

Rightward Movement Phenomena in Linguistics

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By

Kohji Kamada

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PREFACE

This book is based on my Ph.D. dissertation, which I submitted to the University of Edinburgh in 2009. It deals with the properties of what is called the “rightward movement phenomena in human language,” from which it took its title. Many of the theoretical assumptions here and conclusions are almost the same as in the dissertation. In Chapter 4, however, I propose the revised licensing condition and interpretive rules for adjoined phrases, and one more subsection is added for multiple post-verbal phrases. Another difference from the dissertation is in Chapter 5, where rightward movement phenomena are discussed in terms of comparative syntax, with more linguistic data added.

I composed my original dissertation while I was a Ph.D. candidate at the University of Edinburgh between 2005 and 2009. Many kind people helped me during that time. First and foremost, I wish to express my deepest gratitude to Peter Ackema, who served as my first supervisor during my final three years, for his meticulous feedback and constant encouragement. I am also extremely grateful to Jim Hurford, who served as my supervisor during my first two years, for his kindness and generosity. I also wish to thank Caroline Heycock, who served as my second supervisor during my final two years, for her useful comments and remarks. Furthermore, I must thank Simon Kirby for serving as my second supervisor during my first year.

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ABBREVIATIONS AND SPECIAL SYMBOLS RELATING TO ACCEPTABILITY

Abbreviations

A	adjective	Hon	honorific
Abl	ablative	IO	indirect object
Acc	accusative	IR	Interpretive Rule
ADJ	adjunct	JPVC	Japanese postverbal construction
Adv	adverb	LA	lexical array
CFC	core functional category	LBC	Left Branch Condition
Cl	classifier	LC	Licensing Condition
Comp	complementiser	Lit.	literal
Conj	conjunction	ME	Magnitude Estimation
CSC	Coordinate Structure Constraint	MiD	Minimise Domain
CRP	Case Resistance Principle	MP	minimalist program
Dat	dative	N	noun
DO	direct object	n/a	not applicable
EA	external argument	Neg	negative
EC	empty category	NPI	negative polarity item
ECM	Exceptional Case Marking	NPSC	NP Shift construction
ECP	Empty Category Principle	Nom	nominative
EPP	Extended Projection Principle	NonP	non-past
EX	Extrapolation from NP	NS	narrow syntax
FGD	filler-gap domain	OBJ	object
FP	sentence final particle	OE	Old English
Gen	genitive	OLLC	On-Line Locality Constraint
GTA	Generalised Theta Attachment	Op	null operator
HNPS	Heavy NP Shift	P	postposition/ preposition
		Poss	possessive
		PVC	postverbal construction
		Q	question particle/quantifier

RA	right association principle	Top	topic
RD	Right Dislocation	UG	Universal Grammar
RDC	Right Dislocation construction	UMC	Unambiguous Modification Condition
RNR	Right Node Raising	UREC	unconscious reinterpretation condition
RRC	Right Roof Constraint		
sg	singular	V	verb
SUBJ	subject		

Special Symbols Relating to Acceptability

- *, ?*, ??, ? Unacceptability, decreasing in degree from * to ?
- ! Indicates “garden path sentences.”
- # Indicates semantic deviance.
- & Indicates a different interpretation from what is intended.

CHAPTER ONE

INTRODUCTION

The aim of this work is (1) to demonstrate that some properties of “rightward movement phenomena” (a cover term referring to sentences in which an element appears to be “displaced” to the right) may be derived from syntactic principles and interface conditions within the framework of the generative grammar/minimalist program, and (2) to argue that certain properties, which up to now have been dealt with purely in syntax, can be *better* accounted for in terms of language processing; accordingly, the human parser should undertake explanations of part of the competence system’s output (see e.g. Ackema and Neeleman 2002; Frazier 2013a; Gibson 1998, 2000; Hofmeister et al. 2013, 2015; Kluender 1998, 2004; cf. Goodluck, Saah, and Tsiwah 2015).¹

Generally, few theoretical linguists seem to take into consideration what psycholinguists do, and vice versa, although the relationship between the competence system (the grammar) and the performance systems (the human parser/processor) has been occasionally discussed (e.g. Belletti and Rizzi. 2013; Berwick, Abney, and Tenny 1991; Berwick and Weinberg 1984; Bresnan and Kaplan 1982; Crocker 1996; Culicover 2013; Gorrell 1995; Guasti 2014; Hawkins 2004, 2014; Koot 1990; Lewis and Phillips 2015; Mulders 2002; Neeleman and Koot 2010; Phillips 1996, 2003; Pritchett 1992; Pritchett and Whitman 1995; Reinhart, 2006; Siloni 2014, etc.).² As far as I know, with respect to rightward movement phenomena, a theoretical linguistic discussion that takes processing into account from the minimalist perspective has scarcely been initiated (cf. Chesi 2013). My proposed analysis of these phenomena leads to the conclusion that *phrasal*

¹ Trotzke, Bader and Frazier (2013, 16) argue that some language universals can be relegated to the independently motivated systematicity of the performance systems, which is compatible with the reduction of UG to a minimum (Chomsky 2005). See also Goodluck and Zweig (2013), Phillips (2013), and references therein.

² The articles, books, and theses listed in the parentheses are limited to those published after the so-called “principles-and-parameters approach” period in the history of generative grammar.

rightward movement rules in syntax fail to follow specific principles. At first glance, this conclusion seems identical with Kayne's (1994) claim that no rightward movement rules exist. However, his and my work provide completely different grounds for the absence of rightward movement rules, meaning that the present work presents an original view of rightward movement phenomena.

1.1 Two Main Questions

In general, Japanese is a verb-final language. In colloquial speech, however, a phrase frequently follows a verbal element, as exemplified in (1):³

- (1) Φ_i *kuruma-o kinoo kai-masita (yo), Taro-ga.*
 car-Acc yesterday buy-Past FP **Taro-Nom**
 Lit. " Φ_i a car yesterday bought, **Taro_i.**" (Taro bought a car yesterday.)

In the above example, the subject *Taro-ga* "Taro-Nom" appears in postverbal position. This type of construction is sometimes called the postverbal construction (Kaiser 1999; Kural 1997).

There are two types of previous structural analyses of the postverbal construction in Japanese: (i) movement analyses, and (ii) nonmovement analyses. Some researchers who adopt movement analyses claim that postverbal elements are derived by movement because they appear to obey island constraints, such as the so-called "Complex NP Constraint," as shown in (2), where the relevant phrase is extracted out of the relative clause, violating the Complex NP Constraint.⁴

- (2) ?*[_{NP}[_{CP} Φ_i *sonkeisiteiru*] *sensei*]-ga hueteimasu yo, **gakuseitai_i-ga.**
 respect teachers-Nom increase FP **students-Nom**
 Lit. "The number of teachers who Φ_i respect is increasing,
 students_i."

³ The relevant element is in boldface, the zero symbol Φ is used to mark the position associated with the boldfaced elements, and identical subscripts indicate that the relevant elements correspond to Φ .

⁴ *The Complex NP Constraint:*

No element contained in a sentence dominated by a noun phrase with lexical head noun may be moved out of that noun phrase by a transformation.

(Ross 1986, 76)

(3) [_{NP}[_{CP} Φ_i *sonkeisite-iru*]] *gakuseitai-ga hueteimasu yo, ano sensei-o.*
 respect students-Nom increase FP **that teacher-Acc**
 Lit. ‘The number of students who respect Φ_i is increasing, **that teacher_i.**’

(4) The postverbal element is base-generated in a CP-adjoined position (i.e. it is adjoined to a CP via External Merge).

- (5) a. How are postverbal elements licensed?
b. Why do Japanese postverbal constructions display the island effect in some cases, but not in others?

1.2 Outline

The present study is organised as follows. In Chapter 2, I provide cross-linguistic descriptions of rightward movement phenomena observed in six languages: Japanese, English, German, Dutch, Italian, and Turkish. First, I present a general description of Japanese postverbal constructions (Section 2.2). I then consider three types of constructions in English: Heavy NP Shift, Extraposition from NP, and Right Dislocation (Section 2.3). Finally, I describe the other languages in the context of rightward

movement constructions (Section 2.4). In general, descriptions are provided in a taxonomic manner, and the data cover as many syntactic properties as possible.

In Chapter 3, I first present an outline of the organisation of the grammar as well as some assumptions in the minimalist program (inter alia Chomsky 1995, 2000, 2001, 2004, 2008), based on which I have developed a syntactic analysis for Japanese postverbal constructions (Section 3.2). I then claim that the human parser is a universal system that can make use of the principles of Universal Grammar (UG) as well as language-particular rules. I also set out two parsing strategies: (i) the generalised theta attachment strategy proposed by Pritchett (1992), and (ii) the unconscious reanalysis condition proposed by me (Section 3.3). The proposed analysis is motivated by the minimalist program, in the framework of which the computational system of the human language is legible to other systems at the interface.

In Chapter 4, I argue against movement analyses for Japanese postverbal constructions, claiming that the interaction of parsing principles with the licensing condition for adjoined elements can account for the cases with which movement analyses fail to cope. I first present a critical review of some of the previous accounts of Japanese postverbal constructions and conclude that movement analyses are untenable (Section 4.2). Based on the assumption that the derivation of Japanese postverbal constructions involves no movement, I then propose that a postverbal phrase is adjoined to an element by External Merge. I provide many pieces of evidence in favour of the claim that the postverbal phrase is licensed through its association with a relevant element in accordance with the licensing condition for adjoined elements (Section 4.3). Further, I adopt two independently motivated interface conditions, which makes it possible to derive two syntactic properties of Japanese postverbal constructions: (i) the adjunction of postverbal phrases to a clause, and (ii) root phenomena (Section 4.4).

With respect to island effects (i.e. (5b)), I provide various examples to show that the presence or absence of island effects in Japanese postverbal constructions follows from the interaction of syntactic principles with the parsing strategies. I also argue that the proposed parsing strategies can deal with cases such as the elusive problem concerning scope ambiguity observed in Japanese postverbal constructions. Further, I claim that the human parser should employ the parsing strategy proposed in Kimball (1973) (Section 4.5).

The claim that there is a parsing strategy related to linear distance is supported by an experiment designed to test the effect of the intervening

elements' length on the acceptability of Japanese postverbal constructions. The data are obtained using Magnitude Estimation, a technique used in psychophysics to measure judgements of sensory stimuli. The results of the experiment show that Japanese postverbal constructions display the linear distance effect if more elements intervene between a postverbal phrase and a gap or modifier, whereas non-postverbal constructions do not display this effect, even if there are elements intervening between matrix subjects and predicates. I attempt to provide a tentative explanation for the contrast between postverbal and non-postverbal constructions with respect to the length effect by adopting a parsing principle proposed by Hawkins (2004), namely the Minimise Domain (Section 4.6).

In Chapter 5, a unified account of English and Japanese is provided in spite of the fact that there are syntactic differences between the two languages in rightward movement constructions: the licensing condition that holds true for Japanese postverbal constructions is applicable not only to the English Right Dislocation construction but also to the English Extraposition from NP construction. I also claim that the effects of locality in three types of rightward movement construction in English, including the "Heavy NP Shift construction," can follow from the parsing strategies that are independently motivated (Section 5.1).⁵

From a cross-linguistic perspective, the interaction of syntactic principles with parsing strategies predicts that languages fall into three types with respect to the possibility of the "(Heavy) NP Shift construction": (i) even subjects can appear postverbally (e.g. Italian, Japanese, Korean, Old English, Spanish, Turkish); (ii) subjects cannot do so (e.g. French, English); (iii) the (Heavy) NP Shift construction cannot

⁵ In this work, Right Node Raising (RNR) constructions, as shown below, are not discussed in detail.

- (i) I am confident of Φ_i , and my boss depends on Φ_i , **a successful outing at the track.**

(Ross 1986, 141)

The present study fails to give a satisfactory explanation for the derivation of an example like (i), because, as we will see later, the parser cannot postulate in the first conjunct a proper element (corresponding to Φ_i) for a shared final NP without adding a certain stipulation regarding theta-assignment (see (8) in Chapter 3). The issue concerning the derivation of RNR constructions will thus be left for future research, including the possibility of the involvement of multidominance (see also 4.2; cf. footnote 10 in Chapter 2). For a detailed discussion of RNR, see Bachrach and Katzir (2017), Grosz (2015), Hartmann (2000), Sabbagh (2007, 2014), and references therein.

exist (e.g. Dutch, German) (Section 5.2).⁶ Therefore, theoretical linguistic investigation that considers processing studies can provide a novel view of rightward movement phenomena in terms of comparative syntax or syntactic typology.

Chapter 6 concludes this book with a summary of its arguments.

⁶ Apart from Old English, the languages discussed in this work are living ones. Hence, “English” refers to present-day English.

CHAPTER TWO

GENERAL DESCRIPTION

2.1 Introduction

In this chapter, I provide cross-linguistic descriptions of rightward movement phenomena observed in six languages: Japanese, English, German, Dutch, Italian, and Turkish. First, I present a general description of Japanese postverbal constructions (Section 2.2). I then consider three types of constructions in English: Heavy NP Shift (HNPS), Extraposition from NP (EX), and Right Dislocation (RD) (Section 2.3). Finally, I describe the other languages in the context of rightward movement constructions (Section 2.4). Descriptions in general are provided in a taxonomic manner, and the data cover as many syntactic properties as possible.

2.2 Japanese

In this section, I will describe some syntactic properties of Japanese postverbal constructions in a manner that is as analysis-neutral as possible. Prior to consideration of the construction in question, a short overview is taken of Japanese syntax insofar as it is relevant to the issues addressed in this work. A general survey is then given of the properties of Japanese postverbal constructions.¹

2.2.1 Japanese as a Verb-final Language

It is well known that Japanese is descriptively a verb-final language. Declarative clauses in Japanese may be classified into three categories according to the types of conjugating verbal elements: verbs, auxiliary verbs, and adjectives (Kuno 1978b). Verbs are subdivided into three classes—intransitives, monotransitives, and ditransitives—as exemplified

¹ In this work, I use boldface to denote relevant elements not only in my own examples but also in cited examples.

in (1), where the subject is marked with the nominative particle *-ga*, the direct object with the accusative particle *-o*, and the indirect object with the dative particle *-ni*.

(1) Verbs

- a. *Basu-ga ki-ta.* [Intransitive]
 bus-Nom come-Past
 ‘‘Here comes a bus.’’
- b. *Taro-ga keiki-o tabe-ta.*² [Monotransitive]
 Taro-Nom cake-Acc eat-Past
 ‘‘Taro ate cake.’’
- c. *Taro-ga Hanako-ni hana-o age-ta.* [Ditransitive]
 Taro-Nom Hanako-Dat flower-Acc give-Past
 ‘‘Taro gave some flowers to Hanako.’’

The following examples demonstrate that auxiliary verbs inflect like verbs. The copula *da* ‘‘be’’ in (2a) is conjugated into the past form. *Nakat* ‘‘not’’ in (2b) is suffixed to the verb *mi* ‘‘watch,’’ and it thereby seems as if the negative auxiliary verb is conjugated like a verb.

(2) Auxiliary verbs³

- a. *Taro-wa ano toki gakusei dat-ta.* [Copula]
 Taro-Top that time student be-Past
 ‘‘Taro was a student at that time.’’
- b. *Taro-wa terebi-o mi-nakat-ta.* [Negative]
 Taro-Top television-Acc watch-Neg-Past
 ‘‘Taro didn’t watch TV.’’

Adjectives may also function alone as predicates as in (3), where the adjective is not followed by a copula.

² There is another kind of monotransitive verb that requires the dative particle *ni* for its direct object, as shown below.

(i) *Taro-ga Hanako-ni at-ta.*
 Taro-Nom Hanako-Dat meet-Past
 ‘‘Taro met Hanako.’’

³ Auxiliary verbs in Japanese are assumed here to include *ta* (the auxiliary ‘‘have’’) as well.

(3) Adjectives

Taro-wa wakai.

Taro-Top young

“Taro is young.”

The subordinate clause ends with a verbal element as well.

(4) Subordinate clauses

a. *Taro-wa [Hanako-ga doresu-o ano mise de **kat-ta**] to*
 Taro-Top Hanako-Nom dress-Acc that shop at buy-Past Comp
omot-ta.
 think-Past

“Taro thought that Hanako had bought a dress at that shop.”

b. [*ame-ga **hut-ta**] node, takusi-ni not-ta.*
 rain-Nom fall-Past because (I) taxi-Dat take-Past
 “I took a taxi because it rained.”

In (4a–b), the verbs *kat-ta* “buy-Past” and *hut-ta* “fall-Past” are placed at the end of the subordinate clauses, respectively.

Let us next look at the interrogative clause. Interrogative sentences often end with question particles such as *ka*. As the example in (5b) shows, in the case of a wh-question, the wh-word *nani-o* “what-Acc” does not obligatorily move to sentence-initial position, unlike English.

(5) Interrogatives

Yes/No question

a. *Taro-wa ki-masu ka.*
 Taro-Top come-NonP Q
 “Does Taro come?”

Wh-question

b. *Taro-wa sokode **nani-o** mi-masita ka.*
 Taro-Top there what-Acc see-Past Q
 “What did Taro see there?”

2.2.2 Ellipsis

In Japanese, constituents such as subject NPs and object NPs are not obligatorily present in sentences. The subject in (6b) is missing, both subject and object in (6c) are missing, and in (6d), all the constituents

except the verb are missing.⁴ Nevertheless, each example in (6) is grammatical. The missing expressions are usually understood in context.

- (6) a. *Taro-ga kuruma-o kat-ta.*
 Taro-Nom car-Acc buy-Past
 ‘‘Taro bought a car.’’
 b. Φ *kuruma-o kat-ta.*
 car-Acc buy-Past
 ‘‘(I/You/He/She/They) bought a car.’’
 c. *Taro-ga Φ kat-ta.*
 Taro-Nom buy-Past
 ‘‘Taro bought (it/them).’’
 d. Φ Φ *kat-ta.*
 buy-Past
 ‘‘(I/You/He/She/They) bought (it/them).’’

We shall discuss the identity of the missing expressions in Chapter 4.

2.2.3 Word Order: SOV

As the following examples demonstrate, Japanese has relatively free word order.

- (7) a. *Kinoo Taro-ga kuruma-o kat-ta.*
 yesterday Taro-Nom car-Acc buy-Past
 ‘‘Taro bought a car yesterday.’’
 b. *Tagro-ga kinoo kuruma-o kat-ta.*
 Taro-Nom yesterday car-Acc buy-Past
 c. *Kuruma-o kinoo Taro-ga kat-ta.*
 car-Acc yesterday Taro-Nom buy-Past
 d. *Kuruma-o Taro-ga kinoo kat-ta.*
 car-Acc Taro-Nom yesterday buy-Past

Each of the examples in (7) has a different word order, but all are identical in logical content. It may be assumed, however, that the Japanese canonical order is subject-object-verb (SOV) based on, among other considerations, the fact that Japanese displays a rigid-word-order effect when the subject and the object have the same case particles (see Kuno 1978b, 59).

⁴ Φ indicates that the relevant position has an argument without phonetic content.

- (8) *Taro-ga Hanako-ga suki-na koto*
 Taro-Nom Hanako-Nom fond-of Comp
 “the fact that Taro is fond of Hanako”

It is known that Japanese stative verbs mark both subject and direct object with the nominative case particle *-ga* (e.g. Tsujimura 2014, 250). In (8), the subordinate clause means that “Taro is fond of Hanako” and not “Hanako is fond of Taro.” This suggests that there are no changes in subject-object word order when both subject and object are marked with identical case particles. Thus, it is preferable to assume that Japanese underlying word order is SOV because it would otherwise be necessary to assume an additional constraint that prohibits the second nominative NP from being interpreted as the subject.

2.2.4 Japanese Postverbal Constructions

Thus far, it has been argued that in general Japanese clauses end with verbal elements and that the canonical word order is SOV. In colloquial speech, however, a phrase frequently follows a verbal element, as exemplified in (9), with the postverbal element in boldface.⁵

- (9) *Kuruma-o kinoo kai-masita (yo), Taro-ga.* [= (1) in Ch. 1]
 car-Acc yesterday buy-Past FP **Taro-Nom**
 “**Taro** bought a car yesterday.”

In this subsection, I will discuss the type of construction in which elements appear in postverbal position. This kind of construction is sometimes called a postverbal construction (Kaiser 1999; Kural 1997): henceforth, I refer to this construction type as a Japanese postverbal construction (JPVC).^{6, 7}

⁵ An example like (i), where a plain form (i.e. *kat* “buy”) is used instead of a polite form like *kaimasi* in (9), becomes less acceptable without final particles such as *yo* (see also 2.2.4.4).

- (i) *Kuruma-o kinoo kat-ta ?*(yo), Taro-ga.*
 car-Acc yesterday buy-Past FP **Taro-Nom**
 “**Taro** bought a car yesterday.”

⁶ Overt proforms like a pronoun, which may be associated with the postverbal noun, are allowed to appear in subject and object positions (see e.g. Kuno 1978a).

2.2.4.1 Postverbal elements

In this subsection, I will focus on the syntactic properties of JPVCs. More specifically, I will discuss what can and what cannot appear in postverbal position.

2.2.4.1.1 What syntactic categories can appear postverbally?

I will first consider what syntactic categories can come after verbal elements. Noun phrases can occupy a postverbal position regardless of the types of particles with which the NPs are marked, as shown in (10a–d), where a nominative NP, an accusative NP, a dative NP, and an NP marked with the topic particle *wa*, respectively, appear after verbs.⁸

NP

- (10) a. Φ_i *kuruma-o kinoo kai-masita (yo), Taro_i-ga.* [= (9)]
 car-Acc yesterday buy-Past FP **Taro-Nom**
 “**Taro** bought a car yesterday.”
 b. *Taro-ga Φ_i kinoo kai-masita (yo), kuruma_i-o.*
 Taro-Nom yesterday buy-Past FP **car-Acc**
 “Taro bought **a car** yesterday.”
 c. *Hanako-ga toshokan de ano hon-o Φ_i watasi-masita (yo),*
 Hanako-Nom library in that book-Acc give-Past FP

-
- (i) a. *Kare/aitu-ga kuruma-o kai-masita (yo), Taro-ga.*
 he/that fellow-Nom car-Acc buy-Past FP **Taro-Nom.**
 Lit. “He/that fellow bought a car, **Taro**.”
 b. *Taro-ga sore-o kai-masita (yo), ano kuruma-o.*
 Taro-Nom it-Acc buy-Past FP **that car-Acc**
 Lit. “Taro bought it, **that car**.”

In (ia), *kare/aitu-ga* “he/that fellow-Nom” can be associated with *Taro-ga* “Taro-Nom,” and in (ib), *sore-o* “it-Acc” can be linked with *ano kuruma-o* “that car-Acc.” As will be shown in Chapter 4, the postverbal phrases in (i) are licensed by the licensing condition which holds true for postverbal elements in JPVCs. Thus, examples like (9) and (i) should be treated in the same manner (see Tanaka 2001), although in this work I will not discuss examples like (i) in great detail compared with JPVCs.

⁷ The postverbal construction is also called the right dislocation construction or the postposing construction (see e.g. Tanaka 2001; Takano 2014).

⁸ In this section, Φ is used to mark the position associated with elements “moved” leftward or rightward, and identical subscripts indicate that the “moved” elements correspond to Φ .

Ken-ni.

Ken-Dat.

“Hanako gave that book **to Ken** in the library.”

- d. Φ_i *kinoo* *tenisu-o* *si-masita* (yo), ***Taro-wa.***
 yesterday tennis-Acc play-Past FP **Taro-Top**
 “**Taro** played tennis yesterday.”

Non-referential NPs can occur in postverbal position as well.

Quantified NP

- (11) a. Φ_i *ki-masita* (yo), ***daremo-ga.***
 come-Past FP **everyone-Nom**
 “Everyone came.”

Idiom chunks

- b. *Isha-ga* Φ_i *nage-masita* (yo), ***sazi-o.***⁹
 doctor-Nom throw-Past FP **spoon-Acc**
 “The doctor gave it up.” (Lit. “The doctor threw a spoon.”)

Moreover, nonarguments such as genitive phrases, demonstratives and adjective phrases can appear in postverbal position.

- (12) a. [Genitive]

Hanako-ga *hon-o* *yomi-masita* (yo), ***Ken-no.***
 Hanako-Nom book-Acc read-Past FP **Ken-Gen**
 “Hanako read **Ken’s** book.”

- b. [Determiner]

Kinoo *tuini* *eega-o* *mi-masita* (yo), ***ano.***
 yesterday (I) finally movie-Acc see-Past FP **that**
 “(I) finally saw **that** movie.”

- c. [Adjective]

Hanako-ga *kuruma-o* *kai-masita* (yo), ***sugoku ookii.***
 Hanako-Nom car-Acc buy-Past FP **very big**
 “Hanako bought a **very big** car.”

Adapted from (Shimojo 1995, 110)

The genitive phrase in (12a) is associated with the object *hon-o* “book-Acc,” the demonstrative determiner in (12b) modifies the direct object NP *eega-o* “movie-Acc,” and the adjective phrase in (12c) describes the direct object NP *kuruma-o* “car-Acc.”

⁹ Some people do not allow an idiomatic reading, even in a certain context.

It should be noted that the modifier must precede the head noun when they both appear together to the left of the verb, as shown in (13)–(15).

- (13) a. *Hanako-ga* [_{NP} *Ken-no hon*]-o *yomi-masita* (yo).
 Hanako-Nom Ken-Gen book-Acc read-Past FP
 “Hanako read Ken’s book.”
 b. **Hanako-ga* [_{NP} *hon*]-o ***Ken-no*** *yomi-masita* (yo).
 Hanako-Nom book-Acc **Ken-Gen** read-Past FP
 Lit. “Hanako read book **Ken’s**.”
- (14) a. *Kinoo tuini* [_{NP} *ano eega*]-o *mi-masita* (yo).
 yesterday (I) finally that movie-Acc see-Past FP
 “(I) finally saw that movie.”
 b. **Kinoo tuini* [_{NP} *eega*]-o ***ano*** *mi-masita* (yo).
 yesterday (I) finally movie-Acc **that** see-Past FP
 Lit. “(I) finally saw movie **that**.”
- (15) a. [_{NP} *sugoku ookii kuruma*]-o *kai-masita* (yo).
 (I) very big car-Acc buy-Past FP
 “I bought a very big car.”
 b. * [_{NP} *kuruma*]-o ***sugoku ookii*** *kai-masita* (yo).
 (I) car-Acc **very big** buy-Past FP
 Lit. “I bought a car **very big**.”

Adverbial phrases can also undergo JPVCs, as shown below.

- (16) a. [Quantifier]
Kokode neko-ga nete-imasu (yo), ***san-biki***.
 here cat-Nom sleep-NonP FP **three-Cl**
 “**Three** cats are sleeping here.”
 b. [Adverb]
Suzuki-san-ga kono hako-o tukuri-masita (yo), ***kinoo***.
 Suzuki-Mr-Nom this box-Acc make-Past FP **yesterday**
 “Mr Suzuki made this box **yesterday**”
 c. [Adverb]
Suzuki-san-ga kono hako-o tukuri-masita (yo), ***tegiwayoku***.
 Suzuki-Mr-Nom this box-Acc make-Past FP **efficiently**
 “Mr Suzuki made this box **efficiently**.”
 d. [PP]
Taro-wa kinoo kono hon-o yomi-masita (yo), ***ano***
 Taro-Top yesterday this book-Acc read-Past FP **that**

toshokan de.

library in

“Taro read this book **in that library** yesterday.”

The example in (16a) indicates that floating quantifiers may appear after the verb. The examples in (16b) and (16c) show that adverbs can be put in the postverbal position, while in (16d) the adpositional phrase appears postverbally.

As (17) and (18) show, clauses can appear in postverbal position, although generally relative clauses must appear immediately before the relevant nouns, as shown in (19a–b), and adjunct clauses usually precede the main clause, as the example in (19c) shows.

Complement clauses

(17) a. *Taro-wa Φ_i sitte-imasu (yo), [CP Hanako-ga kokoni ki-ta koto].*
 Taro-Top know-NonP FP Hanako-Nom here come-Past Comp
 “Taro knows **that Hanako came here.**”

b. *Φ_i uwasa-o kiki-masita (yo), [CP Taro-ga ano ie-o*
 (I) rumour-Acc hear-Past FP Taro-Nom that house-Acc
kat-ta toiu].
buy-Past Comp

“I heard the rumour **that Taro bought that house.**”

c. *Φ_i uwasa-ga hirogari-masita (yo), [CP Taro-ga ano ie-o*
 rumour-Nom spread-Past FP Taro-Nom that house-Acc
kat-ta toiu].
buy-Past Comp

“The rumour spread **that Taro bought that house.**”

Relative and adjunct clauses

(18) a. *Kuruma-o utensi-masita (yo), [CP kinoo kat-ta].*
 (I) car-Acc drive-Past FP yesterday (I) buy-Past
 “I drove the car **that I bought yesterday.**”

b. *Itinitizyu heya-ni i-masita (yo), [CP tukare-ta node].*
 (I) all day room in stay-Past FP (I) tired-Past because
 “I stayed in my room all day **because I was tired.**”

(19) a. [_{NP} [*Taro-ga kat-ta*] *kuruma*]
 Taro-Nom buy-Past car

“the car **that Taro bought**”

b. * [_{NP} *kuruma* [*Taro-ga kat-ta*]]
 car Taro-Nom buy-Past

- c. [_{CP} *tukare-ta node*], *itinitizyu heya-ni i-masita*.
 (I) **tired-Past because** (I) all day room in stay-Past
 “I stayed in my room all day **because I was tired.**”

The first conjunct in coordinate NPs can appear postverbally, accompanied by *to* “and,” but the second one cannot (see also Sells 1999, 3).

(20) [ConjP]

- a. *Watasi-wa* [_{*Φ*} *ringo-o*] *kesa* *tabe-masita* (*yo*), *mikan-to*.
 I-Top apple-Acc this morning eat-Past FP **orange and**
 Lit. “I ate *Φ* an apple this morning **an orange and.**”
 (I ate an apple and an orange this morning.)
 b.**Watasi-wa* [*mikan-to Φ*]_{*i*} *kesa* *tabe-masita* (*yo*), *ringo-o*.
 I-Top orange and this morning eat-Past FP **apple-Acc**
 Lit. “I ate an orange and *Φ* this morning, **an apple.**”

It should be noted that postverbal elements have split antecedents.

- (21) *Taro_i-wa ringo-o Hanako_j-wa mikan-o tabe-masita* (*yo*),
 Taro-Top apple-Acc (and) Hanako-Top orange-Acc eat-Past FP
kinoo karera_{i+j}-ga kat-ta.
 yesterday they-Nom buy-Past
 “Taro ate an apple and Hanako ate an orange, **which they bought yesterday.**”

The postverbal relative clause in (21) concurrently modifies *ringo* “apple” and *mikan* “orange,” while the pronoun *karera* “they” can refer to both *Taro* and *Hanako*—this is the so-called split antecedent phenomenon.¹⁰

2.2.4.1.2 Multiple postverbal elements

More than one constituent may appear in postverbal position, as shown in (22), where postverbal elements are freely ordered.

¹⁰ In (21), the clause apart from the postverbal element is taken to be derived by RNR, whereby *tabe-masita* has raised across-the-board from T to C (see (121') and (149) in Chapter 4 for the structure of RNR constructions in Japanese; cf. footnote 5 in Chapter 1).

- (22) a. *Taro-ga Kenji-ni hon-o age-masita.*
 Taro-Nom Kenji-Dat book-Acc give-Past
 “Taro gave a book to Kenji.”
- b. $\Phi_i \Phi_j$ *hon-o age-masita (yo), Taro-gai Kenji-nij*
 book-Acc give-Past FP Taro-Nom Kenji-Dat
/Kenji-nij Taro-gai.
/Kenji-Dat Taro-Nom
 Lit. “ $\Phi_i \Phi_j$ gave a book, Taro_i to Kenji_j/to Kenji_j Taro_i.”
- c. Φ_i *Kenji-ni Φ_j age-masita (yo), Taro-gai hon-o_j*
 Kenji-Dat give-Past FP Taro-Nom book-Acc
/hon-o_j Taro-gai.
/book-Acc Taro-Nom
 Lit. “ Φ_i gave Φ_j to Kenji, Taro_i a book_j/ a book_j Taro_i.”
- d. $\Phi_i \Phi_j \Phi_k$ *age-masita (yo), Taro-gai Kenji-nij hon-o_k*
 give-Past FP Taro-Nom Kenji-Dat book-Acc
/Hon-o_k Kenji-nij Taro-gai.
/book-Acc Kenji-Dat Taro-Nom
 Lit. “ Φ_i gave $\Phi_j \Phi_k$, Taro_i to Kenji_j a book_k.”

There is a different type of multiple postverbal element.

- (23) *Taro-ga Φ_i itte-ta yo, [Mari-ga Φ_j sagasite-iru-to]_i*
 Taro-Nom say-Past FP Mari-Nom looking for-Comp
anata-no-koto-o_j.
you-Acc
 “Taro said **that Mari was looking for you.**”

Adapted from (Soshi and Hagiwara 2004, 414)

In (23), *anata-no koto-o* “you-Acc” appears to be extracted out of the postverbal clause that is associated with the verb in the matrix clause.

2.2.4.1.3 What elements cannot appear in postverbal position?

It is impossible to separate case particles like *-o* “accusative” or postpositions like *-de* “in” from the associated NPs, as shown in (24) and (25b), although whole postpositional phrases (PP) can be put in postverbal position, as in (25a) (see also (18d)).

- (24) a. **Taro-ga Φ_i -o tabe-masita (yo), sushi.*
 Taro-Nom Φ -Acc eat-Past FP sushi
 “Taro ate **sushi.**”

- b. **Taro-ga susi Φ_i tabe-masita (yo), -o_i.*
 Taro-Nom **suhi** eat-Past FP **-Acc**

(25) a. *Taro-ga sono hon-o yomi-masita (yo), toshokan-de.*
 Taro-Nom the book-Acc read-Past FP **library in**
 “Taro read the book **in the library**.”

- b. **Taro-ga Φ_i -de sono hon-o yomi-masita (yo), toshokan.*
 Taro-Nom Φ -in the book-Acc read-Past FP **library**

As the examples in (26) show, it is impossible to place elements in the postverbal position while stranding modifiers.

- (26) a. **[takai Φ_i] kai-masita (yo), ie-o.*
 (I) expensive buy-Past FP **house-Acc**
 “I bought an expensive **house**.”
 b. **[_{NP} totemo ie]-o kai-masita (yo), takai.*
 (I) very house-Acc buy-Past FP **expensive**
 Lit. “I bought a very house, **expensive**.”

In (26a), *ie* “house” cannot be construed as being modified by *takai* “expensive.” Likewise, in (26b) *takai* “expensive” cannot be associated with *totemo* “very.”

As Shimojo (1995, 115) points out, an element from within a conjunct cannot occupy the postverbal position (cf. (20a)).

- (27) * *[_{NP}[_{ConjP} [_{NP} *huransu-no* [_N *sizin*]] *to* [_{NP} Φ_i [_N *isha*]]]-ga syoo-o*
 France-Gen poet and doctor-Nom award-Acc
morat-ta no yo, amerika-no.
 received nominaliser FP **America-Gen**
 Lit. “A French poet and a Φ doctor received the awards, **American**.”

In (27), it is impossible to interpret *amerika-no* “American” as modifying *isha* “doctor.”

Note that Kuno (1978b) claims that neither wh-words like *nani* “what” nor negative polarity items (NPIs) like *sika* “only” can be found in postverbal position, as shown in (28b) and (29b), respectively.¹¹

¹¹ Mahajan (1997, 209n9) points out that in Hindi, it is very difficult for wh-phrase to occupy the postverbal position.

(28) a. *Kimi nani taberu.*

you what eat

“What are you going to eat ?”

b. **Kimi Φ_i taberu, nani.*

you eat what

Lit. “Are you going to eat **what** ?”

(Kuno 1978b, 63)

(29) a. *Boku nihon ni sando sika itta koto ga nai.*

I Japan to thrice only went experience have-not

“I have been to Japan only three times.”

b. **Boku nihon ni itta koto ga nai, sando sika.*¹²

I Japan to went experience have-not **thrice only**

(Kuno 1978b, 63)

However, if particles are attached to the NPs in (28b), the acceptability is improved, as shown in (30), where *kimi* “you” is marked with the topic particle *-wa*, *nani* “what” is marked with an accusative particle *-o*, and a question particle *-no* appears.

(30) *Kimi-wa Φ_i taberu no, nani-o.*

you-Top eat Q what-Acc

Furthermore, other types of NPIs such as *daremo* “anyone” can appear postverbally.

(31) *Φ_i ko-nakat-ta yo, daremo.*

come-Neg-Past FP anyone

“No one came.”

The acceptability of the examples in (30) and (31) indicates that Kuno’s (1978b) claim is untenable.

2.2.4.2 Syntactic properties of JPVCs

In this subsection, I will discuss some restrictions on JPVCs besides those described in the previous subsection. In other words, I will try to reveal syntactic relationships between postverbal elements and the relevant clauses.

¹² Three Japanese informants judge (29b) to be completely acceptable.

2.2.4.2.1 Subordinate clauses

JPVCs cannot appear within a subordinate clause (see Kuno 1978b, 64; Kuroda 2005, 110–113).

- (32) a. *_{[CP} John-ga Φ_i *tabe-ta* **susi** *i-o koto*]-wa *hontoo desu*.
 John-Nom eat-Past sushi-Acc Comp-Top true is
 “That John ate **sushi** is true.”
 b. *_{[CP} Φ_i *susi-o tabe-ta* **John** *i-ga koto*]-wa *hontoo desu*.
 sushi-Acc eat-Past John-Nom Comp-Top true is
 “That **John** ate sushi is true.”
 c. **Jiro-wa* _{[CP} *Taro-ga susi-o tabe-ta* **kinoo** *koto*]-o
 Jiro-Top Taro-Nom sushi-Acc eat-Past **yesterday** Comp-Acc
sitte-imasu.
 know-NonP
 “Jiro knows that Taro ate sushi **yesterday**.”
- (33) **Titi-ga* Φ_i *kat-ta*, **kono ie** *i-o node, watasitati-wa*
 father-Nom buy-past **this house**-Acc because we-Top
sengetu hikkosi-masita.
 last month move-in-Past
 “Because our father bought **this house**, we moved in last month.”

The examples in (32) and (33) show that in subordinate clauses, phrases cannot come after the verbal elements.¹³

¹³ Whitman (2000, 465) claims that some complementisers must be adjacent to a verbal or adjectival head and some can be stranded, and hence that the example in (i) will be improved by changing a complementiser *no* into *tte yuu*, as shown in (ii).

- (i) *_{[doresu} *kat-ta* **Ginza** *-de no*]-wa *tasika da*.
 dress bought Ginza-at Comp-Top certain is
 “It is certain that someone bought a dress **on the Ginza**.”
- (ii) [_{[doresu} *kat-ta* **Ginza** *-de, tte yuu*] *uwasa*]-o *ki-ita*.
 dress bought Ginza-at Comp rumour-Acc heard
 Lit. “(I) heard the rumour that someone bought one, a dress, **on the Ginza**.”
 Adapted from (Whitman 2000, 465)

However, the underlined part in (ii) should be regarded as direct speech, because *tte yuu* “say,” which should be regarded as Particle, is usually used to quote what someone has said.