probable
   ‘Kiyomi will probably eat pizza naked.’

23 In this section we use the term “stative verbs” in the semantic sense, as follows. Stative predicates in Japanese comprise verbs, adjectival predicates, and noun-copula combinations including adjectival nominals, which share the semantic properties of describing states rather than actions (Kuno 1973: Ch. 10), and of being non-intentional (or having no agent control), so that they describe conditions which are apart from human decision (Jorden and Noda 1987:115). A semantically homogenous group of stative predicates may share certain syntactic properties, such as substitution by certain preforms discussed here. Other characteristics shared by such predicates include the following: (i) they do not allow for the progressive reading of the -te-iru form; (ii) they do not cooccur with aspectual endings denoting temporal endpoint, such as -owaru and -oeru ‘finish -ing’; (iii) some can take -o marked objects. Such semantic/syntactic correlations cannot be easily generalized. Stative predicates and Case assignment within the SC will be discussed in section 4.3. below.
b. Masami-mo hadaka-de soo suru desyoo.
   also naked so do probable
   'Masami also will probably do so naked.'

In other words, as SDP's never occur with stative predicates, SDP's cannot be used to test the subjecthood of NP-mo in sentences with stative predicates. For nonstative predicates such as (29a), the grammaticality of (29b) shows that NP-mo is actually a subject since only a subject can be the antecedent of a SDP. This undermines Koizumi's argument that soo (at least soo in soo da) is a pro-IP because, as stated above, his analysis of soo as IP hinges on the claim that NP-mo is not a subject (i.e., it is not an IP specifier), but is above the subject position.

Having established that soo is not a pro-IP, what is soo su in (29b)? It is likely to be a pro-VP and pro-V', similar to the English proform "do so." Sentences such as the following lend further support for this analysis:

(30) Taro-ga [vp [v. Mari-to [v. doobutuen-ni itta]].
     -Nom -with zoo -to went
     'Taro went to the zoo with Mari.'

(31) a. Jiro-mo [vp soo si]-ta.
     'Jiro also did so' meaning 'Jiro also went to the zoo with Mari.'

     b. Jiro-mo [vp [v. Hanako-to [v. soo si-ta]].
        -also -with so do-Past
        'Jiro also did so with Hanako.' meaning 'Jiro also went to the zoo with Hanako.'

Sentence (30) contains the PP [Mari-to] 'with Mari', which is a V'-adjunct. (31a) shows that soo su can substitute for a whole VP. (31b) shows that it can also replace a V'. In the next section we determine what categories soo and soo are.
4.2.8.2. Sóo (da) vs. soó (suru)

For our purpose of determining the constituency and category of Small Clauses, we also need to see what kind of constituent the stative predicate-proform sóo (da) replaces. First let us compare the two proforms. Suppose (32b) and (32c) are each uttered in response to (32a):

(32)  a. Watasi-wa Jiro-wa daigakuinsei da to omou.
    'I Top -Top graduate student Cop Comp think
    'I think that Jiro is a graduate student.'

   b. Watasi mo sóo da to omou.
    'I also so Cop Comp think
    'I think so too.' = 'I also think that Jiro is a graduate student.'

   c. Watasi mo soó (*to) omou.
    'I think so too.' = 'I also think that Jiro is a graduate student.'

In the grammatical (32b), sóo da replaces the clause [Jiro-wa daigakuinsei da]. (32c) shows that soó-to omou with quotative -to is unacceptable. This indicates that the range substituted by sóó includes the particle -to (i.e., Jiro-wa daigakuinsei da to). Thus, if we assume that -to is a complementizer, sóó must be a pro-CP.24 (32c) with -to is unacceptable because there would be a complementizer outside a CP. Further, from sentences like (31b), sóó su (i.e., sóó followed by the verb su ‘do’) can be considered a pro-VP or pro-V'.25 In sum, sóó is a CP and sóó su a VP/V’ in non-stative predicates.

What is sóo, then? In the following examples, the utterance (33d) is to follow (33a), (33b), or (33c):

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24 The so-called quotative -to marks either a direct quote or a subordinate clause. We will adopt the view that -to is a Complementizer (e.g., Inoue 1976:254, Tateishi 1994, fn.20; Tsujimura 1997:172). See Fukui (1986:225-228) for a different position. Fukui proposes that -to is a postposition, i.e., a lexical rather than a functional category.

25 See Tateishi (1994:43-60) for a detailed argument in favor of the analysis of sóo suru as a pro-VP.
(33)  

**a.** Watasi wa Taro ga gakusei da/ sekkyokuteki da to omou.  
I-Top Taro-Nom student Cop/positive Cop Comp think  
‘I think he is a student/ has a positive attitude.’

**b.** Watasi-wa Taro-ga isogasi-i to omou.  
I-Top Taro-Nom busy -Cop Comp think  
‘I think he is busy.’

**c.** Watasi-wa Taro-ga nihongo-ga wakaru to omou.  
Japanese-Nom understand Comp think  
‘I think he understands Japanese.’

**d.** [e] Hanako mo sóo da to omou.  
Hanako also so Cop Comp think  
‘(I) think Hanako (is a student/ is busy/ understands Japanese), too.’

**e.** *[e] Hanako mo sóo suru to omou.  
so do Cop think  
‘(I) think Hanako does so too.’

**f.** *[e] Hanako mo sóo to omou.  
so Cop think

(33d) shows that sóo da (i.e., sóo plus copula da) is a proform for nominal (or adjectival nominal) + da (33a), an adjectival predicate (33b), or a stative predicate (33c). (33e) shows that stative predicates cannot be replaced by sóo suru ‘do so’. The ungrammaticality of (33f) as opposed to (33d) suggests that sóo does not cover the copula da. In sum, sóo is a pro-NP/AP, and with da, sóo da is a pro-VP for stative predicates:

(34)

```
NP/VP  V (copula)
   /_
  sóo 'that way'  da 'is'
```

Now we can use the proforms sóo and sóo to determine what kind of clause a typical SC in Japanese is. Each of the sentences (35b-e) is to follow (35a):

(35)  

**a.** Taro-wa [Hanako-o tanomosik-u] omotta.  
-Lit. ‘Taro thought Hanako reliable.’
b. Jiro-m o [soô] omotta.
   -also so think-Past
   ‘Jiro too thought so.’ (Jiro, too, thought Hanako reliable.)

c. Jiro-m o [sóo da to] omotta.
   -also so Cop Comp think-Past
   ‘Jiro too thought it is so.’ (Jiro, too, thought Hanako reliable.)

d. ?*Jiro-m o Mariko-o sóo omotta.
   -also -Acc so think-Past
   (Intended) ‘Jiro too thought of Hanako in that way.’

e. ?*Jiro-m o Mariko-o sóo da to omotta.
   -also -Acc so Cop Comp think-Past
   (Intended) ‘Jiro too thought of Hanako in that way.’

As stated in reference to (32c), sóo is a pro-CP. Based on (34) it was also proposed that sóo da is a pro-stative VP; thus, with the addition of to, [sóo da to] also substitutes a whole CP. From this and the range of substitution shown in (35b) and (35c), we can conclude that [Hanako-o tanomosik u] in (35a) is a CP.

(35d) and (35e) require additional discussion. Although both are unacceptable for me in the intended readings, there are some native speakers who consider them acceptable in such reading. Their grammar must be accounted for, too. If (35d) and (35e) are acceptable as sentences containing anaphoric reference to parts of (35a), sóo in (35d) and sóo da to in (35e) correspond to [tanomosik u]. Since we have established above that both sóo and sóo da to are pro-CP, we must consider whether the analysis needs to be revised to the effect that [tanomosik u] is itself a CP within a higher CP (= SC).

Tateishi’s (1994) analysis of VP substitution by soo suru inspires a plausible account which renders such revision unnecessary. According to Tateishi (1994: 59), (36a) and (36b) have the structures (36c) and (36d), respectively. Assume that (36b) follows (36a):
In explaining Hinds’ (1973a, b) and Inoue’s (1976) examples showing that soó su apparently can cover a sequence smaller than VP (see (36a) vs. (36b)), Tateishi suggests that such cases involve a string-vacuous scrambling of the matrix object NP out of the VP and a subsequent sloppy interpretation (Williams 1977, 80) of the variable left behind by the scrambled NP, as shown schematically in (36d). The term “variable” as used here refers to the trace left by and bound by the scrambled NP (i.e., Hanako in (36c), Akiko in (36d), and Mariko in (37b) and (37c) below). Thus the interpretation of soó ‘thus’ varies depending on the sentence it occurs in. Since in (36d) soó su covers the whole VP, a VP which includes a variable x interpreted as Akiko, (36b) does not constitute a counterexample to the pro-VP analysis of soó su.

Although Tateishi’s view that soó su is only a pro-VP is different from our analysis that it is both a pro-VP and a pro-V’, the sloppy interpretation approach can be applied to the problem at hand. It is possible that the speakers who accept (35d) and (35e) above consider [Mariko-o] as the matrix object, and the portion covered by soó or sóo da to in these sentences is the VP which includes a trace coreferent with the scrambled NP, [Hanako-o]. (37) schematically shows this way of parsing:
Parsing as described above is possible only when the speaker reanalyzes the whole sentence as a Subject-Object-Complex Predicate construction. As mentioned in Chapter 2 and as will be discussed in 5.2.1 below, the complex predicate analysis is not generalizable to all cases of the construction in question.

In the grammar of those who judge (35b) and (35c) to be acceptable but find (35d) and (35e) unacceptable (including myself), the -o marked NP is not analyzed as the matrix object but as a constituent of the SC, the SC being the clausal object of the matrix verb omou (see section 5.2 for the structure of SC).

In this subsection we first determined the ranges covered by the proforms sóo (pro-NP/AP), sóo da (pro-VP, stative), só (pro-CP), só su (pro-VP/V′, non-stative), then used them to determine the clausehood of the typical SC construction [[NP-o Adj-u] (omou)]. Assuming that quotative -to is a Complementizer, various pieces of evidence as a whole suggest that the Japanese SC [NP-o Adj-u] occurring as the complement of the epistemic verb omou ‘think’ is a constituent, and that it is a clause; specifically, a CP.
4.3. Clausehood and Case assignment in the Japanese SC structure

In this section we present an analysis of the Japanese SC which is compatible with the observations made in the previous sections. Let us turn to Case assignment in the [[NP-o Adj-u] omou] SC constructions, focusing on the Accusative Case to the -o marked NP in the SC. We assume that the so-called Case Markers (or Particles) -o (Accusative) and -ga (Nominative) are morphological reflections of structural Case assigned to NPs in particular positions of a sentence. Nominative Case is assigned by tensed Inflection to the NP in [Spec, IP], and Accusative Case is typically assigned by a transitive verb to the NP it governs (e.g., Chomsky 1981, Takezawa 1987). An appropriate analysis should account for the difference in grammaticality among the following sentences:

(38) a. Taro-ga [Hanako-o natukasiku] omotta.
   -Nom  -Acc dear          think-Past
   (Lit.) 'Taro remembered Hanako with fondness.'

   beautiful think-Past
   (Intended) 'Taro thought Hanako beautiful.'

c. *Taro-ga sono singoo-no iro-o aoku omotta.
   that traffic light-Gen color-Acc blue think-Past
   (Intended) 'Taro thought that traffic light blue.'

d. Taro-ga sono singoo-no iro-o aoku kanzita.
   that traffic light-Gen color-Acc blue feel-Past
   (Lit.) 'Taro felt that traffic light blue.'

Sentences (38a), (38b), and (38c) share the same structure and the same matrix verb, while they differ in the type of adjective heading the SC predicate. Among the three, the only acceptable sentence is (38a), with the adjective natukasiku. By contrast, in the unacceptable examples (38b) and (38c), the adjectives are utukusiku ‘beautiful’ and aoku ‘blue’, respectively. On the other hand, the acceptable (38d) is identical to (38c) except
that the matrix verb is *kanziru* ‘feel, perceive’ instead of *omou* ‘think’. To account for such contrasts, we will consider three possible ways in which Accusative Case may be assigned to NP-ō in the SC complement clause:

(i) Case assignment by the complex predicate
(ii) Exceptional Case Marking (ECM)
(iii) Case assignment by the SC predicate

The complex predicate analysis will be discussed and then dropped for lack of strong support. ECM, the mechanism widely accepted in generative linguistics for infinitival complement structures, will be considered next. In particular, we will consider whether ECM alone can explain the data. The restriction on the adjectives which may occur in the [NP-ō Adj-u V] construction, first described in Chapter 3, motivates the third approach, i.e., Case assignment by the adjective in the SC predicate. We will conclude that a combination of (ii) and (iii) best explains the issue at hand.

4.3.1. Complex predicate

In 4.2.8. above, it was stated that some speakers may process the sentences with proforms *soo/sooda* as if they contained complex predicates made of the SC predicate and the matrix verb. However, as indicated in Chapter 2, the complex predicate analysis is not applicable to SC complement structures where the adjectival predicate is modified by an adjunct phrase. Compare (39a) with (39b):

---

36 Sentence (38d) is felt to be unnatural by some speakers, but such variation in the data does not undermine the basic difference between *kanziru* and *omou* proposed above, since the acceptability of (38d) improves with proper context, whereas (38b) and (38c) do not. For instance:

(i) Kono singoo no susume no iro wa midori desyoo ka, ao desyoo ka?
this traffic signal GO color Top green is-Q blue is-Q
‘Is the color of the “GO” sign of this traffic signal green or blue?’

Soodesu nee, watasi wa sono iro o aoku kanzimasu kedo.
well I-Top that color-Acc blue feel but
(Lit.) ‘Well, I feel that color blue. (i.e., I perceive that color as “blue”.)’
(39) a. Taro-wa Hanako-o [[natukasik-u] omou].
   -Top -Acc dear think
   'Taro remembers Hanako with fondness.'
   ((Lit.) Taro thinks (of) Hanako (as) dear'.)

   now go-see-want degree
   'Taro remembers Hanako with so much fondness that he'd like to go see her right now.'

(39a')

(39b')
If Stowell's (1991) analysis of LF restructuring with incorporation were adopted, the adjectival head would consecutively adjoin to the lower V, I, C, then ultimately to the matrix V, to form a complex verb, as shown in (39a'). This is possible for simple sentences like (39a), but not for (39b), because it would involve adjoining a whole A' to the higher heads, as shown in (39b'). Such an operation is disallowed in the P&P framework, as adjunction is limited to X\textsuperscript{max} (maximal projections) either as the moved element or the target to which the element is adjoined to (Chomsky 1986b:88).\textsuperscript{27}

Thus, we conclude that complex predicate is not a plausible analysis for the construction considered here, although processing sometimes may involve such a reanalysis.\textsuperscript{28}

\textsuperscript{27} Moreover, incorporation (Baker 1988) is an operation limited to heads. We take the position that base-generated adjuncts, as opposed to movement-generated adjuncts, can be X' adjuncts (as well as X\textsuperscript{0} and XP adjuncts) (Radford 1988:255). The attribute phrase [ima ai-ni-iki-tai hodo] 'so much that (he) would like to go see her now' (39b') is an A'-adjunct, since multiple attributes can pre-modify the adjective. For instance, [...] ima ai-ni-iki-tai hodo, yoki sita izyooni, natukasiku [...] '... (missed her) so much that (he) would like to go see her right now, more than he had expected'.

\textsuperscript{28} Mineharu Nakayama (p.c.) pointed out that there is some evidence that restructuring with an effect equivalent to a kind of complex predicate interpretation is a possibility. For instance, in the [NP-sika...V-nai] 'V only NP' construction, the NP-sika 'only NP' must occur in the same clause as V-nai 'not V' (Miyagawa 1986). This requirement can be applied to the SC-complement structure as a diagnostic for determining whether a clause is simplex or complex:

(i) a. Taro-o-wa Hanako-sika natukasik-u omowa-nai
    Taro-Top Hanako-only dear think-Neg
    'Taro only thinks back at Hanako with nostalgia.' (where only modifies Hanako)

The grammaticality of sentence (ia) and the availability of the intended reading suggests that [Hanako-o] and [omou] are clause-mates at the level which is relevant for the interpretation of -sika...nai, probably LF. Also note that the reflexive zibun 'self' is often used for testing clausality. However, if controlled PRO structure is adopted, as we do in this dissertation, zibun is not a viable diagnostic, because zibun would be in the same clause as PRO, which is obligatorily coreferent with its antecedent in the higher clause.

Also see Beukema and Hoekstra (1984) for a discussion of certain with-absolutive sentences in which processing may cause speakers to forego the SC constituency in favor of a different parsing.
4.3.2. Exceptional Case Marking (ECM)

The English sentence (40a) is an instance of a construction in which verbs such as believe and consider take to-infinitive complements:

(40) a. We believe him to be innocent.
    b. We believe that he is innocent.
    c. 

\[
\begin{array}{c}
\text{V'} \\
\text{V} \\
\text{IP} \\
\text{believe} \\
\text{him to be innocent}
\end{array}
\]

The matrix verb believe in (40a) does not theta-mark him. In other words, semantically, it is not “him” we believe but rather, the fact that he is innocent. Since believe also takes tensed clausal complements such as in (40b), it has been proposed that by analogy (i.e., thematic constancy, see Section 4.2.4 above) [him to be innocent] is a clausal complement of this verb, too, as shown in (40c). Reflexivisation also supports the claim that such infinitival complements are clauses (Radford 1988):

(41) a. *We believe [IP, him to be proud of ourselves].
    b. We believe [IP, him, to be proud of himself].

(Adapted from Radford 1988:325)

The reflexive ourselves cannot occur within the bracketed string in (41a), whereas himself in (41b) can. This contrast is readily explained if we analyze [him to be proud of ourselves/himself] as a clause, assuming that reflexivization observes a clause-mate condition: (41a) is ungrammatical because the reflexive ourselves has no clause-mate antecedent, while (41b) is grammatical since the antecedent of himself, i.e., him, is inside the subordinate IP.

The NP him in (41a) and (41b) is thus analyzed as the subject of the bracketed clause (IP) rather than the object of the matrix verb. The subject NP fails to acquire
Nominative Case because be is nonfinite thus the Inflection associated with the verb is unable to assign Case. The Accusative Case morphology of him suggests that there is Case assignment by the matrix verb across the clausal boundary. Verbs such as English believe, which take infinitival complements with Accusative Case-marked subjects, are called Exceptional Case Marking (ECM) verbs; in such constructions the matrix verb governs into the IP, without its assigning a theta-role to the Case assignee.

The [NP-o Adj-u V] construction in Japanese, at first sight, seems to warrant the same kind of account. Here are Takezawa's (1999: Ch. 4) examples:

(42) a. Taro-wa [Hanako-no daigaku gookaku ga/o totemo uresii / urayamasi to] omotteiru (rasii).
   -Top -Gen college admission Nom/Acc very happy
   enviable Comp thinking (seems).
   (Lit.) 'It seems that Taro thinks that Hanako's admission to college is very gratifying/ enviable.'

   b. Taro-wa [Hanako-no daigaku gookaku *ga/o totemo uresiku / urayamasiku] omotteiru (rasii).
   (Lit.) 'It seems that Taro thinks Hanako's admission to college very gratifying/ enviable.'

Sentence (42a) shows that when the subordinate predicate is finite (uresii), its subject can be marked by either Nominative -ga or Accusative -o. By contrast, in (42b), which has a untensed predicate (uresiku), the lower subject can only be marked by the Accusative -o.

Takezawa uses ECM to account for the Accusative Case marking on the SC subject [Hanako no daigaku gookaku] 'Hanako’s admission into college' in (42b). He explains that in (42b), the non-tensed Inflectional element -u of the lower adjectival predicate has some lexical property which makes the containing IP boundary transparent for Case assignment. The SC node is assumed to be an IP. As with the English
infinitival complement, the subject of the complement clause is assigned exceptional Accusative Case from the matrix verb.²⁹

Although the examples given by Takezawa are compatible with the ECM account, ECM does not tell why we have the contrasts shown in (38a-d) above. If ECM were the only necessary explanation for Case assignment in the construction [NP-o Adj-u omou], any adjective should be able to occur in the lower clause predicate as long as it is untensed. However, as described in Chapter 3 and illustrated in (38) above, not all adjectival predicates can occur in the [NP-o Adj-u omou] construction. Thus, ECM alone cannot account for the Case assignment facts of these sentences. In the next section, we propose an alternative source of the Accusative Case assigned to the -o marked NP.

4.3.3. Case Assignment by the Adjective

We propose that in Japanese, an adjective of Group A — an adjective which denotes a feeling or emotion experienced by the matrix NP, which can take a -ga marked NP as its object in a matrix — has the ability to assign Accusative Case to its object. That is, Group A adjectives are transitive in the sense that they are two-place predicates, and that they assign Accusative Case to the object NP.

Such a statement may appear to go against the standard Case theory in the GB framework, according to which assigners of Accusative Case are categories with the grammatical feature [-N], that is, verb [+V, -N] and preposition [-V, -N]. Chomsky

²⁹ The ga/o alternation in (42a) requires further explanation. According to Takezawa (1999), when an Accusative -o marked lower "Subject" NP co-occurs with a tensed embedded predicate (uresii/urayamasii) the sentence is assigned the structure (ia). Here, NP-o is analyzed as an element in the specifier position of clausal category α, α being a Case-transparent clause similar to tenseless IP; this NP is assigned Accusative Case from the matrix verb. The claim that (ia) contains a null pronominal subject, pro, is based on instances such as (ib), where the innermost clause has an overt -ga marked subject:

(i) a. Taro-wa [aHanako -no daigaku gookaku-o [cp pro totemo uresii/urayamasii to] omotteiru.  
  b. Taro-wa [aHanako-o [cp seikaku-ga warui to]] omotteiru (rasii).
(1981:49-50) states that this is true for English, at least, although in other languages, categories other than [-N] may be Case assigners. Following Chomsky, we assume that languages may differ as to which categories are associated with Case marking ability. Specifically, I assume that in Japanese, unlike in English, it is categories with the feature [+V], that is, V [+V, -N] and A [+V, +N] that are potential assigners of Accusative Case. Not all adjectives assign Case. Only adjectives which have the lexical property of being transitive assign Case, while others do not. This subclassification of adjectives is parallel to the transitive/intransitive distinction which exists among verbs and prepositions of English, as well as verbs of Japanese.

The -o marked NP in the [NP-ga [NP-o Adj-u omou]] sentence is best analyzed as the object of the adjective, rather than the subject of the Small Clause. Intuitively, a sentence with a Group A adjective involves two arguments: one, referring to the person who has the feeling described by the adjective, and two, the one to whom this feeling is directed to, corresponding to the external and internal arguments respectively. In the

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<tr>
<th></th>
<th>feature V (predicate)</th>
<th>feature N (substantive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>V</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>N</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

30 Under the feature system (Chomsky 1981:48), each of the four major categories, i.e., A(djective, V(erb), N(oun), and P(reposition), is considered to be a matrix of binary grammatical features, [±V] and [±N], as follows:

31 Following Cowper (1992), I refer to words like on and down in "He turned the lamp on" and "She put the book down" as intransitive prepositions. According to Cowper, these prepositions (traditionally called "particles") have transitive uses too, as in "He turned the lamp on its side" and "She put the book down the garbage disposal." Away can only be intransitive (e.g., He threw the book away (*the window)), while into can only be transitive (e.g., She ran into *(the house)). English also has complement-taking (i.e., "transitive") adjectives (Chomsky 1981:49). For example, in "We are proud of John" the adjective proud takes John as its object. The difference between English and Japanese transitive adjectives is that the former are not Case assigners, thus they need prepositions to assign Case to an NP object (e.g., *We are proud John). When the complement of an English transitive adjective is a clause, no preposition is required since clauses do not need Case (e.g., We are proud [that John came forward as a witness].)
[NP-ga [NP-o Adj-u omou]] sentence, the external argument of the adjective corresponds to the matrix subject NP and the internal argument of the adjective, to the -o marked NP, respectively. A tentative structure may look like (43), where e stands for some empty category:

(43) Taro-ga [CP [IP e, Hanako-o natukasik-u]] omou.

In the previous section we have established that [Hanako-o natukasik-u] is a CP. Since the adjective natukasik assigns a thematic role to its external argument, and the external theta role is usually assigned to [Spec, IP], we assume there is an empty NP in [Spec, IP] which is coreferent with the matrix subject. This Infl is tenseless thus cannot assign Case to [Spec, IP], and the matrix verb omou cannot assign Case across CP. In other words, the position where [e] occurs is ungoverned. Thus, by definition, [e] must be an entity not requiring Case, i.e., a PRO (null anaphoric pronoun).

We propose that a typical SC complement structure with omou as the matrix verb, such as (44), has the structure (45):

(44) Taro-ga [Hanako-o natukasik-u] omou.

 "Taro remembers Hanako with fondness."
In (45), the matrix subject controls a null subject PRO in the IP within the complement CP. We will argue in the next section that such a structure and case-assigning mechanism are not only possible, but necessary in order to account for the range of related structures presented in (38) above.

When there is an optional attribute phrase, there are two possible word orders, shown in (46a) and (46b), with their respective partial structures (47a) and (47b):

(46)  a. Taro-ga [zibun-no kazoku yori] [Hanako-o natukasik-u] omou
     -Nom self’s family than -Acc dear Cop think

     b. Taro-ga [Hanako-o] [[zibun no kazoku yori] [t natukasik-u]] omou.
     -Nom -Acc self’s family than dear Cop think

'Taro thinks back to Hanako with fondness even more strongly than (what he feels for) his own family.'
(47) a.

```
(PP) A'  
       /  
      /   
AP    V
       /  
A'    -u
       /  
A    
      /  
NP    A
     /  
   /  
 zibun-no  
  /  
  
Hanako-o natukasik
```

b.

```
(PP) A'  
       /  
      /   
AP    V
       /  
A'    -u
       /  
A    
      /  
NP    A
     /  
   /  
 zibun no  
  /  
  
Hanako-o natukasik
```

(46a/b) shows the basic word order. In (47a/b) the object NP of the adjective has scrambled to adjoin to VP.\(^\text{32}\)

4.3.4. Accounting for the Data: ECM + Transitive Adjective

The ECM account wrongly predicts that the sentences (38a)-(38c), repeated here, are all grammatical.

\(^{32}\) The landing site of the scrambled NP-o could be either the VP adjunct position or the AP adjunct position. The choice is not critical in the present discussion.
(38)  

   -Nom -Acc dear think-Past
   (Lit.) ‘Taro remembered Hanako with fondness.’

   beautiful think-Past
   (Intended) ‘Taro thought Hanako beautiful.’

c. *Taro-ga sono singoo-no iro-o aoku omotta.
   that traffic light-Gen color-Acc blue think-Past
   (Intended) ‘Taro thought that traffic light blue.’

d. Taro-ga sono singoo-no iro-o aoku kanzita.
   that traffic light-Gen color-Acc blue feel-Past
   (Lit.) ‘Taro felt that traffic light blue.’

Among the first three sentences, only (38a) is fully acceptable. The transitive adjective account correctly predicts that only the natukasik-type adjectives are grammatical, i.e., both (38b) and (38c) are unacceptable.\(^{33}\) On the other hand, we cannot totally dismiss ECM because of sentences like (38d), with the matrix verb kanziru: (38d) is grammatical in spite of the fact that its adjective (e.g., aok ‘blue’) is not transitive. Thus the kanziru sentences justify and need the ECM mechanism. This leads to the conclusion that a combination of the two Case-assigning mechanisms is needed to account for the range of data we have set out to explain.

This is how the two mechanisms work: suppose that, basically, omou selects a CP complement while kanziru selects an IP complement. The category of the SC

\(^{33}\) Ten native speakers were consulted to complement the author’s own grammaticality judgment. All agreed on the acceptability of (38a) and the unacceptability of (38c). Half of the speakers responded that (38b) is clearly unacceptable, while the others thought it was worse than (38a) but possible. The reason for this variation may be that the lexical information of the verb omou differs among speakers. For the speakers who consider (38b) acceptable even marginally, the matrix verb omou apparently has the same lexical syntactic information as the verb kanziru; i.e., just as kanziru, omou may select an IP and assign Accusative Case across IP to Hanako, making “NP-o utukusiku omou” in (38b) grammatical despite the fact that utukasik is not a Case-assigning adjective. The much lower acceptability of (38c) compared to (38b), even for those who accept (38b) to a certain degree, is probably due to poorer semantic/pragmatic match with the matrix verb: omou typically takes as complement a proposition which represents cognition, while kanziru selects perception (tactile feeling, vision, etc.).
complement is CP or IP, respectively. The two core cases (38a) and (38d) are repeated here:

(38)  a. Taro-ga [\text{sc-\textup{cp}} Hanako-o natukasiku] omotta.
     \text{-nom} \text{-acc} dear thought
     (Lit.) 'Taro remembered Hanako with fondness.'

     d. Taro-ga [\text{sc-\textup{ip}} sono singoo-no iro-o aoku] kanzita.
        that traffic light-gen color-acc blue
        (Lit.) 'Taro felt that traffic light blue.'

When \textit{omou} takes a SC complement clause with a theta assigning adjective like \textit{natukasii}, as in (45a) (= (38a)), it is a control structure in which the matrix subject controls a coindexed PRO in the SC (see (45b)). Being dominated by CP, PRO is successfully protected from being governed by an outside governor (the matrix verb). The NP preceding the adjective is generated as a complement of that adjective; it acquires Accusative Case from the adjective, as reflected in the morphology as Case particle \textit{-a}. In a sentence like (39b) above, the \textit{-a} marked NP has scrambled to a phrasal adjunct position (VP or AP adjunct), past the modifying phrase.

The ECM and transitive adjective together also account for the unacceptability of (38b) and (38c). The adjectives \textit{utukusik} 'beautiful' and \textit{aok} 'blue' are not Case assigners, and since the SC is a CP selected by \textit{omou}, there is no ECM either. Thus nothing assigns Case to the NPs [Hanako] in (38b) and [sono singoo-no iro] in (38c), making the sentences ungrammatical.

As for (38d), when \textit{kanziru} takes a SC complement clause, the clause is an IP. The IP boundary is appropriately transparent for government by the matrix verb -- a typical ECM configuration. Here the \textit{-o} marked NP is assigned Accusative Case by the matrix verb \textit{kanziru}; the adjective \textit{aok} is a one-place predicate, which does not assign Case.

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The ECM configuration with a SC complement is illustrated below as (48b):\(^{34}\)

(48)

a. Taro-ga Hanako-o utukusik-u kanzi-ta.
   -Nom -Acc beautiful Cop feel-Past
   (Lit.) 'Taro felt Hanako beautiful.'

b.

\[
\text{IP} \\
\text{NP} \\
\text{Taro-ga} \\
\text{IP (=SC) V} \\
\text{NP I' kanzir} \\
\text{Hanako-o VP I [-tms]} \\
\text{V'} \\
\text{AP V} \\
\text{A' -u} \\
\text{A utukusik}
\]

\(^{34}\) When there is an optional attribute of the adjective, as in (ia), the structure is as shown in (ib):

(i) a. Taro-wa Hanako-o [kyonen syookai sareta hito yori] utukusik-u kanzi-ta.
   -Top -Acc last year introduced person than beautiful feel-Past
   (Lit.) 'Taro felt Hanako more beautiful than the person to whom he was introduced last year.'

b.

\[
\text{VP} \\
\text{V'} \\
\text{AP V} \\
\text{A' -u} \\
\text{PP} \\
\text{kyonen... hito yori} \\
\text{A utukusik}
\]
There is a piece of empirical evidence for the structure proposed above, in particular, for the claim that in [NP-ga [NP-o Adj-u] kanziru], the Accusative -o marked NP is the subject of the SC rather than the object of the matrix clause verb. The honorific prefix o- attached to the adjective (A) or adjectival nominal (AN) usually refers to the subject of that A or AN:

(49)  a. Masako-sama-ga Beethoven-ga o-suki da.
     Masako-Lady -Nom Nom Hon-like cop.
     'Princess Masako likes Beethoven.'

     Everyone-Nom Masako-Lady-Acc Hon-beautiful feel-Past
     'Everyone felt that Princess Masako is beautiful.'

In (49a), o-suki refers to the subject of the sentence, not the -ga marked object, although both are marked with the Nominative particle. In (49b), o-utukusiku refers to NP-o, although that NP is marked with Accusative -o. So, [Masako-sama-o] must be the subject of the bracketed clause (the SC), not the object of the matrix.

---

Another piece of evidence supporting the ECM analysis of the SC is provided by Takezawa's (1999: Ch. 5) proposal regarding the Exceptional Case Marking of Nominative Case to the subject of a tenseless clause. This account concerns the -ga marking of the NP in the subordinate clause in sentences with stative main verbs such as omoeru 'seem/can consider', mieru 'look (like)', and kikoeru '(can) hear', as shown in (ia):

(i)  a. Taro ni wa [vp Hanako-ga utukusiku] omoe -ta.
     -Top -Nom beautiful seem -Past
     'To Taro Hanako seemed beautiful.'

     b. cf. *Taro-wa Hanako-ga utsukushiku omotta.

Takezawa argues that in (ia) Hanako is assigned Nominative Case by the matrix tensed Inflection -ta, across two transparent boundaries, i.e., the stative verb phrase boundary and the IP boundary. Since the lower predicate utukusiku is untensed, the only way in which Hanako could be assigned Nominative Case is by the tensed Infl of the matrix clause, assuming that Nominative Case must be assigned under government by a tensed Infl. By contrast, example (ib) shows that a non-stative verb omou disallows assignment of Nominative Case to Hanako. This provides support to our analysis that the sequence [Hanako-o utukusiku] in [Hanako-o utukusiku omou] is an IP, just like [Hanako-ga utukusiku] in (ia); and that the -o marking within the SC is enabled by ECM, just like the -ga marking in (ia). This was pointed out by Peter Culicover (p.c.).
There is also a semantic argument against the probability that the -o marked NP is the object of the matrix verb in (49b). When *kanjiru* takes a direct object, as in "Sono hito-no sonzai-o kanjiru" 'To feel the existence of that person,' *kanjiru* means 'to (emotionally or perceptively) feel the existence of some entity.' In (49b), *kanjita* lacks such meaning. The verb *kanjita* in (49b) clearly takes a clausal complement, i.e., the proposition that 'Masako is beautiful'.

Now let us look again at some other sentences with the verb *kanziru*. As shown in (50), *kanziru* allows for a wider range of lower clause adjectives than *omou* does. That is, it can have either transitive adjectives like *natukasik* or non-transitive adjectives like *utukusik*:

(50) a. Taro-wa [Hanako-o natukasiku] kanzi-ta.
   Top Acc dear feel-Past
   'Taro felt Hanako (to be) dear.'

b. Taro-wa [Hanako-o utukusiku] kanzi-ta.
   Top Acc beautiful feel-Past
   'Taro felt Hanako (to be) beautiful.'

How should we explain the Accusative Case assignment in a sentence like (50a) with a transitive adjective and *kanziru*? Which of the two potential Case assigners is responsible for Accusative Case assignment of NP-o, the adjective or the matrix verb? The verb *kanziru* often occurs in contexts where *omou* is more generally used. For example, "Doo kanzimasita ka?" 'How did you feel?' is used synonymously as "Doo omoimasita ka?" 'What did you think?' In other words, there are two kinds of *kanziru*: one, which selects an IP complement as mentioned in (49) above, and the other, which has the same meaning and argument structure as *omou* of (44). Thus, we can infer that in (50) above, when *kanziru* takes a complement clause containing transitive adjectives like *natukasik*, *kanziru* is used in place of *omou; *kanziru* has the same selectional restriction as *omou;
i.e., it takes a CP complement within which the transitive adjective assigns Accusative Case to its object *Hanako* (-o). Then, the sentence “Taro-wa Hanako-o natukasiku kanzita” essentially has the same structure as (45) “Taro-wa Hanako-o natukasiku omou.”

The proposed analysis that *natukasik*-type adjectives assign Accusative Case to the -o marked NP prompts another question, concerning contrasts such as the following:

(51) a. Watasi-wa Hanako *-ga/-o natukasik-u omotteiru .
   -Top -Nom/-Acc dear thinking
   ‘I think back to Hanako with nostalgia.’

b. Watasi-wa Hanako -ga/-o natukasii.
   -Top -Nom/-Acc dear
   ‘I am nostalgic about Hanako (I miss Hanako).’

The adjective fails to assign Case when it occurs in the matrix clause, as in (51b), as opposed to when it is in the embedded SC complement, as in (51a). Why should it be so? Both the semantics and the syntax of the adjective *natukasik* and others of the same type are reminiscent of the so-called “stative” predicates of Japanese, which are a group of predicates which share certain semantic and syntactic properties. Just like stative verbs (e.g., NP- *ga wakaru* ‘understand NP’), the adjective *natukasik* takes Nominative - *ga* marked object when it is the matrix predicate. So, in what follows we first summarize from Takezawa (1999) his theory on the Case array of stative predicates, then use its notion of dual status of stative verbs to account for the lack of -o marking by transitive adjectives in matrix sentences.

According to Takezawa, stative predicates differ from non-stative predicates in that they assign no Case and that they project a maximal projection which is transparent.

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36 Some transitive adjectives which can occur in [NP-o Adj-ku omou], e.g., *tanomosi* ‘reliable’, are not perfectly acceptable as matrix predicates:

(i) a. Taro-*ga* Hanako-*o tanomosik-u omotteiru
   b. ?Taro-*ga* Hanako-*ga* tanomosii.

The fact that *tanomosi* has such mixed properties, i.e., transitive in subordinate clause, intransitive in main clause, may point to an ongoing semantic shift, accompanied by a change in its argument structure, from two-place to one-place predicate.
for the purpose of government. He also observes that, among Japanese “stative” verbs, potential verbs such as hanaseru ‘can speak’, dekiru ‘can do’, etc. have a dual property - both stative and non-stative. Relevant examples are cited in (52):

(52) a. Taro-ga/-ni eigo-ga hanaseru.
   -Nom/-Dat English-Nom speak-can
   ‘Taro can speak English.’

   b. Taro-ga/*-ni eigo-o hanaseru.
   -Nom/-Dat English-Acc speak-can
   ‘Taro can speak English.’

According to Takezawa, potentials can take direct objects marked with either -ga (Nominative) or -o (Accusative). He explains that a stative verb assigns no Case (i.e., Accusative Case), therefore the object NP acquires Nominative Case from the matrix Infl. The [NP-ga ... NP-ga ... V] pattern is made possible by the ability of the Japanese Infl to assign multiple Cases — in our case, to both the matrix subject [Taro-ga] and to the “object” [eigo-ga], as shown in (52a). The subject NP can also be marked by dative -ni when the object is marked by -ga. (52b) illustrates how the same verb can assign Accusative -o to its object, too. Takezawa (p. 5-10) states that this is because hanaseru in (52b), unlike hanaseru in (52a), is non-stative. In other words, the verb hanaseru in (52a) is different from hanaseru in (52b); the former is intransitive, and the latter, transitive.

Although Takezawa gives no details about his notion of duality, it appears to be related to the verb morphology. Verbs such as hanaseru are transparently composed of a transitive verb (hanas ‘speak’) + potential ending (eru/aru). The -o marking of the object NP of these verbs can thus be attributed to the transitive verb morphology, while the -ga marking is due the potential ending, which is stative.
Our hypothesis is supported by the fact that although all potential verbs which take theme arguments can occur in the (52a) pattern with -\(\text{ga}\) marked object, only morphologically complex ones like \textit{hanaseru} allow the -\(\text{o}\) marking shown in (52b).

There is a group of potential verbs, not mentioned in Takezawa, which disallow -\(\text{o}\) marking. (53) illustrates:

(53) a. Taro-\(\text{ga/ni}\) kokuban no zi-\(\text{ga}\) mieru.

\text{blackboard-Gen letter-Nom visible}

‘Taro can see the letters on the blackboard (The letters are visible).’

b. *Taro-\(\text{ga}\) kokuban no zi-\(\text{o}\) mieru.

Unlike \textit{hanaseru}-type potentials, the verb \textit{mieru} ‘can-see/visible’ in (53) is morphologically simple, having no transparent composition of transitive verb + potential ending.\(^{37}\) Other verbs of the \textit{mieru} type include \textit{dekiru} ‘can-do’, \textit{kikoeru} ‘can-hear’, and \textit{wakaru} ‘can understand’.

We return to the question of why the \textit{natukasik}-type adjectives never occur with an -\(\text{o}\) marked object in the matrix clause, as shown in (51a) and (51b) above.\(^{38}\) Suppose that the adjective \textit{natukasik} that occurs as the matrix predicate is like the morphologically

\(^{37}\) The verb \textit{mieru} is different from \textit{mirareru}, although both have potential meaning. The latter has a transparent morphological composition, \textit{mir} ‘see’ + \textit{rareru}. \textit{Mirareru} can have both the intransitive and transitive patterns:

(i) Kono heya de wa terebi-ga/ -\(\text{o}\) mirareru.

\text{this room at Top TV-Nom Acc see-Pot}

‘One can watch TV in this room’

\(^{38}\) The difference in Case marking between matrix and embedded transitive adjectives may be related to discourse/pragmatic interference characteristic to root clauses. Note, for instance, the well-known fact that the subject NP of a stative predicate is marked with the topic particle -\(\text{wa}\) rather than -\(\text{ga}\) in the matrix clause when it is interpreted as neutral description, not exhaustive listing; whereas in the embedded clause, only -\(\text{ga}\) is acceptable (Kuno 1973):

(i) a. John-wa / *-\(\text{ga}\) nihongo-ga dekiru.

\text{-Top -Nom Japanese -Nom can}

‘John can speak Japanese.’

(continued on next page)
simple potential verb *mieru* in that its object is marked with -*ga* but not with -*o*. Thus we could hypothesize that such adjective is not a Case assigner and that the Nominative Case on the object NP in sentences like *[Watasi-wa Hanako-*ga natukasii]* ‘I miss Hanako’ is assigned by the finite Infl, as proposed for [(NP-*ga*) NP-*ga mieru*] in Takezawa’s theory.

Just as there can be two kinds of *hanaseru* ‘can speak’, one stative/non-Case assigning as in (52a) and the other, transitive/Case-assigning as in (52b), we can further assume that there are two kinds of *natukasik* — one is the stative/non-Case assigning adjective described above, and the other, transitive/Case-assigning. The adjective which occurs in the [NP-*o* Adj-*u* omou] structure is the latter.

4.3.5. Some consequences: predicate fronting and -*sae* attachment

Kikuchi and Takahashi (1991) (see Chapter 2) attribute the impossibility of moving the SC predicate to the front of the sentence to the non-maximality of the SC predicate. Recall that we disagree with the phrasal analysis of the SC as suggested by K&T for Japanese and by Stowell (1991) for English. In discussing K&T, we suggested that the SC predicate may be a maximal phrase (an XP), since it can be the scope of -*sae* ‘even’. Now, as our version of the SC complement structures were proposed in the above section, let us see if they correctly predict the non-availability of SC predicate fronting and the attachment of -*sae* to the adjective alone.

The structure we proposed above for the *omou* sentence (54a) is shown as (54c).

In this structure, the adjectival predicate *natukasik-*u in the SC complement of *omou* is

---

b. [John-*wa / -ga nihongo-*ga dekiru koto-*o*] sitte imasu ka?  
  -Top -Nom Japanese -Nom can that -Acc know Q  
  ‘Do you know that John can speak Japanese?’

We think that -*o* marking of the complement of the transitive adjective as seen in the embedded clause is more basic. Detailed studies on such issues are deferred to further research. This issue was pointed out by Etsuyo Yuasa.
not a constituent, let alone a maximal phrase. Thus, our structure is compatible with the non-availability of predicate fronting out of the SC predicate, as shown in the ungrammatical (54b).

(54)  

a. Taro-wa Hanako-o natukasik-u omou.
   -Top -Acc dear think
   'Taro thinks back to Hanako with nostalgia.'

b. *Taro-wa natukasik-u Hanako-o omou.

c.  

On the other hand, natukasik-u could be analyzed as a complex V, if we assume that AP is not a barrier and A can adjoin to the copula -u. Even then, it is not a maximal phrase,
therefore it cannot be fronted. Thus, even if we assume a complex V as in (55), our analysis predicts the ungrammaticality of the predicate fronting:

(55)

The next question regards the attachment of the intensifier \(-sae\) 'even'. Recall that the intensifier \(-sae\) can take as its scope either the adjective \(natukasiku\) alone or the larger phrase \([Hanako-o \ natukasiku]\). Assuming the correctness of Ogino’s (1990) generalization that \(-sae\) attaches only to XPs (maximal phrases), our analysis of \([Hanako-o \ natukasiku-u]\) as a VP headed by the copular verb \(V\) is compatible with the the wider scope \(-sae\) takes but not the narrower scope, that of \(natukasiku\) alone, since \(natukasiku\)
is V even assuming the A-to-V attachment. This is a problematic point to which at this time we have no viable solution.\(^{39}\)

Next, we review the structure of the SC complement of *kanziru* ‘feel’ as proposed in (48), repeated below as (56). This structure predicts that *-sae* attachment is possible because *utukusik-u* is a VP in this structure. It also predicts that the fronting of the SC predicate *utukusik-u* is grammatical because it is a maximal phrase; moreover, the movement does not violate Proper Binding either because when the VP [*utukusik-u*] is fronted as in (56b), the VP does not contain a trace (recall that [Hanako-o] is the subject of the SC in this structure):

(56) a. Taro-wa Hanako-o utukusik-u kanzi-\(\mathrm{ta}\).
   \(\text{-Top} \quad -\text{Acc beautiful feel-Past}\)
   (Lit.) ‘Taro felt Hanako beautiful.’

b. ?Taro-wa utukusiku Hanako-o kanzi-\(\mathrm{ta}\).

\(^{39}\) A possible though not well-supported account is to claim that an optional string-vacuous movement raises the NP [Hanako-o] to adjoin to VP at the level relevant for the scope interpretation of *-sae*, that is, at LF. This is shown in (i):

(i)

\[
\begin{array}{c}
\text{VP} \\
\text{NP} \\
\text{Hanako}_0-o \\
\text{VP} \\
\text{AP} \\
\text{A'} \\
\text{A'} \\
\text{t}_1 \\
\text{natukasiku}
\end{array}
\]

After [Hanako\(_0\)-o] is raised, [natukasiku] is a VP, therefore *-sae* can be attached to it. Such analysis is compatible with both scope interpretations of *-sae*. On the other hand, the fronting of *natukasiku* in (i) would still be bad, since the movement of [\(t_i\) natukasiku] past [Hanako\(_0\)-o] would violate Proper Binding, as mentioned previously. String-vacuous movement is not a desirable account in this case as it lacks convincing evidence, and difficult to support in general, too.
In sum, the difference in structure accounts for the contrast in acceptability between *omou* sentences and *kanziru* sentences where the SC predicate is moved out of the subordinate clause:

(57)  

a. *?Natukasik-u Taro-wa Hanako-o omot-ta.
    dear -Top -Acc think-Past
    (Lit.) 'Dear(ly), Taro thought (back to) Hanako.'

b. *?Taro-wa natukasik-u Hanako-o omotta.
    (Lit.) 'Taro thought (back to) Hanako dear(ly).'

c. ?Utukusik-u Taro-wa Hanako-o kanzi-ta.
    beautiful feel-Past
    (Lit.) 'Beautiful, Taro felt Hanako (to be).'

d. ?Taro-wa utukusik-u Hanako-o kanzi-ta.
    (Lit.) 'Taro felt Hanako (to be) beautiful.'

Summarizing this section, the Case assignment facts support the analysis that *omou* and *kanziru* differ in their selection of complement clause: when the verb *omou* 'think' takes a clausal SC complement in the structure [[NP-o Adj-u] omou], the SC is a CP, where the SC's adjectival predicate assigns Accusative Case to the -o marked NP. When *kanziru* 'feel' takes a SC complement clause as in [[NP-o Adj-u] kanziru], the
clause is an IP, and the -o marked NP acquires the Accusative Case from the matrix verb *kanziru* by ECM.

4.4. Adjectival Nominals

In this last section we briefly discuss SC complements with nominal predicates. Consider the English nominal SC sentence, shown in (58):

(58) We consider [sc him a specialist].

Japanese lacks the counterpart of English nominal SC complement. Compare the following:*40*

(59) a. Watasi-wa kare-o senmonka *(da) to omou.
   I-Top he-Acc specialist Cop Comp think
   ‘I think (of) him (as) a specialist.’

      I-Top he-Acc specialist Cop think

As shown in (59a), the semantic equivalent of English (58) in Japanese requires an overt, tensed Copula *da* in the lower clause. (59a) is ungrammatical without *da*. It is also ungrammatical if the copula *da* is replaced by its untensed form *ni*, as shown in (59b).

Although ordinary nominals cannot occur in SC complements of *omou* and *kanziru*, these verbs can take a SC complement whose predicate is headed by an Adjectival Nominal, in addition to the adjectival SC discussed in 4.3. When certain Adjectival Nominals appear in the SC construction, the sentences are acceptable with *kanziru* or *omou* as main verb. For instance:

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40 See 4.3.2. for the structure of sentences like (59a) with tensed complement clauses, as proposed by Takezawa (1999).
Since these ANs are not transitive in the sense that adjectives like *natukasik* are, it is best to analyze the above sentences as having the same structure as the ones in which *kanziru* takes an adjectival IP-SC (see (49b)). Thus, (60a) would have the structure (61):

(61)

```
    Watasi
      \  /  \\
     /  \  \\
   v'   IP (=SC)  v
        \  /  \\
     /  \  \\
   NP   kanzir
     \  /  \\
  sono keitaidenwa-o
  \  /  \\
  VP   [i
   \  /  \\
  -hi   [-t
   \  /  \\
  benri
```

4.5. Summary

In this chapter we proposed the structure of SC complements of verbs *omou* and *kanziru*. We suggested that in adjectival SC complement structures, the SCs are either CPs or IPs, depending on which verb they are complements of. The matrix verb *omou* selects a CP complement and *kanziru*, an IP complement. To filter out ungrammatical sentences, this categorial selection is also checked with the adjectival predicate within the SC: a CP-SC has a control structure, with the matrix subject controlling a PRO subject of
SC and the transitive adjective in the SC assigning Accusative Case to its object NP; an IP-SC is an ECM structure, where the -o marked NP is the SC subject which acquires Accusative Case from the matrix verb. In the latter case, the adjectival predicate within the SC is not transitive. The adjectival noun (AN) poses a problem in that, unlike in the adjectival SC structures, omoû appears to select an IP-SC when the SC predicate is an AN. This is an issue which must be dealt with in future research.
CHAPTER 5

SMALL CLAUSES AND BE RAISING

5.0. Introduction

In Chapter 3, we described the adjectives which occur in the [NP-o Adj-u omou] pattern, where [NP-o Adj-u] is considered a SC complement of the verb omou. Chapter 4 proposed the structural analyses of such sentences. In this chapter, we reexamine two other sentence types which have been claimed in Kikuchi and Takahashi (1991) to be SC constructions: naru/suru ‘become/make’ and da ‘be’. First, we point out problems of the raising analyses of the verbs naru and suru and offer alternative analyses. Then we will consider da and discuss how the SC/Raising analysis proposed for English copular be fails to apply to the Japanese copula.

5.1. Naru ‘become’

5.1.1. Questioning the raising analysis

As part of discussion of SC constructions in Japanese, Kikuchi and Takahashi (1991) state that Japanese naru ‘become’ is a raising verb like English seem, and that it takes a SC complement, as shown in (1):\textsuperscript{1}

\begin{equation}
\begin{aligned}
a. & \text{John-ga kasikoku nat-ta.} \\
   & \text{-Nom clever become-Past} \\
   & \text{‘John became clever.’} 
\end{aligned}
\end{equation}

\textsuperscript{1} In K&T, it is suggested that the raising analysis of naru is compatible with their phrasal analysis of SCs in Japanese and the apparent exception to the fronting of the SC predicate (see Ch. 2, 2.2). However, no clear evidence or justification is offered.
Structure (1b) shows that the verb *naru* takes the SC [t, kasikok-u] as its complement. The surface matrix subject *John-ga* raises from the D-structure position which is the SC subject position, leaving a trace behind it. Compare (1) with three English raising sentences shown in (2a)-(2c). (2a')-(2c') are related ungrammatical sentences:

(2)  
   a. John, seems [sc t, honest].  
   b. John, seems [t, to be honest].  
   c. It seems that John is honest.  

K&T proposes that the *naru* sentence (1a) has the same structure as the English *seem* sentence (2a). The bracketing and labels in (2a) represent Stowell’s (1991) analysis of sentences like (2a) as a raising structure involving the movement of a SC subject. While K&T’s insight that *naru* takes a SC complement is valuable, the raising analysis itself is problematic due to the agentivity of the verb *naru*.

We will summarize the characteristics of raising verbs, compare them with those of *naru*, and conclude that *naru* is not a raising verb. We will propose an alternative account for this construction, while retaining the notion that [Adjective-u] in [Adjective-u *naru*] is a clausal complement of *naru*.

First, let us review the Case characteristics of the raising construction. The ungrammaticality of (2a') and (2b') is due to the lack of Case on the NP *John*. In both sentences, *John* has no Case because the predicates [honest] and [to be honest] are tenseless, and because the matrix verb *seem* is unable to assign Case to the subject of its tenseless complement clause (a SC in (2a') and an IP in (2b')). In standard literature

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2 We will not discuss the verb *omoeru*, the approximate semantic equivalent of *seem*. See Takezawa (1993) for the analysis that *omoeru* is not a raising verb, but a verb which involves nominative assignment by the matrix Infl to the subject of the embedded tenseless clause. (See Ch. 4 footnote 35)
(e.g., Chomsky 1981), the D-structures of (2a) and (2b) are similar to (2a') and (2b'), respectively, with an empty slot in place of the expletive subject *it*: by S-structure, *John* raises to the S-structure subject position and acquires Case from the tensed verb *seems*.

The raising structure is special in its thematic characteristics, too. The raising verb does not assign any thematic role to its surface subject because it has no external argument, i.e., a VP-external argument represented at D-structure. For instance, in (2a) and (2b), *John* is not assigned a theta-role by the matrix verb *seems* although it acquires Nominative Case from the tensed Infl of the matrix verb. This is shown by the presence of the expletive subject *it* in the grammatical (2c) and by the ungrammaticality of (2c'):

(2c') should be grammatical if *seems* assigned a theta-role to *John* and *honest* assigned a theta-role to *Bill*. Although *Bill* is assigned a theta-role by *honest, John* receives no theta-role, hence violating the Theta Criterion (Chomsky 1981) which requires each argument to be assigned a theta-role.

The fact that the raising verb assigns no theta-role to its surface subject is related to one crucial feature of the raising verb: it has no agentivity. As will be discussed below, the inability of *seem* to assign a theta-role to the subject position is the direct cause of the lack of Agentivity in raising sentences. We will cite two kinds of evidence that raising verbs have no Agent argument: a test proposed by Jackendoff (1991) and the imperative construction.

Various authors have defined the individual thematic roles in slightly different ways. We will adopt Jackendoff’s (1991) definitions: Actor is “doer of the action,” Patient is “undergoer” or “affected entity,” and Theme is “thing in motion or being located.” For our purpose, Actor can be considered equal to Agent.

Jackendoff uses two test frames to identify an NP which has the Actor or the Patient role with respect to a particular verb. They consist in substituting the target NP
with the \( X \) in the construction “What \( X \) did was ...” or the \( Y \) in “What happened to \( Y \) was ...” If the NP can occur in the position of \( X \) in the first pattern, that NP is an Actor; if it can substitute \( Y \) in the latter pattern, it is a Patient. For instance, in “Bill entered the room” Bill is Actor (in addition to being Theme) since it is possible to rephrase the sentence as “What Bill did was enter the room.” Consider (3):

(3)  a. Tom seemed to have eaten a whole pizza.
    b. What Tom did was eat a whole pizza.
    c. *What Tom did was seem to have eaten a whole pizza.
    d. *What happened to Tom was he seemed to have eaten a whole pizza.

In sentence (3a), the surface subject Tom receives an Agent theta-role at the pre-movement position as the subject of [to have eaten], as shown by (3b). (3c) shows that Tom is not an Actor argument of seem. The important point of this test is that although Tom is an Agent argument of the lower predicate eat, it is not an argument of seem, the verb in question. Incidentally, (3d) shows that Tom is not a Patient argument of seem, either.

A second piece of evidence for the raising verb’s lack of agentivity comes from the command imperative sentences.\(^3\)

(4)  a. *Seem to have eaten pizza!
    b. *Seem to be reliable!
    c. *Seem reliable!

Sentences (4a)-(4c) are unacceptable. The difference in acceptability between seem and verbs allowing command imperatives becomes more apparent when the expression “Go and (imperative)” is used:

(5)  a. *Go and seem to have eaten pizza/ to be reliable/ reliable!
    b. Go and lock the door!
    c. Go and meditate!

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\(^3\) Lakoff (1966) considers the non-occurrence in command-imperatives as a characteristic of stative predicates such as know and (be) careful. The “go and” pattern is also due to Lakoff.
In sum, while there is no direct evidence for the raising analysis of *naru*, there is a way to determine whether such analysis is compatible with the known properties of *naru*. The raising verbs' lack of agentivity as shown above points to a straightforward way of determining whether *naru* is in fact a raising verb; that is, if it can be shown that *naru* has agentivity, it can be concluded that *naru* is not a raising verb.

5.1.2. Agentivity: Agent role assigned to the external argument

Our analysis of *naru* is based on the following assumptions:

(6) (a) An Agent theta-role is always assigned to an external argument. A verb which has no external argument has no Agent argument.

(b) The availability of an agentive reading generally implies that the argument structure of a verb includes an Agent theta-role. Agentive reading is defined by the acceptability of agentive sentences such as the imperative and desiderative.

Given these two assumptions, the fact that *naru* has agentive reading would imply that it has an external argument, which in turn leads to the conclusion that *naru* is not a raising verb. According to this line of argumentation, the agentivity reading necessary for the imperative form, desiderative, etc., is sufficient evidence for the existence of an external argument. Let us examine the validity of the two assumptions regarding the link between Agentivity and syntactic structure, as stated in (6).

The Agent thematic role is traditionally defined as the one that is assigned to the argument which refers to the initiator of the action expressed by the predicate. Note that the only verbs with external argument are the transitive and the unergative verbs. In

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4 These two generalizations apply to nominative-accusative languages, not to ergative languages.

5 We are basically assuming the following classification of verbs according to their argument structure:

(i) Transitive: one external argument (Agent) + one internal argument (Theme).
   e.g., *taberu* 'eat', *kaku* 'write', *mitu* 'look'.

(ii) Unergative: one external argument (Agent).
   e.g., *warau* 'laugh', *odoru* 'dance', *hasiru* 'run'.

(continued on next page)
these two types of verbs, it is true that if there is an Agent role, it is assigned to the external argument.\(^6\)

The inverse is not true in that some external arguments are assigned thematic roles other than Agent. For instance, the subject of verbs of receiving such as receive and accept in English and uketoru 'receive' and ukeireru 'accept' in Japanese may be assigned the role of Goal rather than Agent.\(^7\)

The association of semantic roles with the syntactic argument structure of a predicate has been an important subject in the area of syntax/semantic interface. In

(iii) Unaccusative: one internal argument (Theme).
    e.g., nobiru 'grow,' tuku 'arrive,' sizumu 'sink,' otiru 'fall,' sinu 'die'.

According to some authors, the class of intransitive verbs whose sole argument is the Theme argument is subdivided into "unaccusative" (as defined in (iii)) and "ergative." This fourth class of verbs is defined as having the following argument structure (Haegeman 1994:337):

(iv) Ergative: one external argument (Theme). e.g., sink [English] in "The ship sank" as opposed to transitive sink in "The enemies sank the ship."

In the present discussion, we use the term "unaccusative" to refer to verbs of type (iii), i.e., verbs with no external argument, and the surface subject originating in the D-structure object position. Note that some authors, including Burzio (1986) and Miyagawa (1989b), use the term "ergative" to refer to "unaccusative" thus defined. It is not clear if type (iv) exists in Japanese. For instance, based on the interpretation of resultative attributes, Tsujimura (1990a) claims that the intransitive verb sizumu 'sink' has a surface subject which is the D-structure direct object, i.e., it is unaccusative as defined in (iii), rather than being "ergative" as stated in (iv).

\(^6\) The obvious case which eludes this generalization is the by-phrase in a passive construction. The Agent may appear on the by-phrase, which is a prepositional phrase, is an adjunct. In Japanese passives, it corresponds to the -ni agentive phrases.

\(^7\) Some verbs may be argued to have both Agent and Goal roles. See Jackendoff (1991) for a theory of conceptual roles organized into two independent tiers, the thematic tier (motion and location) and the action tier (Actor-Patient relations). For example, Sue and Fred in (ia) each has both tiers filled; Bill and a letter have only the thematic tier filled, while the action tier is empty (Jackendoff 1991:126-7):

(i) a. Sue hit Fred.
   Theme Goal (thematic tier)
   Actor Patient (action tier)

   b. Bill received a letter
   Goal Theme (thematic tier)
   - - (action tier)
discussing linking theory, the theory of the relationship between semantic arguments and syntactic positions, Jackendoff (1991) outlines a traditional hierarchical approach as follows:

(7)  
a. Thematic hierarchy: Agent > Theme  
b. Syntactic hierarchy: Subject > Object  
c. Linking Principle: Map the ordered theta-roles from the LCS into the syntactic hierarchy from left to right.

(LCS = Lexical conceptual structure)

The following sentences illustrate how this system works:

(8)  
a. Bill opened the door.  
b. Bill yelled.  
c. The door opened.

In sentence (8a) where the verb is the transitive verb open, Bill is the Agent, the highest in the thematic hierarchy; the Agent is mapped to the Subject, which is the highest in the syntactic hierarchy. The Theme, the second thematic role in the hierarchy, assigned to the door, is mapped to the second syntactic position, Object. In (8b), the only argument of the unergative verb yell is an Agent; it is mapped to the subject position. By contrast, in (8c), the only argument of the unaccusative verb ‘open’ is the Theme, the door; thus the Theme argument is linked to the Subject position. The same applies to the following Japanese sentences:

(9)  
a. Taro-ga doa-o aketa.  
   Taro-Nom door-Acc open-Past  
   ‘Taro opened the door.’  

b. Taro-ga waratta.  
   Taro-Nom laugh-Past  
   ‘Taro laughed.’

---

8 Jackendoff’s (1991) approach to thematic roles is more sophisticated than this. His theory places thematic roles in the level of “lexical conceptual structure” (LCS). Particular thematic roles are defined in terms of structural configurations in LCS. In the present discussion, we will neither support nor refute any particular version of theories of LCS.
c. Doa-ga aita.
   door-Nom open-Past
   ‘The door opened.’

In (9a) where the verb is the transitive ak eru ‘open’, the Agent theta-role is assigned to the subject Taro and the Theme theta-role to the direct object doa. In (9b), the unergative verb warau ‘laugh’ has one role to assign, that of Agent, which is assigned to the Subject. In (9c), the verb is the unaccusative aku ‘open’, which is agentless; here the subject doa is assigned the Theme theta-role.

Thus we can say that there is a general link between the Agent argument and the subject position of transitive and unergative verbs, both in English and in Japanese. This supports the validity of the statement (6a) above, i.e., that if there is an Agent theta-role, it is generally assigned to an external argument.

5.1.3. Diagnostics for agentivity

Next, let us reconsider the assumptions (6a) and (6b). We examine five constructions which appear to provide valid diagnostics for the presence of an Agent thematic role associated with the predicates in question. We propose the following, which we will call “agentive contexts”:

(10) (a) Imperative
    (b) Desiderative -tai
    (c) Resultative -te aru
    (d) Preparatory -te oku
    (e) X-ga nani-o si-ta ka to iu to... ‘What X did was...”

If these contexts indeed test agentive reading, where agentive reading entails the presence of an Agent theta-role (as stated in (6b)); and if Agent theta-roles are always assigned to an external argument (as per (6a)), it is predicted that an unaccusative verb like otiru ‘fall’, which by definition lacks an external argument, would fail to occur in the above contexts. After establishing the validity of the above diagnostic tests for the agentivity of
the predicates, we will apply them to *naru* to determine whether it has an Agent argument. In each of the tests (11) to (15), the verbs in the sentences (a) through (c) are transitive, unergative, and unaccusative, respectively.

Sentences (11a-c) contain verbs in the imperative form:

(11) **Imperative**

a. Aisukuriimu-o tabero!
   icecream-Acc eat-Imper
   'Eat icecream!'

b. Hasire!
   run-Imper
   'Run!'

c. *Gake kara otiro!
   cliff from fall-Imper
   'Fall from the cliff!'

Note that the only verb which is awkward in this construction is the unaccusative *oti*.
This is predictable if the inability to occur in the imperative is ascribed to the lack of agentivity. The verbs which allow imperatives are the ones with external arguments, because imperatives require an intentional subject which has control over the action or situation described by the verb.

In Japanese, the semantic counterpart of the English verb 'want' is expressed by the suffix *-tai* 'want', which attaches to the verb stem forms:

(12) **Desiderative -tai**

a. Watasi-wa aisukuriimu-o tabe-tai.
   I-Top icecream-Acc eat-want
   'I want to eat icecream.'

b. Watasi-wa hasiri-tai.
   run-want
   'I want to run.'

   cliff from fall-want
   'I want to fall off the cliff.'
The unaccusative verb is unacceptable when -tai is suffixed to it, presumably because the desiderative form requires agentivity, which otriu lacks.\(^9\)

The aspectual ending -te aru consists of the gerund -te form of a verb followed by aru ‘be’, and expresses a state resulting from the intentional action denoted by the verb. It implies that the result is related to subsequent actions in some way. Miyagawa (1989b) considers it a test for unaccusativity in that unaccusative verbs invariably fail this test.\(^10\) Sentences in (13) show that it can be used as a diagnostics for agentivity, too:

(13) **Resultative -te-aru**

a. Kono koojii-ni-wa saaoo-o irete-aru kara, moo irenai demo ii.
   this coffee-Dat-Top sugar-Acc add because (not)-any-more add-Neg good
   ‘(I) have put sugar in this coffee, so you don’t have to add any.’

b. Watasi-wa asa ni-mairu hasitte-aru kara, gogo-wa
   I-Top morning two miles run-Asp because afternoon-Top
   hasiranaku te mo ii.
   run-neg too fine
   ‘I ran two miles this morning, so I don’t have to run this afternoon.’

   I-Top once cliff from  fall-Asp because any-more fall-neg probably
   ‘I fell off the cliff once, so probably I will not fall again.’

The transitive verb in (13a) and the unergative verb in (13b) allow for the -te-aru form, while the unaccusative (13c) does not. This test can be considered as a diagnostic for

\(^9\) In addition to requiring agentivity, the occurrence of the Japanese desiderative ending -tai ‘want’ is further limited to the first-person subject, with the exception of embedded clauses and extended predicates (no da sentences). ‘Want’ in third person is expressed by -ta-garui:

   -Top sing-want               -Top sing-want-Asp
   (Intended) ‘Taro wants to sing.’ ‘Taro (apparently) wants to sing.’

(ii) a. Taro-wa utai-tai no da.
   b. Taro-wa utai-tai to it-te-iru.
   -Top sing-want NM Cop         -Top sing-want Comp say-Asp
   ‘(It is that) Taro wants to sing.’ ‘Taro is saying that he wants to sing.’

The distribution of -tai is also dependent on the pragmatic notion of control — what action or event one supposedly can or cannot control.

\(^10\) See 5.1.5 below for an additional requirement for the -te-aru construction.
agentivity. Since lack of agentivity is one of the semantic characteristics of syntactically unaccusative verbs, unaccusative verbs generally disallow -te aru.

The aspectual ending -te oku consists of the gerundive verbal ending -te, followed by the verb oku, which as an independent verb means 'put.' We will describe it as the preparatory ending, since it adds the meaning that something is intentionally done, in expectation or preparation for some other action or event which will follow:

(14) **Preparatory -te oku**

a. Aisukuriimu-o tabe-te okeba, onaka-ga sukanai.
   icecream-Acc eat-Asp if stomach-Nom hungry-neg
   'If (I) eat icecream in advance, (I) will not be hungry.'

b. Asa 2-mairu hasitte-oita kara, gogo wa 1-mairu de ii.
   morning 2 miles run-Asp-past because afternoon 1-mile fine
   'I ran two miles in the morning (in advance), so one mile will do in the afternoon.'

c. *Itido gake-kara otite-okeba, moo otinai.
   once cliff from fall-Asp if any--more fall-neg
   'If I fall off the cliff once (in advance), I will not fall again.'

Of the above examples, (14c) is unacceptable. Like -te aru, the verb which -te oku attaches to needs to have an Agent thematic role. Therefore, the ungrammaticality of (14c) is due to the lack of agency in the unaccusative verb otiiru 'fall'.

(15) shows the application of Jackendoff’s Actor test to the transitive, unergative, and unaccusative verbs of Japanese:

(15) **Actor test**

a. Taro-ga aisukuriimu-o hitoride tabeta.
   Taro-Nom icecream-Acc alone ate
   'Taro ate icecream all by himself.'

   Taro-ga nani-o sita ka to iu to, (kare-wa) aisukuriimu-o hitoride tabeta no da.
   Taro-Nom what-Acc did Q Comp he -Top icecream-Acc alone ate Cop
   'What Taro did was that he ate the icecream all by himself.'
b. Taro-ga san-mairu hasitta.
   three miles ran
   ‘Taro ran three miles.’

   Taro-ga nani-o sita ka to iu to, (kare-wa) asa san-mairu hasitta no da.
   he-Top morning three miles ran Cop
   ‘What Taro did was that he ran two miles in the morning.’

c. Taro-ga gake kara otita.
   cliff from fell
   ‘Taro fell from the cliff.’

   *Taro-ga nani-o sita ka to iu to, (kare-wa) gake kara otita no da.
   he-Top cliff from fell Cop
   ‘What Taro did was that he fell off the cliff.’

As previously mentioned, the Actor construction “What X did was ...” is a frame against which the agentivity of a verb can be tested. The Japanese equivalent of this construction is “X-ga nani-o sita ka to iu to ...” As expected, while the transitive and the unergative verbs pass this Actor test, the unaccusative verb *otiru ‘fall’ fails it. Thus, in (15c), Taro is the Theme but not the Actor. For the unergative *hasiru ‘run’ of (15b), by contrast, Taro is both the Theme and the Actor.

Recall that the raising verb seem passes neither the Actor nor the Patient test, as shown in (3) above.

Summarizing so far, the imperative, desiderative -tai, preparative -te oku, resultative -te aru and the “what he did was” constructions are valid diagnostics for agentivity. Transitive and unergative verbs, which are known to have Agent theta-roles, can occur in these agentive constructions; by contrast, unaccusative verbs, which are known to lack Agents, are usually unacceptable in such contexts.

5.1.4. Agentivity: Agent role assigned to non-external argument

In the examples we have looked at so far, the Agent theta-role is assigned to the external argument. Thus the unaccusative verbs invariably fail the agentive context tests,
while transitive and unergative verbs yield clearly acceptable sentences. Let us now turn to some additional data which do not conform to the assumption that agents are always external arguments. The first set of such data come from the wazato ‘intentionally’ sentences in Nakayama and Langton (1997):

(16)  a. Taro-wa wazato yakusoku-o yabutta.
    Taro-Top intentionally promise-Acc break-Past
    'Taro intentionally broke the promise.'

   b. Taro-wa wazato yakkuri hasitta.
    intentionally slowly run-Past
    'Taro ran slowly intentionally.'

    -Nom intentionally cliff from fall-past
    'John intentionally fell from the cliff.'

   d. Daitooryoo-ga wazato John-ni korosareta
    president-Nom intentionally John-by kill-Passive-Past
    'The president was intentionally killed by John.'

((16c, d): Nakayama and Langton 1997)

According to N&L, (16c) is unacceptable, while (16d) is acceptable. N&L propose that the adverb wazato ‘intentionally’ is a subject-oriented adverb which requires agentivity in the sentence it occurs in. This claim is supported by the contrast between the acceptable (16d) and the unacceptable (16c). Sentence (16c) is intended to show that when the verb phrase headed by the unaccusative verb otiru ‘fall’ is modified by wazato, the sentence is bad, presumably because otiru as a verb lacking agentivity (i.e., the single argument of otiru, which originates as its D-structure object, is a Theme). By contrast, in the passive sentence (16d), although the surface subject daitooryoo ‘president’ (whose intention wazato indicates) is not the Agent, the sentence per se contains an Agent, i.e., John, in the by-phrase John-ni, and this fulfills the requirement. N&L propose that wazato is subject-oriented, but requires the verb to contain an Agent thematic role in its argument.
structure. According to N&L, the reason *wazato* cannot occur in (16c) is that the unaccusative verb *otiru* has no Agent in its thematic structure.

While the observation that *wazato* refers to the Agent’s intentionality is valid, the contrast in acceptability between sentences (16c) and (16d) is actually not as clear-cut as stated in N&L. In fact, the two sentences by themselves are similar in acceptability: (16c) becomes acceptable given certain pragmatic circumstances, and (16d) is unacceptable unless accompanied by some appropriate pragmatic context. For instance, if a life insurance payment were at stake and the person intentionally fell off the cliff (disguising the event as an accident) or faked victimization, (16c) would be acceptable. Similarly, (16d) requires some context which said that the “action” of being killed was intentional. Thus, the following extended sentences based on (16c) and (16d) are much more acceptable than the original:

(17)  

family-to life insurance-Acc leave for -Nom intentionally cliff-from 'In order to bequeath life-insurance to the family, John intentionally fell off the cliff. It was a fake suicide.'

b. Kuni-o sukuu tame-ni, daitooryoo-ga wazato John-ni korosareta, nado to iu koto-ga ariuru daroo ka?  
country-Acc save for president-Nom intentionally -by killed  
such as thing-Nom possible maybe Q  
'The president was intentionally killed by John in order to save (his) country: is such a thing possible?'

In both (17a) and (17b), the surface subject is understood as the person having control over the action or situation and acting with intention. The matrix verb in (17a) is forced an agentive reading by the semantic orientation of the adverb *wazato*, and further encouraged by the pragmatic context. In the passive (17b), the intentionality is that of
daitōryōu ‘the president’, the subject of the passive sentence, and it is ‘the president’ who has control over the situation, although ‘the president’ is not the Agent of the action of “killing”. As far as the event of killing is concerned, ‘the president’ has the Patient thematic role, as it is the D-structure object of the transitive verb korosu ‘kill’. What (17a) and (17b) suggest is that both the unaccusative otiru ‘fall’ and the passive form of korosu ‘kill’ can have the agentivity reading required by the adverb wazato, if an appropriate pragmatic context is added by modification (e.g., the purposive -tame-ni clause in (17a, b)) or in the larger discourse. Thus, the adverb wazato can be characterized as an element which forces an Agent reading on the subject NP, and may be considered a diagnostic for the Agent argument.

Note that unlike unaccusative verbs, seem fails to yield an agentive reading even with an adverb like intentionally or deliberately. In fact, since the subject of seem cannot be the Agent, such sentences are unacceptable:

(18) a. *John intentionally seemed to have been ill.
   b. *John deliberately seemed to have been ill.

It is clear that in order to be (compositionally) assigned a theta role by the VP, a surface subject must be at least some argument of the verb, either internal or external.

Based on the data from the unaccusative and raising verbs, it can be generalized that the Agent theta-role is typically assigned to the external argument of a verb, i.e., subject of a transitive or unergative verb. Secondarily, the Agent theta-role may also be assigned to the surface subject of an unaccusative verb, when the verb phrase as a whole assigns an Agent role to this position. Thus, when the VP assigns the Agent role to the surface subject, the NP in this position may be the VP-internal argument of the verb at D-structure.

Thus, sentences such as (17a) and (17b) show that agentivity or the existence of Actor/Agent theta-role do not depend solely on the lexical argument structure of a verb,
but are a property of a larger phrasal unit which includes the objects and adverbs, possibly VP.\textsuperscript{11} The agentive reading of unaccusatives with such modifiers as \textit{wazato} provide support for existing views about the compositional assignment of subject theta-role. For instance, citing Williams' (1972) examples, Nishigauchi (1984:225, fn. 21) observes that the Agent role and agentivity is determined by “an expression of a higher level, like VP, or something even higher”:

\begin{enumerate}
\item a. He formed his opinion about the budget cut by reading the newspapers.
\item b. He formed his opinion about the budget cut from reading the newspapers.
\end{enumerate}

The subject of \textit{form} can be an Agent, as in (19a), or not, as in (19b), depending on the minimally different modifier phrase.\textsuperscript{12}

\subsection*{5.1.5. \textit{Naru}}

In the previous section, we established that verbs which pass the agentivity diagnostics are the ones whose surface subject is the verb’s external argument, as in the typical cases of transitive verbs and unergative verbs, or the ones which have an internal argument which can be compositionally assigned the Agent thematic role by the verb phrase at the surface subject position, as in the case of unaccusative verbs of (17a) and (17b). Now consider \textit{naru} ‘become’ with nominal and adjectival subordinate predicates in each agentive context:

\begin{enumerate}
\item a. Isya -ni narel
\item doctor Cop become-imper
\item \textit{Became a doctor!’}
\end{enumerate}

\textsuperscript{11} In my view, syntactically unaccusative verbs are under-determined in terms of thematic relations; adverbs such as \textit{wazato} encourage the Agent thematic role.

\textsuperscript{12} Also see Marantz (1984:27), who proposes that “choice of object (or any other argument of a verb) affects the semantic role of the logical subject whereas choice of logical subject does not affect the semantic role of the object.” Chomsky (1986a:59-60) states that “the semantic role of the subject is determined compositionally,” citing two interpretations of the sentence “John broke his arm”: one, in which the arm that broke is someone else’s, in which case \textit{John} is the Agent; the other, where the arm is John’s own, in which case \textit{John} is not an Agent.
Sentence pairs (20), (21), (23), and (24) show that *naru* can occur in the imperative, desiderative *-tai*, *-te-oku*, and *wazato* constructions, respectively. These tests suggest *naru* has agentivity. The only problematic case is (22), *-te-aru*. Both (22a) and (22b) are unnatural in these simple sentences. Does the difficulty for *naru* to appear with *-te-aru* mean that *naru* has no agentivity? It is unlikely that *naru* lacks agentivity, since it passes
all the other tests. Rather, we suggest that Miyagawa's characterization of -te-aru requires some modification. We suggest that -te-aru requires not only agentivity or protagonist-control as proposed by Tsujimura (1991), but also an overall context which denotes some consequence of the resulting state. A -te-aru sentence which lacks either agentivity or consequence is less acceptable. Both conditions must be met for a -te-aru sentence to be fully acceptable.

Consider the following examples with the transitive verb taberu 'eat':

   already icecream-Acc half eat-Asp because not hungry
   'Since I have already eaten half the icecream, I'm not hungry.'

b. Moo aisukuriimu-o hanbun tabe-te-aru kara, ato de nokori-no hanbun-o
   later remaining half-Acc eat
   tabere ba ii.
   eat if good
   'Since I have already eaten half the icecream, all I have to do is eat the remaining half later.'

---

13 Tsujimura (1989) offers a somewhat different account of -te-aru. She points out that the -te-aru construction requires protagonist control, a semantic notion of a controlling agent, usually human. She further observes that the behavior of the class of unaccusative verbs with respect to -te-aru is not uniform, even among verbs which apparently have protagonist control. Tsujimura shows that some unaccusatives can cooccur with -te-aru while others cannot. In Tsujimura's examples, the verbs which allow for -te-aru are those which take delimiting phrases NP-made 'as far as NP'; the verbs which disallow -te-aru are the ones which can only take the complement phrases -ni 'to':

(i) a. ?Koko-made kite-aru kara sukosi yasumimasyoo
    here-as far as come because little let's rest
    'Since we have come thus far, let's rest a little while.'

   travellers-Nom Tokyo-at arrive because we-Top go home
   'Since the travellers have arrived at Tokyo, we are going home.'

Tsujimura suggests that the difference between kuru-type and tuku-type verbs is a reflection of the difference in the verbs' Lexical Conceptual Structures (Hale & Kayser 1986, 87). While all unaccusative verbs lack the Agent in their Predicate Argument Structure, they may or may not occur with -te-aru depending on the existence of an "agent" in the verb's Lexical Conceptual Structure which functions as protagonist controller.
With a transitive verb, the object NP may directly refer to the entity the consequence is about, as in (25b); or the consequence may be related to the object NP referent, as in (25a). This is probably why it is easier to have a naturally acceptable -te-aru sentence with transitive verbs than with other verbs.

(26) a. ??Taro-ga warat-te-aru.
   -Nom laugh-Asp
   ‘Taro has laughed.’

b. Taro-wa kesa moo itido warat-te-aru kara, gogo kara wa
   -Top this morning already once laugh-Asp because afternoon from Top
   warawanaku-te mo ii
   laugh-unnecessary
   ‘Taro has already laughed once this morning, so it’s OK if he does not laugh from the afternoon on.’

(26) shows an instance of unergative verbs, warau ‘laugh’. Since warau is agentive, it is a potential candidate for this construction, but the minimal sentence (26a) by itself is unnatural. Add a context such as “Taro makes it a rule to have a good laugh at least once a day,” then (26b) is much more acceptable, albeit quaint.

Thus the reason nat-te-aru is unnatural in (22a) and (22b) is because they lack the required context. Note that they become better once the context is provided: for (22a), suppose you have three goals in life -- becoming a doctor, an inventor, and an astronaut. Since you have already become a physician, there are only two other items left on your list. Then the use of -te-aru is natural. A similar context also makes (22b) more acceptable:

(27) a. Moo isya -ni nat te aru kara, ato-wa hatumeika to
   Already doctor Cop become-Asp because rest-Top inventor and
   utyuuhikoosi -ni nare ba ii.
   astronaut-Cop become if good
   ‘Since I have already become a doctor, all I have left to do is become an inventor and an astronaut.’
b. Moo eraku natte aru kara, ato-wa kanemoti -ni nare ba ii
already successful become-Asp because rest-Top wealthy-Cop become if good

'Since I have already become successful, all I have left to do is become
wealthy.'

In all, the agentive constructions (20) - (24) show that *naru* has an external
argument with intentionality, i.e., an argument to which the Agent theta-role is assigned.
If *naru* were a raising verb, it would have no external argument, thus we can conclude
that, counter to K&T's claim, *naru* is not a raising verb.

Finally, check the *naru* sentences against the Actor test frames:

(28) a. Taro-ga nani-o sita ka to iu to, (kare-wa) isya-ni nat-ta no da.
Taro-Nom what-Acc did Q Comp he-Top doctor-Cop become-Past Cop
'What Taro did was that he became a doctor.'

b. Taro-ga nani-o sita ka to iu to, (kare-wa) eraku nat-ta no da.
Taro-Nom what-Acc did Q Comp he-Top successful become-Past Cop
'What Taro did was that he became successful.'

Taro-Dat what-Nom happened Q Comp he-Top ill-Cop become-Past Cop
'What happened to Taro was that he fell ill.'

b. Taro-ni nani-ga okotta ka to iu to, (kare-wa) kyuuni kimuzukasiku
Taro-Dat what-Nom happened Q Comp he-Top suddenly difficult
nat-ta no da.
become-Past Cop

'What happened to Taro was that he suddenly became a difficult person.'

As shown in (28) and (29), the Actor/Patient tests reveal a somewhat complex picture of
the verb *naru*. While it is expected from the result of the other agentivity tests that the
surface subject of *naru* can occur in the Actor frame, as in (28a) and (28b), it turns out
that the same verb can also occur in the Patient frame, as in (29a) and (29b). In this way,
it is similar to English verbs like *roll*, which can have either an Actor subject or Patient
subject:

(30) a. What Bill did was roll down the hill.
b. What happened to Bill was he rolled down the hill. (Jackendoff 1991)

In (30a) *roll* is understood as an intentional action, whose Actor is *Bill*. In (30b) it is interpreted as something that just happened accidentally, regardless of the intention of the subject *Bill*; thus Bill in (30b) is a Patient.

The evidence cited in this section collectively shows that *naru* is not a raising verb, and that the raising analysis (1b) above is not justified.

5.1.6. Structure of *Naru* sentence

K&T’s insight that [NP-ni] in [NP-ni naru] or [Adjective-u] in [Adjective-u naru] is a SC complement of the verb *naru* is valid, although as shown above, *naru* does not have the agentless property of a raising verb. What is needed is a different analysis which accounts for the fact that the subject of the matrix verb *naru* refers to the same referent as the subject of the lower predicate (i.e., NP+n or adjective+u), without the raising analysis. *Naru* with a nominal predicate SC is always used in the pattern [NP-ni + naru]. Note that -ni is an obligatory element, as shown by the ungrammaticality of (31b) and (31c) as contrasted with (31a):

    -Nom doctor-Cop become
    ‘John will become a doctor.’


    doctor-Acc become

The bound morpheme -ni is the infinitival form of the copula *-da* (e.g., Okutsu 1978) and *naru* is a verb which takes the clause [NP -ni] as its complement. We propose an alternative structure for the *naru* sentence, in which [NP-ni]/[Adj-u] is a complement of *naru* as proposed by K&T, but where *naru* is a control verb, not a raising verb:
Since the subject of the complement clause must always be coreferent with the matrix subject, it is represented as PRO coindexed with the matrix subject NP, as shown in (32b). In other words, *aru can be characterized as a subject-control verb.\(^\text{14}\)

\(^{14}\) The null subject of the lower IP in (32) is not *pro (as distinguished from PRO), as it cannot be substituted by an overt pronoun. (i-a) illustrates this point:

   -Nom he-Nom doctor Cop become -Nom son-Nom doctor Cop become
   (Intended) ‘John, he will become a doctor.’ ‘It is John whose son will become a doctor.’

Although (ib) is grammatical, and it would seem as if the null subject of the complement clause in (32) is substituted by a lexical NP (musuko-ga), (ib) does not justify analyzing (32) as having an embedded *pro subject. In fact, (ib) is a different construction, derived from [John-no musuko-ga isya ni naru] (Kuno 1973). That is, *John-ga in (ib) is derived from the genitive -no marked NP inside the subject NP. See Tateishi (1994:24) for details on such constructions and the “derived subject,” as contrasted with the so-called Major Subject, which disallows *no/*ga conversion.
A question to deal with when we categorize -ni (as well as -da, see 5.2.2) as a verb is the following: if -ni is a verb, and the NP sensei is its complement, why is it that sensei, the complement of the verb -ni, is not marked with the Accusative Case particle -o (see ungrammatical (31c))? It might be speculated that the complement noun sensei is assigned abstract Case by the copula -ni, but that the Case assigned by a copular verb is not morphologically reflected as -o. That is, -o shows up only when a theta-role is assigned by the Case-assigning verb. This makes sense considering the fact that the copula does not seem to assign a theta-role to its direct object. (31b) can be accounted for by adopting the generally accepted view that adjectives require no Case, as suggested by Nakayama (1996:34, fn. 15) with reference to copulas aru and -i.

5.1.7. Suru ‘make’

Suru represents two kinds of verbs in Japanese which have different semantics and subcategorizations: suru ‘do’, which takes an NP direct object as in (33a); and suru ‘make’, which takes a clausal complement as in (33b) and (33c):

(33)  a. Taro-ga syukudai-o si-ta.  
      Taro-Nom homework-Acc do-Past
      ‘Taro did his homework.’

      Taro-Top son-Acc doctor-Cop make-want-Asp
      ‘Taro (apparently) wants to make his son a doctor.’

   c. Taro-wa [abusutorakuto-o mizikak-u] si-ta.  
      Taro-Top abstract-Acc short-Cop make-Past
      ‘Taro made the abstract short. (i.e., shortened it)’

The subject-matter of this section is the latter kind of suru: In K&T suru ‘make’ is analyzed as a verb involving the raising of the complement SC subject:

      -Top son-Acc teacher-Cop make
      ‘John makes his son a teacher.’
b. John-wa [VP musuko-o[VP [NP t_i [N sensei -ni]]] e_j] suru (K&T:93, (49))

c.

According to K&T, sentences like (34a) involve nominal or adjectival nominal SCs which are complements to the verb suru. It is claimed that -ni in -ni suru is a hybrid between a Case particle and a copula: -ni is generated as a copular verb, and it attaches to the noun as a Case particle; the nominal SC's subject musuko raises to the dominating VP specifier position to receive Accusative Case from the matrix verb. It is suggested that -ni moves to attach to N, without leaving a trace.

A major problem in K&T's account is the mixed categorial status of -ni. It is uncertain how a lexical item can be generated as a V and become a Case particle, given such basic restrictions in generative theory such as the structure-preserving principle (Emonds 1976:3, Chomsky 1981:293). We suggest an alternative which treats -ni as a
verb, avoiding the uncertain claim about its dual categorial status. (35a) and (35b) show the *suru construction with a nominal predicate and an adjectival predicate, respectively:\textsuperscript{15}

-Nom son-Acc teacher-Cop make-Past  
‘John made his son a teacher.’

-Nom son-Acc cheerful-Cop make-Past  
‘John made his son cheerful.’

  teacher -Acc Cop make-Past

\begin{center}
\begin{tikzpicture}[scale=0.7]
  \node (IP) {IP}
  \node (NP) [below of=IP] {John-ga}
  \node (VP) [below of=NP] {VP}
  \node (I') [right of=VP] {I'}
  \node (I) [below of=I'] {I}
  \node (V') [right of=I] {V'}
  \node (V) [below of=V'] {V}
  \node (AP) [right of=V] {AP}
  \node (V') [right of=AP] {V'}
  \node (V) [below of=V'] {V}
  \node (NP) [below of=VP] {musuko}
  \node (I') [right of=NP] {I'}
  \node (I) [below of=I'] {I}
  \node (V') [right of=I] {V'}
  \node (V) [below of=V'] {V}
  \node (NP) [below of=VP] {sensei-ni}
  \node (I') [right of=NP] {I'}
  \node (I) [below of=I'] {I}
  \node (V') [right of=I] {V'}
  \node (V) [below of=V'] {V}
  \node (NP) [below of=VP] {sensei-ni}
  \node (I') [right of=NP] {I'}
  \node (I) [below of=I'] {I}
  \node (V') [right of=I] {V'}
  \node (V) [below of=V'] {V}
  \node (NP) [below of=VP] {sensei-ni}

In (35a) the SC [\textit{musuko-o sensei-ni}] is analyzed as an IP. The Accusative Case on the NP [musuko-o] is assigned by the matrix verb *suru (infinitive form \textit{si}) across IP by Exceptional Case Marking. The structure for adjectival predicates is basically the same.

\textsuperscript{15} As mentioned in 4.3.1 above, the \textit{-sika...-nai} construction is a test for clausality. Since “John-ga musuko-sika sensei-ni si-nak-atta” is grammatical in the intended reading ‘John made only his son a teacher’, it is possible that the sentence [NP-ga NP-o ....ni suru] is a simplex clause at some level, possibly LF, assuming that the \textit{-sika...-nai} test is accurate.
The SC [musuko-o akaruk-u], headed by a non-tensed Infl, is the complement of the matrix verb *suru*. The lower subject NP is assigned Case by ECM. Both structures are supported by Case theory: the non-finite Inflection of the lower IP is unable to assign Nominative Case to the lower subject, thus ECM is the plausible explanation for the -o marking on the SC subject.

5.2. The copula as a raising verb

For English and other languages such as French and Italian, it has been proposed in the literature (Heggie 1988 and references cited therein) that the copula *be/être/essere* is a raising verb. The purpose of this section is to find out whether the raising analysis is justified for Japanese copular sentences, too.\(^{16}\)

5.2.1. Raising analysis of *be*

Heggie (1988:47) assigns the structure (36b) to the English sentence (36a):

\[(36)\]
\[\begin{align*}
\text{a. John is sick.} \\
\text{b. John is [sc, sick].}
\end{align*}\]

\[\begin{tikzpicture}
\node (IP) {IP};
\node (NP) [below left of=IP] {NP};
\node (VP) [below right of=IP] {VP};
\node (be) [below of=VP] {be};
\node (AP) [below of=be] {AP};
\node (John) [left of=be] {John};
\node (sick) [right of=be] {sick};
\draw (IP) -- (NP);
\draw (IP) -- (VP);
\draw (VP) -- (be);
\draw (be) -- (AP);
\draw (John) -- (be);
\draw (sick) -- (be);
\end{tikzpicture}\]

\(^{16}\) Excluded from the discussion are the so-called *unagi-bun* or “eel” sentences which also have the predicative copular pattern [NP-wa NP-da]. See Mikami (1960) and Okutsu (1978) for a detailed description of sentences like *Boku wa unagi da*, which is homophonous with a sentence which literally means ‘I am an eel’ but which may also be an elliptical expression meaning ‘I am ordering eel,’ ‘The food I like/dislike is eel,’ etc. Okutsu lists various situations in which a diversity of elements can be ellipted and substituted by the expression NP-da.
According to this analysis, the surface subject of the copular verb *be* originates as the subject of the embedded Small Clause, then raises to the [Spec, IP] to yield the surface word order (36a). (36c) shows the D-structure.

If Japanese copular sentences have the same structure as English, (37a) has the structure (37b), by analogy with (36b):

(37)  a. Taro-wa isya da.
     'Taro is a doctor.'

   b. Taro-wa [[t,] isya] da.

In the literature, the raising analysis of English predicative *be* is part of a unified analysis of *be* which also includes the derivation of *there*-existential sentences. Consider (38a), which is claimed to be the underlying structure for both (38b) and (38c), according to Stowell (1978, 1988) and Heggie (1988):

(38)  a. [e] was [[_{NP} an American flag] [planted on the moon]].

   b. There was [[_{NP} an American flag] [planted on the moon]].

   c. [[_{NP} An American flag], was [[_{NP} t,] [planted on the moon]].

   (Stowell 1978:466; Heggie 1988:32)

Sentence (38b) is derived by inserting *there* in the empty matrix subject slot, while (38c) results from the movement of the first NP after *be* (i.e., the SC subject) to the same empty slot. The canonical predicative *be* sentence as shown in (36) above is considered to have the same derivation as the *there*-existential sentences.

Developing Stowell's argumentation for the raising analysis of copular sentences, Heggie (1988:29-30) discusses ways to rule out the overgeneration of ungrammatical existential *there* sentences such as the following:

(39)  a. [e] are [[_{NP} three children] [_{NP} winners]]

   b. *There are three children winners.
(39b) violates the so-called “NP-Restriction,” which bans sentences with the structure [NP1 be [NP2 NP3]]. Heggie proposes that this construction may be prohibited on thematic grounds: the SC complement of be in an existential there sentence [There be [sc NP1 predicate]] must be able to be interpreted as an event or situation, and SCs of the form [sc NP1 NP2] cannot be interpreted as such. Although it is not clear that “three children (being) winners” cannot be interpreted as a situation, or even an event, an account such as Heggie’s appears to be preferable to a stipulation on the form [NP-NP].

Assuming that such account is viable, Heggie’s and Stowell’s explanation is only possible by adopting the view that the copula is a raising verb taking a SC complement (= the higher AP in (36c)).

Heggie concludes that Stowell’s (1978) analysis of be as a raising verb offers a straightforward solution to apparently disparate restrictions on the there-existential sentences, including the above, called the “NP-restriction.”

5.2.2. Non-raising analysis of copula da

Returning to the Japanese copula, da does not lend to the same type of analysis as English be. There are two reasons why this is so. First, none of the arguments for raising involving there-insertion are available or relevant since Japanese does not have a counterpart of the overt expletive there. The other reason has to do with the Japanese existential and copular verbs per se. Unlike in English, Japanese existential verbs and

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17 For one thing, a sentence containing an appositional NP such as “I am Attila the Hun” would be ruled out by the restriction *[NP1 be [NP2 NP3]].

18 The two other restrictions addressed in Stowell (1978) and Heggie (1988) are the so-called “Semi-Modal be Restriction” (e.g., *There are three students to take the exam next Friday.) and the “Left-Most be Restriction” (e.g., *There was being a woman slow at the cash register.) The former involves moving the subject NP to the right of be in be to, and the latter, the progressive particle being intervening between the copula and the “moved” NP. Both are accounted for by assuming a raising analysis of the copula.
copular verbs do not share the same phonetic form. Although this fact in itself does not rule out that the two words may be different representations of the same lexical word, it decreases the motivation for the type of account proposed for English *be*. The existential verb, *aru*, and the copular verb *da* (and its variants) are two separate verbs. Although one variant of the copula, *de-aru*, contains *aru*, which is homophonous with existential *aru*, *aru* is an auxiliary in this case, not the copula.

The second and more independent argument against raising comes from scope interaction facts of temporal phrases (TP) and quantified NPs (QNP). As documented in Nakayama and Koizumi (1991), an unaccusative verb or a passive verb sentence in Japanese has the trace of the surface subject NP in the VP. This trace enables an ambiguous interpretation of the following sentence:

(40) a. Daremo-ga, [2-zi ka 3-zi -ni] *tinda*
    everyone-Nom 2 or 3 o'clock at died

    b. ‘Everyone died at 2 or 3 o'clock. Some died at 2, others at 3.’ -- QNP > TP

    c. ‘At 2 or 3 o'clock, everyone died. At the same time.’ -- QNP < TP

---

19. *Arū* is one of the two existential verbs of Japanese, *aru* and *iru*. As existential verb, *aru* is used only for inanimate subjects, as in (ib), while *iru* is reserved for animate subjects, as shown in (ia):

(i) a. Taro/inu-ga heya-ni *iru*/*aru*.
    Taro/dog-Nom room at is
    ‘Taro/the dog is in the room.’

    b. Ringo-ga sara-no *ue ni aru/*iru*.
    apple-Nom plate Gen above at is
    ‘There is an apple on the plate.’

As an auxiliary verb following the infinitive copula *de*, *aru* takes either an animate or an inanimate subject and functions as a host to tense markers, i.e., -u (present) -ta (past). (iia) illustrates such use. By contrast, *iru* as an auxiliary is limited to an animate (usually human) subject, and adds the meaning of the subject’s intentionality or control over the continuation of the state described by the copular predicate, as in (iib):

(ii) a. Taro-wa gakusei *de-ta*.
    Top student Cop aux-Past
    ‘Taro was a student.’

    b. Taro-wa gakusei *de-i-ta*.
    -Top student Cop aux-Past
    ‘Taro chose to be a student.’

Detailed comparison of *de iru* versus *de aru* is beyond the scope of this dissertation. Also beyond the scope of the present study is the possessive use of the verbs *aru/iru*, as in “*Taro-ni wa sigoto/kodomo-ga aru*” ‘Taro has a job/a child’ and “*Taro-ni wa kodomo ga iru*” ‘Taro has a child’.

20. Cf. Chapter 4, Nishiyama’s (to appear) analysis that both *de* and *aru* in [nominal-*de aru*] are copulas, the former the “predicational copula” and the latter, the “dummy copula”. cf. Nakayama (1988b).
(40a) is ambiguous between the reading (40b) in which the universal quantifier takes wider scope and the reading (40c) in which the temporal phrase takes wider scope. This is attributed to the trace of the quantified NP below the temporal phrase, under VP in the object position. Now consider the following copular sentence:

(41)  

a. Daremo-ga [Igakki-me  ka 2gakki-me -ni] TA datta.  
    everyone-Nom 1st term or 2nd term at TA was

b. 'Everyone was a TA either in the first term or second term. Some were TAs in the first term, others were TAs in the second term.'  
   -- QNP > TP

c. '*In the first term or the second term, everyone was a TA (at the same time).'  
   -- QNP < TP

If the subject Daremo-ga had raised from within the VP, as claimed for English *be* sentences like (36), a trace of the raised quantified NP below the temporal phrase should enable the same kind of ambiguity present in the unaccusative sentence (40), as shown in (42):

(42)

However, the lack of the interpretation (41c) suggests that the narrow-scope reading of the quantified phrase is unavailable. Therefore, it must be concluded that the surface subject of (41a) is base-generated above VP. This in turn shows that the copula *da* is not a raising verb. The structure we propose for (43a) is (43b):

(43)  

a. Taro-ga isya da.  
   -Nom doctor Cop  
   'Taro is a doctor.'
As proposed in the previous sections for the copular form -ni in the constructions NP-ni suru and NP-ni naru, the Japanese copula is a verb which takes an NP object. Basically, the structure in (43b) is embedded in suru and naru sentences as complement clauses, as proposed in (32) and (35) above. We repeat the structures schematically in (44):

(44) a.

\[
\text{IP} \\
\text{John-ga} \\
\text{CP (SC)} \\
\text{IP} \\
\text{NP} \\
\text{I'} \\
\text{VP} \\
\text{I} \\
\text{V'} \\
\text{V} \\
\text{NP} \\
\text{da} \\
\text{isya}
\]
5.3. Summary

In this chapter, we have seen that the raising verb analyses of *naru* ‘become’ and *suru* ‘make’ are problematic and that these verbs are better explained with alternative structures. Following discussion of the non-agentive property of raising verbs, it is shown that *naru* occurs in agentive contexts such as the imperative, desiderative -*tai*, resultative -*te aru*, preparatory -*te oku*, and the actor frame “X-ga nani-o sita ka to iu to ...,” thus cannot be a raising verb. A subject-control analysis is suggested as a more plausible option. For *suru*, the analysis of -*ni* as derived particle is challenged, and an IP (SC) complement structure is proposed and supported on Case-assignment grounds.

The last section presented a non-raising analysis for the predicative copula -*da*, as contrasted with the raising analysis of copular verbs in English and other major European languages. Facts of scope interaction of temporal phrases (TP) and quantified NPs (QNP) in particular suggests that -*da* is not a raising verb.
CHAPTER 6

CONCLUDING REMARKS

This dissertation has examined the properties of Small Clause-like constructions in Japanese. The analysis focused on two structures: the omou structure, in which the complement of the epistemic verb omou ‘think’ appears similar to the complement of the English SC construction [consider [sc NP XP]], and the suru/naru structure, in which the verbs suru ‘make’ and naru ‘become’ have been proposed in the literature to be raising verbs taking a SC complement. The two constructions are exemplified in (1a) and (1b), respectively:

(1) a. Taro-wa Hanako-o natukasik-u omot-ta.
    Taro-Top Hanako-Acc dear think-Past
    (Lit.) ‘Taro thought of Hanako as dear (Taro thought back to Hanako with nostalgia).’

        -Nom clever become-Past
        ‘John became clever.’

In Chapter 2, we surveyed major works on the Small Clause in English and Japanese, including Williams (1980, 1983), Stowell (1983, 1991), Kitagawa (1985), Kikuchi and Takahashi (1991), and Haegeman (1994). Williams’ predication-based analysis of SCs allows for a ternary branching of the three constituents in the structure [consider NP XP]. Since this dissertation assumes binary branching in all syntactic structures, Williams’ structural analysis of SCs is mentioned as a possible alternative
under a different theoretical framework. There are still many issues on predication pending investigation, including the relevance of predication to the theory of SCs and generative syntax.

Among the proponents of the SC theory, that is, those who minimally advocate the view that the post-verbal NP forms a constituent with the predicate following the NP, the main disagreement is on whether that constituent is a phrase or a clause. Stowell (1983, 1991) represents the phrasal analysis: the SC, including the post-verbal NP, is a maximal phrase projected from the SC predicate; the said NP is the subject of the SC. Kikuchi and Takahashi (1990) argue for a phrasal analysis of SCs in Japanese. The other alternative, that the SC is a full clause, is supported by Haegeman (1994) and Kitagawa (1985) among others. Through the literature survey we learned that there have been no studies on the properties of adjectival predicates in Japanese SC complement structures, and that there are possible alternatives to Kikuchi and Takahashi’s analysis of the SC in Japanese.

The first half of Chapter 3 dealt with the adjectival predicates which occur in SC-like sentences like (1a). Starting from the observation that some SC complement structures are more acceptable than others depending on the adjectives which occur in the complement, we attempted to identify the properties of such adjectives. We proposed a classification of adjectives in Japanese which is based on the number of arguments the adjective can take. There are three classes of adjectives: strictly one-place (1P), strictly two-place (2P), and possibly either one-place or two-place (1P/2P). Based on this classification, it was proposed that only the 2P and 1P/2P adjectives of feeling can occur in SC complement structures, assuming that the NP preceding it in the complement clause is the adjective’s direct object, representing a Theme argument.

The existence of some disagreement among native speakers regarding the acceptability judgment of some adjectives in SC complements was attributed to idiolectal
differences: some 1P/2P adjectives are more readily interpreted as 2P by some speakers than by others.

In the second half of Chapter 3, it was proposed that the inflectional endings \(-u\) and \(-i\) of Japanese adjectives are variant forms of the copula \(-da\). This view was supported by the comparison of adjectival sentences with nominal copular sentences. The distribution of \(-u\), \(-i\), and the auxiliary \(ar(u)\) in the present and past forms, in addition to sentences with emphatic elements \(-sae\) 'even’ or \(-mo\) ‘also’, indicated that considering \(-i\) and \(-u\) as copulas is most reasonable. This conclusion provides the basis of the structural analysis of the SC in Chapter 4.

In Chapter 4, a structural analysis of SC-like constructions was proposed. In the first part, it was argued for the view that the copula in Japanese is an element with semantic content (predication), not a semantically void element whose only function is that of a tense morphology carrier. This opinion is supported by the obligatory occurrence of \(-ni\) (the infinitive form of \(-da\)) in non-tensed embedded clauses such as (2a); in adjectival predicates, this copula corresponds to \(-u\) as shown in (2b):

\[(2)\]
\[a. \quad \text{John-ga Bill-o siawase *(ni) si-ta.} \]
\[-\text{Nom -Acc happy Cop make-Past} \]
\[\text{‘John made Bill happy.’} \]
\[b. \quad \text{John-ga Bill-o isogasik-u si-ta.} \]
\[-\text{busy} \]
\[\text{(Lit.) ‘John made Bill busy.’ (caused Bill to be busy).} \]

In the latter half of Chapter 4, the category of the SC was determined. Based on evidence from word order, the scope interpretation of \(-sae\) ‘even’, coordination, and proforms \(so\ so\ ‘do so’ and \(so\ so\ da\ ‘is so’, it was concluded that the tenseless complement of the epistemic verb in Japanese (i.e., the SC) is a clausal constituent containing a VP headed by the copular verb \(-u\), a variant of \(-da\). Further, it was suggested that the SC is either an IP or a CP, depending on the subcategorization of the
verb. When *omou* 'think' takes an SC complement, the SC is a CP; when *kanziru* 'feel' occurs in the same configuration, the SC is an IP. The *omou* sentence with a SC complement where the lower predicate is a transitive adjective, as in (1a), was proposed to be a subject control structure.

Chapter 5 focused on *suru/naru* sentences and the predicative copula -*da* sentences, another group of constructions which has been suggested to involve the SC complement structure. In particular, the *naru* construction as shown in (3) was discussed in detail:

   -Nom clever become-Past
   ‘John became clever.’

b. John-ga [sc t1 kasikoku] nat-ta    (Kikuchi and Takahashi 1990:82)

According to the raising analysis, *naru* takes [sc t kasikoku] as its complement, as in (3b); the surface subject *John* originates as the SC subject and raises to the matrix subject position to receive Case.

The raising analysis of *naru* ‘become’ was questioned and refuted on the basis of the agentivity of *naru*. Unlike English *seem*, which assigns no theta-role to the subject position thus fails the agentivity diagnostics, *naru* can be shown to have agentivity. The diagnostics for agentivity used in this section are the imperative, desiderative -*tai*, resultative -*te aru*, preparatory -*te oku*, and the actor pattern “X-ga nani-o si-ta ka to iu to ...” ‘what X did was ...’. Assuming that Agents are external arguments, the agentive reading of *naru* rules out the analysis that it is a raising verb, because the lack of external argument is one determining characteristic of raising verbs.

One complication to the basic assumption that Agents are always external arguments is the existence of verbs which have been described as "unaccusative," which nonetheless may have agentive reading. Based on the possibility of adverbs such as
intentionally or deliberately in English and wazato ‘intentionally’ in Japanese to force agentive reading to the apparently unaccusative verbs, it was concluded that the Agent theta-role is typically assigned to the external argument of a verb, i.e., the subject of a transitive or unergative verb; but that secondarily, the Agent theta-role can also be assigned to the surface subject of certain unaccusative verbs, when the verb phrase as a whole assigns an Agent role to this position. Raising verbs do not allow for the latter type of Agent role assignment, either.

Finally, an attempt was made to find out whether the raising analysis of the copula be in English was applicable to the Japanese copula -da, too. It was suggested that the copula -da does not lend to the raising analysis. Two reasons were cited for this conclusion: first, Japanese lacks the counterpart of the there-construction which plays a major role in motivating the raising analysis in English copulas. Secondly and more empirically, the facts of scope interaction of temporal phrases and quantified NPs show that the surface subject of naru is generated above VP, which in turn shows that -da is not a raising verb.

In closing, I would like to recapitulate the contributions of this dissertation to the field of Japanese linguistics as well as the limitations of the present study.

The identification of the adjectives occurring in the SC complement structures as two-place adjectives has clarified the difference in acceptability of SC structures involving adjectival predicates. The identifying of the subject-feeling adjectives as transitive, which is crucial in the structural analysis presented in Chapter 4, has implications to the Case theory in that it claims the assignment of Case by what is traditionally considered a non-Case assigning category. Since in the GB framework, Accusative Case is assigned by elements with the feature [-N] (e.g., verbs and prepositions), if adjectives in Japanese are
potential Case assigners, they must be [-N], too, assuming that the [-N] property of case assigners is universal. Further inquiry into such issues are deferred to future research.

The pieces of evidence which led to the proposal that the SC complements of *omou* and *kanziru* are a CP or IP support the clausal analysis option of SCs which has been proposed for other languages.

The non-raising analysis of *suru/naru* and the copula has added to our understanding of the workings of predication constructions. Although many theoretical details are to be further worked out, the semantic/thematic argumentation of agency in *naru* and *suru* sentences has provided a clear argument against the raising analysis of such verbs.
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