



# THE UNIVERSITY *of* EDINBURGH

This thesis has been submitted in fulfilment of the requirements for a postgraduate degree (e.g. PhD, MPhil, DClinPsychol) at the University of Edinburgh. Please note the following terms and conditions of use:

This work is protected by copyright and other intellectual property rights, which are retained by the thesis author, unless otherwise stated.

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

The syntax of dative-accusative constructions  
in Japanese

Kaori Miura

A thesis submitted in fulfillment of the requirements  
for the degree of Doctor of Philosophy  
to the  
University of Edinburgh

October 2011

This is to clarify that this dissertation is the result of my own work and includes nothing which is the outcome of work done in collaborations.

Kaori Miura

## Abstract

Both ditransitive verbs and causative transitive verbs in Japanese are linked with the two verbal arguments: the dative phrase and the accusative phrase. Despite this similarity, the syntax of these verbs is in sharp contrast: the ditransitive verb construction involves the mono-clausal structure, whereas the transitive causative construction contains the bi-clausal structure (Kuroda 1965b, Saito 1982; 1985, Hoji 1985, Miyagawa 1989, among others). One crucial instance for such distinction is the behavior of the dative phrase of the two types of construction with respect to the ‘subjecthood’. The subject-oriented anaphor in Japanese (e.g., *zibun* ‘self’) can take the dative phrase of the transitive causative verb as its antecedent, whereas it cannot the dative phrase with the ditransitive verb as its antecedent (Kuroda 1965b).

Notwithstanding the difference, this thesis attempts to propose a unified account for these two types of dative-accusative constructions in terms of the Phase Theory within the framework of Generative Grammar (Chomsky 2000; 2001). Investigating four sub-categories of dative-accusative verbs (i.e., *spray/load* verbs, *give* verbs, causative transitive verbs and causative motion verbs), I claim that there are two types of Dative Case Assignment in Japanese: the In-situ Assignment and the Assignment after Movement. The former type of assignment is manifested in VP of *give* verbs and in that of transitive causative verbs; on the other hand, the latter type of assignment is identified in VP of *spray/load* verbs and in that of causative motion verbs.

In the Phase theory, the probe-goal relation between the functional head and its c-commanding goal(s) (i.e., (Multiple) Agree) governs Case-licensing mechanism. In standard assumptions, the Accusative Case domain is the c-command domain of the light verb  $v$  (Chomsky 2004). Following these assumptions, I claim that the two types of Dative Case Assignment can be ultimately attributed to the two distinctive Case features on the functional head  $v$  of the four types of dative-accusative constructions:  $v_{\text{acc}[\text{+multiple}]}$  and  $v_{\text{dat}}$ . If  $v_{\text{acc}[\text{+multiple}]}$  is selected by Merge, the Dative Assignment after Movement is implemented, whereas if  $v_{\text{dat}}$  is selected, the In-situ Dative Assignment is induced. Hence, the difference in Dative Case Assignment is predicted at which Select picks up vocabularies from the Lexicon in order to set up a reference set for a derivation of the dative-accusative construction.

The in-situ dative assignment for the ditransitive construction has been proposed in the literature (e.g., Miyagawa 1996); however, no proposal of a movement-based dative assignment for the ditransitive construction has been made. This is one of the important outcomes of my thesis. However, the most important consequence of my two types of Dative

Assignment is the link between two hitherto unrelated phenomena: Dative Case Assignment and the condition on argument alternation. Argument alternation has attracted much attention in the literature of lexical semantics, being independently analyzed from most of the syntactic properties of these ditransitive verbs that I examine in the thesis (Kageyama 1980; 1996, Levin 1993, Kishimoto 2001c, Iwata 2008). However, I show that the condition on argument alternation can be written solely by the syntactic terms without any stipulation of constructional meaning; namely, when  $v_{\text{dat}}$  is selected in a numeration of a ditransitive verb, the derived verb is never licensed to participate in argument alternation, whereas when  $v_{\text{acc}}$  [+multiple] is selected, the complex verb is licensed to participate in the alternation. A further contribution of my thesis is to accommodate a new pair within the causative-ditransitive paradigm in Japanese in addition to its already-existing membership between transitive causative verbs and *give* verbs (Kuno 1973, Miyagawa 1996): a pair of causative motion verbs and *spray/load* verbs. This new pairing further strengthens the existence of the causative-ditransitive paradigm as a natural class in Japanese. The pairing is solely motivated by the Dative Case Assignment that I propose.

## Acknowledgments

This dissertation would never have existed without the involvement for the many people who have supported me in various ways throughout the past five years.

First of all, I would like to express my deep gratitude to Caroline Heycock, my principle supervisor, for her endless encouragement and overall support in my research at all stages of my academic life in Edinburgh. My dissertation has tremendously benefited from her practical and insightful comments and criticism on my preliminary idea and analysis of the thesis proposal. I have learnt a lot from her, primarily how to set up a paradigm of data and how to exhaust it. Caroline is not only a notable scholar in syntax, but also a great supervisor. She has been always approachable and extremely supportive to me.

I am grateful to Peter Ackema, who is my other important supervisor. My thesis benefited much from his constructive criticism and encouragement while I was writing my dissertation. His accurate description and understanding of the literature has helped me become aware of how it is important to read the literature carefully.

Another important person that I would like to express my gratitude is Ronnie Cann, who gave me the chance to come over to Edinburgh for a postdoctoral study. Literarily, without him, my academic life in Edinburgh would not have started.

Masaya Yoshida is another great contributor to my thesis. He has an enormous knowledge of Japanese syntax (not only Japanese, of course) from the early beginning of generative study of Japanese to the latest studies. He is also a very patient listener who often listened to my initial analysis of the data. Thanks, Yossi!

Ian Underwood has a lot of involvement in the composition of my thesis. Without his proofreading, my dissertation would still be half-baked. Thanks, Ian!

I have many people who participated in my experiments as informants to whom I would like to express my gratitude. These people have generously provided me with their intuitions formally or informally: Chie Adachi, Emi Sakamoto, Etsuko Yoshida, Keisuke Yoshimoto, Ken Hiraiwa, Kenshi Funakoshi, Kiyoshi, Ishihara, Koji Kamada, Kyoko Otsuki, Kyoko Yamakoshi, Mako Fujino, Mariko Yoshida, Masaya, Yoshida, Mikihiro Tanaka, Naoko Kubota, Naoko Tsang, Reiko Takahashi, Reiko Vermulen, Saeko Yano, Satsuki Nakai, Sayaka Goto, Sora Sato, Tamami Katayama, Tami Aamodt, Tomoko Murase, Tomoko Watanabe, Toru Seraku, Yoko Takahashi, Yoko Yamada, Yumi Ohki, Yumiko Katsura, Yuri Shinya (Japanese); Bohye Ko, Chung-hye Han, Eunsoo Choi, Shinae Lee, Hae-Sung Jeon, Hyejin Shin, Jisung Sun, (Korean); Anna Leonard Cook, B Heenan, Becky

Dwyer, Catherine Dickie, Clare Maccumhaill, DM Harks, Dennis Ryan Storoshenko, Frances Wilson, Ian Underwood, Mike Dowman, Neil Wright, and Rhona Alcorn (English).

My thesis has benefited from several meetings with people in the field of syntax outside Edinburgh. Chung-hye Han generously met me three times in Edinburgh, while she was a visiting scholar at the school. I was very lucky to have a chance to discuss Japanese and Korean with her. A meeting with Shigeru Miyagawa at a conference of the Georgetown Linguistics Society was a very rewarding experience for me. Meeting Ken Hiraiwa at the J/K 20 was very stimulating experience for me. Ken suggested that I should look more into Korean *spray/load* data. I also had a chance to meet Edith Aldridge at the J/K 20, who is a specialist on ergative languages and linguistics. Her comments regarding my antipassive hypothesis about argument alternation in Japanese, helped me to see the phenomenon in a different and more natural way. I am also grateful to Klaus Abels for his comments on my idea of the dative case marking and his further suggestions. Special thanks go to Naomi Harada who read my short paper about ditransitive verbs and gave me practical comments on those ideas. Finally, I want to express my thanks to Naoki Fukui, who sent me a lexicon paper of Japanese argument alternation, which is now out of print. Without this paper, my project of the thesis would never started. A few other people that I want to thank include Timothy Colleman for sending me papers about argument alternation, Hideki Kishimoto who kindly discussed the dative alternation in Japanese over email.

There are quite a few to whom I would like to express my gratitude for their helps and friendships in LEL, including the member of Syntax and Semantics Research Groups and office mates: Anna Martiwucz, Dan Wedgwood, Elspeth Edelstein, Ian Underwood, Koji Kamada, Martha Robinson, Merilin Miljan, Rhona Alcorn, Robert Truswell, Wenshan Li (SSRG); Ayako Namba, Batoul Diab, Chie Adachi, Christina Cuonz, Christina Schmidt, Clare Maccumhaill, Cyprian Laskowski, Kate Messenger, Florence Bonacina, Frances Wilson, Emi Sakamoto, Francesca Filliaci, Gareth Roberts, Golnaz Nanbakhsh, Hanna Cornish, Ifigenia Papageorgiou, Jennifer Sullivan, John-Sebastian Schutter, Koji Kamada, Kyoko Otsuki, Manabu Arai, Mikihiro Tanaka, Reiko Takahashi, Remco Knooihuizen, Satsuki Nakai, Sherry Ou, and Wing Kin Vinton Poon.

There are people in the UK and from overseas who supported me in my studies and deserve my gratitude: Aya Yagome, Ira Filippova, Jack and Ruth Monteith, Junko Hosoi, Juri Shimizu, Katya Braginsky, Lindsay Small, Mai Matsukawa, Miho Sato, Mayo Sekine, Naoko Gonda, Noriko Nakaoka, Rie Hashimoto, Rumi Takahashi, Satomi Nakamura, Shiho Shimamura, Takae Asai, Yoko Takahashi, Yumiko Katsura, Yumi Ohki, and Valentyna

Viktorivna Romanova. Special thanks go to my teachers in Japan: Takeshi Kohno, Takashi Murakami, Yuzaburo Murata and Kiyoshi Kurata.

Becoming friends with Kyoko Otsuki at LEL was one of the most rewarding experiences in my life here. Chatting with Kyoko about linguistics, pragmatics, syntax, philosophy, literature, and many other things over tea, meals, and at various social events made my life here so much bearable and fun.

I would like to express my deepest gratitude to those lovely people who supported my life in Edinburgh with their warm “Scottish hospitality”: Alison Campbell, Carlos Las Heras, Maureen Smith, William Dewar, Morag Jones, Sylvia Campbell and Jackie Cotter. Without them, I could not have survived my life in Edinburgh over the past five years. They have helped me at various occasions and have always been good listeners to me.

Last but not least, I would like to express my gratitude and love to my family in Japan for their moral and also financial support in my study and moreover their constant care of me: my late father Tadaomi Miura, my mother Emiko Miura, my sister Megumi Nikamoto, my brother-in-law Kazuhiro Nikamoto, my niece Miu Nikamoto, my nephew Hachiya Nikamoto, my late grandfather Toshiro Miura and my grandmother Masako Miura. This thesis is dedicated to them.

## CONTENTS

Abstract	ii
Acknowledgements	iv
Abbreviations	x
1. Introduction.....	1
1.1 On the event-semantic account of argument alternation in Japanese.....	1
1.2 Goals.....	4
1.3 Summary of the thesis proposal.....	17
2. Assumptions.....	20
2.1 The Minimalist Program.....	20
2.2. The Phase theory.....	21
2.2.1 Merge/Remerge.....	23
2.2.2 Agree (Multiple Agree).....	25
2.3 Category of lexical items.....	27
2.4 Structural relations.....	30
3. Ditransitive verbs in Japanese.....	32
3.1 Introduction .....	32
3.2 The literature of ditransitive verbs in Japanese.....	36
3.3. Syntax of <i>spray/load</i> verbs.....	46
3.3.1 Bound variable interpretation.....	46
3.3.2 VP-preposing.....	54
3.3.3 Secondary depictives.....	57
3.3.4 Passivization.....	64
3.3.5 Double object VP – proposal.....	68
3.3.6 Korean <i>spray/load</i> verbs.....	71
3.4. The syntax of <i>give</i> verbs .....	80
3.4.1 The licenser of GOAL argument.....	82
3.5. The syntax of the object IAP construction.....	86
3.5.1 Possessor raising analysis.....	86
3.6 Chapter conclusion.....	95

4. Dative Case Assignment in Japanese.....	97
4.1 Introduction.....	97
4.2. The previous literature on <i>ni</i> assignment.....	100
4.2.1 <i>Ni</i> assignment in situ.....	100
4.2.2 <i>Ni</i> assignment under movement.....	102
4.2.3 The Double- <i>o</i> constraint.....	104
4.3. Dative Assignment after movement.....	107
4.3.1 Manner adverb distribution.....	111
4.3.2 Indeterminate pronoun binding.....	114
4.3.3 Formalization.....	131
4.3.3.1 The landing site of movement for Dative Assignment.....	133
4.3.3.2 Definition.....	135
4.3.3.3 Two types of <i>v</i> .....	138
4.4. Explanation.....	145
4.4.1 Passive.....	145
4.4.2 VP-preposing.....	148
4.4.3 Scrambling.....	150
4.4.4 Cleft.....	156
4.5 Chapter conclusion.....	162
5. Argument alternation in Japanese.....	164
5.1 Introduction.....	164
5.2. The syntax of <i>spray/load</i> verbs in the <i>With</i> -ACC construction.....	167
5.2.1 Fukui, Miyagawa and Tenny (1985).....	167
5.2.2 VP of <i>spray/load</i> verbs in the <i>With</i> -ACC construction.....	168
5.3. Condition on argument alternation in Japanese.....	179
5.3.1 Previous literature on the <i>spray/load</i> alternation in syntax.....	181
5.3.2 Holistic effect.....	186
5.3.3 Proposal.....	187
5.4. Non-alternation verbs and the morpheme <i>tsukusu</i> 'exhaust'.....	192
5.4.1 The VP of the <i>sprinkle</i> verbs.....	193
5.4.2 The nature of the morpheme <i>tsukusu</i> 'exhaust' in argument alternation.....	203
5.4.3 The syntax of complex <i>sprinkle</i> verbs in the DAT-ACC construction.....	207

5.4.4 The syntax of complex <i>sprinkle</i> verbs in the <i>With-ACC</i> construction.....	211
5.5 Chapter conclusion.....	215
6. Causative Motion Verbs in Japanese.....	217
6.1 Introduction.....	217
6.2 Causative verbs in Japanese.....	221
6.3. Syntax of causative transitive verbs.....	227
6.3.1 Harley (2008).....	227
6.3.2 Discussion.....	229
6.4. Syntax of causative motion verbs.....	235
6.4.1 Motion verbs.....	235
6.4.2 VP of causative motion verbs.....	239
6.4.3. Dative Case Assignment by causative motion verbs.....	243
6.4.3.1 Manner adverb distribution.....	243
6.4.3.2 Indeterminate pronoun binding.....	247
6.4.4 Dative Case Assignment and causative intransitive verbs.....	258
6.5 Two types of <i>v</i> .....	265
6.6. Consequences.....	266
6.6.1 Scrambling and Cleft.....	266
6.6.2 Distribution of secondary depictives.....	271
6.7 Chapter conclusion.....	273
7. Conclusion .....	275
7.1 Two types of <i>v</i> .....	275
7.2 Contribution of the thesis to the literature.....	281
Appendix A.....	283
Appendix B.....	285
References.....	287

## Abbreviations

The following abbreviations are used in this thesis:

ACC	accusative
AGENT	agent role
ASP	aspect morpheme
C	complementizer
CAUSE	causative morpheme
CAUSEE	causee role
CAUSER	causer role
CL	classifier
COP	copula
DAT	dative
DECL	declarative morpheme (in Korean)
DIR	directional marker
GEN	genitive
GOAL	goal role
HON	honorific marker
IAP	inalienable possessor
INF	infinitive
INSTR	instrumental marker
IP(B)	indeterminate pronoun (binding)
LOC	locative role
LV	light verb
MAC	multiple accusative cleft
MAS	multiple accusative scrambling
MAT	material role
MLC	minimal link condition
MLD	minimal lexical domain
NOM	nominative
NPI	negative polarity item
NQ(F)	numeral quantifier (floating)
PASS	passive morpheme
PAST	past tense

PBC	proper binding condition
PRES	present tense
PROG	progressive morpheme
SD	secondary depictive
STATE	stative predicate
THEME	theme role
TOP	topic marker

## Chapter I

### Introduction

#### 1.1 On the event-semantic account of argument alternation in Japanese

It is well known that *spray/load* verbs in Japanese (e.g., *nuru* ‘paint’, *mitasu* ‘fill’, *umeru* ‘bury’, *moru* ‘serve’, etc.) participate in so-called argument alternation (Kageyama 1980, Fukui, Miyagawa and Tenny 1985, Levin 1993, Kishimoto 2001c, Iwata 2008). The verb *nuru* ‘paint’ is compatible with the dative-marked (the locational role) and the accusative-marked (the material role) phrases in a sentence like (1a), and is also compatible with the accusative-marked phrase (the locational role) and the *de*-phrase ‘with-phrase’ (the material role) in a sentence as in (1b).

- (1) a. Taro-ga            doa-ni            penki-o            nut-ta  
       Taro-NOM        door-DAT        paint-ACC        paint-PAST  
       ‘Taro painted paint onto the door’
- b. Taro-ga            doa-o            penki-de            nut-ta  
       Taro-NOM        door-ACC        paint-with        paint-PAST  
       ‘Taro painted the door with paint’

This phenomenon has attracted a lot of attention in the literature of lexical semantics and event semantics (Kageyama 1980, Kishimoto 2001c, Iwata 2008, Levin 2010, among others). According to these studies, *spray/load* verbs constitute a paradigm of alternation as in (1) because they can be associated with different event schemas. For example, Iwata (2008) claims that (1a) involves the event-specific meaning “X moves Y into/onto Y,” while (1b) involves the event-specific meaning “X causes a layer to cover Y.”

*Give* verbs in Japanese (e.g., *ageru* ‘give’, *okuru* ‘send’, *nageru* ‘throw’, *osieru* ‘teach’ etc.) do not participate in this alternation, as (2) shows. In Iwata’s terms, we must say that *give* verbs cannot be associated with “X causes a layer to cover Y.” This is why they cannot participate in argument alternation.

## CHAPTER I

- (2) a. Taro-ga Hanako-ni ringo-o age-ta  
 Taro-NOM Hanako-DAT apple-ACC give-PAST  
 ‘Taro gave an apple to Hanako’
- b. \*Taro-ga Hanako-o ringo-de age-ta  
 Taro-NOM Hanako-ACC apple-with give-PAST  
 ‘\*Taro gave Hanako with apples’

Following Kishimoto (2001b), Levin (2010) proposes that the event type of Japanese *give* (e.g., *ageru*) is different from the one of *send* (e.g., *okuru*). According to Levin, the verb *give* in Japanese is associated with a caused-possession schema, while the verb *send* in the language is associated with a caused-motion schema. The test case of this argument is whether or not the dative case marker *ni* is replaceable with directional markers such as *e* ‘toward’ or *made* ‘toward’ (Kishimoto 2001b, Beavers 2006). The Levin’s point is that if it can, it is a goal marker, if it cannot, it is a possessor marker. *Ni* in (3a) cannot be replaced with *e/made*, while *ni* in (3b) can be replaced with them. Hence the verb *give* involves a possessor marker, whereas the verb *send* involves a goal marker, appearing in different event schemata.

- (3) a. John-wa Mary-{??e/\*made} jyouhou-o atae-ta  
 John-TOP Mary-DIR information-ACC give-PAST  
 ‘Literally: John gave the information to/toward Mary’
- b. John-wa Mary-{e/made} nimotsu-o okut-ta  
 John-TOP Mary-DIR parcel-ACC send-PAST  
 ‘Literally: John gave the information to/toward Mary’

(Levin 2010: 6, (22), (23), modified)

Given this, as most of the event-semantic literature claims (e.g., Iwata (2008)), if *spray/load* verbs are associated with the caused-motion schema in their dative-accusative case array, we should expect that *ni* in this construction can be replaced with *e* or *made*. However, the ban on the alternation between the dative case and the directional markers on the locational DP *kabe* ‘wall’ in (4) shows that this assumption is not right. On the contrary, (4) tells us that the event schema of *spray/load* verbs may be same as that of *give* verbs: the type of caused-possession.

## CHAPTER I

- (4) Taro-wa kabe-{\*e/\*made} penki-o nut-ta  
 Taro-TOP wall-DIR paint-ACC paint-PAST  
 ‘Literally: Taro painted paint {to/toward} the wall’

From this similarity, we may suppose that the syntactic identify of the locational element of *spray/load* verbs is same as that of *give* verbs. One question then is why *give* verbs cannot constitute an alternation paradigm, even though they may share the same event schema with *spray/load* verbs in the dative-accusative case array. Why can they not be fused with the schema “X causes a layer to cover Y,” in the terms of Iwata?

Nevertheless, the fact above may lead us to expect further similarities in other syntactic contexts. A closer inspection, however, reveals that this expectation is not borne out. For example, in (5), the locational element of *give* verbs cannot be marked with *o* (i.e., the accusative marker) in a cleft sentence, whereas that of *spray/load* verbs can.

- (5) a. \*[Taro-ga ringo-o age-ta no]-wa gakusei-o<sub>i</sub> fu-tari<sub>i</sub> da  
 Taro-NOM apple-ACC give-PAST C-TOP student-ACC two-CL COP  
 ‘Literally: It is two students that Taro gave apples to’  
 b. ?[Taro-ga enogu-o nut-ta no]-wa osara-o<sub>i</sub> ni-mai<sub>i</sub> da  
 Taro-NOM paint-ACC paint-PAST C-TOP plate-ACC two-CL COP  
 ‘Literally: It is two plates that Taro painted paint onto’

This contrast suggests that there is a possibility for the locational element of *spray/load* verbs to be associated with Accusative Case, while there is no such possibility for the same element of *give* verbs to be associated with Accusative Case.

A further difference is obtainable with the behavior of these verbs in licensing the Secondary Depictives (henceforth, SDs). An SD describes a state of an argument of a verb during the action of the main verb (Koizumi 1994). For instance, as in (6), an SD *nama-de* ‘raw’ is a predicate of the accusative phrase *katsuo* ‘bonito’, describing the state of the fish during the action of Taro’s eating. Boldface represents SDs.



## CHAPTER I

that includes the Dative Case Assignment after Movement can participate in alternation, while a verb that includes the In-situ Dative Case Assignment cannot.

Japanese is a language that exploits particles to represent the grammatical relation of a noun phrase with its head. The grammatical relation of the phrases is expressed with particular case-markers or particles in the language (i.e., analytic case marking languages in terms of Blake 1994). Ditransitive verbs are verbs that take two verbal arguments in a sentence (Miyagawa 1989). In a sentence with a *give* verb, a prototype ditransitive verb in Japanese, as in (8a), the locational participant is marked with *ni* (e.g., *Hanako*) and the thematic object is marked with *o* (e.g., *ringo* ‘apple’). In a sentence with a *spray/load* verb as in (8b), the locational element is also marked with *ni* (e.g., *doa* ‘door’), whereas the thematic object is marked with *o* (i.e., *penki* ‘paint’).

- (8) a. Taro-ga            Hanako-ni            ringo-o            age-ta  
      Taro-NOM        Hanako-DAT        apple-ACC        give-PAST  
      ‘Taro gave an apple to Hanako’
- b. Taro-ga            doa-ni            penki-o            nut-ta  
      Taro-NOM        door-DAT            paint-ACC        paint-PAST  
      ‘Taro painted paint onto the door’

A pair of sentences in (9) is known as an “argument permutation” in the literature and the paradigm has attracted much attention with respect to whether or not two orders have the same D-structure representation or, rather, an individuated D-structure representation (Miyagawa 1989; 1997, Yatsushiro 1998; 2003, Miyagawa and Tsujioka 2004, Harada and Larson 2009, among others). The minimal difference between the two sentences in (9) is the order of the dative and accusative phrases. In (9a), the dative phrase precedes the accusative phrase while, in (9b), the accusative phrase precedes the dative phrase.

- (9) a. Taro-ga            Hanako-ni            ringo-o            age-ta  
      Taro-NOM        Hanako-DAT        apple-ACC        give-PAST  
      ‘Taro gave an apple to Hanako’
- b. Taro-ga            ringo-o            Hanako-ni            age-ta  
      Taro-NOM        apple-ACC        Hanako-DAT        give-PAST

## CHAPTER I

Many attempts have been made to clarify the VP-internal organization of *give*-type ditransitive verbs in (9) in the literature of Japanese syntax. In particular, many researchers have proposed that the structural height of the two verbal arguments is not symmetrical through an investigation of the binding of reciprocals and anaphors (Hoji 1985, Yatsushiro 1998; 2003, Takano 1998, Ueyama 1998, among others). Hoji (1985) and many others have argued that ditransitive verbs have a single D-structure representation; the dative phrase is linked structurally higher than the accusative phrase, similar to the transformational account of English double object verbs (Larson 1988; 2000, Aoun and Li 1989; 2003, Baker 1997). This hypothesis further leads Hoji to propose that the accusative-dative order as in (9b) is derived from D-structure of (9a) via scrambling.

Some of the literature on Japanese ditransitive verbs (Harley 2002, Miyagawa and Tsujioka 2004, Beavers 2006, Levin 2010, among others) assumes that a different alignment of two phrases in (9) is equivalent to the dative alternation in English (Larson 1988, Aoun and Li 1989; 1993, Marantz 1984, Pesetsky 1995, Bruening 2001a; 2010, among many others). Specifically, they claim that both argument patterns in (9) have their own underlying structures. Both are base-generated; no movement is involved to link two surface word orders. The present thesis supports Hoji's scrambling hypothesis from a piece of evidence of *spray/load* verbs in the demonstrative pronoun binding (see the discussion in 3.3.1).

In spite of this considerable attention to the syntax of *give* verbs in Japanese over the past twenty years, it is not clear whether we are any closer to understanding the nature of the verbal category called "ditransitives" in the language. This is because it is not clear what the consequences of these investigations of *give* verbs in the literature have to do with the other types of verbs in the ditransitive class, or even with other types of verbs, such as causative verbs. The curious thing is that there has been little attention paid to the other sub-types of ditransitive verbs such as *spray/load* verbs (cf. Fukui, Miyagawa and Tenny 1985, Matsuoka 2003 for a further subcategorization of the *give*-type ditransitive verb) in the literature of Japanese syntax, despite the fact that both types of verbs in English have been intensively studied (Larson 1988; 1990, Aoun and Li 1989; 1993, Jackendoff 1990, Marantz 1984; 1993, Basilico 1998, Bruening 2001a, Hale and Keyser 2002, among many others). Thus, we have little insight into the syntax of *spray/load* verbs in Japanese. The present thesis investigates this issue.

Causative constructions in Japanese, as in (10), are one of the most investigated linguistic phenomena in the literature on Japanese syntax (Kuroda 1965a, Kuno 1973, Shibatani 1972; 1990, among many others).

## CHAPTER I

- (10) Taro-ga            Hanako-ni            mesi-o            tak-ase-ta  
Taro-NOM        Hanako-DAT        rice-ACC        cook-CAUSE-PAST  
'Taro made/let Hanako cook the rice'            (Kuroda 1978: 223, (16))

In (10) the dative-marked phrase *Hanako* is a CAUSEE of the causative event, and the accusative-marked phrase *mesi* 'rice' is a THEME that is affected in the caused event. Apparently, the thematic relation of the causative construction and that of ditransitive constructions are different from one another. Despite this difference between the two classes of verbs, causative verbs are also associated with the dative-accusative case array.

Causative verbs in Japanese are formed by attaching the morpheme *sase* to a lexical stem (Kuroda 1965a; 1965b, among many others). In the literature on causative constructions in Japanese, two types of causative constructions have been recognized: the lexicalized causative as in (11a) and the syntactic causative as in (11b) (Shibatani 1972, Miyagawa 1989, among many others).

- (11) a. Taro-ga            Hanako-ni            fuku-o            ki-se-ta  
Taro-NOM        Hanako-DAT        clothes-ACC        put.on-CAUSE-PAST  
'Taro caused Hanako to get dressed'
- b. Taro-ga            Hanako-ni            fuku-o            ki-sase-ta  
Taro-NOM        Hanako-DAT        clothes-ACC        put.on-CAUSE-PAST  
'Taro caused Hanako to get dressed'

The nature of the two types of causative constructions is quite complex. They are sometimes drastically different in their morphology (e.g., variations on the morpheme suffix), syntax (e.g., bi-clausality), while they show some of the same features (e.g., case-marking) (Harley 2008).

In the past, many attempts have been made to reveal the nature of these two types of causative constructions (Kuroda 1965a; 1965b, Kuno 1973, Shibatani 1972, Marantz 1984, Miyagawa 1984; 1989; 1999, Takezawa 1987, Heycock 1988, Baker 1988, Koizumi 1995, Harley 2008, among many others). The central issue is how to capture some syntactic differences (presumably the underlying difference) between these causative verbs (i.e., bi-clausality) and the surface similarity (i.e., case marking or tense-marking) under a unified account. Miyagawa (1984, 1989) initiates a debate by claiming that the lexical causative

## CHAPTER I

verbs are created in the lexicon, whereas the syntactic causative verbs are created in the syntax; hence, there are two types of *sase* in the lexicon of Japanese. The most recent attempt, made by Harley (2008), mainly claims that there is only one causative verb in the lexicon of Japanese; surface syntactic differences between lexical causatives and syntactic causatives are derived under the tacit assumptions of “root merge” and “timing of merge” in syntax, which will be introduced in section 6.3.1. In the derivation of lexical causative verbs, the causative morpheme directly merges with the root of a lexical stem, whereas in syntactic causative verbs it merges with the maximal projection in syntax. The upshot is that there are two surface constructions with *V-sase* predicates; one has more idiosyncratic morphophonology, semantics and syntax and the other has less. Both are generated in syntax.

The reader may think that Harley (2008), as I have presented it, has resolved the long-standing debate on the Japanese causative construction. But there is one issue that she leaves open: the issue of the syntactic *o*-causative and *ni*-causative (Kuroda 1965a, among others). With causative intransitive verbs such as *aruk-* ‘walk’, as in (12), the CAUSEE can be either dative-marked or accusative-marked.

- (12) a. Taro-ga            Hanako-ni            aruk-ase-ta  
          Taro-NOM        Hanako-DAT        walk-CAUSE-PAST  
          ‘Taro let Hanako walk’
- b. Taro-ga            Hanako-o            aruk-ase-ta  
          Taro-NOM        Hanako-ACC        walk-CAUSE-PAST  
          ‘Taro made Hanako walk’

On the other hand, with causative transitive verbs such as *tak-* ‘cook’, as in (13), the same argument must be uniformly dative-marked, but cannot be accusative-marked.

- (13) a. Hanako-ga        Taro-ni            mesi-o            tak-ase-ta  
          Hanako-NOM     Taro-DAT        rice-ACC        cook-CAUSE-PAST  
          ‘Hanako let Taro cook rice’
- b. \*Hanako-ga        Taro-o            mesi-o            tak-ase-ta  
          Hanako-NOM     Taro-ACC        rice-ACC        cook-CAUSE-PAST  
          ‘Hanako made Taro cook rice’

## CHAPTER I

It has been argued that the so-called coercive/permissive distinction marks the difference between *o*-causative and *ni*-causative most significantly (Kuroda 1965a, Kuno 1973, Inoue 1976, Takezawa 1987, Koizumi 1995, Miyagawa 1999). When the CAUSEE is marked with morphological accusative case, the sentence conveys the coercive reading, whereas when it is marked with dative case, the sentence conveys the permissive reading. As in (13b), the accusative marking on the CAUSEE is illicit in this sentence. Namely, we have no direct evidence of the semantic distinction above, although some of the literature argues that (13a) is ambiguous between the two readings (Koizumi 1995).

The analysis of this aspect of syntactic causative verbs depends on the transitivity of the embedded verbs of causative sentences and the assumption of the Double-*o* Constraint (henceforth, *DoC*) in the language (Harada 1973; 1975, among many others). The literature often attributes the reason for the lack of the *o*-causative with causative transitive verbs like (13b) to the fact that the sentence shows the *DoC* violation effect.

Japanese does not allow an adjacent realization of accusative phrases in surface syntax. Importantly, however, Harada (1973) argues that there is a difference between sentences that seemingly violate *DoC*. The *tokoro*-relative clause as in (14a) is a special type of relative clause where the clause headed by *tokoro* ‘place, situation’ is the complement of the verb; however, it is actually the nominative-marked phrase inside the clause that obtains the interpretation as the thematic object of the verb (Hiraiwa 2010). For example, although in the accusative-marked *doroboo* ‘thief’ is inside the *tokoro*-clause but it is interpreted as an object of the verb *tsukamaeru* ‘catch’.

- (14) a. ??Keesatsu-ga doroboo-o nigeyoo to si-ta tokoro-o  
police-NOM thief-ACC run.away.try C Lv-TOP situation-ACC  
tsukamae-ta  
catch-PAST (Hiraiwa 2010: 224-725, (2))
- b. \*Ken-ga gakusei-o sono hon-o yom-ase-ta  
Ken-NOM student-ACC that book-ACC read-CAUSE-PAST  
‘Ken made the student read the book’

What is remarkable is the fact that the ungrammaticality of (14a) can be alleviated under clefting as in (15a), whereas that of (14b) cannot, as given in (15b).

## CHAPTER I

- (15) a. Keesatsu-ga nigeeyoo to si-ta tokoro-o tsukamae-ta no-wa  
 police-NOM run.away.try C LV-PAST when-ACC catch-PAST C-TOP  
 doroboo-o da  
 thief-ACC COP

‘It is the thief that the police caught as he tried to run away’

- b. \*[Ken-ga sono hon-o yom-ase-ta no]-wa gakusei-o<sub>i</sub> fu-tari<sub>i</sub> da  
 Ken-NOM that book-ACC read-CAUSE-PAST C-TOP student-ACC two-CL COP

‘Literally: It is two students that Ken made read the book’

(Hiraiwa 2010: 21, (65))

Based on the fact, Harada (1975) argues that the ungrammaticality of (15b) is not caused by the violation of the DoC (Hiraiwa 2006c; 2010). I return to the issue in 4.2.3.

What is important to my proposal in this thesis is the fact that the same amelioration strategy of the DoC (e.g., cleft) cannot be found in a multiple accusative sentence with *give*-type ditransitive verbs, as in (16b).

- (16) a. \*Taro-ga sono gakusei-o ano hon-o age-ta  
 Taro-NOM the student-ACC that book-ACC give-PAST

‘Taro gave the student the book’

- b. \*[Taro-ga hon-o age-ta no]-wa gakusei-o<sub>i</sub> fu-tari<sub>i</sub> da  
 Taro-NOM book-ACC give-PAST C-TOP student-ACC two-CL COP

‘Literally: It is two students that Taro gave book to’

However, the same salvation strategy of the DoC violation is effective on a multiple accusative sentence with *spray/load*-type verbs, as in (17b).

- (17) a. ??/\*Taro-ga sono kabe-o aoi penki-o nut-ta  
 Taro-NOM the wall-ACC blue paint-ACC paint-PAST

‘Literally: Taro painted blue paint the wall’

- b. ?[Taro-ga enogu-o nut-ta no]-wa osara-o<sub>i</sub> ni-mai<sub>i</sub> da  
 Taro-NOM paint-ACC paint-PAST C-TOP plate-ACC two-CL COP

‘Literally: It is two plates that Taro painted paint’

## CHAPTER I

The grammaticality of (17b) suggests that the locational argument of *spray/load* verbs can be licensed Accusative Case. This possibility leads to a further question of how the same argument is assigned Dative Case, apart from the question that how the locational phrase can be Accusative-licensed. As in (1a), the locational element is marked with *ni*, but not with *o* in (17a). There are three possibilities; (i) *ni* and *o* alternation on the same argument in situ; (ii) there are two independent numerations for each derivation containing *ni*-marked LOC and *o*-marked LOC; and (iii) *ni* is assigned to the same argument at a different structural position. This thesis defends the third assumption by providing two pieces of evidence from the manner adverb distribution and the NPI (Negative Polarity Item) licensing of indeterminate words.

The distribution of the accusative-marked LOC and the dative-marked LOC of *spray/load* verbs is different with respect to the manner adverb *fude-de* ‘by brush’. The former LOC can appear lower than the manner adverb, while the latter LOC cannot.

- (18) a. Sono toogeisakka-wa fude-de osara-o aoi enogu-ø nut-ta  
that potter-TOP brush-with plate-ACC blue paint-ø paint-PAST  
‘The potter painted blue paint the plate(ACC) with a brush’  
b. ??Sono toogeisakka-wa fude-de osara-ni aoi enogu-ø nut-ta  
that potter-TOP brush-with plate-DAT blue paint-ø paint-PAST  
‘The potter painted blue paint onto the plate(DAT) with a brush’

On the other hand, the dative-marked GOAL of *give* verbs can appear lower than the manner adverb *sokutatsu-de* ‘by special delivery’ as in (19b), contrary to its *spray/load* counter-part as in (19a).

- (19) a. ??Sono toogeisakka-wa fude-de osara-ni aoi enogu-o nut-ta  
that potter-TOP brush-with plate-DAT blue paint-ACC paint-PAST  
‘The potter painted only blue paint onto the plate(DAT) with a brush’  
b. Sono sakka-wa sokutatsu-de syuppansya-ni genkou-o okut-ta  
that writer-TOP special.delivery-by publisher-DAT draft-ACC send-PAST  
‘The writer sent a draft to the publisher(DAT) by special delivery’

## CHAPTER I

When the dative-marked LOC of *spray/load* verbs is scrambled over the manner adverb, the awkwardness of (19a) disappears, as in (20a). The dative-marked GOAL of the verb *send* that belongs to *give* verbs shows no difference with respect to this.

- (20) a. Sono toogei sakka-wa osara-ni fude-de aoi enogu-o nut-ta  
that potter-TOP plate-DAT brush-with blue paint-ACC paint-PAST  
'The potter painted only blue paint onto the plate(DAT) with a brush'
- b. Sono sakka-wa syuppansya-ni sokutatsu-de genkou-o okut-ta  
that writer-TOP publisher-DAT special.delivery-by draft-ACC send-PAST  
'The writer sent a draft to the publisher(DAT) by special delivery'

From these facts, I argue that the locational element of *spray/load* verbs is assigned Dative Case at somewhere higher than the manner adverb, while the same type of element of *give* verbs is assigned Dative Case somewhere lower than the manner adverb. We therefore arrive at the generalization in (21).

- (21) The locational of *spray/load* verbs is assigned Dative Case somewhere higher than the manner adverb, while that of *give* verbs is assigned Dative Case somewhere lower than the manner adverb.

It has been proposed that indeterminate NPs in Japanese, e.g., *dare* 'who', *nani* 'what', *doko* 'where' can form Negative Polarity Items (henceforth, NPI) when they are combined with a quantificational particle *mo* 'also' (Kuroda 1965b, Kishimoto 2001a, Sakai, Ivana and Zhung 2004, Hiraiwa 2005; 2006a). In (22), the indeterminate NP *nani* 'what' and *mo* forms an NPI, representing that Taro didn't buy anything. An indeterminate NP can also be separated from the particle while retaining an NPI interpretation (Kuroda 1965b, Kishimoto 2001a, Hiraiwa 2005; 2006a), as in (22).

- (22) a. Taro-wa nani-mo kawa-nakat-ta  
Taro-TOP what-also buy-NEG-PAST  
'Taro didn't buy anything' (Kishimoto 2001a: 598, (1))
- b. Taro-wa nani-o kai-mo-si-nakat-ta  
Taro-TOP what-ACC buy-also-LV-NEG-PAST  
'Taro didn't buy anything'

## CHAPTER I

We now consider the fact about NPI licensing of indeterminate NPs in *spray/load* verbs and *give* verbs. With the same c-command condition, the indeterminate THEME NP of both types of verbs can form an NPI with respect to *mo* being attached to the verb infinitive, as in (23).

- (23) a. Sono daiku-wa kabe-ni nani-o nuri-mo-si-nakat-ta  
the painter-TOP wall-DAT what-ACC paint-also-LV-NEG-PAST  
'The painter didn't paint anything onto the wall'
- b. Sono sensei-wa Taro-ni nani-o okuri-mo-si-nakat-ta  
the teacher-NOM Taro-DAT what-ACC send-also-LV-NEG-PAST  
'The teacher didn't send anything to Taro'

However, concerning the NPI licensing of the indeterminate locational argument and *mo*, *spray/load* verbs and *give* verbs show a difference. The difference comes in two ways; firstly, the accusative-marked indeterminate LOC of *spray/load* verbs forms an NPI, as in (24), whereas the dative-marked indeterminate LOC of the same verbs cannot.

- (24) a. Sono daiku-wa doko-o penki-ø nuri-mo-si-nakat-ta  
the painter-TOP where-ACC paint-ø paint-also-LV-NEG-PAST  
'The painter didn't paint paint anywhere(ACC)'
- b. \*Sono daiku-wa doko-ni penki-ø nuri-mo-si-nakat-ta  
the painter-TOP where-DAT paint-ø paint-also-LV-NEG-PAST  
'The painter didn't paint paint anywhere(DAT)'

Next, consider the examples in (25). The indeterminate LOC *doko* 'where' and *mo* in a *spray/load* sentence (25b) is degraded compared to the one in a *give* sentence in (25a).

- (25) a. Sono sensei-wa dare-ni hon-o okuri-mo-si-nakat-ta  
the teacher-NOM who-DAT book-ACC send-also-LV-NEG-PAST  
'The teacher didn't send the book to anyone(DAT)'
- b. \*Sono daiku-wa doko-ni penki-o nuri-mo-si-nakat-ta  
the painter-TOP where-DAT paint-ACC paint-also-LV-NEG-PAST  
'The painter didn't paint paint anywhere(DAT)'

## CHAPTER I

Hiraiwa (2005; 2006a) claims that indeterminate words form an NPI iff they are within the c-command domain of *mo* in syntax. From this evidence, we must say that the indeterminate GOAL argument of *give* verbs is within the c-command domain of *mo* when it has Dative Case. On the other hand, the indeterminate LOC argument of *spray/load* verbs must be outside of the c-command domain of *mo* when it has Dative Case, while it must be within the c-command domain of *mo* when it has Accusative Case. Hence, we reach the generalization in (26).

- (26) a. The LOC argument (of *spray/load* verbs) is within the scope of *mo* when it is marked with *o*, whereas it is not when it is marked with *ni*.  
b. The GOAL argument (of *give* verbs) is always within the scope of *mo*.

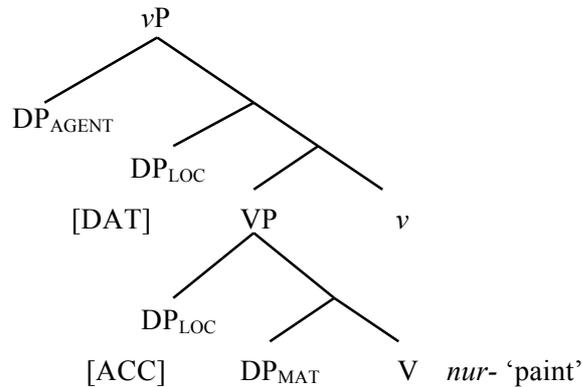
Following Kishimoto (2001a) and Hiraiwa (2005), I assume that *mo* is attached onto the light verb head (i.e., the little *v*). Under this assumption, I formalize (26) as in (27).

- (27) a. The LOC argument (of *spray/load* verbs) is assigned Dative Case outside of the c-command domain of *v*, whereas it is assigned Accusative Case within the c-command domain of *v*.  
b. The GOAL argument (of *give* verbs) is assigned Dative Case within the c-command domain of *v*.

I further make an assumption that the manner adverb in Japanese is merged to the *v*P-internal position (Ko 2007). With this assumption and the generalization (27), I hypothesize that the locational element of *spray/load* verbs is assigned Accusative initially within VP; is assigned Dative after it moves out of the VP, as in (28).

CHAPTER I

(28) Dative Case Assignment after Movement



I also claim that *give* verbs involve In-situ Dative Assignment, following Ura (2000) and many others. A similar in-situ dative case assignment has been proposed for causative constructions in the past (Harley 2008). This In-situ case marking predicts that the underlying double accusative structure is never generated for *give* verbs or causative verbs, while the Dative Assignment after Movement predicts that the underlying double accusative structure is merged for *spray/load* verbs. This accounts for the fact that the DoC violation of *spray/load* verbs can be ameliorated under a cleft or scrambling, while that of *give* verbs and causative verbs cannot.

There is a type of causative verb whose embedded clause is headed by motion verbs (Kuroda 1978, Miyagawa 1989). I call this type of causative motion verbs.

- (29) Taro-ga Hanako-ni hamabe-o aruk-ase-ta  
 Taro-NOM Hanako-DAT beach-ACC walk-CAUSE-PAST  
 ‘Taro made/let Hanako walk on the beach’ (Kuroda 1978: 229, (30))

The thematic relation of this type of causative verb is similar to causative transitive verbs such as *tak-ase-* ‘cook-CAUSE’, involving the CAUSER, the CAUSEE and the complement object (THEME but not PATH). The surface case marking of (29) also patterns with the other type of causative verb and with two classes of ditransitive verbs.

However, there is the behavior of causative motion verbs, which is remarkably different from that of causative transitive verbs. As shown in (30b) a multiple accusative cleft is available with causative motion verbs.

## CHAPTER I

- (30) a. ??Taro-ga ekisutora-o hamabe-o aruk-ase-ta  
 Taro-NOM extras-ACC beach-ACC walk-CAUSE-PAST  
 ‘Literally: Taro made some extras walk on the beach’
- b. [Taro-ga hamabe-o aruk-ase-ta no]-wa ekisutora-o<sub>i</sub>  
 Taro-NOM beach-ACC walk-CAUSE-PAST C-TOP extras-ACC  
 go-nin<sub>i</sub> da  
 five-CL COP  
 ‘Literally: It is five extras that Taro made walk on the beach’

An independent discussion is necessary to argue that the PATH argument *hamabe* ‘beach’ of motion verbs has structural Accusative Case or not. The literature presents two competing views (Kuroda 1978, Miyagawa 1989). I investigate the issue in Chapter VI and argue that the optional argument PATH has structural Accusative Case. As I show in Chapter VI, the CAUSEE of causative motion verbs patterns with the locational argument of *spray/load* verbs with respect to the adverb distribution and the licensing of NPI of indeterminate CAUSEEs. The upshot is that there are two different types of Dative Case Assignment among dative-accusative constructions in Japanese: the In-situ Dative Assignment that is manifested in *give* ditransitive verbs and causative transitive verbs, and the Dative Assignment after Movement that is manifested in *spray/load* verbs and causative motion verbs.

The proposed two types of Dative Case Assignment mechanisms have a significant consequence as to whether or not a verb can participate in the *spray/load* alternation. As repeated in (31), *give* verbs cannot participate in this alternation, while *spray/load* verbs can, as in (32).

- (31) a. Taro-ga Hanako-ni ringo-o age-ta  
 Taro-NOM Hanako-DAT apple-ACC give-PAST  
 ‘Taro gave an apple to Hanako’
- b. \*Taro-ga Hanako-o ringo-de age-ta  
 Taro-NOM Hanako-ACC apple-with give-PAST  
 ‘Literally: Taro gave Hanako with apples’

## CHAPTER I

- (32) a. Taro-ga            doa-ni            penki-o            nut-ta  
         Taro-NOM        door-DAT        paint-ACC        paint-PAST  
         ‘Taro painted paint onto the door’
- b. Taro-ga            doa-o            penki-de            nut-ta  
         Taro-NOM        door-ACC        paint-with        paint-PAST  
         ‘Taro painted the door with paint’

Given the two types of Dative Case Assignments for ditransitive verbs in Japanese, we must say that verbs that license the Dative Assignment after Movement can constitute a paradigm of argument alternation, while verbs that license the In-situ Dative Assignment cannot. Hence, argument alternation in Japanese, which has been most extensively discussed in the literature of lexical semantics and construction grammar (Kageyama 1980; 1996, Kishimoto 2001b; 2001c, Iwata 2008, Levin 2010), as noted earlier, is predicted under two types of Dative Case Assignment, together with otherwise seemingly unrelated phenomenon of these verbs, without further stipulation.

### 1.3 Summary of the thesis proposal

It is possible to define two distinctive types of Dative Case Assignments with more primitive terms available in UG under primitive syntactic operation Merge and Agree (Chomsky 2000). Under this framework, the thesis proposes that the core building blocks of Japanese dative-accusative constructions are two types of lexical heads that are responsible for the linking of verbal phrases to a verbal projection,  $V(V_1)$ ,  $V_2$ , and two types of functional heads that are responsible for licensing of Case on verbal phrases: what I call  $v_{\text{acc}[\text{+multiple}]}$  and  $v_{\text{dat}}$ ; the former is structural Accusative Case valuer and it can undergo a probe-goal relation with multiple goals (Multiple Agree) and the latter is Dative Case valuer.

## CHAPTER I

### (33) Core building blocks and their combinations in dative-accusative constructions in Japanese under Merge and Agree

	<i>Spray/load</i> verbs	<i>Give</i> verbs	Causativized transitive verbs	Causativized transitive motion verbs
Lexical head	V	V <sub>1</sub> , V <sub>2</sub>	V	V
Functional Case feature type	v <sub>acc</sub> [+multiple]	v <sub>dat</sub> v <sub>acc</sub>	v <sub>dat</sub> v <sub>acc</sub>	v <sub>acc</sub> [+multiple], v

The UG operation Merge combines these lexical and functional heads and (Multiple)Agree assigns given Case values to the verbal phrases in situ, which derives surface syntactic variations of each verb of four different verbs that are associated with the dative-accusative case array. A combination of v<sub>acc</sub>[+multiple]-V merges a derivation of *spray/load* constructions, while a combination of v<sub>dat</sub>-V<sub>2</sub>-V<sub>1</sub> derives a derivation of *give* constructions. A sequence of v<sub>dat</sub>-v<sub>acc</sub>-V creates a derivation of causative transitive verbs, while a sequence of v<sub>acc</sub>[+multiple]-v-V creates a derivation of causative motion verbs. Because the derivations of *give* verbs and causative transitive verbs involve v<sub>dat</sub>, they induce the In-situ Dative Assignment. In contrast, since the VP of *spray/load* verbs and that of causative motion verbs have v<sub>acc</sub>[+multiple] they induce dative case marking after movement.

An involvement of one of two different types of functional heads in a VP predicts whether or not a given verb participates in argument alternation. *Spray/load* constructions involve v<sub>acc</sub>[+multiple] (which is responsible for the Dative Case Assignment after Movement), which constitutes the alternation paradigm. On the other hand, *give* verbs are composed with v<sub>dat</sub> (which induces the In-situ Dative Case Assignment), do not constitute the same paradigm. These different mechanisms of the Dative Case Assignment are derived from the combination of primitive vocabulary and the properties of elementary operations, namely Merge and Agree. Therefore, this thesis argues that the basic properties of *spray/load* alternation and the argument structure of *spray/load* verbs, which have sometimes been explained in semantic terms (Kageyama 1980, Kishimoto 2001c, Iwata 2008), are understood as the consequence of the most primitive syntactic operations and vocabulary available in UG.

The organization of the thesis is as follows: in Chapter II, I introduce the terminology and assumptions that are needed for developing the more detailed discussion in

## CHAPTER I

later chapters. In Chapter III, I propose a VP of *spray/load* verbs in Japanese in the dative-accusative array, through a comparison of the syntax of *give* verbs and object Inalienable Possessor (IAP) sentences. In Chapter IV, I propose the two types of Dative Case Assignment. The Dative Case Assignment after Movement is found only in the VP of *spray/load* verbs, but not in that of *give* verbs. In Chapter V, I turn to a discussion of the syntax of the *with*-accusative construction of *spray/load* verbs, i.e., one of the other constructions on argument alternation in Japanese. I develop a syntactic condition on argument alternation on the basis of the proposal for two types of Dative Case Assignment. In Chapter VI, I further show the predictability of two different types of Dative Case Assignment in syntactic causative sentences. Chapter VII concludes the thesis and suggests directions for further research.

## Chapter II

### Assumptions

#### 2.1 The Minimalist Program

Generative grammar has gone through certain theoretical stages in its development in the past fifty years. The theoretical development from Principles and Parameters (henceforth, P&P) to the Minimalist Program (henceforth, MP) is the most recent important change.<sup>1</sup>

In MP, it is hypothesized that core properties of human languages are largely determined by the Bare Output Condition (or the Legibility Condition) at the interface levels: Phonetic Form (PF) and Logical Form (LF) (Yang 1999). According to Yang (1999), these conditions impose constraints on the possible structures of human language. The essence of the structures of human language is the computational system which composes linguistic structure (universal) that satisfies interface conditions of both levels.

Lexical items are defined as bundles of features; some of them is called [+interpretable] features (e.g., wh-feature), while some others are called [-interpretable]/[[-valued]] (e.g., Case feature).<sup>2</sup> The presence of [-interpretable] features in a derivation at the interface levels causes the derivation to crash. They must be eliminated in syntax under feature-agreement before the derivation is sent to the interfaces. Hence, we would not expect any [-interpretable] features in a derivation when it is spelled-out to the interfaces.

The derivation starts out with a numeration of a set of lexical items with these [+/-interpretable] features. During the course of derivation, the computation imposes on a certain degree of economy principles. There are two types of economy principles in MP: methodological economy and linguistic economy. Methodological economy is a familiar concept: ‘two primitive relations’ are worse than ‘one primitive relation’; a derivation with four movements is less economical than a derivation with two movements for a derivation of

---

<sup>1</sup> The advent of the MP has caused some controversy. In some literature, the MP is characterized as being radically changed from P&P theory (Lappin, Levine and Johnson 2001), while in other literature, the MP is seen as having drawn on the theoretical and empirical findings of the P&P approach; the MP is a theoretical extension of the P&P approach (Epstein and Hornstein 1999, Holmberg 2000, Ura 2000, Roberts 2001, Reuland 2001). I assume the latter view, since I believe that it is methodologically efficient if the UG is structured in a minimal and optimal manner.

<sup>2</sup> In this model, however, the agreement of the phi-features is implemented symmetrically, while the Case licensing is implemented asymmetrically. In the latter case, the head H determines a specification of Case on the argument. In this sense, the Case-licensing in this model is quite similar to that of the Case assignment in P&P theory.

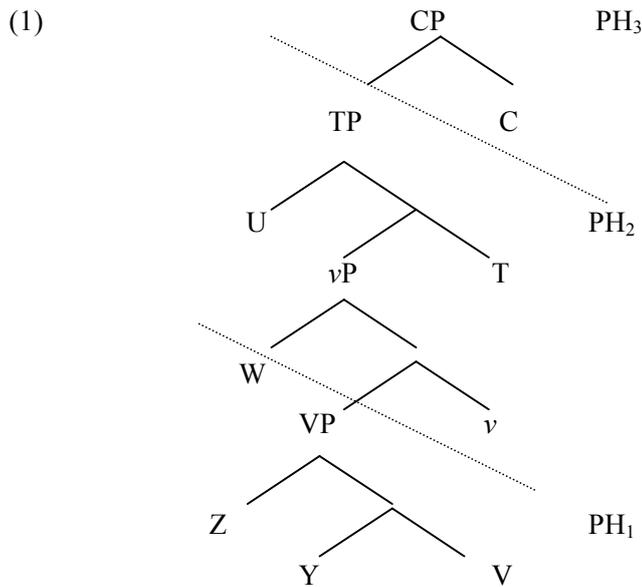
## CHAPTER II

the same phrase marker. The principle of linguistic economy claims that a derivation must maximize resources to meet Full Interpretation (henceforth, FI) at the interfaces (PF and LF). Under FI, it is legitimate for grammatical operations (i.e., Merge/Remerge/Agree) to rearrange Lexical Items (henceforth, LIs) in a numeration but they cannot add new LIs in the course of a derivation. This is called the Inclusiveness Condition (henceforth, IC). Every derivation must follow the IC. One might wonder how the MP treats empty categories such as trace. This is what copy theory is concerned with; according to Chomsky (1995) and Nunes (1999), traces are not to be regarded as new LIs added to a given derivation, but rather as “copies” of LIs that are already included in the numeration. Hence, their presence does not violate the IC.

### 2.2 The Phase theory

The framework that I assume in the thesis is the Phase model (Chomsky 2000; 2001; 2004; 2008). What is characteristic of this model is its spell-out system. In the pre-Phase model of the Minimalist Program, Case-licensing is governed by the Checking relation between checker and checkee under the spec-head relation (Chomsky 1995); the Checking relation induces covert movement at LF after the derivation has sent to the PF (see section 3.3.1 for Ura’s account of *give* verbs). On the other hand, in the Phase model as in (1), the operation Spell-Out takes place cyclically and derivationally at a spell-out domain of each syntactic unit called “phase”. Each phase corresponds to a maximal domain of the functional category:  $vP$  and  $CP(CP)$  (Chomsky 2000; 2001). The spell-out domain of each phase is the complement of the head  $v$  and  $C(T)$ . In (1),  $VP$  is the spell-out domain of  $v$ ;  $TP$  is the spell-out domain of  $C$ .

CHAPTER II



The spell-out of an element that is not contained in a domain is postponed at the next spell-out domain. Namely, the element that has been remerged to the specifier of  $vP$  (i.e., the  $vP$  edge) will be spelled out at the domain of  $C$ . This spell-out operation is ruled by the Phase Impenetrability Condition (PIC). This condition rules out the access of the syntactic operations to the domain that has been spelled-out to the interfaces. The operations can only access the element that has been remerged to every edge (i.e., specifier) of the phase head. No operation can access  $Z$  after  $VP$  is spelled out, whereas operations can access  $W$  even after  $VP$  is spelled out in (1).  $W$  may be spelled out at the spell-out domain of  $C$  or somewhere higher.

- (2) a. The domain of  $H$  is not accessible to operations, but only the edge of  $HP$ .  
 b.  $HP = [\alpha [H \beta]]$ , where  $\beta =$  domain of  $H$  and  $\alpha$  is the edge. (Chomsky 2004: 108,  
 (6))

As briefly discussed in the previous chapter, the Double-*o* Constraint (henceforth, DoC) bans a consecutive alignment of the accusative-marked phrase at a certain syntactic unit in Japanese. Hiraiwa (2010) claims that it is the spell-out domain of the phase (see section 4.2.3).

## CHAPTER II

### (3) A Phase Theory of the DoC (Hiraiwa 2010: 753, (90))

Multiple identical occurrences of the structural accusative Case value cannot be morphophonologically realized within a single Spell-Out domain at Transfer.

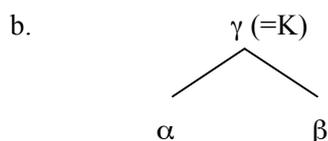
Under this proposal, the constraint applies to the complement of  $v$  (i.e., the first phase spell-out domain) or the complement of  $C$  (i.e., the second phase spell-out domain), and so forth. The condition claims that no more than one structural accusative case can be spelled-out at the same spell-out domain. Clefting can be a test whether or not a particular verb with two object arguments is subject to the DoC (see 1.2, 4.2.3). For example, although a multiple accusative object Inalienable Possession (henceforth, IAP) construction is illicit, as in (4a), clefting of this sentence is permitted, as in (4b). Hence, under Hiraiwa's proposal, (4a) is a diagnostic of the DoC.

- (4) a. ??Ken-ga Naomi-o atama-o tatai-ta  
Ken-NOM Naomi-ACC head-ACC hit-PAST  
'Ken hit Naomi on the head'
- b. Ken-ga omoikkiri atama-o tatai-ta no-wa Naomi-o da  
Ken-NOM hard head-ACC hit-PAST C-TOP Naomi-ACC COP  
'It is Naomi that Ken hit the head hard' (Hiraiwa 2010: 738, (43), modified)

### 2.2.1. Merge/ Rmerge

Merge is the basic structure-building operation in Bare Phrase Structure theory (henceforth, BPS). It builds a syntactic object  $K$  by combining two elements  $\alpha$  and  $\beta$  in the numeration, as defined in (5).

- (5) a.  $K = \{\gamma, \{\alpha, \beta\}\}$ , where  $\gamma \in \{\alpha, \beta\}$



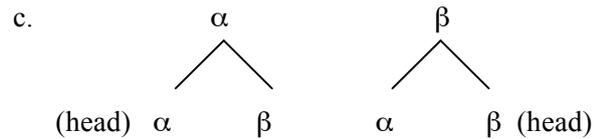
## CHAPTER II

Under the standard assumptions of MP, Merge does not specify which of the two elements combined is the head of the resulting structure; either  $\alpha$  or  $\beta$  in (5) can be the head of a newly-created structure, as shown in (6) (Chomsky 1995, Yang 1999, Fukui 2001).

### (6) Merge ( $\alpha, \beta$ )

a. If  $\alpha$  projects, then the result of Merge is  $\{\alpha, \{\alpha, \beta\}\}$

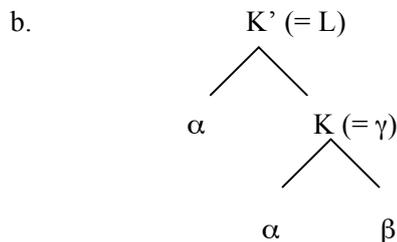
b. If  $\beta$  projects, then the result of Merge is  $\{\beta, \{\alpha, \beta\}\}$



The definition of remerge is given in (7). (Re)Merge can build a new syntactic object L by extracting  $\alpha$  out of an already merged syntactic object K. Rmerge/Move is governed by the local c-command relation.

### (7) Rmerge (Move) ( $\alpha, K$ )

a.  $L (=K') = \{K' \{\alpha, K (= \gamma)\}\}$ , where  $K' \in \{\alpha, K (= \gamma)\}$



The Minimal Link Condition (henceforth, MLC) is important in this respect. The MLC claims that K as a head attracts only the closest nominal to its specifier.

### (8) Minimal Link Condition (Chomsky 1995: 311)

K attracts  $\alpha$  only if there is no  $\beta, \beta$  closer to K than  $\alpha$ , such that K attracts  $\beta$ .

Following Ura (2000: 19), I assume that there is no extension of the minimal domain of  $H_1$  even when  $H_1$  head-moves onto  $H_2$ , contra Chomsky (1995: 298). For example, even after V head-merges to  $v$ , there is no extension of the minimal lexical domain of V; nominals within  $v$ -V (if there are more than one nominal) do not count as “equidistant” from  $v$ .

## CHAPTER II

### 2.2.2 Agree (Multiple Agree)

Agree is the Case licensing mechanism in the MP, which is governed by the probe-goal relation where a functional head (probe) c-commands arguments (goal(s)). When two elements enter into an Agree relation, uninterpretable/unvalued case features are licensed.<sup>3</sup> This operation is implemented in situ, without inducing movement.

(9) AGREE (Chomsky 2000)

$$\alpha > \beta$$

AGREE ( $\alpha$ ,  $\beta$ ), where  $\alpha$  is a probe and  $\beta$  is a matching goal, '>' is a c-command relation and uninterpretable features of  $\alpha$  and  $\beta$  are checked/deleted.

(cited from Hiraiwa 2001: 2002,

(1))

(10) Match

- a. Matching is feature identity
- b. D(P) is the sister of P
- c. Locality reduces to 'closest c-command' (Chomsky 2000: 122, (40))

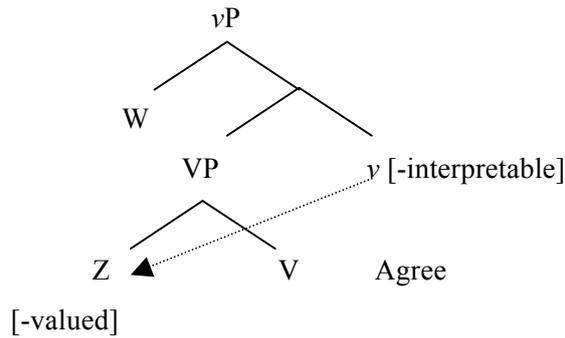
In (10), P is a probe and D(P) is the c-command domain of P, and in this relation a matching feature D is closest to P. Agree in (9) means that the Case feature of a head H (or P) ( $\alpha$ ), being [-interpretable], is deleted when H ( $\alpha$ ) enters into feature matching with a D ( $\beta$ ) within its c-command domain. In return, the D ( $\beta$ ), being also [-valued] is valued as [Case: X] in its base position. In principle, (C)T values structural Nominative Case and  $v$  values structural Accusative Case on a matching D ( $\beta$ ). For instance, the uninterpretable Case feature [ $u$ Case] on  $v$  is deleted when it enters into an Agree with a DP within its c-command domain in situ, and in return the DP is Case-valued as [Case: ACC] when this relation is held, as in (11).

---

<sup>3</sup> Checking of agreement feature is also governed by Agree. For the sake of the relevance of discussion, I only discuss Case feature checking.

CHAPTER II

(11)



Since Agree can take place non-locally, Chomsky (2000) proposes the Defective Intervention Constraint (therefore, DIC) to maintain the ‘locality’ of c-command relation in Agree, as in (12).

(12) Defective intervention constraint (Chomsky 2000: 123, (42))

$$*\alpha > \beta > \gamma$$



(\*AGREE ( $\alpha$ ,  $\gamma$ ),  $\alpha$  is a probe and  $\beta$  is a matching goal and  $\beta$  is inactive due to a prior

Agree with some other probe.)

(cited from Hiraiwa 2001: 295

(16))

The DIC prevents a probe ( $\alpha$ ) from being Agreed with a goal ( $\gamma$ ) if there is an intervening goal  $\beta$ , that has been inactive due to a prior relation of Agree with some probe.

Hiraiwa (2001; 2002) proposes Multiple Agree, as in (13).<sup>4</sup>

(13) MULTIPLE AGREE (Hiraiwa 2001: 3-4, (7), (8))

MULTIPLE AGREE (multiple feature checking) with a single probe is a single simultaneous syntactic operation; AGREE applies to all the matched goals at the same derivational point derivationally simultaneously.

$$\alpha > \beta > \gamma$$



(AGREE ( $\alpha$ ,  $\beta$ ,  $\gamma$ ), where  $\alpha$  is a probe and both  $\beta$  and  $\gamma$  are matching goals for  $\alpha$ .)

<sup>4</sup> Chomsky (2004; 2008) adopts Multiple Agree.

## CHAPTER II

Multiple Agree licenses the multiple spec-construction such as (14) to derive, since a probe is able to Agree with multiple goals. This is not possible by Single Agree given in (9). The sentence (14) is degraded if it is spelled-out per se, as ‘#’ represents (i.e., it means that the judgment of this sentence is marginal but not unacceptable). This is due to the fact that the spell-out form has the DoC violation effect.

- (14) #John-ga [CP [TP Mary-o me-o warui] to] omoikondei-ta  
John-NOM Mary-ACC eye-ACC bad C believe-PAST  
‘John believed Mary’s eye to be bad’ (Hiraiwa 2001: 9,  
(18))

However, if the sentence is clefted as in (15), it is perfect. Assuming that the cleft construction is derived by transformation, Kuroda (1978) and Hiraiwa (2001) argue that the sentence like (14), which violates the DoC, must be structured at some point in the derivation in order to account for the given fact.

- (15) John-ga [CP [TP me-o warui] to ] omoikondei-ta no-wa Mary-o da  
John-NOM eye-ACC bad C believe-PAST C-TOP Mary-ACC COP  
(Hiraiwa 2001: 9,  
(19))

Hiraiwa further argues that the licit derivation as in (15) indicates the superiority of Multiple Agree to Single Agree. This is because under Single Agree, the lower goal *me* ‘eye’ is never accusative-valued, because the probe cannot enter into Agree with multiple goals simultaneously in this model.

### 2.3 Categories of lexical items

The lexical tokens in a numeration are divided into two major categories: the lexical category and the functional category (Chomsky and Lasnik 1993, Fukui 2001). The former category includes nouns, verbs and adjectives (i.e., substantive items), and so forth. They discharge  $\theta$ -roles.<sup>5</sup> The latter category, being a small and closed set, includes

---

<sup>5</sup> They also have categorial features (e.g., [+/- N]) and agreement features (e.g., gender, number, person, etc.).

## CHAPTER II

complementizers, determiners, and tense morphemes (i.e., non-substantive items), so on that they do not have  $\theta$ -roles. But, they have agreement features.

Fukui (2001) argues that when a lexical category discharges all its  $\theta$ -roles, a maximal lexical projection  $XP^{\max}$  is created. Similarly, when a functional category finishes “discharging” its agreement features, a full set of XPs that is composed of a maximal lexical projection and a functional projection is created. This is a basic view of Relativized X-bar theory; XP can be defined in a relativized manner on each head. (I have deleted the sentence ‘*This idea has drawn on the MP as a theory of Bare Phrase Structure (henceforth, BPS) (Chomsky 1995)*’).

(16) The maximal projection of X is a category X that does not project further in a given configuration. (Fukui 2001: 394, (34))

A positive effect of the adoption of BPS is to have liberated a structure building mechanism from the X-bar convention, making the function of each head be more responsible for structure building. In this respect, I think that the importance of an adequate description of a phenomenon has been much more emphasized under BPS. As mentioned earlier, Merge simply combines a set of two unordered elements. In this respect, V could merge with the external argument, which we want to avoid.

For this solution, I assume the Neo-Larsonian shell structure, i.e., the split  $vP$  hypothesis (Hale and Keyser 1993; 2002, Chomsky 1995, Koizumi 1995, Harley 1995; 2002; 2008, Yatsushiro 1998; 2003, Ura 2000), which claims that the subject of a transitive sentence is an argument of the light verb  $v$  rather than the lexical verb, I locate the AGENT in [Spec,  $vP$ ] (For the defense of this position, see appendix A).<sup>6</sup> The problem holds for the position of the locational argument and the theme argument with respect to V. Merge can combine V with the theme element, and also with the goal element. Under the X-bar theory, a various kind of linking hypothesis has been proposed. It is Baker (1988) who proposes the strictest linking condition on arguments, viz. the Uniformity of Theta Assignment Hypothesis (UTAH) in (17).

---

<sup>6</sup>According to Marantz (1984) and Krazter (1996), the subject of a sentence (i.e., the external argument) is not an argument of the lexical verb, but an argument of another verbal head. Behind this hypothesis lies the fact that the “subject” position can be filled with DPs bearing a variety of theta-roles (Jackendoff 1977, McCloskey 1997). Jackendoff (1977) proposes that a DP bearing “subject-like” roles (i.e., AGENT, CAUSER, etc.) is merged to a specifier of VP.

## CHAPTER II

### (17) The 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, (30))

This hypothesis proposes that a DP bearing the identical theta-role (e.g., GOAL) must be uniformly merged to the identical structural position.<sup>7</sup> Under (17), others have proposed a different version of the “thematic-role hierarchy”. Limiting the argument to VP-internal considerations, some of the literature proposes that THEME is higher than GOAL (Larson 1988, Baker 1997, Harada and Larson 2009, among others), while other literature proposes that GOAL is higher than THEME (Jackendoff 1990 and Grimshaw 1990, among many others). In Japanese and Korean phrase structure grammar, Takano (1998) defends the latter hierarchy in *give*-type ditransitive verbs. Ura (2000) follows this.<sup>8</sup> Vermeulen (2005) supports the same hierarchy for Korean external possessor constructions.

I show that the VPs of the dative-accusative constructions investigated in the later chapters follow a type of thematic hierarchy, i.e., GOAL/LOC-THEME. However, I also show that the GOAL of *give* verbs and the LOC of *spray/load* verbs are merged to a different structural position from one another. This fact weakens an assumption of UTAH. For this reason, I do not commit myself to a discussion of the issues related to UTAH in this thesis.

With respect to the merge of the two verbal arguments, I assume that Merge can combine either (V, THEME) or (V, LOC), but I stipulate that when there are two LIs, except the external argument, V (ditransitive) cannot discharge a theta-role if it combines with the locational element. As a result, V cannot exhaust its thematic feature; hence, the derivation will crash.

---

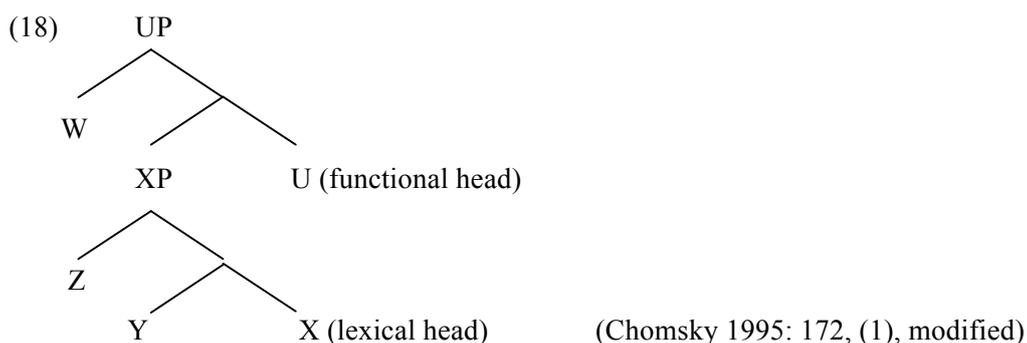
<sup>7</sup> The UTAH has a great bearing on the phenomenon called argument alternation involving ditransitive verbs, i.e., the dative alternation (Levin 1993). Larson (1988) claims a movement analysis for the English dative alternation and *spray/load* alternation, supporting a particular theta-role hierarchy (i.e., DO > IO) derived from (17). Larson’s analysis has great falsifiability. Most studies following his have been influenced by Larsonian-shell structure, even though most of them eliminate a transformational account (Pesetsky 1995, Harley 2002, among others).

<sup>8</sup> However, at the same time, Ura argues that the assumption of a theta-role hierarchy is redundant under his theory.

## CHAPTER II

### 2.4 Structural relations

There are some major structural relations that I will frequently refer to in the thesis. First, the specifier-head relation of W to U (functional head) and the head-complement relation of X to Y (lexical head) are two of the important ones, as in (18). I also call the relation between Z and X in XP the specifier-head relation of Z to X (lexical head).



I assume the definition of c-command as in (19).

(19)  $\alpha$  c-commands  $\beta$  if  $\alpha$  does not dominate  $\beta$  and every  $\gamma$  that dominates  $\alpha$  dominates  $\beta$ .

In (18), Z c-commands Y because Z does not dominate Y and XP that dominates Z also dominates Y. The position of W in (18) is excluded from the domain of X under the definition (21), because there is no segment of X that dominates W. The term “domain” in (22) refers to a domain that “includes” arguments of a head X, excluding the head itself and also that “contains” an element that extend the head X.  $\text{Max}(\alpha)$  is the ‘least full-category maximal projection dominating  $\alpha$ ’ (Chomsky 1995).

(20) The domain of a head  $\alpha$  is the set of nodes contained in  $\text{Max}(\alpha)$  that are distinct from and do not contain  $\alpha$ .

The definition of exclusion is given below.

(21)  $\alpha$  is excluded by  $\beta$  iff no segment of  $\beta$  dominates  $\alpha$ . (Chomsky 1986a: 9, (17))

## CHAPTER II

The definition of Minimal Lexical Domain (henceforth, MLD) is given in (22) from Chomsky (1995).

- (22) The minimal lexical domain of a head  $\alpha$  is the smallest subset  $K$  of the domain of  $\alpha$  such that for any  $B$  which is an element of the domain of  $\alpha$ , some  $C$ , an element of  $K$ , reflexively dominates  $B$ .

Let me explain the structural relation of (18) with given terminologies. In (18),  $Z$  and  $Y$  are within the minimal domain,  $\text{Min}(D)$  of  $X$  (if  $X$  is lexical head  $XP$  is the minimal lexical domain of  $X$ ) because they are contained by every segment of  $X$ .  $Z$  and  $Y$  are also within the  $\text{Min}(D)$  of  $U$ , because  $XP$  is the complement to  $U$ ;  $Z$  and  $Y$  are contained in  $XP$ .  $W$  is not in the minimal lexical domain of  $X$ , since it is not contained in  $XP$ . On the other hand,  $W$  is also within the  $\text{Min}(D)$  of  $U$ , because it is contained by  $UP$ .

## Chapter III

### Ditransitive verbs in Japanese

#### 3.1 Introduction

Natural languages have a type of verb to express an event of giving and sending. In Japanese, such an event is expressed with *ageru*-type verbs (e.g., *ageru* ‘give’, *okuru* ‘send’, *nageru* ‘throw,’ etc.). An example of the class of verbs is given in (1).

- (1) Taro-ga      Hanako-ni      ringo-o      age-ta  
 Taro-NOM    Hanako-DAT    apple-ACC    give-PAST  
 ‘Taro gave an apple to Hanako’

This sentence consists of the verb and its three other phrases; the *ga*-phrase, *Taro-ga*, the *ni*-phrase, *Hanako-ni* and the *o*-phrase *ringo-o* ‘apple-ACC’. Each phrase bears a different thematic role; the *ga*-phrase has the AGENT role, the *ni*-phrase, the GOAL role and the *o*-phrase, the THEME role. The sentence expresses that there is an AGENT (X) *Taro* who acts on a THEME (Y) *ringo* and moves it to the position of GOAL (Z) *Hanako*.<sup>1</sup>

Verbs of spraying in Japanese (e.g., *nuru* ‘paint’, *mitasu* ‘fill’, *umeru* ‘bury, fill.in’, *moru* ‘serve,’ etc.) show a quite similar thematic meaning and the surface case morphology to *give* verbs. An example of the class of verbs in a simplex sentence is given in (2).

- (2) Taro-ga      doa-ni      penki-o      nut-ta  
 Taro-NOM    door-DAT    paint-ACC    paint-PAST  
 ‘Taro painted paint onto the door’

The sentence (2) has thematic participants that are similar to those of the sentence (1) has; the verb *nuru* ‘paint’ is compatible with three phrases; the *ga*-phrase (e.g., *Taro*) that bears the AGENT role, the *ni*-phrase (e.g., *kabe-ni* ‘wall-DAT’) that bears the LOC(ATION) role and the *o*-phrase (e.g., *penki-o* ‘paint-ACC’) that represents the MAT(ERIAL) role.<sup>2</sup> In sum, the entire sentence means that there is an AGENT (X) *Taro* who acts on the MATERIAL (Y) *penki* ‘paint’ and moves it onto the LOCATION (Z) *kabe* ‘wall’.

<sup>1</sup> With respect to the thematic role labels of *give* verbs, I follow Ura (2000).

<sup>2</sup> With respect to the thematic role labels of *spray/load* verbs, I follow Fukui, Miyagawa and Tenny (1985).

### CHAPTER III

In spite of these similarities, on a closer inspection, there is an intrinsic syntactic difference between the two types verbs, with a particular reference to the behavior of the locational phrase. First, the *ni*-phrase of *give* verbs and that of *spray/load* verbs show different behavior with respect to the distribution of Secondary Depictives (henceforth, SDs).<sup>3</sup> The dative *ni*-phrase of *spray/load* verbs can be predicated of SDs, as well as its *o*-phrase, as shown in (3a) and (3b). On the other hand, the *ni*-phrase of *give* verbs cannot be a subject of SDs (Koizumi 1994, Pylkkänen 2002; 2008), whereas the *o*-phrase of the same sentence can be a subject of an SD, as in (4a) and (4b).

- (3) a. Taro-ga sono osara-ni enogu-o<sub>i</sub> **genekinomama-de**<sub>i</sub> nut-ta  
 Taro-NOM that plate-DAT paint-ACC undiluted-SD paint-PAST  
 ‘Literally: Taro painted paint<sub>i</sub> onto the plate **undiluted**<sub>i</sub>’
- b. Taro-ga sono osara-ni<sub>i</sub> **kitanaimama-de**<sub>i</sub> enogu-o nut-ta  
 Taro-NOM that plate-DAT filthy-SD paint-ACC paint-PAST  
 ‘Literally: Taro painted paint onto the plate<sub>i</sub> **filthy**<sub>i</sub>’

In (3a), an SD *geneki-no mama-de* ‘undiluted’ can be a predicate of the *o*-phrase *enogu* ‘paint’. Similarly, in (3b), an SD *kitanai-mama-de* ‘filthy’ can be a predicate of the *ni*-phrase *osara* ‘plate.’ Contrastively, in (4a), although it is perfect to describe the state of the *o*-phrase *hon* ‘book’ with an SD *sakasama-de* ‘upside.down’, an SD *hadaka-de* ‘naked’ cannot modify the state of the *ni*-phrase *Hanako* in the same sentence, during the event of reading (i.e. a member of the *give* class).

- (4) a. Taro-ga Hanako-ni sono hon-o<sub>i</sub> **sakasama-de**<sub>i</sub> yon-da  
 Taro-NOM Hanako-DAT the book-ACC upside.down-SD read-PAST  
 ‘Taro read a book<sub>i</sub> to Hanako **upside-down**<sub>i</sub>’
- b. \*Taroo-ga Hanako-ni<sub>i</sub> **hadaka-de**<sub>i</sub> hon-o yon-da  
 Taro-NOM Hanako-DAT naked book-ACC read-PAST  
 ‘\*Taro read Hanako<sub>i</sub> a book **naked**<sub>i</sub>’ (Pylkkänen 2008: 29, (40b), modified)

Second, as introduced in section 1.2 and 2.2, it is not allowed in Japanese for more than one accusative phrase to be adjacent to each other (Harada 1973; 1975, among others). As in (5), both types of verbs seem to follow this constraint. The locational element cannot

<sup>3</sup> Boldface phrases represent SDs.

### CHAPTER III

be marked with accusative case. However, the locational element of *spray/load* verbs can be marked with the accusative case under scrambling as in (6a) or clefting as in (6b).

(5) a. ??/\*Taro-ga      doa-o      penki-o      nut-ta  
           Taro-NOM    door-ACC    paint-ACC    paint-PAST  
           ‘Literally: Taro painted paint the door’

b. \*Taro-ga      Hanako-o      ringo-o      age-ta  
           Taro-NOM    Hanako-ACC    apple-ACC    give-PAST  
           ‘Literally: Taro gave an apple Hanako’

(6) a. ?Sono kabe-o    Taro-ga      kossori    aopenki-o      nut-ta<sup>4</sup>  
           the wall-ACC    Taro-NOM    secretly    blue.paint-ACC    paint-PAST  
           ‘Literally: Taro secretly painted the wall blue paint’

b. [Taro-ga      enogu-o      nut-ta      no]-wa    osara-o<sub>i</sub>      **ni-mai<sub>i</sub>**    da<sup>5</sup>

<sup>4</sup> A question mark represents that a multiple accusative scrambling is less acceptable than a multiple accusative cleft among my informants (11 people).

<sup>5</sup> Boldface phrases represent NQFs (Floated Numeral Quantifier). I inserted the floating numeral quantifier between the accusative phrase and the copula verb in order to avoid the situation where the sentence is judged ungrammatical for an irrelevant factor. It has been proposed that ‘PPs may occur in the focus position of the cleft construction while NPs with a case marker may not as in (i) and (ii), respectively (Sadakane and Koizumi 1995: 8).

(i) John-ga      tegami-o      moratta    no-wa    Mary kara    da  
           John-NOM    letter-ACC    received    C-TOP    Mary from    COP  
           ‘It is from Mary that John received a letter’ (Sadakane and Koizumi 1995: 9, (9a))

(ii) ??Kinoo      Mary-ga      tabeta    no-wa    piza-o      da  
           yesterday    Mary-NOM    ate      C-TOP    pizza-ACC    COP  
           ‘It is pizza that Mary ate yesterday’ (Sadakane and Koizumi 1995: 9, (8b))

*Piza-o* ‘pizza-ACC’ in (ii) is an NP, whereas *Mary kara* ‘Mary from’ in (i) is a PP. Notice that (ii) is not completely bad for some reason. Hence the reason of the ungrammaticality of this sentence lies on something different from Case. This point is clearly shown in the acceptable sentence in (iii), where the focused element appears with an NQF (i.e., *ni-mai* ‘2-CL’).

(iii) Kinoo      Mary-ga      tabeta    no-wa    piza-o      ni-mai    da  
           yesterday    Mary-NOM    ate      C-TOP    pizza-ACC    2-CL    COP  
           ‘It is two slices of pizza that Mary ate yesterday’

For this reason, I have tested my informants with cleft sentences with the NQF.

### CHAPTER III

Taro-NOM paint-ACC paint-PAST C-TOP plate-ACC two-CL COP  
'Literally: It is two plates that Taro painted paint'

In contrast to *spray/load* verbs, it is impossible for the locational element of *give* verbs to be marked with *o* even when it is scrambled or clefted, as in (7).<sup>6</sup>

(7) a. \*Sono gakusei-o Taro-ga kossori ano hon-o age-ta  
the student-ACC Taro-NOM secretly that book-ACC give-PAST  
'Literally: Taro secretly gave the book that student'

b. \*[Taro-ga hon-o age-ta no]-wa gakusei-o<sub>i</sub> fu-tari<sub>i</sub> da  
Taro-NOM book-ACC give-PAST C-TOP student-ACC two-CL COP  
'Literally: It is two students that Taro gave books'

The fact that the locational element of *spray/load* verbs can be marked with morphological dative case as in (2), whereas it can also be marked with morphological accusative case under a certain syntactic condition as in (6), shows an interesting point with respect to DoC (Double-*o* Constraint). As briefly discussed in section 1.2 and 2.2, this constraint bans an adjacent realization of accusative phrases. We can test whether or not a sentence has an effect of the DoC violation under clefting. According to the literature (Harada 1973; 1975, Kuroda 1978, Hiraiwa 2006c, 2010), if a sentence with two accusative phrases can be clefted, the derivation of the cleft sentence shows a DoC violation effect, whereas if a sentence with two accusative phrases cannot be clefted, it does not show the effect of the DoC. What is crucial to the argument here is the assumption that a cleft is derived via movement; under this assumption, if a multiple accusative cleft is licit, the base structure of the sentence must be a multiple accusative structure. Hence, the DoC is relevant to this case. On the other hand, if a multiple accusative cleft is illicit, the base structure of the sentence must not be a multiple accusative structure. Hence, the DoC is irrelevant to this case. Crucially, from the facts in (6) (i.e., the DoC violation effect by *spray/load* verbs can be ameliorated) and (7) (i.e., the DoC violation effect by *give* verbs cannot be allevated), we see that the ungrammaticality of two sentences in (5) is not caused by the same reason.

The difference between two types of ditransitive verbs in the distribution of SDs and the availability of the multiple accusative cleft/scrambling suggests that there are differences in the syntax of these two types of verbs, in spite of their similarity with respect to the

---

<sup>6</sup> I have five informants of native speakers of Japanese for the experiment. All of them answered these sentences were unacceptable.

## CHAPTER III

thematic relation and the distribution of the case marking. In this chapter, I propose that *spray/load* verbs have a VP-internal double object structure; the GOAL is its specifier and the THEME is its complement. Following the neo-Larsonian shell structure (Chomsky 1995), which claims that the subject of a transitive sentence is an argument of the light verb *v* rather than the lexical verb, I locate the AGENT in [Spec, *v*P]. On the contrary, I argue for the proposal that the complement of *v* for the VP of *give* sentences is a three-layered *v*P-shell structure (i.e.,  $V_1$ - $V_2$ -*v*), borrowing the phrase structure from Ura (2000: 262); only the THEME is merged within  $VP_1$  but the GOAL is merged outside of that  $VP_2$ .

The organization of this chapter is as follows: in section 3.2, I briefly give an overview of the literature of Japanese ditransitive verbs, including *give* verbs and *spray/load* verbs. Section 3.3 presents the VP syntax of *spray/load* verbs. As will be made clear in the text, this VP is a modified version of the structure proposed in Fukui, Miyagawa and Tenny (1985). In section 3.4, I reanalyze the VP of *give* verbs proposed by Ura (2000) with some additional evidence, under the assumption of Merge in the Minimalist Program (Chomsky 1995). In section 3.5, I discuss about the syntax of object IAP constructions, arguing for the possessor-raising analysis (Hiraiwa 2010) with some additional evidence. Section 3.6 concludes the chapter.

### 3.2 The literature of ditransitive verbs in Japanese

In Japanese syntax, there are numerous studies of *give* verbs (Hoji 1985, Miyagawa 1996, 1997, Yatsushiro 1998; 2003, Takano 1998; 2008, Ura 2000, Miyagawa and Tsujioka 2004, Harada and Larson 2009, among others), as mentioned in 1.2. A central issue in the literature is what the base order of ditransitive sentences is, i.e., either there is a basic pattern plus a derived pattern or both patterns are basic.

- (8) a. Taro-ga      Hanako-ni      ringo-o      age-ta  
      Taro-NOM    Hanako-DAT    apple-ACC    give-PAST  
      ‘Taro gave an apple to Hanako’
- b. Taro-ga      ringo-o      Hanako-ni      age-ta  
      Taro-NOM    apple-ACC    Hanako-DAT    give-PAST

Hoji (1985) has first proposed that the *ni*-phrase is merged to the higher position than the *o*-phrase in VP of *give* verbs and asymmetrically binds the *o*-phrase. A piece of evidence for Hoji’s proposal is based on the Bound Variable Reading (henceforth, BVR) of demonstrative

### CHAPTER III

pronouns such as *so-itsu* ‘that-person’ (e.g., *so-ko* ‘that place’, *so-re* ‘that-thing,’ and so forth) as in (9); *so-itsu* is interpreted as a variable bound by the binder (e.g., *subete-no X* ‘every-GEN X’) only when the bindee (i.e., pronouns) is included within a c-command domain of the binder (i.e., quantifier phrases) at LF. The following paradigm is cited from Takano (1998: 821, (7)).

(9) a. BVR (*subete-no gakusei* (dative), *so-itsu* (accusative))

Mary-ga [subete-no gakusei<sub>i</sub>] -ni [soitsu<sub>i</sub>-no sensei]-o syookaisita  
Mary-NOM all-GEN student-DAT he-GEN teacher-ACC introduced  
‘Mary introduced his teacher to every student’

b. ?BVR (*so-itsu* (accusative), *subete-no gakusei* (dative))

Mary-ga [soitsu<sub>i</sub>-no sensei]-o [subete-no gakusei<sub>i</sub>]-ni syookaisita  
Mary-NOM he-GEN teacher-ACC all-GEN student-DAT introduced

c. \*BVR (*so-itsu* (dative), *subete-no gakusei* (accusative))

Mary-ga [soitsu<sub>i</sub>-no sensei]-ni [subete-no gakusei<sub>i</sub>]-o syookaisita  
Mary-NOM he-GEN teacher-DAT all-GEN student-ACC introduced  
‘Mary introduced every student to his teacher’

d. BVR (*subete-no gakusei* (accusative), *so-itsu* (dative))

Mary-ga [subete-no gakusei<sub>i</sub>]-o [soitsu<sub>i</sub>-no sensei]-ni syookaisita  
Mary-NOM all-GEN student-ACC he-GEN teacher-DAT introduced

The demonstrative pronoun *so-itsu* in (9a) is interpreted as a variable of the Quantifier Phrase (henceforth, QP) *subete-no gakusei* ‘all student,’ representing that *so-itsu* refers to an individual student in a set of referents of the universal quantifier *subete-no gakusei*, rather than it has a particular referent in the discourse (i.e., discourse-bound reading). Under Hoji’s proposal, the establishment of this interpretation is expected because the pronoun is within the c-command domain of QP in this order. In (9b), where the order of the two phrases is reversed, the same BVR is still available.<sup>7</sup> This seems to be mysterious at first glance. The pronoun is not c-commanded by the binder in this surface order. However, this fact obtains an account, if we assume that the *o*-phrase (i.e., bindee) is scrambled from the lower position

---

<sup>7</sup> The question mark is originally from Hoji (1985), although I cited from Takano (1998). This means that the BVR of the given pronoun is less clear in this order than that is in the order in (9a). Since the point of the present discussion is whether or not the BVR is obtained under a particular configuration, the thesis will not be concerned with the reported robustness of the reading.

### CHAPTER III

than the *ni*-phrase (Hoji 1985, among others), there has been a copy in its base position which is within the c-command domain of the binder; it is expected that the given pronoun still retains the BVR.<sup>8</sup> The same hypothesis accounts for the BVR of the demonstrative pronoun in (9c) and (9d). In (9c), the pronoun is included in the *ni*-phrase and the binder is in the *o*-phrase. In this order, the pronoun is not contained in the c-command domain of the binder; hence no BVR of the pronoun. In (9d), the pronoun can be interpreted as a variable in which the order of the two object phrases is reversed. It has been remerged to the position where it c-commands the bindee, the pronoun *so-itsu*. Hence, the pronoun is interpreted as a BVR. With these facts, Hoji argues that the base order of Japanese ditransitive verbs is dative-accusative.

This analysis has become the dominant view in the literature of Japanese ditransitive verbs (Saito 1985; 2003, Takano 1998, Yatsushiro 1998; 2003, Ueyama 1998, Hayashishita 2000, Ura 2000, among many others). The present thesis will further strengthen the validity of this analysis with the evidence of the bound variable interpretation in *spray/load* sentences, that will be in section 3.3. However, I will modify Hoji's (2003) condition on BVR showing that the paradigm can be exhaustively explained without recourse to QR.

Some of the literature proposes an analysis with the opposite scrambling possibility (Zushi 1992, Harada and Larson 2009) (I sometimes call Hoji's scrambling analysis as "major scrambling view" for an expository reason). The problem of this analysis is found in the grammaticality of (9b) and (9c). The BVR of the pronoun does not follow from this assumption with the same c-command hypothesis. Under the assumption that the *ni*-phrase is merged lower than the *o*-phrase, it is a puzzle why the pronoun obtains a BVR in (9b) without establishment of c-command relation of the binder and bindee in the base order. Contrary to this, the lack of BVR in (9c) cannot be accounted for because the c-command relation of the binder and the bindee must have been established under this base order via a copy. We might argue that the base c-command hypothesis is wrong. Under this argument, it is obvious that we will lose the account that has been established for the data in (9). The

---

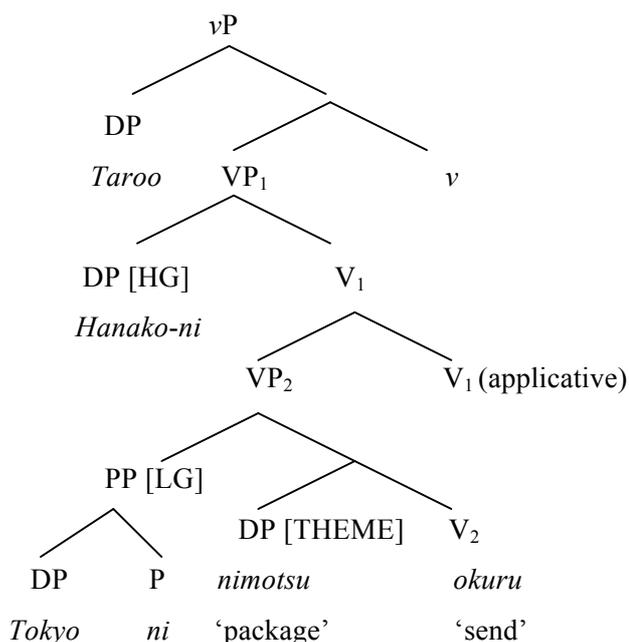
<sup>8</sup> This effect has been discussed as the LF "reconstruction" effect in the literature. The copy theory of the MP that I assume in the thesis claims that it is not necessary to assume the LF reconstruction. However, as far as concerned with my data, the function of copy is same as that of the trace. With this reason, I sometime refer to "connectivity" in the thesis. In passing, (i) is the definition of connectivity, provided by Takano (1998: 821, fn.5).

(i)  $\alpha$  is bound by  $\beta$  through Connectivity iff a trace of  $\alpha$ , but not  $\alpha$  itself, is bound by  $\beta$ .



CHAPTER III

(11)



(Miyagawa and Tsujioka 2004: 14, (35))

Following Marantz (1993), they argue that  $V_1$  is the applicative head. Namely, the HG in (10) is a solo argument to the applicative head and other two phrases are arguments to  $V_2$  whose maximal projection ( $VP_2$ ) is selected by the applicative head. The permutation between the HG and the other two phrases is impossible, whereas that of the LG and the Theme is allowed, since the LG and the Theme are merged within the same VP. Then the question is when there is only one dative phrase in a sentence of *give* verbs, how can we know if it is a realization of the HG or the LG? They argue that if the *o*-phrase can be scrambled over the *ni*-phrase, it is the LG PP, whereas if the same phrase cannot be scrambled over the *ni*-phrase, it is the HG.

A problem of Miyagawa and Tsujioka's analysis comes from the BVR of the pronoun in (9). According to them, we would expect that the category of the *ni*-phrase in the accusative-dative order is PP as in (9b) and (9d). In general, an element inside PP cannot c-command an element outside of the phrase in Japanese, because of P. Consider the pair of sentences in (12b) and (12d), where the BVR of *so-itsu* 'that person' cannot be obtained. In these sentences, the binder QP is within the instrumental PP *pen-de* 'pen-WITH.' In this configuration, the QP cannot bind the bindee *so-itsu* inside the *o*-phrase; and hence no BVR on the bindee is obtainable.

### CHAPTER III

(12) a. BVR (*subete-no gakusei* (accusative), *soitsu* (PP-*de*))

Taro-ga [subete-no gakusei<sub>i</sub>-no e]-o [soitsu<sub>i</sub>-no pen]-de  
 Taro-NOM all-GEN student-GEN picture-ACC his-GEN pen-wih  
 kai-ta  
 draw-PAST  
 ‘Taro drew the picture of every student with his pen’

b. \*BVR (*soitsu* (accusative), *subete-no gakusei* (PP-*de*))

Taro-ga [soitsu<sub>i</sub>-no e]-o [subete-no gakusei<sub>i</sub>]-no pen-de  
 Taro-NOM his-GEN picture-ACC all-GEN student-GEN pen-with  
 kai-ta  
 draw-PAST  
 ‘Taro drew his picture with a pen of every student’

c. \*BVR (*soitsu* (PP-*de*), *subete-no gakusei* (accusative))

Taro-ga [soitsu<sub>i</sub>-no pen]-de [subete-no gakusei<sub>i</sub>]-no e-o  
 Taro-NOM his-GEN pen-with all-GEN student-GEN picture-ACC  
 kai-ta  
 draw-PAST

d. \*BVR (*subete-no gakusei* (PP-*de*), *soitsu* (accusative))

Taro-ga [subete-no gakusei<sub>i</sub>-no pen]-de [soitsu<sub>i</sub>-no e]-o  
 Taro-NOM all-GEN student-GEN pen-with his-GEN picture-ACC  
 kai-ta  
 draw-PAST

Given this, it is expected that the *ni*-phrase in the accusative-dative order in (9b) cannot c-command the *o*-phrase where the pronoun is contained; hence a BVR of *so-itsu* ought not to be obtained. The same interpretation has to be obtained even after the *ni*-phrase is scrambled over the *o*-phrase, if *ni* in this order is a postposition. However, as we have observed, the fact is contrary. The same type of problem is found in (9d). *So-itsu* of the *ni*-phrase in this sentence must not receive an interpretation as a variable under the assumption that this *ni* is a postposition, regardless of the word order. For these reasons, I do not support this account.

This argument amounts to saying that there is no phenomenon called “dative alternation” for Japanese ditransitive verbs, in contrast to English, as (13) shows (Larson 1988, Aoun and Li 1989; 1993, Keyne 1984, Levin 1993, Marantz 1993, Pesetsky 1995,

### CHAPTER III

Baker 1997, Basilico 1998, Hale and Keyser 2002, Harley 2002, Bruening 2001; 2010, Miyagawa and Tsujioka 2004, among many others).

(13) a. John gave a book to Mary

b. John gave Mary a book

Barss and Lasnik (1986) show that there is a difference in binding relation of the IO and the DO in (13); the binding relation is fixed in DO-IO order in (13a) and that is also fixed in IO-DO order in (13b). Taking this observation into account, Larson (1988) develops the VP-shell structure and proposes a transformational account of a set of alternants in (13) from a single D-structure. Although attractive as a hypothesis, since there is no clear evidence that shows that the two verbal arguments of Japanese ditransitive verbs shows asymmetry in either dative-accusative or accusative-dative order, I do not support a uniform analysis of Japanese and English verbs with respect to argument alternation, contra Miyagawa and Tsujioka (2004).

There is recent literature that proposes that the *ni*-phrase of ditransitive verbs in Japanese is not an argument of the lexical verb, but rather an argument of some other verbal head (Koizumi 1995, Ura 2000, Pylkkänen 2002; 2008, Miyagawa and Tsujioka 2004), providing a more elaborate VP structure for ditransitive verbs under the assumption of a VP-shell analysis (Larson 1988). The proposal in this line of argument captures the issue of structural height between *ni*-phrase and *o*-phrase that we have just observed. In Ura (2000), the *ni*-phrase of ditransitive verbs is an argument of the middle functional head called Vmid; the *o*-phrase is an argument of the lexical verb. In Pylkkänen (2002; 2008), both the *ni*-phrase and the *o*-phrase are arguments of the Appl-low head (i.e., the low applicative head), and the verb takes this Appl-low projection as its complement. Both analyses will be introduced in 3.4.1.

In spite of these various attempts concerning the phrase structure of a type of ditransitive verbs in Japanese, a very few attempts has been made to explicate the organization of VP of other types of ditransitive verbs including *spray/load* verbs (cf. Matsuoka 2003). To the best of my knowledge, it is only Fukui, Miyagawa and Tenny (1985) that have discussed syntactic aspects of *spray/load* verbs in Japanese.

According to Fukui, Miyagawa and Tenny, native speakers of Japanese have a clear intuition about what is “argument” to the verb or what is not. When a required argument of a verb is elided, they tend to feel ‘something is missing’ in a sentence. For example, if the

### CHAPTER III

accusative phrase of the verb is omitted from a sentence as in (14), native speakers intuitively feel that what has been eaten (i.e., the object of the eating event) is omitted, and they may ask a question such as ‘*nani-o* ‘what (did Taro eat)’ to the speaker of this utterance.

- (14) Taro-ga    ~~susi-o~~    tabe-ta<sup>9</sup>  
Taro-NOM   ~~susi-ACC~~   eat-PAST  
‘Taro ate ~~susi~~’

Given this, Fukui, Miyagawa and Tenny argue that the *ni*-phrase of the verb *haru* ‘put’ in (15a) is not an argument of the verb, since (15a) is semantically complete and there is no real sense that something is missing in the sentence. On the other hand, the *o*-phrase in (15b) is an argument of the verb, since when it is omitted there is a clear sense that ‘something’ is missing in the sentence.

- (15) a. ~~kabe-ni~~    ano posutaa-o    haru (No missing sense is involved)  
wall-DAT    that poster-ACC    hang  
‘hang that poster ~~onto the wall~~’  
(Fukui, Miyagawa and Tenny 1985: 27, (9a), modified)
- b. kabe-ni    ~~ano posutaa-o~~    haru (Missing sense is involved)  
wall-DAT    that poster-ACC    hang  
‘hang ~~the poster~~ on the wall’  
(Fukui, Miyagawa and Tenny 1985: 27, (9b), modified)

Fukui, Miyagawa and Tenny argue that both phrases of a complex verb *hari-tsukusu* ‘put-exhaust’ are required arguments: an omission of each phrase from a sentence creates a missing sense.<sup>10</sup>

- (16) a. Taro-ga    ~~sono kabe-ni~~    posutaa-o    hari-tsukusi-ta  
Taro-NOM    ~~that wall-DAT~~    poster-ACC    put-exhaust-PAST  
‘Taro put posters ~~onto the wall~~ completely’

<sup>9</sup> Strikethrough represents omitted phrases.

<sup>10</sup> Fukui, Miyagawa and Tenny (1985) categorize this verb as *spray/load* verbs, although they have not provided the same type of data with the verb *nuru* ‘paint’. The lexical stem *haru* ‘hang, put’ itself does not pattern with the verb *nuru* with respect to a participation of argument alternation. We will concern the syntax with this type of verb in Chapter V.

### CHAPTER III

- b. Taro-ga sono kabe-ni ~~posutaa~~-o hari-tsukusi-ta  
Taro-NOM that wall-DAT ~~poster~~-ACC put-exhaust-PAST  
'Taro put ~~posters~~ onto the wall completely'

Fukui, Miyagawa and Tenny also argue that an infinitival verb and its sister can form an N-V compound. In (17), the accusative phrase *kitte* 'stamp' can form such a compound with the verb infinitive *atsume* 'collect,' while the nominative phrase *Taro* cannot.<sup>11</sup>

- (17) a. Taro-ga kitte-o atsume-ru  
Taro-NOM stamp-ACC collect-PRES  
'Taro collects stamps'
- b. *kitte-atsume*  
stamp collect  
'stamp-collection/collecting'
- c. \*Taro-atsume  
Taro collect  
'Taro-collection/collecting'

Both the *ni*-phrase and the *o*-phrase phrase of *spray/load* verbs can be compounded with a verb infinitive.

- (18) a. *penki-nuri*  
paint paint  
'paint-painting'
- b. *kabe-nuri*  
wall paint  
'wall-painting'

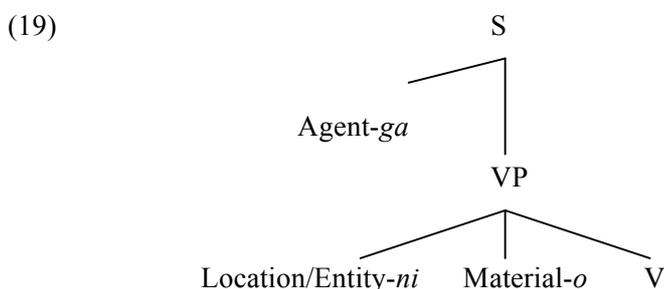
Assuming the First Sister Principle (Roeper and Siegel 1978), they argue that the verb infinitive and its sister element compose N-V compounds. Extending the First Sister Principle, Fukui, Miyagawa and Tenny claim that both phrases of *spray/load* verbs are sister to the verb.

---

<sup>11</sup> As FMT admit, compound formation in Japanese is rather complex; not every case follows the First Sister Principle. I confine myself to introducing FMT's argument here.

### CHAPTER III

Based on these two pieces of evidence above, Fukui, Miyagawa and Tenny propose a structure for *spray/load* verbs as in (19), when they take the dative-accusative case array.



In the structure, both the *ni*-phrase and the *o*-phrase are arguments to V under a single VP node.<sup>12</sup>

As introduced in 1.1, *spray/load* verbs also occurs in the *with*-accusative construction in which the LOC phrase (e.g., *kabe* ‘wall’) is accusative marked. In this respect, this evidence is not conclusive in that it cannot exclude a possibility that the compound *kabe-nuri* ‘wall-painting’ is derived from the structure based on other construction. It will be further shown in the next section, a piece of evidence from *spray/load* verbs shows that the structural height between the LOC and the MAT is not symmetrical. The bound variable interpretation of *so-ko* ‘that-place’ in *spray/load* constructions patterns with *give* sentences. This fact does not follow from the tree in (19). With these discussions, I will reinterpret the structure in (19) under the binary branching hypothesis of structure building (Kayne 1984). This transposition, however, does not lose any fact that has been established under (19). Rather, it will be shown that the hypothesis in (19) has the potential to capture the position at which the *ni*-phrase is initially merged, which is the same minimal lexical domain of the verb with the *o*-phrase. This is indeed the crucial syntactic difference between *spray/load* verbs and *give* verbs. I will show this point in the rest of this chapter.

---

<sup>12</sup> The reason why Fukui, Miyagawa and Tenny call the locational argument “Entity” is because of the consideration of the ACC-WITH construction that the verbs can appear in. Their point is that the locational argument can be a direct object of the given verbs and hence it is an entity of the verb in that construction, assuming that both constructions of *spray/load* verbs are mere alternants (i.e., their thematic relations are same). I argue for the opposite view to Fukui, Miyagawa and Tenny in Chapter V.

## CHAPTER III

### 3.3. Syntax of *spray/load* verbs

#### 3.3.1 Bound variable interpretation

As discussed in section 3.2, Hoji (1985; 2003) and many others propose that the *ni*-phrase is structurally higher than the *o*-phrase in sentences with *give* verbs. I argue in favor of this proposal, presenting another piece of evidence from the interpretation of the demonstrative pronoun *so-ko* ‘that-place’ in *spray/load* sentences.<sup>13</sup> As mentioned earlier, I will modify the condition proposed in Hoji (2003).

Consider the data in (20). According to the literature (Hoji 1985; 2003, Koizumi 1994, Takano 1998, Ueyama 1998), a demonstrative pronoun *so-ko* ‘that-place’ can be construed as a variable bound by QP (Quantifier Phrase) binder under a certain syntactic condition.<sup>14</sup> For instance, in a transitive sentence with *uttaeru* ‘sue’, *so-ko-no kantoku* ‘its manager’ in the *o*-phrase refers to the manager of *Mettu* ‘the Mets’ in the *ga*-phrase which is a QP binder with *sae* ‘even’. On the other hand, in (20b), when *so-ko* is included in the *ga*-phrase and *Mettu* is in the *o*-phrase, the pronoun cannot be interpreted as a variable. It only obtains a discourse-bound reading (i.e., *so-ko* is interpreted as referring to a particular referent in the given discourse).

(20) a. BVR (Bound Variable Reading) (*Mettu* (nominative), *so-ko* (accusative))

Mettu<sub>i</sub>-sae-ga [ so-ko<sub>i</sub>-no kantoku ]-o uttaeta (koto)  
Mets-even-NOM that-place-GEN manager-ACC sued (fact)  
‘Literally: Even the Mets sued its manager’

b. \*BVR (*so-ko* (nominative), *Mettu* (accusative))

[ So-ko<sub>i</sub>-no kantoku ]-ga Mettu<sub>i</sub>-sae-o uttaeta (koto)  
that-place-GEN manager-NOM Mets-even-ACC sued (fact)  
‘Literally: Its manager sued even the Mets’ (Hoji 2003: 393-394 (33a), (33b))

Even when the argument order of the nominative and accusative of (20a) is reversed, the pronoun still obtains a BVR (Bound Variable Reading) as in (21a). Although *so-ko* appearing inside of the nominative phrase in (20b) cannot obtain the BVR, when the order of the nominative and accusative phrase reversed, it obtains the BVR as (21b) shows.

<sup>13</sup> Regarding the full paradigm of the demonstrative pronouns in Japanese, the reader may refer to the footnote 10 in Hoji (2003).

<sup>14</sup> I assume that the discourse-bound reading of *so-ko* is always available as a default interpretation of the pronoun.

### CHAPTER III

(21) a. BVR (*so-ko* (accusative), *Mettu* (nominative))

[ So-ko<sub>i</sub>-no            kantoku ]-o        Mettu<sub>i</sub>-sae-ga        uttaeta (koto)  
 that-place-GEN    manager-ACC    Mets-even-NOM    sued (fact)  
 ‘Literally: its manager, even the Mets sued’        (Hoji 2003: 394, (35a))

b. BVR (*Mettu* (accusative), *so-ko* (nominative))

Mettu<sub>i</sub>-sae-o        [ so-ko<sub>i</sub>-no            kantoku ]-ga        uttaeta (koto)  
 Mets-even-ACC    that-place-GEN    manager-NOM        sued (fact)  
 ‘Literally: its manager sued even the Mets’

Hoji (2003), following Hayashishita (2000), proposes the condition of the bound variable reading of the demonstrative pronoun as in (22). This condition applies to the derivation at LF.

(22) An NP  $\beta$  can be construed as a variable bound by an NP  $\alpha$  only if  $\beta$  is c-commanded by  $\alpha$  and its trace at LF (Hoji 2003: 395, (37)).

“Its trace” in (22) means a trace (or copy) of QR (Quantifier Raising) of the QP binder at LF. Hence, (22) requires *so-ko* to be included in a c-command domain of the QP itself and its copy after QR. The BVR in (20a), (20b) and (21a) is predicted under this condition. Let me explain this step by step.

In these examples, QP binder *Mettu-sae* corresponds to  $\alpha$  and binder phrase that includes *soko-no-kantoku* corresponds to  $\beta$  in (22). In (20a), since *so-ko* is included in the c-command domain of binder *Mettu* and its trace in the nominative-accusative order at LF representation after QR as in (23b), this satisfies the given condition. Hence, the pronoun can be interpreted as a variable.

(23) a. PF: [*Mettu-sae*]-ga    [ ...*so-ko*... ]-o

b. LF: [*Mettu-sae*]-ga<sub>i</sub>    [ t<sub>i</sub> [ ...*so-ko*... ]-o ]

In contrast, *so-ko* in (20b) cannot obtain a variable reading. In this sentence, a QP binder is the accusative phrase and *so-ko* is in the nominative phrase. The lack of BVR of this sentence is predicted under (22), since the pronoun is not within the c-command domain of the trace of an QRed binder at LF as shown in (24), although the binder itself c-commands the phrase containing *soko*.

### CHAPTER III

- (24) a. PF: [ ...*so-ko*... ]-ga [ *Mettu-sae* ]-o  
 b. LF: [ *Mettu-sae* ]-o<sub>i</sub> [ ...*so-ko*... ]-ga t<sub>i</sub> (QR)

The argument order of (21a) is opposite to (20a). Assuming that this order is derived via scrambling of the accusative phrase, we have PF and LF representations as in (25). At the level of PF, *so-ko* is not included within the c-command domain of the binder. However, it is interpreted as a variable. Hoji explains that this is because the scrambled phrase is reconstructed at LF as in (25b) and hence, even after QR of the QP binder takes place, the accusative phrase that includes *so-ko* is c-commanded by the QP binder and its trace, as (25c) shows.<sup>15</sup>

- (25) a. PF: [ ...*so-ko*... ]-o<sub>i</sub> [ *Mettu-sae* ]-ga t<sub>i</sub>  
 b. LF: [ *Mettu-sae* ]-ga [ ...*so-ko*... ]-o (Reconstruction)  
 c. LF: [ *Mettu-sae* ]-ga<sub>i</sub> [ t<sub>i</sub> [ ...*so-ko*... ]-o ] (QR)

Although Hoji does not discuss how the BVR of (21b) is obtained under the condition, let me clarify the potential argument. The point of the argument is that reconstruction in Japanese short scrambling is optional (Saito 2004). The order of this sentence is a reversed one of (20b) in which the QP binder is the accusative phrase and the bindee is included in the nominative phrase. The pronoun in this sentence can be interpreted as a variable.

- (26) a. PF: [ *Mettu-sae* ]-o<sub>i</sub> [ ...*so-ko*... ]-ga t<sub>i</sub>  
 b. LF: [ *Mettu-sae* ]-o<sub>i</sub> [ ...*so-ko*... ]-ga (No Reconstruction)  
 c. LF: [ *Mettu-sae* ]-o<sub>i</sub> t<sub>i</sub> [ ...*so-ko*... ]-ga (QR)

This sentence satisfies the condition at LF; at LF after QR of the QP binder, both the binder and its trace c-commands the pronoun, as (26c) shows. This is why *so-ko* can be interpreted as a variable.

The optionality of application of reconstruction maybe weakens the given analysis. As shown in (27c), if Reconstruction takes place in this sentence, a LF representation after QR

---

<sup>15</sup> In the copy theory of movement (Chomsky 1995, Nouns 1999), it is assumed that Reconstruction can be captured under the more general principle of the grammar; thus a copy left in the base position of the moved phrase is “visible” at the interface of LF, although it is not at PF. But the choice of a particular theory does not affect the present discussion.

### CHAPTER III

does not satisfy the condition because it is not c-commanded by the trace of QR and we would not expect *so-ko* to be interpreted as a variable, contra the fact.

- (27) a. PF: [*Mettu-sae*]-o<sub>i</sub> [ ...*so-ko*... ]-ga t<sub>i</sub>  
b. LF: [ ...*so-ko*... ]-ga [*Mettu-sae*]-o (Reconstruction)  
c. LF: [*Mettu-sae*]-o<sub>i</sub> [ ...*so-ko*... ]-ga t<sub>i</sub> (QR)

However, at the same time, I have no counter argument for the tradition that reconstruction is optional in Japanese short scrambling. Hence I follow this tradition. However, I modify Hoji's condition. I present a modified condition in (28) which is based on the copy theory and scrambling. I try to rewrite the rule without recourse to QR for the sake of the economy principle (i.e., a grammar with the lesser number of rules is preferred to a grammar with more rules).

(28) Condition on the bound variable interpretation (based on Hoji (2003))

An NP  $\beta$  can be interpreted as a variable bound by an NP  $\alpha$  only if  $\beta$  or its copy after scrambling is included within the c-command domain of  $\alpha$ . ( $\alpha$  = binder,  $\beta$  = bindee )

Under the condition (28), the presence or absence of a BVR interpretation of *so-ko* in the examples (20) and (21) is accounted for with the assumption that the nominative-accusative order is the base order; and the accusative-nominative order is a scrambled one. In (20a), *so-ko* ( $\beta$ ) contained in the accusative phrase is included within the c-command domain of a QP binder ( $\alpha$ ) in the nominative-accusative order, which satisfies the condition (28). This is why the pronoun obtains a BVR. In (20b), *so-ko* ( $\beta$ ) that is contained in the nominative phrase is not within the c-command domain of a QP binder ( $\alpha$ ) in the nominative-accusative order, which fails to satisfy the given condition. This is why the pronoun does not obtain a BVR. In (21a), the pronoun that is included in the accusative phrase can be interpreted as a BVR. If we assume that this accusative phrase is scrambled over the nominative phrase, we can explain that the copy of the accusative phrase is within the c-command domain of the binder and hence *so-ko* obtains a BVR. In (21b), the accusative binder is scrambled over the nominative phrase. The pronoun is included in the nominative phrase. In this configuration, *so-ko* is also within the c-command domain of the QP binder, hence it can be interpreted as a variable.

### CHAPTER III

The facts of bound variable reading of the demonstrative pronoun are predicted under the condition (28) in conjunction with the hypothesis that the nominative-accusative is the base order of the transitive verbs in Japanese and the reverse order is derived via scrambling.

These assumptions make a further prediction of the interpretation and distribution of the demonstrative pronoun in ditransitive constructions. Consider the data in (29).<sup>16</sup> *So-ko* is contained in the accusative phrase and the binder is contained in the dative phrase in the dative-accusative order as in (29a). In this configuration, the pronoun *so-ko* obtains a BVR. *Soko-no penki* ‘its paint’ can be interpreted as a paint produced by each manufacturer (e.g., paint manufacturer A, B, C...etc.) in a set of potential referents of *subete-no* ‘all-GEN’. In contrast, in (29b) where the binder is included in the *o*-phrase and *so-ko* is contained in the *ni*-phrase in the dative-accusative order, the pronoun cannot be interpreted as a variable.

(29) a. BVR (*subete-no penkigaisya* (dative), *so-ko* (accusative))

Sono daiku-ga [subete-no penkigaisya<sub>i</sub>-no kabe]-ni  
 that decorator-NOM all-GEN paint.manufacture-GEN wall-DAT  
 [so-ko<sub>i</sub>-no sinseihin-no penki]-o nut-ta  
 that-place-GEN new.product-GEN paint-ACC paint-PAST  
 ‘The decorator painted its new product (paint) onto the wall of every paint  
 manufacture’

b. \*BVR (*so-ko* (accusative), *subete-no penkigaisya* (dative))

Sono daiku-ga [so-ko<sub>i</sub>-no kabe]-ni  
 the decorator-NOM that-place-GEN wall-DAT  
 [subete-no penkigaisya<sub>i</sub>-no penki]-o nut-ta  
 all-GEN paint.manufacture-GEN paint-ACC paint-PAST  
 ‘The decorator painted paint produced from every paint manufacture onto the wall’

When the dative-accusative order in (29a) and in (29b) is reversed, respectively, *so-ko* can be interpreted as a variable bound by the binder QP in both (30a) and (30b).

<sup>16</sup> Hoji (2003) discusses the fact that a combination of a QP like *subete-no X* and *so-ko* is not recommended to be used in a test of bound variable interpretation of the demonstrative pronoun, because *so-ko* tends to obtain a BVR even though it is not contained in the c-command domain of the binder and its trace at LF. Although I have tested the same data with other types of QP binder (e.g., *sukunakutomo X-no* ‘at least X’s’) that are recommended in Hoji, the results came as same as the one with the QP *subete-no*. Hence, I use *subete-no X* data here.

### CHAPTER III

(30) a. BVR (*so-ko* (accusative), *subete-no penkigaisya* (dative))

Sono daiku-ga [so-ko<sub>i</sub>-no sinseihin-no penki]-o  
 the decorator-NOM that-place-GEN new.product-GEN paint-ACC  
 [subete-no penkigaisya<sub>i</sub>-no kabe]-ni nut-ta  
 all-GEN paint.manufactuer-GEN wall-DAT paint-PAST

b. BVR (*subete-no penkigaisya* (accusative), *so-ko* (dative))

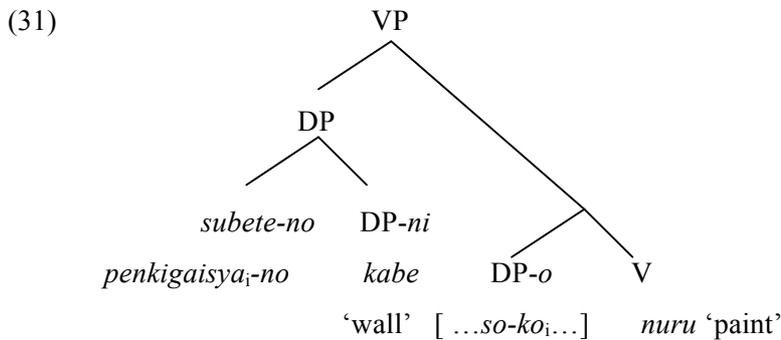
Sono daiku-ga [subete<sub>i</sub>-no penkigaisya-no penki]-o  
 the decorator-NOM all-GEN paint.manufactuer-GEN paint-ACC  
 [so-ko<sub>i</sub>-no kabe]-ni nut-ta  
 that-place-GEN wall-DAT paint-PAST

These facts pattern with the examples in (20) and (21) in the nominative-accusative construction. Following Hoji (1985) and others, I argue that if we assume that the base order of ditransitive verbs is the dative-accusative order, the facts about the bound variable interpretation of the demonstrative pronoun in (29) and (30) are accounted for under the modified condition (28). In (29a), because the pronoun is included within the c-command domain of the QP binder in the base order, the configuration satisfies the proposed condition (28), and hence it can be interpreted as a variable bound by the binder. On the other hand, in (29b), since the pronoun is outside of the c-command domain of the binder in the base order, it cannot obtain a BVR. In (30a), the bindee in the accusative phrase is scrambled over the dative phrase. This configuration also satisfies the condition (28), since the copy of the scrambling is included within the c-command domain of the binder. Hence *so-ko* is interpreted as a variable. In the case of (30b), the binder in the accusative phrase is scrambled over the dative bindee. This configuration also satisfies the given condition thereby showing that the accusative binder itself c-commands the bindee phrase. This is why *so-ko* is interpreted as a variable. As is shown, the bound variable interpretation of *so-ko* can be predicted under a simpler version of Hoji's LF-based condition with the same assumptions.

The reader may notice that the QP binder *subete-no penkigaisya* 'all paint manufacturer' is not a head of the given phrase, although it behaves as if it is a c-commanding head of the binder in (29a). The head of the phrase is *wall*; but *so-ko* is construed as a variable of *subete-no penkigaisya*. This is a puzzle. However, I argue that this puzzle can be solved, if we assume that the QP binder is "contained" in the *ni*-phrase under the segment c-command. Under this assumption, it is expected that *subete-no* 'all-GEN' can

CHAPTER III

c-command *so-ko* inside of the accusative phrase out of the given phrase, because *subete-no* is “adjoined” or “segmented” to DP *wall* (May 1985, Chomsky and Lasnik 1993) as in (31).



However, if the given QP is embedded “deep” inside of the head *wall*, as in (32), it cannot c-command *so-ko* in the accusative phrase. As shown in the derivation of a relative clause (32b), if the same QP binder is “included” in the domain of the head DP *kabe* ‘wall’, it is impossible for *so-ko* in the *o*-phrase to be bound by the given binder; hence no BVR on the pronoun.<sup>17;18</sup>

(32) a. \*BVR (*subete-no penkigaisya, so-ko*)

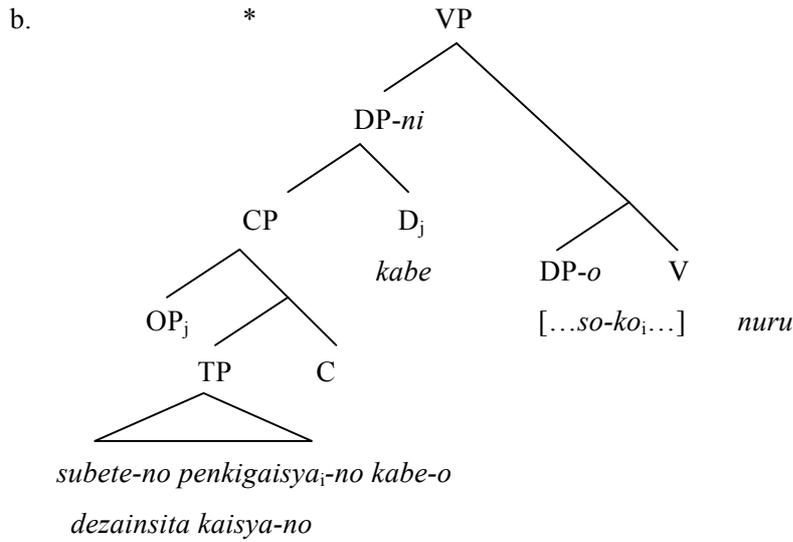
Sono daiku-ga	[[[CP	subete-no	penkigaisya_i-no	kabe-o
the decorator-NOM	all-GEN	paint.manufactuer-GEN	wall-ACC	
dezainsita]	[NP kaisya]]-no	kabe]-ni	[so-ko_i-no	sinboru
designed	company-GEN	wall-DAT	that-place-GEN	symbol
karaa]-o	nut-ta			
color-ACC	paint-PAST			

‘The decorator painted its<sub>i</sub> symbol color onto the wall of the company that designed the wall of every paint manufactuer<sub>i</sub>’

<sup>17</sup> I thank Masaya Yoshida for providing me with this data.

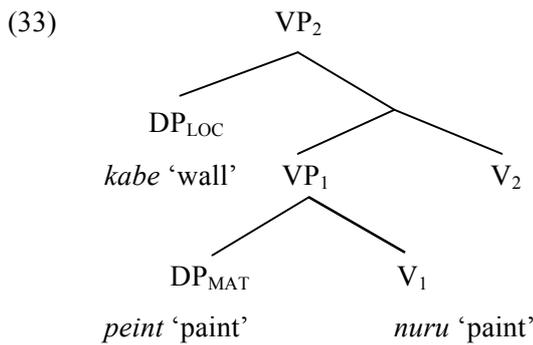
<sup>18</sup> I assume the null operator analysis (Watanabe 1992) for relative clauses.

CHAPTER III



Returning to our main point, with the discussion of the interpretation of the demonstrative pronoun in *spray/load* constructions, I argue that the LOC argument is merged higher than the MAT argument in the VP of *spray/load* verbs, which is the dative-accusative order. An operation scrambling creates another derivation that is derived from this base merge.<sup>19</sup>

I modify the structure for *spray/load* verbs proposed in Fukui, Miyagawa and Tenny in (19), and provisionally propose a preliminary tree as in (33). Since the LOC asymmetrically c-command the MAT, I assume another V<sub>2</sub> that takes VP<sub>1</sub> as complement. Hence, the VP-shell. I ignore the TP node for a moment.



<sup>19</sup> It will be discussed in Chapter IV, however, the position where the *o*-phrase is remerged in short-scrambling is the edge (specifiers) of *v*P, which is different from Hoji's analysis.

## CHAPTER III

### 3.3.2 VP-preposing

The VP-preposing construction of intransitive verbs in Japanese is formed when a verb infinitive that is attached with a quantificational particle *sae* (or the topic marker *wa*) is fronted alone as in (34a).<sup>20</sup> The same sentence with transitive verbs is composed when a verb infinitive is preposed together with its object as in (34b).

- (34) a. Warai-sae Taro-ga si-ta  
    laugh-even Taro-NOM do-PAST  
    ‘Literally: Even laugh, Taro did’
- b. Hon-o yomi-sae Taro-ga si-ta  
    book-ACC read-even Taro-NOM do-PAST  
    ‘Literally: Even read a book, Taro did’

As shown in (35), the fronting of only V is not allowed. If an incomplete VP (i.e., a VP with trace) is fronted, stranding the Theme in the original domain, a derivation results in ungrammaticality, according to Koizumi (1994) and Yatsushiro (1998). This could mean that the target projection of VP-preposing in Japanese must be the complete VP.

- (35) \*Yomi-sae Taro-ga hon-o si-ta  
    read-even Taro-NOM book-ACC do-PAST  
    ‘Literally: Even read, Taro did the book’ (Yatsushiro 1998, (21), modified)

The configuration of (35) can be represented as in (36). Yatsushiro (1998) explains that this case reflects the PBC (Proper Binding Condition) violation (in particular Fiengo’s (1977) version), the fronted VP contains a copy of the remenant object and this copy is not properly antecedent-bound, thereby violating the PBC.<sup>21</sup> Hence the sentence results in ungrammaticality.

---

<sup>20</sup> In both cases, the light verb *sur* ‘do’ is inserted to carry the tense (i.e., this process is parallel to *do*-support in English).

<sup>21</sup> The definition of Fiengo’s (1977) PBC is given in (i). According to the definition, ‘proper binding is a relation that holds between a node and its trace and if the node precedes its trace’ (Fiengo 1977: 45).

(i) In surface structure  $S_e$ , if  $[e]_{NP_n}$  is not properly bound by  $[\dots]_{NP_n}$ , then  $S_e$  is not grammatical. (Fiengo 1977: 45, (33)).

### CHAPTER III

- (36) \*<sub>[VP t<sub>i</sub> yomi-sae ]</sub> Taro-ga hon-o<sub>i</sub> si-ta  
 read-even Taro-NOM book-ACC do-PAST

The ungrammaticality of (36) may receive a different account without any recourse to the PBC violation. Since the object has not been moved, this may not be an instance of PBC violation. In 3.5.1, I show there is a restriction on the type of trace that causes the given VP-preposing to be ungrammatical. But for a while, I follow Koizumi-Yatsushiro account.

The same holds true for ditransitive sentences as in (37). According to Koizumi (1994), preposing of the entire VP in these sentences is legitimate.

- (37) a. John-ga [<sub>VP sono hako-no naka-ni ringo-o ire-sae ] sita  
 John-NOM the box-GEN inside apple-ACC put-even did  
 ‘Literally: John even put an apple in that box’ (Koizumi 1994: 32, (19))</sub>
- b. [<sub>VP sono hako-no naka-ni ringo-o ire-sae ]<sub>i</sub> John-ga t<sub>i</sub> sita  
 the box-GEN inside apple-ACC put-even John-NOM did  
 ‘Literally: Even put an apple in that box, John did’ (Koizumi 1994: 33, (20a))</sub>

However, the preposing of V alone is ruled out as in (38a). The case in (37) can be treated same with this case. Similarly, he argues that it is impossible to prepose V and the *o*-phrase alone, to the exclusion of the *ni*-phrase as in (38b). X’ is an improper target of fronting. This is why this sentence is ungrammatical.

- (38) a. \*<sub>[V ire-sae ]<sub>i</sub></sub> [<sub>VP John-ga sono hako-no naka-ni ringo-o t<sub>i</sub> ] sita  
 put-even John-NOM the box-GEN inside apple-ACC did  
 ‘Literally: Even put, John did an apple in that box’ (Koizumi 1994: 33, (20b))</sub>
- b. \*<sub>[V ringo-o ire-sae ]<sub>i</sub></sub> [<sub>VP John-ga sono hako-no naka-ni t<sub>i</sub> ] sita  
 apple-ACC put-even John-NOM the box-GEN inside did  
 ‘Literally: Even put an apple, John did in that box’ (Koizumi 1994: 33, (20c))</sub>

---

A sentence in (ii) is ungrammatical because it violates (i). The empty category in the initial position of S<sub>c</sub> is not properly bound by its antecedent node.

- (ii) \*<sub>[e]<sub>NPI</sub></sub> destruction of the city by [the barbarians]<sub>NPI</sub> (Fiengo 1977: 45, (32)).

### CHAPTER III

Providing a paradigm in (39), Yatsushiro (1998), however, reports that it is possible to prepose the *o*-phrase and V alone to the exclusion of the *ni*-phrase. My intuitions accord with hers.

- (39) a. [ <sub>V</sub> Hon-o      age-sae ] [ <sub>VP</sub> Osamu-ga      Misa-ni ] sita  
          book-ACC give-even      Osamu-NOM Misa-DAT did  
          ‘Literally: Even give a book, Osamu did to Misa’
- b. \*[ <sub>V</sub> Misa-ni      age-sae ] [ <sub>VP</sub> Osamu-ga      hon-o ] sita  
          Misa-DAT give-even      Osamu-NOM book-ACC did  
          ‘Literally: Even give to Misa, Osamu did a book’

(Yatsushiro 1998: 10, (25))

Under the assumption that only a complete category can be fronted in Japanese, I argue that *spray/load* verbs pattern with *give* verbs in VP-preposing. As shown in (40a), it is legitimate to prepose the *ni*-phrase and the *o*-phrase with the verb together, stranding the subject. This satisfies the condition that the fronting must target the complete category. The sentence in (40b) is also licit, in which the *o*-phrase and the verb alone are fronted, excluding the *ni*-phrase. This data indicates that the accusative phrase and the verb may form a complete category to the exclusion of the dative phrase. On the other hand, the sentence in (40c) is illicit; what is fronted in this sentence is the *ni*-phrase and the verb alone, to the exclusion of the *o*-phrase. This shows that these two elements cannot form a complete VP complex in the structure.

- (40) a. Sono kabe-ni      akapenki-o      nuri-sae      Taro-ga      si-ta  
          the wall-DAT red.paint-ACC paint-even Taro-NOM do-PAST  
          ‘Literally: Even paint red paint onto the wall, Taro did’
- b. [ Aka penki-o      nuri-sae ] [ Taro-ga      sono kabe-ni ] si-ta  
          red.paint-ACC paint-even Taro-NOM the wall-DAT do-PAST  
          ‘Literally: Even paint red (paint), Taro did onto the wall’
- c. \*[ Sono kabe-ni      nuri-sae ] [ Taro-ga      aka penki-o ] si-ta  
          the wall-DAT paint-even Taro-NOM red.paint-ACC do-PAST  
          ‘Literally: Even paint the wall, Taro did with red (paint)’

This fact follows from our preliminary tree for *spray/load* verbs in (33).

## CHAPTER III

### 3.3.3 Secondary depictives

A Secondary Depictive (henceforth, SD) describes a state of an argument of a verb during the action of the main verb (Williams 1980, Miyagawa 1989, Koizumi 1994, Baker 1997, Pylkkänen 2002; 2008, Hale and Keyser 2002, among many others).

Let me introduce the distribution of SDs in Japanese that is based on Koizumi's (1994) study.<sup>22</sup> As in (41), the accusative object can be a subject of an SD. In this sentence, the SD *namade* 'raw' describes a state of the kind of fish *katsuo* 'bonito', while it is consumed by Taro. However, the element inside of a PP cannot be a subject of an SD; namely, the SD *sinpin-de* 'new' cannot describe the state of the *de*-phrase as in (42).

- (41) Taroo-ga katuo-o<sub>i</sub> **nama-de**<sub>i</sub> tabe-ta  
Taro-NOM bonito-ACC raw eat-PAST  
'Taro ate the bonito, **raw**' (Koizumi 1994: 27, (4a), modified)

- (42) \*Taro-ga hasami-de<sub>i</sub> **sinpin-de**<sub>i</sub> kami-o kit-ta  
Taro-NOM scissors-with new paper-ACC cut-PAST  
'Literally: Taro cut a piece of paper with a scissors, **new**'

In the literature on the argument structure of ditransitive verbs in English, it is proposed that the direct object can be a subject of an SD. For instance, an SD *raw* describes a state of the DO *the fish* while the event of giving as in (43a). Contrastively, the IO of

---

<sup>22</sup> In Japanese, secondary predication is expressed in a form of a head DP and a particle *de* (Koizumi 1994). The use of *de* in Japanese is quite diverse, ranging from oblique markers to adjunct markers. As shown below, apart from its depictive use, *de* can be used as a locative particle as in (i), a reason/cause phrase particle as in (ii), instrumental particle (iii), price phrase particle as in (iv). The data are from Koizumi (1994).

- (i) Taroo-ga Tokyo-de sinda (locative)  
Taro-NOM Tokyo-LOC died  
'Taro died in Tokyo'
- (ii) Taroo-ga kootuuziko-de sinda (cause/reason)  
Taro-NOM car accident-RSN died  
'Taro died because of a car accident'
- (iii) Taroo-ga naihu-de niku-o kitta (instrumental)  
Taro-NOM knife-WITH meat-ACC cut  
'Taro cut the meat with a knife'
- (iv) Taroo-ga 3000-en-de *LGB*-o katta (price)  
Taro-NOM 3000-yen-FOR *LGB*-ACC bought  
'Taro bought *LGB* for 3000 yen'

### CHAPTER III

English double object construction cannot be a subject of SDs (Williams 1980, Pylkkänen 2002; 2008, Baker, Johnson and Roberts 1989, Baker 1997, Hale and Keyser 2002, among others). As shown in (43b), an SD *naked* cannot be predicated of the IO *Mary* during the giving event. This is slightly puzzling, if we assume that the predication can be held between the object-like element and the SDs, because the IO in English mostly patterns like an object of transitive verbs with respect to passivization or binding.

- (43) a. John gave Mary the fish<sub>i</sub> **raw**<sub>i</sub>  
b. \*John gave Mary<sub>i</sub> the fish **naked**<sub>i</sub>

The same holds true with Japanese *give* verb constructions. It is impossible for the GOAL argument of *give* verbs to function as a subject of SDs (Takezawa 1993, Koizumi 1994, Pylkkänen 2002; 2008). As in (44a) an SD *sakasama-de* ‘upside down’ can be a predicate of the *o*-phrase *sono hon* ‘the book’, whereas an SD *hadaka-de* ‘naked’ cannot be a predicate of the *ni*-phrase *Hanako* as (44b) shows.

- (44) a. Taro-ga Hanako-ni sono hon-o<sub>i</sub> **sakasama-de**<sub>i</sub> yon-da  
Taro-NOM Hanako-DAT the book-ACC upside.down-SD read-PAST  
‘Taro read a book<sub>i</sub> to Hanako **upside-down**<sub>i</sub>’  
b. \*Taroo-ga Hanako-ni<sub>i</sub> **hadaka-de**<sub>i</sub> hon-o yon-da  
Taro-NOM Hanako-DAT naked book-ACC read-PAST  
‘Taro read Hanako<sub>i</sub> a book **naked**<sub>i</sub>’ (Pylkkänen 2008: 29, (40b))

Koizumi (1994) proposes the Principle of Predication (POP) as in (45) as a condition on the distribution of SDs. It claims that an object-oriented SD in Japanese must appear in the complement of the verb in order to be a predicate of the direct object under the assumption of the ternary branching hypothesis.<sup>23</sup>

(45) Principle of Predication (POP) (Koizumi 1994: 47, (61))

Predication relation between an NP and a predicate XP is licensed only if the following two conditions are satisfied at D-structure:

- a. The XP is c-governed by the NP (antecedent government: identification), and

---

<sup>23</sup> Due to the simplicity of the argument, I do not discuss the theory of the subject-oriented SD (SSD) in this chapter, but I come back to this in Chapter VI.

### CHAPTER III

- b. The XP is c-governed by a zero-level category (head government: formal licensing)

In (45) “c-government” means “constituent-government”.<sup>24; 25; 26</sup>

Under the POP, an SD can be a predicate of the accusative object, because it satisfies both conditions in (45); as in (46), the SD is c-governed by the DP-*o* which satisfies the condition (45a) because there is no G that c-commands the DP and is c-commanded by the SD; and the SD is also head-governed by the zero-level category V, thereby satisfying the c-governed condition in In (45b).

(46) [<sub>VP</sub> [<sub>V'</sub> SD<sub>i</sub> DP-*o* V ]]

On the other hand, the SDs cannot be predicated of the *ni*-phrase of ditransitive verbs as shown in the configurations below.

(47) a. \* [<sub>VP</sub> DP-*ni*<sub>i</sub> [<sub>V'</sub> SD<sub>i</sub> DP-*o* V ]]

- b. \* [<sub>VP</sub> DP-*ni*<sub>i</sub> SD<sub>i</sub> [<sub>V'</sub> DP-*o* V ]] (Koizumi 1994: 47, (62a) and (62b), modified)

In (47a), although the SD is head-governed by V, thereby satisfying the condition (45b), it is not c-governed by the DP-*ni* because there is a V' (=G in the condition) which excludes the DP-*ni*. The configuration fails to satisfy the condition of c-government in (45a). Hence the SD cannot be a predicate of the DP-*ni*. The predication of (47b) is also ruled out by the condition, since the SD is not head-governed by V, although it is c-governed by the DP-*ni*. The SD fails to satisfy the condition (45b), while it satisfies the condition (45a).

Koizumi's condition makes a correct prediction of the distribution of SDs. As mentioned earlier, he assumes the ternary branching hypothesis. Under the hypothesis of binary branching (Kayne 1984) that I assume in the thesis, there is only one position next to the verb. It follows that it is quite hard to accommodate Koizumi's condition, which requires two positions next to the verb. At this point, there are two possibilities. We completely

---

<sup>24</sup> The definition of c-government: X c-governs Y iff (a) X c-commands Y, and (b) there is no G, G a barrier for Y, such that G excludes X. (Koizumi 1994: 43, (50)).

<sup>25</sup> The definition of exclusion is given in section 2.3.4.

<sup>26</sup> The definition of barrier (Chomsky 1986a: 14, (25), (26)) is given below.

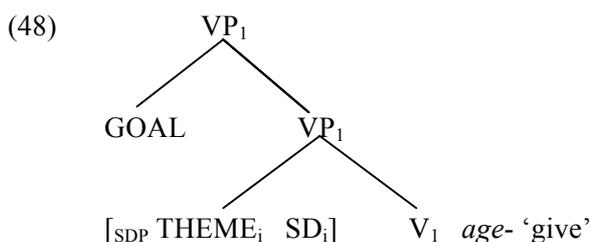
(i) X is a BC (Blocking Category) for Y iff X is not L-marked (i.e., lexically theta-marked) and X dominates Z.

(ii) X is a barrier for Y iff (a) or (b): (a) X immediately dominates Z, Z a BC for Y; (b) X is a BC for Y, X ≠ IP.

### CHAPTER III

discard his analysis and propose a new one; or we reanalyze his account under our general assumptions. I take the latter way.

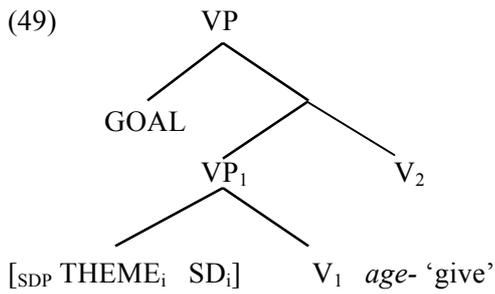
What we want to maintain is the locality of SDs and the phrase. On a closer look, Koizumi's c-government condition (45a) of an SD and a DP is equivalent to the mutual c-command relation of two elements (Miyagawa 1989); and the head-government condition in (45b) can be reinterpreted by an assumption of the MLD (Minimal Lexical Domain) (see section 2.4). In order to reinterpret the first condition, I assume the small clause analysis of the SDs (Miyagawa and Arikawa 2007).<sup>27</sup> Under this analysis, I propose that an SD is merged within the Secondary Depictive Phrases (henceforth, SDP) together with its modifying DP. As in (48), the accusative DP, which is the THEME of *give* verbs and an SD mutually c-command one another within the same SDP. This configuration takes over Koizumi's c-government condition. Secondly, the SDP itself is the complement of the verb in (48). This configuration takes over Koizumi's head-government condition. Both the THEME and the SD within the same SDP are governed by  $V_1$ .



However, the GOAL is simply adjoined to  $VP_1$  in this structure. Under the segment c-command, the GOAL is “contained” within the minimal domain of  $V_1$ . This turns out to be problematic to our analysis because the GOAL cannot be a subject of an SD being excluded from the MLD of the verb that consists of  $VP_1$ . The above structure also cannot capture the fact about the asymmetrical binding relation between the GOAL and the THEME (see section 3.2) because the GOAL is included within the minimal domain of  $V_1$  under the assumption of the segment c-command. Hence, I modify the structure above into (49).

<sup>27</sup> Although Miyagawa and Arikawa (2007) do not discuss the distribution of SDs, they mention that their small clause analysis to the distribution of NQF (Numeral Quantifier Floating) can be extended to that of SDs. For this reason, I assume their analysis here.

CHAPTER III

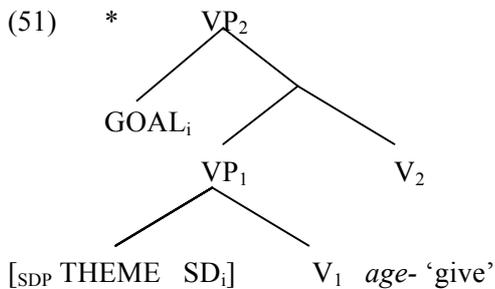


The lower VP<sub>1</sub> of the VP-shell structure in (49) corresponds to V' in Koizumi's configuration of ditransitive verbs. I argue that the lower VP excludes the GOAL because it is not within the MLD of V<sub>1</sub>. On the basis of this, I propose a condition on the distribution of object-oriented SDs based on the notion of minimal domain (Chomsky 1995, Basilico 1998, Ura 2000, among many others).<sup>28</sup>

(50) Condition on the distribution of SDs (based on Koizumi 1994)

A DP can be a subject of an SD iff both the DP and the SD mutually c-command each other within the minimal lexical domain of a verb.

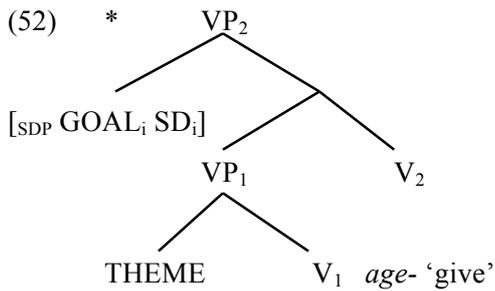
Now how can we exclude the predication of an SD and the *ni*-phrase under (50)?



As in the tree, the GOAL argument is excluded from the smallest VP and it fails to satisfy the condition in (50). Hence the predication between an SD and the GOAL cannot be established. Next, consider the configuration (52) where an SD and the GOAL mutually c-command each other in the same SDP. However, this configuration still fails to satisfy the condition (50) in that the SDP merged outside of the smallest VP. This is why the GOAL cannot be a subject of the SD.

<sup>28</sup> For the formal definition of the MLD, see Chapter II.

CHAPTER III

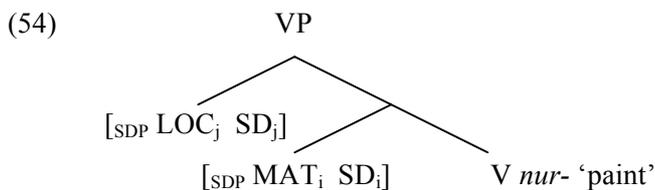


We now turn to the distribution of SDs in *spray/load* constructions. Consider (53).

- (53) a. Taro-ga sono osara-ni **kitanai-mama-de**<sub>i</sub> enogu-o nut-ta  
 Taro-NOM the plate-DAT filthy paint-ACC paint-PAST  
 ‘Taro painted paint onto the plate<sub>i</sub> **filthy**<sub>i</sub>’
- b. aro-ga sono e-ni enogu-o<sub>i</sub> **geneki-no-mama-de**<sub>i</sub> nut-ta  
 Taro-NOM the picture-DAT paint-ACC undiluted paint-PAST  
 ‘Taro slowly painted paint<sub>i</sub> onto the picture **undiluted**<sub>i</sub>’

In (53a), an SD *kitanai-mama-de* ‘filthy’ describes a state of the *ni*-phrase *sono osara* ‘that plate’ in the event of painting. Likewise, an SD *geneki-no-mama-de* ‘undiluted’ describes a state of the *o*-phrase *enogu* ‘paint’ in (53b) in the event of painting. Thus, both the *ni*-phrase and the *o*-phrase of *spray/load* verbs can be subjects of SDs. This is minimally different from *give* verbs with respect to the predication of the *ni*-phrase.

Under the condition (50), the facts about the distribution of SDs in *spray/load* constructions indicate that both the LOC and the MAT arguments must be merged within the smallest VP of the verb. If they were merged outside of the smallest VP of the verb, we would not expect them to be subjects of SDs. Hence, a possible structure for the distribution of SDs in *spray/load* construction is shown as in (54).



### CHAPTER III

The *o*-phrase of *give* verbs can be a subject of an SD because they appear in the same MLD. Contrary to this, the *ni*-phrase of *give* verbs cannot be a subject of an SD, since the *ni*-phrase is never merged within the MLD of the verb, failing to satisfy (50). The LOC argument of *spray/load* verbs, contrary to *give* verbs, can be a subject of an SD because it forms a mutual c-command relation with the SD. The MAT argument of *spray/load* verbs can also be a subject of an SD since it holds a mutual c-command relation with the SD.

However, we have a problem in our preliminary tree (33) for *spray/load* verbs. This is because, in that structure, the LOC is hypothesized as an argument of  $V_2$ , but not as an argument of  $V_1$ , which is indeed the identical structure to *give* verbs. If we follow this, the tree would wrongly predict that the *ni*-phrase of *spray/load* verbs cannot be a subject of an SD, which contradicts the fact. Simultaneously, however, the reader may counter-argue that the modified tree in (54) cannot correctly predict the fact about the demonstrative binding and the VP-preposing. However, I show that these two facts can be accounted for under the new symmetrical tree for *spray/load* verbs with an assumption of movement, which I will return in the next chapter.

As for VP-preposing, we need an independent argument. As discussed earlier, it is possible for an incomplete VP (i.e., a VP containing a trace of movement) to be fronted as in (55a). In (55a), the GOAL *Hanako* has been initially moved higher than the manner adverb and the remnant VP fronting follows the movement. Even though the fronted VP contains the trace of the initial movement, the sentence is licit. Hence, the PBC cannot account for this ungrammaticality. However, the data in (55b) rather favors the PBC-based account, since it shows that an incomplete VP fronting is impossible. I leave the issue for a while and will come back to a discussion in section 3.5.1.

- (55) a.     $[_{VP} t_i \text{ Yubiwa-o okuri-sae } ]_j \text{ Taro-ga Hanako-ni}_i \text{ } [_{VP} \text{yuubin-de } [ t_j ]]$   
           ring-ACC send-even Taro-NOM Hanako-DAT post-by  
           si-ta  
           do-PAST  
           ‘Literally: Even send(ing) a ring by post, Taro did to Hanako’
- b.  $*/?/?[_{VP} \text{Hanako-ni } t_i \text{ okuri-sae } ]_j \text{ Taro-ga yubiwa-o}_i \text{ } [_{VP} \text{yuubin-de } [ t_j ]]$   
           Hanako-DAT send-even Taro-NOM ring-ACC post-by  
           si-ta  
           do-PAST  
           ‘Literally: Even send(ing) a ring by post, Taro did to Hanako’



### CHAPTER III

The GB-theoretic account for the direct passive explains that a derivation with a Case-less DP will not converge because it violates the Case filter (Chomsky 1981). The Case theory claims that the Case-less DP must be assigned Case by other Case assigner. Under the P&P theory, where movement for obtaining Case is legitimate, the given DP moves for Case.<sup>30</sup>

Japanese has another types of passives along with the direct passive: the indirect passive (Kuroda 1979, Kuno 1973, Marantz 1984, Miyagawa 1989, Shibatani 1990, Kubo 1992, Kuroda and Kitagawa 1992, Hoshi 1999, Pytkänen 2002; 2008, among many others). They are drastically different syntactic operations: the direct passive decreases the number of arguments while the indirect passive increases it (Shibatani 1990). Syntactically and semantically, there are three properties that the direct passive does not have but the indirect passive has: (i) the passive subject has been adversely affected which is derived from the fact that the referent of the passive subject tends to be an animate entity in Japanese, (ii) the passive subject has no thematic relation with the lexical verb and (iii) the adjunct phrase (i.e., the external argument of the transitive verb) must be marked with *ni* but not with *niyotte*.<sup>31</sup> Consider indirect passives (58a) and (58b).

- (58) a. Tanaka sensei-ga ano gakusei{-ni/\*niyotte} kyoushitsu-de nak-are-ta  
teacher-NOM that student-BY class.room-AT cry-PASS-PAST  
'Teacher Tanaka was adversary affected by the fact that that student cried in the class'
- b. \*Sensei-ga<sub>i</sub> ano gakusei-ni kyoushitsu-de fu-tari<sub>i</sub> nak-are-ta  
teacher-NOM that student-BY class.room-AT two-CL cry-PASS-PAST  
'Two teachers were adversary affected by the fact that that student cried in the class'

First, the adjunct *by*-phrase of a passive in (58a) cannot be marked with *niyotte*; second, the passive subject *Tanaka sensei* 'Teacher Tanaka' in (58a) shows that he/she is adversely affected (e.g., s/he was embarrassed) by the fact that a student cried in the class; third, the passive subject in (58a) has no thematic relation with the verb *naku* 'cry' at all as shown by (58b). From these, we say that the passive in (58a) is an indirect passive. The third point is related to the grammaticality of (58b). A numeral phrase can float off from its host phrase in

---

<sup>30</sup> I will explain a possible account of direct passive under Agree theory in Chapter IV. Although there are some technical differences in a derivation of passive between the P&P theory and Agree under Phase model (i.e., no movement is induced under Agree), the basic assumption of passivization (i.e., Case absorption and suppression of the external argument) is retained.

<sup>31</sup> Kuroda (1979) reports that there are direct passive whose local agent is marked with *ni*. In my discussion I do not discuss about this type of direct passive.

### CHAPTER III

Japanese (Miyagawa 1989; 2005, Sadakane and Koizumi 1995, Ura 2000, Harley 2002, Koizumi 1994, Ura 2000, Harley 2002, Miyagawa and Arikawa 2007, among many others), while maintaining a predication of the host DP. As in (59b), an NQ *ni-satsu* ‘two-CL’, being floated off from the genitive phrase of the *o*-phrase *hon* ‘book’ to the right of the host DP, still modifies the host DP. The same modification can be retained even if the host DP is scrambled over the *ga*-marked subject as in (59c).

- (59) a. Taro-ga [ **ni-satsu**<sub>i</sub>-no hon<sub>i</sub> ]-o yon-da  
 Taro-NOM two-CL-GEN book-ACC read-PAST  
 ‘Taro read two books’
- b. Taro-ga [ t<sub>i</sub> hon-o<sub>i</sub> **ni-satsu**<sub>i</sub> ] yon-da  
 Taro-NOM book-ACC two-CL read-PAST
- c. Hon-o<sub>i</sub> Taro-ga t<sub>i</sub> **ni-satsu**<sub>i</sub> yon-da  
 book-ACC Taro-NOM two-CL read-PAST  
 ‘Literally: Books<sub>i</sub>, Taro two<sub>i</sub> read’

Miyagawa and Arikawa (2007) propose a mutual c-command condition to account for the distribution of the NQF in Japanese, which is given in (60).

- (60) The NQ or its trace and the NP or its trace must mutually c-command each other.  
 (Miyagawa and Arikawa 2007: 679, (7))

Under (60), the NQF in (59b) is possible, if we assume that the NQ appears right next to the host DP leaving a copy in the base position, since the copy of the NQ and the host DP mutually c-command each other. Similarly, under (60), the remote licensing of the NQF in (59c) is also licit, if we assume that the host *o*-phrase is scrambled leaving a copy in the base position, because the copy of the host DP and the NQ mutually c-command each other.

Under this assumption, the fact that the NQF *fu-tari* ‘two-CL’ in (58b) cannot be licensed by the subject of the indirect passive shows that the passive subject is not derived from the verbal projection, and there is no copy of the subject DP, and hence the NQF *fu-tari* ‘two-CL’ cannot be licensed by the given passive subject.

The passives shown in (61) are not instances of indirect passives, since they systematically fail to satisfy the three properties of the indirect passive. Firstly, the subject of these passives is inanimate, hence no adverse reading is obtainable; secondly, these passive

### CHAPTER III

subjects are merged to the verbal projections since they can license the NQF remotely (e.g., *fu-tatsu* ‘two-CL’ in (61a), *ni-syoku* ‘two-CL’ in (61b)); thirdly, the demoted phrase (e.g., *meijin* ‘master of pottery’) cannot be marked with *ni*.

- (61) a. Yakimono-ga<sub>i</sub> meijin{-niyotte/\*-ni} ni-ko<sub>i</sub> enogu-o nur-are-ta  
pot-NOM master.of.pottery-BY two-CL paint-ACC paint-PASS-PAST  
‘Literally: Two pots were painted paint(ACC) by the master of poetry’
- b. Enogu-ga<sub>i</sub> meijin{-niyotte/\*-ni} yakimono-ni ni-syoku<sub>i</sub> nur-are-ta  
paint-NOM master.of.pottery-BY pot-DAT two-CL paint-PASS-PAST  
‘Literally: Two colours of paint were painted to the pot by the master of pottery’

Given this, I claim that both the LOC and MAT phrases of *spray/load* verbs have been assigned structural accusative Case.

The category of a phrase in Japanese can be tested with the same NQF distribution (Miyagawa 1989, among many others). I have just discussed that an NQF cannot float off from an element inside of PP, while it can from DP. Given this, we expect that if the NQF is floated from the verbal phrases of *spray/load* verbs, the category of these phrases is DP, while if not, it is PP. The data in (62) confirm that our first expectation is borne out; both phrases are DPs.

- (62) a. Taro-ga koppu-ni<sub>i</sub> fu-tatsu<sub>i</sub> enogu-o nut-ta  
Taro-NOM cup-DAT two-CL paint-ACC paint-PAST  
‘Literally: Taro painted paint onto two cups’
- b. Taro-ga koppu-ni enogu-o<sub>i</sub> ni-syoku<sub>i</sub> nut-ta  
Taro-NOM cup-DAT paint-ACC two-CL paint-PAST  
‘Literally: Taro painted two(-colors) of paint onto the cup’

To sum up:

#### (63) Syntactic properties of *spray/load* verbs in Japanese

- a. Both verbal arguments of *spray/load* verbs are DPs;
- b. The MAT argument is the complement to the verb;
- c. The LOC argument is the specifier to the verb (i.e., it is the subject of a secondary depictive; and it can be passivized; and it binds into the MAT argument);

## CHAPTER III

d. Both arguments have structural accusative Case.

### 3.3.5 Double object VP – proposal

Based on the discussions above, I propose that a derivation of the dative-accusative *spray/load* sentence in (64a) begins with a numeration as in (64b).

- (64) a. Taro-ga      doa-ni      penki-o      nut-ta  
           Taro-NOM    door-DAT    paint-ACC    paint-PAST  
           ‘Taro painted paint onto the door’  
       b. {*Taro*<sub>1</sub>, *doa*<sub>1</sub>, *penki*<sub>1</sub>, *nuru*<sub>1</sub>, *ta*<sub>1</sub>, ... }

The verb *nuru* ‘paint’ has two theta roles to discharge within VP; one is to the complement position and one is to the specifier position. Merge can combine V and DP<sub>MAT</sub> and also V and DP<sub>LOC</sub> because the operation can combine any two elements in a numeration. In Chapter II, I have argued that under the split vP hypothesis, Merge (V, external argument) is blocked. I have also stipulated the condition that when a ditransitive verb merges with a locational element, it cannot discharge a theta role. Following this stipulation, I argue that Merge (V, DP<sub>LOC</sub>) will crash. Hence Merge (V, DP<sub>MAT</sub>) survives as in (65).

- (65)
- 
- ```

graph TD
    A[DP_MATθ] --- B[V nur- 'paint' { , θ}]
  
```

Following this, when the DP<sub>LOC</sub> is merged to the structure (65), the given verb discharges another theta role to the specifier, resulting in Merge (V', DP<sub>LOC</sub>) as in (66). I have assumed that when the verb discharges its feature, a maximal projection is projected (see 2.3.), hence I also assume that V discharges all its theta before it head-moves into *v*. Under this assumption, V's theta-role will percolate to V' and the LOC argument is assigned theta by V'.

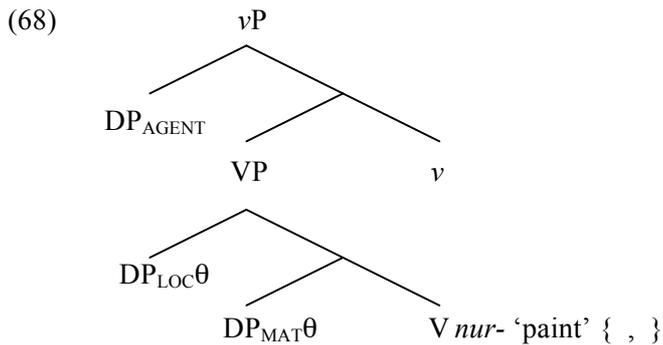
- (66)
- 
- ```

graph TD
    A[VP] --- B[DP_LOCθ]
    A --- C[DP_MATθ]
    A --- D[V nur- 'paint' { , }]
  
```

### CHAPTER III

(67) Hypothesis: *spray/load* verbs in Japanese take two arguments:  $DP_{MAT}$  as its complement and  $DP_{LOC}$  as its specifier within the same MLD of VP.

Under the split  $vP$  hypothesis, I propose that the light  $v$  takes the VP as its complement, merging the external argument to its inner specifier position. As discussed in Chapter II, I assume that the external argument is not an argument of the lexical verb (Marantz 1984, among many others); it is licensed by  $v$ .



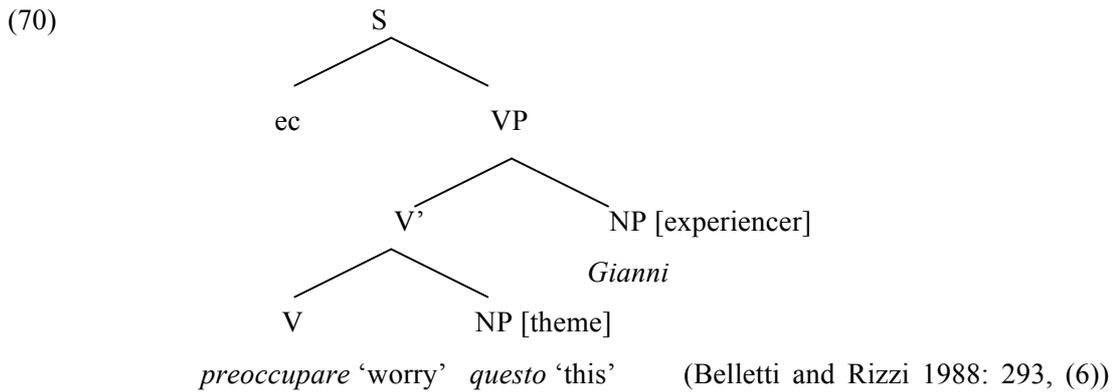
The  $\theta$ -Criterion in Chomsky (1981) proposes that ‘all internal  $\theta$ -roles (all  $\theta$ -roles apart from the role of subject) are assigned to sisters of the head’. This criterion brings a question into the structure (68) as it has to the structures (71) and (72), respectively; how is the higher DP assigned a theta role? This is because it is not a sister to the verb.

However, the previous literature indeed reaches similar conclusions as mine. Kayne (1984: 133) proposes both *Mary* and *a book* can be theta-marked by *Give* in English double object sentences under the Criterion in conjunction with a small clause hypothesis as in (69). Because both DPs are complement to the verb, they can be theta-marked by the verb.

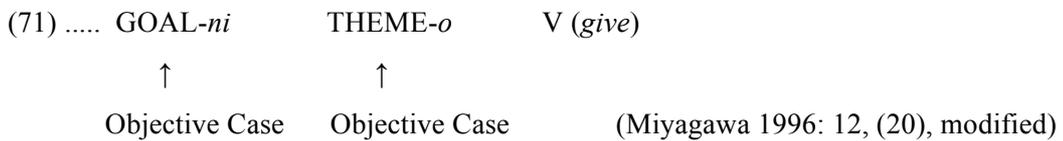
(69) Give [Mary a book] (Kayne 1984: 133, (7.7.2))

Belletti and Rizzi (1988) propose an unaccusative structure like (70) for the type of psych verbs *preoccupava* ‘worry’. In this structure, the lower NP is theta-marked by V; this NP moves to S (TP/CP). The higher NP *Gianni* obtains an experiencer role from the verb.

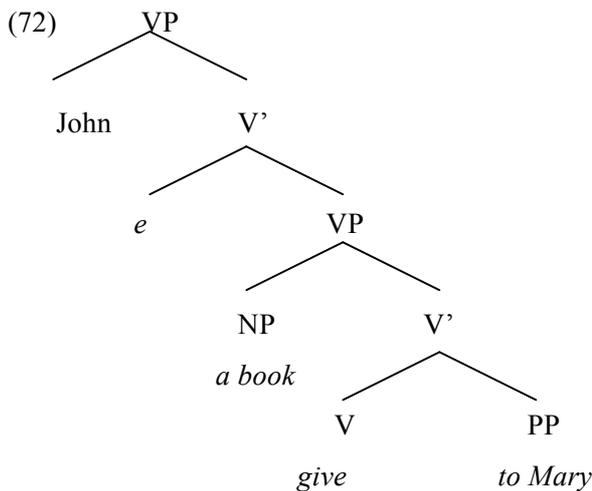
CHAPTER III



Miyagawa (1996) also proposes that the GOAL of *give* verbs in (71) is assigned a theta role by the verb.



Larson (1988) proposes a VP-shell structure as in (72) and, in this structure, the verb initially assigns a theta role to PP; the direct object *a book* is assigned a theta from the same verb after the verb head-moves to the upper VP.



On the basis of this fact, I argue that the structure I have proposed for *spray/load* verbs is not exceptional.

## CHAPTER III

So far, I have demonstrated the two main points. First, the syntax of *spray/load* verbs is quite similar to that of *give* verbs with respect to the following three points: (i) the dative phrase binds into the accusative phrase in the base structure (i.e., demonstrative binding), (ii) the dative phrase may not be an argument to the verb (i.e., VP-preposing) and (iii) the both dative and accusative phrases are structural cases (i.e., passivization). Second, despite of these similarities, two types of ditransitive verbs differ from one another with respect to the distribution of SDs and the availability of the multiple accusative constructions (i.e., multiple accusative cleft and multiple accusative scrambling). Namely, the dative phrase of *spray/load* constructions can be a subject of SDs and it can be also marked with the morphological accusative case in cleft and scrambling. On the other hand, these two patterns cannot be identified with the dative phrase of *give* constructions. As it will be shown in 3.5, the last two characteristics are shared with the possessor argument of object inalienable possessor constructions (IAP construction). In this respect, it is likely that the syntax of *spray/load* verbs is partially similar to that of IAP construction. On the basis of the discussion so far, I have proposed that *spray/load* verbs show VP-internal double object structure:  $DP_{MAT}$  is its complement and  $DP_{LOC}$  is its specifier. In the next subsection, I try to extend this analysis to Korean *spray/load* verbs.

### 3.3.6 Korean *spray/load* verbs

There is another supportive evidence of the proposed structure of *spray/load* verbs in Japanese: Korean *spray/load* verbs. I argue that it is possible to extend the same account to an analysis of Korean *spray/load* sentences.

It is well-known that Korean allows multiple accusative sentences (Shibatani 1977, Maling and Kim 1992, Maling 2001, Kang 2002, among many others).<sup>32</sup> *Spray/load* verbs in Korean (e.g., *chilha* ‘paint’, *teph* ‘cover’, *pal* ‘smear’, etc.) are not an exception of this generalization. They can be both compatible with the dative-accusative case array (see (73a)) and the double accusative case array (see (73b)).

---

<sup>32</sup> Not all of my informants accept the ACC-ACC case pattern with the verb *chilha* ‘paint’ (two out of eight informants do not accept it). With this reason, I put a question mark to the sentence. It seems that the choice of the ACC-ACC case array is constrained by the selection of the lexical verb. All the informants I have asked the judgments of the double accusative case array (four informants) does not accept *cangsikha* ‘decorate’ in the ACC-ACC case array, but they accept it in the DAT-ACC case array.

### CHAPTER III

- (73) a. Chelswu-ka      pyek-ey      peyintu-lul      chilha-ess-ta  
           Chelswu-NOM   wall-DAT   paint-ACC      paint-PAST-DECL  
           ‘Chelswu painted the paint onto the wall’
- b. ?Chelswu-ka      pyek-ul      peyintu-lul      chilha-ess-ta  
           Chelswu-NOM   wall-ACC   paint-ACC      paint-PAST-DECL  
           ‘Literally: Chelswu painted the wall paint’
- c. Chelswu-ka      pyek-ul      peyintu-lo      chilha-ess-ta  
           Chelswu-NOM   wall-ACC   paint-with      paint-PAST-DECL  
           ‘Chelswu painted with the wall paint’

One important fact about these case patterns is that the semantics of the ACC-WITH construction in (73c) is different from the other two patterns. The ACC-WITH construction shows the so-called “holistic effect” (Kim 1990), as its equivalent in English and Japanese does.<sup>33</sup> Contrastively, the thematic relation of the DAT-ACC and the ACC-ACC construction is a near paraphrase, according to my Korean informants. I take this semantic difference as a piece of evidence for the proposal that both sentences in (73a) and (73b) involve the identical VP.

I argue that both verbal arguments in sentences containing *chilha* have structural accusative case, because it can appear with the accusative case marker *ul/lul*, first of all. Although it has been reported that the accusative case marker in Korean can mark the adjunct (Hiraiwa 2010), there is a piece of supporting evidence of the proposal that the direct

---

<sup>33</sup> I have asked the judgements of the following sentences:

- (i) Chelswu-ka      pyek-ey      peyintu-lul      chilha-ess-ta      kuriko      icye      pyek-i  
       Chelswu-NOM   wall-DAT   paint-ACC      paint-PAST-DECL      and      now      wall-NOM  
       wancenhi      peyintu-lo      tephye-ss-ta  
       completely   paint-with      covered-PAST-DECL  
       ‘Chelswu painted the paint onto the wall and now the wall is completely covered with  
       paint’
- (ii) Chelswu-ka      pyek-ul      peyintu-lo      chilha-ess-ta      kuriko      icye      pyek-i  
       Chelswu-NOM   wall-ACC   paint-with      paint-PAST-DECL      and      now      wall-NOM  
       wancenhi      peyintu-lo      tephye-ss-ta  
       completely   paint-with      covered-PAST-DECL  
       ‘Chelswu painted the wall with paint, and now the wall is completely covered with paint’

One informant answered that there is a difference in holistic implication between (i) and (ii), while the other informant answered no.

### CHAPTER III

passivization of the MAT argument is possible. The sentence in (74) is an active sentence with the verb *chilha*, whereas the sentence in (74b) is its passive counterpart.<sup>34</sup>

- (74) a. Tokong-ka    chenzenhi    tocaki-ey    yuyaku-lul    twu-kaci-sayk-ul  
          potter-NOM    slowly            pottery-DAT    glaze-ACC    two-CL-colour-ACC  
          *chilha-ye-ci-ess-ta*  
          paint-INF-get-PAST-DECL
- b. Yuyak-i<sub>i</sub>      tokong-eyuyhay    chenzenhi    tocaki-ey      **twu-kaci-sayk-i**<sub>i</sub><sup>35</sup>  
          glaze-NOM    potter-BY            slowly        pottery-DAT    two-CL-colour-NOM  
          *chilha-ye-ci-ess-ta*  
          paint-INF-get-PAST-DECL

‘Literally: Two colours of glaze were painted onto the pottery by the potter’

It has been discussed that Korean DPs can license the subject and object NQF in the same way Japanese DPs (Ura 2000, Kang 2002, Miyagawa 2005, Ko 2007).<sup>36</sup> Given the syntactic

<sup>34</sup>According to the literature (Shibatani 1977, O’Grady 1991, Ura 2000), neither object in Korean ditransitive verbs (e.g., *cwu* ‘give’) can be passivized, although one of my informant told me that she was not sure (ii) is clearly bad at the least.

- (i) Nay-ka    John-ul    yenphil-ul    cwu-ess-ta  
      I-NOM    John-ACC    pencil-ACC    give-PAST-DECL  
      ‘I gave John a pencil’
- (ii) \*Yenphil-i    John-ul    cwu-eci-ess-ta  
      pencil-NOM    John-ACC    give-PASS-PAST-DECL  
      ‘The pencil was given John’
- (iii) \*John-i      yenphil-ul    cwu-eci-ess-ta  
      John-NOM    pencil-ACC    give-PASS-PAST-DECL  
      ‘John was given a pencil’

However, Jung and Miyagawa (2004) report that both objects of *cwu* can be passivized.

<sup>35</sup>Special thanks go to Gil Kook-Hee (personal communication) for providing this data to me; and pointing out that my original example which is shown in (i) is unacceptable due to the case mismatch between the passivized subject *yuyak* ‘glaze’ and its associated numeral quantifier *twu-kaci-sayk* ‘two-CL-colour’.

- (i) \*Yuyak-i<sub>i</sub>      tokong-eyuyhay    chenzenhi    tocaki-ey      **twu-kaci-sayk-ul**<sub>i</sub><sup>35</sup>  
          glaze-NOM    potter-BY            slowly        pottery-DAT    two-CL-colour-ACC  
          *chilha-ye-ci-ess-ta*  
          paint-INF-get-PAST-DECL

‘Literally, Two colours of glaze were painted onto the pottery by the potter’

<sup>36</sup>According to Ko (2007: 50, fn. 1), there are four possible patterns of NQF in Korean:

### CHAPTER III

similarity between the languages, let us assume that the distribution of NQF in Korean is governed by the same mutual c-command condition as in Japanese. Under this assumption, in (74b), the fact that the passive subject *yuyak* ‘glaze’ can license an NQF *twu-kaci-sayk* ‘two-CL-colour’ non-locally shows that the passive subject is a derived subject; namely, the position that can mutually c-command the NQF. According to Ko (2007: 65-66), in Korean the manner adverbs (e.g., *ppalli* ‘quickly’, *yelsimhi* ‘diligently’) cannot intervene in the NQF that is associated with the external argument as in (75).

- (75) ?/\*Haksayng-tul-i ppalli sey-myeng kong-ul pat-ass-ta<sup>37</sup>  
 student-PL-NOM quickly three-CL ball-ACC receive-PAST-DEC  
 ‘Three students received a ball quickly’

(Ko 2007: 65, adverb *ppalli* is replaced with *ilpwule* ‘deliberately’)

Following Ko (2007), I make a further assumption that the external argument is introduced by the light verb *v* in Korean, and hence the external argument is thematically separated from the lexical verb (Marantz 1984). Given this, the fact in (75) shows that the manner adverb must appear lower than the base position of the external argument. Adopting this, under our present assumptions, we see that the adverb adjoins the VP, which also shows that the position of the NQF *twu-kaci-sayk* ‘two-CL-colour’ is within VP. Given these two assumptions, we can say that the passive subject is derived from the VP-internal position under the direct passivization. As in (74b), the DP<sub>MAT</sub> can also undergo the same type of passivization. Hence, I conclude that the passive subjects have structural accusative Case, as Japanese *spray/load* verbs do.

- 
- (i) [haksayng(-tul) sey-myeng]-i; (ii) [sey-myeng-uy haksayng(-tul)]-i;  
 [student(-PL) 3-CL] -NOM [3-CL-GEN student(-PL)]-NOM  
 (iii) [haksayng(-tul)-i] [sey-myeng]; (iv) [haksang(-tul)-i] [sey-myeng-i].  
 [student(-PL)]-NOM [3-CL] [student(-PL)-NOM [3-CL]-NOM

I only deal with the NQF in (iii).

<sup>37</sup> The original sentence in Ko (2007: 65, (32a)) includes another adverb *ilpwule* ‘deliberately’ as shown in (i).

- (i) ?/\*Haksayng-tul-i ilpwule sey-myeng kong-ul pat-ass-ta<sup>37</sup>  
 student-PL-NOM deliberately three-CL ball-ACC receive-PAST-DEC  
 ‘Three students received a ball deliberately’

Ko points out that the manner adverb *ppalli* patterns with *ilpwule* in (i). I have used the manner adverb in the example in order to show that the manner adverb cannot appear higher than the base position of the external adverb.

### CHAPTER III

However, as shown in (76), a passivization of the LOC element is impossible, contrary to the Japanese case. This might indicate that the LOC phrase is an inherent accusative case. However, this can be caused by a mismatch between the case feature of the passive subject *tocaki* ‘pottery’ (NOM) and the remnant VP-internal complement object *yuyak* ‘glaze’ (ACC). In fact, the ungrammaticality of this sentence will be dramatically improved if we replace the accusative marker *ul* on *yuyak* ‘glaze’ with the nominative marker *i* as in (77).<sup>38</sup>

(76) \*Tocaki-ka<sub>i</sub> tokong-eyuyhay chenchenhi **twu-cem<sub>i</sub>** yuyak-ul  
 pot-NOM potter-BY slowly two-CL glaze-ACC  
 chilha-ye-ci-ess-ta  
 paint-INF-get-PAST-DECL  
 ‘Literally: Two pots were slowly painted paint by the potter’

(77) Tocaki-ka<sub>i</sub> tokong-eyuyhay chenchenhi **twu-cem<sub>i</sub>** yuyak-i  
 pottery-NOM potter-BY slowly two-CL glaze-NOM  
 chilha-ye-ci-ess-ta  
 paint-INF-get-PAST-DECL  
 ‘Literally: Two pots were slowly painted paint by the potter’

There is another supportive evidence for the point. According to Belletti and Rizzi (1988), the EXPERIENCER argument of a psych-verb *preoccupare* ‘worry’ in Italian is an inherent accusative case. In (78b), the pronoun *lo* ‘him’ has an accusative case, but it is assigned by the verb at the D-structure through V’s theta-grid.

(78) a. Questo preoccupa Gianni  
 this worries Gianni  
 ‘This worries Gianni’  
 b. Questo lo preoccupa  
 this him worries  
 ‘This worries him’ (Belletti and Rizzi 1988: 331, (97))

<sup>38</sup> I thank Kook-Hee for this example and discussion.

### CHAPTER III

Belletti and Rizzi argue for the ban of verbal passive of the *Gianni* in a sentence with *preoccupa*. It is discussed that there are two types of passives in Italian: the verbal passive and the adjectival passive. One way to see the difference is the passive morphology. While *essere* ‘be’ is compatible with both the verbal and adjectival passive, while *venire* ‘come’ is only used with in the verbal passive. As in (79b), the EXPERIENCER *Gianni* cannot be a subject of the verbal passive.

- (79) a. Gianni viene temuto da tutti  
Gianni comes feared by everyone  
‘Gianni was feared by everyone’ (Belletti and Rizzi 1988: 311, (53a))
- b. \*Gianni viene preoccupato da tutti  
Gianni comes worried by everyone  
‘Gianni was worried by everyone’ (Belletti and Rizzi 1988: 311, (54a))

Furthermore, as shown in (80a), it is possible to extract the object of the verb *teme* ‘fear’, while it is impossible to move the object of the verb *preoccupa* ‘worry’ as in (80b).

- (80) a. La ragazza di cui Gianni teme il padre  
the girl of which Gianni (experiencer) fears the father  
‘The girl whose father Gianni fears’
- b. \*La ragazza di cui Gianni preoccupa il padre  
the girl of which Gianni (experiencer) worries the father  
‘The girl whose father Gianni worries’

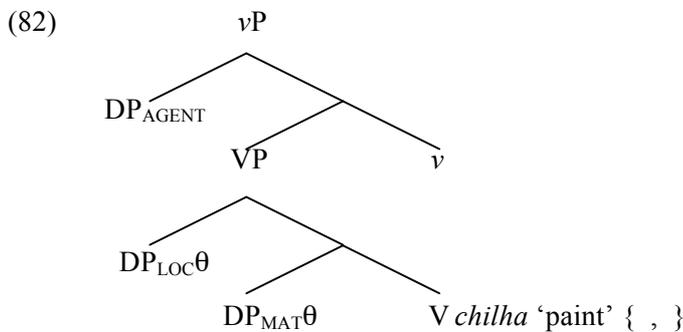
On a basis of this, Belletti and Rizzi claim that the *preoccupa* class shows the unaccusative structure; the EXPERIENCER is merged to [Spec, VP] being inherently Case-licensed by the verb through its Case grid (see 3.3.5). The impossibility of the passive of *Gianni* follows from the Case property of the EXPERIENCER object and the fact that the THEME object cannot be extracted from the island is accounted for by the position of the EXPERIENCER; it prevents the lower argument from being extracted crossing over itself.

If the LOC argument of *chilha* ‘paint’ has an inherent case patterning with Italian *preoccupa*, we would rather not expect the LOC argument of *chilha* to be extracted from the VP. However, as shown in (81a), the fact is indeed contrary. I assume that the adverb *chenchenhi* ‘slowly’ adjoins to the VP.

CHAPTER III

- (81) a. ?Pyek-ul<sub>i</sub> Chelswu-ka [<sub>VP</sub> chenchhi t<sub>i</sub> peyintu-lul chilha-ess-ta ]  
 wall-ACC Chelswu-NOM slowly paint-ACC paint-PAST-DECL  
 ‘Literally: The wall, Chelswe slowly painted paint’
- b. \*Peyintu-lul<sub>i</sub> Chelswu-ka [<sub>VP</sub> chenchhi pyek-ul t<sub>i</sub> chilha-ess-ta ]  
 paint-ACC Chelswu-NOM slowly wall-ACC paint-PAST-DECL  
 ‘Literally: Paint, Chelswe slowly painted the wall’

Assuming that the LOC with *chilha* is an argument to the verb, we can account for the fact in (81b) as a similar case of (80b); the lower argument cannot move out of the VP when there is a higher argument in the same MLD of the verb.



I will show three consequences of the structure in (82). First, the structure (82) must predict the existence of the double accusative idiom expressions with *chilha*. This is because the multiple accusative construction with ditransitive verbs in Korean is licit, contrary to Japanese. This is indeed the case as in (83a).<sup>39</sup>

- (83) a. ?Chelswu-ka apeci-uy elkwul-ul mek-chil-ul ha-ess-ta  
 Chelswu-NOM father-GEN face-ACC black.ink-ACC do-PAST-DECL  
 ‘Literally: Chelswu black-in-pained to his father’s face’  
 ‘Idiom: Chelswu disgraced his father’s name’
- b. Chelswu-ka apeci-uy elkwul-ey mek-chil-ul ha-ess-ta  
 Chelswu-NOM father-GEN face-DAT black.ink-ACC do-PAST-DECL  
 ‘Literally: Chelswu black-in-pained to his father’s face’  
 ‘Idiom: Chelswu disgraced his father’s name’

<sup>39</sup> According to an informant, (83a) seems to be closer to the literal meaning than (83b).

### CHAPTER III

Second, the VP-preposing of *chilha* as given in (84) pattern with the Japanese data, except (84b). Two DPs can be preposed together with the verb, since they are within the same MLD of the verb under the tree proposed here. This expectation is borne out as in (84a). Differing from Japanese, Korean allows a realization of multiple accusative phrases. I argue that this is why (84a) is licit, in contrast to the illicit realization of the same type of data in Japanese as in (84b).

- (84) a. ?Ku pyek-ul ppalkan peyintu-lul chil-kkaci(to) Chelswu-ka ha-hayss-ta  
the wall-ACC red.paint-ACC paint-even Chelswu-NOM do-PAST-DECL  
'Literally: Even paint(ing) red (paint) the wall, Chelswu did'
- b. \*Sono kabe-o akapenki-o nuri-sae Taro-ga si-ta<sup>40</sup>  
the wall-ACC red.paint-ACC paint-even Taro-NOM do-PAST  
'Literally: Even paint(ing) red paint the wall, Taro did'

However, consider the data in (85).

- (85) a. \*Ppalkan peyintu-(lul) chil-kkaci(to) Chelswu-ka ku pyek-ul  
red.paint-ACC paint-even Chelswu-NOM the wall-ACC  
ha-ess-ta  
do-PAST-DECL  
'Literally: Even paint(ing) red (paint), Chelswu did the wall'
- b. \*Ku pyek-ul chil-kkaci(to) Chelswu-ka ppalkan peyintu-(lul)  
the wall-ACC paint-even Chelswu-NOM red.paint-ACC  
ha-ess-ta  
do-PAST-DECL  
'Literally: Even paint(ing) the wall, Chelswu did red (paint)'

---

<sup>40</sup> The reason why this sentence is a DoC violation (Hiraiwa 2010) is shown in (i). An insertion of the adverb between the two accusative phrases, the sentence becomes licit.

- (i) Sono kabe-o subayaku akapenki-o nuri-sae Taro-ga si-ta  
the wall-ACC quickly red.paint-ACC paint-even Taro-NOM do-PAST  
'Literally: Even quickly paint red paint the wall, Taro did'

### CHAPTER III

When one of the accusative-marked phrases is fronted with the verb, to the exclusion of the other accusative phrase, the VP-fronting is illicit with Korean *chilha*. The same pattern is found with Japanese *nuru* as the paradigm in (86) shows.<sup>41</sup>

- (86) a. \*Aka penki-o nuri-sae Taro-ga sono kabe-o si-ta  
red.paint-ACC paint-even Taro-NOM the wall-ACC do-PAST  
'Literally: Even paint red (paint), Taro did onto the wall'
- b. \*Sono kabe-o nuri-sae Taro-ga aka penki-o si-ta  
the wall-ACC paint-even Taro-NOM red.paint-ACC do-PAST  
'Literally: Even paint the wall, Taro did with red (paint)'

What would happen to the paradigm in (85), if the LOC is marked with the dative marker *ey*? As in (87), it is impossible to prepose the LOC with the dative case *ey* and the verb alone to the exclusion of the MAT. This ungrammaticality of (87), and equally of (85b) can be accounted for under our current assumptions.

- (87) \*Ku pyek-ey chil-kkaci(to) Chelswu-ka ppalkan peyintu-(lul) ha-ess-ta  
the wall-DAT paint-even Chelswu-NOM red.paint-ACC do-PAST-DECL  
'Literally: Even paint(ing) onto the wall, Chelswu did red (paint)'

However, the preposing of the MAT with the verb alone to the exclusion of the LOC is possible if the LOC is dative-marked as given in (88). This patterns with the Japanese case in (40b).

- (88) ?Ppalkan peyintu-(lul) chil-kkaci(to) Chelswu-ka ku pyek-ey ha-ess-ta  
red.paint-ACC paint-even Chelswu-NOM the wall-DAT do-PAST-DECL  
'Literally: Even paint red (paint), Chelswu did onto the wall'

We have examined that scrambling of the MAT argument leaving the accusative-marked LOC as remnant is illicit in Korean (see (81b)). In contrast to this fact, the same scrambling is possible, if the LOC argument is marked with *ey* as given in (89).

---

<sup>41</sup> The ungrammaticality in these sentences must not be a violation of the DoC (Hiraiwa 2010), since the two accusative phrases are not adjacent to each other.

### CHAPTER III

- (89) ?Peyintu-lul<sub>i</sub> Chelswu-ka chencheni pyek-ey t<sub>i</sub> chilha-ess-ta  
paint-ACC Chelswu-NOM slowly wall-ACC paint-PAST-DECL  
'Literally: Paint, Chelswe slowly painted the wall'

The case alternation on the DP<sub>LOC</sub> seems to play a role in these syntactic behaviours of *spray/load* verbs. I turn to the issue in the next chapter.

#### 3.4 The syntax of *give* verbs

As discussed in earlier, it is possible for two verbal arguments of *spray/load* verbs to be marked with accusative case marker *o* when it is scrambled or clefted. However, it is impossible for two verbal arguments of *give* verbs to be marked with *o* even when it is scrambled or clefted. From this fact, we do not expect the GOAL of *give* verbs to be assigned structural accusative Case. However, as given in (90b) and (90c), both arguments of *give* verbs allow direct passivization, passing the test of structural case (Miyagawa 1996, among others).

- (90) a. Sensei-ga gakusei-ni hon-o<sub>i</sub> san-satsu<sub>i</sub> okut-ta  
teacher-NOM student-DAT book-ACC three-CL send-PAST  
'The teacher gave three books to the student'
- b. Hon-ga<sub>i</sub> sensei-niyotte gakusei-ni san-satu<sub>i</sub> okur-are-ta  
book-NOM teacher-BY student-DAT three-CL send-PASS-PAST  
'Literally: Three books were sent to the student by the teacher'
- c. Gakusei-ga<sub>i</sub> sensei-niyotte san-nin<sub>i</sub> hon-o okur-are-ta  
student-NOM teacher-BY three-CL book-ACC send-PASS-PAST  
'Literally: Three students were sent books by the teacher'

These passives are not indirect passives. As in (90b) and (90c), they fail to satisfy the three properties of indirect passives; the demoted subject can be marked with *niyotte* in the passive sentence of *give* verbs; the passive subject on *hon* 'book' or *gakusei* 'student' are not associated with "adversary" reading; it is possible for the passive subject to license the NQF remotely in passive sentence.

The category of both arguments is a DP, respectively, since they can license the NQF. As in (91a), the GOAL argument *hana-ni* 'flower-DAT' licenses an NQF *go-hon* 'five-CL';

### CHAPTER III

and similarly, the THEME argument *mizu-o* ‘water-ACC’ licenses an NQ *go-hai* ‘five-CL’ to float off from it as in (91b).

- (91) a. Taro-ga hana-ni<sub>i</sub> go-hon<sub>i</sub> mizu-o yat-ta  
 Taro-NOM flower-DAT five-CL water-ACC give-PAST  
 ‘Taro watered five flowers (in a flower bed)’  
 b. Taro-ga hana-ni mizu-o<sub>i</sub> go-hai<sub>i</sub> yat-ta  
 Taro-NOM flower-DAT water-ACC five-CL give-PAST  
 ‘Taro gave five buckets of water to flowers’

From these facts, I conclude that the GOAL has structural dative Case, following Miyagawa (1989; 1996) and Ura (2000); and the THEME has structural accusative Case.

Is the GOAL argument merged to the complement position, but happens to appear with *ni*? Or is this argument assigned *ni* at a non-complement position within VP?

The choice must be made empirically. This is because both are possibilities in Japanese. The *ni*-phrase in a transitive sentence can behave as a direct object (Marantz 1984, among others).<sup>42</sup> As in (92b), the *ni*-phrase *Mary* in (92a) can be promoted to a passive subject. Since there is no other “object-like” phrase in (92a), it is reasonable to argue that this is the complement object.

- (92) a. John-wa Mary-ni soodansi-ta  
 John-TOP Mary-DAT consult-PAST  
 ‘John consulted Mary’  
 b. Mary-ga John-ni soodans-are-ta  
 Mary-NOM John-BY consult-PASS-PAST  
 ‘Mary was consulted by John’ (Marantz 1984: 274, (7.89))

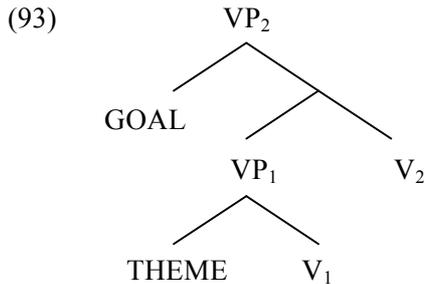
<sup>42</sup> It is also the case that there are some transitive verbs whose single *ni*-phrase cannot be promoted to a passive subject: *au* ‘meet,’ *katsu* ‘win,’ etc.,. If the *ni*-phrase of the verb *katsu* is passivized it obtains an “adversative” reading, which is not a property of direct passive in Japanese.

- (i) Koukousei-ga daigakusei-ni (sono shiai-de) ka-ta  
 high.school.student-NOM university.student-DAT that match-AT win-PAST  
 ‘A high school student beat a university student’  
 (ii) Daigakusei-ga koukousei-ni (sono shiai-de) kat-are-ta  
 university.student-NOM high.school.student-DAT that match-AT win-PASS-PAST  
 ‘A university student was beaten by a high school student’ (adverse reading)

### CHAPTER III

However, the binding is a conclusive data for determining the position of the GOAL argument in the *give* type structure (see 3.2).

As we have observed in section 3.3.2, the VP-fronting of the THEME argument and the verb alone leaving the GOAL argument as remnant is possible with *give* verbs. Given this, I propose that the THEME and the verb constitute the complete VP constituent, to the exclusion of the GOAL argument, as shown in (93).

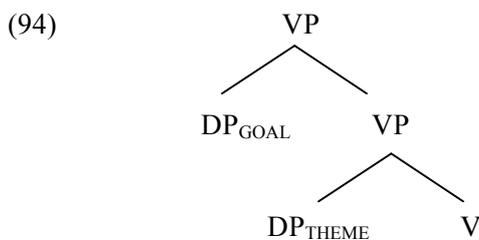


This structure also predicts the behavior of the GOAL argument with respect to the predication of SDs. As we have observed it is impossible for the given argument to be a subject of an SD. Under our condition of the object-oriented SD that is based on Koizumi (1994), the fact is systematically accounted for; because the GOAL is not within the MLD of the verb, it cannot be a subject of an SD.

#### 3.4.1 The licenser of the GOAL argument

What licenses the GOAL argument of *give* verbs? There are three major views about this issue; one is that it is an argument to the lexical verb. Miyagawa (1996) follows the line of argument, proposing that the  $DP_{GOAL}$  is merged to the lexical VP where the  $DP_{THEME}$  is included. However, we cannot maintain this hypothesis because it fails to capture the facts about preposing (see 3.3.2) and the distribution of an SD (see 3.3.3).

The second hypothesis is that the  $DP_{GOAL}$  is adjoined to the MLD of VP as in (94).



### CHAPTER III

Under the assumption of a “segment category (i.e., the two-segment category [XP, XP] in which the category GP is adjoined to XP (Hornstein, Nunes and Grohman 2005: 148))”, it is possible for the DP<sub>GOAL</sub> to c-command the DP<sub>THEME</sub> being “contained” in the MLD of the lexical verb in (94) (Chomsky and Lasnik 1993), since it is assumed that the higher VP is an “extension” of the same lexical VP. However, the distribution of SDs poses a problem for this analysis. If the DP<sub>GOAL</sub> were taken as being contained in the MLD of the lexical verb, it would fail to account for the fact that the DP<sub>GOAL</sub> cannot be a subject of an SD, because there would arise a possibility that it would be contained in the same MLD with the DP<sub>THEME</sub>. With the reasons that I have provided, I argue that these structures prove hard to maintain for an analysis of *give* verbs in Japanese.

Lastly, there are many studies to claim that the GOAL is licensed by another verbal head under the assumption of the VP-shell analysis (Kayne 1984, Marantz 1984, Larson 1988; 1990, Aoun and Li 1989; 1993, Koizumi 1995, Pesetsky 1995, Miyagawa 1996, Yatsushiro 1998, Ura 2000, Harley 2002, Pylkkänen 2002; 2008, Miyagawa and Tsujioka 2004, among others). Pylkkänen (2002; 2008) proposes that the DP<sub>GOAL</sub> of Japanese *give* constructions can be licensed by the Appl-low head as in (95). The Appl-low is a type of applicative head, which is silent in Japanese.<sup>43,44</sup> The Appl-low head encodes the possession meaning between the DP<sub>GOAL</sub> *Hanako* and the DP<sub>THEME</sub> *nimotsu* ‘package.’ I cite the low-applicative analysis of *give* verbs from Park and Whitman (2003) (since Pylkkänen’s (2002; 2008) structure is presented with a non-standard assumption).

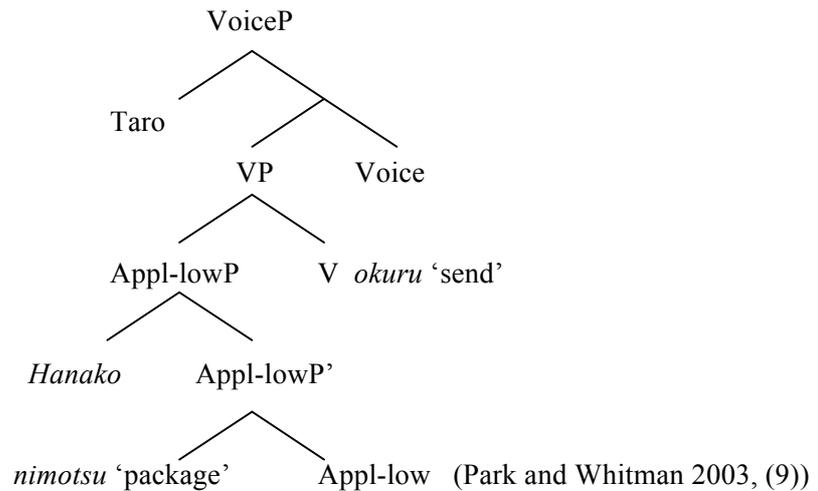
---

<sup>43</sup> According to Pylkkänen (2002; 2008) and McGinnis (2008), an applicative head is a head which adds an indirect object to the argument structure of a verb. The terminology comes from “applied arguments” that are proposed as additional arguments in Bantu linguistics, and the resulting constructions are also called “applicative constructions” (Marantz 1993, Baker 1988).

<sup>44</sup> The Voice head licenses the AGENT argument and takes the Appl-low projection as complement (Krazer 1996).

CHAPTER III

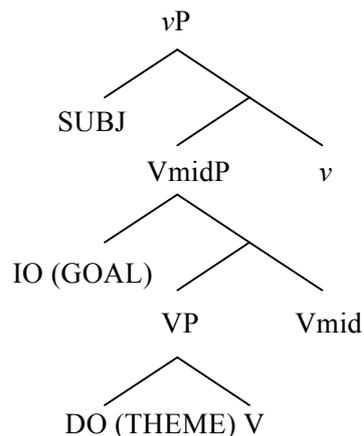
(95)



It is hard to extend this analysis to the data concerning *give* verbs that I have shown. Also, I am not certain how to exclude the *ni*-phrase *Hanako* in this structure from being a subject of an SD if it were there. It seems to me that it is quite likely that the given phrase can be a subject of an SD, because it is within the MLD of the verb *okuru* ‘send’.

I argue that Ura’s (2000) structure is the best among these alternatives because it is able to capture all the data about *give* verbs that I have discussed so far. In the structure (96), the  $DP_{GOAL}$  is the argument of  $V_{mid}$  but it is not merged to the MLD of the lexical verb.  $V_{mid}$  is the middle functional head that checks off the structural Case on the  $DP_{THEME}$  under the spec-head relation (Chomsky 1995), when it moves to the specifier of  $V_{mid}$ .

(96)



In (96), the  $DP_{THEME}$  is the complement of the verb; the  $DP_{GOAL}$  is the argument of  $V_{mid}$ . The  $DP_{GOAL}$  is outside of the MLD of the lexical verb. This captures the distribution of the

### CHAPTER III

SDs of the *give* construction; the DP<sub>THEME</sub> is included in the MLD of the lexical verb and hence it can be a subject of an SD. Contrary to this, the DP<sub>GOAL</sub> is not included in the MLD of the lexical verb, and hence it cannot be a subject of an SD. The bound variable interpretation of *so-ko* in the *give* construction can be correctly captured by the binary branching tree, in which the DP<sub>GOAL</sub> asymmetrically c-commands the DP<sub>THEME</sub> in the base structure (see section 3.2).

Ura's assumption that the mid verbal projection is a functional head is problematic, however, under Marantz's proposal of the compositionality of argument structure. According to Marantz (1984: 23-30), there is almost no subject idiom in English, in contrast to countless object idioms in the language.<sup>45</sup> Based on this fact, he argues that this comes from the asymmetrical compositionality between the (logical) subject and the object of the verb; thus, the object is an argument of the verb, while the subject is not.<sup>46</sup> Ura actually assumes the Split vP hypothesis in which Marantz's point is mostly reflected (see 2.3). Thus, his analysis wrongly predicts that the GOAL of *give* verbs rarely composes idiom expressions with the verb: V<sub>2</sub> is a functional head just like *v*. However, in Miyagawa and Tsujioka (2004: 22) it is reported that there are quite a few idioms that are composed with the GOAL-THEME-V.

- (97) Taroo-wa maajan-ni timiti-o ageta  
Taro-TOP mah-jongg-to blood vessel-ACC raise  
'Taro was obsessed with mah-jongg' (Miyagawa and Tsujioka 2004: 22, (55b))

The same holds for *spray/load* verbs in Japanese and in Korean. An idiomatic expression can be formed with *spray/load* verbs with an involvement of the LOC argument, as in (98). As having been shown in (83), the *ey*-phrase of Korean *chilha* 'paint' is also composed as a part of the idiom expression.

- (98) a. take-ni abura-o nu-ru  
bamboo-DAT oil-ACC paint-PRES  
'Literally: paint oil onto a bamboo, Idiomatic: to speak eloquently'

---

<sup>45</sup> According to Marantz (1984), only irregular case of this is *What's eating X?* 'what's bothering NP?.'

<sup>46</sup> This proposal has been integrated in the MP under the Split vP hypothesis.

## CHAPTER III

- b. kao-ni      doro-o      nu-ru  
face-DAT    mud-ACC    paint-PRES

‘Literally: paint mud onto someone’s face, idiomatic: to make someone socially humiliated’

Under the split *v*P hypothesis, if  $V_2$  is a functional head, these points are left unaccounted for. I come back to this issue in Chapter IV.

### 3.5. The syntax of the object IAP construction

There is a type of possession construction in most languages known as an inalienable possession (henceforth, IAP) construction (Hiraiwa 2006c; 2010 for Japanese, Vermeulen 2005, Tomioka and Sim 2005 for Korean, Landu 1999 for Hebrew and Romance). For example, in (99a) *Naomi*’s head is an inalienable part of the possessor *Naomi* and it cannot be physically transferred to *Ken*. Korean also has the object IAP sentence. As in (99b), *Sunhee*’s hand cannot be transferred from *Sunhee*’s possession to *Chelswu*’s.

- (99) a. Ken-ga      Naomi-no      atama-o      tatai-ta  
Ken-NOM    Naomi-GEN    head-ACC    hit-PAST

‘Ken hit Naomi on the head’

- b. Chelswu-ka      Sunhee-euy      son-ul      cap-ass-ta  
Chelswu-NOM    Sunhee-GEN    hand-ACC    grab-PAST-DECL

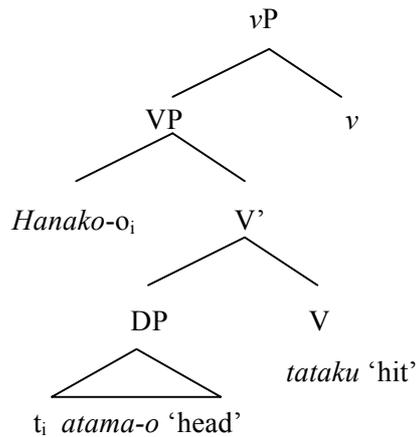
‘Chelswu grabbed Sunhee’s hand’ (Tomioka and Sim 2005: 4, (5))

#### 3.5.1 Possessor raising analysis

There are two major analyses about the object IAP construction in the literature: the possessor raising analysis (Landu 1999, Hiraiwa 2006c; 2010) and the base-generation analysis (Tomioka and Sim 2005). Under the possessor raising analysis, the possessor argument and the possessee argument are merged to the same DP that is the complement of the lexical verb. When this VP is spelled out, an object IAP sentence with the genitive phrase is realized. From the same structure, when the possessor argument is raised to the specifier of VP, an object IAP sentence with the multiple *o*-phrase is realized (Hiraiwa 2010).

CHAPTER III

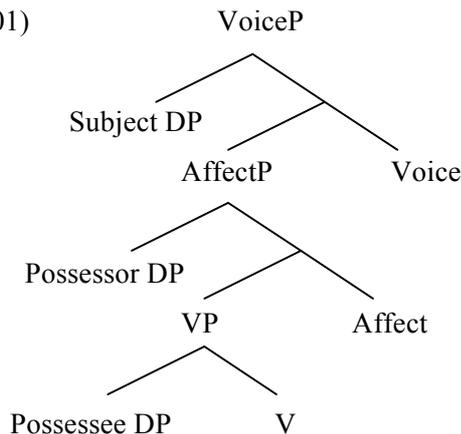
(100)



(Hiraiwa 2010: 750, (85b), modified)

According to Tomioka and Sim (2005), the possessor DP of Korean object IAP construction is obligatorily associated with the affected interpretation, when it takes the ACC-ACC case array, while the same argument appearing in the GEN-ACC case array is not. It is well-known that multiple accusative realization in the language is possible. Taking this semantic difference seriously, Tomioka and Sim propose a base-generation account for the realizations of two case arrays of object IAP sentence, claiming a double object VP for the ACC-ACC case array of the given sentence as in (101). In the VP, the possessor DP appears at the specifier of the Affect head, which is a silent verb but denotes that the possessor argument is affected. The possessee argument is merged to the complement of the verb.

(101)



I argue for the possessor raising analysis over the base-generation analysis with evidence from preposing. Suppose that the same VP for Korean IAP is translated into the

### CHAPTER III

one in Japanese. In the VP (101), the possessee argument and the lexical verb constitutes the MLD of VP. Under the assumption, we would expect the possessee and the verb alone to be fronted. However, this expectation is turn down, as in (102). Mind you this is not a violation of DoC, since two accusative marked phrases are separated (Hiraiwa 2010).

- (102) \*Atama-o tatakai-sae Ken-ga Naomi-o si-ta  
 head-ACC hit-even Ken-NOM Naomi-ACC do-PAST  
 ‘Literally: Even hit the head, Ken did Naomi’

Another much stronger piece of evidence for the possessor raising analysis comes from Hiraiwa (2005). Indeterminate NPs (e.g. *dare* ‘who’, *nani* ‘what’) in Japanese can form a Negative Polarity Item (henceforth, NPI), when it is bound by a quantificational particle *mo* ‘also’ (Hiraiwa 2005; 2006a). The grammaticality difference of (103a) and (103b) shows that when the indeterminate possessor argument *dare-no* ‘who-GEN’ in (103a) is genitive-marked, it can be interpreted as an NPI with *mo*. On the other hand, when it is accusative-marked as in *dare-o* ‘who-ACC’, it cannot constitute an NPI with the particle. For this reason, Hiraiwa argues that the accusative-marked possessor must be outside of the binding domain of the particle, i.e., the DP; otherwise it must form an NPI with the particle.

- (103) a. Taro-wa [<sub>DP</sub> dare-no te]-mo tatak-nakat-ta  
 Taro-TOP who-GEN hand-also hit-NEG-PAST  
 ‘Taro didn’t hit anyone’s hand’  
 b. \*Taro-wa dare-o<sub>i</sub> [<sub>DP</sub> t<sub>i</sub> te]-mo tatak-nakat-ta  
 Taro-TOP who-ACC hand-also hit-NEG-PAST  
 ‘Taro didn’t hit anyone’s hand’ (Hiraiwa 2005: 122, (68))

The object IAP constructions in Japanese allow a multiple accusative realization as in (104b) and (104c) (Hiraiwa 2010).

- (104) a. ??Ken-ga Naomi-o atama-o tatai-ta  
 Ken-NOM Naomi-ACC head-ACC hit-PAST  
 ‘Ken hit Naomi on the head’

### CHAPTER III

- b. Ken-ga Naomi-o omoikkiri atama-o tatai-ta  
 Ken-NOM Naomi-ACC hard head-ACC hit-PAST  
 ‘Ken hit Naomi on the head hard’ (Hiraiwa 2010: 735, (28a))
- c. Ken-ga atama-o tatai-ta no-wa Naomi-o da  
 Ken-NOM head-ACC hit-PAST C-TOP Naomi-ACC COP  
 ‘It is Naomi that Ken hit on the head’ (Hiraiwa 2010: 738, (43))

This patterns with *spray/load* verbs, as already discussed. In addition to this, IAP constructions show other similarities to *spray/load* verbs with respect to passivization and the distribution of SDs. It is possible for the entire genitive phrase to be passivized as in (105a). However, the behavior of the passivization is radically different when both arguments are accusative-marked; the possessor argument can be passivized as in (105b), whereas the possessee argument cannot.

- (105) a. Gakusei-no kaminoke-ga<sub>i</sub> sensei-niyotte go-hon<sub>i</sub> hippar-are-ta  
 student-GEN hair-NOM student-BY five-CL pluck-PASS-PAST  
 ‘Five hairs of the student were plucked by the teacher’
- b. Gakusei-ga<sub>i</sub> sensei-niyotte san-nin<sub>i</sub> kaminoke-o hippar-are-ta  
 student-NOM teacher-BY three-CL hair-ACC pluck-PASS-PAST  
 ‘Three students were plucked (their) hair by the teacher’
- c. \*Kaminoke-ga<sub>i</sub> sensei-niyotte gakusei-o san-bon<sub>i</sub> hippar-are-ta  
 hair-NOM teacher-BY student-ACC three-CL pluck-PASS-PAST  
 ‘Literally: Hair, three were plucked the student by the teacher’

As shown in (105b), the passive subject can strand the NQF inside VP, which means that the passive subject has been derived from the VP where it leaves a copy under the assumption of the mutual c-command condition of NQF licensing in Japanese (Miyagawa 1989, among others). This copy holds a mutual c-command relation with the NQF within VP and hence the predication is possible. With this fact, I take this passive as a direct passive. At a glance, the fact that the possessee argument cannot be passivized is seemingly a puzzle, even though it has been assigned Accusative case. Does this argument have structural Case, or inherent Case? As in (106b), this argument cannot be scrambled over the manner adverb *omoikkiri*

### CHAPTER III

‘hard’. Given that the manner adverb attaches to the left edge of VP, the fact shows that the possessee argument cannot move out of VP.

- (106) a. Ken-ga Naomi-o omoikkiri atama-o tatai-ta  
 Ken-NOM Naomi-ACC hard head-ACC hit-PAST  
 ‘Ken hit Naomi on the head hard’ (Hiraiwa 2010: 735, (28a))
- b. \*Ken-ga atama-o omoikkiri Naomi-o tatai-ta  
 Ken-NOM head-ACC hard Naomi-ACC hit-PAST  
 ‘Ken hit Naomi on the head’

Given these facts, one might want to argue that the possessee is assigned inherent Case. However, this line of argument conflicts with the fact that the genitive possessee can be passivized as in (105a). At this point of my research, I have no clear account for this fact. I stipulate that it may be the case that the possessor and the possessee share the same structural Case, even after the possessor has been risen to [Spec, VP]. A more accurate assumption may be that the possessor becomes the head of the whole VP after Possessor Raising.

The distribution of SDs in the object IAP construction patterns with the distribution of SDs in *spray/load* construction. Both the possessor and the possessee can be subjects of SDs, as given in (107). I argue that these facts are predicted under the condition (SD’s condition), since both the possessor and the possessee are included in the MLD of the verb, they can be subject of SDs, iff they c-command SDs and vice versa.

- (107) a. Ken-ga Naomi-o<sub>i</sub> **kimono-sugata-de**<sub>i</sub> kaminoke-o hippat-ta  
 Ken-NOM Naomi-ACC in.Kimono-SD hair-ACC pluck-PAST  
 ‘Ken plucked Naomi<sub>i</sub>’s hair **in Kimono**<sub>i</sub>’
- b. ??Ken-ga Naomi-o kaminoke-o<sub>i</sub> **nureta-mama-de**<sub>i</sub> hippat-ta  
 Ken-NOM Naomi-ACC hair-ACC wet-SD pluck-PAST  
 ‘Ken plucked Naomi’s hair<sub>i</sub> **wet**<sub>i</sub>’

Although (107b) is degraded, I argue that this is attributed to a violation of the DoC. As evident, an insertion of an adverb *omoikkiri* ‘hard’ between the two accusative phrases allevates the given violation, which improves the grammaticality of (107b), as (108) shows.

### CHAPTER III

- (108) Ken-ga Naomi-o omoikkiri kaminoke-o<sub>i</sub> **nuretamama-de**<sub>i</sub> hippat-ta  
 Ken-NOM Naomi-ACC hard hair-ACC wet-SD pluck-PAST  
 ‘Literally Ken plucked Naomi’s hair<sub>i</sub> **wet**<sub>i</sub> hard’

As discussed in earlier, a VP-preposing in Japanese is grammatical even though the fronted remnant VP includes a trace (copy).

According to Müller (1998), a similar fact is observable in Germanic languages. In (109), the VP-fronting is formed by way of two movement; the remnant VP has been moved out of the IP following NP movement of *das Buch* ‘the book’. The fronted VP contains an unbound trace since it is not antecedent-bound (i.e., the antecedent is in IP). We expect that the PBC will rule out this sentence, contrary to the fact; it is grammatical.

- (109) [<sub>VP</sub> t<sub>2</sub> Gelesen ]<sub>1</sub> hat [<sub>IP</sub> [<sub>NP</sub> das Buch ]<sub>2</sub> [<sub>IP</sub> keener t<sub>1</sub> ]]  
 read has the book<sub>acc</sub> no-onenom (Müller 1998: 22, (50))

This shows that the lack of the PBC violation effect in the fronting of the remnant VP is not only a special case of Japanese. Given this, a question arises; what governs the grammaticality of the VP-fronting of *spray/load* verbs, *give* verbs and IAP constructions in Japanese.

Consider (110) in which two incomplete VPs of *give* are fronted. In both examples, the manner adverb *yuubin-de* ‘by post’ marks the edge of VP. In (110a), the remnant VP is fronted being followed by movement of the THEME, while in (110b) the remnant VP is fronted being followed by movement of the GOAL. The latter is much more grammatical than the former.

- (110) a. ?[<sub>VP</sub> Hanako-ni t<sub>i</sub> age]-sae<sub>j</sub> Taro-ga yubiwa-o<sub>i</sub> yuubin-de t<sub>j</sub>  
 Hanako-DAT give-even Taro-NOM ring-ACC post-by  
 si-ta  
 do-PAST  
 ‘Literally: Even give to Hanako, Taro did a ring by post’
- b. [<sub>VP</sub> t<sub>i</sub> Yubiwa-o age-sae]<sub>j</sub> Taro-ga Hanako-ni<sub>i</sub> yuubin-de t<sub>j</sub> si-ta  
 ring-ACC give-even Taro-NOM Hanako-DAT post-by do-PAST  
 ‘Literally: Even give a ring, Taro did to Hanako by post’

### CHAPTER III

The minimal difference of these derivations is the fact that the former includes a movement of the lower VP object, whereas the latter includes a movement of the higher VP object (i.e., GOAL). The higher VP object is closer to the functional head  $v$  than the lower VP object. Hence, the grammatical difference of sentences in (110) may have to do with a violation of the MLC (Minimal Link Condition). Hence, I hypothesize (111) for the condition of the VP-preposing.

#### (111) Condition on the formation of VP-preposing

If a fronted remnant VP includes an unbound trace (copy) and such a trace is created by a violation of the MLC, VP-preposing cannot be formed.

Let us move on an account of the VP-fronting of the IAP construction. The example (102) can be represented as in (112). In (112a), the possessor has been moved out of VP, and it is followed by a remnant VP movement. Even though the derivation contains two traces within the fronted VP, it is much more grammatical than (112b) where the possessee has been moved out of the VP followed by VP remnant movement. These facts further confirm that these grammaticalities are not predicted by the PBC. However, these facts are properly accounted for under the hypothesis just given in (111). In (112a), unbound traces within the fronted VP are not created under the violation of the MLC, this is why this sentence is acceptable. On the other hand, the ungrammatical VP-fronting in (112b) contains a trace in the remnant VP, which reflects a violation of the MLC. This is why the sentence is unacceptable.

- (112) a. ?<sub>[VP t<sub>i</sub> [DP t<sub>i</sub> Atama]-o tataki]<sub>j</sub>-sae Ken-ga Naomi-o<sub>i</sub></sub>
- head-ACC hit-even Ken-NOM Naomi-ACC
- [<sub>VP</sub> sensu-de [<sub>VP</sub> t<sub>j</sub> si-ta ]]
- Japanese.fan-with do-PAST
- ‘Literally: Even hit the head, Ken did Naomi by using a Japanese fan’
- b. \*[ Naomi-o t<sub>i</sub> tataki-sae]<sub>j</sub> Ken-ga [DP t<sub>i</sub> atama]-o
- head-ACC hit-even Ken-NOM Naomi-ACC
- [<sub>VP</sub> sensu-de [<sub>VP</sub> t<sub>j</sub> si-ta ]]
- Japanses.fan-with do-PAST
- ‘Literally: Even hit the head, Ken did Naomi by using Japanese fan’

### CHAPTER III

Finally, we look into VP-preposing with *spray/load* verbs.

- (113) a. [<sub>VP</sub> t<sub>i</sub> Aka penki-o nuri-sae]<sub>j</sub> Taro-ga sono kabe-ni<sub>i</sub>  
           red.paint-ACC paint-even Taro-NOM the wall-DAT  
           [<sub>VP</sub> hake-de [<sub>VP</sub> [ t ]<sub>j</sub> si-ta ]]  
           brush-with do-PAST  
           ‘Literally: Even paint red (paint), Taro did onto the wall with a brush’
- b. ??/\*[<sub>VP</sub> Sono kabe-ni t<sub>i</sub> nuri-sae]<sub>j</sub> Taro-ga aka penki-o<sub>i</sub>  
           the wall-DAT paint-even Taro-NOM red.paint-ACC  
           [<sub>VP</sub> hake-de [<sub>VP</sub> [ t ]<sub>j</sub> si-ta ]]  
           brush-with do-PAST  
           ‘Literally: Even paint the wall, Taro did with red (paint)’

In (113a), the LOC has been moved out of VP, which follows the remnant VP-fronting. Because the initial DP movement does not violate the MLC, we expect the derivation to be grammatical, which is indeed the case. In contrast, in (113b), the MAT argument has been moved out of VP and the remnant VP is fronted. This violates the condition (111); hence the sentence is illicit.

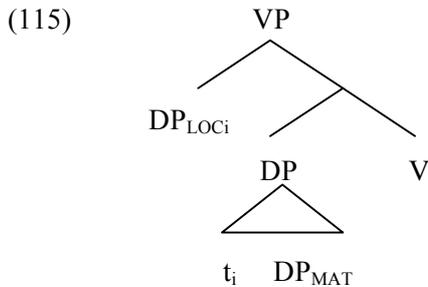
We have proposed that the LOC and the MAT are arguments of the verb. We have also observed that the LOC argument can appear with accusative case under a certain syntactic condition. Given this, a multiple accusative VP-preposing should be available with *spray/load* verbs. As shown below, this is correct. The VP-preposing with *spray/load* verbs in (114) shows the same grammatical pattern of (113), which confirms that the proposal is correct.

- (114) a. [<sub>VP</sub> t<sub>i</sub> Aka penki-o nuri-sae]<sub>j</sub> Taro-ga sono kabe-o<sub>i</sub>  
           red.paint-ACC paint-even Taro-NOM the wall-ACC  
           [<sub>VP</sub> hake-de [<sub>VP</sub> t<sub>j</sub> si-ta ]]  
           brush-with do-PAST  
           ‘Literally: Even paint red (paint), Taro did onto the wall with a brush’

CHAPTER III

- b. ??/\*<sub>[VP Sono kabe-o t<sub>i</sub> nuri-sae]<sub>j</sub> Taro-ga aka penki-o</sub>  
           the wall-ACC paint-even Taro-NOM red.paint-ACC  
       [<sub>VP hake-de [<sub>VP t<sub>j</sub> si-ta</sub> ]]</sub>  
           brush-with do-PAST  
       ‘Literally: Even paint the wall, Taro did with red (paint)’

Finally, I show that, in spite of some syntactic similarities of the object IAP construction and *spray/load* constructions in Japanese, it is hard to extend the possessor raising analysis to *spray/load* verbs, as well as the VP-shell analysis of *give* verbs. (115) is a potential tree for *spray/load* verbs under the possessor raising analysis, including a raising of the LOC from the DP which is within the MLD of the verb.



This assumption leads us to predict that two object DPs of *spray/load* verbs must appear in the same genitive phrase. However, this assumption is not right, as the ungrammatical sentence in (116) indicates.

- (116) \*Taro-ga doa-no siroi penki-o nut-ta  
           Taro-NOM door-GEN white paint-ACC paint-PAST  
       ‘Literally: Taro painted door’s white paint (onto somewhere)’

Similarly, under the assumption that there is a small *pro* inside of the complement DP that is bound by the LOC, we expect the given *pro* to be overtly realized; however, as (117) shows, this does not hold for *spray/load* verbs. The LOC argument *doa* ‘door’ cannot be overtly realized as *soko* ‘that place’.

### CHAPTER III

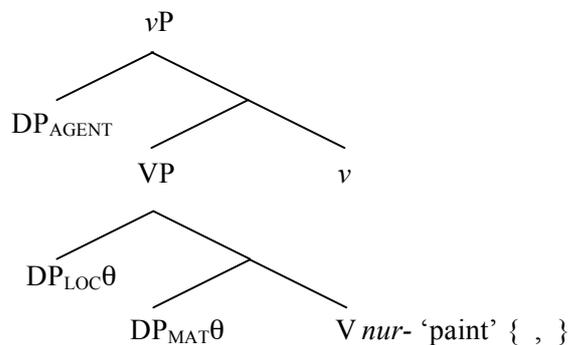
- (117) \*Taro-ga        doa<sub>i</sub>-o        soko<sub>i</sub>        siroi    penki-o        nut-ta  
          Taro-NOM    door-GEN    that place    white    paint-ACC    paint-PAST  
          ‘Literally: Taro painted its<sub>i</sub> white paint onto the door<sub>i</sub>’

With these pieces of evidence, I conclude that the DP<sub>LOC</sub> of *spray/load* verbs is not derived from the complement DP which includes the DP<sub>MAT</sub>. However, as clarified above, both structures show most similarities in their VP domain; both arguments of each structure are included within the smallest VP.

### 3.6 Chapter conclusion

In this chapter, I have given an analysis of *spray/load* verbs when they are associated with the dative-accusative case array. I have hypothesized the structure like (118) for this type of ditransitive verbs. In the structure, both verbal phrases of *spray/load* verbs are arguments of the same verb; the DP<sub>LOC</sub> is its specifier and the DP<sub>MAT</sub> is its complement. I have also hypothesized the identical structure for Korean *spray/load* verbs.

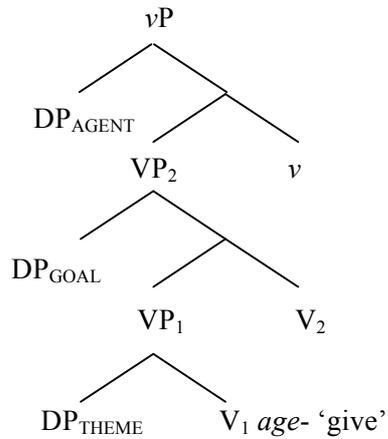
#### (118) The structure for *spray/load* verbs



In this structure, the position at which the DP<sub>LOC</sub> is merged to is important by showing with surface syntactic variations of *spray/load* verbs and *give* verbs. I have modified Ura’s structure for *give* verbs and hypothesized the structure (119), changing V<sub>mid</sub> into a lexical head V<sub>2</sub>. Ura’s V<sub>mid</sub> is a functional head, triggering Case-licensing. However, idiom arguments that I have given indicate that the licenser of the GOAL should be a lexical head.

CHAPTER III

(119) The structure for *give* verbs



The crucial difference between the two structures lies on the position of the locational argument, as mentioned above. The LOC of *spray/load* verbs is merged within the smallest VP of the verb, whereas that of *give* verbs is merged outside of the smallest VP. The different position of locational arguments in these verbs derives some differences in their syntax (e.g., the predication by SDs and passivization). It will be shown in the next chapter, two verbs crucially differ from each other in the type of Case-licensing head, which derives a distinctive nature of two types of ditransitive verbs in relation to the availability of the multiple accusative construction.

I have shown that the syntax of *spray/load* verbs shows the partial similarity to that of IAP construction and to that of *give* verbs. When the DP<sub>LOC</sub> is marked with *o*, the syntax of the given verbs is similar to that of object IAP construction with respect to the availability of the multiple accusative cleft/scrambling and the distribution of SDs. On the other hand, when the DP<sub>LOC</sub> is marked with *ni*, its syntax is very similar to that of *give* verbs with respect to the binding and passivization. I clarify the reason why this should be so in the next chapter.

## Chapter IV

### Dative Case Assignment in Japanese

#### 4.1 Introduction

According to Zanen, Maling and Thráinsson (1985), Icelandic allows at least four surface case patterns of ditransitive verbs: DAT-ACC (e.g., verbs of telling as in (1a)), ACC-DAT (e.g., verbs of concealing as in (1b)), DAT-DAT (e.g., verbs of promising as in (1c)) and ACC-ACC (e.g., verbs of hitting as in (1d)).

- (1) a. Ég sagði þér söguna  
 I told you(DAT) a-story(ACC)  
 ‘I told you a story’ (Zanen, Maling and Thráinsson 1985: 457, (37c))
- b. Þeir leyndu Ólaf sannleikanum  
 they concealed [from]-Olaf(ACC) the-truth(DAT)  
 ‘They concealed the truth from Olaf’ (Zanen, Maling and Thráinsson 1985: 457, (37a))
- c. Ólafur lofaði Maríu þessum hring  
 Olaf(NOM) promised Mary(DAT) this(DAT) ring(DAT)  
 ‘Olaf promised this ring to Mary’ (Zanen, Maling and Thráinsson 1985: 457, (37d))
- d. Höggva einhvern banahögg  
 to-hit someone(ACC) a-deadly-blow(ACC)  
 ‘to hit someone a deadly blow’ (Zanen, Maling and Thráinsson 1985: 472, (39a))

Korean ditransitive verbs (e.g., *cwu* ‘give’) also allow two case patterns: DAT-ACC (see (2a)) and ACC-ACC (see (2b)) in the same argument order, according to Maling and Kim (1992) and Jung and Miyagawa (2004).

- (2) a. Cheli-ka ku yeca-eykey chayk-ul cwu-ess-ta  
 Cheli-NOM the girl-DAT book-ACC give-PAST-DECL  
 ‘Cheli gave a book to the girl’ (Maling and Kim 1992: 43, (11a))
- b. Cheli-ka ku yeca-lul chayk-ul cwu-ess-ta  
 Cheli-NOM the girl-ACC book-ACC give-PAST-DECL  
 ‘Cheli gave the girl a book’ (Maling and Kim 1992: 43, (11b))

## CHAPTER IV

In Japanese, it is only the DAT-ACC (or its scrambled pattern ACC-DAT (see cf. in (3))) pattern that ditransitive verbs (including *give* and *spray/load* types) are compatible with as in (3).

- (3) Taro-ga Hanako-ni hon-o age-ta  
 Taro-NOM Hanako-DAT book-ACC give-PAST  
 ‘Taro gave a book to Hanako’  
 (cf. Taro-ga hon-o(ACC) Taro-ni(DAT) age-ta)

In the previous chapter, I have proposed that the *spray/load* type ditransitive verb exhibits the double accusative structure at the base, differing from the *give* type verb. In this chapter, I will demonstrate how the DP<sub>LOC</sub> of *spray/load* verbs can be realized as accusative-marked; and why the DP<sub>LOC</sub> is always dative-marked on the surface. Before going into the main discussion, let me summarize what I have proposed in the previous chapter.

In the previous chapter, we have observed that the GOAL of *give* verbs behaves like an accusative object of transitive verbs in some tests (e.g., Passive and NQF licensing). However, the GOAL is always associated with the morphological dative case, but never with the accusative case. We have also observed that the same kind of split is identified with *spray/load* verbs. The LOC of *spray/load* verbs is really a “disguised” accusative with respect to the tests such as the distribution of SD and the possibility of the accusative marking (i.e., the availability of the multiple accusative cleft (henceforth MAC) and the multiple accusative scrambling (henceforth MAS)). Table (4) is a summary of the findings on *spray/load* verbs and *give* verbs in the previous chapter.

### (4) Some syntactic aspects of *ni*-phrase in ditransitive constructions

	NQF	SD	Passive	MAC/MAS
(Directional PP)	(NO)	(NO)	(NO)	
(Direct object of <i>taberu</i> ‘eat’)	(YES)	(YES)	(YES)	
<i>Spray/load</i> verbs	YES	YES	YES	YES
<i>Give</i> verbs	YES	NO	YES	NO

In (4), we immediately notice that the dative phrase of *spray/load* verbs patterns with the direct object of a transitive verb (e.g., *taberu* ‘eat’), while it contrasts with the directional PPs. On the other hand, *give* verbs pattern with *spray/load* verbs with respect to the NQF and

## CHAPTER IV

Passive tests, while they contrast with *spray/load* verbs with respect to the SD and the MAC/MAS tests. *Give* verbs also pattern with the directional PP in the SD test. On the basis of these differences, I have proposed that the structure of *give* verbs and that of *spray/load* verbs are different. I have hypothesized that the dative phrase of two verbs is merged to a different base position; the dative phrase of *spray/load* verbs is the argument to the verb, while that of *give* verbs is the argument to another verbal head (i.e.,  $V_2$ ). Specifically, the latter type shows the three-layered  $vP$  structure whose VP is the VP-shell; namely,  $V_1$  selects the THEME and  $V_2$  selects the GOAL. On the other hand, the former type exhibits the two-layered  $vP$  structure whose VP is the simple VP; thus, V selects the THEME and the LOC simultaneously, thereby merging the THEME to the complement and the LOC to the specifier. Hence, the VP of *spray/load* verbs is VP-internal double object structure.

Harada (1973; 1975) formalizes a constraint that claims no more than one accusative phrase can be linked to a VP (for more details see 1.2 and 4.2.3). The constraint has been widely adopted among syntacticians engaged in Japanese syntax. However, Hiraiwa (2010) recently points out that the nature of the constraint and its manner of application has been left unscrutinized in the past, and there are (at least) two versions of the same constraint in the literature (see 4.2.3). Hiraiwa reanalyses the constraint under Phase theory with particular reference to the spell-out domain (see 2.2).

Some of the previous literature of Japanese ditransitive verbs has explained that the split of grammatical function and surface case morphology of the GOAL of *give* verbs indicated above is due to the DoC (Koizumi 1995, Miyagawa 1996) without exception. For example, Miyagawa (1996) claims that the GOAL of *give* verbs is an argument of the verb and licensed as a structural accusative, but it is realized as the dative *ni* so as to avoid violation of the DoC. However, I have shown that this analysis cannot be maintained because the GOAL is never accusative valued in some point of the derivation. Contrastively, however, I have proposed that the LOC of *spray/load* verbs is accusative valued within VP. Namely, it can be associated with the accusative case. However, the LOC is realized with the dative case *ni*. The question is how the morphological dative is assigned to the LOC that is accusative-valued inside the VP.

In this chapter, I try to provide an account for this question. I propose that the dative case on the LOC of *spray/load* verbs is assigned after Movement that is driven by a specific Case feature  $v_{\text{acc}[\text{+multiple}]}$  on the functional head  $v$ . At the same time, I also propose that the dative case on the GOAL of *give*-type ditransitive constructions is assigned In-situ, following the proposals of the aforementioned literature. Another Case feature  $v_{\text{dat}}$  is

## CHAPTER IV

responsible for this kind of assignment. The organization of this chapter is as follows: in section 4.2, I introduce the previous literature of two types of Dative Case Assignment by the verbal domain in Japanese. In section 4.3, I propose that dative Case of LOC argument in *spray/load* ditransitive constructions is assigned after movement, abstracting away from Subject-*ni* raising in Kuroda (1965b; 1978). In section 4.4, I will show my proposal predicts various syntactic phenomena concerning *give* verbs and *spray/load* verbs. Section 4.5 concludes the chapter.

### 4.2. The previous literature on *ni* assignment

#### 4.2.1 *Ni* assignment in situ

I introduce three previous studies of the in-situ dative assignment. Saito (1982) proposes the simplest case-marking rule of Japanese: *ni*-phrases in Japanese are PP. As in (5), since an NQF (Numeral Quantifier Floating) is not licensed from dative phrase *gakusei* ‘student’, Saito takes this as evidence for the given proposal. One may wonder why the judgment is in parenthesis. The opinion of the previous literature splits with respect to the judgment of this sentence. Some literature reports this is grammatical (Miyagawa 1989, Harley 2008), while some other literature reports this is ungrammatical (Saito 1982, Takezawa 1987, among others). For this reason, I put the judgment in parenthesis.

- (5) (\*) Sensei-ga      gakusei-ni    san-nin    hon-o      yom-ase-ta<sup>1</sup>  
         teacher-NOM   student-DAT   three-CL   book-ACC   read-CAUSE-PAST  
         ‘The teacher made/let three students read books’

Under the bi-clausal analysis of Japanese syntactic causative verbs (see Chapter VI for more details), he argues that the dative phrase of causative verbs is base-generated outside of the tense-less embedded projection S, as in (6). The CAUSEE *Mary* in (6) is not an argument of the embedded projection headed by the verb *tabe-* ‘eat’ but is licensed by the postposition *ni*. The dative phrase has semantically related to the embedded projection via co-indexed with PRO in the subject position of the embedded clause.

---

<sup>1</sup> The opinion of the literature splits with respect to the judgment of this sentence. Some literature reports this is grammatical (Miyagawa 1989, Harley 2008), while some other literature reports this is ungrammatical (Saito 1982, Takezawa 1987, among others). For this reason, I put the judgment in parenthesis.



## CHAPTER IV

- (9) Taro-ga tomodati-ni<sub>i</sub> fu-tari<sub>i</sub> ringo-o age-ta  
Taro-NOM friend-DAT two-CL apple-ACC give-PAST  
'Taro gave apples to two friends'

He hypothesizes that the GOAL is an argument of the lexical verb and is assigned accusative Case at D-structure, assuming the government-based Case theory (Saito 1982; 1985) (i.e., the accusative Case is assigned to the sister of the verb under head-government) (see 3.3.5). Given this, the GOAL is head-governed in the base position. In principle, it is possible for this argument to be realized with morphological accusative case *o*. However, if this takes place, the derivation will violate the DoC (Double-*o* constraint) (Harada 1973; 1975). To circumvent this situation, he claims that morphological dative case *ni* is realized with the GOAL argument at D-structure when it is spelled out.<sup>3</sup>

### 4.2.2 *Ni* assignment under movement

Kuroda (1965b; 1978) argues that *ni* on the CAUSEE of causative transitive constructions is assigned by application of a generalized transformational rule called Constituent Subject Extraction (henceforth, CSE)/Subject-NI raising.<sup>4</sup> Under the bi-clausal analysis of causative constructions, he argues that *ni* is assigned to the subject of the lower lexical clause iff the subject of the lower clause has been raised to the matrix clause.<sup>5</sup> The subject of the stem verb of the causative construction can be realized with the nominative case *ga* under the application of the Linear Case Marking (henceforth, LCM) as in (7b), because the sentence has the tense marker (i.e., the nominative case in Japanese can be assigned to the subject of the tensed clause; for the specific argument of this assumption, see Appendix B). He further argues that the nominative marker will be deleted by the other generalized transformational rule after V-raising of the embedded verb.

---

<sup>3</sup> This realization is irrelevant to Takezawa's (1987) *ni*-insertion.

<sup>4</sup> Kuroda also argues that CSE/Subject-NI raising is applicable to the nominative domain in a potential verb construction (e.g., *eru* 'can'). I confine myself to the argument of the accusative domain for the sake of the coherence of my argument.

<sup>5</sup> Kuno (1973) claims a similar rule called Subject NI marking; Kuroda's Subject-NI raising does not "collapse" a bi-clausal structure into a mono-clausal structure, whereas Kuno's Subject-NI marking does, i.e., a derivation starts with a bi-clausal structure and then it becomes mono-clausal structure when the lower verb is V-raised to the higher clause.

## CHAPTER IV

- (10) a. Taro-ga Hanako-ni mesi-o tak-ase-ta  
 Taro-NOM Hanako-DAT meal-ACC cook-CAUSE-PAST  
 ‘Taro let/made Hanako cook the meal’

- b. Taro Hanako (Hanako-ga mesi-o taku) se ta

*LCM to the unmarked nouns in the first cycle*

- Taro Hanako-~~ni~~ (Hanako-~~ni~~ mesi-o) takuse ta

*V-raising & CSE*

- Taro ga Hanako-~~ni~~ (Hanako-~~ni~~ mesi-o) takuse ta

*Counter Equi and LCM to the unmarked nouns in the second cycle*

When the lexical verb *taku* ‘cook’ in the embedded clause raises to the matrix clause, the lower subject also moves to the matrix clause. At this point of the derivation, the Subject-NI raising applies to the CAUSEE *Hanako* and morphological dative case *ni* is assigned to that argument. Following this application, Counter Equi applies to the moved argument and deletes the CAUSEE just has been moved to the matrix clause.<sup>6</sup> At the second cycle, the LCM as in (11a) applies to the derivation and the left most phrase CAUSER *Taro* obtains *ga*. The resultant form satisfies the CSPH as in (11b), hence the derivation will be spelled out as licit as in (10a).

- (11) a. Linear Case-Marking (LCM) (Kuroda 1978: 225)

Mark the first unmarked noun phrase with *-ga*, and mark any other unmarked noun phrase or phrases with *-o*.

- b. Canonical Sentence Pattern Hierarchy (CSPH) (Kuroda 1978: 226)

Transitive sentence pattern: NP-*ga* NP-*o*

Ergative sentence pattern: NP-*ni* NP-*ga*

Intransitive sentence pattern: NP-*ga*

Kuroda proposes two types of deletion rule in his analysis. If the other rule – namely, Straight Equi – were applied to the same derivation in (10b), the CAUSEE *Hanako*, having been moved to the matrix clause, would survive. This causes the derivation crash, because the moved *Hanako* would be a second left unmarked argument in the second cycle if that

---

<sup>6</sup> Counter Equi is a specific deletion rule that deletes the higher element of the two elements under identity.

## CHAPTER IV

took place. It would be subject to the LCM, and would be assigned *o* at the second cycle. The resultant derivation could not pass the CSPH, failing to satisfy any pattern in the CSPH and hence the derivation would be filtered out.

- (12) Taro Hanako (Hanako-*ga* mesi-*o* taku) se ta  
rice-ACC cook CAUSE PAST  
*LCM to the unmarked nouns in the first cycle*  
Taro Hanako (~~Hanako-*ga*~~ mesi-*o*) takuse ta  
*Straight Equi followed by V-raising*  
\*Taro-*ga* Hanako-*o* (~~Hanako-*ga*~~ mesi-*o*) takuse ta  
*LCM in the second cycle*

We have observed the two types of dative case assignment in Japanese. One is implemented in situ and the other is after movement. In the next section, I will propose that these two types of dative case assignment are identified with ditransitive verbs in Japanese. Before going to the main point, I introduce the DoC that is relevant to the realization of the dative case.

### 4.2.3 The Double-*o* constraint

Harada (1973; 1975) claims that there is a constraint on which a realization of accusative phrase in the grammar of Japanese. According to Hiraiwa (2010), Harada (1973) first proposes this constraint with reference to *tokoro*-relative clauses, as in (13), and causative transitive verbs, in (14).<sup>7</sup> B-sentences in (13) and (14) are both ungrammatical because they violate the DoC. In (13b), a *tokoro*-phrase itself is accusative-marked and the DP *doroboo* ‘thief’ inside the *tokoro*-phrase is also marked with accusative case. Thus, there are two accusative phrases in VP of this sentence and this violates (15); similarly, VP of (14b) includes two accusative-marked phrases, *Hanako* and *mesi* ‘rice’, which also violates (15). As the grammatical symbols indicate, (14b) shows the effect of the DoC violation in a more severely way, compared to (13b).

---

<sup>7</sup> The *tokoro*-relative clause is a special type of relative clause where the clause headed by *tokoro* ‘place, situation’ is the complement of the verb; however, it is actually the subject argument inside the clause that obtains the interpretation of the thematic object of the verb (see Hiraiwa 2010). For example, in (13a), even though the nominative-marked *doroboo* ‘thief’ is inside of the *tokoro*-clause, it is interpreted as an object of the verb *tsukamaeru* ‘catch.’

## CHAPTER IV

- (13) a. Keesatsu-ga doroboo-ga nigeyoo to si-ta tokoro-o  
 police-NOM thief-NOM run.away.try C Lv-TOP situation-ACC  
 tsukamae-ta  
 catch-PAST  
 ‘The policeman caught the thief as he tried to run away’
- b. ??Keesatsu-ga doroboo-o nigeyoo to si-ta tokoro-o tsukamae-ta  
 police-NOM thief-ACC run.away.try C Lv-TOP situation-ACC catch-PAST  
 (Hiraiwa 2010: 224-725, (2))
- (14) a. Taro-wa Hanako-ni mesi-o tak-ase-ta  
 Taro-TOP Hanako-DAT meal-ACC cook-CAUSE-PAST  
 ‘Taro let/made Hanako cook the meal’
- b. \*Taro-wa Hanako-o mesi-o tak-ase-ta  
 Taro-TOP Hanako-ACC meal-ACC cook-CAUSE-PAST  
 ‘Taro let/made Hanako cook the meal’

Based on this fact, Harada (1973) proposes the Double-*o* constraint (henceforth, DoC)<sup>8</sup>

- (15) A derivation is marked as ill-formed if it terminates in a surface structure which contains two occurrences of NPs marked with *o* both of which are immediately dominated by the same VP-node. (Harada 1973:55)

This constraint defines a VP as its application domain. According to Hiraiwa, Harada, then, argues that the improvement of the grammaticality of (13b) in cleft as in (16) is due to the fact that there is only one accusative marked object within the application domain of DoC after cleft (Kuroda 1978, Hiraiwa 2010).

- (16) Keesatsu-ga nigeyoo to si-ta tokoro-o tsukamae-ta no-wa  
 police-NOM run.away.try C Lv-TOP situation-ACC catch-PAST C-TOP  
 doroboo-o da  
 thief-ACC COP  
 ‘It is the thief that the police caught as he tried to run away’

---

<sup>8</sup> A phrase has structural accusative case in Modern Japanese is morphologically realized with a particle *o*. This is how the condition is named after.

## CHAPTER IV

However, the same effect cannot be found in syntactic causative sentences, as in (17).

- (17) \*[Ken-ga sono hon-o yom-ase-ta no]-wa gakusei-o<sub>i</sub> fu-tari<sub>i</sub> da  
Ken-NOM that book-ACC read-CAUSE-PAST C-TOP student-ACC two-CL COP  
'Literally: It is two students that Ken made read the book'  
(Hiraiwa 2010: 21, (65), modified)

Harada (1975) alternatively proposes the Functional Uniqueness Principle as in (18) in order to account for the ungrammaticality of (17), according to Hiraiwa.<sup>9</sup>

- (18) No term of grammatical relation may be represented by more than one constituent, and conversely, no single constituent may bear more than one term of grammatical relation.  
(Harada 1975)

The FUP claims that there must be only one argument that bears a particular grammatical relation. In (11b), two phrases have the same object relation to the causative verb; in other words, the object relation is represented by two phrases, hence the derivation results in ungrammaticality.

There are two cases here; a type of derivation that can be filtered out by the DoC, which is exemplified in (13b), and a type of derivation that cannot be filtered out, or more accurately, is not subject to the DoC, which is the case of causative construction in (14b).

Shibatani (1978) proposes a different version of the DoC, which takes a sentence, or CP as its scope of application.

- (19) There cannot be more than one accusative Case in a sentence. (Shibatani 1978)

It claims that there must be at most one accusative phrase in a sentence. In his monograph, Shibatani (1990) argues that a sentence with two accusative phrases like (20) is grammatical, because there is only one accusative case within the *yoo*-clause 'so as' which is a "sentence" under (19).

---

<sup>9</sup>According to Hiraiwa, it has been suggested in the literature since Harada that this principle can be regarded as an instance of the Projection Principle in P&P theory (Fukui 2000, Poser 2002).

## CHAPTER IV

- (20) Taro-wa [kane-o watasu]-yoo Hanako-o kyoohakusi-ta  
Taro-TOP money-ACC hand-so.as Hanako-ACC threaten-PAST  
'Taro threatened Hanako so as to hand over the money' (Shibatani 1990: 310, (102))

Under this definition, the illicitness of (13b) and (17) is not predicted, since in both sentences, there is only one accusative case within the CP; the *tokoro*-phrase in (13b) is outside of the lower CP but this sentence is grammatical. In the same way, there is only one accusative phrase within CP in (17) and hence it is predicted grammatical under (19), contra the fact.

Hiraiwa (2010) has recently attempted a reanalysis of the DoC under Multiple Cyclic Spell-Out system in Phase theory, which I assume in this chapter (see section 2.2).

### 4.3. Dative Assingment after movement

*Give* verbs and *spray/load* verbs are not compatible with the ACC-ACC case array in their base orders, respectively.

- (21) a. \*Taro-ga Hanako-o hon-o age-ta  
Taro-NOM Hanako-ACC book-ACC give-PAST  
'Literally: Taro gave a book Hanako'  
b. ??Taro-ga kabe-o aopenki-o nut-ta  
Taro-NOM wall-ACC blue.paint-ACC paint-PAST  
'Literally: Taro painted blue paint the wall'

It is impossible for the GOAL (of *give* verbs) and the LOC (of *spray/load* verbs) to be accusative marked. This pattern holds true in a scrambled or clefted sentence with *give* verbs. As in (22a), the accusative-marked GOAL cannot appear in the sentence initial position, whereas in (22b), the same phrase with the same case appears as a focus of a cleft.

- (22) a. \*Sono gakusei-o Taro-ga kossori ano hon-o age-ta  
the student-ACC Taro-NOM secretly that book-ACC give-PAST  
'Literally: That book, Taro secretly gave the student'  
b. \*[Taro-ga hon-o age-ta no ]-wa gakusei-o fu-tari da  
Taro-NOM book-ACC give-PAST C-TOP the student-ACC two-CL COP  
'Literally: It is two students that Taro gave books'

## CHAPTER IV

Contrastively, the accusative-marked LOC can be scrambled, as in (23a), and it can be also a focus of cleft, as in (23b).

- (23) a. ?Sono kabe-o Taro-ga kossori aoi penki-o nut-ta<sup>10</sup>  
 the wall-ACC Taro-NOM secretly blue paint-ACC paint-PAST  
 ‘Literally: Taro secretly painted the wall blue paint’
- b. [Taro-ga enogu-o nut-ta no]-wa osara-o ni-mai da  
 Taro-NOM paint-ACC paint-PAST C-TOP plate-ACC two-CL COP  
 ‘Literally: It is two plates that Taro painted paint’

Therefore, the DP<sub>LOC</sub> of *spray/load* verbs can be accusative-marked under a certain syntactic condition, while the DP<sub>GOAL</sub> of *give* verbs cannot.

Both verbal phrases of *give* verbs can be passive subjects as in (24). Under the assumption that these passives are instances of direct passivization (see 3.3.4), we say that both verbal phrases are assigned the structural accusative/dative case.

- (24) a. Hon-ga<sub>i</sub> sensei-niyotte gakusei-ni san-satu<sub>i</sub> okur-are-ta  
 book-NOM teacher-BY student-DAT three-CL send-PASS-PAST  
 ‘Literally: Books<sub>i</sub>, three<sub>i</sub> were sent to the student by the teacher’
- b. Gakusei-ga<sub>i</sub> sensei-niyotte san-nin<sub>i</sub> hon-o okur-are-ta  
 student-NOM teacher-BY three-CL book-ACC send-PASS-PAST  
 ‘Literally: Students<sub>i</sub>, three<sub>i</sub> were sent books by the teacher’

Similarly, both verbal phrases in *spray/load* constructions can be passivized, as in (25). Assuming that these passives are direct passives, I argue that both phrases have structural Cases.

---

<sup>10</sup> Korean *chilha* behaves similar to Japanese *nuru* in this respect. They allow a multiple accusative scrambling as in (i).

- (i) ?Pyek-ul<sub>i</sub> Chelswu-ka chenzenhi peyintu-lul chilha-ess-ta  
 wall-ACC Chelswu-NOM slowly paint-ACC paint-PAST-DECL  
 ‘Literally: The wall, Chelswe slowly painted paint’

## CHAPTER IV

- (25) a. Osara-ga<sub>i</sub>    gakusei-niyotte    san-mai<sub>i</sub>    aopenki-o    nur-are-ta  
plate-NOM    student-BY    three-CL    blue.paint-ACC    paint-PASS-PAST  
‘Literally: Three plates were painted blue by students’
- b. Aopenki-ga<sub>i</sub>    gakusei-niyotte    sono kabe-ni    ni-kan<sub>i</sub>    nur-are-ta  
blue.paint-NOM    student-BY    the wall-DAT    two-CL    paint-PASS-PAST  
‘Literally: Two cans of blue paint were painted the wall by students’

I have shown that the GOAL of *give* verbs is never associated with accusative Case. It is always associated with Dative Case. On the other hand, the LOC of *spray/load* verbs can be associated with accusative Case and with dative Case. It can be realized with morphological dative case *ni* in the base order. These facts indicate that the LOC of *spray/load* verbs can be associated with accusative Case at some point of the derivation, while it can also be associated with dative Case at some other point of the derivation. In contrast, the GOAL of *give* verbs is always associated with dative Case at any point of the derivation.

Miyagawa (1989) argues that ditransitive verbs (the *give*-type) in Japanese have structural dative Case (the same view has been proposed in Kuno 1973, Ura 2000). Given this, under the assumption of Multiple Agree, i.e., Accusative Case assignment in Japanese takes place within the c-command domain of *v* (Hiraiwa 2010), I argue that the LOC of *spray/load* verbs is assigned (valued) accusative Case in its base position, whereas the GOAL of *give* verbs is assigned dative Case in its base position. We therefore arrive at (26).

### (26) Generalization about Case feature of *give* verbs and *spray/load* verbs

The GOAL of *give* verbs is assigned Dative Case in its base position, while the LOC of *spray/load* verbs is assigned accusative Case.

Under (26), we may ask how dative Case is assigned to the LOC of *spray/load* verbs, if it has been assigned accusative Case in its base position. As shown earlier, this LOC can be marked with morphological dative case *ni* as well. There are two possibilities; (i) the given DP is initially assigned accusative Case and that Case will be reassigned dative later in the derivation; and (ii) there are two independent derivations for the dative-accusative sentence and the double-accusative sentence of *spray/load* verbs. The second assumption is not unreasonable for a language like Korean, since Korean *chilha* can be associated with two different case arrays: the DAT-ACC and ACC-ACC case arrays. If we can prove that dative

## CHAPTER IV

LOC is merged to the identical position where dative GOAL of *give* verbs is merged to its structure (i.e., [Spec, VP<sub>2</sub>]), there might to be a good reason for us to pursue this option. This assumption, however, must be rejected in light of the data in (27). As shown, an alternation of *ni* and *o* on the DP<sub>LOC</sub> does not affect the interpretation of SDs (Secondary Depictives) at all.

- (27) a. Taro-ga      sono osara-ni<sub>i</sub>    **kitanaimama-de**<sub>i</sub>    enogu-o      nut-ta  
Taro-NOM    the plate-DAT    filthy-SD                    paint-ACC    paint-PAST  
'Taro painted paint onto the plate<sub>i</sub> **filthy**<sub>i</sub>'
- b. Taro-ga      sono osara-o<sub>i</sub>    **kitanaimama-de**<sub>i</sub>    enogu-o      nut-ta  
Taro-NOM    the plate-ACC    filthy-SD                    paint-ACC    paint-PAST  
'Literally: Taro painted paint the plate<sub>i</sub> **filthy**<sub>i</sub>'

If dative DP<sub>LOC</sub> of *spray/load* verbs is linked to [Spec, VP<sub>2</sub>], we should expect it to be excluded from the predication of SDs under the condition that I have proposed (see 3.3.4 or 3.5). But this contradicts the fact. In this situation, we opt for the second assumption insofar as the DP<sub>LOC</sub> can be accusative-marked.

### (28) **The hypothesis for the Dative Assignment by ditransitive verbs** (to be modified)

The LOC of *spray/load* verbs is initially valued as Accusative Case and assigned Dative Case at some point in the derivation, whereas the GOAL of *give* verbs is Dative valued in situ.

Under (28), there are two possibilities with respect to *spray/load* verbs; one hypothesis is that dative Case on the DP LOC is assigned Dative Case in situ; and the other is that Dative Case is assigned to the DP at some other position. I show that the second hypothesis is correct. The LOC of *spray/load* verbs is assigned Dative Case after movement, with two pieces of evidence from the distribution of the manner adverb and the licensing of the Negative Polarity Items (henceforth, NPIs) of the indeterminate words.

## CHAPTER IV

### 4.3.1 Manner adverb distribution

First, compare the pair of sentences in (29). As we see (29a), where the GOAL of *spray/load* verbs is marked with *o* and appears lower than the manner adverb *fude-de* ‘by brush’, is more acceptable than (29b) where the GOAL is marked with *ni* at the same position.<sup>11</sup>

- (29) a. ?Sono toogei sakka-wa fude-de osara-o enogu-ø nut-ta  
that potter-TOP brush-with plate-ACC paint-ø paint-PAST  
‘The potter painted paint onto the plate with a brush’  
b. ??Sono toogei sakka-wa fude-de osara-ni enogu-ø nut-ta  
that potter-TOP brush-with plate-DAT paint-ø paint-PAST  
‘The potter painted paint onto the plate with a brush’

The same pattern is observable with other verbs in the same class. The sentences in (30) involve the verb *umeru* ‘fill.in’; and those in (31) include the verb *tsumeru* ‘pack’.

- (30) a. Sono gakusei-wa pen-de kaitoyousi-o namae-ø ume-ta  
that student-TOP pen-with exam.paper-ACC name-ø fill.in-PAST  
‘Literally: The student filled in only (his/her) name the exam.paper(ACC)  
with a pen’  
b. ??Sono gakusei-wa pen-de kaitoyousi-ni namae-ø ume-ta  
that student-TOP pen-with exam.paper-DAT name-ø fill.in-PAST  
‘The student filled in only (his/her) name the exam.paper(DAT) with a pen’
- (31) a. Sono teninn-wa gissiri kibako-o ringo-ø tsume-ta  
that clerk-TOP closely wooden.box-ACC apple-ø pack-PAST  
‘The clerk closely packed only apples the wooden box(ACC)’  
b. ??Sono teninn-wa gissiri kibako-ni ringo-ø tsume-ta  
that clerk-TOP closely wooden.box-DAT apple-ø pack-PAST  
‘The clerk closely packed only apples into the wooden box(DAT)’

---

<sup>11</sup> I dropped accusative markers on the THEME *enogu* ‘paint’ in these sentences, because the original sentences involve an effect of the DoC violation and cannot be tested. Dropping one of accusative markers is called the PF DoC salvation strategy, which alleviates the effect of DoC violation (see Hiraiwa 2010 for details about the given salvation strategy).

## CHAPTER IV

From the data above, we can say that the LOC of *spray/load* verbs is assigned dative Case at a position somewhere higher than the manner adverb.

Next compare the grammaticality in (32). A sentence in which the dative-marked LOC of *spray/load* verbs appears lower than the manner adverb is less grammatical than a sentence where the same LOC appears higher than the manner adverb. The same holds true with the verb *umeru* as in (33) and *tsumeru* as in (34).

- (32) a. ??Sono toogei sakka-wa fude-de osara-ni enogu-o nut-ta  
that potter-TOP brush-with plate-DAT paint-ACC paint-PAST  
'The potter painted paint onto the plate(DAT) with a brush'
- b. Sono toogei sakka-wa osara-ni fude-de enogu-o nut-ta  
that potter-TOP plate-DAT brush-with paint-ACC paint-PAST  
'The potter painted paint onto the plate(DAT) with a brush'

- (33) a. ??Sono gakusei-wa pen-de kaitouyousi-ni kaitou-o ume-ta  
that student-TOP pen-with exam.paper-DAT answer-ACC fill.in-PAST  
'Literally: The student filled in answers the exam.paper(DAT) with a pen'
- b. Sono gakusei-wa kaitouyousi-ni pen-de kaitou-o ume-ta  
that student-TOP exam.paper-DAT pen-with answer-ACC fill.in-PAST  
'Literally: The student filled in answers the exam.paper(DAT) with a pen'

- (34) a. ??Sono teninn-wa gissiri kibako-ni ringo-o tsume-ta  
that clerk-TOP closely wooden.box-DAT apple-ACC pack-PAST  
'The clerk closely packed only apples into the wooden box(DAT)'
- b. Sono teninn-wa kibako-ni gissiri ringo-o tsume-ta  
that clerk-TOP wooden.box-DAT closely apple-ACC pack-PAST  
'The clerk closely packed only apples into the wooden box(DAT)'

From the above facts, we can say that the LOC of *spray/load* verbs is assigned dative Case at a position higher than the manner adverb. In contrast, in (35), since a sentence where the GOAL of *give* verbs occurs in a position lower than the manner adverb is more grammatical than a sentence where the GOAL occurs higher than the adverb, we say that the GOAL is assigned dative Case at the lower position of the manner adverb.

## CHAPTER IV

- (35) a. Sono sakka-wa sokutatsu-de syuppansya-ni genkou-o okut-ta  
that writer-TOP special.delivery-by publisher-DAT draft-ACC send-PAST  
'The writer sent a draft to the publisher(DAT) by special delivery'
- b. ?Sono sakka-wa syuppansya-ni sokutatsu-de genkou-o okut-ta  
that writer-TOP publisher-DAT special.delivery-by draft-ACC send-PAST  
'The writer sent a draft to the publisher(DAT) by special delivery'

The following examples show the same point:

- (36) a. Sono jyosei-wa osara-de jyousi-ni chokoreeto-o age-ta  
that girl-TOP plate-by boss-DAT chocolate-ACC give-PAST  
'The girl gave chocolate to her boss(DAT) on a plate'
- b. ??Sono jyosei-wa jyousi-ni osara-de chokoreeto-o age-ta  
that girl-TOP boss-DAT plate-by chocolate-ACC give-PAST  
'The girl gave chocolate to her boss(DAT) on a plate'
- (37) a. Sono sensei-wa iimeeru-de Taro-ni sono suusiki-o  
that teacher-NOM email-by Taro-DAT that numerical.formula-ACC  
osie-ta  
teach-PAST  
'The teacher taught the numerical formula to Taro (DAT) by email'
- b. ?Sono sensei-wa Taro-ni iimeeru-de sono suusiki-o  
that teacher-NOM Taro-DAT email-by that numerical.formula-ACC  
osie-ta  
teach-PAST  
'The teacher taught the numerical formula to Taro (DAT) by email'

Based on these facts, I argue that the position where the LOC of *spray/load* verbs is assigned dative Case is somewhere higher than the manner adverb, while the GOAL of *give* verbs is assigned dative Case somewhere lower than the manner adverb.

## CHAPTER IV

### (38) **The hypothesis for the Dative Assignment by ditransitive verbs** (to be modified)

The DP<sub>LOC</sub> of *spray/load* verbs obtains Dative at somewhere higher than the manner adverb, while the DP<sub>GOAL</sub> of *give* verbs obtains Dative at somewhere lower than the manner adverb.

The manner adverb in Japanese attaches to the left edge of VP (Miyagawa 1989, Ura 2000). The base position of the DP<sub>GOAL</sub> is [Spec, VP<sub>2</sub>]. This assumption and (38) leads us to (39).

### (39) **The hypothesis for the Dative Assignment by ditransitive verbs** (to be modified)

The DP<sub>LOC</sub> of *spray/load* verbs is assigned accusative Case inside of VP and is assigned dative Case outside of VP at a higher position than the manner adverb; the DP<sub>GOAL</sub> of *give* verbs is assigned dative Case inside of VP<sub>2</sub>.

## 4.3.2 Indeterminate pronoun binding

It has been proposed that indeterminate NPs in Japanese, e.g., *dare* ‘who’, *nani* ‘what’, *doko* ‘where’ can form Negative Polarity Items (henceforth, NPI) when it is combined with a quantificational particle *mo* ‘also’ (Kuroda 1965b, Kishimoto 2001a, Sakai, Ivana, and Zhang 2004, Hiraiwa 2005; 2006a). In (40a), the indeterminate subject NP *dare* ‘who’ plus the particle *mo* ‘also’ can be interpreted as an NPI, and in (40b), the indeterminate accusative object NP *nani* ‘what’ and *mo* can be interpreted as an NPI.

- (40) a. Dare-mo sono hon-o kawa-nakat-ta  
who-also the book-ACC buy-NEG-PAST  
‘No one bought that book’
- b. Taro-wa nani-mo kawa-nakat-ta  
Taro-TOP what-also buy-NEG-PAST  
‘Taro didn’t buy anything’ (Kishimoto 2001a: 598, (1), modified)

Kuroda (1965b) points out that an NPI interpretation is licensed even when an indeterminate NP is separated from the particle. In (41), the indeterminate object NP *nani* forms an NPI with *mo*, which is attached to the verb infinitive *kau-*. In this case, the light verb *sur* ‘do’ is inserted to carry the tense (i.e., this process is parallel to *do*-support in English).

## CHAPTER IV

- (41) Taro-wa nani-o kai-mo-si-nakat-ta  
Taro-TOP what-ACC buy-also-LV-NEG-PAST  
'Taro didn't buy anything'

Kishimoto (2001a) takes the licensing of an NPI of Indeterminate Pronouns (henceforth, IPs) as evidence for the proposal that Japanese Case-licensing must be implemented at LF not in syntax, arguing against Chomsky (2000; 2001). He proposes the LF m-command condition for a licensing an NPI of IPs:

- (42) Y is in the domain of a head X if it is contained in Max(X), where Max(X) is the least full-category maximal projection dominating X. (Kishimoto 2001a: 606)

As shown in (43a), the nominative-marked IP and the floated *mo* cannot be interpreted as an NPI, while other VP-internal accusative- or dative-indeterminate words (e.g., (43b)) and VP-internal adjunct indeterminate words (e.g., (43c)) and *mo* can form NPIs, respectively.

- (43) a. \*Dare-ga sono hon-o yomi-mo-si-nakat-ta  
who-NOM that book-ACC read-also-LV-NEG-PAST  
'No one read that book'
- b. Taro-wa dare-ni presento-o age-mo-si-nakat-ta  
Taro-TOP who-DAT present-ACC give-also-LV-NEG-PAST  
'Taro didn't give a present to anyone'
- c. Taro-wa dono-naifu-de niku-o kiri-mo-si-nakat-ta<sup>12</sup>  
Taro-TOP which-knife-with meat-ACC cut-also-LV-NEG-PAST  
'Taro didn't cut meat with any knife'

Kishimoto argues a subject IP and *mo* is not interpreted as an NPI in (43a), because this IP is not bound by *mo* when it moves to [Spec, TP] for nominative Case checking at LF. On the other hand, under (42), Kishimoto argues that accusative Case checking is implemented at [Spec, vP], and this is why the object IP and VP-attaching adverb IPs can be interpreted as an NPI with *mo* because both can be in the m-command domain of *v* at LF.

---

<sup>12</sup> This sentence is not perfectly grammatical according to my intuitions.

## CHAPTER IV

Crucial evidence to Kishimoto's argument for the NPI licensing is in the nominative object construction. The nominative object construction in Japanese is a sentence in which a thematic object of a transitive verb is assigned nominative Case when the verb is compounded with a potential morpheme *e* 'can/able.to' as given in (44a). In this sentence, it is possible for the full DP object *sono uta* 'that song' to be interpreted as a NPI when it is either nominative-marked or accusative-marked, while the object IP *nani* cannot be interpreted as an NPI with *mo* that is attached to the verb infinitive if it is nominative-marked. On the other hand, when it is accusative-marked, the given NPI interpretation can be obtained.

- (44) a. Taro-wa    sono uta{-ga/-o}            uta-e-nai  
      Taro-TOP   that song{-NOM/-ACC}    sing-able.to-NEG  
      'Taro cannot sing that song'
- b. Taro-wa    nani{\* -ga/-o}            uta-e-mo-si-nai  
      Taro-TOP   what{-NOM/ACC}    sing-able.to-also-LV-NEG  
      'Taro cannot sing any (song)'

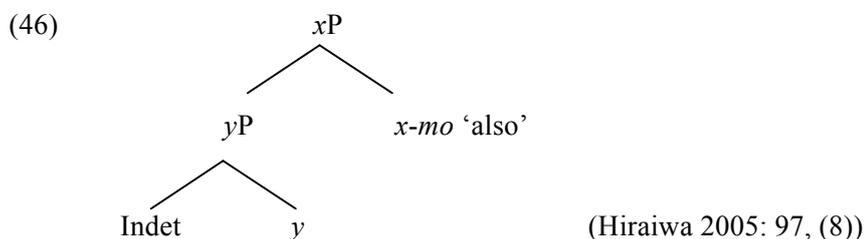
On a basis of this fact, Kishimoto proposes that Nominative Case licensing must be implemented at LF under the spec-head relation at [Spec, TP]. Under this account, the nominative-marked IP object cannot form an NPI with *mo*, because it is outside of the scope of *mo* when it is assigned nominative Case. In contrast, the accusative-marked object IP is interpreted as an NPI with *mo*, since the given IP is inside of the scope of *mo* when it is assigned accusative Case at LF.

Hiraiwa (2005; 2006a), however, counter-argues Kishimoto's proposal about LF Case-licensing mechanism and proposes that IPs can be interpreted as an NPI iff it is included within the c-command domain of *mo* in syntax. Crucial evidence of this counter-argument comes from NPI licensing in subject-object raising constructions (NB. It is well-established that Japanese has raising over the CP boundary, in contrast to English (Kuno 1978, Hiraiwa 2006a)). In (45), both the nominative-marked embedded IPs (i.e., the subject of the embedded clause) and the accusative-marked IPs can form NPIs when *mo* is attached to C.

## CHAPTER IV

- (45) a. Boku-wa [<sub>CP</sub> dare-ga oroka-da-to]-mo omowa-nakat-ta  
 I-TOP who-NOM stupid-T-C-also think-NEG-PAST  
 ‘I didn’t think anyone was stupid’
- b. Boku-wa [<sub>CP</sub> dare-o oroka-da-to]-mo omowa-nakat-ta  
 I-TOP who-ACC stupid-T-C-also think-NEG-PAST

(45b) is the crucial evidence. This fact cannot be predicted under Kishimoto’s proposal. Under Kishimoto’s account, Case-licensing is implemented under the specifier-head relation, the licensing of accusative Case on the indeterminate NP *dare* ‘who’ in this sentence must be implemented at the specifier of the matrix verb *omou* ‘think’ (i.e., at [Spec, *v*P]). Given this, the given accusative-IP *dare* ought not to be interpreted as an NPI with *mo*. *Mo* is attached to C and the IP is outside of the scope of *mo* at LF when accusative Case is checked off. However, the fact is opposite as in (45b). From this fact, Hiraiwa argues that NPI licensing of the indeterminate word is independent of the Case licensing; what is relevant is the PF spell-out configuration such that *mo* c-commands the indeterminate NPs in syntax. *Indet* in (46) represents indeterminate NPs.



Following Hiraiwa’s condition of the NPI licensing of IPs, I will show that my hypothesis in (39) is correct from the evidence of the NPI interpretation of the indeterminate GOAL of *give* verbs and that of the LOC of *spray/load* verbs.

From the c-command condition of the formation of NPI and the general assumption that the nominative phrase in Japanese is spelled out to the specifier of T (Hiraiwa 2010), we expect that the nominative IPs of these two verbs do not form the NPI with respect to *mo*, which is attached to the verb infinitive. As in (47), this expectation is borne out. I also assume that the particle *mo* is attached onto the light verb, following Kishimoto (2001a) and Hiraiwa (2005; 2006a).

## CHAPTER IV

- (47) a. \*Dare-ga kabe-ni penki-o nuri-mo-si-naka-ta  
 who-NOM wall-DAT paint-ACC paint-also-LV-NEG-PAST  
 ‘No one painted paint onto the wall’
- b. \*Dare-ga Taro-ni hon-o okuri-mo-si-naka-ta  
 who-NOM Taro-DAT book-ACC send-also-LV-NEG-PAST  
 ‘No one sent a book to Taro’

Under the same condition of the NPI licensing and the general assumption that the accusative-marked DP is spelled out within VP (Hiraiwa 2010), the indeterminate complement NP of both types of verbs can form an NPI with respect to the quantificational *mo* being attached to the verb infinitive, as in (48). As expected, the both sentences in (48) induce the NPI interpretation.

- (48) a. Sono daiku-wa kabe-ni nani-o nuri-mo-si-naka-ta  
 the painter-TOP wall-DAT what-ACC paint-also-LV-NEG-PAST  
 ‘The painter didn’t paint anything onto the wall’
- b. Sono sensei-wa Taro-ni nani-o okuri-mo-si-naka-ta  
 the teacher-NOM Taro-DAT what-ACC send-also-LV-NEG-PAST  
 ‘The teacher didn’t send anything to Taro’

When the indeterminate LOC IP is accusative marked as in (49), it tends to form an NPI with respect to *mo* more naturally, in contrast to the indeterminate LOC IP that is dative-marked.

- (49) a. Sono daiku-wa doko-o penki- $\emptyset$  nuri-mo-si-naka-ta<sup>13</sup>  
 the painter-TOP where-ACC paint- $\emptyset$  paint-also-LV-NEG-PAST  
 ‘The painter didn’t paint paint anywhere(ACC)’
- b. ??Sono daiku-wa doko-ni penki- $\emptyset$  nuri-mo-si-naka-ta  
 the painter-TOP where-DAT paint- $\emptyset$  paint-also-LV-NEG-PAST  
 ‘The painter didn’t paint paint anywhere(DAT)’

---

<sup>13</sup> This is the same PF salvation strategy of the DoC violation in the footnote 12; it is possible to simply drop the case marker, which prevents a sentence from having the effect of the DoC violation.

## CHAPTER IV

This difference is predicted from my hypothesis in conjunction with the c-command condition of indeterminate pronoun binding. This is because when the LOC argument is marked with *o*, it is expected that the given argument is lower than the manner adverb, i.e., it is inside of VP. The indeterminate NP can form an NPI from that position with respect to *mo*, which is attached to the light verb *v*. On the other hand, when the LOC argument is marked with *ni*, it is expected the given argument to be higher than the manner adverb, i.e., it is outside of VP. If *mo* is attached to the light verb, this position is outside of the c-command domain of *mo* and hence no NPI interpretation is induced from this configuration. Other verbs in the *spray/load* class exhibit the same contrast.

- (50) a. \*Dare-ga sono kaitouran-ni kotae-o ume-mo-si-nakat-ta  
who-NOM that blank-DAT answer-ACC fill.in-also-LV-NEG-PAST  
'No one didn't fill in answers in the blank'
- b. Sono gakusei-wa kaitouran-ni nani-o ume-mo-si-nakat-ta  
that student-TOP blank-DAT what-ACC fill.in-also-LV-NEG-PAST  
'The student didn't fill in anything in the blank'
- c. Sono gakusei-wa dono kaitouran-o kotae-ø ume-mo-si-nakat-ta  
that student-TOP which.blank-ACC answer-ø fill.in-also-LV-NEG-PAST  
'The student didn't fill in answers in any blank(ACC)'
- d. ??Sono gakusei-wa dono kaitouran-ni kotae-ø ume-mo-si-nakat-ta  
that student-TOP which.blank-DAT answer-ø fill.in-also-LV-NEG-PAST  
'That student didn't fill in answers in any blank(DAT)'
- (51) a. \*Dare-ga dono hako-ni syouhin-o tsume-mo-si-nakat-ta  
who-NOM which box-DAT product-ACC pack-also-LV-NEG-PAST  
'No one packed products anywhere'
- b. Sono teninn-wa hako-ni nani-o tsume-mo-si-nakat-ta  
the clerk-NOM box-DAT what-ACC pack-also-LV-NEG-PAST  
'The clerk didn't pack anything in the box'
- c. Sono teninn-wa dono hako-o syouhin-ø tsume-mo-si-nakat-ta  
that clerk-TOP which box-ACC product-ø pack-also-LV-NEG-PAST  
'That clerk didn't pack products anywhere(ACC)'

## CHAPTER IV

- d. ??Sono teninn-wa dono hako-ni syouhin-ø tsume-mo-si-nakat-ta  
 that clerk-TOP which box-DAT product-ø pack-also-LV-NEG-PAST  
 ‘The clerk didn’t pack products anywhere(DAT)’

I have hypothesized that the GOAL argument of *give* verbs is assigned dative Case at the position lower than the manner adverb within VP. Given this, we expect the indeterminate GOAL to be bound by the quantificational *mo* in that position because VP is the c-command domain of *mo*, and hence the sentence must induce an NPI interpretation. The grammatical contrast in (52) shows that these assumption is correct. As shown in (52a), although the judgment is delicate, an NPI interpretation of dative indeterminate NP *doko* ‘where’ and *mo* in a *spray/load* sentence is less grammatical than an NPI interpretation of *dare* ‘who’ and *mo* in a *give* sentence as in (52b).

- (52) a. ??Sono daiku-wa doko-ni penki-o nuri-mo-si-naka-ta  
 the painter-TOP where-DAT paint-ACC paint-also-LV-NEG-PAST  
 ‘The painter didn’t paint paint anywhere(DAT)’  
 b. Sono sensei-wa dare-ni hon-o okuri-mo-si-naka-ta  
 the teacher-NOM who-DAT book-ACC send-also-LV-NEG-PAST  
 ‘The teacher didn’t send a book to anyone(DAT)’

Other verbs belong to the same class (i.e., the *give* class) patterns with (52b), which further confirms that my hypothesis is correct. Specifically, with these verbs, the *ni*-marked argument, which I have argued on independent grounds to be in a lower position (the manner adverb distribution), can be an NPI.

- (53) a. \*Dare-ga dono syuppansya-ni genkou-o okuri-mo-si-nakat-ta  
 who-NOM which.publisher-DAT draft-ACC send-also-LV-NEG-PAST  
 ‘No one sent a draft to any publisher’  
 b. Sono sakka-wa A-syuppan-ni nani-o okuri-mo-si-nakat-ta  
 the writer-NOM A-publisher-DAT what-ACC send-also-LV-NEG-PAST  
 ‘The writer didn’t send anything to A-publisher’  
 c. Sono sakka-wa dono syuppansya-ni genkou-o okuri-mo-si-nakat-ta  
 the writer-NOM which.publisher-DAT draft-ACC send-also-LV-NEG-PAST  
 ‘The writer didn’t send a draft to any publisher(DAT)’

## CHAPTER IV

- (54) a. \*Dare-ga Taro-ni sono suusiki-o osie-mo-si-nakat-ta  
who-NOM Taro-DAT that numerical formula-ACC teach-also-LV-NEG-PAST  
'No one teach the numerical formula to Taro'
- b. Sono sensei-wa Taro-ni nani-o osie-mo-si-nakat-ta  
that teacher-TOP Taro-DAT what-ACC teach-also-LV-NEG-PAST  
'The teacher didn't teach anything to Taro'
- c. Sono sensei-wa dare-ni sono suusiki-o  
that teacher-NOM who-DAT that numerical formula-ACC  
osie-mo-si-nakat-ta  
teach-also-LV-NEG-PAST  
'The teacher didn't teach the numerical formula to anyone(DAT)'

These facts are not predicted under the assumption that the dative case licensing of the LOC argument (of *spray/load* verbs) is implemented in the same way as the GOAL argument (of *give* verbs) is. Especially, if we assume that accusative Case of LOC argument of *spray/load* verbs alternate with dative Case in situ within VP, we would not expect the grammaticality contrast of two types of verbs observed above in the distribution of the manner adverb or the NPI interpretation of indeterminate words.

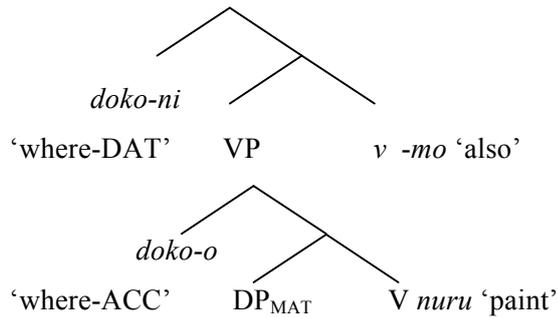
To sum up the discussion:

- (55) LOC argument (of *spray/load* verbs) is within the scope of *mo* when it is marked with *o*, while it is not of, when it is marked with *ni*; GOAL argument (of *give* verbs) is always within the scope of *mo*.

Kishimoto (2001a) and Hiraiwa (2006a) argue that *mo* is attached to the light verb *v* in syntax. Following this assumption, under the c-command condition of NPI licensing of IP, I propose a structure like (56) for *spray/load* verbs.

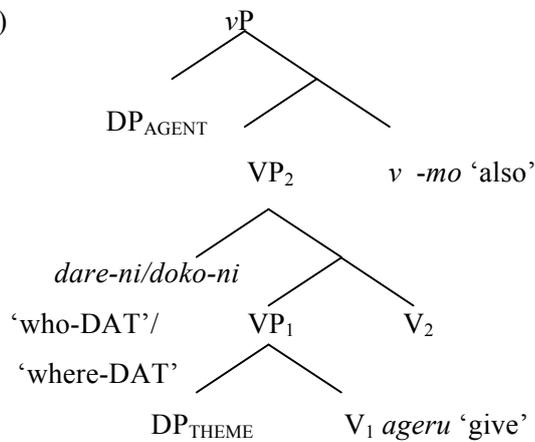
CHAPTER IV

(56)



I assume that the vP-internal adverb is attached onto the left edge of the VP, following Ura (2000). Under these assumptions, the dative-marked indeterminate NP must be outside of the c-command domain of *mo*, and hence it cannot form an NPI with respect to *mo* in the configuration in (56). On the other hand, the accusative-marked indeterminate NP must be within the c-command domain of *mo*, and hence it can form an NPI with the particle. I also propose a configuration for the NPI licensing in the *give* VP as in (57). In this configuration, the indeterminate GOAL stays within the scope of *mo*. This is why it can form an NPI with respect to *mo*.

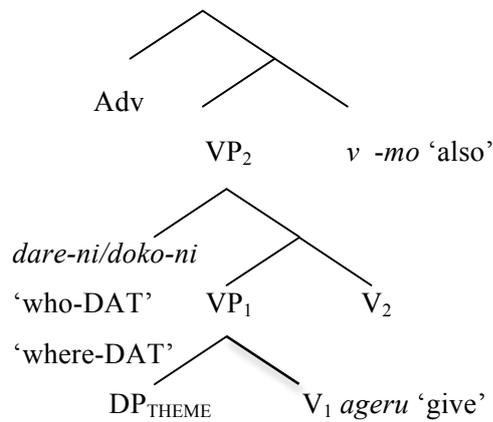
(57)



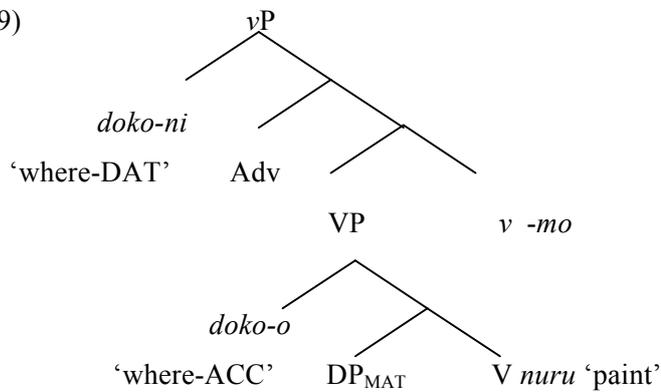
Under my assumptions, we have the following configuration that represents the attachment site of vP-internal adverb in the *give* and the *spray/load* structures, respectively:

CHAPTER IV

(58)



(59)



If my analysis is correct, it is expected that an NPI interpretation of the indeterminate GOAL in *give* sentences is not affected by an insertion of the manner adverb, because GOAL always stays within the domain of *mo*. Contrastively, in the case of *spray/load* sentence, when the LOC indeterminate word is accusative-marked, we should expect the NPI interpretation to be obtained since this LOC is within the c-command domain of *mo*, similar to the *give* case. However, when the LOC indeterminate word is dative-marked, it should not form an NPI with *mo*, since the indeterminate word is outside of the c-command domain of *mo*; when the given argument is dative-marked, it is located higher than the manner adverb. As shown in (60), our first expectation is borne out. The indeterminate GOAL argument that is lower than the manner adverb can form an NPI with respect to *mo*.

- (60) a. Sono jyosei-wa osara-de dare-ni chokoreeto-o age-mo-si-nakat-ta  
 that girl-TOP plate-by who-DAT chocolate-ACC give-also-LV-NEG-PAST  
 'The girl didn't give chocolate to anyone(DAT) on a plate'

## CHAPTER IV

- b. Sono sakka-wa sokutatu-de doko-ni genkou-o  
 that writer-TOP special.delivery-by where-DAT draft-ACC  
 okuri-mo-si-nakat-ta  
 send-also-LV-NEG-PAST  
 ‘The writer didn’t send a draft to anywhere(DAT) by special delivery’
- c. Sono sensei-wa teineini dare-ni sono suusiki-o  
 that teacher-NOM explicitly who-DAT that numerical formula-ACC  
 osie-mo-si-nakat-ta  
 teach-also-LV-NEG-PAST  
 ‘The teacher didn’t teach the numerical formula to anyone(DAT) at the class’

Our second expectation is also borne out as shown in (61) to (63). When the indeterminate LOC argument is marked with *o*, the argument can form an NPI with respect to *mo*, which is attached to the verb infinitive. On the other hand, the dative-marked indeterminate LOC argument cannot form an NPI with respect to *mo*.

- (61) a. Sono toogei-sakka-wa fude-de doko-o enogu- $\emptyset$  nuri-mo-si-nakat-ta  
 that potter-TOP brush-with where-ACC paint- $\emptyset$  paint-also-LV-NEG-PAST  
 ‘The potter didn’t paint anywhere(ACC) with a brush’
- b. ??Sono toogei-sakka-wa fude-de doko-ni enogu- $\emptyset$   
 that potter-TOP brush-with where-DAT paint- $\emptyset$   
 nuri-mo-si-nakat-ta  
 paint-also-LV-NEG-PAST  
 ‘The potter didn’t paint anywhere(DAT) with a brush’
- (62) a. Sono gakusei-wa pen-de dono kaitouran-o kotae- $\emptyset$   
 that student-TOP pen-with which.blank-ACC answer- $\emptyset$   
 ume-mo-si-nakat-ta  
 fill.in-also-LV-NEG-PAST  
 ‘The student didn’t fill in answers in any blank(ACC) with a pen’

## CHAPTER IV

b. ??Sono gakusei-wa pen-de dono kaitouran-ni kotae-ø  
that student-TOP pen-with which.blank-DAT answer-ø  
ume-mo-si-nakat-ta  
fill.in-also-LV-NEG-PAST  
'The student didn't fill in answers in any blank(DAT) with a pen'

(63) a. Sono teninn-wa gissiri dono hako-o ringo-ø  
that clerk-TOP closely which box-ACC apple-ø  
tsume-mo-si-nakat-ta  
pack-also-LV-NEG-PAST  
'The clerk didn't closely pack apples anywhere(ACC)'

b. ??/\*Sono teninn-wa gissiri dono hako-ni ringo-ø  
that clerk-TOP closely which box-DAT apple-ø  
tsume-mo-si-nakat-ta  
pack-also-LV-NEG-PAST  
'The clerk didn't closely pack apples anywhere(DAT)'

When all three indeterminate words (i.e., the indeterminate GOAL, the indeterminate LOC(ACC) and the indeterminate LOC(DAT)) are scrambled over the manner adverb, we should expect that they all fail to license an NPI interpretation with respect to *mo*. This is because they do not satisfy the c-command condition of the NPI licensing of the indeterminate words. The following data show that our prediction is borne out:

(64) a. ??/\*Sono jyosei-wa dare-ni osara-de chokoreeto-o age-mo-si-nakat-ta<sup>14</sup>  
that girl-TOP who-DAT plate-AT chocolate-ACC give-also-LV-NEG-PAST  
'The girl didn't give chocolate to anyone(DAT) on a plate'

---

<sup>14</sup> Some informants allow the NPI interpretation in these word orders. Although Kishimoto (2001a) and Hiraiwa (2005; 2006a) discuss the fact that the NPI licensing of IPs is irrelevant to the reconstruction effect, these facts seem to be counter-evidence to this proposal. However, I leave the issue open for the future research.

## CHAPTER IV

b. ??/\*Sono sakka-wa doko-ni sokutatu-de genkou-o  
that writer-TOP where-DAT special.delivery-by draft-ACC  
okuri-mo-si-nakat-ta  
send-also-LV-NEG-PAST  
'The writer didn't send a draft to anywhere(DAT) by special delivery'

(65) a. \*Sono toogei-sakka-wa doko-o fude-de enogu-o  
that potter-TOP where-ACC brush-with paint-ACC  
nuri-mo-si-nakat-ta  
paint-also-LV-NEG-PAST  
'The potter didn't paint paint anywhere(ACC) with a brush'

b. \*Sono gakusei-wa dono kaitouran-o pen-de kotae-o  
that student-TOP which.blank-ACC pen-with answer-ACC  
ume-mo-si-nakat-ta  
fill.in-also-LV-NEG-PAST  
'The student didn't fill in answers in any blank with a pen'

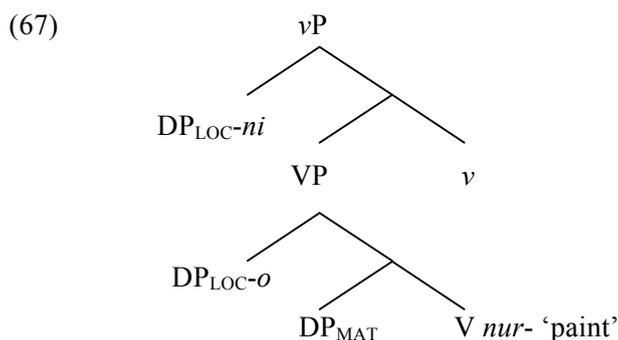
(66) a. \*Sono toogei-sakka-wa doko-ni fude-de enogu-o  
that potter-TOP where-DAT brush-with paint-ACC  
nuri-mo-si-nakat-ta  
paint-also-LV-NEG-PAST  
'The potter didn't paint paint anywhere(DAT) with a brush'

b. \*Sono gakusei-wa dono kaitouran-ni pen-de kotae-o  
that student-TOP which.blank-DAT pen-with answer-ACC  
ume-mo-si-nakat-ta  
fill.in-also-LV-NEG-PAST  
'The student didn't fill in answers in any blank with a pen'

I conclude that these data further confirm that my hypothesis for the Dative Assignment by ditransitive verbs in (39) is independently motivated.

We have a tree like (67) for *spray/load* verbs.

## CHAPTER IV



In (67), the DP<sub>LOC</sub> is merged to the specifier of VP and moves out of the VP, leaving a copy inside VP. Let us assume that the copy is not pronounced in PF but interpreted in LF, following the copy theory (Chomsky 1995). As discussed with (27), the LOC argument of *spray/load* verbs can be a subject of an SD regardless of its morphological case. Under this analysis, this fact is accounted for by (67) in conjunction with the given assumption. The copy of the moved DP licenses a predication of an SD and the moved DP<sub>LOC</sub>.

For these reasons, I propose (68) for Dative Case Assignment in *spray/load* construction.

**(68) Dative Case Assignment** (by ditransitive verbs) (to be modified)

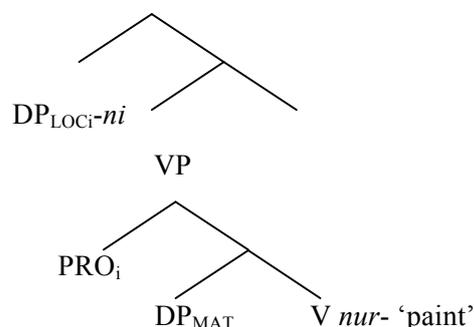
The LOC of *spray/load* verbs is assigned Dative Case after Movement, whereas the GOAL of *give* verbs is assigned Dative in situ.

It is widely known that Japanese is a radical *pro*-drop language (Heycock 1993, among others); namely it is not necessary for an argument to be overtly realized, if it is recoverable from the context. There are at least three empty categories in the syntax of Japanese; copy, *pro* and PRO (Saito and Murasugi 1998). Given this, we wonder it might be a case that there is no movement at all in (67) and the position that is occupied by the copy of DP<sub>LOC</sub> must be filled up with *pro* or PRO. This analysis seems to accord with *ni*-insertion analysis observed in section 4.2.1. Suppose that the LOC is merged outside of VP which is an ungoverned position, and hence *ni* can be inserted after the DP (Takezawa 1987), although it is quite hard to argue that the LOC is a subject (i.e., because it tends to be an inanimate entity). However, [Spec, VP] is assumed as the “subject” position in the VP-internal subject hypothesis. From the consideration of this assumption, this way of extending

## CHAPTER IV

the assumption may not be so unreasonable. We ignore the fact about the case alternation for a while.

(69)



Under this analysis, the  $DP_{LOC}$  has no thematic relation with VP at all. The advantage of this analysis is that no needs to stipulate movement, which is costly (section 2.1). However, I argue that this hypothesis is hard to maintain. The evidence comes from the scope ambiguity of *spray/load* constructions: a quantified phrase *dake* ‘only’ can take both wide and narrow scope with respect to the potential verb *eru* ‘can’.

The potential predicate in Japanese is formed by attaching the potential affix *eru* to the lexical verb (e.g., *tsumur-e-ru* ‘close-able.to-PRES’).<sup>15</sup> This is a nominative object construction in which the thematic object is marked with the nominative marker *ga* (Kuno 1973, Sano 1985, Tada 1992, Koizumi 1995, Takano 2003, among others) that we have observed earlier (see 4.3.1.2).

(70) John-wa            migime-o/ga            tumur-e-ru  
       John-TOP        right.eye-ACC/NOM    close-able.to-PRES  
       ‘John can close his right eye’

Tada (1992) argues that when the thematic object of the potential verb is quantified with *dake* ‘only’, there are two readings that are associated with the construction: one is a narrow

<sup>15</sup> The literature of the construction can be divided into two major groups: the non-reanalysis approach (Takezawa 1987, Tada 1992, Koizumi 1995, among others) and the reanalysis approach (Kuno 1973, Sugioka 1984). Both approaches assume that the bi-clausal analysis of the predicate; hence the potential affix is a verb which embeds the lexical verb. The former approach proposes that this bi-clausal structure is retained throughout the derivation, whereas the latter view claims that the base bi-clausal structure collapses into one at a certain stage of derivation. I argue in favor for the former view without any discussion.

## CHAPTER IV

scope reading that obtains under that the potential verb scopes over the quantifier (i.e., *can* > *only*) as in (71a), and the other one is a wide scope reading that obtains under that the quantifier scopes over the potential verb (i.e., *only* > *can*) as in (71b).

- (71) John-wa migime-dake-o tumur-e-ru  
 John-TOP right.eyel-only-ACC close-able.to-PRES  
 ‘John can close only his right eye’  
 a. *can* > *only* (John can wink only his right eye)  
 b. ?/\**only* > *can* (It is only his right eye that he can close)<sup>16</sup>

- (72) John-wa migime-dake-ga tumur-e-ru  
 John-TOP right.eyel-only-NOM close-able.to-PRES  
 a. \**can* > *only*  
 b. *only* > *can*

Tada observes that the narrow scope reading such that John can wink only his right eye is (*only*) available when the thematic object is accusative-marked as in (71), whereas the wide scope reading obtains only when the thematic object is nominative-marked as in (72). The latter reading presupposes in particular that John may be blind in his left eye; hence he can close only his right eye. Based on this observation, Tada claims that the thematic object of the potential construction stays within the embedded clause when it is accusative-marked, whereas it moves out of the base position when it is nominative-marked.<sup>17</sup>

The scope of *only* and *can* in the *spray/load* construction is ambiguous when the DP<sub>LOC</sub> is quantified with *dake*. Consider (73), where a joiner has asked to repair and paint chairs in an office.

- (73) Sono daikusan-wa [isu-no asi]-dake-ni penki-o nur-e-ru  
 that joiner-TOP [chair-GEN leg]-only-DAT paint-ACC paint-able.to-PRES  
 a. *only* > *can* ‘It is only onto the legs of the chair that the joiner is able to paint’  
 b. *can* > *only* ‘The joiner is able to paint only onto the legs of the chair’

<sup>16</sup> Takano reports that (72) is ambiguous; it can obtain the ‘*only* > *can*’ reading as well, contra Tada.

<sup>17</sup> This movement is triggered by Case to [Spec, AgrOP] at that time, but this argument is irrelevant to my proposal; hence I put it aside.

## CHAPTER IV

A possible context of (73a), in which the quantifier scopes over the potential verb (i.e., the wide scope reading), goes like this; the joiner has started to clean the legs of a chair, and then he has gone on to clean the back of the chair. Three minutes later, the legs of the chair have completely dried, but the back of the chair is still wet. Then, it is only the legs of the chair that the joiner is able to paint and not the back of the chair because it is still wet. Under the scope reading (73b) in which potential verb scopes over the quantifier on the DP<sub>LOC</sub> (i.e., the narrow scope reading), we obtain a possible reading as follows: the joiner is a very skilled painter and he is able to paint only the legs of the chair without messing other parts of the chair (i.e., the back of the chair) with paint.

It has been discussed that the scope of argument quantifiers and the bound variable interpretation can be explained under the same condition (Kuno 1973, Hoji 1985; 2003, Ueyama 1998, Hayashishita 2000 among others) in the relevant literature. Assuming this, I further assume that the scope interpretation is determined by the same c-command condition as the bound variable interpretation that I have proposed in the previous chapter (see also 3.3.1)), as repeated in (74). A modified version of the condition for the scope interpretation is given in (75).

(74) Condition on the bound variable interpretation (based on Hoji (2003))

An NP  $\beta$  can be interpreted as a variable bound by an NP  $\alpha$  only if  $\beta$  or its copy after scrambling is included within the c-command domain of  $\alpha$ . ( $\alpha$  = binder,  $\beta$  = bindee )

(75) Condition on the scope interpretation

A quantified NP  $\beta$  shows the narrow scope reading with respect to an element  $\alpha$  iff it is included within the c-command domain of  $\alpha$ ; it shows the wide scope reading with respect to an element  $\alpha$  iff it is excluded from the c-command domain of  $\alpha$ .

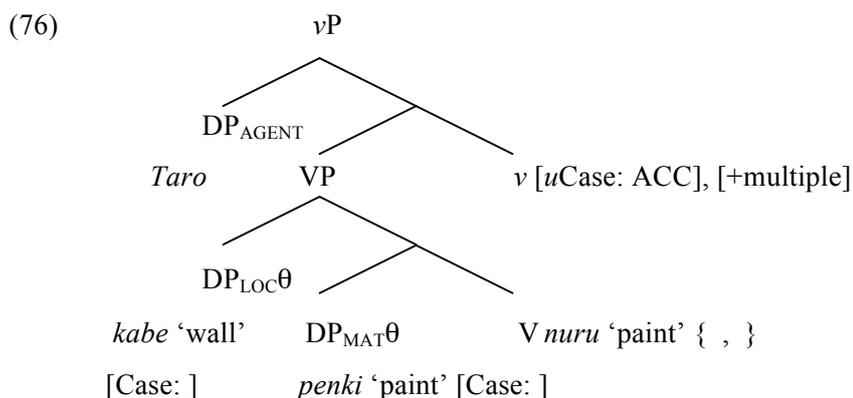
Under (75), the scope ambiguity between *dake* and *eru* in the *spray/load* construction indicate that the quantified DP<sub>LOC</sub> must c-command the potential verb at some point of the derivation; and it must be also c-commanded by the potential verb at some other point of the derivation. Suppose that the potential verb is adjoined to the higher verb in the structure (69), we must say that the DP<sub>LOC</sub> must be inside of the VP in order for the given sentence to obtain the narrow scope reading with respect to the potential verb by virtue of satisfying the c-command requirement.

## CHAPTER IV

Based on this argument, I argue that the PRO hypothesis of dative case assignment proves hard to maintain because there is no DP inside the VP that can be c-commanded by the potential verb. Hence the fact above cannot be predicted by the PRO hypothesis. If the  $DP_{LOC}$  is merged outside of the VP, we would not expect the narrow scope reading. With this facts, I conclude the LOC of *spray/load* verbs is not merged outside of VP under the PRO hypothesis. The scope data also illuminate the weakness of Kuroda's movement analysis when it is extended to an analysis of *spray/load* verbs. As I have introduced in 4.2.2, the subject of the embedded clause is moved out of the original clause and is assigned *ni* in its original position and the moved position under Kuroda's analysis. The moved subject is deleted after this operation. Given this, it is quite hard to account for the scope ambiguity of *spray/load* verbs. Alternatively, if Kuroda assumed that the deleted element leaves some sort of trace in its moved position, although this is quite unlikely from his argument, the scope ambiguity is explained under his analysis. However, the fact of NPI licensing of indeterminate words and the adverb distribution of *spray/load* verbs do not follow his analysis. If the LOC stayed within the lower position all through the derivation after its moved copy is deleted as discussed in Kuroda's account, the lack of NPI readings of the dative-marked LOC would not be expected.

### 4.3.3. Formalization

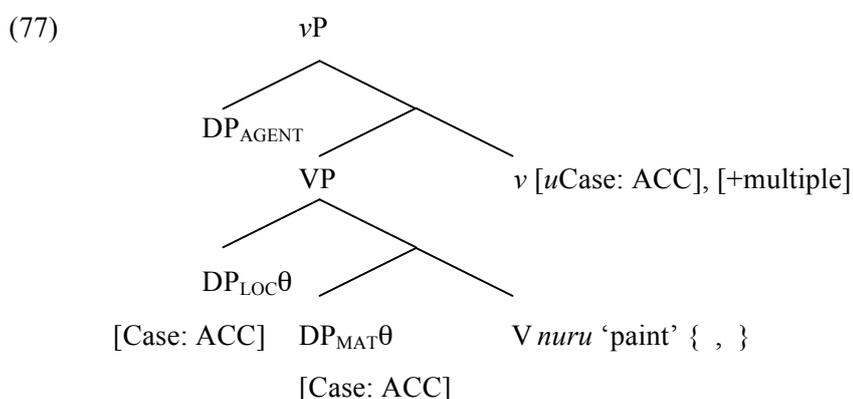
I established that *spray/load* constructions have a multiple accusative VP in the previous chapter as in (76). In this section, I will formalize and explain the fact with Multiple Agree (Hiraiwa 2001; 2002) and the Phase-based DoC (Hiraiwa 2010) in the Phase theory (Chomsky 2000; 2001).



## CHAPTER IV

Adopting Multiple Agree, when  $v$  is merged to VP,  $v$  starts searching for unvalued goals within its c-command domain. In (76), there are two potential goals inside of VP for the probe  $v$  to be Agreed with  $v$ :  $DP_{LOC}$  and  $DP_{MAT}$ .  $v$  probes the higher DP first and locates it on the matched goal in the c-command domain. An immediate Agree (Chomsky 2000, Harada and Larson 2009) has no way to probe the lower DP in this structure. However, Multiple Agree enables it to further probe the lower DP in the same c-command domain. When  $v$  finishes probing all its matching DPs, it, being [+multiple], enters into Multiple Agree with both DPs at once, resulting in (Multiple) Agree ( $v$ ,  $DP_{LOC}$ ,  $DP_{MAT}$ ).

Adopting Multiple Agree, when  $v$  is merged to VP,  $v$  starts searching for unvalued goals within its c-command domain. In (76), there are two potential goals inside of VP for the probe  $v$  to be Agreed with  $v$ :  $DP_{LOC}$  and  $DP_{MAT}$ .  $v$  probes the higher DP first and locates it on the matched goal in the c-command domain. An immediate Agree (Chomsky 2000, Harada and Larson 2009) has no way to probe the lower DP in this structure. However, Multiple Agree enables it to further probe the lower DP in the same c-command domain. When  $v$  finishes probing all its matching DPs, it, being [+multiple], enters into Multiple Agree with both DPs at once, resulting in (Multiple) Agree ( $v$ ,  $DP_{LOC}$ ,  $DP_{MAT}$ ). In this probe-goal relation, [-interpretable] Case feature on  $v$  is eliminated; and [-valued] Case features on both goals are valued. Because  $v$  has accusative Case, both goals are Accusative-valued as (77) shows.



If the VP, which is the spell-out domain of  $v$  (i.e., the spell-out domain of  $PH_1$ ), is spelled out as it is, we expect the derivation to be illicit, since it violates the DoC. This prediction is borne out; the sentence in (78b).

## CHAPTER IV

- (78) a. Taro-ga sono kabe-ni penki-o nut-ta  
Taro-NOM the wall-DAT paint-ACC paint-PAST  
'Taro painted paint onto the wall'
- b. ??Taro-ga sono kabe-o penki-o nut-ta  
Taro-NOM the wall-ACC paint-ACC paint-PAST  
'Literally: Taro painted paint the wall'
- c. ?Sono kabe-o Taro-ga kossori aoi penki-o nut-ta  
the wall-ACC Taro-NOM secretly blue paint-ACC paint-PAST  
'Literally: Taro secretly painted the wall blue paint'

I argue that a derivation of a multiple accusative scrambling as in (78c) is derived through the same mechanism that is proposed in Hiraiwa (2010) for those of object IAP constructions. Specifically, when the VP is spelled out, the higher goal has been remerged to the edge of *vP*. Hence, it can be a target of further syntactic operations. I come back to an independent discussion of how these derivations are possibly to be accounted for in conjunction with Dative Case Assignment after Movement in sections 4.4.3 and 4.4.4.

### 4.3.3.1 The landing site of movement for Dative Assignment

How is a) derived from the base structure (77)? We have already empirically established that dative Case is assigned to the LOC argument after it moves out of VP. In the previous section, I have shown that Dative Case is assigned to the LOC at a higher position than the manner adverb. Furthermore, I show that the position of the manner adverb is higher than *v*. As in (79), the indeterminate instrumental NP *nani-de* 'with what' and *mo*, where it is attached to the verb infinitive *nuri* 'paint' cannot be interpreted as an NPI.

- (79) \*Taro-wa kabe-ni nanni-de penki-o nuri-mo-si-nakat-ta  
Taro-TOP wall-DAT with.what penki-ACC paint-also-LV-NEG-PAST  
'Taro didn't paint paint onto the wall with anything'

A question arises; where is the landing site of a movement for Dative Assignment? There are two potential landing sites: (i) TP-spec and (ii) *vP*-spec. The choice must be made empirically.

## CHAPTER IV

Let us assume that T values nominative Case in Japanese, following Takazawa (1987) and others.<sup>18</sup> As discussed earlier, a floated NP can mark the base position of its host DP (Miyagawa 1989, Miyagawa and Arikawa 2007, among others). In (80), a subject-oriented NQF *san-nin* ‘three-CL’ can modify the DP *gakusei* ‘student’ non-locally. This is explained if we assume that a copy of the moved *ga*-marked phrase in the base position (i.e., the specifier of *vP*) that c-commands its NQF (Miyagawa and Arikawa (2007).

- (80) *Gakusei-ga<sub>i</sub> kinou t<sub>i</sub> san-nin<sub>i</sub> susi-o tabe-ta*  
 student-NOM yesterday three-CL susi-ACC eat-PAST  
 ‘Three students ate susi yesterday’

Under the assumption that the subject-oriented NQF marks the base position of the subject, as the illicit sentence (81b) shows, it is impossible for the  $DP_{LOC}$  to cross over the base position of the subject at once.<sup>19</sup> Namely, the landing site of the local movement for the given DP must be the inner specifier position of *vP*.

- (81) a. *Kodomo-ga<sub>i</sub> san-nin<sub>i</sub> tomodachi-no-te-ni doro-o nuri-tsuke-ta*  
 child-NOM three-CL friend-GEN-hand-DAT mud-ACC paint-throw-PAST  
 ‘Literally: Three children put mud (my) friend’s hand’  
 b. \**Kodomo-ga<sub>i</sub> tomodachi-no-te-ni san-nin<sub>i</sub> doro-o nuri-tsuke-ta*  
 child-NOM friend-GEN-hand-DAT three-CL mud-ACC paint-throw-PAST

If the  $DP_{LOC}$  were remerged to [Spec, TP] and dative Case is assigned there, we would not expect this result. I therefore conclude that the  $DP_{LOC}$  is not assigned dative Case at [Spec, TP]. This, in return, leaves us a possibility that the  $DP_{LOC}$  moves to the inner [Spec, *vP*].

- (82) The LOC is assigned Dative Case at the edge of *vP* after movement.

<sup>18</sup> Saito (1985) proposes that the *ga*-phrase in Japanese is an inherent Case.

<sup>19</sup> The same point has been reported in Ura (2000: 263-264) with *give* verbs. The IO of *give* verbs in Japanese cannot pass over the base position of the external argument that is marked by the subject NQF *san-nin* as in (i).

- (i) \**Kodomo-ga Mary-ni san-nin t<sub>i</sub> hon-o<sub>i</sub> ageta*  
 children-NOM Mary-DAT three-CL book-ACC gave  
 ‘Three children gave a book to Mary’ (Ura 2000)

## CHAPTER IV

### 4.3.3.2 Definition

Let me clarify of the nature of the assignee of Dative Case on the LOC argument. We have observed that the element is given dative Case is a locational element of the event of spraying. Suppose that a thematic relation of the assignee is crucial to dative case assignment. Under this assumption, we would expect a DP bearing only LOC to be given dative Case, while a DP bearing MAT not to be. This seems to be a right direction of argument to the extent of the paradigm like (83). I assume that the manner adverb *yukkuri* ‘slowly’ is merged within *vP*. *Kabe* ‘wall’ in (83a), which bears LOC can be realized with *ni* at the edge of *vP*. On the other hand, *penki* ‘paint’ in (83b), which bears MAT cannot be.

- (83) a. Gakusei-ga<sub>i</sub> [<sub>vP</sub> san-nin<sub>i</sub> kabe-ni<sub>j</sub> yukkuri [<sub>vP</sub> t<sub>j</sub> penki-o nut-ta]]  
student-NOM three-CL wall-ACC slowly paint-ACC paint-PAST  
‘Literally: Student<sub>i</sub>, three<sub>i</sub> slowly painted the wall paint’
- b. \*Gakusei-ga<sub>i</sub> [<sub>vP</sub> san-nin<sub>i</sub> penki-ni<sub>j</sub> yukkuri [<sub>vP</sub> kabe-o t<sub>j</sub> nut-ta]]  
student-NOM three-CL paint-ACC slowly wall-ACC paint-PAST  
‘Literally: Student<sub>i</sub>, three<sub>i</sub> slowly painted the wall paint’

However, this assumption turns out to be inaccurate. As we know, *spray/load* verbs can be associated with the ACC-WITH construction as in (84).

- (84) Taro-ga kabe-o penki-de nut-ta  
Taro-NOM wall-ACC paint-with paint-PAST  
‘Taro painted the wall with paint’

Under the same assumption, it is expected that the DP with LOC in this construction to be realized with *ni*. However, as (85) shows, this assumption leads us to a wrong result.<sup>20</sup>

- (85) \*Gakusei-ga<sub>i</sub> [<sub>vP</sub> san-nin<sub>i</sub> kabe-ni<sub>j</sub> yukkuri [<sub>vP</sub> penki-de t<sub>j</sub> nut-ta ]  
student-NOM three-CL wall-DAT slowly paint-with paint-PAST  
‘Literally: Student<sub>i</sub>, three<sub>i</sub> slowly painted onto the wall with paint’

---

<sup>20</sup>I will discuss about the syntax of this sentence in the next chapter. Hence, I simply mention about the fact that the argument that bears a LOC role in the same sentence of *spray/load* verbs cannot be marked with *ni* at the edge.

## CHAPTER IV

Furthermore, under our present assumption, we should expect every transitive object to be assigned dative Case when it is remerged to the edge of  $\nu$ P. This is obviously wrong as in (86b).

- (86) a. Gakusei-ga<sub>i</sub> [ <sub>$\nu$ P</sub> san-nin<sub>i</sub> ringo-o<sub>j</sub> yukkuri [ <sub>$\nu$ P</sub> t<sub>j</sub> tabe-ta]]  
 student-NOM three-CL apple-ACC slowly eat-PAST  
 ‘Literally: Student<sub>i</sub>, three<sub>i</sub> slowly ate apples’
- b. \*Gakusei-ga<sub>i</sub> [ <sub>$\nu$ P</sub> san-nin<sub>i</sub> ringo-ni<sub>j</sub> yukkuri [ <sub>$\nu$ P</sub> t<sub>j</sub> tabe-ta]]  
 student-NOM three-CL apple-DAT slowly eat-PAST

From these discussions, I conclude that it is not only Case feature on the dative Case assignee that is significant to the assignment system, which leads us to a positive consequence. Consider (87), where the both goals of  $\nu$  are remerged to the edge of  $\nu$ P (i.e., by application of Multiple Move). Under our previous assumption, we would expect both goals to be realized with *ni* when they are remerged to the edge of  $\nu$ P, contra the fact.

- (87) \*Gakusei-ga<sub>i</sub> [ <sub>$\nu$ P</sub> san-nin<sub>i</sub> kabe-ni<sub>j</sub> penki-ni<sub>k</sub> yukkuri [ <sub>$\nu$ P</sub> t<sub>j</sub> t<sub>k</sub> nut-ta]]  
 student-NOM three-CL wall-DAT paint-DAT slowly paint-PAST  
 ‘Literally: Student<sub>i</sub>, three<sub>i</sub> slowly painted the wall paint’

As shown in (88), when the two goals are remerged to the edge of  $\nu$ P, it is only the higher goal that can be marked with *ni*.

- (88) a. Gakusei-ga<sub>i</sub> [ <sub>$\nu$ P</sub> san-nin<sub>i</sub> kabe-ni<sub>j</sub> penki-o<sub>k</sub> yukkuri [ <sub>$\nu$ P</sub> t<sub>j</sub> t<sub>k</sub> nut-ta]]  
 student-NOM three-CL wall-DAT paint-ACC slowly paint-PAST  
 ‘Literally: Student<sub>i</sub>, three<sub>i</sub> slowly painted the wall paint’
- b. \*Gakusei-ga<sub>i</sub> [ <sub>$\nu$ P</sub> san-nin<sub>i</sub> kabe-o<sub>k</sub> penki-ni<sub>j</sub> yukkuri [ <sub>$\nu$ P</sub> t<sub>j</sub> t<sub>k</sub> nut-ta]]  
 student-NOM three-CL wall-ACC paint-DAT slowly paint-PAST

This indicates that what is important is the local c-command relation of the assigner and the assignee. But this itself cannot exclude the possibility such that the transitive object is assigned dative Case when it is remerged to the  $\nu$ P edge. We must refer to the structural

## CHAPTER IV

relation of goals: specifier and complement. Given this, we must say that the complement goal cannot be assigned dative Case at the edge of  $\nu$ P.<sup>21</sup>

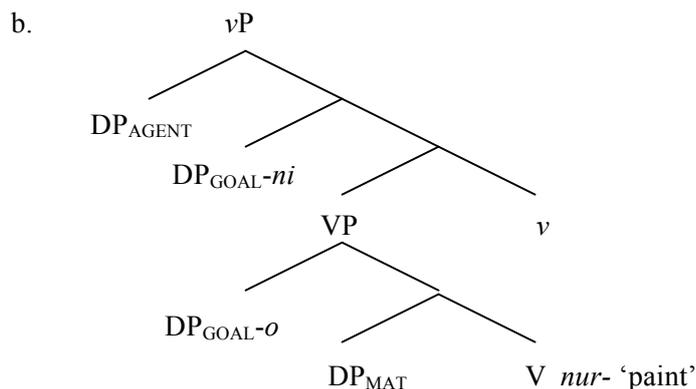
(89) The specifier goal can be assigned Dative Case at the edge of  $\nu$ P, whereas the complement goal cannot.

What is the assigner of this dative case assignment?  $\nu$  is potentially responsible for it. However, this does not sound reasonable:  $\nu$  has valued accusative Case on the same argument. I see no clear account why the computation has to force such assignment on  $\nu$ . However, at the same time, I have no clear account for this question. I leave the issue open.

I propose Dative Case Assignment by *spray/load* derivation, as in (90).

(90) **Dative Case Assignment after Movement** by *spray/load* verbs (final)

a. Assign Dative Case to the specifier goal of *spray/load* verbs when it is remerged to the edge of  $\nu$ P.



I suggest that this rule operates in conjunction with the phase-theoretic DoC. If there is more than one DP that has structural accusative Case in the same spell-out domain, a derivation results as an illicit sentence.

Before closing this section, I discuss why the possessor argument of object IAP constructions cannot be assigned dative Case when it is merged to the edge of  $\nu$ P.<sup>22</sup> In

<sup>21</sup> In Japanese, some verbs take the *ni*-phrase as its object: *Taro-ga Hanako-ni at-ta* ‘Taro met Hanako’. But I assume that the *ni*-assignment on the given phrase does not involve the sort of Dative Case assignment that we discuss now.

<sup>22</sup> According to Maling and Kim (1992: 48), Korean possessor raising constructions allow the dative marking on the possessor as in (i) (see also Hiraiwa 2010). This may be a result of application of the proposed dative Case assignment. Hiraiwa (2010) argues that Korean *lul* is

## CHAPTER IV

section 3.5, I have adopted Hiraiwa's structure of object IAP constructions. In that structure, the possessor is remerged to the specifier of VP after Possessor Raising. Then, it is quite reasonable for us to expect that the possessor is marked with *ni*. Nevertheless, this is not the case.

- (91) \*Gakusei-ga<sub>i</sub> [<sub>VP</sub> san-nin<sub>i</sub> Hanako-ni<sub>j</sub> omoikkiri [<sub>VP</sub> t<sub>j</sub> atama-o tatai-ta]]  
student-NOM three-CL Hanako-DAT hard head-ACC hit-PAST  
'Literally: Three students hit hard Hanako on the head'

As in the structure of object IAP in the previous chapter (see 3.5), the possessor argument is initially merged to the complement position. I argue that this is why it cannot be assigned Dative Case even after Possessor Raising, since my Dative Assignment after Movement requires that a phrase that can be dative-marked is originally a specifier.

### 4.3.3.3 Two types of *v*

In the Phase model, Case value that is assigned to a DP in syntax is morphophonologically realized at the PF interface, but not in syntax (Hiraiwa 2010). In the case marking theory in Japanese generative grammar (Takezawa 1987, among others), a DP bearing nominative Case is realized with the particle *ga*, a DP bearing accusative Case is realized with the particle *o* and so forth (Saito 1982, Takezawa 1987, Ura 2000, Hiraiwa 2010).

- (92) a. DPs with [NOM] value are spelled out with *ga*.  
b. DPs with [ACC] value are spelled out with *o*.  
c. DPs with [DAT] value are spelled out with *ni*.

---

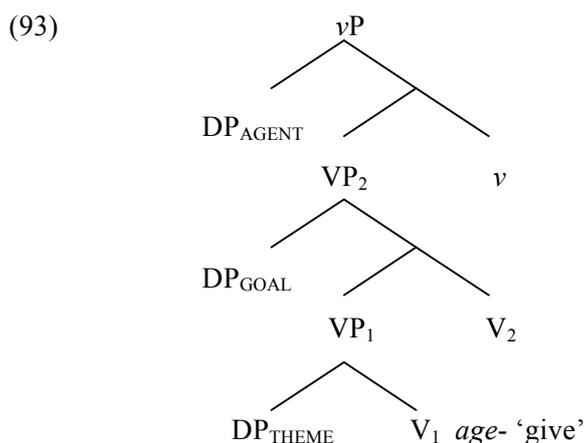
generally an inherent Case, while the accusative case in Japanese is structural Case, assuming that *yumi* 'Yumi' has inherent Case because its accusative marker can alternate with *eykey*. However, this does not necessarily mean that all realizations of Korean accusative marker is non-structural (Hiraiwa also points out this in his footnote 20), although I am aware that a further investigation of Korean accusative and dative Cases is necessary.

- (i) Nay-ka yumi-lul/eykey ppaym-ul ttayli-ess-ta  
I-NOM Yumi-ACC/DAT cheek-ACC hit-PAST-DECL  
'I hit Yumi on the cheek'

## CHAPTER IV

I argue that an instance of [DAT] that is assigned under (90) is realized with *ni* via (92c) with other DPs in the same derivation.

Miyagawa (1989: 173) argues that ditransitive verbs in Japanese assign both the dative and the accusative cases. Following this argument, I argue that [DAT] on the DP<sub>GOAL</sub> of *give* verbs is realized throughout (92c). We have proposed a VP of *give* verbs as in (104) that is based on Ura (2000). I have assumed that V<sub>2</sub> is a kind of lexical verb without any discussion so far. I will provide this line of argument is plausible to the extent of the data I considered.



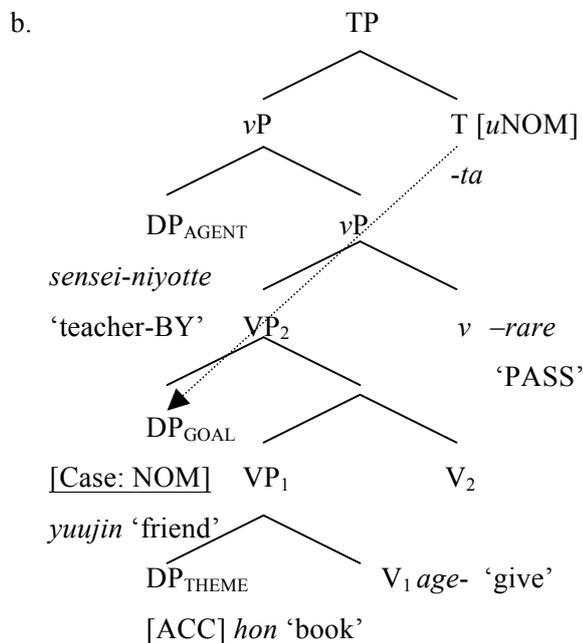
Suppose that V<sub>2</sub> is a functional head with Case/agreement features. Under Agree, [-interpretable] Case feature of a functional head is deleted against a DP with [-valued] Case feature that is within the c-command domain of the head. For V<sub>2</sub>, VP<sub>1</sub> is the c-command domain. DP<sub>THEME</sub> is included in that domain. It follows that this DP should enter into Agree with V<sub>2</sub>. Now, *v* is also a functional head under the Split vP hypothesis. DP<sub>THEME</sub> cannot be Agreed with *v*, because it has already Agreed with V<sub>2</sub>. This would violate the DIC (Defective Intervention Constraint) (see 2.2). The higher *v* can enter into Agree with the DP<sub>GOAL</sub> that is within the c-command domain of *v* and there is no other head that c-command the DP<sub>GOAL</sub> in this derivation. Let us further assume that this *v* gives Dative value to that DP, instead of accusative Case.

Under these assumptions, let us think of the passivization of these DPs. The fact is that both THEME and GOAL can be passivied, respectively. I follow the traditional passive formation in P&P and assume that when *rare* 'PASS' is attached to a head, it can absorb the Case ability of that head (Burzio 1986) (see also 3.3.4). I assume that passive morpheme is attached to the functional head, following Ura (2000).

## CHAPTER IV

Under the present assumption of *give* VP, there are two functional heads in this derivation;  $v$  and  $V_2$ . I stipulate that the passive morpheme can attach onto either of them. If the morpheme is suffixed with  $v$  and absorbs dative Case  $v$ , because  $v$  loses this ability and becomes “defective”, the GOAL will be left Case-less. When T, with [-interpretable] Case feature, is merged to the derivation. T can enter into Agree with this Case-less GOAL, since Agree can take place non-locally and there is no intervening goal in the derivation to prevent T from agreeing with this GOAL. We have a grammatical sentence like (94).

- (94) a. Yuujin-ga sensei-niyotte hon-o okur-are-ta  
 friend-NOM teacher-BY book-ACC sent-PASS-PAST  
 ‘A friend sent a book from the teacher’



Under this passivization, it is expected the  $DP_{THEME}$  to be Case-valued by  $V_2$ , because the Case valuation ability of  $V_2$  is intact under this passivization. Quite naturally, we would expect this DP to be valued structural accusative Case. This expectation seems to be borne out to some extent. As in (95), because the object *hon* can behave just like a transitive accusative object, forming a *kake*-nominalization and modification by *ippai* ‘many’. Both tests are proposed as object tests in Japanese in Kishimoto (2005).



## CHAPTER IV

structural Case, it ought to Agree with the higher  $v$  in the raising construction in the same way as the lower object of the embedded adjective clause does. However, this expectation turns out to be wrong, as shown in (98b) and (98c).

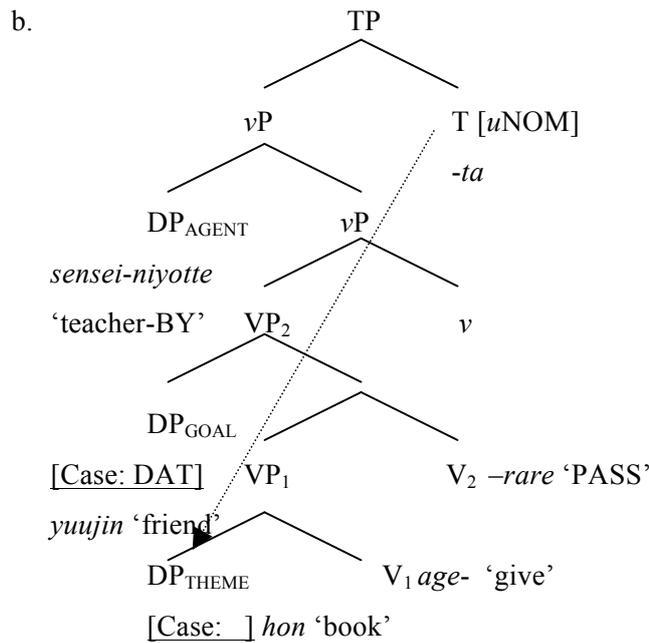
- (98) a. Taro-wa    yuujin-ga    sensei-niyotte hon-o    okur-are-ta  
       Taro-TOP   friend-NOM   teacher-BY    book-ACC   send-PASS-PAST  
       to omoikondei-ta  
       C    falsely.think-PAST  
       ‘Taro falsely thought that (his) friend was sent a book by the teacher’
- b. \*Taro-wa    yuujin-o    sensei-niyotte hon-ga    okur-are-ta  
       Taro-TOP   friend-ACC   teacher-BY    book-NOM   send-PASS-PAST  
       to omoikondei-ta  
       C    falsely.think-PAST
- c. \*Taro-wa    yuujin-o    sensei-niyotte hon-o    okur-are-ta  
       Taro-TOP   friend-ACC   teacher-BY    book-NOM   send-PASS-PAST  
       to omoikondei-ta  
       C    falsely.think-PAST

From the above discussion, I conclude the accusative object of passive sentence of *give* verbs has no structural accusative Case. This in return means that  $V_2$  is not structural Case valuer.

Let us assume that  $V_2$  is a kind of silent lexical verb. Under this assumption, there is only one functional head:  $v$ . Let us assume that  $v$  that selects *give* verbs is complex with a bundled of features  $v_{acc}$  and  $v_{dat}$ . The former Agrees with  $DP_{THEME}$  and the latter with the  $DP_{GOAL}$ . We further assume that passive *rare* can affect one of the features. Following Miyagawa (1989), I assume that when the morpheme absorbs the Case ability of  $v_{dat}$ , the  $DP_{GOAL}$  becomes [-value] and T can probe this GOAL when it is merged to the given derivation, as we have just observed in (94). Similarly, when it absorbs the Case ability of  $v_{acc}$ , the  $DP_{THEME}$  becomes [-value] and T can probe this THEME when it is merged to the given derivation.

- (99) a. Hon-ga            sensei-niyotte    Yuujin-ni    okur-are-ta  
       book-NOM    teacher-BY        friend-DAT    send-PASS-PAST  
       ‘A book was sent to (my) friend by the teacher’

CHAPTER IV



In the passivized sentences, the  $DP_{GOAL}$  may not be a structural Case. If so, this accounts for the reason why this DP fails to behave as an intervention goal. As shown in (100) and (101), the  $DP_{GOAL}$  in (99) may not be structural Case, because (i) it cannot be passivized under the double passive and (ii) it cannot be probed by the higher matrix  $v$  in the raising construction

- (100) \*Hanako-ga sensei-niyotte hon-o okur-are-rare-ta  
 Hanako-NOM teacher-BY book-ACC send-PASS-PASS-PAST  
 ‘Literally: Hanako was sent(passive) book(ACC) by the teacher’

- (101) a. Taro-wa hon-ga sensei-niyotte yuujin-ni okur-are-ta  
 Taro-TOP book-NOM teacher-BY friend-DAT send-PASS-PAST  
 to omoikondei-ta  
 C falsely.think-PAST  
 ‘Taro falsely thought that the book was sent to (his) friend by the teacher’

- b. ??/\*Taro-wa hon-o sensei-niyotte yuujin-ga okur-are-ta  
 Taro-TOP book-ACC teacher-BY friend-NOM send-PASS-PAST  
 to omoikondei-ta  
 C falsely.think-PAST

## CHAPTER IV

- c. \*Taro-wa hon-o sensei-niyotte yuujin-o okur-are-ta  
 Taro-TOP book-ACC teacher-BY friend-ACC send-PASS-PAST  
 to omoikondei-ta  
 C falsely.think-PAST

From these pieces of evidence, I propose the nature of Case feature on the functional head by ditransitive verbs in Japanese as in (102).

### (102) Case features on ditransitive verbs in Japanese

- a.  $v$  is a bundle of features  $\{v_{\text{dat}}, v_{\text{acc}}\}$  that selects *give* verbs.  
 b. Dative Case is valued on  $\text{DP}_{\text{GOAL}}$  by  $v_{\text{dat}}$ ; accusativ Case is valued on  $\text{DP}_{\text{THEME}}$  by  $v_{\text{acc}}$  under the probe-goal relation.

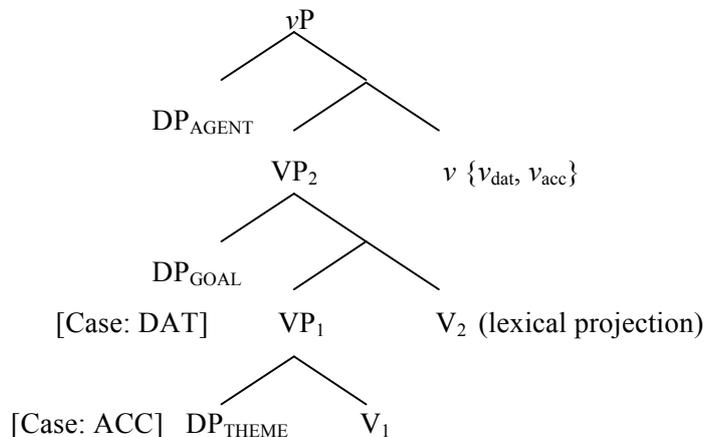
I propose that *spray/load* verbs and *give* verbs are composed with a set of verbal features, respectively as in (103).

(103) a. *Spray/load* verbs:  $V, v_{\text{acc}}$  [+multiple]

b. *Give* verbs:  $V, V_2, \{v_{\text{dat}}, v_{\text{acc}}\}$

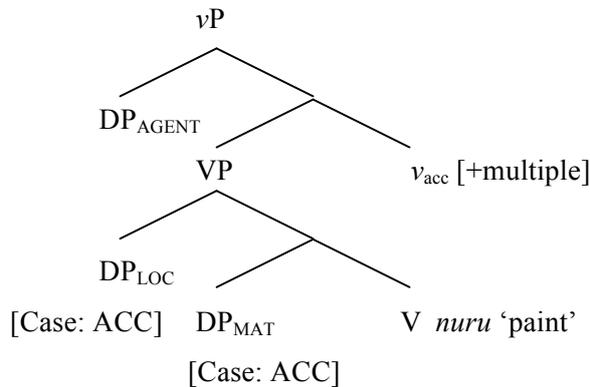
Under (103b), I will propose that *give* type constructions in Japanese has the structure (104), and *spray/load* constructions involve the structure in (105). When the given derivation is spelled out, the case-marking rule (92) applies to the derivation; the  $\text{DP}_{\text{GOAL}}$  is realized with *ni* under (92c) as well as the  $\text{DP}_{\text{LOC}}$  of *spray/load* verbs.

### (104) The base structure for *give* verbs in Japanese



## CHAPTER IV

### (105) A base structure for *spray/load* verbs in Japanese (DAT-ACC case array)



I have argued that the GOAL of *give* does not necessarily move but the LOC of *spray/load* verbs must move out of VP and at the remerged position, it optionally assigned Dative Case. However, I have not clarified the potential reason of this movement. I argue that if the LOC stays in situ within the same spell-out domain of the MAT, the derivation results in DoC violation at the time of Spell-Out. Hence, the LOC moves out of the original domain.

## 4.4. Explanation

### 4.4.1 Passive

As in (106a), the DP<sub>LOC</sub> can stand as a passive subject under that condition, as we expect. However, as in (106b), the DP<sub>MAT</sub> cannot be a passive subject under the same condition.

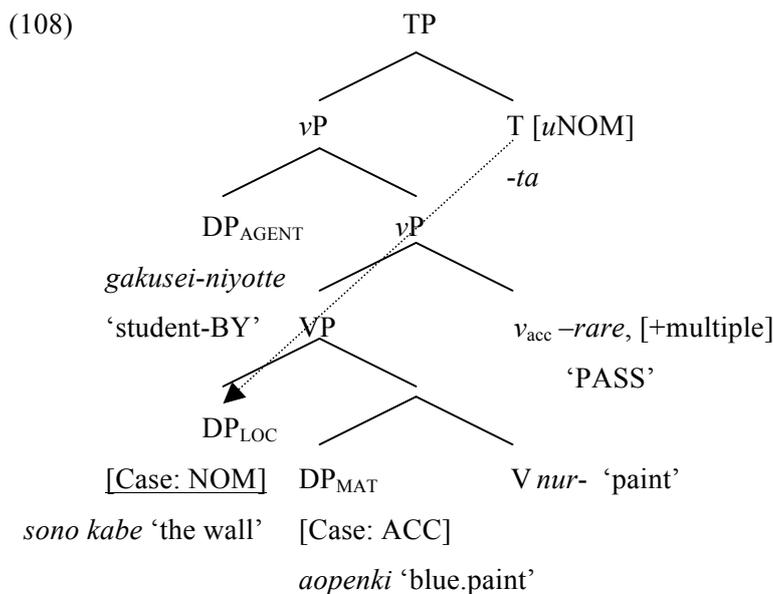
- (106) a. Sono kabe-ga   gakusei-niyotte   kossori   aopenki-o   nur-are-ta  
 the wall-NOM student-BY   secretly   blue.paint-ACC paint-PASS-PAST  
 ‘The wall was secretly painted blue by students’
- b. \*Aopenki-ga   gakusei-niyotte   kossori   sono kabe-o   nur-are-ta  
 blue.paint-NOM student-BY   secretly   the wall-ACC paint-PASS-PAST  
 ‘Literally: Blue paint was secretly painted the wall by students’

The DP<sub>MAT</sub> can be a passive subject if the DP<sub>LOC</sub> is dative marked.

CHAPTER IV

- (107) *Aopenki-ga gakusei-niyotte kossori sono kabe-ni nur-are-ta*  
 blue.paint-NOM student-BY secretly the wall-DAT paint-PASS-PAST  
 ‘Literally: Blue paint was secretly painted the wall by students’

First, I take these passive sentences as instances of Direct Passive (see 3.3.4). I assume that when the passive morpheme *rare* is attached to  $v$ , it absorbs accusative Case of  $v_{acc}$  and the external argument is suppressed (Ura 2000). I further assume that the passive morpheme deprives both accusative Cases on the LOC and the MAT because both of them Agree with the same head. Because Agree can take place non-locally, T can value [NOM] on the Caseless LOC within VP when it is merged to the derivation. The external argument has no structural Case feature under passivization, and hence there is no defective goal for T to Agree with the LOC. Hence, Agree (T, LOC) can be held. I argue that the lower MAT is assigned inherent Case from V (Larson 1988).



I argue that T cannot probe the lower MAT without probing the higher LOC. This is because the LOC is more local to T than the MAT. Hence, a passive structure like (109) is never derived.



## CHAPTER IV

I show that the Case feature of the higher goal is not structural; otherwise it ought to be an intervening goal for T to be Agreed with [-valued] MAT argument. The data in (111) show that we are on the right track.

- (111) a. Taro-wa [sono penki-ga gakusei-niyotte kabe-ni nur-are-ta to]  
Taro-TOP that paint-NOM student-BY wall-DAT paint-PASS-PAST C  
omoikondei-ta  
falsely.believe-PAST  
‘Taro falsely believe that the paint(NOM) had been painted onto the wall(DAT) by students’
- b. \*Taro-wa [sono penki-o gakusei-niyotte kabe-ga nur-are-ta to]  
Taro-TOP that paint-ACC student-BY wall-NOM paint-PASS-PAST C  
omoikondei-ta  
falsely.believe-PAST  
‘Taro falsely believe that the paint(ACC) had been painted onto the wall(NOM) by students’
- c. \*Taro-wa [sono penki-o gakusei-niyotte kabe-o nur-are-ta to]  
Taro-TOP that paint-ACC student-BY wall-ACC paint-PASS-PAST C  
omoikondei-ta  
falsely.think-PAST  
‘Taro falsely thought that the paint(ACC) had been painted onto the wall(ACC) by students’

### 4.4.2 VP-Preposing

I now explain VP-preposing of spray/load verbs, which has been left unsolved in the previous chapter (see 3.3.3). As in (112a), the  $DP_{MAT}$  *penki* ‘paint’ and the verb *nuru* ‘paint’ alone cannot be preposed, when the  $DP_{LOC}$  is accusative-marked. Contrary to this, the same constituent can be fronted, when the  $DP_{LOC}$  is dative-marked as in (112b).

- (112) a. \*Penki-o nuri-sae Taro-ga kabe-o sita  
paint-ACC paint-even Taro-NOM wall-ACC did  
‘Literally: Even paint paint, Taro did the wall’

## CHAPTER IV

- b. Penki-o nuri-sae Taro-ga kabe-ni sita  
paint-ACC paint-even Taro-NOM wall-DAT did  
'Literally: Even paint paint, Taro did onto the wall'

I have proposed a condition of VP-preposing in ditransitive verbs in the previous chapter, as repeated here (see 3.5.1).

(113) Condition on the formation of VP-preposing (based on Yatsushiro 1998)

If a fronted remnant VP includes an unbound trace (copy) and such a trace is created by a violation of the MLC, VP-preposing will be ungrammatical.

The ungrammaticality of (112a) cannot be accounted for under the DoC violation, since two accusative marked DPs are spelled out at a different spell-out domain, respectively. In the derivation of (112a), from our dative case assignment, we expect that the LOC has not been remerged to the edge of vP. Given this, a fronting of [MAT V] follows from the condition (113), because this movement violates the MLC (Minimal Link Condition).

- (114) \*[ Penki-o nuri ]<sub>i</sub>-sae Taro-ga [<sub>VP</sub> kabe-o t<sub>i</sub> ] sita  
paint-ACC paint-even Taro-NOM wall-ACC did  
'Literally: Even paint paint, Taro did the wall'

Since the unbounded trace inside VP of (115) is not a trace of the movement, resulted from a violation of the MLC, following the condition (113). I argue that this is why the incomplete VP-preposing in (112b) is grammatical.

- (115) [<sub>VP</sub> t<sub>i</sub> Penki-o nuri]<sub>j</sub>-sae Taro-ga kabe-ni<sub>i</sub> t<sub>j</sub> sita  
paint-ACC paint-even Taro-NOM wall-DAT did  
'Literally: Even paint paint, Taro did onto the wall'

We expect that if the LOC had been remerged to the edge of vP and dative case assignment did not take place, a fronting of [MAT V] should be grammatical. As the grammaticality of (116) confirms, the condition also works for this case. The manner adverb *hake-de* 'with paint' marks the boundary of VP.

## CHAPTER IV

- (116) [<sub>VP</sub> t<sub>i</sub> Penki-o nuri ]<sub>j</sub>-sae Taro-ga kabe-o hake-de t<sub>j</sub> sita  
paint-ACC paint-even Taro-NOM wall-ACC brush-with did  
'Literally: Even paint paint, Tarp did the wall'

Before closing this section, I would like to mention about Korean preposing. It seems that the same condition also works for the Korean case. As in (117a), the fronting of the DP<sub>MAT</sub> and the verb alone is illegitimate when the LOC is accusative-marked with *ul*, while the fronting of the constituent is much more obtainable when it is marked with the LOC is dative-marked with *ey* as in (117b).

- (117) a. \*Ppalkan peyintu-(lul) chilha-nun kes-kkaci(to) Chelswu-ka ku pyek-ul  
red.paint-ACC paint-RL fact-even Chelswu-NOM the wall-ACC  
ha-ess-ta  
do-PAST-DECL  
'Literal: Even paint(ing) red (paint), Chelswu did the wall'
- b. Ppalkan peyintu-(lul) chilha-nun kes-kkaci(to) Chelswu-ka ku pyek-ey<sup>23</sup>  
red.paint-ACC paint-RL fact-even Chelswu-NOM the wall-DAT  
ha-ess-ta  
do-PAST-DECL  
'Literal: Even paint(ing) red (paint), Chelswu did onto the wall'

Since I have not tested whether or not the given Korean preposing can be treated uniformly with Japanese case, I confine myself to suggesting the similarity between Japanese and Korean here.

### 4.4.3 Scrambling

In the previous chapter (see 3.2), I discussed the fact that a long-stranding issue of the syntax of Japanese ditransitive is how to derive syntactic variations of the argument permutation, as shown in (118).

---

<sup>23</sup> I thank Kook-Hee Gil and Bohye Ko for providing me with this example.

## CHAPTER IV

- (118) a. Taro-ga Hanako-ni ringo-o age-ta  
 Taro-NOM Hanako-DAT apple-ACC give-PAST  
 ‘Taro gave an apple to Hanako’
- b. Taro-ga ringo-o Hanako-ni age-ta  
 Taro-NOM apple-ACC Hanako-DAT give-PAST

Two major analyses are recognized in the literature: the (major) scrambling analysis (Hoji 1985) and the base-generation analysis (Miyagawa 1997). On the basis of the evidence of *spray/load* verbs in the previous chapter, I have argued for the scrambling view (Hoji 1985, among many others), i.e., the dative-accusative order reflects the base structure and the accusative-dative is derived from the same base structure.

My hypothesis about the Dative Case Assignment by *spray/load* verbs is that the higher goal is assigned Dative when it is remerged to the edge of  $v_{acc}[+multiple]$ . Under this analysis, the dative-accusative *spray/load* sentences are derived from the base structure as given in (119).

- (119) [<sub>VP</sub> LOC(DAT)<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> MAT(ACC) V ] v<sub>acc</sub> ]

The question is how the other order, namely the accusative-dative order, is derived.

Scrambling is a kind of movement. It is hypothesized that every movement follows the locality condition in the MP (Rizzi 1990, among others), as the Minimal Link Condition (henceforth, MLC) (Chomsky 1995) defines.

- (120) Minimal Link Condition (Chomsky 1995: 311)

K attracts  $\alpha$  only if there is no  $\beta$ ,  $\beta$  closer to K than  $\alpha$ , such that K attracts  $\beta$ .

Adopting this condition, I suggest that scrambling is triggered by a feature (Miyagawa 1997, Ura 2000, Ko 2007, among others). In other words, an element is scrambled to a specifier of the functional head under the requirement of the strong nominal feature of the functional head (or the optional EPP feature).

Under the MLC, for the DP<sub>MAT</sub>, the most local functional head is  $v_{acc}$ . Let us assume that that DP is scrambled to the specifier of  $v_{acc}$ . According to the MLC,  $v$  (a functional head) can attract an element A (argument), if there is no other element B that is closer to  $v$  than A.

## CHAPTER IV

The “closeness” is conditioned by c-command in the framework. That is, the MLC requires that there should be no B that c-commands A and is closer to  $v_{acc}$  in this case. Only under this condition can A move to the specifier of  $v_{acc}$ . In the structure (119), DAT(LOC) c-commands ACC(MAT). However, we see that DAT(LOC) has been remerged to the specifier of  $v_{acc}$ . This means that there is no element such that it prevents the ACC(MAT) from moving to the edge of  $vP$  in the structure. On the basis of this, let us assume the derivation in (121). From consideration of the PF word order array, I assume that ACC is remerged to the position higher than the DAT.

(121) [ $vP$  MAT(ACC) $_j$  LOC(DAT) $_i$  [ $vP$   $t_i$   $t_j$  V ]  $v_{acc}$  ]

Now, we see that a sentence that is derived from this structure is grammatical, which confirms that we are on the right track. The position of the NQF *fu-tari* ‘two-CL’ shows the base position of the external argument. In principle, the element at the edge of a functional head can be the target of a further operation. Given this, if the ACC(MAT) DP is further remerged to the higher position from the position in (121) (e.g., the specifier of TP or CP), we expect the same DP to scramble over the external argument of the sentence. As (122b) shows, this assumption is correct.

- (122) a. Gakusei-ga<sub>k</sub> [ $vP$  fu-tari<sub>k</sub> enogu-o<sub>j</sub> osara-ni<sub>i</sub> [ $vP$  subayaku  $t_i$   $t_j$   
 student-NOM two-CL paint-ACC plate-DAT quickly  
 nut-ta ]]  
 paint-PAST  
 ‘Literally: Student<sub>i</sub> two<sub>i</sub> quickly painted paint<sub>i</sub> onto plates’
- b. Enogu-o<sub>j</sub> gakusei-ga<sub>i</sub> [ $vP$  fu-tari<sub>i</sub>  $t_j$  osara-ni [ $vP$  subayaku  $t_i$   $t_j$   
 paint-ACC student-NOM two-CL plate-ACC quickly  
 nut-ta ]]  
 paint-PAST  
 ‘Literally: Paint was painted onto the plate by two students’

If a partial structure (119) is spelled out, we obtain a sentence as in (123a). With the same line of argument of the derivation in (122b), I argue that a scrambling like (123b) will be spelled out.

## CHAPTER IV

- (123) a. Gakusei-ga<sub>i</sub> kinou [<sub>VP</sub> fu-tari<sub>i</sub> osara-ni<sub>j</sub> [<sub>VP</sub> subayaku t<sub>j</sub>  
 student-NOM yesterday two-CL plate-DAT quickly  
 enogu-o nut-ta ]]  
 paint-ACC paint-PAST  
 ‘Literally: Student<sub>i</sub> quickly two<sub>i</sub> painted paint onto the three plates yesterday’
- b. Osara-ni<sub>j</sub> gakusei-ga<sub>i</sub> [<sub>VP</sub> kinou [<sub>VP</sub> fu-tari<sub>i</sub> t<sub>j</sub> [<sub>VP</sub> subayaku  
 plate-DAT student-NOM yesterday two-CL quickly  
 t<sub>j</sub> enogu-o nut-ta  
 paint-ACC paint-PAST  
 ‘Literally: Plate, two student quickly painted paint yesterday’

Under the MLC, if the DP<sub>MAT</sub> is remerged to the edge of v<sub>acc</sub>, stranding the DP<sub>LOC</sub> as a remnant inside of VP we expect that the derived scrambling would be ungrammatical. This is because such a movement violates the MLC; there is the DP<sub>LOC</sub>(ACC) that is closer to v<sub>acc</sub> and also c-commands the DP<sub>MAT</sub> in the VP.

- (124) \*[<sub>VP</sub> MAT(ACC)<sub>i</sub> [<sub>VP</sub> LOC(ACC) t<sub>i</sub> V ] v<sub>acc</sub> ]

The data (125) show that this prediction is correct.

- (125) a. \*Gakusei-ga<sub>i</sub> [<sub>VP</sub> san-nin<sub>i</sub> penki-o<sub>j</sub> [<sub>VP</sub> yukkuri [<sub>VP</sub> kabe-o t<sub>j</sub> nut-ta]]  
 student-NOM three-CL paint-ACC slowly wall-ACC paint-PAST  
 ‘Literally: Student<sub>i</sub>, three<sub>i</sub> slowly painted the wall paint’
- b. \*Penki-o<sub>j</sub> gakusei-ga<sub>i</sub> [<sub>VP</sub> san-nin<sub>i</sub> t<sub>j</sub> [<sub>VP</sub> yukkuri [<sub>VP</sub> kabe-o t<sub>j</sub>  
 paint-ACC student-NOM three-CL slowly wall-ACC  
 nut-ta]]  
 paint-PAST

We have observed that it is fairly acceptable to scramble one of the accusative DPs of double accusative sentences of *spray/load* verbs, even though the two adjacent accusative phrases are illicit, as in (126a).

## CHAPTER IV

- (126) a. ??Taro-ga kabe-o penki-o nut-ta  
 Taro-NOM wall-ACC paint-ACC paint-PAST  
 ‘Literally: Taro painted paint the wall’
- b. ?Gakusei-ga<sub>i</sub> [<sub>VP</sub> fu-tari<sub>i</sub> osara-o<sub>j</sub> [<sub>VP</sub> subayaku t<sub>j</sub> san-mai<sub>j</sub>  
 student-NOM two-CL plate-ACC quickly three-CL  
 enogu-o nut-ta ]]  
 paint-ACC paint-PAST  
 ‘Literally: Student<sub>i</sub> quickly two<sub>i</sub> painted paint the three plates yesterday’
- c. ?Osara-o<sub>j</sub> gakusei-ga<sub>i</sub> [<sub>VP</sub> fu-tari<sub>i</sub> t<sub>j</sub> [<sub>VP</sub> subayaku t<sub>j</sub> san-mai<sub>j</sub>  
 plate-ACC student-NOM two-CL quickly three-CL  
 enogu-o nut-ta ]]  
 paint-ACC paint-PAST

According to Hiraiwa (2010), in addition to the Cleft (Harada 1973, Kuroda 1978), scrambling can be one of the salvation strategies of DoC (Double-*o* Constraint) violation under the phase-theoretic spell-out system; after scrambling two accusative DPs can be spelled out at a different spell-out domain, even though the base structure has two accusative DPs. Let us take this view and assume that the instances of scrambling in (126b) instantiate one of the salvation strategies of the DoC violation. Although the sentences in (126b) are not perfect, as the symbols show, the point here is that the same effect does not hold for *give* verbs as in (127b).<sup>24,25</sup>

<sup>24</sup> I have twelve informants for this particular experiment. I interviewed four of them (those who were not used to making grammaticality judgments); I asked the other eight people to fill in the questionnaire, which was sent over email. Among the twelve people, just five are syntacticians. The data given here is not biased in favour of the judgments made by syntacticians.

<sup>25</sup> I tested a simplified version of a pair of instances of scrambling, which is given in (i)-(iv). (i) is a sentence that contains a derivation in which the higher goal is moved to the edge of vP; (ii) is a sentence that contains a derivation in which the lower goal is scrambled to the edge of vP. (iii) is a sentence in which a higher goal is scrambled over the subject; (iv) is sentence in which a lower goal is scrambled over the subject.

- (i) Taro-wa Jiro-no heya-no kabe-o kossori aoi penki-o nut-ta  
 Taro-TOP Jiro-GEN room-GEN wall-ACC secretly blue paint-ACC paint-PAST  
 ‘Literally: Taro secretly painted blue the wall of Jiro’s study’
- (ii) Taro-wa aoi penki-o kossori Jiro-no heya-no kabe-o nut-ta  
 Taro-TOP blue paint-ACC secretly Jiro-GEN room-GEN wall-ACC paint-PAST

## CHAPTER IV

- (127) a. \*Taro-ga Hanako-o ringo-o age-ta  
 Taro-NOM Hanako-ACC apple-ACC give-PAST  
 ‘Literally: Taro gave an apple Hanako’
- b. \*Sono gakusei-o Taro-ga kossori ano hon-o age-ta  
 the student-ACC Taro-NOM secretly that book-ACC give-PAST  
 ‘Literally: Taro secretly gave the book that student’
- c. \*[Taro-ga hon-o age-ta no]-wa gakusei-o<sub>i</sub> fu-tari<sub>i</sub> da  
 Taro-NOM book-ACC give-PAST C-TOP student-ACC two-CL COP  
 ‘Literally: It was two students that Taro gave book’

Under my proposal, a derivation of (127a) is never merged in syntax; hence there is no possibility of derivations of (127b) and (127c) under movement analysis for a cleft in particular.

- 
- ‘Literally: Taro secretly painted blue paint the wall of Jiro’s study’
- (iii) Jiro-no heya-no kabe-o Taro-wa kossori aoi penki-o nut-ta  
 Jiro-GEN room-GEN wall-ACC Taro-TOP secretly blue paint-ACC paint-PAST  
 ‘Literally: The wall of Jiro’s study, Taro secretly painted blue’
- (iv) Aoi penki-o Taro-wa kossori Jiro-no heya-no kabe-o nut-ta  
 blue paint-ACC Taro-TOP secretly Jiro-GEN room-GEN wall-ACC paint-PAST  
 ‘Literally: Blue paint, Taro secretly painted the wall of Jiro’s study’

I also tested a pair of instances of scrambling with other verbs belonging to the *spray/load* type: *mitasu* ‘fill’, *umeru* ‘burry’ and *moru* ‘serve’. The results of the acceptability of the sentence patterns in (i) and (ii) with each verb were as follows:

	LOC > MAT	MAT > LOC	Both OK	Both *
<i>mitasu</i> ‘fill’	4	1	0	7
<i>Umeru</i> ‘burry’	3	0	1	8
<i>moru</i> ‘serve’	4	0	0	8

The results about the acceptability of the sentence patterns in (iii) and (iv) with each verb were as follows:

	LOC > MAT	MAT > LOC	Both OK	Both *
<i>mitasu</i> ‘fill’	3	0	0	9
<i>umeru</i> ‘burry’	5	0	0	7
<i>moru</i> ‘serve’	5	0	1	6

From the results, we see that a multiple realization of the accusative phrase is not fully acceptable in Japanese. But it is likely that scrambling the higher goal is slightly better than the lower one with other lexical items than *nuru* ‘paint.’ Although I recognize that a more detailed study of each lexical item in the *spray/load* class is necessary, this will be left for the future work.

## CHAPTER IV

A question raises; why is the multiple realization of scrambling available, even though it is not totally grammatical? My proposal of the Dative Case Assignment is that the  $DP_{Loc}$  is revalued in Case when it is remerged to the edge of  $v_{acc}$ . I argue that Dative Assignment is optional at the edge of  $vP$ .

### 4.4.4 Cleft

Hiraiwa and Ishihara (2002) analyze a cleft sentence by way of two movements: focus movement and remnant movement.<sup>26</sup> The advantage of the movement analysis of the cleft is that, from a single numeration, two sentences can be derived, i.e., the *no-da* in situ construction and the cleft construction. The same point was made with respect to the cleft in the last section. It is possible to derive a scrambling sentence on the way to deriving a cleft sentence, if we accept the movement analysis of cleft.

It has been proposed that Japanese has two types of clefts in the literature: the “regular” cleft and the “pseudo” cleft (Hiraiwa and Ishihara 2002).<sup>27</sup> The hallmark of the two types of cleft is the presence or absence of the case-marker on a focus element of the cleft; if the focus has a case marker, it is a “regular” cleft, as in (128a) and, if not, it is a “pseudo” cleft, as in (128b).

- (128) a. Taro-ga      sakuban    tabe-ta      no-wa      kaki nabe-o                      da  
          Taro-NOM    last.night    eat-PAST    C-TOP    hot.pot.with.oysters-ACC    COP  
          ‘It is a hot pot with oysters (ACC) that Taro had as the evening meal last night’
- b. Taro-ga      sakuban    tabe-ta      no-wa      kaki nabe- $\emptyset$                       da  
          Taro-NOM    last.night    eat-PAST    C-TOP    hot.pot.with.oysters- $\emptyset$     COP  
          ‘It is a hot pot with oysters (no ACC) that Taro had as the evening meal last night’

Crucial differences between the “regular” cleft and the “pseudo” cleft are the facts that the former cleft is sensitive to movement effects such as the Island Constraint, while the

---

<sup>26</sup> Hiraiwa and Ishihara (2002) propose a derivational account of the cleft in Japanese. The hallmark of this analysis is the link between the *no-da* in situ focus sentence and the cleft sentence. There are three major analyses for the regular cleft in the previous literature: the predication analysis (Matsuda 1997), the deletion analysis (Koizumi 1995) and the movement analysis (Hiraiwa and Ishihara 2002). I support the movement analysis, taking into account the fact that it provides a principled account for Case/agreement licensing of the focus element.

<sup>27</sup> Hiraiwa (2006) divides each type of cleft into sub-classes but I do not tackle the issue here for the sake of relevance to my point.

## CHAPTER IV

“pseudo” cleft is not (Hoji 1990, Hiraiwa and Ishihara 2002, Hiraiwa 2006). This contrast is demonstrated in (129). The fact has led researchers to propose that the derivation of the “regular” cleft involves movement, while that of the “pseudo” cleft does not.

- (129) a. \*Taro-ga [ t<sub>i</sub> kai-ta hito ]-o nazasi-de hihansi-ta no-wa  
 Taro-NOM write-PAST person-ACC by name criticize-PAST C-TOP  
 kono ronbun-o<sub>i</sub> da  
 this paper-ACC COP  
 ‘It is this paper<sub>i</sub> that Taro criticized the person who wrote t<sub>i</sub> by name’
- b. Taro-ga [ pro<sub>i</sub> kai-ta hito ]-o nazasi-de hihansi-ta no-wa  
 Taro-NOM write-PAST person-ACC by name criticize-PAST C-TOP  
 kono ronbun<sub>i</sub>-ø da  
 this paper COP (Hiraiwa 2006: 251, (7))

Hiraiwa and Ishihara provide other pieces of evidence of the same point. The piece of second evidence to distinguish between the regular and pseudo cleft is the (un)availability of multiple foci. They argue that the “regular” cleft allows multiple foci, while the “pseudo” cleft does not. The last piece of evidence to show the distinction between the regular cleft and the pseudo cleft is the category of *no*. In the regular cleft, it is the complementizer; hence it cannot be replaced with NPs or pronouns.<sup>28</sup>

Hiraiwa and Ishihara (2002) propose that a cleft sentence like (130a) is derived via two movements: focus movement and remnant movement of CP. A cleft sentence partially involves the structure of a *no-da* in situ focus sentence as in (130b).

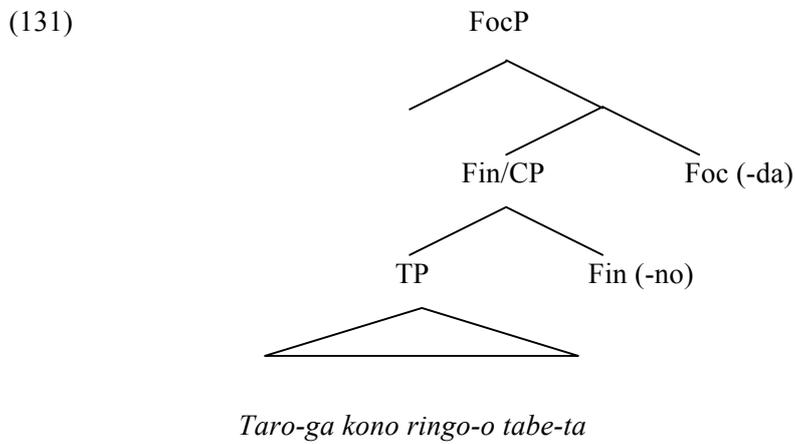
- (130) a. [Taro-ga e<sub>i</sub> tabeta no]-wa kono-ringo-o<sub>i</sub> (3-tu) da  
 Taro-NOM ate C-TOP these-apples-ACC (3-CL) COP  
 ‘It is (three of) these apples that Taro ate’
- b. [<sub>CP</sub> Taro-ga KONO RINGO-o (3-tu) tabeta no] da  
 Taro-NOM these-apples-ACC (3-CL) ate C COP  
 ‘It is (three of) these apples that Taro ate’

---

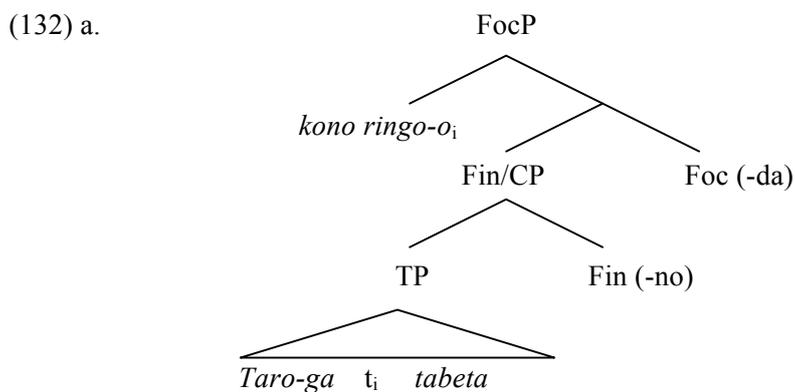
<sup>28</sup> They show some other pieces of evidence. For the sake of relevance, I do not go into the details of this. The reader may refer to Hiraiwa and Ishihara (2002) for more details on this point.

CHAPTER IV

(131) is the base structure of the *no-da* construction in which TP *Taro-ga kono ringo-o tabeta* ‘Taro-NOM these apple-ACC ate’ is embedded in FinP (finite phrase) and FocP (focus phrase).<sup>29</sup>



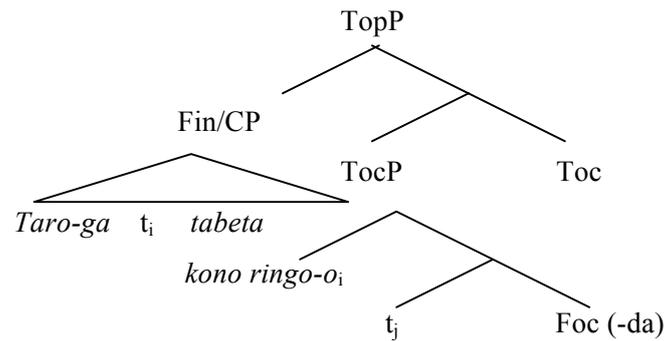
Next, the DP *kono ringo* ‘these apples’ inside the TP is moved to [Spec, Foc’] as in (132a). Finally, Fin/CP undergoes remnant movement to [Spec, Top’] as in (132b).



<sup>29</sup> Hiraiwa and Ishihara assume that the copula *da* is a grammaticalized focus particle/marker that heads FocP in the cleft construction.

CHAPTER IV

b.



Under the Phase model, the element that has been remerged to the edge of  $vP$  can be a target of the further syntactic operations conditioned under the PIC (Phase Impenetrability Condition). I have proposed that the  $DP_{LOC}$  of *spray/load* verbs is remerged to the edge of  $v_1$  and assigned Dative at that position. From this position, it can be further remerged to the higher position, as I have shown under scrambling. We expect that an operation of Cleft (focus movement and CP remnant movement) can also apply to the remerged DP. Under this operation, a cleft sentence, as in (133), is expected to be derived.

- (133) [Gakusei-ga t<sub>i</sub> enogu-o nut-ta no]-wa sono osara-ni<sub>i</sub> da  
 student-NOM paint-ACC paint-PAST C-TOP that plate-DAT COP  
 ‘Literally: It is that plate that two students painted paint’

If this cleft is an instance of the regular cleft, it must show the same syntactic behavior in the tests Hiraiwa and Ishihara provide; the data below show that this is correct.

(134) Island effect (available)

- a. \*Taro-ga [e<sub>j</sub> e<sub>i</sub> enogu-o nut-ta tougeika<sub>j</sub>]-o hihanshi-ta  
 Taro-NOM paint-ACC paint-PAST potter- ACC criticize-PAST  
 no-wa kono tsubo-ni<sub>i</sub> da  
 C-TOP this pot-DAT COP  
 ‘Literally: It is this pot<sub>i</sub> that Taro criticized the potter<sub>j</sub> who e<sub>j</sub> painted the glaze e<sub>i</sub>’
- b. Taro-ga [e<sub>j</sub> e<sub>i</sub> enogu-o nut-ta tougeika<sub>j</sub>]-o hihanshi-ta  
 Taro-NOM paint-ACC paint-PAST potter- ACC criticize-PAST  
 no-wa kono tsubo<sub>i</sub>-∅ da  
 C-TOP this pot COP

## CHAPTER IV

### (135) Multiple foci (available)

- a. Taro-ga nut-ta no-wa kabe-ni penki-o da  
 Taro-NOM paint-PAST C-TOP wall-DAT paint-ACC COP  
 ‘Literally: It is paint, the wall that Taro painted’
- b. \*Taro-ga nut-ta no-wa kabe- $\emptyset$  penki-o da  
 Taro-NOM paint-PAST C-TOP wall- $\emptyset$  paint-ACC COP  
 ‘Literally: It is paint, the wall that Taro painted’
- c. \*Taro-ga nut-ta no-wa kabe-ni penki- $\emptyset$  da  
 Taro-NOM paint-PAST C-TOP wall-DAT paint- $\emptyset$  COP  
 ‘Literally: It is paint the wall that Taro painted’

### (136) Category of *no* (not pronominal)

- a. Taro-ga penki-o nut-ta {no/\*basyo}-wa kono kabe-ni da  
 Taro-NOM paint-ACC paint-PAST C/place-TOP this wall-DAT COP  
 ‘Literally: It is this wall {that/\*place} Taro painted paint onto’
- b. Taro-ga penki-o nut-ta {no/basyo}-wa kono kabe- $\emptyset$  da  
 Taro-NOM paint-ACC paint-PAST C/place-TOP this wall- $\emptyset$  COP  
 ‘Literally: It is this wall {that/place} Taro painted paint onto’

- (137) a. Taro-ga enogu-o nut-ta {no/\*mono}-wa kono osara-ni da  
 Taro-NOM paint-ACC paint-PAST C/thing-TOP this plate-DAT COP  
 ‘Literally: It is this plate {that/\*thing} that Taro painted paint’
- b. Taro-ga enogu-o nut-ta {no/mono}-wa kono osara- $\emptyset$  da  
 Taro-NOM paint-ACC paint-PAST C/thing-TOP this plate- $\emptyset$  COP  
 ‘Literally: it is this plate {that/thing} that Taro painted paint’

In the previous subsection, I argued that the accusative-dative order of *spray/load* verbs is derived from the dative-accusative order via scrambling. The hallmark of my analysis is the link of the argument permutation and Case Assignment in terms of movement to the edge of  $v_{acc}$ . Now I extend this analysis to the analysis of the cleft. The Phase theory allows that the element that has been remerged to the edge of the functional head can be a target of further operations. Under this assumption, I argue that the scrambled  $DP_{MAT}$ ,

## CHAPTER IV

following the remerge of the DP<sub>LOC</sub> and assigned as Dative there, can undergo a Cleft operation. A licit cleft sentence in (138) shows that this derivation results in grammaticality.

- (138) [Gakusei-ga osara-ni t<sub>i</sub> nut-ta no]-wa sono enogu-o<sub>i</sub> da  
 student-NOM plate-DAT paint-PAST C-TOP that paint-ACC COP  
 ‘Literally: It is that paint that students painted onto the plate’

As in (139), a multiple accusative cleft with *spray/load* verbs is acceptable.<sup>30,31</sup>

- (139) a. ?[Gakusei-ga t<sub>i</sub> enogu-o nut-ta no]-wa sono osara-o<sub>i</sub> da  
 student-NOM paint-ACC paint-PAST C-TOP that plate-ACC COP  
 ‘Literally: It is that plate that students painted paint’

<sup>30</sup> Seven out of twelve informants found that the sentence in (139a) was more acceptable than (139b), where the lower accusative goal is the focus element. Two out of the same twelve informants found the sentence in (139b) is much better than (139a). Three other informants found that there was no difference in acceptability between them.

<sup>31</sup> I also tested a pair of cleft sentences in (i) and (ii) with the same twelve informants. (i) is a sentence containing the higher goal as focused, while (ii) is a sentence containing the lower goal as focused.

- (i) Taro-ga kyou siroi penki-o nut-ta no-wa isu-o ni-kyaku da  
 Taro-NOM today white paint-ACC paint-PAST C-TOP chair-ACC two-CL COP  
 ‘Literally: It is two chairs that Taro painted white paint to day’  
 (ii) Taro-ga kyou isu-o nut-ta no-wa penki-o ni-shoku da  
 Taro-NOM today chair-ACC paint-PAST C-TOP paint-ACC two-CL COP  
 ‘Literally: It is two colors of paint that Taro painted the chair today’

I also tested a pair of MACs with other verbs in the same class of *spray/load* verbs: *mitasu* ‘fill’, *umeru* ‘burry’ and *moru* ‘serve’. The results of the difference in acceptability between (i) and (ii) were as follows:

	LOC > MAT	MAT > LOC	Both OK	Both *
<i>mitasu</i> ‘fill’	5	3	4	0
<i>umeru</i> ‘burry’	5	0	6	1
<i>moru</i> ‘serve’	5	1	6	0

Although I acknowledge that the scale of this experiment is small in terms of the number of informants required to obtain statistically significant data, these figures show a certain tendency: (i) in a cleft, it is much more acceptable to have a realization of multiple accusative goals, compared to the same pattern under scrambling; (ii) in a cleft, there is much more symmetry between the two accusative goals with respect to extractability (as a focus), compared to the same pattern under scrambling. A possible account for this tendency is not investigated in the thesis. It is a matter for future work.

## CHAPTER IV

- b. ?[Gakusei-ga osara-o t<sub>i</sub> nut-ta no]-wa sono enogu-o<sub>i</sub> da  
student-NOM plate-ACC paint-PAST C-TOP that paint-ACC COP  
'Literally: It is that paint that students quickly painted plates'

Under the movement analysis of cleft, I argue that Dative Case Assignment is optional at the edge; as a result, the remerged DP stays in the edge of  $v_{acc}$  being valued as ACC and may undergo further syntactic operations. Cleft formation (focus movement + CP remnant) can target at the given DP. If this takes place, as a result, a derivation of (139a) can be merged. Under the same stipulation, the sentence in (139b) is spelled out from a derivation where the  $DP_{MAT}$  is scrambled over the  $DP_{LOC}$  at the edge and Case Assignment has failed to take place.

According to my informants, there is a tendency that a multiple accusative cleft is more generally accepted than a multiple accusative scrambling in the previous section. At present, this study cannot provide any account for this tendency, but the fact certainly deserves further investigation based on a more substantive set of data.

### 4.5 Chapter conclusion

In this chapter, I have proposed Dative Case Assignment after Movement in *spray/load* constructions; Accusative Case on the given DP is revalued to Dative Case under Movement when the DP is remerged to the edge of  $vP$ . The crucial evidence for this proposal comes from (i) the distribution of the locational argument of *spray/load* verbs with respect to the manner adverb; (ii) the NPI (Negative Polarity Item) licensing of the indeterminate locational element of these verbs. The Case Assignment mechanism is involved in a derivation of the accusative-dative word order, a passivization of the  $DP_{MAT}$ , a preposing of the  $DP_{MAT}$  and the verb, the two types of scrambling (i.e., the dative-accusative and the double accusative), and the two types of cleft (i.e., the dative-accusative cleft, and the double accusative cleft). The multiple accusative constructions with *spray/load* verbs can be derived iff Dative Assignment after Movement fails to apply, even though the given goal has been remerged to that position. Under the PIC (Phase Impenetrability Condition), the remerged element at the edge of  $vP$  being valued as Accusative can be a target of further syntactic operations.

I have also shown that *spray/load* constructions show a quite distinct syntax from that of *give* constructions with respect to the base-merge position of the GOAL/LOC phrase and Dative Case Assignment. I have argued that this difference can be ultimately attributed to a

## CHAPTER IV

different type of functional head  $\nu$  that selects each lexical item. Specifically, I have hypothesized that  $\nu_{\text{acc}[+\text{multiple}]}$  selects *spray/load* verbs, while a bundle of Case features  $\nu_{\text{dat}}$  and  $\nu_{\text{acc}}$  selects *give* verbs.

In the next chapter, I show that the two types of functional head  $\nu_{\text{acc}[+\text{multiple}]}$  and  $\nu_{\text{dat}}$  determine whether or not a verb constitutes a paradigm of argument alternation in Japanese.

## Chapter V

### Argument alternation in Japanese

#### 5.1 Introduction

It is widely known that *spray/load* verbs appear in “argument alternation” in Japanese (Kageyama 1980, Okutsu 1981, Kuroda 1988, Fukui, Miyagawa and Tenny 1985, Kuroda 1988, Kishimoto 2001c, Iwata 2008) as in (1).

- (1) a. Taro-ga      kabe-ni      penki-o      nut-ta  
       Taro-NOM   wall-DAT   paint-ACC   paint-PAST  
       ‘Taro painted paint onto the wall’
- b. Taro-ga      kabe-o      penki-de      nut-ta<sup>1</sup>  
       Taro-NOM   wall-ACC   paint-with   paint-PAST  
       ‘Taro painted the wall with paint’

However, *give* verbs cannot appear in this paradigm as in (2).<sup>2</sup>

---

<sup>1</sup> I will discuss the category of *de* in 5.2.2. For a mean while, I treat it as a particle.

<sup>2</sup> With respect to “alternation verbs” in Japanese, Iwata (2008) provides the following list.

- (i) *nuru* ‘spray,’ *haru*<sub>1</sub> ‘stretch, spread’ *maku*<sub>1</sub> ‘wind’  
 (ii) *chiribameru* ‘inlay,’ *mabusu* ‘coat’  
 (iii) *tsumeru* ‘stuff,’ *umeru* ‘bury’  
 (iv) *moritsukeru* ‘dish up,’ *yamamori-nisuru* ‘heap up,’ *yamazumi-ni suru* ‘pile up’  
 (v) *mitasu* ‘fill,’ *ippai-ni suru* ‘make full,’ *tsumarasu* ‘clog,’ *kazaru* ‘decorate,’ *chirakasu* ‘scatter’  
 (vi) *kukuru* ‘tie up,’ *shibaru* ‘bind,’ *tomeru* ‘fasten,’ *utsu* ‘drive,’ *karameru* ‘entangle,’ *aeru* ‘dress,’ *mazeru* ‘mix’  
 (vii) *sasu* ‘prick,’ *tsukisasu* ‘stick,’ *iru* ‘shoot,’ *ateru* ‘hit,’ *butsukeru* ‘throw’

The following two verbs are categorized as non-alternation verbs, only appearing in the DAT-ACC pattern; yet they may appear in the WITH-ACC pattern once they are compounded with the morpheme *tsukusu*.<sup>3</sup> In contrast, verbs in (ix) exclusively appear in the WITH-ACC pattern, but not in the DAT-ACC pattern.

- (viii) *maku*<sub>2</sub> ‘sprinkle, splash,’ *haru*<sub>2</sub> ‘put’  
 (ix) *tsutsumu* ‘cover,’ *oou* ‘cover’

The categorization of alternation and non-alternation verbs in Japanese may vary among researchers. Fukui, Miyagawa and Tenny (1985) report that neither *maku* ‘sprinkle’ (1985: 45, (44)) nor *haru* ‘spread’ (1985: 11, (16)) undergo argument alternation. However,

## CHAPTER V

- (2) a. Taro-ga      Hanako-ni      ringo-o      age-ta  
Taro-NOM    Hanako-DAT    apple-ACC    give-PAST  
‘Taro gave an apple to Hanako’
- b. \*Taro-ga      Hanako-o      ringo-de      age-ta  
Taro-NOM    Hanako-ACC    apple-with    give-PAST  
‘Taro gave an apple to Hanako’

We have established the fact that both *spray/load* verbs and *give* verbs show a different phrase structure and Case-licensing mechanism when they appear in the dative-accusative case array as in (1a) and in (2a). Given this, it is reasonable to put forward a hypothesis that these differences between each verb may determine whether or not a given verb can participate in argument alternation.

There are some verbs in Japanese that do not undergo the *spray/load* alternation (e.g., *maku* ‘sprinkle’, *haru* ‘put’, etc.), similar to *give*-type verbs.

- (3) a. Taro-ga      niwa-ni      mizu-o      mai-ta  
Taro-NOM    garden-DAT    water-ACC    sprinkle-PAST  
‘Taro sprinkled water over the garden’
- b. \*Taro-ga      niwa-o      mizu-de      mai-ta  
Taro-NOM    garden-ACC    water-with    sprinkle-PAST  
‘Taro sprinkled the garden with water’

These verbs are, however, crucially different from *give* verbs: they can appear in the *with*-accusative construction if a morpheme *tsukusu* ‘exhaust’ is suffixed to it as in (4).

---

Kawano (1997), according to Iwata (2008: 181), reports *haru* can alternate. Iwata’s (2008: 181-182) assumes that there are two *harus* in Japanese: *haru*<sub>1</sub> with a meaning ‘to stretch, to spread’ is classified as an alternation verb, whereas *haru*<sub>2</sub> with a meaning ‘to put on, to stick, to paste,’ is classified as a non-alternation verb. Although my theory accounts for the reason why some verbs undergo argument alternation when they are suffixed by *tsukusu*, it is not my purpose here to describe the properties of each lexical item relating to the *spray/load* alternation. Nevertheless, I argue later that there are more than two verbs that may undergo alternation when affixed by *tsukusu* (see 5.4).

## CHAPTER V

- (4) Taro-ga      niwa-o      mizu-de      maki-**tsukusi**-ta  
Taro-NOM    garden-ACC    water-WITH    sprinkle-exhaust-PAST  
'Taro sprinkled the garden with water completely'

This effect does not hold for *give* verbs as in (5).

- (5) \*Taro-ga      Hanako-o      ringo-de      age-**tsukusi**-ta  
Taro-NOM    Hanako-ACC    apple-WITH    give-exhaust-PAST  
'Literally: Taro gave Hanako with apples'

One might think that argument alternation is simply a matter of the lexical semantics of an individual verb, as it has been often discussed in lexical semantics, event semantics and construction grammar (Rappaport and Levin 2005; Levin and Rappaport 2005, Levin 2010, Goldberg 1995, Pinker 1989, Kageyama 1996, Iwata 2008, among others). One matter of agreement among these theories is that when both verbs appear in the dative-accusative construction, they are associated with the caused motion event schema (Goldberg 1995, Iwata 2008, Pinker 1989, Kageyama 1996), as I discussed in Chapter I. I wonder whether the syntactic variations in the two types of verbs that we have observed in the previous chapters follow from an analysis of the lexical semantics.

In this chapter, I argue that a more interesting hypothesis is one that can explain why the argument alternation phenomenon occurs in terms of more general syntactic constraints that are also fundamental to the other *prima facie* unrelated phenomenon. I develop an account of argument alternation in Japanese that is based on the syntax of both types of verbs in this chapter; specifically, I will argue that whether or not a verb can take part in argument alternation depends on which types of functional heads (i.e.,  $v_{acc}$  [+multiple] or  $v_{dat}$ ) a verb chooses to merge with in the derivation. I have proposed that a different functional head determines the choice of dative case marking in ditransitive verbs in the previous chapter. Hence, whether or not a verb participates in argument alternation is predicted by the dative case marking system in these verbs. The upshot is that we have a new account for argument alternation in terms of primitive vocabularies that are available in the UG.

The outline of this chapter is as follows: in section 5.2, I discuss the syntax of the *with*-accusative construction of *spray/load* verbs, and hypothesize a VP that is different from the one in the dative-accusative *spray/load* construction. In section 5.3, comparing the two

## CHAPTER V

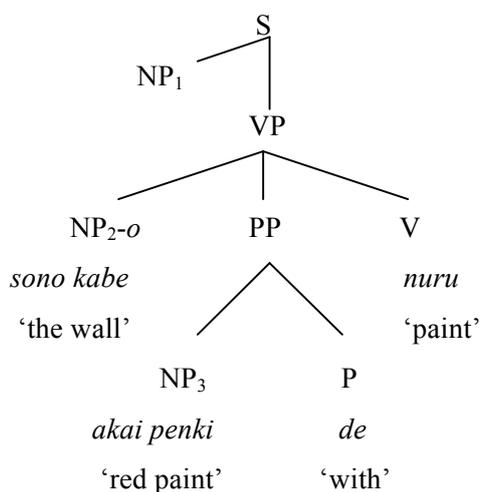
VPs of *spray/load* verbs, I propose a condition of argument alternation. In section 5.4, I further explore an aspect of argument alternation in Japanese, focusing on the fact that some non-alternation verbs (e.g., *maku* ‘sprinkle’, *haru* ‘put’, etc.) can be associated with two variants of argument alternation if they are suffixed with the morpheme *tsukusu* ‘exhaust.’ Section 5.5 concludes this chapter with a discussion.

### 5.2. The syntax of *spray/load* verbs in the *With-ACC* construction

#### 5.2.1 Fukui, Miyagawa and Tenny (1985)

Fukui, Miyagawa and Tenny (1985) propose a VP of the *with-accusative* construction with *spray/load* verbs, repeated in (6). In the structure, both the *o*-phrase and the *de*-phrase are arguments of the verb; they are co-sisters to the verb. The *o*-phrase precedes the *de*-phrase.

(6) [S Agent-ga [VP Location/Entity-*o* Material-*de* V]]



(Fukui, Miyagawa and Tenny: 1985, (34), modified)

The proposal that the *de*-PP is an argument of the verb is based on the fact that this type of *de*-PP behaves syntactically differently from the instrumental PP, including the compatibility of the two phrases in a sentence, and so forth. In (6), both the *o*-phrase and the *de*-phrase are within the same maximal projection VP. Hence, both phrases are argument of the verb. In the following section, I will show that the *de*-phrase is not an argument of the verb but an adjunct of the VP.

## CHAPTER V

### 5.2.2 VP of *spray/load* verbs in the *With-ACC* construction

According to Jackendoff (1977: 78), preposing is one of the test to examine the constituency of a head and its phrases. In this test, stranding an argument as remnant results in ungrammaticality, while stranding an adjunct does not lead to the same result, which in turn means that if an element that can be stranded is an adjunct, while if it is not, it is an argument. In Chapter III (see 3.5.1), I have argued that a formation of VP-preposing with ditransitive verbs in Japanese must obey the MLC (Minimal Link Condition), which indicates that the constituency of VP-internal elements can be elicited under this test (Koizumi 1994, Yatsushiro 1998).

In the structure in (6), both phrases are arguments of the verb. This category is a complete VP; hence we expect this phrase to be fronted under the assumption of Koizumi (1994) and Yatsushiro (1998). This is confirmed by (7a). Under the same assumption, we expect a preposing of the *de*-phrase and the verb alone not to be attested, because they do not constitute the complete VP constituent. Likewise, the preposing of the *o*-phrase and the verb alone must not be attested for the same reason. However, the first assumption leads to the wrong conclusion. As the grammaticality of (7b) and (7c) shows, the preposing of the *de*-phrase and the verb alone stranding the *o*-phrase is illicit, whereas the preposing of the *o*-phrase and the verb alone stranding the *de*-phrase is licit.

- (7) a. [<sub>VP</sub> Kabe-o      penki-de      nuri-sae ]<sub>i</sub>    Taro-ga      t<sub>i</sub>    si-ta  
      wall-ACC    paint-with    paint-even    Taro-NOM      LV-PAST  
      ‘Literally: Even paint the wall with paint, Taro did’
- b. \*Penki-de      nuri-sae      Taro-ga      kabe-o      si-ta  
      paint-with    paint-even    Taro-NOM    wall-ACC    LV-PAST  
      ‘Literally: Even paint with paint, Taro did the wall’
- c. Kabe-o      nuri-sae      Taro-ga      penki-de      si-ta  
      wall-ACC    paint-even    Taro-NOM    paint-with    LV-PAST  
      ‘Literally: Even paint the wall, Taro did with the paint’

Following Jackendoff’s argument/adjunct distinction test, we can say that the *de*-phrase can be stranded because it is an adjunct, while the *o*-phrase cannot because it is an argument.

The same asymmetry can be found with the *soo-su* ‘do-so’ substitution and pseudo-cleft (Koizumi 1994). According to Koizumi (1994), *soo-su* can substitute a complete VP

## CHAPTER V

complex and the same condition holds for the pseudo-cleft. The data in (8b), where an entire VP containing the *o*-phrase and the *de*-phrase is replaced by *soo-su*, follows from this assumption. They also follow from the structure in (6).

- (8) a. Taro-ga      penki-de      kabe-o      nut-ta  
Taro-NOM   paint-with   wall-ACC   paint-PAST  
'Taro painted the wall with paint'
- b. Sosite   Hanako-mo   **soo-si-ta**  
and      Hanako-also   do-so-PAST  
'Then Hanako did so (= paint the wall with paint), too'

Under the same assumption, the data below shows that the pattern we have identified in VP-preposing – i.e., that the *o*-phrase and the verb may constitute a complete VP constituent – is a regular one.

- (9) a. Sosite   Hanako-mo   enogu-de                      **soo-si-ta**  
and      Hanako-also   water.colors-with      do-so-PAST  
'Then Hanako did so (= paint the wall) with water colors, too'
- b. \*Sosite   Hanako-mo   tsukue-o                      **soo-si-ta**  
and      Hanako-also   table-ACC      do-so-PAST  
'Then Hanako did so (= paint with paint) the table, too'

As in (9a), *soo-su* can substitute a constituent that includes the *o*-phrase and the verb to the exclusion of the *de*-phrase. In contrast, as (9b) shows, *soo-su* cannot replace a constituent that includes the *de*-phrase and the verb. This means that the *de*-phrase alone never constitutes a maximal VP with the verb, which in return means that this phrase is an adjunct.

I show that the behavior of the pseudo-cleft of *with*-accusative sentences follows from the same assumption. According to Koizumi (1994), it is only the maximal VP that can be the focus of the pseudo-cleft (i.e., the phrase inside *koto-da* 'fact-COP'). As in (10a), the *o*-phrase and the verb infinitive can be a focus of the cleft, whereas in (10b), the *de*-phrase and the verb infinitive cannot.

CHAPTER V

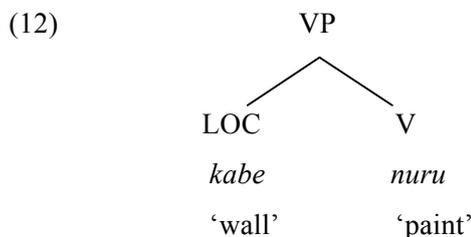
- (10) a. Taro-ga akapenki-de sita-no-wa **sono kabe-o** **nur-u**  
 Taro-NOM red.paint-with did-GEN-TOP the wall-ACC paint-PRES  
 koto da  
 fact COP  
 ‘What Taro did with red paint is to paint the wall’
- b. \*Taro-ga sono kabe-o sita-no-wa **akapenki-de** **nur-u**  
 Taro-NOM the wall-ACC did-GEN-TOP red.paint-with paint-PRES  
 koto da  
 fact COP  
 ‘What Taro did to the wall is to paint it with red paint’

Under Koizumi’s assumption, the grammaticality of these sentences follows from our hypothesis that the verb and the *o*-phrase alone constitute the complete VP category, hence the structural hypothesis in (11).

- (11) The *o*-phrase of the *with*-accusative construction of *spray/load* verbs is the complement of the verb.

This hypothesis poses two specific problems in the structure (6) under the binary branching hypothesis Kayne (1984): (i) the position of the *de*-phrase and (ii) the height of the *de*-phrase and the *o*-phrase. On the basis of the discussion above and a further discussion to follow, I modify the structure in (6) under the assumption of Merge.

I continue to assume Merge and Agree as a general system of structure building. In conjunction with the binary branching hypothesis, Merge builds a syntactic object with the *o*-phrase as the complement of the verb, as in (12).





CHAPTER V

- (16) \*Taro-ga enogu<sub>i</sub>-de ni-syoku<sub>i</sub> sono osara-o nut-ta  
 Taro-NOM paint-with two-CL the plate-ACC paint-PAST  
 ‘Taro painted a plate with two colors of paint’

Another piece of evidence for the same point comes from the interpretation of the demonstrative pronoun *so-ko* ‘that-place’. In the *with*-accusative order as in (17a) and (17b), *so-ko* in the *de*-phrase (i.e., bindee) in (17a) can be a variable of the QP *subete-no penkigaisya* ‘all paint manufacture’ in the *o*-phrase, whereas *so-ko* in the *o*-phrase (i.e., bindee) in (17b) cannot be a variable of the same QP.

- (17) a. BVR (*subete-no penkigaisya* (accusative), *so-ko* (*de*-PP))

(Taro-wa) [subete-no penkigaisya<sub>i</sub>-no kabe]-o  
 (Taro-TOP) all-GEN paint.manufacture-GEN wall-ACC  
 so-ko<sub>i</sub>-no penki-de nut-ta  
 its-GEN paint-with paint-PAST  
 ‘Taro painted the wall of every paint manufacture with its paint’

- b. \*BVR (*so-ko* (accusative), *subete-no penkigaisya* (*de*-PP))

(Taro-wa) so-ko<sub>i</sub>-no kabe-o [subete-no penkigaisya<sub>i</sub>]-no  
 (Taro-TOP) its-GEN wall-ACC all-GEN paint. manufacture-GEN  
 penki-de nut-ta  
 paint-with paint-PAST

- 
- Taro-NOM park-LOC play-PAST  
 ‘Taro played in the park’ (Location marker)
- c. Taro-ga rajio-no nyusu-de sono jiken-o sit-ta  
 Taro-NOM raido-GEN news-with the incident-ACC know-PAST  
 ‘Taro knew the incident on the radio’ (Medium marker)
- d. Taro-ga ichijikan-de yon-kiro(-o) arui-ta  
 Taro-NOM an hour-MEDIUM four-CL(-ACC) walk-PAST  
 ‘Taro walked four kilometers in an hour’ (Temporal marker)
- e. Taro-ga kaji-de subete-o usinat-ta  
 Taro-NOM fire-for everything-ACC lose-PAST  
 ‘Taro lost everything in the fire’ (Reason/Cause)
- f. Taro-ga iikagenna kimochi-de sore-o it-ta  
 Taro-NOM thoughtless feeling-STATE it-ACC say-PAST  
 ‘Taro told it half-heartedly’ (Psychological state)

## CHAPTER V

In the reverse order, as in (18a) and (18b), *so-ko* in the *de*-phrase of (18a) cannot be a variable bound by the QP, and the same interpretation holds even when *so-ko* is included in the *o*-phrase.

(18) a. \*BVR (*so-ko* (*de*-PP), *subete-no penkigaisya* (accusative))

(Taro-wa)	so-ko <sub>i</sub> -no	penki-de		
(Taro-TOP)	its-GEN	paint-with		
[subete-no	penkigaisya <sub>i</sub> -no	kabe]-o	nut-ta	
all-GEN	paint.manufacture-GEN	wall-ACC	paint-PAST	

‘Taro painted the wall of every paint manufacture with its paint’

b. \*BVR (*subete-no penkigaisya* (*de*-PP), *so-ko* (accusative))

(Taro-wa)	[subete-no	penkigaisya <sub>i</sub> ]-no	penki-de	
(Taro-TOP)	all-GEN	paint.manufacture-GEN	paint-with	
so-ko <sub>i</sub> -no	kabe-o	nut-ta		
its-GEN	wall-ACC	paint-PAST		

I assume that the demonstrative pronoun *so-ko* can obtain a variable reading when it is included in the c-command domain of the binder at LF under the modified condition based (i.e., without QR) on Hoji (2003) (see also section 3.3.1).

(19) Condition on the bound variable interpretation (based on Hoji (2003))

An NP  $\beta$  can be interpreted as a variable bound by an NP  $\alpha$  only if  $\beta$  or its copy after scrambling is included within the c-command domain of  $\alpha$ . ( $\alpha$  = binder,  $\beta$  = bindee )

If the *de*-phrase is an argument of some verbal head, we should expect the given phrase to be a binder, when it is quantified. With this in mind, let us examine the data below.

The interpretation of *so-ko* in (18) is expected under the tree in (24) under the condition (19). (18a) violates the c-command requirement of *so-ko*; the pronoun is not included in the c-command domain of the QP *subete-no penkigaisya* ‘all paint manufacturers’ (i.e., *o*-phrase). In (18b), *so-ko* cannot be a variable of the QP, even though it seems to satisfy the modified c-command condition of the BVR of *so-ko*. I argue that this is because there is a postposition *de* ‘with’ that prohibits the QP binder from binding into *so-ko* inside of the *o*-phrase. Let us assume that (18a) is derived from (17a) by scrambling of the

## CHAPTER V

*de*-phrase; (18b) is derived from (17b) under the same operation. The pronoun in both derived orders cannot be interpreted as a variable bound by the binder, which suggests that neither (18a) nor (18b) has the effect of the hallmark of Japanese short scrambling: the reconstruction effect (e.g., (18a)) and the optionality of reconstruction (e.g., (18b)) (see 3.3.1). For this reason, I argue that the *de*-phrase is not an argument of the VP.

According to Miyagawa and Tsujioka (2004), the PP is not associated with the structural (accusative/dative) case in Japanese and hence the element inside of the PP cannot undergo direct passivization. As shown in (20), the *de*-phrase cannot be passivized which means that this phrase has no structural case under the given assumption above.

- (20) \*Aopenki-ga      Taro-niyotte    koppu-o    nur-are-ta  
blue.paint-NOM    Taro-BY      cup-ACC    paint-PASS-PAST  
‘Blue paint was painted onto the cup by Taro’

In this respect, the *de*-phrase of *spray/load* constructions behaves similarly to the instrumental PP. The element inside the instrumental PP cannot be passivized as in (21b).

- (21) a. Taro-ga      hasami-de      kami-o      kit-ta  
Taro-NOM    scissors-INST    paper-ACC    read-PAST  
‘Taro cut a sheet of paper with the scissors’  
b. \*Hasami-ga      Taro-niyotte    suu-cyoo    kami-o      ki-rare-ta  
scissors-NOM    Taro-BY      a.few-CL    paper-ACC    cut-PASS-PAST  
‘Literally: A few scissors were cut the paper by Taro’

As shown in (22), the *de*-phrase is omissible, which indicates that this phrase can be an adjunct (Jackendoff 1990, Goldberg 1995, Iwata 2008, among many others).<sup>4</sup>

- (22) a. #Taro-ga      (kabe-o)      aopenki-de      nut-ta  
Taro-NOM    (wall-ACC)    blue.paint-with    paint-PAST  
‘Taro painted (the wall) with blue paint’

---

<sup>4</sup> Since Japanese is a so-called radical pro-drop language, it is hard to use these data as direct evidence for the point being made here. Nevertheless, I provide it as a piece of indirect evidence together with the direct evidence (i.e., VP-preposing or *soo-su* substitution tests) as provided earlier.

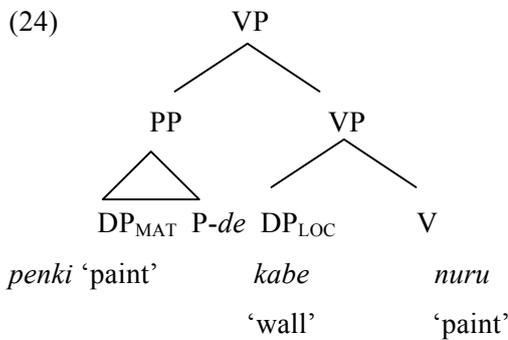
CHAPTER V

- b. Taro-ga kabe-o (aopenki-de) nut-ta  
 Taro-NOM wall-ACC blue.paint-with paint-PAST  
 ‘Taro painted the wall (with blue paint)’

This patterns with instrumental PPs, as in (23).

- (23) a. #Taro-ga hasami-de (kami-o) kit-ta  
 Taro-NOM scissors-INSTR paper-ACC cut-PAST  
 ‘Taro cut (a sheet of paper) with a scissors’  
 b. Taro-ga (hasami-de) kami-o kit-ta  
 Taro-NOM scissors-INSTR paper-ACC cut-PAST  
 ‘Taro cut a sheet of paper (with scissors)’

The literature on Japanese syntax generally assumes that the instrumental PP is a VP-adjunct (Ura 2000). If the *de*-phrase of *spray/load* verbs shares the same syntactic properties as the instrumental PP, it is reasonable to claim that the *de*-phrase of *spray/load* verbs is a VP-adjunct. Hence the tree is as given in (24).



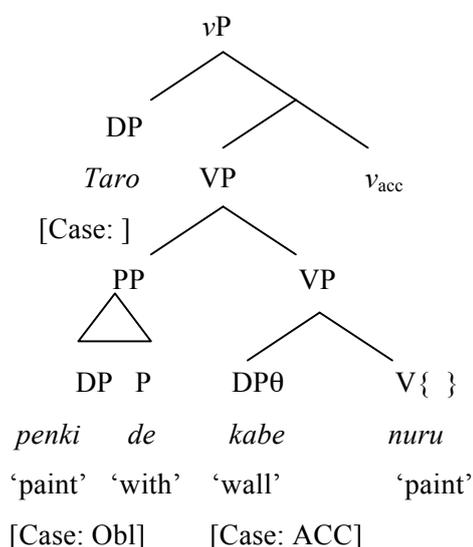
Following Chomsky (1995), I assume that the computation begins with a set of numeration. The numeration of (25a) is given in (25b).

- (25) a. Taro-ga kabe-o penki de nut-ta  
 Taro-NOM wall-ACC paint with paint-PAST  
 ‘Taro painted the wall with paint’  
 b. {*penki*<sub>1</sub>, *v*, *kabe*<sub>1</sub>, *Taro*<sub>1</sub>, *nuru*<sub>1</sub>, *de*<sub>1</sub>, T, ... }

## CHAPTER V

Since the  $DP_{LOC}$  *kabe* ‘wall’ is the only argument of the verb in the *with*-accusative construction, I hypothesize that the verb has a single theta role that is discharged to the complement of the verb. I also argue that the PP that includes the  $DP_{MAT}$  is adjoined to the VP. Under the Split-VP hypothesis (Chomsky 1995, among others),  $v$  assigns a theta role to the external argument. Under the assumption of Agree, I argue that the  $DP_{LOC}$  *kabe* ‘wall’, being [-valued] in Case, will be valued as Accusative when it enters into Agree with  $v$ .  $v$  has no bearing on the Case licensing of the DP inside PP, since it has been assigned oblique case, even though it is within the c-command domain of  $v$ . I argue that  $v_{acc}$  values Accusative Case on its c-commanding goal.

### (26) The structure for *spray/load* verbs in the *with*-accusative construction



I have postulated that the basic order is *with*-accusative and that the accusative-*with* order is derived. Now let us consider the landing site of this scrambling. Under the general assumptions of MP, it is hypothesized that movement is feature-driven. Specifically, this feature is a [-interpretable] feature (Fukui 2001). Thus, an element moves to the position where the feature resides. With the present data, we have no strong counter-argument against this hypothesis. Let us follow this assumption. Movement is conditioned by locality, i.e., movement obeys the MLC (Minimal Link Condition). Under these assumptions, the most local position for the  $DP_{LOC}$  to remerge is the specifier of  $v_{acc}$ . There is another piece of evidence for this point. Ura (2000) argues that the manner adverb/instrumental PP in Japanese can mark the left edge of VP. Under the assumption that the *de*-phrase of

## CHAPTER V

*spray/load* verbs is a kind of instrumental PP, it is not unreasonable to argue that the *de*-phrase marks the left edge of VP. We can confirm the plausibility of this argument with the NPI licensing of the indeterminate words. As introduced in section 4.3.1.2, indeterminate words (e.g., *nani* ‘what’) can be interpreted as an NPI when they are included within the c-command domain of the quantificational particle *mo* ‘also’ (Hiraiwa 2005; 2006a). Let us assume that *mo* is attached to the light verb *v* (Kishimoto 2001a, Hiraiwa 2005). Under this assumption, if the indeterminate instrumental PP is merged lower than *mo*, it must show the NPI interpretation with *mo*, because it is within the c-command domain of *v* where *mo* resides, while if it is merged higher than *mo*, it must not show an NPI interpretation. As in (27), the sentence does not show an NPI interpretation; hence the indeterminate word *nani-de* ‘with what’ is not included within the scope of *mo* and hence an intended interpretation is unavailable.<sup>5</sup> This in turn means that the position of the *de*-phrase is a specifier of *v*.

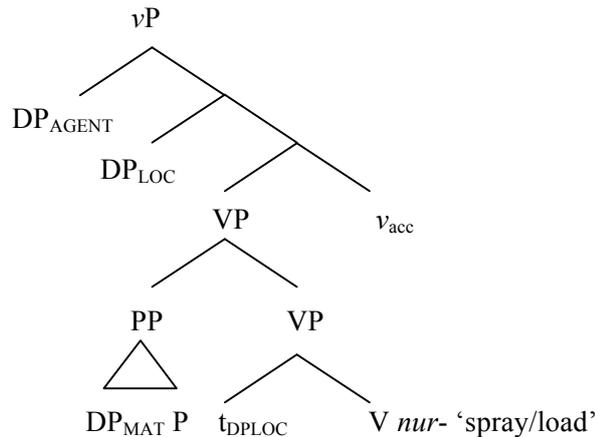
- (27) \*/??Taro-wa nani de kabe-o nuri-mo-si-nakat-ta  
 Taro-TOP what with wall-ACC paint-also-LV-NEG-PAST  
 ‘Taro didn’t paint the wall with anything’

Under this assumption, we expect that if the indeterminate object NP (i.e., the LOC) is remerged higher than the adverb, it must not show an NPI interpretation, because it is outside of the scope of *mo*. On the other hand, if it is remerged lower than the adverb, it must show an NPI interpretation since it is presumably lower than *mo*. A pair of sentences in (28) confirms that our prediction is correct.

- (28) a. \*Taro-wa nani-o penki de nuri-mo-si-nakat-ta  
 Taro-TOP what-ACC paint with paint-also-LV-NEG-PAST  
 ‘Taro didn’t paint anything with paint’  
 b. Taro-wa penki de nani-o nuri-mo-si-nakat-ta  
 Taro-TOP paint with what-ACC paint-also-LV-NEG-PAST  
 ‘Taro didn’t paint anything with paint’

Given that the position of *mo* is *v*, the order accusative-with implicates a derivation where the LOC argument is remerged to the edge of *v* as in 0).

<sup>5</sup> An expression *nan-de* ‘with what’ is an alternative form of *nani-de*. However, *nan-de* is a homophone of *nande* ‘why’ in Japanese. Hence, I do not use the latter expression for the test.

(29) The structure for the ACC-*With* word order

Can the same DP move over the base position of the subject? We can test this under the assumption of NQF licensing (Miyagawa and Arikawa 2007): the position of the NQF *san-nin* ‘three-CL’ marks the base position of the external argument. A time-adverbial such as *kinou* ‘yesterday’ marks the left edge of *vP* (Ura 2000). Given that the DP can cross over the base position of the subject at once, and also move over the time adverbial, I conclude that it moves out of *VP*. On the other hand, if the given DP cannot cross over the base position of the subject, we can conclude that it lands at the inner specifier of *vacc*. The examples below show that the *o*-phrase is remerged to the inner specifier of *vacc*.

- (30) a. Gakusei-ga<sub>i</sub> [v<sub>P</sub> kinou **san-nin**<sub>i</sub> kabe-o<sub>j</sub> [v<sub>P</sub> penki de **ni-mai**<sub>j</sub>  
 student-NOM yesterday three-CL wall-ACC paint with two-CL  
 nut-ta]  
 paint-PAST  
 ‘Literally: Student<sub>i</sub>, three<sub>i</sub> painted the wall<sub>i</sub>, two<sub>i</sub> with paint yesterday’
- b. \*Gakusei-ga<sub>i</sub> [v<sub>P</sub> kinou kabe-o<sub>j</sub> **san-nin**<sub>i</sub> [v<sub>P</sub> penki de  
 student-NOM yesterday wall-ACC three-CL paint with  
**ni-mai**<sub>j</sub> nut-ta]  
 two-CL paint-PAST
- c. \*Gakusei-ga<sub>i</sub> kabe-o<sub>j</sub> [v<sub>P</sub> kinou **san-nin**<sub>i</sub> [v<sub>P</sub> penki de  
 student-NOM wall-ACC yesterday three-CL paint with  
**ni-mai**<sub>j</sub> nut-ta]  
 two-CL paint-PAST

## CHAPTER V

I further argue that the interpretation of the demonstrative pronoun *so-ko* in the *with*-accusative construction of *spray/load* verbs in (17) and (18) follows from this analysis. When the two arguments are included within VP, the element inside the PP cannot bind the *o*-phrase, because of the intervening PP *de*. Under the c-command requirement of the BVR of *so-ko*, this fact can be explained; *so-ko* in (17b), (18a) and (18b) cannot be interpreted as a variable of the QP *subete-no penkigaisya* ‘every painting company.’ But *so-ko* in the *de*-phrase in (17a) can be interpreted as a variable of the same QP in the *o*-phrase. I argue that this interpretation is created when the DP<sub>LOC</sub> is remerged to the edge of *v*P. From the remerged position, the QP in the *o*-phrase c-commands the pronoun inside the *de*-phrase.

Before closing this section, I will briefly mention the relation between the structure (24) and Case revaluation that I have proposed in Chapter IV. I have proposed that the given rule revalues Accusative Case on the higher goal of *v*<sub>acc</sub> into Dative Case, when it is remerged to the edge of *v*<sub>acc</sub>. However, there is a condition; Dative Case is only given to the specifier goal of *v*<sub>acc</sub> but not to the complement goal, even when the complement is remerged to the edge of *v*<sub>acc</sub>. Accordingly the DP<sub>LOC</sub>, the complement of the verb, in the *with*-accusative construction cannot be Case revalued as Dative. This is why the sentence below is illicit.

- (31) \*Taro-ga kabe-ni penki de nut-ta  
Taro-NOM wall-DAT paint with paint-PAST  
‘Literally: Taro painted onto the wall with paint’

### 5.3. Condition on argument alternation in Japanese

Fukui, Miyagawa and Tenny (1985) claim that a verb undergoes argument alternation when it satisfies the conditions in (32).

- (32) Conditions for the alternation (Fukui, Miyagawa and Tenny 1985: 44, (43))
- a. The verb takes two arguments *x*, *y* in its LCS; and
  - b. One of its arguments (*y*) is affected by the action represented by the meaning of the verb (‘Affect *y*’)

The condition (32a) claims that a verb must have two VP internal arguments *x* and *y*. The variable *x* represents the MAT argument and *y* represents the LOC (and “Entity”) argument. The condition (32b) claims that the LOC argument is always affected in both constructions.

## CHAPTER V

As in (33a) the LCS of the verb *nuru* ‘paint’ satisfies both conditions in (32), whereas the non-alternation verb *maku* ‘sprinkle’, failing to satisfy the lexical condition in (32b) without the semantic specification of “Affect y”, cannot participate in argument alternation. The LCS of the verb *oku* ‘put’ in (33c) (*give* verbs are assumed to fall in this class) also satisfies the condition (32a) but not (32b) and hence it does not appear in argument alternation.

- (33) a. LCS of *nuru* ‘paint’: Realize the action NURU by using the Material x and Affect  
y  
b. LCS of *maku* ‘sprinkle’: Realize the action MAKU by using the Material x  
c. LCS of *oku* ‘put’: OKU x at some place y

The LCS of the verb *maku* is quite similar to that of *nuru*. Fukui, Miyagawa and Tenny (1985) propose that the morpheme *tsukusu* ‘exhaust’ brings an “Affect” meaning into a LCS of the verb and this is why it can undergo argument alternation when it is affixed with the morpheme. As I have shown earlier, the verb *make* ‘splash, sprinkle’ is a type of non-alternation verb; however it comes to participate in the alternation when it is suffixed with the morpheme *tsukusu* ‘exhaust.’ The accuracy of the semantic description (33) is not obvious. That is to say that syntactic tests that I reveal later do not support this similarity of *nuru* and *maku*. Contrary to Fukui, Miyagawa and Tenny’s account, the syntax of *maku* turns out to be identical to that of *give* verbs in my tests.

Our inspection of the syntax of *with*-accusative constructions with *spray/load* verbs reveals a limit on the condition (32a). Crucially, I have demonstrated that the position of the *de*-phrase of this construction is not inside of the MLD (Minimal Lexical Domain) of the verb. Thus, the phrase is not an argument of the verb as shown in section 5.2.1. Consequently, an attempt to define a new syntactic condition is required. This is what I attempt to show in the remainder of this chapter.

I first compare the VP of dative-accusative constructions with that of the *with*-accusative construction. Since I define a condition of argument alternation, the proposal must explicate the long-standing issue in the literature of argument realization concerning *spray/load* verbs (Levin and Rappaport 2005): the transformational account (Larson 1988) vs. the base-generation account (Marantz 1993). I argue for the base-generation account with evidence from Japanese, which also speaks to the so-called “holistic effect” (Fillmore 1971, among many others) in the *spray/load* alternation. I argue that the given effect always implicates a certain derivation where the DP<sub>LOC</sub> (i.e., *o*-phrase) is merged to the complement

## CHAPTER V

of the verb. However, the syntax alone does not produce the effect; it arises as a result of an interaction between the syntax and the pragmatics.<sup>6</sup> If the assumption that the pragmatic information of a sentence is interpreted at LF or a Post-LF cognitive system (Hayashishita 2000) is defended, I would argue that the holistic effect may be fully specified on a tree at these levels. However, this issue is far beyond the scope of this thesis.

### 5.3.1 Previous literature on the *spray/load* alternation in syntax

Let us turn to English *spray/load* alternation. There are two major syntactic hypotheses on the relation of two syntactic variants of the *spray/load* alternation: the movement analysis (Larson 1988; 1990, among others) and the base-generation analysis (Marantz 1993, Baker 1997 among others). The movement analysis assumes that the thematic relation of each variant is the same; one of them reflects the base structure and the other construction reflects the structure derived from it. The base-generation analysis proposes that both constructions are associated with a different base structure.

Larson (1988; 1990) claims that the two syntactic variants of the *spray/load* alternation are derivationally related via the NP-movement called Dative Shift, which is often dubbed as the “VP-internal Passive.” He assumes that the loc-variant as in (35a) (i.e.,

---

<sup>6</sup> Some literature claims that the holistic effect of the *spray/load* alternation is epiphenomenal (Okutsu 1981, Jeffries and Willis 1984, Rappaport and Levin 1988, Pinker 1989, Jackendoff 1990, Kim 1999, Beavers 2006). According to Kishimoto (2001b), Okutsu (1981) points out the holistic effect disappears in (i) and (ii): Okutsu explains that lips are spatially smaller than a wall in general and hence it is difficult for us to see the same effect in the same degree in (i) and in (ii) (Iwata (2008) observes the same fact).

- (i) Kuchibiru-ni dokudokusiku ruuju-o nut-ta  
lips-DAT gaudy lip.stick-ACC paint-PAST  
'(I) put a gaudy lip stick onto my lips.
- (ii) Kuchibiru-o dokudokusiku ruuju-de nut-ta  
lips-DAT gaudy lip.stick-ACC paint-PAST  
'(I) put my lips with gaudy lipsticks' (Kishimoto 2001: 108, (20))

The very same point has been made by Rappaport and Levin (1988) and others. According to them, we can say (iv) even if there is only a dab of paint on the statue. Pinker (1989) suggests ‘the reason is that the status of the statue as an object of the beauty changes with even a single blemish on it.’

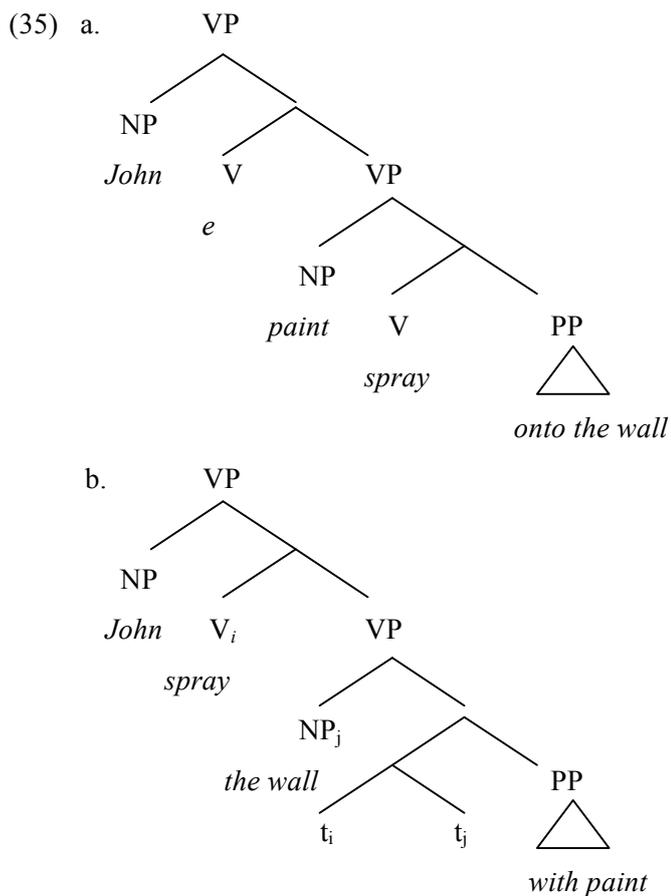
- (iii) The vandal sprayed paint onto the statue  
(iv) The vandal sprayed the statue with paint (cited from Pinter 1989: 78)

In sum, it seems that the holism of the *spray/load* alternation becomes less clear depending on the pragmatic condition of the DP<sub>LOC</sub> in the *with*-accusative construction.

## CHAPTER V

corresponding to the dative-accusative construction of *spray/load* verbs in Japanese) involves the base VP of the verbs and the *with*-variant as in (35b) (i.e., corresponding to the *with*-accusative construction of *spray/load* verbs in Japanese) involves a structure derived from the given base structure.

- (34) a. John sprayed paint onto the wall  
 b. John sprayed the wall with paint



In (35a), the  $DP_{LOC}$ , being PP, is a sister to the verb *spray*. The  $DP_{MAT}$  *paint* is Case-less in this structure. This will violate the Case filter if it is spelled out as it is. To save the derivation, Larson claims that the lexical verb moves to the higher empty V (*e*) position and provides a structural Case to the  $DP_{MAT}$ . In (35b), when the VP-internal passive applies to the lower VP and absorbs an inherent Case on the PP, the  $DP_{LOC}$  *wall* becomes Case-less, and moves to the specifier position of the lower VP to obtain Case (i.e., it is somewhat Agr-based Case checking). As a result of this operation, the  $DP_{MAT}$  *paint* is realized as an adjunct

## CHAPTER V

PP. V', which contains V and the copy of the DP *wall* in (35b), is reanalyzed as V. This newly-created V head-moves to the higher V and assigns a structural Case to that DP *wall* from the remerged position. As for the holistic effect of a loc-variant, Larson argues that the effect arises when the reanalyzed V is remerged to the higher V, along with a raising of the DP<sub>LOC</sub> to the specifier of the lower VP. In this derived configuration, the DP<sub>LOC</sub> is a direct object of the verb that licenses the “affected” reading (Baker 1997, among others).<sup>7</sup>

This type of analysis cannot be warranted under Merge and Agree in the MP, since NP-movement for Case is no longer a valid assumption in the theory. Also, the change of the category of the MAT argument from NP to PP during the course of a single derivation cannot be defended in the MP, because it violates the IC (Inclusiveness Condition). At present, I have no strong counter-argument against these general assumptions, hence I follow them. However, I adopt Larson’s account of the “holistic” reading to my theory in section 5.3.2.

Basilico (1998) supports the base-generation hypothesis for the *spray/load* alternation. Crucial to his analysis is the scope interpretation of the argument quantifier.

- (36) a. The farmer loaded a bale of hay onto every truck (a > every, every > a)  
b. The farmer loaded a truck with every bale of hay (a > every, \*every > a)

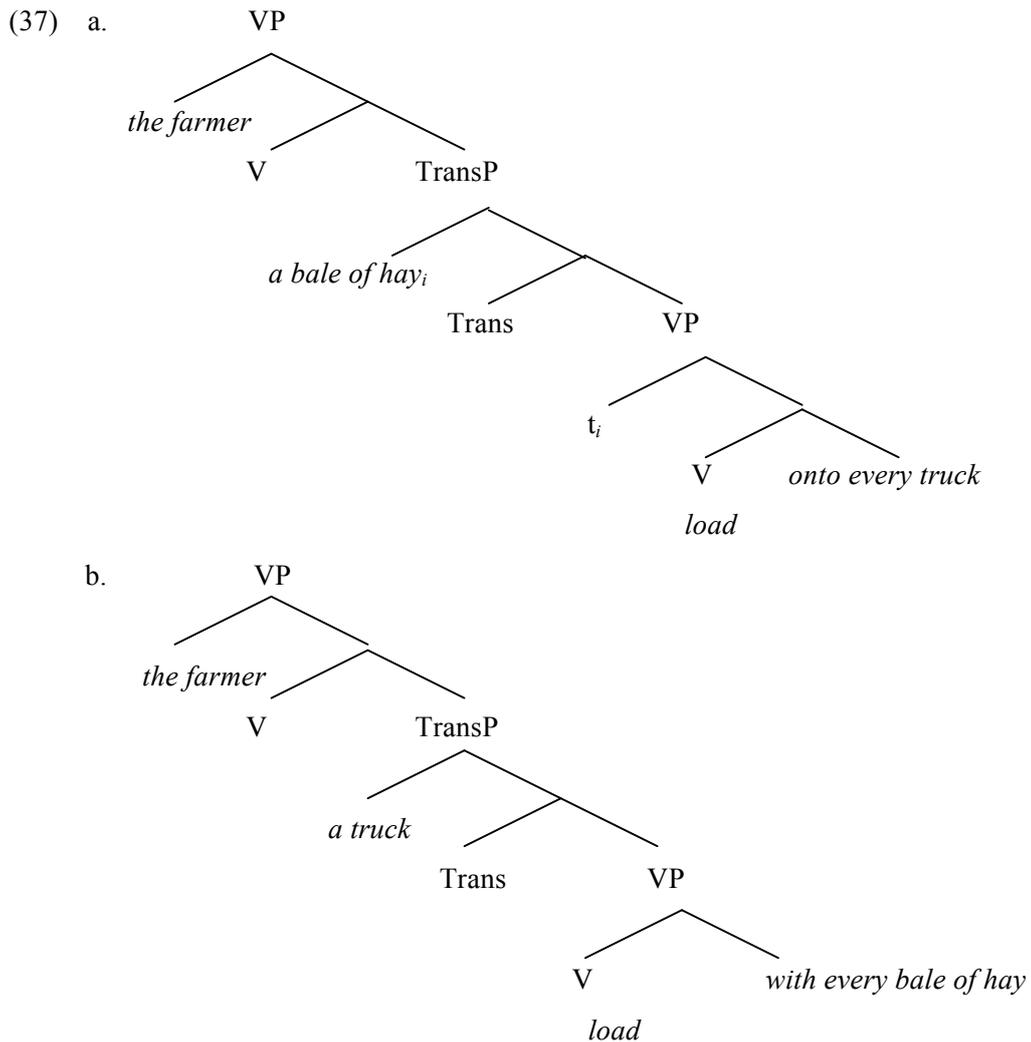
In (36a), the existential quantifier *a bale of* can take either wide or narrow scope with respect to the universal quantifier *every*, i.e., two interpretations are created: (i) there is a single bale of hay that had been loaded onto all the trucks; and (ii) every truck has been loaded with a different bale of hay. In (36b), on the other hand, the existential quantifier takes only wide scope with respect to the universal quantifier; the interpretation (ii) is not available. Thus, the *with*-construction shows a scope-freezing effect (Bruening 2001).

On a basis of this evidence, Basilico proposes that a VP contains the two verbal arguments together (i.e., MLD of the verb) for the loc-variant, while a VP like (37a) contains two individuated VPs that each contain one argument. Hence the VP shell structure.

---

<sup>7</sup> As we have examined in Chapter III, Aoun and Li (1989; 1993) provide the same kind of derivational account for the *spray/load* alternation as Larson’s under the VP-shell hypothesis, although the base positions of verbal arguments all appear on the right-hand side.

CHAPTER V



In (37a), the  $DP_{MAT}$  *a bale of hay* and the PP argument are both merged to the MLD of the lexical verb. This results in the scope ambiguity.<sup>8</sup> On the other hand, in (37b), the  $DP_{LOC}$  *a truck* is merged to [Spec, Trans] and the PP is merged to the complement of the verb; thus

<sup>8</sup> “Scope by Minimal Lexical Domain” is based on Chomsky’s definition of Minimal Lexical Domain and Hornstein’s (1995) proposal that functional projections do not extend (i.e., “roof”) the scope of an argument; only lexical projections do. Basilico’s scope interpretation is given in (i). For the definition of MLD, see section 2.3.4.

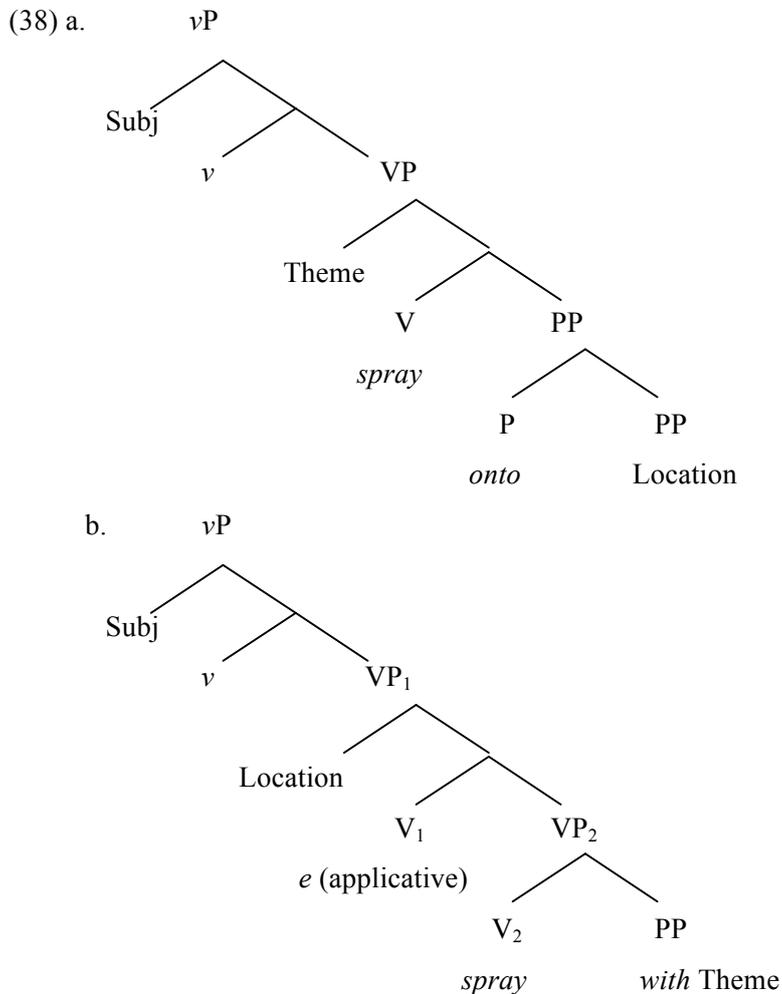
(i) Scope by Minimal Lexical Domain (Basilico 1998: 555, (24))

A quantified NP  $\gamma$  can have scope over another quantifier NP  $\beta$  iff  $\gamma$  and  $\beta$  are in the same minimal domain of a lexical head  $\alpha$ .

## CHAPTER V

the same DP has no link with the MLD in the given structure, and the  $DP_{LOC}$  asymmetrically c-commands the  $DP_{MAT}$  inside PP, hence the scope-freezing effect.<sup>9</sup>

Marantz (1993) also proposes that the two variants of the English *spray/load* alternation are associated with different VPs.



$VP_2$  in (38b) is the lexical projection, containing the verb and the *with*-PP. This VP is a sister of the silent head, called the applicative.<sup>10</sup> This applicative head takes the  $DP_{LOC}$  as its

<sup>9</sup> Basilico assumes that quantifiers are QRed at LF. However, I do not elucidate this point since it is not directly relevant to the discussion here.

<sup>10</sup> Marantz also proposes that the same applicative head appears in the structure of the double object construction in English, implicating the affected reading. Under the spec-head relation between the  $V_1$  and Goal of the double object verb, the possession effect of the double object sentence is obtained.

## CHAPTER V

subject and the lexical VP as its complement. Marantz claims that this applicative head encodes the affected reading.

### 5.3.2 Holistic effect

We have observed two types of syntactic analyses for the English *spray/load* alternation – transformational vs. base-generation – and two types of accounts of the “holistic” effect – the head-complement relation (e.g., Larson 1988) vs. the head-specifier relation (e.g., Marantz 1993). I adopt the base-generation account and the head-complement relation (i.e., for the holistic effect) for an analysis of Japanese argument alternation. First, I defend the account of the holistic effect.

In Larson’s derived structure in (35b), i.e., the derivation involved in the *with*-construction, the complex V following head-movement takes VP as a complement; inside of VP there is the LOC argument. This configuration creates a holistic effect. Following Larson, I argue that the head-complement relation explicates the holistic effect, although we do not need to assume V-raising in our structure. Neither order of the dative-accusative constructions with *spray/load* verbs exhibits the holistic effect as in (39a) and (39b), whereas both orders of the *with*-accusative sentence can be associated with the holistic effect as in (39c) and (39d).

- (39) a. Taro-ga kabe-ni aopenki-o nut-ta  
Taro-NOM wall-DAT blue.paint-ACC paint-PAST  
‘Taro painted blue paint onto the wall’
- b. Taro-ga aopenki-o kabe-ni nut-ta  
Taro-NOM blue.paint-ACC wall-DAT paint-PAST
- c. Taro-ga kabe-o aopenki de nut-ta  
Taro-NOM wall-ACC blue.paint with paint-PAST  
‘Taro painted the wall with blue paint’
- d. Taro-ga aopenki de kabe-o nut-ta  
Taro-NOM blue.paint with wall-ACC paint-PAST

I have proposed that the  $DP_{LOC}$  can be scrambled to [Spec,  $v_1$ ]. This derivation produces the accusative-*with* order on the surface. Given this, the given DP has been remerged to the specifier. If we assume that the holistic effect is created under the head-specifier relation, as in Marantz’s structure (38b), it would be hard to account for the fact that the same effect is

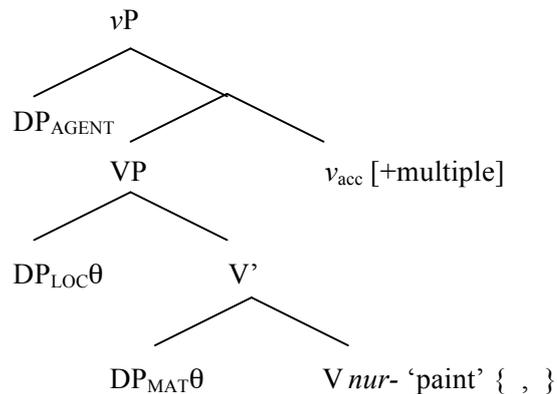
## CHAPTER V

also available with the *with*-accusative order as in (39d), where the  $DP_{LOC}$  is the complement of the verb. On this basis, I argue that the configuration that licenses the holistic effect is the head-complement relation between the verb and the  $DP_{LOC}$  at the base position; the reason why the same effect is still available in a scrambled order in (39c) is because it is licensed via the copy left in the complement position.

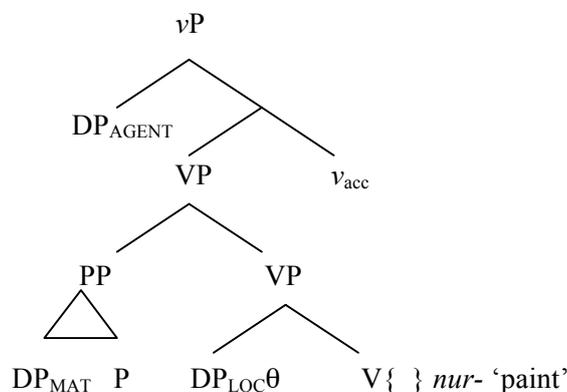
### 5.3.3 Proposal

Let us compare the base argument structure of *spray/load* verbs in Japanese. (40a) is the base form that is involved in the dative-accusative case array, while (40b) is the structure that is associated with the *with*-accusative construction. The lexical projection, i.e., the projection that excludes the  $DP_{AGENT}$ , exhibits a clear difference; (40a) includes two arguments and (40b) includes one argument. Two verb tokens (i.e., *nuru* ‘spray’ or its type) almost instantiate a different type in this respect. However, both structures share the same type of functional heads:  $v_{acc}$ . In other respects, the two verb tokens are realizations of the same type.

#### (40) a. The structure for *spray/load* verbs in the dative-accusative construction



#### b. The structure for *spray/load* verbs in the *with*-accusative construction



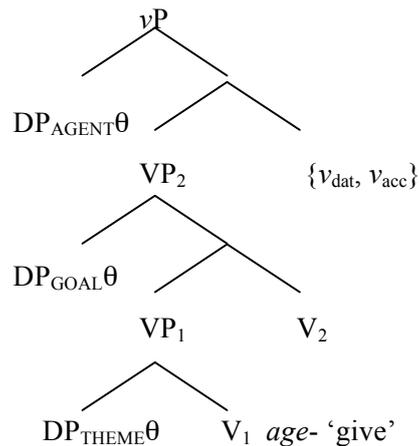
## CHAPTER V

An immediate look at these trees reveals that the  $DP_{LOC}$  always appears inside of the VP; in (40a), it is the specifier to the verb; and in (40b), it is the complement to the verb. On the other hand, the  $DP_{MAT}$  is not; it is the complement to the verb in (40a) and a VP-adjunct in (40b). Hence, a preliminary condition concerning argument alternation is suggested in (41).

- (41) a.  $DP_{LOC}$  is merged within VPs of both *spray/load* verbs, while  $DP_{MAT}$  is not.  
 b. The functional head is  $v_{acc}$ .

However, we immediately notice that (41a) is not accurate enough to filter out verbs that do not participate in argument alternation. As in (42), the GOAL argument is linked to VP in the VP of *give* verbs. But *give* verbs do not appear in the *with*-accusative construction.

### (42) The structure for *give* verbs



In (42), the  $DP_{GOAL}$  appears inside of  $VP_2$  which is also a lexical projection under my account, but  $VP_2$  is not within the minimal lexical domain of  $V_1$ . Thus, the given DP does not appear inside of  $VP_1$ , the smallest VP of the  $vP$  shell. In both (40a) and (40b), the  $DP_{LOC}$  of alternation verbs appears inside of the smallest VP of the  $vP$  shell. Now, (41) is modified into (43a). A locational argument represents both  $DP_{GOAL}$  and  $DP_{LOC}$  and a theme-like argument represents  $DP_{THEME}$  and  $DP_{MAT}$ .

## CHAPTER V

### (43) **Syntactic condition on argument alternation** (to be modified)

- a. The locational argument is merged within the smallest VP of the  $\nu$ P shell of alternation verbs, while the theme-like argument is not.
- b. The functional head is  $\nu_{acc}$ .

(43a) further leads us to (44a).

### (44) **Syntactic condition on argument alternation** (to be modified)

- a. The locational element is merged within the smallest VP of the  $\nu$ P shell of alternation verbs, while the theme-like element is not.
- b. The locational element is Case-licensed by  $\nu_{acc}$ .

Based on (44), I propose the following condition on argument alternation in Japanese:

### (45) **Syntactic condition for argument alternation in Japanese** (final)

Verbs that participate in argument alternation in Japanese must meet the following syntactic conditions:

- a. the locational argument must be merged within the minimal lexical domain of a verb;
- b. the locational argument must be Case-licensed by  $\nu_{acc}$ .

(45a) is the condition on the lexical projection of alternation verbs, i.e., the locational DP must be uniformly merged to the smallest VP of the  $\nu$ P shell. (45b) is the condition on the functional projection of argument alternation verbs, i.e., the  $\nu$ P shell of argument alternation must not include any  $\nu_{dat}$ . *Spray/load* verbs satisfy both conditions; the LOC argument is merged to the specifier of the MLD of the verb in one VP (i.e., (40a)) and is merged to the complement of the MLD of the other VP (i.e., (40b)); both  $\nu$ Ps have  $\nu_{acc}$ . This is why *spray/load* verbs can participate in argument alternation. Now, this condition successfully excludes *give* verbs from taking part in argument alternation in Japanese. Under (45), we expect the *give*-type ditransitive verb not to participate in argument alternation, since neither condition is satisfied by this type of verb; its locational DP is not merged to the MLD of the verb in (42) and at the same time the same  $\nu$ P does not involve  $\nu_{acc}$  as its functional head.

The reader may wonder whether there is a single *nuru* ‘paint’ or there are two different lexical entries of *nuru* (i.e., *nuru*<sub>1</sub> and *nuru*<sub>2</sub>) in the lexicon of Japanese. Although I

## CHAPTER V

have shown that the same verb results in a different syntax, it is necessary to clarify how the two morphologically identical representations of *nuru* are related to each other in the grammar. I argue for the former idea and argue that there is only one root verb *nuru* in Japanese. However, there is an invisible morpheme X in the numeration of the *with*-accusative construction that attaches onto the functional head in syntax.

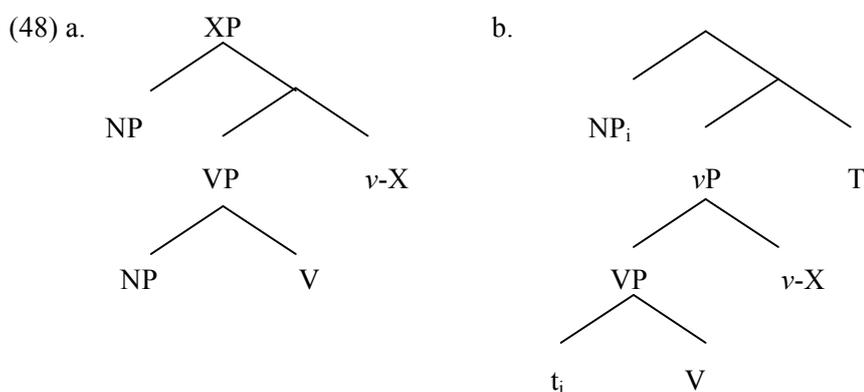
As is well known, the verbal projection of Japanese is rich in its inflectional system. For example, an infinitival verb is tensed by being attached with a morpheme *-u* ‘PRES’ or *-ta/da* ‘PAST’. This kind of process sometimes changes the argument structure of an original verb when a certain type of morpheme is attached to (Shibatani 1990). For example, a verb *oyo-* ‘swim’ in (46a) has no verbal argument; however, when the causative morpheme *sase* is attached onto the verb, a compound verb obtains a verbal argument *Taro*. Similarly, a verb *taberu* ‘eat’ is associated with a subject and an object *mikan* ‘orange’ in (47a). When the passive morpheme *rare* is attached onto the verb, the number of argument is reduced into one.

- (46) a. Taro-ga      oyo-i-da  
      Taro-NOM swim-PAST  
      ‘Taro swam’
- b. Hanako-ga      Taro-o      oyog-ase-ta  
      Hanako-NOM Taro-ACC swim-CAUSE-PAST  
      ‘Hanako made Taro swim’
- (47) a. Taro-ga      mikan-o      tabe-ta  
      Taro-NOM orange-ACC eat-PAST  
      ‘Taro ate an orange’
- b. Mikan-ga      tabe-rare-ta  
      orange-NOM eat-PASS-PAST  
      ‘An orange was eaten’

Bearing this property of verbal projection of Japanese, we return to our structures in (40). We see that the number of verbal arguments of *spray/load* verbs is different in (40a) and in (40b). The former has two arguments, while the latter has one argument. We assume that this difference in the number of verbal argument is operated by a similar kind of process like causativization or passivization. Let me stipulate that there is a morpheme X, which is

## CHAPTER V

invisible; it functions like the causative morpheme or the passive morpheme. If X functions like the causative verb, we expect X to introduce a new argument as in (48a), while if X is a function that is similar to the passive verb, we expect X to reduce an argument of the stem verb, as in (48b).



If X was like a causative verb, this operation, however, cannot derive a right structure that captures the empirical facts of *spray/load* verbs. The structure (48a) does not match our structure (40a), introducing the higher DP externally to the lexical VP. Hence, I do not assume this operation. If X is like a passive verb, it is expected that it absorbs the structural Case (Miyagawa 1989, among many others). Let us assume that this absorption deprives only one Case. The remained accusative Case feature probes the higher LOC argument in (40a). The result is a structure (40b) where the former complement MAT argument appears as an adjunct being marked with *de* and the LOC argument is the complement to the verb. This operation itself is quite similar to the antipassivization discussed in Marantz (1984) and Baker (1988).

The nature of X is still obscure. However, X can be paralleled to an applicative morpheme which is hypothesized as “invisible” in a language like English or Japanese (Marantz 1993, Pykkänen 2002; 2008).

The current minimalist theorizing does not allow any insertion of an object during the course of derivation (i.e., the IC (Inclusiveness Condition)). The morpheme X cannot directly relate two syntactic derivations of *spray/load* verbs via transformation, contra Larson (1988) or Aoun and Li (1989); however, it is still possible to relate the two structures in terms of the verbal decomposition. To conclude, I suggest that *spray/load* verbs are the type of verb that inherently takes two arguments; both numerations of sentences of argument alternation share the same root, while there is a morpheme X in the numeration of the *with-*

## CHAPTER V

accusative construction, which absorbs a structural accusative Case within VP. The other numeration lacks in this morpheme.

### 5.4. Non-alternation verbs and the morpheme *tsukusu* ‘exhaust’

Some ditransitive verbs in Japanese cannot alternate in their simplex forms as in (49a) and (49b), and (50a) and (50b) but they can when they are combined with *tsukusu* ‘exhaust’ or its kin morpheme (e.g., *-ageru* ‘up’, *-komu* ‘enter’), as in (49c) and (50c) (Fukui, Miyagawa and Tenny 1985, Kishimoto 2001c, Iwata 2008).

- (49) a. Taro-ga niwa-ni mizu-o mai-ta  
Taro-NOM garden-DAT water-ACC sprinkle-PAST  
‘Taro sprinkled water over the garden’
- b. \*Taro-ga mizu de niwa-o mai-ta  
Taro-NOM water with garden-ACC sprinkle-PAST  
‘Taro sprinkled the garden with water’
- c. Taro-ga mizu de niwa-o maki-**tsukusi**-ta  
Taro-NOM water with garden-ACC sprinkle-exhaust-PAST  
‘Taro sprinkled the garden with water, completely’
- (50) a. Taro-ga kake-ni posutaa-o hat-ta  
Taro-NOM wall-DAT poster-ACC put-PAST  
‘Taro put posters on the wall’
- b. \*Taro-ga posutaa de kabe-o hat-ta  
Taro-NOM poster with wall-ACC put-PAST  
‘Taro put the wall with posters’
- c. Taro-ga posutaa de kabe-o hari-**tsukusi**-ta  
Taro-NOM poster with wall-ACC put-exhaust-PAST  
‘Taro put the wall with posters completely’

Fukui, Miyagawa and Tenny (1985) claim very similar LCSs of these verbs with respect to the thematic meaning as in (51). In (51), both verbs have the location role (*y*) and the material role (*x*) in their LCSs.

## CHAPTER V

(51) a. LCS of *nuru* ‘paint’: Realize the action NURU by using the Material x and Affect

y

b. LCS of *maku* ‘sprinkle’: Realize the action MAKU by using the Material x

On the basis of the facts in (49) and (50), and under the assumption of (51), Fukui, Miyagawa and Tenny propose that a suffixation of *tsukusu* to the verb stem of these non-alternation verbs changes the LCS of these verbs into one of the alternation verbs, i.e., from that of (51b) to that of (51a). The newly-created LCS of the complex *maku* (i.e., *maki-tsukusu* ‘sprinkle-exhaust’) obtains “Affect y (LOC argument)” in its original LCS. This licenses the complex verb to take part in argument alternation. Specifically, the complex verb is able to merge with the structure of the *with*-accusative construction of argument alternation.

The *give*-type verb does not enter into the alternation even if it is suffixed with *tsukusu*.

(52) \*Taro-wa Hanako-o ringo de age-tsukusi-ta  
Taro-TOP Hanako-ACC apple with give-exhaust-PAST  
‘Taro gave apples (that he has) to Hanako completely’

This observation immediately leads us to expect that the VP of *give* verbs and that of *sprinkle* verbs in Japanese may be different, or that they are same but that some other condition creates their difference.

### 5.4.1 The VP of *sprinkle* verbs

Let us consider the syntax of simple *sprinkle* verbs.<sup>11</sup>

(53) Taro-ga niwa-ni mizu-o mai-ta  
Taro-NOM garden-DAT water-ACC sprinkle-PAST  
‘Taro sprinkled water over the garden’

Under the assumption of Merge, there is only one complement position to the verb. The element that can be preposed with the verb must be the complement of the verb (Yatsushiro 1998). As in (54a), the *o*-phrase can be preposed with the verb *maku* to the

---

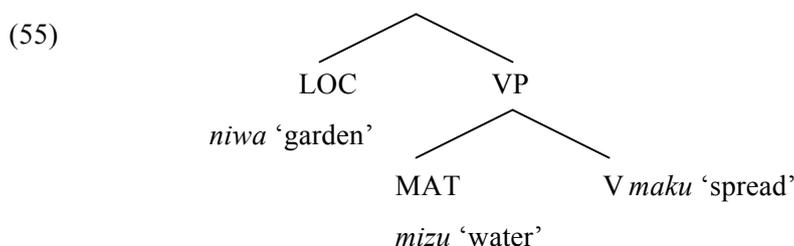
<sup>11</sup> I call them “sprinkle verbs” for expository convenience, even though this categorization is not semantically correct.

## CHAPTER V

exclusion of the *ni*-phrase whereas, as in (54b), the *ni*-phrase cannot be preposed with the verb excluding the *o*-phrase.

- (54) a. Mizu-o      maki-sae      Taro-ga      niwa-ni      si-ta  
 water-ACC    spread-even    Taro-NOM    garden-DAT    LV-PAST  
 ‘Literally: Even spreading water, Taro did to the garden’
- b. \*Niwa-ni      maki-sae      Taro-ga      mizu-o      si-ta  
 garden-DAT    spread-even    Taro-NOM    water-ACC    LV-PAST  
 ‘Literally: Even spreading the garden, Taro did water’

Under the assumption of VP-preposing, we can say that the complement position is filled by the *o*-phrase. We have a preliminary tree for the *sprinkle* VP as in (55).<sup>12</sup>



The category of both verbal arguments of *sprinkle* verbs is DP, rather than PP, since they license the NQF as in (56) and (57).

- (56) a. Taro-ga      ni-hon-no      hana-ni      mizu-o      mai-ta  
 Taro-NOM    2-CL-GEN    flower-DAT    water-ACC    sprinkle-PAST  
 ‘Taro sprinkled water over two flowers’

- b. Taro-ga      hana-ni<sub>i</sub>      **ni-hon**<sub>i</sub>      mizu-o      mai-ta  
 Taro-NOM    flower-DAT    2-CL      water-ACC    sprinkle-PAST

- (57) a. Taro-ga      hana-ni      baketsu-ippai-no      mizu-o      mai-ta  
 Taro-NOM    flower-DAT    bucket-CL-GEN      water-ACC    sprinkle-PAST  
 ‘Taro sprinkled a bucket of water over the flowers in the garden’

<sup>12</sup> The structural case markers in this structure are given for expository convenience. I do not assume that they appear in syntax.

## CHAPTER V

- b. Taro-ga hana-ni mizu-o<sub>i</sub> **baketsu-ippai<sub>i</sub>** mai-ta  
 Taro-NOM flower-DAT water-ACC bucket-CL sprinkle-PAST

Both DPs bear the structural (accusative/dative) case, because they can be passivized, as in (58). These are examples of direct passives, since the subjects of the passives are inanimate entities.

- (58) a. Mizu-ga<sub>i</sub> Taro-niyotte kadan-ni **baketsu-ippai<sub>i</sub>** mak-are-ta  
 water-NOM Taro-BY flower.bed-DAT bucket.full sprinkle-PASS-PAST  
 ‘A bucket full of water was sprinkled onto the garden by Taro’  
 b. Kadan-ga<sub>i</sub> Taro-niyotte **ni-kasyo<sub>i</sub>** mizu-o mak-are-ta  
 flower.bed-NOM Taro-BY two-CL water-ACC sprinkle-PASS-PAST  
 ‘Literally: Two flower beds were sprinkled with water by Taro’

In (55), the *ni*-phrase is structurally higher than the *o*-phrase. As we have just seen, the *ni*-phrase is not a PP. It is a structural case holder. Under these assumptions, it is expected that the *ni*-phrase can be merged to an argument position like *give* verbs.

I argue that the same proposal also holds for *sprinkle* verbs. Consider the data (59). As in (59a), *so-ko*, which is included in the *o*-phrase, can be a BV of the QP *subete-no syoogakkou* ‘every primary school’ in the *ni*-phrase. Hence *so-ko-no suidoosui* can refer to an individual primary school in a set of potential referents. As in (59b), the same pronoun cannot be a variable of the same QP when it is included in the *ni*-phrase and the binder is the *o*-phrase. This fact is expected under the c-command condition of *so-ko*; the pronoun is not included within the c-command domain of the binder.

- (59) a. BVR (*subete-no syoogakkou-no kadan* (dative), *so-ko* (accusative))  
 Taro-ga [subete-no syoogakkou<sub>i</sub>-no kadan]-ni [soko<sub>i</sub>-no suidoosui]-o  
 Taro-NOM all-GEN primary.school-GEN flower.bed its-GEN water.tub-ACC  
 mai-ta  
 sprinkle-PAST  
 ‘Taro sprinkled the water from its<sub>i</sub> water tub onto the flower bed of every primary school<sub>i</sub>’

## CHAPTER V

b. \*BVR (*so-ko* (dative), *subete-no syoogakkou-no kadan* (accusative))

Taro-ga [soko<sub>i</sub>-no kadan]-ni [subete-no syoogakkou<sub>i</sub>-no  
Taro-NOM its-GEN flower.bed-DAT all-GEN school-GEN  
suidoosui]-o mai-ta  
water.tub-ACC sprinkle-PAST

‘Taro sprinkled the water from the water tub of every primary school<sub>i</sub> to its<sub>i</sub> flower bed’

If the order of the verbal arguments in (59a) is reversed, the same BVR is available in the permuted sentence as in (60a). By the same token, if the order of the arguments in (59b) is reversed, the pronoun obtains the BVR of the binder as in (60b), in contrast to (59b).

(60) a. BVR (*so-ko* (accusative), *subete-no syoogakkou* (dative))

Taro-ga [soko<sub>i</sub>-no suidoosui]-o [subete-no syoogakkou<sub>i</sub>-no  
Taro-NOM its-GEN tub.water-ACC all-GEN primary.school-GEN  
kadan]-ni mai-ta  
flower.bed-DAT sprinkle-PAST

b. BVR (*subete-no syoogakkou* (accusative), *so-ko* (dative))

Taro-ga [subete-no syoogakkou<sub>i</sub>]-no suidoosui]-o [soko<sub>i</sub>-no  
Taro-NOM all-GEN school-GEN tub.water-ACC its-GEN  
kadan]-ni mai-ta  
flower.bed-DAT sprinkle-PAST

These facts can be accounted for if we assume that the bindee in (60a) is scrambled over the binder, leaving a copy. Under this assumption, a copy of the moved DP is included in the c-command domain of the binder. The moved DP is c-commanded via the copy. Hence, it obtains a BVR even though it looks as if it is no longer within the c-command domain of the binder on the surface.

At this point, it may be wondered whether or not the *ni*-phrase is included inside of the MLD of VP or excluded from it. Under our assumption of the distribution and interpretation of SDs, repeated in (61), a DP must appear within the MLD of the verb in order to be predicated of an SD. In other words, if a DP is predicated of an SD, it appears inside of the MLD of the verb.

## CHAPTER V

### (61) Condition on Secondary Depictives (only for object-oriented SDs)

A DP can be predicated of an SD iff both the DP and the SD mutually c-command each other in the same minimal lexical domain of a verb.

As shown in (62), the *ni*-phrase of *sprinkle* verbs can be a subject of an SD, in contrast to the *ni*-phrase of *give* verbs.

- (62) ?Taro-ga      rouka-ni<sub>i</sub>      **kitanaimama-de**<sub>i</sub>      mizu-o      mai-ta  
Taro-NOM    corridor-DAT    filthy                    water-ACC    sprinkle-PAST  
'Taro spread water onto the corridor<sub>i</sub> filthy<sub>i</sub>'

The grammaticality of (62) is not predicted under the assumption that the VP of *sprinkle* verbs is the same as that of *give* verbs. It seems to show a problem in our assumptions. But I show that this is not the case. The structure involved in *sprinkle* verbs is identical to that of *give* verbs. Further tests illustrate this point.

According to Kishimoto (1995), an aspectual marker *kake* 'while, be.about.to' in conjunction with a verb infinitive can modify the complement of a verb. For example, as in (63a), *tabe-kake* 'eat-while' modifies the object of a verb, *ringo* 'apple'. Similarly, the DO of *okuru* 'send' can be modified by the expression as in (63b). However, the IO of the same verb cannot be modified by the same expression, as in (63c).

- (63) a. Tabe-kake-no      ringo  
      eat-while-GEN    apple  
      'an apple, being eaten'  
      b. Okuri-kake-no      tegami  
      send-about.to-GEN    letter  
      'a letter that is about to be sent'  
      c. \*Okuri-kake-no      Hanako  
      send-about.to-GEN    Hanako  
      'Hanako who is about to be sent a letter to'

Both verbal arguments of *spray/load* verbs can be modified by this expression as in (64).

CHAPTER V

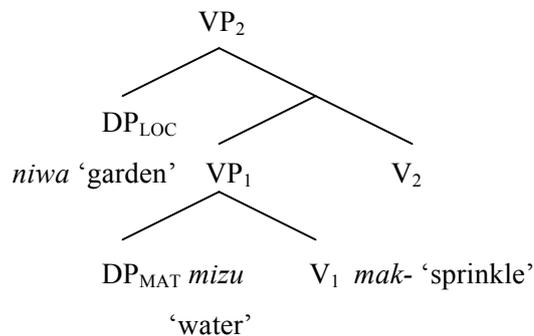
- (64) a. Nuri-kake-no      penki  
           paint-while-GEN paint'  
           'paint, half-painted'
- b. Nuri-kake-no      kabe  
           paint-about.to-GEN wall  
           'a wall, half-painted'

If the dative phrase of *sprinkle* verbs patterns with that of *spray/load* verbs in this test, we must say that those phrases are the same kind of syntactic element. In contrast, if the dative phrase of *sprinkle* verbs behaves syntactically the same as that of *give* verbs, we must say that these phrases are the same kind of syntactic element. The test proves that the latter possibility is the case, as in (65).

- (65) a. Hari-kake-no      kitte  
           put-while-GEN stamp  
           'a stamp that is about to be put (onto, e.g., an envelope)'
- b. #Hari-kake-no      fuuto  
           put-about.to-GEN envelope  
           'an envelope that is about to be put (a stamp)'

From this, I propose that the VP for *sprinkle* verbs is as in (66). This is the same structure as that of *give* verbs.

(66) **The structure for *sprinkle* verbs in Japanese** (to be modified)



## CHAPTER V

Which type of functional head does  $V_1+V_2$  merge with? As in (67), two adjacent realizations of accusative phrases are illicit with this verb, in line with the phase-theoretic DoC.

- (67) \*Taro-ga      niwa-o      mizu-o      mai-ta  
Taro-NOM    garden-ACC    water-ACC    sprinkle-PAST  
'Taro spread water over that garden'

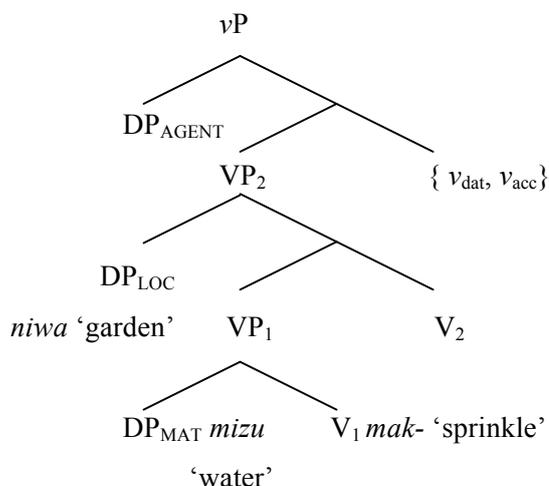
According to Miyagawa and Tsujioka (2004), the direct passive in Japanese absorbs the structural case feature (both dative and accusative). Since both DPs can be passivized, we have hypothesized that they bear structural cases. If the functional head is of type  $v_{acc}$  in this structure, we should expect the multiple accusative constructions (i.e., the multiple accusative scrambling and the multiple accusative cleft) with this type of verb to be not ungrammatical. If the functional head is of type  $v_{dat}$ , we expect the ungrammatical result. As shown in (68), the second hypothesis is correct.

- (68) a. \*Niwa-o      kinou      gakusei-ga<sub>i</sub>      san-nin<sub>i</sub>      mizu-o      mai-ta  
garden-ACC    yesterday    student-NOM    three-CL    water-ACC    sprinkle-PAST  
'Literally: Garden, three students spread water yesterday'
- b. \*Taro-ga      niwa-o      mai-ta      no-wa      mizu-o      tairyouni    da  
Taro-NOM    garden-ACC    sprinkle-PAST    C-TOP    water-ACC    a.lot      COP  
'Literally: It is that garden that Taro sprinkled a lot of water'

Under Multiple Agree, I propose the  $vP$  for *sprinkle* verbs as in (69).

CHAPTER V

(69) The structure for *sprinkle* verbs in Japanese (final)



From the structure in (69), we see why this verb cannot participate in argument alternation: it fails to satisfy both conditions, repeated in (70); DP<sub>LOC</sub> is not within VP<sub>1</sub> (MLD) and vP has v<sub>dat</sub>.

(70) Syntactic condition for argument alternation in Japanese (final)

Verbs that participate in argument alternation in Japanese must meet the following syntactic conditions:

- a. the locational argument must be merged within the minimal lexical domain of a verb;
- b. the locational argument must be Case-licensed by v<sub>acc</sub>.

Korean *spray/load* verbs also participate in argument alternation, as repeated in (71).

- (71) a. Chelswu-ka      pyek-ey      peyintu-lul      chilha-ess-ta  
 Chelswu-NOM      wall-DAT      paint-ACC      paint-PAST-DECL  
 ‘Chelswu painted the paint onto the wall’
- b. Chelswu-ka      pyek-ul      peyintu-lo      chilha-ess-ta  
 Chelswu-NOM      wall-ACC      paint-with      paint-PAST-DECL  
 ‘Chelswu painted with the wall paint’

## CHAPTER V

It has been argued in the literature that the *with*-accusative sentence of *chilha* ‘paint’ is associated with the holistic effect, while the dative-accusative pattern is not (Kim 1990). The presence or absence of the implication can be confirmed by a test of whether or not a sentence *kuriko icey pyek-i wancenhi peyintu-lo tep-hi-ess-ta* ‘and now the wall is completely covered with paint’ is compatible with a variant or not. If the holistic effect is implied in one of the alternation variants, we expect the given sentence to be compatible with the variant; however, if it is not, we expect it not to be. As shown in (72), the given sentence is not compatible with the dative-accusative case array, while it is compatible with the *with*-accusative construction.

- (72) a. #Chelswu-ka pyek-ey peyintu-lul chilha-ess-ta  
Chelswu-NOM wall-DAT paint-ACC paint-PAST-DECL  
Kuriko icey pyek-i wancenhi peyintu-lo tep-hi-ess-ta.  
And now wall-NOM completely paint-with cover-PASS-PAST-DECL  
‘Chelswu painted the paint onto the wall and now the wall is completely covered with paint’
- b. Chelswu-ka ppalkan peyintu-lo ku pyek-ul chilha-ess-ta,  
Chelswu-NOM red paint-with the wall-ACC paint-PAST-DECL  
kuriko icey pyek-i wancenhi peyintu-lo tep-hi-ess-ta  
and now wall-NOM completely paint-with cover-PASS-PAST-DECL  
‘Chelswu painted the paint onto the wall and now the wall is completely covered with paint’

Even though the word order changes, the same contrast still holds for the pair in (73) and (74).

- (73) a. Chelswu-ka ppalkan peyintu-lo ku pyek-ul chilha-ess-ta  
Chelswu-NOM red paint-with the wall-ACC paint-PAST-DECL  
Kuriko icey pyek-i wancenhi peyintu-lo tep-hi-ess-ta  
and now wall-NOM completely paint-with cover-PASS-PAST-DECL  
‘Chelswu painted the paint onto the wall and now the wall is completely covered with paint’

## CHAPTER V

b. Chelswu-ka ku pyek-ul ppalkan peyintu-lo chilha-ess-ta  
 Chelswu-NOM the wall-ACC red paint-with paint-PAST-DECL  
 Kuriko icey pyek-i wancenhi peyintu-lo tep-hi-ess-ta  
 and now wall-NOM completely paint-with cover-PASS-PAST-DECL  
 ‘Chelswu painted the paint onto the wall and now the wall is completely covered  
 with paint’

(74) a. #Chelswu-ka peyintu-lul ku pyek-ey chilha-ess-ta. kuriko icey  
 Chelswu-NOM paint-ACC the wall-DAT paint-PAST-DECL and now  
 pyek-i wancenhi peyintu-lo tep-hi-ess-ta  
 wall-NOM completely paint-with cover-PASS-PAST-DECL  
 ‘Chelswu painted the paint onto the wall and now the wall is completely covered  
 with paint’

b. #Chelswu-ka ku pyek-ey peyintu-lul chilha-ess-ta. Kuriko icey  
 Chelswu-NOM the wall-DAT paint-ACC paint-PAST-DECL and now  
 pyek-i wancenhi peyintu-lo tep-hi-ess-ta  
 wall-NOM completely paint-with cover-PASS-PAST-DECL  
 ‘Chelswu painted the paint onto the wall and now the wall is completely covered  
 with paint’

Due to the lack of suitable tests, I cannot characterize the syntax of the *with*-accusative sentence of Korean *chilha*. But there is a piece of evidence that shows that my assumption that *chilha* in the *with*-accusative sentence has an identical structure to *nuru* ‘paint’ in Japanese is on the right track. VP-preposing is one piece of evidence. The *with*-phrase and the verb alone to the exclusion of the accusative phrase cannot be preposed as in (75a), while the fronting of the accusative and the verb alone is fine as in (75b). Under the assumption that VP-preposing can target the maximal projection in Korean, I can at least say that it is the accusative phrase that is the complement of the verb, comprising the complete VP constituent in the *with*-accusative pattern of Korean *chilha*.

## CHAPTER V

- (75) a. \*Ppalkan peyintu-lo chilha-nun kes-kkaci(to) Chelswu-ka  
red paint-with paint-RL fact-even Chelswu-NOM  
ku pyek-ul ha-ess-ta  
the wall-ACC do-PAST-DECL  
'Literally: Even paint(ing) with red paint, Chelswu did the wall'
- b. Ku pyek-ul chilha-nun kes-kkaci(to) Chelswu-ka  
the wall-ACC paint-RL fact-even Chelswu-NOM  
ppalkan peyintu-lo ha-ess-ta  
red paint-with do-PASS-DECL  
'Literally: Even paint(ing) the wall, Chelswu did with red paint'

From this evidence, it may be argued that the LOC argument is the complement of the verb in the *with*-accusative variant.

In Chapter III, I proposed that Korean *spray/load* verbs involve an identical VP to that of Japanese *spray/load* verbs when they take the dative-accusative case array. I have suggested the possibility that the *with*-accusative sentence of *chilha* may involve the same VP as that of Japanese *nuru*. Given these facts, if I show with further data that the *with*-accusative variant has the same syntax, there is good reason to believe that the fact that Korean *chilha* 'paint' can participate in argument alternation can be predicted under the condition (70).

### 5.4.2 The nature of the morpheme *tsukusu* 'exhaust' in argument alternation

The simplex form of the verb *maku* 'sprinkle' does not participate in the argument alternation, whereas it may do so when it is suffixed with *tsukusu* 'exhaust'. I have proposed that a sentence with the simplex *sprinkle* verb involves the vP that is identical to that of *give* verbs. This predicts the fact that such verbs cannot participate in the alternation paradigm.

One question is why the given verb may pattern with *spray/load* verbs once it is affixed with *tsukusu*, to the extent that the complex *sprinkle* verb can participate in a sentence pattern of the *with*-accusative. This fact leads us to predict that the complex verb *maki-tsukusu* 'sprinkle-exhaust' exhibits a VP that is identical to that of *spray/load* verbs in both dative-accusative and *with*-accusative sentences; this may be why they can appear in the argument alternation.

## CHAPTER V

Under this hypothesis, it is reasonable for us to further postulate that *tsukusu* has a crucial bearing on the condition of whether or not complex *sprinkle* verbs may participate in alternation. The immediate question is what the syntactic and semantic nature of *tsukusu* is.

Fukui, Miyagawa and Tenny (1985) claim that *tsukusu* is a productive morpheme which turns a LCS (Lexical Conceptual Structure) of non-alternation verbs into that of an alternation verb, arguing that the number of *spray/load* alternation verbs is small but that the given number increases significantly if that morpheme is affixed to non-alternation verbs. The affixation adds an extra semantic description “Affect *y* (LOC argument)” in the LCS of *maku*. As a result, the given verb obtains the same LCS as that of an alternation verb like *nuru* ‘paint.’ Iwata (2008) argues against the proposal by Fukui, Miyagawa and Tenny with respect to the productivity of the morpheme, with a much closer inspection of individual verbs. According to Iwata, the only verbs that enter into alternation after suffixation are *maku* ‘sprinkle’ and *haru* ‘put’. Verbs like *sosogu* ‘pour’, which show a very similar thematic relation to that of *maku*, do not alternate under the same suffixation, as in (76).

- (76) a. Taro-ga       yunomi-ni       ocha-o       soso-da  
Taro-NOM   tea.cup-DAT   tea-ACC   pour-PAST  
‘Taro poured tea into the tea cup’
- b. \*Taro-ga       ocha de       yunomi-o       soso-da  
Taro-NOM   tea   with   tea.cup-ACC   pour-PAST  
‘Taro poured the tea cup with tea’
- c. \*Taro-ga       ocha de       yunomi-o       sosogi-tsukusi-ta  
Taro-NOM   tea   with   tea.cup-ACC   pour-exhaust-PAST  
‘Taro poured the cup with tea competely’

However, there are actually some more non-alternation verbs that are compatible with the *tsukusu*-type morpheme (e.g., *maku* ‘spread, sprinkle’, *haru* ‘put’, *tsumu* ‘pile’, *tsumeru* ‘pack’, *furikakeru* ‘dust’). The problem with Fukui, Miyagawa and Tenny’s proposal is the definition of “productivity” itself. Because not every non-alternation verb can be suffixed with it, I argue that its productivity is not comparable to other “productive” morphemes such as passive *rare* or causative *sase*. However, I also argue that the central proposal of Fukui, Miyagawa and Tenny is still correct in that an addition of the morpheme has to do with the possibility for these two verbs (e.g., *maku* and *haru*) to appear in the argument alternation paradigm. It is the fact that they only alternate when they are combined with the morpheme.

## CHAPTER V

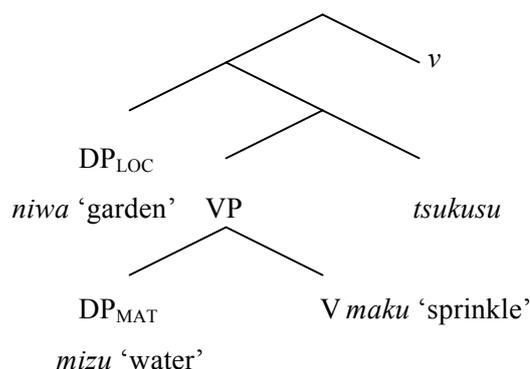
Harley (2008) proposes the “root-merge” for a formation of Japanese lexical causative verbs (see 6.3.1 for a brief introduction to her system).

(77) Lexical causative: A CAUS  $v^0$  that is immediately adjacent to a root.

(Harley 2006: 41, (34a))

As (77) describes, under this form of merge, a root can be directly merged with a causative morpheme in syntax. Now, if we accept this type of merge in our analysis, we can argue that a complex *sprinkle* verb is created in syntax by merging the stem verb *maku* with the morpheme *tsukusu*. Since *tsukusu* is not a syntactic head, it cannot take a maximal projection like VP or  $vP$ , in contrast to the causative morpheme (i.e., the syntactic causative can be created under the same system by merging a causative head with the maximal projection). As evidence, if the merge of *tsukusu* and *maku* did not take place immediately, and the lexical stem merged with the  $DP_{MAT}$  and the morpheme took a VP as its complement, it would create a  $vP$  for *maki-tsukusu* as in (78).

(78)



This structure makes a false prediction about the VP-preposing construction of *maki-tsukusu*. As we see in (78), the  $DP_{MAT}$  constitutes a MLD of the verb. Under the assumption of VP-preposing, we expect the given VP to be preposed, stranding the  $DP_{LOC}$  as a remnant. However, this expectation turns out to be wrong, as shown in (79).

(79) \*Taro-ga    mizu-o    maki-sae    niwa-ni    tsukusi-ta  
 Taro-NOM    water-ACC    spread-even    garden-DAT    exhaust-PAST  
 ‘Literally: Even spread water, Taro did completely onto the garden’

## CHAPTER V

I argue that *tsukusu* cannot project its complement.

Kishimoto (2001c) argues that neither the  $DP_{LOC}$  nor the  $DP_{MAT}$  of *hari-tsukusu* is subcategorized as the object of *tsukusu*, using the evidence in (80).

- (80) a. \*Posutaa-o      tsukusi-ta  
         poster-ACC    exhaust-PAST  
         ‘Literally: (someone) exhausted posters’  
      b. \*Kabe-o      tsukusi-ta  
         wall-ACC    exhaust-PAST  
         ‘Literally: (someone) exhausted the wall’      (Kishimoto 2001c: 117, (53))

As Kishimoto argues, it is true that these phrases are not arguments of the morpheme *tsukusu* in the complex verbal form; however, it is also true that *tsukusu* itself takes an object that typically represents the abstract notion. Consider the examples in (81).<sup>13</sup>

- (81) a. [<sub>CP</sub> Taro-ga            ze-i-o            tsukusi-ta ]      paatii  
         Taro-NOM      luxury-ACC    exhaust-PAST    party  
         ‘A party that Taro spent in luxury’  
      b. Taro-wa      gengogaku-no      koogi-no      junbi-ni  
         Taro-TOP    linguistics-GEN    lecture-GEN    preparation-FOR  
         zenryoku-o      tsukusi-ta  
         (his)all-ACC    exhaust-PAST  
         ‘Taro gave his all to the preparation of the lecture about linguistics’

These objects of *tsukusu* (e.g., *zei* ‘fortune’ or *zenryoku* ‘all, best’) can undergo direct passivization as in (82a) and in (82b), which shows that the object of *tsukusu* is a structural accusative.

- (82) a. [<sub>CP</sub> Zei-ga            tsukusa-re-ta ]      paatii  
         luxury-NOM    spend-PASS-PAST    party  
         ‘The party that has been spent in luxury’

---

<sup>13</sup> Other idioms including *tsukusu* are: *chikara-o tsukusu* ‘to give one’s all,’ *gimu-o tsukusu* ‘to be responsible for,’ *i-o tsukusu* ‘to complete one’s will,’ *happou te-o tsukusu* ‘to do every possibility.’

## CHAPTER V

- b. Sono                    ko-no            sousaku-ni    happou te-ga  
that (kidnapped) child-GEN search-FOR every.possibility-NOM  
tsukusa-re-ta  
exhaust-PASS-PAST  
'Every possible searches has been made for the kidnapped child'

From these discussions, I conclude that it is possible to treat *tsukusu* itself as a verb taking an argument, contra Kishimoto (2001c).

I argue that *tsukusu* merges with the lexical verb. Namely, it immediately merges with the verbal root: the immediate (root) merge (Harley 2008). I propose (83) with respect to the merge of *tsukusu* in syntax.

(83) *Tsukusu* must immediately merge with the lexical verb.

Under (83), I further argue that the morpheme percolates its feature of taking an argument through to the stem verb, making that verb ditransitive, just like *spray/load* verbs.

### 5.4.3 The syntax of complex *sprinkle* verbs in the DAT-ACC construction

I show that the syntax of *maki-tsukusu* patterns with that of *spray/load* verbs in both the dative-accusative construction and the *with*-accusative construction.

- (84) a. Taro-ga            niwa-ni            mizu-o            maki-**tsukusi**-ta  
Taro-NOM    garden-DAT    water-ACC    sprinkle-exhaust-PAST  
'Taro sprinkled water over the garden completely'  
b. Taro-ga            kabe-ni            penki-o            nut-ta  
Taro-NOM    wall-DAT        paint-ACC     paint-PAST  
'Taro painted paint onto the wall'

The DP<sub>LOC</sub> can be marked with *o* when it is scrambled and clefted as in (85).

- (85) a. ??Kadan-o<sub>i</sub>            kinou            gakusei-ga<sub>j</sub>            san-nin<sub>j</sub>            mizu-o  
flower.bed-ACC yesterday student-NOM three-CL water-ACC  
maki-tsukusi-ta  
sprinkle-exhaust-PAST

## CHAPTER V

‘Literally: Flower bed, three students sprinkled over water yesterday’

- b. ?Taro-ga kadan-o maki-tsukusi-ta no-wa  
 Taro-NOM flower.bed-ACC sprinkle-exhaust-PAST C-TOP  
 mizu-o tairyouni da  
 water-ACC a.lot COP

‘Literally: It is the garden that Taro sprinkled lots of water over’

Both the  $DP_{LOC}$  and the  $DP_{MAT}$  of the *sprinkle* vP can stand as a passive subject as in (86).

- (86) a. Kadan-ga<sub>i</sub> Taro-niyotte **fu-tatsu**<sub>i</sub> mizu-o  
 flower.bed-NOM Taro-BY two-CL water-ACC  
 maki-tsukus-are-ta  
 sprinkle-exhaust-PASS-PAST

‘Two flower beds were sprinkled water by Taro’

- b. Mizu-ga<sub>i</sub> Taro-niyotte kadan-ni **baketsuippai**<sub>i</sub>  
 water-NOM Taro-BY flower.bed-DAT bucket.full  
 maki-tsukus-are-ta  
 sprinkle-exhaust-PASS-PAST

‘A bucket of water was sprinkled onto the flower bed by Taro’

The  $DP_{LOC}$  of *spray/load* verbs can be predicated of an SD, regardless of its case-marking. I have explained this fact in Chapter IV by assuming that the  $DP_{LOC}$  leaves a copy in its base position (i.e., the specifier of VP) that licenses a predication. The same predication relation can hold true with *maki-tsukusu*, as in (87).

- (87) a. Taro-ga kadan-ni<sub>i</sub> **kitanaimama-de**<sub>i</sub> tane-o  
 Taro-NOM flower.bed-DAT filthy-SD seed-ACC  
 maki-tsukusi-ta  
 spread-exhaust-PAST

‘Taro spreads seeds over the flower bed<sub>i</sub> filthy<sub>i</sub>’

- b. Taro-ga kadan-o<sub>i</sub> **kitanaimama-de**<sub>i</sub> tane-o maki-tsukusi-ta  
 Taro-NOM flower.bed-DAT filthy-SD seed-ACC spread-exhaust-PAST

## CHAPTER V

The binding relation of the DP<sub>LOC</sub> and DP<sub>MAT</sub> of *maki-tsukusu* also patterns with that of *spray/load* verbs. As shown in (88), the interpretation of the demonstrative pronoun *so-ko* ‘that-place’ can be interpreted as a variable bound by a QP binder iff it (and its copy) is included within the c-command domain of the binder under (19) (see Chapter III).

(88) a. BVR (*subete-no syoogakkou* (dative), *so-ko* (accusative))

Taro-ga [subete-no syoogakkou<sub>i</sub>-no kadan]-ni  
 Taro-NOM all-GEN primary.school-GEN flower.bed  
 [soko<sub>i</sub>-no suidoosui]-o maki-tsukusi-ta  
 its-GEN water.tub-ACC sprinkle-exhaust-PAST

‘Taro sprinkled the water from its<sub>i</sub> water tub all over the flower bed of every<sub>i</sub> primary school’

b. \*BVR (*so-ko* (dative), *subete-no syoogakkou* (accusative))

Taro-ga [soko<sub>i</sub>-no kadan]-ni  
 Taro-NOM its-GEN flower.bed-DAT  
 [subete-no syoogakkou<sub>i</sub>-no suidoosui]-o maki-tsukusi-ta  
 all-GEN school-GEN water.tub-ACC sprinkle-exhaust-PAST

‘Taro sprinkled the water from the water tub of every<sub>i</sub> primary school all over its<sub>i</sub> flower bed’

c. ?BVR (*so-ko* (accusative), *subete-no syoogakkou* (dative))

Taro-ga [soko<sub>i</sub>-no suidoosui]-o  
 Taro-NOM its-GEN water.tub-ACC  
 [subete-no syoogakkou<sub>i</sub>-no kadan]-ni maki-tsukusi-ta  
 all-GEN primary.school-GEN flower.bed sprinkle-exhaust-PAST

d. BVR (*subete-no syoogakkou* (accusative), *so-ko* (dative))

Taro-ga [subete-no syoogakkou<sub>i</sub>-no suidoosui]-o  
 Taro-NOM all-GEN school-GEN water.tub-ACC  
 [soko<sub>i</sub>-no kadan]-ni maki-tsukusi-ta  
 its-GEN flower.bed-DAT sprinkle-exhaust-PAST

VP-preposing of *maki-tsukusu* also behaves same as that of *spray/load* verbs as in (89). The preposing of the DP<sub>LOC</sub> and the verb alone is illicit (see (89a)). When the DP<sub>LOC</sub> is marked with *o*, it is not perfect to prepose the DP<sub>MAT</sub> and V to the exclusion of the DP<sub>LOC</sub> (see (89c)). I argue that this ungrammaticality is due to the fact that preposing the accusative-marked

## CHAPTER V

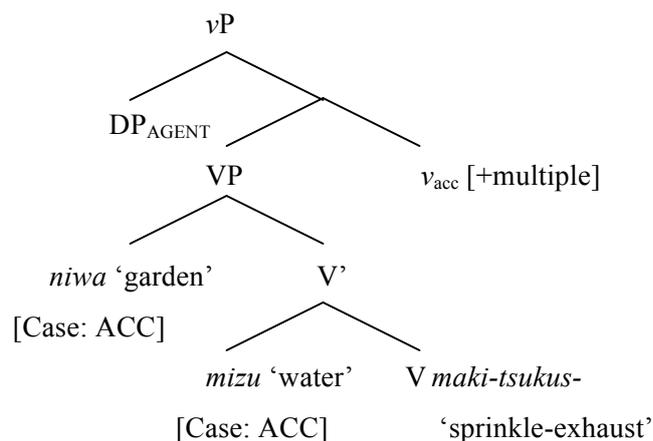
DP<sub>MAT</sub> leaving the higher the accusative-marked DP<sub>LOC</sub> violates the MLC (Minimal Link Condition). Contrastively, when the DP<sub>LOC</sub> is dative-marked, it is perfect to prepose the same constituent (see (89c)). In this example, the preposing of the given constituent does not violate the MLC, since there is no element within the VP that interferes the movement.

- (89) a. \*Kadan-ni           maki-tsukusi-sae       Taro-ga    mizu-o     si-ta  
           flower.bed-DAT sprinkle-exhaust-even Taro-NOM water-ACC LV-PAST  
           ‘Literally: Even sprinkle all over the flower bed, Taro did water’
- b. \*Mizu-o           maki-tsukusi-sae       Taro-ga    kadan-o     si-ta  
           water-ACC sprinkle-exhaust-even Taro-NOM flower.bed-ACC LV-PAST  
           ‘Literally: Even sprinkle water all over, Taro did over the flower bed’
- c. Mizu-o           maki-tsukusi-sae       Taro-ga    kadan-ni     si-ta  
           water-ACC sprinkle-exhaust-even Taro-NOM flower.bed-DAT LV-PAST  
           ‘Literally: Even sprinkle water all over, Taro did over the flower bed’

Under the assumption that VP-preposing targets at the maximal projection, the data shows that DP<sub>LOC</sub> and the verb is not the complete VP constituent, while DP<sub>MAT</sub> and the verb comprises such a constituent.

The data above lead me to argue that the syntax of *spray/load* verbs in the dative-accusative construction and that of complex *sprinkle* verbs is identical. Thus, I propose the VP of the complex *sprinkle* verb as in (90).

### (90) The structure for complex *sprinkle* verbs in Japanese



## CHAPTER V

Having established this fact, I draw the reader's attention to the contrast between the Dative Case Assignment of the  $DP_{LOC}$  for the simplex *sprinkle* structure and the complex *sprinkle* structure. I propose that they are assigned differently. I argue that the  $DP_{LOC}$  in the  $\nu P$  of simplex *sprinkle* verbs is assigned Dative In Situ involving the  $\nu_{dat}$  functional head, whereas the same DP in the  $\nu P$  of complex *sprinkle* verbs is assigned Dative Case after Rmerge under the Dative Case Assignment system that I have hypothesized in Chapter IV, i.e., that DP has been valued Accusative Case at the base position and is assigned Dative Case at the edge of  $\nu P$  involving the  $\nu_{acc}$  functional head. From this analysis, we can say that two types of Dative Case Assignment are manifested in the VP of simplex *maku* and complex *maku*, respectively.

In the structure (90), there are two arguments inside of the MLD of a verb, and the lexical verb merges with  $\nu_{acc}$ , satisfying the condition of argument alternation. This description explains the fact that the verb *maki-tsukusu* can appear in the sentence pattern of a *with*-accusative, thus participating in argument alternation.

### 5.4.4 The syntax of complex *sprinkle* verbs in the *With*-ACC construction

The following data backup my proposal that the complex *maku* verb also merges with the VP that is identical to that of *spray/load* verbs in the *with*-accusative sentence pattern.

- (91) a. Taro-ga            mizu de            niwa-o            maki-**tsukusi**-ta  
         Taro-NOM        water with        garden-ACC        spread-exhaust-PAST  
         ‘Taro spread the garden with water completely’
- b. Taro-ga            kabe-o            aopenki de        nut-ta  
         Taro-NOM        wall-ACC        blue.paint with    paint-PAST  
         ‘Taro painted the wall with blue paint’

The *de*-phrase (i.e., MAT role) of *maki-tsukusu* in this construction in (92) does not license an NQF, while the *o*-phrase (i.e., LOC role) of the same verb does. From this, I argue that the category of the MAT argument of this construction is PP rather than DP, while that of the *o*-phrase in the same sentence is DP.

## CHAPTER V

- (92) a. \*Taro-ga mizu<sub>i</sub> de **baketsuippai**<sub>i</sub> kadan-o  
 Taro-NOM water with bucketful flower.bed-ACC  
 maki-tsukusi-ta  
 sprinkle-exhaust-PAST  
 ‘Taro sprinkled the flower bed with a bucket of water completely’
- b. Taro-ga mizu de kadan-o<sub>i</sub> **fu-tatsu**<sub>i</sub> maki-tsukusi-ta  
 Taro-NOM water with flower.bed-ACC two-CL sprinkle-exhaust-PAST  
 ‘Taro sprinkled two flower beds with water completely’

The *o*-phrase of the complex *ma*ku in the *with*-accusative sentence bears a structural accusative case, because it can be passivized as in (93a) (Miyagawa and Tsujioka 2004), whereas the *de*-phrase of the same verb does not, because it cannot be passivized as in (93b).

- (93) a. Kadan-ga<sub>i</sub> Taro-niyotte **fu-tatsu**<sub>i</sub> mizu de  
 flower.bed-NOM Taro-BY two-CL water with  
 maki-tsukus-are-ta  
 sprinkle-exhaust-PASS-PAST  
 ‘Two flower beds were sprinkled with water by Taro completely’
- b. \*Mizu-ga<sub>i</sub> Taro-niyotte **baketsuippai**<sub>i</sub> kadan-o  
 water-NOM Taro-BY bucket.full flower.bed-ACC  
 maki-tsukus-are-ta  
 sprinkle-exhaust-PASS-PAST  
 ‘A bucket of water was sprinkled the flower bed completely by Taro’

The interpretation of the demonstrative pronoun with *maki-tsukusu* shows the same pattern as that of *spray/load* verbs in the *with*-accusative construction. In (94) the element inside the *de*-phrase cannot bind a bindee phrase that contains *so-ko* ‘that-place’ due to the fact that *de* is a postposition, even if the structure satisfies the c-command requirement of the BVR that I have proposed.

## CHAPTER V

(94) a. \*BVR (*subete-no shoogakkou* (de-PP), *so-ko* (accusative))

(Taro-wa) [subete-no shoogakkou<sub>i</sub>]-no suidoosui-de  
 (Taro-TOP) all-GEN primary.school -GEN water.tub-with  
 soko<sub>i</sub>-no kadan-o maki-tsukusi-ta  
 its-GEN flower.bed-ACC sprinkle-exhaust-PAST

‘Taro completely sprinkled its<sub>i</sub> flower bed with the water from the tub of every<sub>i</sub> primary school’

b. \*BVR (*so-ko* (de-PP), *subete-no shoogakkou* (accusative))

(Taro-wa) soko<sub>i</sub>-no suidoosui-de  
 (Taro-TOP) its-GEN water.tub-with  
 [subete-no shoogakkou<sub>i</sub>-no kadan]-o maki-tsukusi-ta  
 all-GEN primary.school -GEN flower.bed-ACC sprinkle-exhaust-PAST

‘Taro completely sprinkled the flower bed of every<sub>i</sub> primary school with its<sub>i</sub> water tub’

When the *de*-phrase includes *so-ko* in the base order of the *with*-accusative, *so-ko* cannot be interpreted as a variable of the binder as in (94b). This is because *so-ko* is not contained within the c-command domain of the binder thereby violating the condition.

When the order of these phrases is reversed as in (95), *so-ko* does not obtain a variable reading. Under this assumption that the *o*-phrase is scrambled over the *de*-phrase, we can account for the unavailability of the BVR of *so-ko* in this sentence under the proposed c-command condition of *so-ko*; namely, *so-ko* is not included in the c-command domain of the binder in the base position or in the scrambled position, hence it does not obtain the intended reading. Contrary to this, as in (95b), when the *o*-phrase binder is scrambled over the *de*-phrase bindee, the given pronoun can be interpreted as a variable of the binder. This fact can be explained under our proposal for the *spray/load* vP; when the given DP is scrambled to the edge of vP, it can c-command the *de*-phrase from that position. Hence *so-ko* obtains a BVR.

## CHAPTER V

(95) a. \*BVR (*so-ko* (accusative), *subete-no shoogakkou* (de-PP))

(Taro-wa) [ soko<sub>i</sub>-no kadan-o ]<sub>j</sub>  
 (Taro-TOP) its-GEN flower.bed-ACC  
 [subete-no shoogakkou<sub>i</sub>]-no suidoosui-de t<sub>j</sub> maki-tsukusi-ta  
 all-GEN primary.school -GEN water.tub-with sprinkle-exhaust-PAST

b. BVR (*subete-no shoogakkou* (accusative), *so-ko* (de-PP))

(Taro-wa) [subete-no shoogakkou<sub>i</sub>-no kadan]-o  
 (Taro-TOP) all-GEN primary.school -GEN flower.bed-ACC  
 soko<sub>i</sub>-no suidoosui-de maki-tsukusi-ta  
 its-GEN water.tub-with sprinkle-exhaust-PAST

The *with*-accusative construction of the complex *sprinkle* verb, of course, implies a holistic meaning, as in (96).

(96) a. Taro-wa kadan-ni mizu-o maki-**tsukusi**-ta kedo  
 Taro-TOP flower.bed-DAT water-ACC spread-exhaust-PAST but  
 kadan-ni-wa mada nureteinai bubun-ga aru  
 flower.bed-DAT-TOP still not.wet part-NOM be  
 ‘Literally: Taro spread water over the garden completely, but there are some parts  
 in the garden that have not been wet’

b. #Taro-ga mizu de niwa-o maki-**tsukusi**-ta kedo  
 Taro-NOM water with garden-ACC spread-exhaust-PAST but  
 kadan-ni-wa mada nureteinai bubun-ga aru  
 flower.bed-DAT-TOP still not.wet part-NOM be  
 ‘Taro spread the garden with water completely, but there are some parts in the  
 garden that have not been wet’

Armed with the proposed analysis, I argue that the alternation paradigm of *maku* and *maki-tsukusu* that has been assumed in the literature is not accurate (Fukui, Miyagawa and Tenny 1985, Kishimoto 2001c, Iwata 2008). I propose that the correct paradigm is the one given in (97), where the complex verb *maki-tsukusu* is linked with the two verbal arguments, rather than the one in (98), where the simplex verb *maku* is linked with the two verbal arguments.

## CHAPTER V

- (97) a. Taro-ga          niwa-ni          mizu-o          maki-**tsukusi**-ta  
Taro-NOM      garden-DAT      water-ACC      sprinkle-exhaust-PAST  
'Taro sprinkled water over the garden completely'
- b. Taro-ga          mizu de          niwa-o          maki-**tsukusi**-ta  
Taro-NOM      water with      garden-ACC      sprinkle-exhaust-PAST  
'Taro sprinkled the garden with water completely'
- (98) a. Taro-ga          niwa-ni          mizu-o          mai-ta  
Taro-NOM      garden-DAT      water-ACC      sprinkle-PAST  
'Literally: Taro sprinkled water to the garden'
- b. Taro-ga          mizu de          niwa-o          maki-**tsukusi**-ta  
Taro-NOM      water with      garden-ACC      sprinkle-exhaust-PAST  
'Taro sprinkled the garden with water completely'

### 5.5 Chapter conclusion

In this chapter, I have proposed a condition on argument alternation in terms of what type of Case-feature the functional head of a ditransitive verb has; namely, if a verb involves  $v_{acc}[+multiple]$  it participates in argument alternation, while if a verb involves  $v_{dat}$  it does not. The former type of functional head enables the  $DP_{LOC}$  to always appear within the MLD of the verb in both sentence patterns in alternation paradigm. *Spray/load* verbs pass both conditions of argument alternation, and hence they can appear in the given paradigm, while *give* verbs fail both conditions, and hence they cannot.

There is the well-known fact in the literature that some non-alternation verbs (e.g., *maku* 'sprinkle', *haru* 'put', etc.) in Japanese may participate in argument alternation if they are combined with the morpheme *tsukusu* (Fukui, Miyagawa and Tenny 1985, among others). I have proposed that the suffixation of the morpheme changes the phrase structure and Case feature of these verbs, giving them the structure of verbs that participate in argument alternation. Specifically, I have argued that the locational argument comes to appear inside of the MLD of the verb by merging with *tsukusu*; the functional head  $v_{dat}$  turns into  $v_{acc}$ . In the  $vP$  of the original simplex verb *maku*, the LOC argument is licensed as Dative by  $v_{dat}$ . Hence it does not pass the condition of argument alternation. On the other hand, the LOC argument is licensed as Accusative by  $v_{acc}$  when the verb is merged with the morpheme. Thus, it can participate in argument alternation. The nature of *tsukusu* seems to be quite complex, but I have demonstrated the fact that favors the view that the morpheme is

## CHAPTER V

immediately merged with the verb. In this respect, the morpheme is not a projecting head, contra *sase* 'CAUSE' in Japanese. Given this, I have proposed that when it is suffixed with the verb it provides an extra argument to the stem verb, which will create a double accusative VP structure. As a result, the complex verb comes to exhibit the syntax parallel to that of *spray/load* verbs in the dative-accusative pattern, satisfying the condition for argument alternation. This explains why the resultant verb can take part in the alternation.

In the next chapter, I further extend the hypothesis on the two different types of *v* to syntactic causative constructions in Japanese.

## Chapter VI

### Causative motion verbs in Japanese

#### 6.1 Introduction

Japanese causative constructions have attracted much attention over the years (Kuroda 1965a; 1965b, 1978, Kuno 1973, Shibatani 1977, Harada 1973; 1975, Inoue 1977, Saito 1982; 1985, Marantz 1984, Perlmutter 1984, Takezawa 1987, Baker 1988, Heycock 1988, Miyagawa 1989, Dubinsky 1994, Koizumi 1995, Harley 2008). The reason is the apparent mismatch between the underlying complexity of the syntax and its surface simplicity. For example, the case marking of causative verbs patterns with that of ditransitive verbs, i.e., taking the dative-accusative array. However, the syntax of causative verbs is in sharp contrast with that of ditransitive verbs with respect to the nature of the dative phrase.

In this chapter, throughout an investigation of the syntax of two types of syntactic causatives, i.e., regular transitive causatives and causative motion verbs, I develop an argument that Case feature of the CAUSEE in these two types of causative verbs can be predicted under the same Dative Assignment system that I have proposed for ditransitive verbs. Specifically, it will be shown that causative transitive verbs manifest the In-Situ dative case Assignment, while causative motion verbs manifest the dative case assignment after Movement. The upshot is a causative-ditransitive pair with respect to dative case marking: causative motion verbs and *spray/load* verbs.

Japanese causative verbs are comprised with a specific causative morpheme *sase/(a)se* and a lexical verb. If the end of the lexical verb is a consonant, an assimilated form of *ase* is realized (Kuroda 1965a; 1965b). Both intransitive and transitive verbs can be stems of causative verbs (see Alsina 1992 for a typology of causative verbs). It has been proposed that all V-*sase* forms in Japanese, regardless of the type of causatives (i.e., lexical or syntactic, a distinction that I introduce shortly), exhibit the same nature at the levels of morphology and phonology (Harley 2008, among many others).<sup>1</sup>

---

<sup>1</sup> The previous literature of Japanese causative construction is too copious to review all in the section. I focus on the syntactic properties of causative verbs in this section. The reader may refer to Miyagawa (1989; 2010), Manning, Sag and Iida (1999) and Harley (2008) for details of more general linguistic aspects of Japanese causatives.

## CHAPTER VI

There are two types of causative verbs in Japanese: the lexical causative verb and the syntactic causative verb (Harley 2008, Miyagawa 2010, among many others).<sup>2</sup> I will discuss the distinction between lexical and syntactic causatives below. For now, (1a) is an example of a syntactic causative of a transitive verb, and (1b) is an example of a syntactic causative of a motion verb.

- (1) a. Hanako-ga      Taro-ni      mesi-o      tak-ase-ta  
Hanako-NOM      Taro-DAT      rice-ACC      cook-CAUSE-PAST  
‘Hanako made/let Taro cook rice’
- b. Taro-ga      Hanako-ni      hamabe-o      aruk-ase-ta  
Taro-NOM      Hanako-DAT      beach-ACC      walk-CAUSE-PAST  
‘Taro made/let Hanako walk on the beach’

A clear difference between these two types of causative sentences is the transitivity of the embedded verbs; the causative sentence in (1a) has a transitive verb *tak-* ‘cook’ with the required complement object, whereas the causative sentence in (1b) has a motion verb *aruk-* ‘walk’, in which the complement object is an inherent argument of the verb (Kuroda 1978, Miyagawa 1989, Kageyama 1996, Kishimoto 2005). The literature on Japanese syntax has paid much attention to the former types of causative verbs (Kuroda 1965a; 1965b, among many others). However, the syntax of the latter type of causative verbs is still obscure (cf. Kuroda 1978, Miyagawa 1989). This chapter contributes to the literature by clarifying the syntax of causative motion verbs in Japanese.

The lexical stem of this type of causative sentence is a motion verb. Motion verbs in Japanese do not necessarily take a complement (Kuroda 1978, Miyagawa 1989, Kageyama 1996, Kishimoto 2005) in the same way as English motion verbs (Levin 1993, among many others). Motion verbs are sometimes categorized as unaccusative/ergative verbs in Japanese (Miyagawa 1989), while sometimes as unergative verbs (Kageyama 1996). As Kishimoto (2005) describes, there is no clear morphological distinction between these two types of intransitive verbs in Japanese, as there is in Dutch or Italian (Burzio 1986). The distinction tends to be made on a basis of the semantic properties of the external argument in Japanese (Kishimoto 2005); if the external argument of an intransitive verb can be conceived as a

---

<sup>2</sup> For the sake of the relevance of the aim of the chapter, I leave a discussion about the lexical causative construction. The reader may refer to Miyagawa (1984; 1989; 2010) and Harley (2008).

## CHAPTER VI

volitional entity, it is an unergative verb. If we assume that causative motion verbs are complex verbs that are “causativized” by a process of “causativization”, it is necessary to be explicit about what the properties of motion verbs (i.e., the stem of causative verbs) are in Japanese. Section 6.4.1 will discuss the issue.

As roughly described above, the CAUSEE argument of these causative verbs is underlyingly the subject of the embedded verb. In Japanese, the subject of a clause is usually nominative-marked. However, it is impossible for the CAUSEE to be nominative-marked in causative constructions.

- (2) a. \*Hanako-ga      Taro-ga      mesi-o      tak-ase-ta  
Hanako-NOM      Taro-NOM      rice-ACC      cook-CAUSE-PAST  
‘Hanako made/let Taro cook rice’
- b. \*Taro-ga      Hanako-ga      hamabe-o      aruk-ase-ta  
Taro-NOM      Hanako-NOM      beach-ACC      walk-CAUSE-PAST  
‘Taro made/let Hanako walk on the beach’

It is also not permissible to mark the CAUSEE with accusative case.

- (3) a. \*Hanako-ga      Taro-o      mesi-o      tak-ase-ta  
Hanako-NOM      Taro-ACC      rice-ACC      cook-CAUSE-PAST  
‘Hanako made/let Taro cook rice’
- b. ??Taro-ga      Hanako-o      hamabe-o      aruk-ase-ta  
Taro-NOM      Hanako-ACC      beach-ACC      walk-CAUSE-PAST  
‘Taro made/let Hanako walk on the beach’

It is always the morphological dative *ni* that marks the CAUSEE. Given this, on the surface, the causative constructions look exactly the same as ditransitive verbs with respect to the case marking. It then is natural to assume that there may be something parallel between the ditransitive verbs and the causative verbs with respect to Case. The sentence in (4) identifies the relevant point. It is impossible for the CAUSEE of regular transitive verbs to be marked with the morphological accusative *o* in a cleft sentence, as in (4) (Kuroda 1978, Hiraiwa 2010).

## CHAPTER VI

- (4) \*[Ken-ga sono hon-o yom-ase-ta no]-wa gakusei-o<sub>i</sub> fu-tari<sub>i</sub> da  
Ken-NOM that book-ACC read-CAUS-PAST C-TOP student-ACC two-CL COP  
'Literally: It is two students that Ken made read the book'  
(Hiraiwa 2010: 21, (65), modified)

However, it is possible for the CAUSEE of causative motion verbs to be marked with *o* in a cleft sentence as in (5) (Kuroda 1978).

- (5) [Taro-ga hamabe-o aruk-ase-ta no]-wa ekisutora-o<sub>i</sub> go-nin<sub>i</sub> da  
Taro-NOM beach-ACC walk-CAUSE-PAST C-TOP extras-ACC five-CL COP  
'Literally: It is five extra that Taro made walk on the beach'

We have observed that the same type of difference between *give* verbs and *spray/load* verbs (see Chapter IV). Based on this difference, I have proposed that the distinction is predicted by two types of Dative Case Assignment; the In-situ assignment and the assignment after Movement. Two types of Case feature is responsible for the creation of these two ways of Dative Case Assignment:  $v_{acc}[+multiple]$  and  $v_{dat}$ . The former feature selects *spray/load* verbs, while the latter feature selects *give* verbs. For now, in this chapter, I defend the hypothesis in (6).

- (6) a. The CAUSEE of causative transitive verbs cannot be associated with accusative Case at any point of the derivation; it is always associated with dative Case.  
b. The CAUSEE of causative motion verbs can be associated with accusative Case at some point of the derivation.  
c. The CAUSEE of causative transitive verbs is assigned dative Case in situ by  $v_{dat}$ , while the CAUSEE of causative motion verbs is initially valued accusative Case in situ by  $v_{acc}[+multiple]$  and it is assigned dative Case when it is remerged to the edge of  $vP_{acc}$ .

The outline of the discussion in this chapter is as follows: I introduce the syntactic and semantic properties of causative verbs in Japanese in section 6.2. In section 6.3, we closely examine the syntax of causative motion verbs. I show that the VP of causative motion verbs exhibits the argument structure that is parallel to that of causative transitive verbs, while it has a type of feature  $v_{acc}[+multiple]$  that is shared with *spray/load* verbs. Hence, the

## CHAPTER VI

CAUSEE is assigned dative Case after Rmerge. Section 6.4 discusses some consequences of the proposal in 6.3. Section 6.5 concludes the chapter.

### 6.2. Causative verbs in Japanese

In the literature of Generative Semantics (McCawley 1968, Lakoff 1970), it has been hypothesized that English *kill* and *cause X to die* share the same underlying semantic structure at certain stage of the derivation. The former verb is derived by application of predicate raising and the lexicalization rule. This type of verb, therefore, called “lexical” causative verbs. The latter type of sentence is derived if application of predicate raising and the lexicalization rule fail to apply. This type of causative is known as “periphrastic/syntactic” causative. (7a) is a lexical causative, while (7b) is a syntactic causative.

- (7) a. John killed Harry  
b. John caused Harry to die

Fodor (1970) argues against this analysis for three reasons below: firstly, it is possible for the pronominal *it* to replace the caused event (i.e., Mary’s dying) in the syntactic causative sentence as in (8b), whereas it is impossible to do the same in the lexicalized causative sentence as in (8a).

- (8) a. John killed Mary, and it surprised me that {he/\*she} did so  
b. John caused Mary to die, and it surprised me that {he/she} did so

(Fodor 1970: 431, (15), (16))

*Do-so* takes a VP as its antecedent. In (8a), *did so* refers to *kill* and refers to *cause to die* in (8b). Thus, the fact that *Mary* (=she) in (8b), can stand as a subject of *did so* means that it can be a “subject” in the dying event. On the other hand, the fact that *Mary* in (8a) cannot stand as a subject of *did so* means the opposite possibility that it is not a “subject” of the caused event in this sentence. Second, it is impossible to observe the temporal difference between the causation event and the caused event in the lexical causative sentence, as in (9a), while it is possible to observe it in the syntactic causative sentence, as in (9b).

## CHAPTER VI

(9) a. \*John killed Bill on Sunday by stabbing him on Saturday

b. John caused Bill to die on Sunday by stabbing him on Saturday

(Fodor 1970: 432, (20), (21))

In (9a), two different temporal phrases *on Sunday* and *on Saturday* cannot co-occur in the sentence because they semantically contradict each other. This means that the killing and Bill's dying events take place simultaneously. In contrast, in the syntactic causative sentence (9), two different temporal phrases can be compatible in the same sentence. This means that the causing and the killing event do not necessarily happen at the same time. Third, the CAUSEE of the lexical causative cannot be regarded as a volitional agent because it cannot control PRO in the adjunct phrase, as in (10a) (i.e., this test is related to the first point as well). On the other hand, the CAUSEE can be regarded as a volitional agent because it can control PRO in the adjunct phrase, as in (10b).

(10) a. John killed Bill by PRO<sub>{John/\*Bill}</sub> swallowing his tongue

b. John caused Bill to die by PRO<sub>{John/Bill}</sub> swallowing his tongue

(Fodor 1970: 435-436, (30), (32), modified)

In the lexical causative sentence (10a), the CAUSER *John* can be a subject of the adjunct phrase *swallowing his tongue*, while the CAUSEE *Bill* cannot. In contrast, in the syntactic causative sentence (10b), the CAUSEE can be a subject of the same adjunct phrase, just as the CAUSER may.

Shibatani (1972; 1990: 312-317) proposes the same distinction holds for Japanese causative verbs. He claims that the verb like *kis-u* 'put.on.CAUSE-PRES', as in (11a), is a lexical causative, corresponding to English *kill*, whereas the verb like *ki-sase-ru* 'put.on-CAUSE-PRES', as in (11b), is a syntactic causative, corresponding to English *cause to die*.

(11) a. Taro-ga Hanako-ni fuku-o kise-ta

Taro-NOM Hanako-DAT clothe-ACC put.on.CAUSE-PAST

'Taro caused Hanako to get dressed'

b. Taro-ga Hanako-ni fuku-o ki-sase-ta

Taro-NOM Hanako-DAT clothe-ACC put.on-CAUSE-PAST

'Taro caused Hanako to get dressed'

## CHAPTER VI

First, it is impossible for the pro-form *so-su* ‘so-do’ (i.e., out-bound anaphora), being an anaphor, to take the embedded clause as an antecedent, i.e., a constituent [*Hanako-ni fuku-o kisu*] in lexical causative sentences, as in (12a). On the other hand, it is possible for the pro-form to refer to the embedded clause [*Hanako-ni fuku-o ki-sase-ru*] in syntactic causative sentences, as in (12b). As a result, the sentence in (12a) is unambiguous, where the anaphor *so-su* replaces the VP ‘Hanako is caused to get dressed’. The sentence in (12b), however is ambiguous between the reading 1 in which Jiro also caused Hanako to get dressed (i.e., the same reading as (12a)) and the reading 2 in which Jiro also got dressed. The former reading is induced by the structure where *so-su* refers to the VP involving the causative verb, whereas the latter reading is induced by the structure where *so-su* replaces with the lexical VP excluding the causative verb.

- (12) a. Taro-ga Hanako-ni fuku-o kise Jiro-mo so-si-ta  
 Taro-NOM Hanako-DAT clothe-ACC put.on.CAUSE Jiro-also so-do-PAST  
 Reading 1: ‘Taro caused Hanako to get dressed and Jiro did so (caused Hanako to get dressed), too’
- b. Taro-ga Hanako-ni fuku-o ki-sase Jiro-mo so-si-ta  
 Taro-NOM Hanako-DAT clothe-ACC put.on-CAUSE Jiro-also so-do-PAST  
 ‘Taro caused Hanako to get dressed and Jiro did so, too’  
 Reading 1: ‘Taro caused Hanako to get dressed and Jiro did so (caused Hanako to get dressed), too’  
 Reading 2: ‘Taro caused Hanako to get dressed and Jiro did so (Jiro got dress), too’

Second, the causation event and the caused event must take place simultaneously in the lexical causative sentence, as in (13a), whereas there is no such a requirement for the syntactic causative, as in (13b).

- (13) a. Taro-ga Hanako-ni gozen jyuuji-ni fuku-o kise-ta  
 Taro-NOM Hanako-DAT AM 10-AT clothe-ACC put.on-PAST  
 ‘Taro caused Hanako to get dressed at 10am’
- b. Taro-ga Hanako-ni gozen jyuuji-ni fuku-o ki-sase-ta  
 Taro-NOM Hanako-DAT AM 10-AT clothe-ACC put.on-CAUSE-PAST  
 ‘Taro caused Hanako to get dressed at 10am’

## CHAPTER VI

In the syntactic causative sentence as in (13a), the time adverbial *gozen jyuuji-ni* ‘at ten a.m.’ can be interpreted as a reference time when the CAUSER *Taro* made an order, which is not necessarily synchronized with the time when *Hanako* carries out the action that *Taro* has ordered. On the other hand, as in (13b), the adverbial expression is able to refer to both when *Taro* ordered *Hanako* to get dressed and when *Hanako* actually got dressed. This ambiguity shows that there must be two attachment sites for adverbials in syntactic causative sentences, while there is only one such site for lexical causative sentences.

Thirdly, as illustrated in (14a), a subject-oriented anaphor *zibun* ‘self’ in lexical causative sentences cannot take the CAUSEE as its antecedent (in addition to the CAUSER) (Kuno 1973, Miyagawa 1999, Ura 2000, among others), whereas it is possible for the CAUSEE of syntactic causative sentences to be an antecedent of the same anaphor (as well as the CAUSER), as shown in (14b).

- (14) a. Hanako-ga<sub>i</sub>      Taroo-ni<sub>j</sub>      zibun-no<sub>{i/\*j}</sub>      syasin-o      mise-ta  
          Hanako-NOM    Taro-DAT    self-GEN      picture-ACC    show-PAST  
          ‘Literally: Hanako showed Taro self’s picture’
- b. Hanako-ga<sub>i</sub>      Taroo-ni<sub>j</sub>      zibun-no<sub>{ij}</sub>      syasin-o      mi-sase-ta  
          Hanako-NOM    Taro-DAT    self-GEN      picture-ACC    show-CAUSE-PAST  
          ‘Literally: Hanako made Taro see self’s picture’

(Manning, Sag and Iida 1999: 50-51, (29), (30))

In the literature of Japanese, it has been proposed that the anaphor *zibun* must be bound by the element bearing the subjecthood in the structure, if the binder is in syntax (Shibatani 1977, Perlmutter 1984, Heycock 1993, Ura 2000, among others). Given this, the CAUSEE in the lexical causative lacks the subjecthood because *zibun* cannot be coreferential with it, whereas in the syntactic causative the CAUSEE bears the subjecthood because *zibun* can be coreferential with it.

These three points shows that lexical causatives and syntactic causatives are structurally different. On a basis of this, the syntactic literature on causative verbs has subsequently proposed a bi-clausal analysis for syntactic causatives and a mono-clausal analysis for lexical ones (Marantz 1984, Baker 1988, Heycock 1988, among others), corresponding to the same distinction in English *kill* and *cause to die* (Shibatani 1972, Kuroda 1965b, Kuno 1973, Inoue 1976, Saito 1982, Miyagawa 1984; 1999, Marantz 1984,

## CHAPTER VI

Takezawa 1987, Baker 1988, Heycock 1988, Koizumi 1995, Miyagawa 1996; 1999, Harley 2008).

Under the bi-clausal hypothesis of the syntactic causative, we might have expected that the CAUSEE can be nominative-marked since, as we have seen, it shows evidence of being the “subject” of the embedded clause. However, as we have seen in (2a), the CAUSEE cannot be marked with *ga*. It is also true that, as in (2b), the CAUSEE cannot be accusative-marked either; it is always Dative *ni* that can mark the CAUSEE. The ban on nominative marking on the CAUSEE in (2a), has been explained differently over the years, as the general theory develops. Under the Cycle Theory, Kuroda (1965b; 1978) and Kuno (1973) propose that the CAUSEE argument (i.e., the subject of the lower clause) is initially nominative-marked at the first cycle and later they are re-marked with the dative case at the second cycle under CSE/Subject-NI raising (see section 4.2.2). In P&P theory, it is assumed that the lower clause of a syntactic causative is a small-clause and hence tense-less. Because there is no tense, there is no nominative Case feature, under the assumption that the nominative case marking is executed in the tense domain in Japanese (Shibatani 1978, Saito 1982, Takezawa 1987, Koizumi 1995, Ura 2000, among others). Baker (1988) proposes that the lower clause of syntactic causatives in Japanese is VP under the VP-shell analysis (Larson 1988). In general, VP is tense-less. Hence, there is no nominative marking on the CAUSEE, which is the specifier of the higher VP. In the MP, rather recently, Harley (2008) takes over Baker’s analysis and replaces the lower VP with *v*P under the split *v*P hypothesis (the neo-Larsonian shell).

To be fair, the issue of nominative marking on the CAUSEE is settled in debate in the literature mentioned above. Nevertheless, I want to raise an issue: namely, that the dative marking on CAUSEE is not in accordance with the fact that the CAUSEE in causative motion verbs can be accusative-marked under certain syntactic conditions, as in (5) and in (3b).

So far, apart from the motion verbs, all the examples of causativized verbs have been transitives. In this case, the CAUSEE can only be marked with *ni*. However, when an intransitive verb is causativized, the CAUSEE can be marked with either the dative *ni* or the accusative *o*, as shown in examples (15a) and (15b).

- (15) a. Kiyomi-ga      Masami-o      waraw-ase-ta  
Kiyomi-NOM    Masami-ACC    laugh-CAUS-PAST  
‘Kiyomi made Masami laugh’ (or Kiyomi forced Masami to laugh.)

## CHAPTER VI

- b. Kiyomi-ga      Masami-ni      waraw-ase-ta  
Kiyomi-NOM    Masami-to      laugh-CAUS-PAST  
'Kiyomi let Masami laugh' (or Kiyomi allowed Masami to laugh.)

(Koizumi 1995: 90, (57))

It has been discussed that when the stem of the syntactic causative is intransitive, the CAUSEE can be accusative-marked (*ni*-causative) or dative-marked (*o*-causative); and there is a semantic distinction between the *o*-causative and the *ni*-causative (Kuroda 1965, Marantz 1984, Koizumi 1995, Miyagawa 1999, among many others). The *o*-causative conveys that the causative force from the CAUSER to the CAUSEE is much more direct and strong, compared to the *ni*-causative. Some literature takes this distinction seriously and proposes that each causative sentence is associated with a different base structure (Koizumi 1995). On the other hand, some literature takes this distinction to be illusory and proposes a derivational account for the two causative sentences (Takezawa 1987). When the stem of the syntactic causative is transitive, it is impossible for the *o*-causative to be realized. Only the *ni*-causative is permissible on the surface as in (1a). Because of this, some of the literature argues that the *ni*-causative like (1a) is ambiguous between the coercive and the permissive reading (Kuroda 1965a, Koizumi 1995).

I have shown that the *o*-causative with a transitive verb is not realized in Japanese, as in (3a). The literature implicitly appeals to the DoC filter (Harada 1973, or some version of it) to account for the fact. As I noted in 4.4.2, Kuroda (1965b) argues that the underlying multiple accusative structure for (1a), cannot be generated because of the CSE/Subject-NI raising and the Counter-Equi deletion. As introduced in 4.2.1, Saito (1982) argues that the CAUSEE of causative verbs is generated in an ungoverned position. To save this element, the postposition *ni* licenses the term. This line of argument has been carried over by Takezawa (1987) and Koizumi (1995). Takazawa, in particular, develops the dummy *ni* insertion rule (see 4.2.1). Harley's (2008) structure, which is introduced in the next section, involves three-layered VP shell: the lexical VP, a lower functional *v*P and a higher functional *v*P. The CAUSEE is an argument of the lower *v* and the CAUSER is an argument of the higher *v*. The CAUSEE is assigned the dative *ni* in situ. In the next section, I review Harley's analysis and modify it with respect to the Dative Case Assignment. In particular, I discuss the nature of the lower *v* head, which has been left obscure in her analysis. I further argue that, although this modified structure accommodates argument structure of causative motion

## CHAPTER VI

verbs, it cannot capture the syntax of Case of this type of causative verbs. Hence, I propose a novel analysis for causative motion verbs.

### 6.3. Syntax of causative transitive verbs

#### 6.3.1 Harley (2008)

Harley (2008) provides a uniform account for Japanese causative verbs; there is only one causative morpheme *sase* in Japanese, which is involved in the formation of both syntactic and lexical causatives. In this analysis, what is crucial is the timing of merge between the causative morpheme and the lexical stem. Lexical stems are specifically called “roots”. When the causative morpheme (i.e., CAUS  $v^0$  in her terminology) merges with a root, lexical causatives are derived, while when the causative morpheme merges with a maximal projection (i.e.,  $vP$ ), syntactic causatives are derived.<sup>3</sup>

- (16) a. Lexical causative: A CAUS  $v^0$  that is immediately adjacent to a root.  
b. Productive causative: A CAUS  $v^0$  that is not adjacent to a root (i.e., one that embeds a  $vP$ ) (Harley 2008: 41, (34))

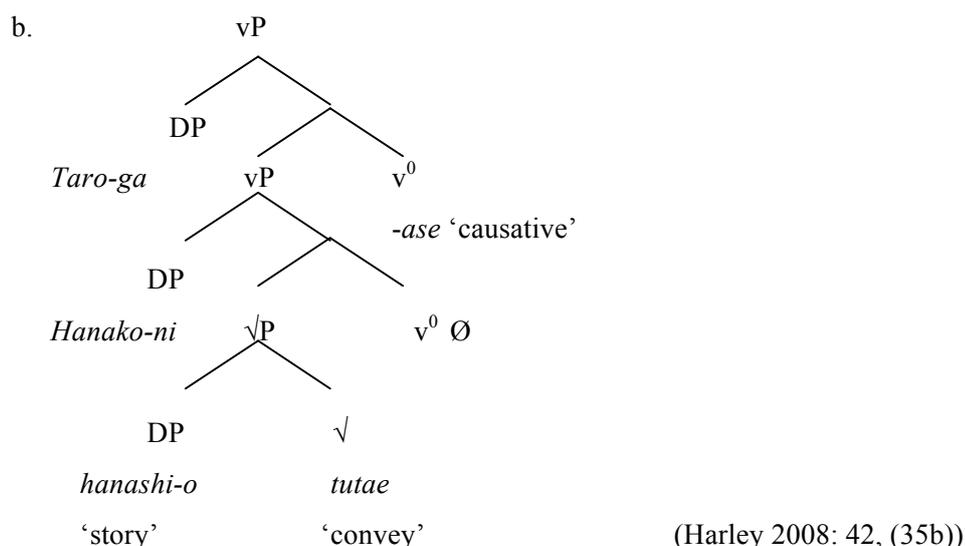
Under the assumption in (16b), a syntactic causative structure like (17b) is derived, which is involved in a causative transitive sentence in (17a).

- (17) a. Taro-wa Hanako-ni hanasi-o tutae-sase-ta  
Taro-TOP Hanako-DAT story-ACC convey-CAUSE-PAST  
‘Taro made Hanako convey a story’

---

<sup>3</sup> For the sake of relevance to the topic of this chapter, I am concerned with only the condition (16b), setting aside (16a).

CHAPTER VI



In (17b), the root *tutaetai* ‘convey’ merges with the complement object *hanashi* ‘story’ and produces a root projection (i.e.,  $\sqrt{P}$ ). The lower  $v^0$  takes this  $\sqrt{P}$  as its complement, merging the CAUSEE *Hanako* to its specifier position. This structure represents the caused event of the entire causative event. The higher light  $v^0$ , where the causative verb *sasetai* is attached, takes this lower  $vP$  as its complement, merging the CAUSER to its specifier.

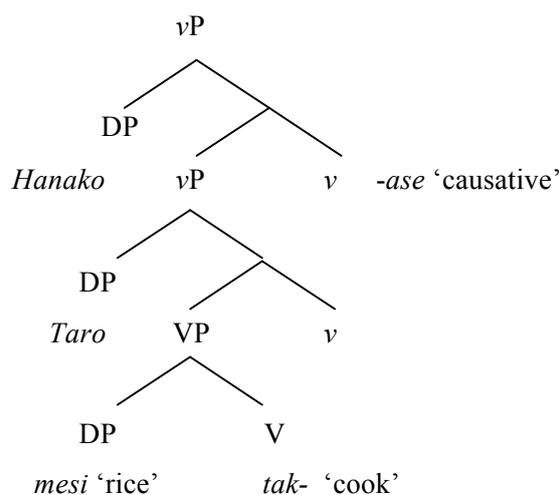
I call this analysis “double  $vP$ ” analysis. The reader may wonder what the lower  $v$  does in this projection. It captures the bi-clausality of syntactic causatives which has been observed in the previous section. Because the CAUSEE is located at [Spec, lower  $vP$ ], it shows the subjecthood (i.e., it can be an antecedent of *zibun* ‘self’ or can control PRO in the adverbial phrase). There are two attachment sites for the time adverbials: the upper  $vP$  and the lower  $vP$ . When *so-su* takes the lower  $vP$  as an antecedent, we obtain the reading that the subject of *so-su* is interpreted as the subject of the embedded clause (i.e., he/she repeats the same action as the CAUSEE does), while when it takes the higher  $vP$  as an antecedent, where the causative head is merged, a reading in which the subject of *so-su* is the CAUSER is obtained. According Levin and Rappaport (2005), “root” contains the idiosyncratic information of the lexeme. In the structure (17b), the causative morpheme does not immediately merge with the root, and, hence syntactic causatives show no variation in the morphophonological form.

## CHAPTER VI

### 6.3.2 Discussion

I follow Harley's double vP analysis, but I will replace the root projection with a simple VP, because a further decomposition of the lexical projection is not necessary for present purpose. Since Harley (2008) does not discuss how Case is licensed in her structure. I develop this point further.

#### (18) The structure for the transitive causative (to be revised)



The CAUSEE of causative transitive verbs has structural Case, since it can be passivized as in (19a) under the assumption that the passive subject is derived from the thematic domain (i.e., this passive is a direct passive). Contrastively, it seems that the complement object of the same verb may not be associated with structural Case, since it cannot be passivized as in (19b). This is one of the issues in the literature of Japanese causative verbs in relation to the bi-clausality (Inoue 1976, Marantz 1984, Baker 1988, Heycock 1988, Matsumoto 1998, among others). I support a proposal that the complement object has structural accusative Case (Marantz 1984; Heycock 1988). I return to the issue later.

- (19) a. Gakusei-ga<sub>i</sub> Taro-niyotte fu-tari<sub>i</sub> mesi-o tak-ase-rare-ta  
 student-NOM Taro-BY two-CL rice-ACC cook-CAUSE-PAST  
 'Two students were made to cook rice by Taro'

## CHAPTER VI

- b. \*Gohan-ga<sub>i</sub> Hanako-niyotte Taro-ni ni-gou<sub>i</sub> tak-ase-rare-ta  
 rice-NOM Hanako-BY Taro-DAT two-CL cook-CAUSE-PASS-PAST  
 ‘Literally: Two cups of rice were made Taro to cook by Hanako ’

In Chapter IV, I have proposed that a *give* VP involves a functional head  $v_{\text{dat}}$  that values dative Case to its closer c-command goal, while a *spray/load* VP involves  $v_{\text{acc}}$  that values accusative Case to its c-commanding goals in conjunction with Multiple Agree. The crucial evidence to this proposal is that the GOAL of former verbs is never associated with accusative Case, being evidenced with the lack of a multiple accusative cleft, or multiple accusative scrambling with this type of verbs. On the contrary, the LOC of the latter type of ditransitive verbs is associated with accusative Case in its base position, which licenses *spray/load* verbs as compatible with these multiple accusative constructions.

As in (20), we find the same pattern in the causative paradigm.

- (20) a. \*Naomi-o Ken-ga yukkuri sono hon-o yom-ase-ta  
 Naomi-ACC Ken-NOM slowly the book-ACC read-CAUSE-PAST  
 ‘Literally: Naomi, Ken made/let read the book slowly’  
 b. \*[Ken-ga sono hon-o yom-ase-ta no]-wa gakusei-o<sub>i</sub>  
 Ken-NOM that book-ACC read-CAUSE-PAST C-TOP student-ACC  
 fu-tari<sub>i</sub> da  
 two-CL COP  
 ‘Literally: It is two students that Ken made/let read the book’

(Hiraiwa 2010: 21, (65), modified)

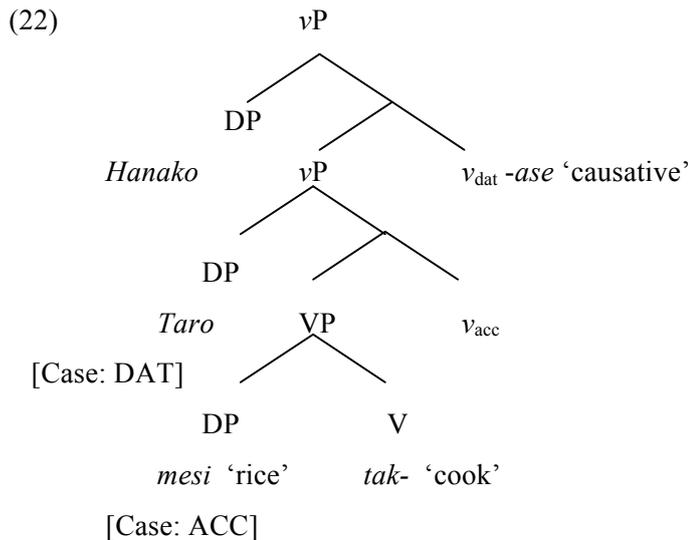
The causative transitive verbs cannot be compatible with the multiple accusative constructions. The ungrammaticality of these examples shows that there is no point in the derivation at which the CAUSEE is accusative-valued. It is always dative-valued. Under these assumptions, I argue that this type of causative constructions includes a  $v_{\text{dat}}$  head as the upper  $v$ , assuming (16b).

- (21)  $v_{\text{dat}}$  selects a maximal projection that includes a transitive verb.

## CHAPTER VI

Under (21), I further argue that the Dative Case Assignment on the CAUSEE takes place in situ in the same way as the GOAL of *give* verbs.

One may wonder whether or not the lower *v* can be a Case licensing head. Suppose that the lower *v* has [-interpretable] Case features. Under this assumption, we expect the unvalued Case feature on the complement object to be valued by the lower *v*. Let us assume that the lower *v* values accusative Case on the complement.



Let us now return to the issue of passivization of the complement object in causativized transitive verbs. There are two possibilities for this account; firstly, the complement object has inherent accusative Case; it has no Case to be absorbed by the passive morpheme. However, this assumption is inconsistent with the fact that the same complement object has structural Case in its transitive construction that can be absorbed under passivization, as in (23b).

- (23) a. Hanako-ga      mesi-o      tai-ta  
 Hanako-NOM   rice-ACC   cook-PAST  
 ‘Hanako cooked rice’
- b. Mesi-ga      Hanako-niyotte   tak-are-ta  
 rice-NOM   Hanako-BY   cook-PASS-PAST  
 ‘Rice was cooked by Hanako’

## CHAPTER VI

Baker (1988) argues that the lexical stem verb reanalyzes with the head of its complement object before head movement (i.e., “Noun Incorporation”). This reanalysis does not incorporate the morphological case. Thus, the complement object has no structural Case but it has the accusative marker. However, Heycock (1988) provides a counter-argument for this analysis by pointing out that the embedded object may have a stack of nominal modifiers, as in (24).<sup>4</sup>

- (24) Mitiko-wa Taroo-ni zibun-no otoosan-no kusuri-o no-mase-ta  
Mitiko-TOP Taro-DAT self-GEN father-GEN medicine-ACC drink-CAUSE-PAST  
‘Mitiko made Taro drink her father’s medicine’ (Heycock 1988: 201, (12))

Heycock’s point is that if the accusative object *kusuri* ‘medicine’, the head of the embed object DP, is incorporated with the verb, its genitive modifier *zibun-no otoosan-no* ‘one’s dad’s’ must be left without Case; hence the sentence should be illicit, contrary to the fact. Secondly, according to Yip, Maling and Jackendoff (1986), a DP bearing the so-called “quirky dative case” in Icelandic can be promoted to a passive subject retaining its original case feature. If the complement object of the Japanese causative construction is a quirky accusative case, we would expect the given object to be passivized with its original Case feature. However, this is not the case as given in (25).

- (25) \*Gohan-o Hanako-niyotte Taro-ni tak-ase-rare-ta  
rice-ACC Hanako-BY Taro-DAT cook-CAUSE-PASS-PAST  
‘Literally: Rice (ACC) was made Taro to cook by Hanako’

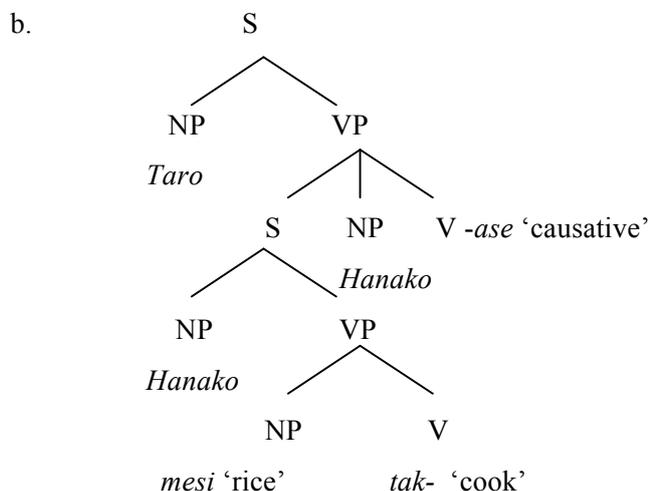
Thirdly, the remaining option is to assume that the complement object is structural Case. This is actually the majority view in the literature. The point is that accusative Case of the complement object cannot be absorbed under passivization, because of the bi-clausal structure of causative transitive verbs (Marantz 1984, Heycock 1988). I will translate Marantz’s (1984) structure for Japanese transitive causative into (26b).

---

<sup>4</sup> Baker’s analysis cannot be supported, even under the DP hypothesis. If the head of this complex phrase is D, under the incorporation, it is expected that this head will be incorporated into V, hence there is no head that licenses the genitive phrase even under this analysis, contrary to the fact.

CHAPTER VI

- (26) a. Taro-ga Hanako-ni mesi-o tak-ase-ta  
 Taro-NOM Hanako-DAT rice-ACC eat-CAUSE-PAST  
 ‘Taro caused Hanako eat rice’



(Marantz 1984: 266, (7.72), modified)

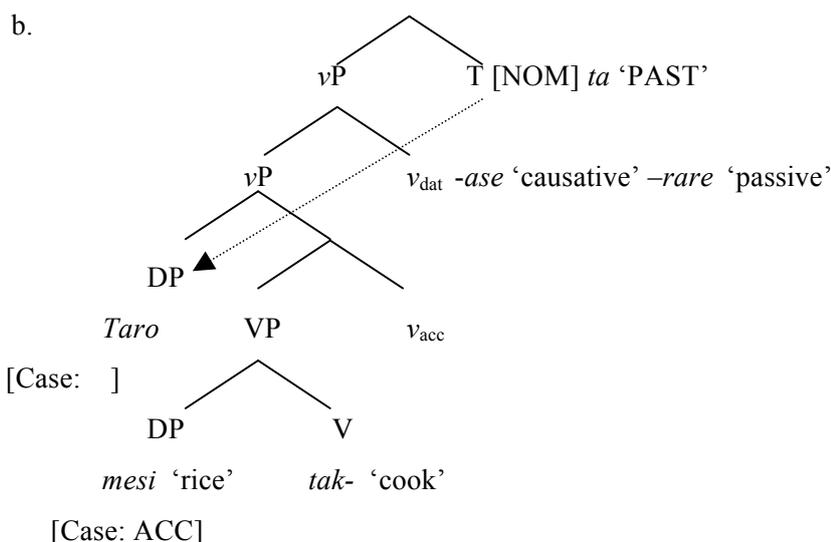
Marantz assumes that the only site for the passive morpheme can be attached to is the upper V, where the causative head is. Because of the presence of the lower S, which protects the lower NP *mesi* ‘rice’ from Case absorption, the passive morpheme cannot absorb the Case feature on the complement object *mesi* ‘rice.’ However, the CAUSEE *Hanako* is merged within the higher VP and hence the passive morpheme can absorb its accusative Case.

I follow this line of analysis, i.e., I assume that the complement object of causative transitive verbs has structural accusative Case but it cannot be absorbed under passivization. I made an assumption earlier that the lower *v* in causative transitive verbs is the functional head with [-interpretable] Case feature, as in (22). Specifically, it is a  $v_{acc}$  feature since its complement can be passivized (i.e., it has the structural accusative Case that can be absorbed) and is realized with *o*. Following Marantz (1984), I assume that the passive morpheme always absorbs Case of the upper projection for a while. I also assume that structural dative Case in Japanese can be absorbed under passivization (Miyagawa 1989; 1996). When this operation takes place, the local object CAUSEE *Taro* becomes Case-less, as in (27). Under this operation, the Case of the complement object is flawless, if we assume that the lower *vP* is another functional head in the same derivation. When T, having [-interpretable] nominative Case, is merged to this derivation, it starts probing the c-commanding domain so as to enter into Agree with an unmatched goal in Case. The

## CHAPTER VI

CAUSEE is Case-less at this point of the derivation; moreover, there is no intervening goal between T and the CAUSEE that can prevent T from being Agreed with the CAUSEE. Hence, a grammatical structure like (27) is merged.

- (27) a. Taro-ga      mesi-o      tak-sa-re-ta  
 Taro-NOM    rice-ACC    cook-CAUSE-PASS-PAST  
 ‘Taro was caused to cook the rice’



There is one more possibility; if the passive morpheme is attached to the lower functional head, absorbing its Case-valuation ability, the complement object becomes Case-less because it has been Case-licensed by the lower  $v$ . When T is merged to the derivation, it looks for unmatched goals in the derivation, as shown in (28). However, this Agree cannot be held; because the CAUSEE is Case-valued by the higher  $v$ , which prevents T from entering into the probe-goal relation with the Case-less complement object. Thus, the derivation results in a violation of the DIC (Defective Intervention Constraint)<sup>5</sup>. In (28), the CAUSEE *Taro* is an intervening goal for T to Agree with the complement *mesi* ‘rice’. However, this derivation has a minor problem in the process of verbal morphology; it creates an order *tak-rase-sase-ru* ‘V-PASS-CAUSE-PRES’. This morphology itself is not illicit; however, neither is it a prototypical order of passivized causative verbs. In this respect, I

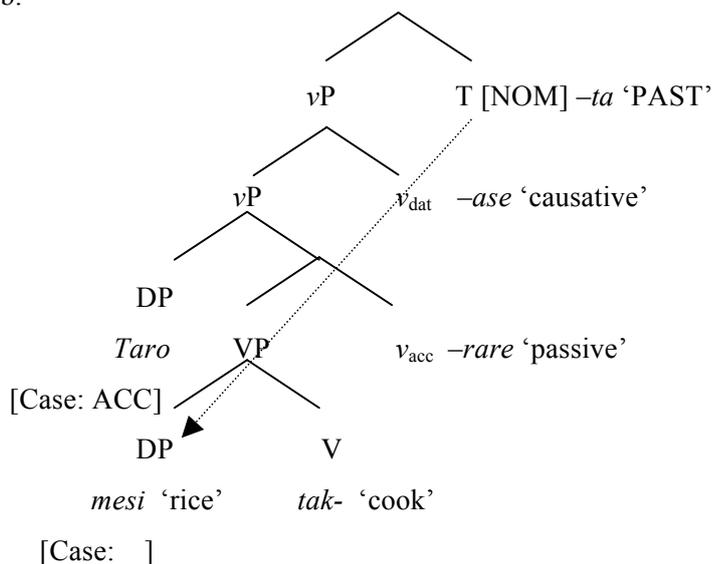
<sup>5</sup> If there is an inactive goal that has been Agreed with a probe(head) (A) between a probe (B)(head) and a goal, the head B cannot Agree with the goal. For a formal definition of the DIC, see (14) in section 2.2.

## CHAPTER VI

adopt the first assumption. I extend the first analysis to the passivization of the complement object of causative motion verbs in the next section.

- (28) a. \*Taro-o        mesi-ga        tak-are-sare-ta  
           Taro-ACC    rice-NOM    cook-PASS-CAUSE-PAST

b.        \*



### 6.4. Syntax of causative motion verbs

Let us turn to our main concern in this chapter: the structure of causative motion verbs. I first attempt to test the modified vP (18) with the data from causative motion verbs, and point out that the causative motion verb construction requires a modification on the Case valuation system in (22)., i.e., it only has  $v_{acc}$  [+multiple] and requires the Dative Assignment after Movement.

#### 6.4.1 Motion verbs

Under our general assumptions, we have decomposed syntactic causative verbs into two projections, the lexical head and the causative head. I have adopted Harley's double vP analysis for causativized transitive verbs. A pertinent question is whether or not we need this elaborate vP structure for an analysis of causativized motion verbs. The answer is yes and I defend it in this section.

Under this analysis, the lexical stem must be motion verbs. In the literature on intransitive verbs, two types of intransitive verbs have been recognized: the unergative verb

## CHAPTER VI

and the unaccusative verbs (ergative) (Perlmutter 1973, Bruzio 1986, Belletti and Rizzi 1988, Miyagawa 1989, Levin 1993, Kageyama 1996, Levin and Rappaport 1996, Kishimoto 2005).

It has been proposed that motion verbs in English (Levin and Rappaport 1995) and also in Japanese belong to the unergative class (Kageyama 1996) in some literature. On the other hand, in other literature it has been suggested that motion verbs are unaccusative verbs (Miyagawa 1989). According to Kishimoto (2005), there are at least three types of motion verbs in Japanese; one belongs to the unaccusative category (i.e., *kaeru* ‘return’), one belongs to the unergative category (i.e., *aruku* ‘walk’) and one has both properties (e.g., *iku* ‘go’).<sup>6</sup> For now, I am only concerned with the one belongs to the unergative category.

The unergative VP involves a specifier but not complement (Levin and Rappaport 1995, Hale and Keyser 2002). The specifier of unergative verbs behaves like an active subject in the subject-tests. In English, the subject of a unergative verb *run* can control the adjunct phrase like *while sweating* in (29a), and it can be a subject of the *do-so* phrase as in (29b).

(29) a. John<sub>i</sub> ran to the station PRO<sub>i</sub> while sweating.

b. John<sub>i</sub> walked on the beach this morning, and it is nice he<sub>i</sub> did so.

The nominative phrase of a sentence with motion verbs in Japanese (e.g., *aruku* ‘walk’, *noboru* ‘climb’, *hasiru* ‘run’, etc.) in (30) exhibits the same property. It can control an adjunct *nagara*-phrase as in (30b) (i.e., PRO is controlled by the nominative phrase) thereby demonstrating the subjecthood (Perlmutter 1984, Ura 2000).

(30) a. Hanako-ga arui-ta

Hanako-NOM walk-PAST

‘Hanako walked’

b. Hanako-ga<sub>i</sub> [ PRO<sub>i</sub> hanauta-o utai nagara ] arui-ta

Hanako-NOM hum-ACC sing while walk-PAST

‘Hanako<sub>i</sub> walked [PRO<sub>i</sub> while humming to herself]’

---

<sup>6</sup> In Japanese, the unaccusative/unergative distinction is made according to the semantics of the verb, because there is no overt evidence from verb morphology to show the distinction, in contrast to Dutch or Italian (Kishimoto 2005).

## CHAPTER VI

Motion verbs can optionally take an argument that represents the path of movement (Levin and Rappaport 1995, Kageyama 1996). Under this condition, as shown in (31), the path phrase behaves like a transitive object. In this sentence, the nominative phrase also shows subjecthood as in (31b) and (31c). Being bound by the anaphor *zibun* ‘self’ or *zibun-zisin* ‘oneself’ is one of the tests of subjecthood in Japanese.

- (31) a. Hanako-ga        hamabe-o        arui-ta  
          Hanako-NOM    beach-ACC    walk-PAST  
          ‘Hanako walked on the beach’
- b. Hanako-ga<sub>i</sub>        [PRO<sub>i</sub> hanauta-o    utai nagara]    hamabe-o        arui-ta  
          Hanako-NOM                hum-ACC    sing while    beach-ACC        walk-PAST  
          ‘Hanako walked on the beach while humming to herself’
- c. Hanako-ga<sub>i</sub>        zibun/zibun-zisin<sub>i</sub>-no    michi-o        arui-ta  
          Hanako-NOM    self-GEN                    path-ACC        walk-PAST  
          ‘Hanako walked on her own path’

The nature of the accusative PATH, however, is not clear. It has been proposed that it can be passivized (Kuroda 1988). Because (32b) is grammatical, Kuroda (1988) argues that the PATH has structural accusative Case (i.e., “the accusative case of path”).

- (32) a. Ken-ga        hamabe-o        sampo-si-ta  
          Ken-NOM    beach-ACC    walk-LV-PAST  
          ‘Ken walked on the beach’
- b. Sono hamabe-ga    zimonoto-no    hitobito-niyotte    sitasim-are,  
          the    beach-NOM    local-GEN        people-BY        love-PASS  
          yoku    sampo-s-are-teir-u  
          often    walk-LV-PASS-PROG-PRES  
          ‘The beach is loved and often walked by the local people’

(Hiraiwa 2010; 773, (22))

Miyagawa (1989), in contrast, analyzes the PATH as bearing inherent Case, on the basis of data like (33b).

## CHAPTER VI

- (33) a. Kodomo-ga hasi-o watat-ta  
child-NOM bridge-ACC cross-PAST  
'The child crossed three bridges'
- b. \*Ano hasi-ga kodomo-ni watar-are-ta  
that bridge-NOM child-BY cross-PASS-PAST  
'The bridge was crossed by the child'

Taking this as evidence, Miyagawa draws parallels between the nature of Japanese *watar-* 'pass' to that of Italian *preoccupare* 'worry' in which its EXPERIENCER object, being an accusative object, cannot undergo movement (Belletti and Rizzi 1988); both are inherent accusatives.<sup>7</sup> This analysis is correct as far as this data goes. However, a little contextualization improves the grammaticality of (33b) to a great extent, as in (34).

- (34) Ano hasi-ga ookuno kodomo-niyotte watar-are-ta<sup>8</sup>  
that bridge-NOM many child-BY cross-PASS-PAST  
'The bridge was crossed by many children'

With this evidence, I argue for Kuroda (1988) in this respect. I argue that the path argument of motion verbs is an argument of the verb when it appears and has valued accusative Case. On a basis of the discussions so far, I propose the base structure of motion verbs like (35).

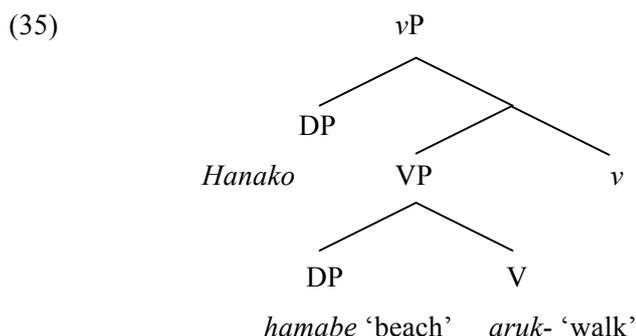
---

<sup>7</sup> Miyagawa also argues that the accusative path is not a PP, because it licenses an NQF as in (i). My judgment about this sentence accords with him.

(i) Kodomo-ga hasi-o mit-tsu watat-ta  
child-NOM bridge-ACC three-CL cross-PAST  
'The child crossed three bridges' (Miyagawa 1989: 47, (101), modified)

<sup>8</sup> Although some native speakers seem to feel very awkward about passives with inanimate nouns, based on my intuitions and also the arguments in the literature, I am only concerned with the intuitions that allow passives with inanimate entities.

## CHAPTER VI



### 6.4.2 VP of causative motion verbs

When a motion verb *aruk-* ‘walk’ is causativized by being attached to *sase*, a verb *aruk-ase-* ‘walk-CAUSE’ is derived.

- (36) Taro-ga Hanako-ni hamabe-o aruk-ase-ta  
 Taro-NOM Hanako-DAT beach-ACC walk-CAUSE-PAST  
 ‘Taro let Hanako walk on the beach’

This type of causative verbs is the syntactic causative, but not the lexical causative. Firstly, the causative morpheme regularly appears as the *V+sase* ‘CAUSE’ form, combining the stem verb and *sase*. With the verb *aruk-*, the stem verb ends with a vowel, hence *sase* appears as *ase* as in *aruk-ase-* ‘walk-CAUSE’. Secondly, causative motion verbs show biclausality, which is the hallmark of syntactic causatives. First, the pro-form *so-su* ‘so-do’ substitutes either the upper *vP* (i.e., causation event) or the lower *vP* (i.e., caused event). The sentence in (37) is ambiguous: one is that the subject of the *so-su* sentence *Jiro* also let *Hanako* walk on the beach, which is obtainable when *so-su* takes the higher *vP* as an antecedent; the other is that *Jiro* walked on the beach, which is created when *so-su* substitutes the lower *vP*.

- (37) Taro-ga Hanako-ni hamabe-o aruk-ase Jiro-mo so-si-ta  
 Taro-NOM Hanako-DAT beach-ACC walk-CAUSE Jiro-also so-do-PAST  
 ‘Taro let Hanako walk on the beach and Jiro did so, too’

Similarly, as shown in (38) the temporal phrase *gozen juuji-ni* ‘at ten a.m.’ can refer to both the time when the causation event is implemented and the time when the caused event is

## CHAPTER VI

implemented. Thus, it is possible to obtain two interpretations: (i) Hanako walked on the beach at ten a.m. and (ii) Hanako walked on the beach after ten a.m whenever she liked.

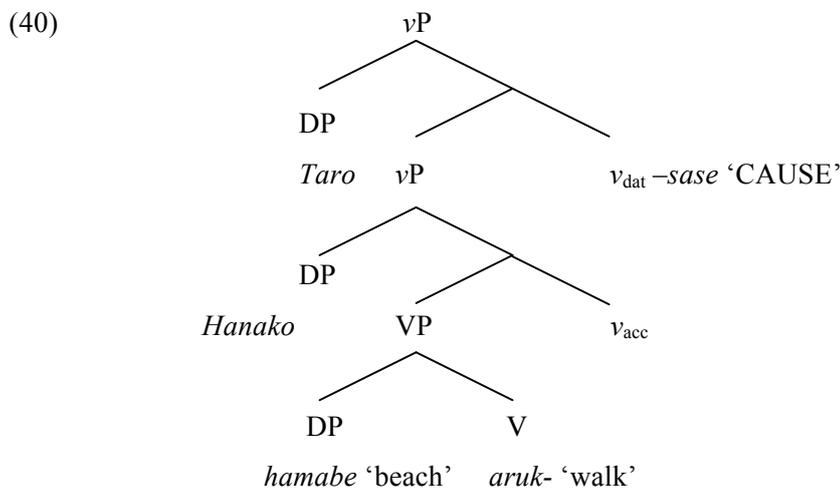
- (38) Taro-ga gozen juuji-ni Hanako-ni hamabe-o aruk-ase-ta  
 Taro-NOM a.m. ten-AT Hanako-DAT beach-ACC walk-CAUSE-PAST  
 ‘Taro let/made Hanako walk on the beach at ten AM’

The last point is the subjecthood of the CAUSEE. As in (39), the CAUSEE *Kenji* can bind the subject-oriented anaphor *zibun* ‘self’ and *zibun-zisin* ‘oneself’ in the accusative phrase.

- (39) Taro-ga Kenji-ni zibun/zibun-zisin-no tuugakuro-o aruk-are-ta  
 Taro-NOM Kenji-DAT self/oneself-GEN school.path walk-CAUSE-PAST  
 ‘Taro let Kenji walk on self’s school path’

For these three reasons, I conclude that causative motion verbs are syntactic causatives.

Following Harley’s condition (16b), I claim the structure (40) for causative motion verbs in Japanese.



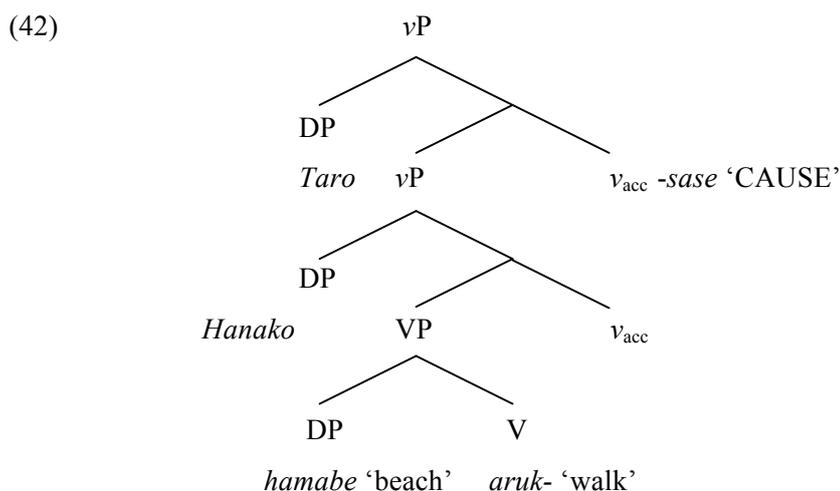
We have so far attempted to extend the structure of causative transitive verbs to causative motion verbs. In the structure, the higher *v* is *v<sub>dat</sub>*, i.e., it values dative Case to its c-command goal in situ. This extension, however, is problematic in light of the data below. It is possible for the CAUSEE of causative motion verbs to be associated with accusative Case, since, as repeated in (41), it can be marked with morphological accusative case in scrambling

## CHAPTER VI

and clefting. This is simply impossible for the CAUSEE of causative transitive verbs as observed earlier as in (20).

- (41) a. ?*Ekisutora-o Taro-ga yukkuri hamabe-o aruk-ase-ta*  
 extras-ACC Taro-NOM slowly beach-ACC walk-CAUSE-PAST  
 ‘Literally: (some) Extras, Taro made walk slowly at the beach’
- b. [*Taro-ga hamabe-o aruk-ase-ta no*]-*wa ekisutora-o<sub>i</sub> go-nin<sub>i</sub> da*  
 Taro-NOM beach-ACC walk-CAUSE-PAS C-TOP extras-ACC five-CL COP  
 ‘Literally: It is the five extras that Taro made walk at the beach’

The CAUSEE of causative transitive verbs must be always associated with dative Case, while that of causative motion verbs need not; it can be accusative-marked. This fact leads us to claim that the higher functional head is  $v_{acc}$ , rather than  $v_{dat}$  in the structure of motion causative verbs. Hence, I propose a structure (42) for the type of causative verbs.



Kuroda (1978) indeed discusses the possibility that causative motion verbs have a multiple accusative structure, on a basis of data from a multiple accusative cleft like (41b).

In this structure, there are two functional heads. Are they both strong functional heads with Case feature, i.e., just like the structure of causative transitive verbs, or is one of them is strong and the other is weak, i.e., just like the structure of *give* verbs? We can test this with passivization. In the causative transitive verbs, the CAUSEE can be passivized, while the complement object cannot, as we have observed earlier. If causative motion verbs also pattern like this, we may be able to give the same analysis to that type of causative. As

## CHAPTER VI

shown in (43a), the CAUSEE can be passivized, while the PATH cannot as in (43b).<sup>9</sup> For this reason, I argue that both functional heads are strong.

- (43) a. Sono koochi-wa sono gakusei-ni torakku-o hasir-ase-ta  
 that trainer-TOP that student-DAT track-ACC run-CAUSE-PAST  
 ‘That trainer let the student run the track’
- b. Gakusei-ga<sub>i</sub> sono koochi-niyotte fu-tari<sub>i</sub> oka-o hasir-ase-rare-ta  
 student-NOM that trainer-BY two-CL hill-ACC run-CAUSE-PASS-PAST  
 ‘Two students were made to run the hill by that trainer’
- c. \*Torakku-ga<sub>i</sub> koochi-niyotte gakusei-ni go-syuu<sub>i</sub> hasir-ase-rare-ta<sup>10</sup>  
 track-NOM trainer-BY student-DAT five-CL run-CAUSE-PASS-PAST  
 ‘Literally: Five tracks were made the student to run by that trainer’

This property is in contrast to that of *give* verbs. In the structure of *give*, both verbal arguments can be passivized, even though the argument structure of *give* verbs and that of causative motion verbs look very similar.

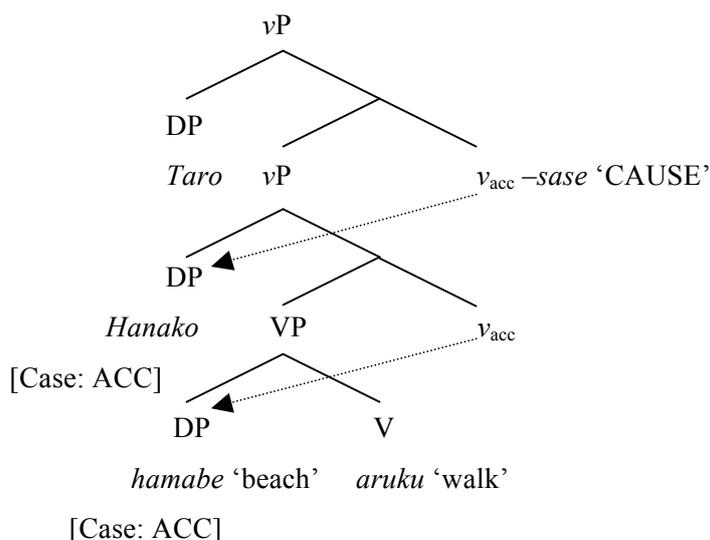
---

<sup>9</sup> According to Matsumoto (1992), the complement object of what he calls “type II causative” can be passivized. This class includes the causative verbs whose embedded verbs are *hakaseru* ‘put.on’ or *taberu* ‘eat’ with the CAUSEE representing a non-volitional entities such as *akachan* ‘babies’, who are not expected to control the caused event. The complement object of this type of causative can be passivized, contra the traditional view on this issue just mentioned above. However, it seems to me that the establishment of these passives is strongly conditioned by the pragmatics of the CAUSEE argument, and also that they include negative projection. Since I have no theory of what the negative head does in this passive, I will set aside this type of passive from my discussion.

- (i) Sono rinyuu-shoku-wa mada dono akachan-ni-mo tabe-sase-rarete i-nai  
 the baby.food-TOP yet any baby-DAT-also eat-CAUSE-PASS ASP-NEG  
 ‘The baby food had not yet been given to feed any child’ (Matsumoto 1992: 7, (11a))
- (ii) Sono runyuu-shoku-ga akachan-ni tabe-sase-rare-ta  
 that baby.food-NOM baby-DAT eat-CAUSE-PASS-PAST  
 ‘The baby food was made the baby to eat’

<sup>10</sup> All my informants (seven people) reject this passive.

(44)



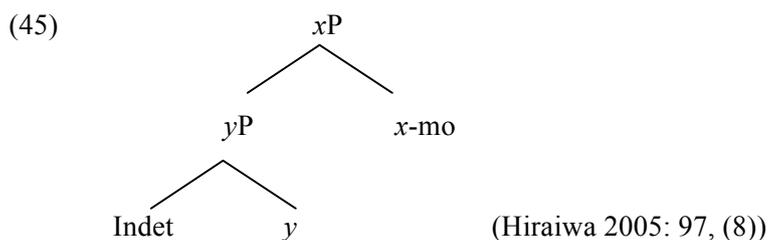
### 6.4.3. Dative Case Assignment by causative motion verbs

If the CAUSEE of causative motion verbs is valued accusative Case in its base position, the next question we must consider is how it can be associated with dative Case. I have proposed that the LOC of the *spray/load* VP in Japanese is assigned dative Case at the edge of vP where it is higher than the position to which the manner adverb can attach. I have supported this proposal with two pieces of evidence; (i) the distribution of the dative-marked CAUSEE with respect to the manner adverb and (ii) the NPI (Negative Polarity Item) licensing of the indeterminate LOC argument with respect to *mo*'s being attached to the verb infinitive. I argue that the same Dative Assignment system after Movement accounts for the dative case marking on the CAUSEE of causative motion verbs.

#### 6.4.3.1 Manner adverb distribution

Let me first clarify the position of the manner adverb in the VP of the relevant causative verbs. Since these causative verbs show a bi-clausal structure, it is important to fix the position of the manner adverb in order to see where the CAUSEE is assigned dative Case. As introduced, the licensing of NPI of IP (Indeterminate Pronoun) is an ensured test in this respect. I assume the c-command condition of the NPI licensing, repeated in (45).

CHAPTER VI



The indeterminate word forms an NPI with *mo* attached to the verb infinitive when it is included within the c-commanded domain of *mo* in syntax. Following Kishimoto (2001a) and Hiraiwa (2005; 2006a), I assume that *mo* is attached to the light verb head. Thus, the expectation is that if an indeterminate adverb can form an NPI with *mo* attached onto the causative stem, the adverb is within the scope of *mo* and is included within the c-command domain of *v*. On the other hand, if an indeterminate adverb cannot form an NPI with *mo*, the adverb is outside of the scope of *mo* and is not included within the c-command domain of *v*.

As the ungrammaticality of (46) shows, indeterminate manner adverbs cannot be interpreted as an NPI with *mo*, that is attached to the causative morpheme. This holds true with both causative transitive verbs, as in (46a), and causative motion verbs, as in (46b). Following Harley (2008), I assume that the causative morpheme is attached to the higher *v* head. Given this and the assumption of the position of *mo*, I argue that *mo* in these causative constructions is attached to the upper *v* head.

- (46) a. \*Zaizen isi-wa nani-de sono kanjya-ni kusuri-o  
 Doctor Zaizen-TOP what-with the patient-DAT medicine-ACC  
 nom-ase-mo-si-nakat-ta  
 drink-CAUSE-also-LV-NEG-PAST  
 ‘Doctor Zaizen didn’t make/let the patient(DAT) take the medicine with anyway’
- b. \*Kurosawa kantoku-wa dono-yoo-ni sono jyoyuu-ni satsueigenba-o  
 Director Kurosawa-TOP whichever.way-in the actress-DAT film.studio-ACC  
 aruk-ase-mo-si-nakat-ta  
 walk-CAUSE-also-LV-NEG-PAST  
 ‘Director Kurosawa didn’t make/let the actress(DAT) walk in any manner’

We now turn to the discussion of the distribution of the CAUSEE with respect to the manner adverb. Compare a set of examples in (47). As we see, a sentence where the dative-

## CHAPTER VI

marked CAUSEE appears lower than the manner adverb *yukkuri* ‘slowly’ is less grammatical than a sentence with the accusative-marked CAUSEE in the same position.

- (47) a. Kurosawa kantoku-wa yukkuri sono jyoyuu-o satsueigenba-ø  
Director Kurosawa-TOP slowly the actress-ACC film.studio-ø  
aruk-ase-ta<sup>11</sup>  
walk-CAUSE-PAST  
‘Director Kurosawa made/let the actress(ACC) slowly walk at the film studio’
- b. ??/\*Kurosawa kantoku-wa yukkuri sono jyoyuu-ni satsueigenba-ø  
Director Kurosawa-TOP slowly the actress-DAT film.studio-ø  
aruk-ase-ta  
walk-CAUSE-PAST  
‘Director Kurosawa made/let the actress(DAT) slowly walk at the film studio’
- (48) a. Sono sensei-wa isoide kodomotaci-o sono oka-ø  
the teacher-TOP in.hurry children-ACC the hill-ø  
nobor-ase-ta  
climb-CAUSE-PAST  
‘The teacher made/let children(ACC) quickly climb the hill’
- b. ??Sono sensei-wa isoide kodomotaci-ni sono oka-ø  
the teacher-TOP in.hurry children-DAT the hill-ø  
nobor-ase-ta  
climb-CAUSE-PAST  
‘The teacher made/let children(DAT) quickly climb the hill’

The CAUSEE of causative transitive verbs can appear either higher or lower than the manner adverb without any awkwardness, as in (49) and (50).

---

<sup>11</sup> I delete accusative case marker from the lower goal, in order that the sentence should not violate the DoC.

## CHAPTER VI

- (49) a. Zaizen isi-wa kapuseru-de sono kanjya-ni kusuri-o  
Doctor Zaizen-TOP capsule-with the patient-DAT medicine-ACC  
nom-ase-ta  
drink-CAUSE-PAST  
'Doctor Zaizen made/let the patient(DAT) take the medicine in capsule'
- b. Zaizen isi-wa sono kanjya-ni kapuseru-de kusuri-o  
Doctor Zaizen-TOP the patient-DAT capsule-with medicine-ACC  
nom-ase-ta  
drink-CAUSE-PAST
- (50) a. Sono sensei-wa yukkuri seito-ni si-o roudoku-sase-ta  
the teacher-TOP slowly student-DAT poem-ACC recite-CAUSE-PAST  
'The teacher made/let students(DAT) slowly recite the poem'
- b. Sono sensei-wa seito-ni yukkuri si-o roudoku-sase-ta  
the teacher-TOP student-DAT slowly poem-ACC recite-CAUSE-PAST  
'The teacher made/let students(DAT) slowly recite the poem'

Sentences with causative motion verbs clearly show that their CAUSEE must not appear lower than the manner adverb when they are dative-marked. When the dative phrase of causative motion verbs scrambles over the manner adverb, the illicitness of (47a) and (47b) is improved.

- (51) a. ??Kurosawa kantoku-wa yukkuri sono jyoyuu-ni satsueigenba-o  
Director Kurosawa-TOP slowly the actress-DAT film.studio-ACC  
aruk-ase-ta  
walk-CAUSE-PAST  
'Director Kurosawa made/let the actress(DAT) slowly walk at the film studio'
- b. Kurosawa kantoku-wa sono jyoyuu-ni yukkuri satsueigenba-o  
Director Kurosawa-TOP the actress-DAT slowly film.studio-ACC  
aruk-ase-ta  
walk-CAUSE-PAST

## CHAPTER VI

- (52) a. ??Sono sensei-wa isoide kodomotaci-ni sono oka-o nobor-ase-ta  
the teacher-TOP in.hurry children-DAT the hill-ACC climb-CAUSE-PAST  
'The teacher made/let children(DAT) quickly climb the hill'
- b. Sono sensei-wa kodomotaci-ni isoide sono oka-o nobor-ase-ta  
the teacher-TOP children-DAT in.hurry the hill-ACC climb-CAUSE-PAST

From these facts, we obtain the following:

- (53) The CAUSEE of causative motion verbs cannot appear lower than the manner adverb when they are marked with dative case, while it can appear lower position than the manner adverb when they are marked with accusative case. In contrast, the CAUSEE of causative transitive verbs can appear lower than the manner adverb.

As discussed earlier, the position of the manner adverb is higher than the upper *v*. With this assumption and (53), we arrive the generalization in (54).

- (54) a. The dative-marked CAUSEE of causative motion verbs cannot appear lower than the higher *v*, while the accusative-marked CAUSEE of the same verb can appear lower than *v*.
- b. The dative-marked CAUSEE of causative transitive verbs can appear lower than *v*.

### 6.4.3.2 Indeterminate Pronoun Binding

Indeterminate subject IPs cannot form an NPI interpretation with respect to *mo* in both types of causative constructions.

- (55) a. \*Dare-ga sono jyoyuu-ni satsueigenba-o  
who-NOM the actress-DAT the film.studio-ACC  
aruk-ase-mo-si-nakat-ta  
walk-CAUSE-also-LV-NEG-PAST  
'No one made/let the actress walk at the film studio'
- b. \*Dare-ga Taro-ni rouka-o hasir-ase-mo-si-nakat-ta  
who-NOM Taro-DAT corridor-ACC run-CAUSE-also-LV-NEG-PAST  
'No one made/let Taro run at the corridor'

## CHAPTER VI

- c. \*Dare-ga sono kanjya-ni kusuri-o nom-ase-mo-si-nakat-ta  
who-NOM the patient-DAT medicine-ACC drink-CAUSE-also-LV-NEG-PAST  
'No one made/let the patient take the medicine'
- d. \*Dare-ga Taro-ni manga-o yom-ase-mo-si-nakat-ta  
who-NOM Taro-DAT comics-ACC read-CAUSE-also-LV-NEG-PAST  
'No one made/let Taro read comics'

In contrast, the complement object indeterminate NP with these types of causative verbs can form an NPI with respect to *mo*, as given in (56).

- (56) a. Sono eigakantoku-wa sono jyoyuu-ni doko-o  
the film.director-NOM the actress-DAT where-ACC  
aruk-ase-mo-si-nakat-ta  
walk-CAUSE-also-LV-NEG-PAST  
'The film director didn't make/let the actress walk at anywhere'
- b. Sono sensei-wa Taro-ni doko-o nobora-ase-mo-si-nakat-ta  
the teacher-TOP Taro-DAT where-ACC climb-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let Taro climb at anywhere'
- c. Sono isya-wa sono kanjya-ni nani-o nom-ase-mo-si-nakat-ta  
the doctor-TOP the patient-DAT what-ACC drink-CAUSE-also-LV-NEG-PAST  
'The doctor didn't make/let the patient take anything'
- d. Sono sensei-wa Taro-ni nani-o yom-ase-mo-si-nakat-ta  
the teacher-TOP Taro-DAT what-ACC read-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let Taro read anything'

The indeterminate pronoun binding of the CAUSEE of these two types of causative verbs exhibits a difference. First, in a causative motion verb construction, the CAUSEE cannot form an NPI if it is dative-marked, while it can form an NPI if it is accusative-marked; second, the CAUSEE of causative motion verbs and that of causative regular verbs behave differently, i.e., the indeterminate CAUSEE of causativized motion verbs cannot be interpreted as an NPI with respect to *mo*, while that of regular transitive verbs can. Let us consider the paradigm of causative motion verbs first. When the CAUSEE is marked as dative, an intended NPI interpretation such that the film director let anyone walk at the film

## CHAPTER VI

studio in (57b) is rather awkward, compared to its accusative counterpart in (57a). By the same token, the sentence in (57d), where it contains the dative-marked indeterminate CAUSEE, cannot obtain an NPI interpretation such that the teacher let anyone walk at the corridor, in contrast to the sentence in (57c) where the indeterminate CAUSEE is marked as accusative.

- (57) a. Sono eigakantoku-wa dare-o satsueigenba- $\emptyset$   
the film.director-TOP who-ACC film.studio- $\emptyset$   
aruk-ase-mo-si-nakat-ta  
walk-CAUSE-also-LV-NEG-PAST  
'The film director didn't make/let anyone(ACC) walk at the film studio'
- b. ??Sono eigakantoku-wa dare-ni satsueigenba- $\emptyset$   
the film.director-TOP who-DAT the film.studio- $\emptyset$   
aruk-ase-mo-si-nakat-ta  
walk-CAUSE-also-LV-NEG-PAST  
'The film director didn't make/let anyone(DAT) walk at the film studio'
- c. Sono sensei-wa dare-o rouka- $\emptyset$  hasir-ase-mo-si-nakat-ta  
the teacher-TOP who-ACC corridor- $\emptyset$  run-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let anyone(ACC) run at the corridor'
- d. ??Sono sensei-wa dare-ni rouka- $\emptyset$  hasir-ase-mo-si-nakat-ta  
the teacher-TOP who-DAT corridor- $\emptyset$  run-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let anyone(DAT) run at the corridor'

As in (58), the dative-marked indeterminate NP of causative motion verbs cannot induce an NPI naturally with respect to *mo*, compared to the dative-marked indeterminate CAUSEE of causative regular verbs. The judgment is delicate but there is a difference between them.

- (58) a. ??Sono eigakantoku-wa dare-ni satsueigenba-o  
the film.director-TOP who-DAT film.studio-ACC  
aruk-ase-mo-si-nakat-ta  
walk-cause-also-LV-NEG-PAST  
'The film director didn't make/let anyone(DAT) walk at the film studio'

## CHAPTER VI

b. ??Sono sensei-wa dare-ni rouka-o hasir-ase-mo-si-nakat-ta  
the teacher-TOP who-DAT corridor-ACC run-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let anyone(DAT) run at the corridor'

(59) a. Sono isya-wa dare-ni kusuri-o nom-ase-mo-si-nakat-ta  
the doctor-TOP who-DAT medicine-ACC drink-CAUSE-also-LV-NEG-PAST  
'The doctor didn't make/let anyone(DAT) take the medicine'

b. Sono sensei-wa dare-ni manga-o yom-ase-mo-si-nakat-ta  
the teacher-TOP who-DAT comics-ACC read-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let anyone(DAT) read comics'

From these facts, under the c-command condition of indeterminate pronoun binding, we must say that indeterminate CAUSEEs of causative motion verbs cannot be bound by *mo* when they are dative-marked, whereas that of causative transitive verbs can be bound by the same binder when they are dative-marked.

The distinction between the licensing of NPI in the two types of causative constructions can be much more clearly seen when dative-marked indeterminate CAUSEEs appears lower than a manner adverb such as *yukkuri* 'slowly'. Compare the pair (60a) and (60b) with causative motion verbs and the pair (60c) and (60d) with causative transitive verbs.

(60) a. ??Sono eigakantoku-wa yukkui dare-ni sono sakamiti-o  
the film.director-TOP slowly who-DAT the slope  
aruk-ase-mo-si-nakat-ta  
walk-CAUSE-also-LV-NEG-PAST  
'The film director make/let anyone(DAT) slowly walk the slope'

b. ??Sono sensei-wa yukkiri dare-ni oka-o  
the teacher-TOP slowly who-DAT hill-ACC  
nobor-ase-mo-si-nakat-ta  
climb-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let anyone(DAT) slowly climb the hill'

## CHAPTER VI

- c. Sono isya-wa kapuseru-de dare-ni kusuri-o  
the doctor-TOP capsule-with who-DAT medicine-ACC  
nom-ase-mo-si-nakat-ta  
drink-CAUSE-also-LV-NEG-PAST  
'The doctor didn't make/let anyone(DAT) take the medicine in capsule'
- d. Sono sensei-wa yukkuri dare-ni si-o  
the teacher-TOP slowly who-DAT poem-ACC  
yom-ase-mo-si-nakat-ta  
read-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let anyone(DAT) slowly recite the poem'

The data also follow from my assumption that the CAUSEE of causative motion verbs is assigned dative Case at a position higher than the manner adverb in conjunction with the c-command condition of the indeterminate pronoun licensing. The reason why the sentences (60a) and (60b) are less grammatical than (61b) and (62b) is because the CAUSEE of the former sentences is assigned dative Case at the wrong position, and also they violate the c-command condition of the indeterminate pronoun binding. Under these assumptions, we must expect that the ungrammaticality of these sentences with causative motion verbs not to be ameliorated, even if the IP is scrambled over the manner adverb. This is because the sentence still violates the c-command condition on NPI licensing of the IP. The same fact must hold for the sentences with causative regular transitive verbs. This is because, when the indeterminate word is scrambled over the manner adverb, it is no longer within the c-command domain of *mo* and hence the NPI reading is not expected.

- (61) a. \*Sono eigakantoku-wa dare-ni yukkuri sono sakamiti-o  
the film.director-TOP who-DAT slowly the slope  
aruk-ase-mo-si-nakat-ta  
walk-CAUSE-also-LV-NEG-PAST  
'The film director didn't let anyone(DAT) slowly walk the slope'

## CHAPTER VI

- b. \*Sono sensei-wa dare-ni yukkuri oka-o  
the teacher-TOP who-DAT slowly corridor-ACC  
nobor-ase-mo-si-nakat-ta  
climb-CAUSE-also-LV-NEG-PAST  
'The teacher didn't let anyone (DAT) slowly climb the hill'
- c. \*Sono isya-wa dare-ni kapuseru-de kusuri-o  
the doctor-TOP who-DAT capsule-with medicine-ACC  
nom-ase-mo-si-nakat-ta  
drink-CAUSE-also-LV-NEG-PAST  
'The doctor didn't make/let anyone(DAT) take the medicine in capsule'
- d. \*Sono sensei-wa dare-ni yukkuri si-o  
the teacher-TOP who-DAT slowly poem-ACC  
roudoku-sase-mo-si-nakat-ta  
recite-CAUSE-also-LV-NEG-PAST  
'The teacher didn't let anyone(DAT) slowly recite the poem'

It is, of course, impossible for the indeterminate accusative-marked CAUSEE of causative motion verbs to form an NPI when it is scrambled over the manner adverb, because the position of the manner adverb is outside of the c-command domain of the binder *mo*.

- (62) a. \*Sono eigakantoku-wa dare-o yukkuri sono sakamiti-o  
the film.director-TOP who-ACC slowly the slope-ACC  
aruk-ase-mo-si-nakat-ta  
walk-CAUSE-also-LV-NEG-PAST  
'The film director didn't make/let anyone(ACC) slowly walk the slope'
- b. \*Sono sensei-wa dare-o yukkuri oka-o  
the teacher-TOP who-ACC slowly hill-ACC  
nobor-ase-mo-si-nakat-ta  
climb-CAUSE-also-LV-NEG-PAST  
'The teacher didn't make/let anyone(ACC) slowly climb the hill'

Under the assumption that *mo* is attached onto the higher light verb head and the data above, I argue that the CAUSEE of causative motion verbs is licensed Dative in a different way

## CHAPTER VI

from that of causative regular transitive verbs. The former licensing must be implemented somewhere higher than the manner adverb. I have shown that the CAUSEE of causative motion verbs is associated with dative Case higher than the upper  $v$ , while it is associated with accusative Case lower than the same  $v$ . As already discussed, the CAUSEE of causative regular transitive verbs is never associated with structural accusative Case at any point of the derivation. I hypothesize that the higher  $v$  head in this construction is  $v_{\text{dat}}$ . In contrast, I hypothesize that the higher  $v$  head of causative motion verbs is  $v_{\text{acc}}$ .

(63)  $v_{\text{acc}}$  selects  $v\text{P}$  of motion verbs;  $v_{\text{dat}}$  selects  $v\text{P}$  of regular transitive verbs

Assuming that  $v$  in Japanese is responsible for accusative Case valuation (Ura 2000, Hiraiwa 2001; 2002; 2010), I hypothesize that the CAUSEE of causative motion verbs is initially valued as accusative Case at the specifier of the lower  $v_{\text{acc}}$  under Agree with the upper  $v_{\text{acc}}$ , and is then assigned dative Case at the specifier of the upper  $v_{\text{acc}}$ . I further argue that the position where the CAUSEE is remerged to by this movement is specifically the inner specifier of the upper  $v\text{P}$ , but not higher than the base position of the external argument. As shown in (64), the given DP cannot cross over the base position of the external argument. Hence, the CAUSEE “tucks into” (Richards 1999) the lower position than the external argument.

- (64) a. Gakusei-ga<sub>i</sub>    fu-tari<sub>i</sub>    Hanako-ni    hamabe-o    aruk-ase-ta  
         student-NOM   two-CL   Hanako-DAT   beach-ACC   walk-CAUSE-PAST  
         ‘Literally: Two students let Hanako walk at the beach’  
      b. \*Gakusei-ga<sub>i</sub>    Hanako-ni    fu-tari<sub>i</sub>    hamabe-o    aruk-ase-ta  
         student-NOM   Hanako-DAT   two-CL   beach-ACC   walk-CAUSE-PAST

Therefore, I propose the Dative Case Assignment by causative verbs in Japanese, as in (65); causative motion verbs include Dative Assignment by Movement, as shown in (66).



## CHAPTER VI

- (67) a. \*Torakku-ga<sub>i</sub> koochi-niyotte gakusei-o go-syuu<sub>i</sub> hasir-ase-rare-ta  
track-NOM trainer-BY student-ACC five-CL run-CAUSE-PASS-PAST  
'Literally: Five tracks were made the student to run by the trainer'
- b. \*Torakku-ga<sub>i</sub> koochi-niyotte gakusei-ni go-syuu<sub>i</sub> hasir-ase-rare-ta  
track-NOM the trainer-BY student-DAT five-CL run-CAUSE-PASS-PAST  
'Literally: Five tracks were made the student to run by the trainer'

It is, of course, possible to passivize the CAUSEE in this causative sentence.

- (68) Gakusei-ga<sub>i</sub> koochi-niyotte go-nin<sub>i</sub> torakku-o hasir-ase-rare-ta  
student-NOM trainer-BY five-CL track-ACC run-CAUSE-PASS-PAST  
'Literally: Five students were made to run the track by the trainer'

Under the assumption that the passive morpheme attaches only to the higher  $v$ , I argue that the passive morpheme *rare* cannot absorb the Case feature of the lower goal. Hence, it is never passivized. With this evidence, I argue that the lower  $v_{acc}$  is also a functional head, which values structural accusative Case.

Under this proposal, there are two accusative Case valuers in the structure of causative motion verbs. If the lower  $v_{acc}$  internalizes accusative Case feature, we would always expect that it take the complement. However, as discussed in section 6.4.1, motion verbs optionally take the PATH phrase as complement. Given this, it seems that an assumption that the lower  $v_{acc}$  of causative motion verbs internalizes accusative Case feature is problematic. This is because, if it were the Case feature which is [-interpretable], and if the motion verb does not take the PATH phrase as its complement, the given derivation is expected to crash with [-interpretable] Case feature in the derivation; there is no goal that can check off that feature. In this sense, we cannot take this assumption. However, at the same time, when the PATH is merged to the derivation, a probe must Case-values that element. In order to solve this problem, I stipulate that accusative Case on the lower  $v$  of causative motion verbs is not internalized to that head, but it is “transmitted” from the higher  $v_{acc}$ .

- (69) a. The lower  $v$  of causative motion verbs is inherently [-Case:ACC]  
b. The lower  $v$  of causative motion verbs can be transmitted [+Case:ACC] feature from the higher  $v$ .

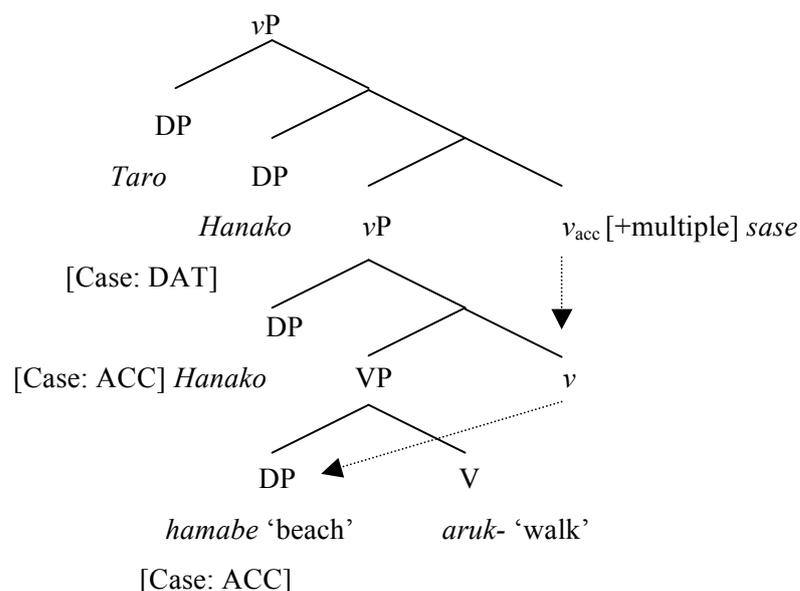
## CHAPTER VI

In order to activate (69), I further argue that the higher  $v$  of causative motion verbs is [+multiple] in Case feature, just like that of *spray/load* verbs.

(70) The higher  $v$  of causative motion verbs is [+multiple]

Whenever the higher  $v$  recognizes that the lower  $v$ P (its complement) has the complement PATH, it transmits its accusative Case to the lower  $v$ . On the other hand, when it recognizes that the lower  $v$ P has no complement, it does not transmit accusative Case. Under Multiple Agree, it is possible for a probe  $v$ , being multiple, to Agree with its goals in a multiple manner, so long as they are within the c-command domain of the head, and there is no intervening goal for an establishment of this Agree. Since the CAUSEE Agrees with the upper  $v_{acc}$  and the PATH also Agrees with the same head via the lower  $v$ , the CAUSEE cannot be an intervening goal for an Agree between  $v_{acc}$  and the complement object.

(71) **The structure for causative motion verbs in Japanese (final)**



We now turn to a discussion about spell-out system of causative with motion verbs. Under the general assumption of the Phase theory, the spell-out domain of a portion of a phase is the c-command domain of the strong functional head (Chomsky 2000). Under this assumption, I argue that the spell-out domain of causative motion verbs is the c-command domain of the upper  $v$ , since the lower  $v$  is not inherently a strong functional head, as I have

## CHAPTER VI

just proposed. The phase-theoretic DoC (Hiraiwa 2010) claims that every spell-out domain of a portion of a phase cannot contain more than one accusative valued DP. In my analysis of causative motion verbs, the PATH is valued under the probe-goal relation with the Case feature that is transmitted by the upper  $v_{acc}$  when it is merged to a derivation. This amounts to saying that both the CAUSEE and the PATH are goals of the upper  $v$ .

Given this, we expect that if the spell-out domain of the upper  $v_{acc}$  has two accusative valued goals, the derivation results in the DoC violation. The fact that (72) is illicit confirms that we are on the right track.

- (72) ??Taro-ga Hanako-o hamabe-o aruk-ase-ta  
Taro-NOM Hanako-ACC beach-ACC walk-CAUSE-PAST  
'Taro made/let Hanako walk at the beach'

When the CAUSEE *Hanako* is moved to the specifier of the higher  $v_{acc}$ , and is assigned dative Case, a derivation with the dative-marked CAUSEE is realized.

- (73) Taro-ga Hanako-ni hamabe-o aruk-ase-ta  
Taro-NOM Hanako-DAT beach-ACC walk-CAUSE-PAST  
'Taro let Hanako walk at the beach'

In Chapter IV (section 4.3.3), I have suggested that a possible reason why the LOC of *spray/load* verbs can move out of the original position by invoking Hiraiwa's phase-based DoC. If the LOC stays in situ within the same spell-out domain of the MAT, the derivation results in DoC violation at the time of Spell-Out, because there are two DPs bearing structural Accusative Case in the single spell-out domain of the phase. Hence, the LOC moves out of the original domain. The movement itself is motivated by a different reason; I have proposed that the movement follows the MLC (Minimal Link Condition).

I extend this way of account to the case of causative motion verbs. The fact that the [-valued] Case feature of the PATH has Agreed with Case feature of the higher  $v$  via the lower  $v$  plays a crucial role. Because of this, the computation may recognize that there are two goals agreeing with the single head, which makes the spell-out domain of the upper  $v$  the multiple accusative structure. If the Spell-Out sends this portion of the phase to the interface levels, the derivation will be marked illicit because it has an effect of the violation of the DoC. Hence, the type of CAUSEE (in motion verbs) moves out of the domain.

## CHAPTER VI

### 6.4.4 Dative Case Assignment and causative intransitive verbs

Motion verbs take an optional PATH argument as its complement. Hence, if the PATH is not merged to the complement of the lexical projection, and if such a derivation is spelled-out, we expect the sentence below to be realized.

- (74) Sono eigakantoku-ga            Hanako-o            aruk-ase-ta  
      that movie.director-NOM    Hanako-ACC    walk-CAUSE-PAST  
      ‘The movie director made Hanako walk’

The CAUSEE of (74) can be marked with *ni* as in (75).

- (75) Sono eigakantoku-ga            Hanako-ni            aruk-ase-ta  
      that movie.director-NOM    Hanako-DAT    walk-CAUSE-PAST  
      ‘The movie director let Hanako walk’

As we saw earlier, when the CAUSEE bears *o*, the entire causative sentence implies a “coercive” or “direct” meaning whereas, when the argument bears *ni*, the entire causative sentence implies a “permission” or “indirect” meaning. Some literature takes this semantic difference seriously and proposes the *ni*-causative and the *o*-causative are associated with different base structures (Kuroda 1978, Koizumi 1995, among others), whereas other literature argues that the semantic difference is “illusory” and proposes that the two sentences are associated with a single base structure (Takezawa 1987). In this section, I propose that both readings are induced cyclically and derivationally.

Koizumi (1995) proposes that the coercive/permisive distinction is encoded in syntax, postulating two kinds of *sase*, following Kuroda (1965) and Kuno (1973).<sup>12</sup> According to Koizumi, (76a) implies that *Kiyomi* (the CAUSER) forced *Masami* (the CAUSEE) to laugh. On the other hand, (76b) does not necessarily imply such a reading.

---

<sup>12</sup> In the early literature of Japanese generative grammar, it is hypothesized that two types of syntactic causative constructions involve the D-structures in (i) and (ii), respectively. These are from Miyagawa (1999).

(i) *O*-causative: [<sub>IP</sub> CAUSER [<sub>VP</sub> CAUSEE<sub>i</sub> [<sub>IP</sub> CAUSEE<sub>i</sub> [<sub>VP</sub>] I] *sase*] I]  
(ii) *Ni*-causative: [<sub>IP</sub> CAUSER [<sub>VP</sub> [<sub>IP</sub> CAUSEE [<sub>VP</sub>] I] *sase*] I]

## CHAPTER VI

- (76) a. Kiyomi-ga Masami-o waraw-ase-ta  
Kiyomi-NOM Masami-ACC laugh-CAUS-PAST  
'Kiyomi made Masami laugh' (or Kiyomi forced Masami to laugh.)
- b. Kiyomi-ga Masami-ni waraw-ase-ta  
Kiyomi-NOM Masami-to laugh-CAUS-PAST  
'Kiyomi let Masami laugh' (or Kiyomi allowed Masami to laugh.)
- (Koizumi 1995: 90, (57))

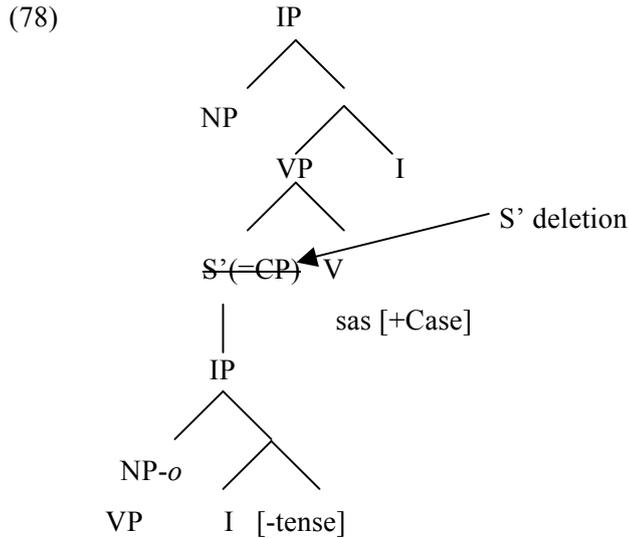
Taking this as evidence, Koizumi argues that two *sases* in each sentence are of different kinds; the one that appears in an *o*-causative sentence like (76a) is associated with a D-structure like (77a), whereas the one appearing in an *ni*-causative sentence like (76b) is associated with a D-structure like (77b).

- (77) a. Structure for *o*-causative  
Kiyomi-ga [AGRoP [VP [EC Masami-o waraw] sase] AGRo ] ta
- b. Structure for *ni*-causative  
Kiyomi-ga Masami-ni [EC PRO<sub>i</sub> waraw] sase-ta (Koizumi 1995: 91, (58))

In the structure (77a), the CAUSEE is merged to the EC together with V, constituting a tenseless embedded clause EC. The causative predicate takes this EC as its complement. The CAUSEE is licensed as accusative Case at [Spec, AgrO] and will be derived with *o* on the surface. Contrary to this, in the *ni*-causative structure of (77b) the CAUSEE is merged outside of EC (at an ungoverned position), controlling PRO inside of EC. Since the CAUSEE is generated at an ungoverned position and is a semantic subject of EC, it is licensed by *ni*-insertion (Takezawa 1987) (see 4.2.1).

Takezawa (1987) assumes that the coercive/permissive distinction between the *ni*-causative and the *o*-causative constructions is not encoded in syntax. He argues that there is only a single *sase* in Japanese as in (78). As in (78), the causative verb *sase* can take S'(INFL) as its complement. If this D-structure is spelled out, a *ni*-causative sentence is derived (see 4.2.1). He further stipulates that when S'-deletion applies to the structure, the DP<sub>CAUSEE</sub> inside S' is now governed by the causative verb and assigned accusative Case by the causative verb, as in (78). An *o*-causative sentence is derived from this structure.

CHAPTER VI



I argue that there is only one causative head in Japanese, following Harley (2008) and Takezawa (1987). But I also agree with Koizumi and others with respect to the semantic distinction. When the referent of the CAUSEE is a human being, the distinction is not so obvious; however, if the referent of the CAUSEE is not a human being but an animal, the distinction becomes clearer. Imagine that *Jiro* is *Hanako*'s dog.

- (79) a. Hanako-ga      Jiro-o      sanpo-sase-ta  
 Hanako-NOM    Jiro-ACC    walk-CAUSE-PAST  
 'Literally: Hanako made Jiro walk (Hanako walked Jiro)'
- b. Hanako-ga      Jiro-ni      sanpo-sase-ta  
 Hanako-NOM    Jiro-DAT    walk-CAUSE-PAST  
 'Literally: Hanako let Jiro walk'

(79a) clearly conveys a coercive reading; a possible context for this reading is that *Jiro* is harnessed, while it is not necessarily so with (79b). This semantic distinction becomes much clearer if two sentences are put into a context where the volitionality of the CAUSEE is required. The *o*-marking is less degraded compared to its *ni*-marking counterpart.

## CHAPTER VI

- (80) Hanako-ga Jiro{??-o/-ni} medoo-de jiyuu-ni hasir-ase-ta  
 Hanako-NOM Jiro-ACC/-DAT the Meadow-at freely run-CAUSE-PAST  
 ‘Literally: Hanako let Jiro run freely (without harness) at the Meadow walk’

Given this, there seems to be two derivations that are associated with the coercive reading and with the permissive reading, respectively. My proposal is that this intuition is not necessarily connected to the two independent base structures (i.e., numerations) in syntax. The data that will be shown below indicate that the accusative-marked CAUSEE and the dative-marked CAUSEE share most of syntactic properties; therefore I argue that the semantic distinction can be captured without postulating two independent derivations.

First, the  $DP_{CAUSEE}$  in the two types of causative sentences with intransitive verbs has both subject properties, including the ability to control PRO in the *nagara*-adjunct phrase as in (81), and the ability to bind subject-oriented anaphors *zibun-zisin*, as in (82).

- (81) a. Kiyomi-wa Msami-ni<sub>i</sub> [PRO<sub>i</sub> utai nagara] aruk-ase-ta  
 Kiyomi-TOP Masami-DAT singing while walk-CAUSE-PAST  
 ‘Kiyomi let Masami<sub>i</sub> walk [PRO<sub>i</sub> while singing]’  
 b. Kiyomi-wa Masami-o<sub>i</sub> [PRO<sub>i</sub> utai nagara] aruk-ase-ta  
 Kiyomi-TOP Masami-ACC singing while walk-CAUSE-PAST  
 ‘Kiyomi made Masami<sub>i</sub> walk [PRO<sub>i</sub> while singing]’
- (82) a. Kiyomi-wa Masami-ni<sub>i</sub> zibun-zisin-no<sub>i</sub> ie-ni aruk-ase-ta  
 Kiyomi-TOP Masami-DAT oneself-GEN home-DIR walk-CAUSE-PAST  
 ‘Kiyomi let Masami walk to her own class’  
 b. Kiyomi-wa Masami-o<sub>j</sub> zibun-zisin-no<sub>i</sub> ie-ni aruk-ase-ta  
 Kiyomi-TOP Masami-ACC oneself-GEN home-DIR walk-CAUSE-PAST  
 ‘Kiyomi made Masami walk to her own home’

Both  $DP_{CAUSEES}$  appearing in the *o*-causative and the *ni*-causative are DPs rather than PPs, since both can license the NQF as in (83).

## CHAPTER VI

- (83) a. Kiyomi-ga      gakusei-ni      san-nin      utaw-ase-ta  
Kiyomi-NOM student-DAT three-CL sing-CAUSE-PAST  
'Literally: Kiyomi let three students sing'
- b. Kiyomi-ga      gakusei-o      san-nin      utaw-ase-ta  
Kiyomi-NOM student-ACC three-CL sing-CAUSE-PAST  
'Literally: Kiyomi made three students sing'

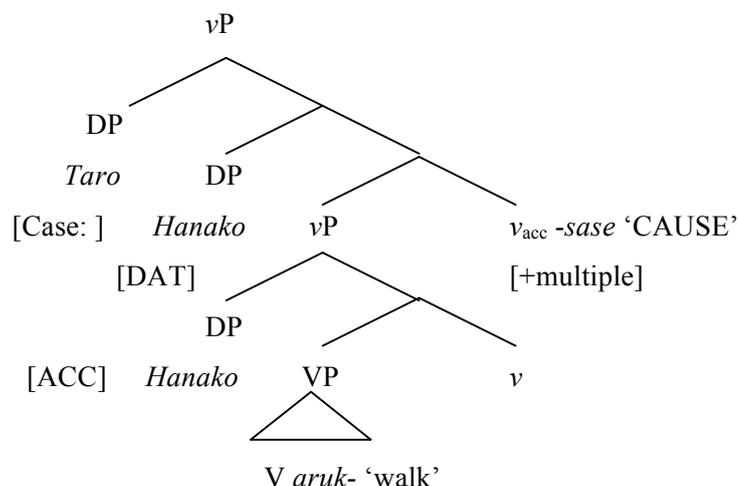
Since Koizumi assumes that the *ni*-phrase in the causative (83a) is PP, rather than DP, and hence it is not associated with structural Case, he proposes that the “source” of passivization as in (84) is the *o*-causative. Also the passivization in (84) is associated with only a “forced” reading.

- (84) Masami-ga      Kiyomi-niyotte      waraw-ase-rare-ta  
Masami-NOM Kiyomi-BY laugh-CAUSE-PASS-PAST  
'Masami was made to laugh by Kiyomi'

However, we cannot simply follow Koizumi's argument, because there is a possibility that both the *ni*-marked CAUSEE and the *o*-marked CAUSEE can be a source of passive with the data I have given. Furthermore, it is difficult to see how – if the *o*-marking is associated with the “forced” reading of the passivized causative – we can explain the same reading with the passivized DP<sub>CAUSEE</sub> of the two types of syntactic causative verbs; in particular, the DP<sub>CAUSEE</sub> of the causativized regular causative verbs cannot be associated with *o*-marking at all. I think the “forced” reading of the passivized causative is not encoded in the causative verb itself. It can rather be controlled by the pragmatics of the passive subject

A distinction between the coercive and permissive reading can be constructed derivationally under my account. I hypothesize that the CAUSEE in the *o*-causative and the *ni*-causative is merged to the same position in the derivation. Since the CAUSEE argument has the subjecthood, I locate this DP to [Spec, lower *v*P]. Because the CAUSEE has structural accusative Case (i.e., it can be passivized), I argue that it is Case-licensed under the probe-goal relation with the higher *v*<sub>acc</sub>, which is the same Case feature that is included in causative transitive motion verbs. Under Agree, this upper *v*<sub>acc</sub> values structural accusative Case on the DP<sub>CAUSEE</sub>, checking off [-interpretable] Case feature on the head.

## (85) The structure for causative intransitive motion verbs



Although the higher  $v$  is [+multiple], the lower  $vP$  has no complement object. Hence, I argue that accusative Case is not transmitted from the higher  $v$  to the lower  $v$ . When the CAUSEE is remerged to the edge of  $vP$ , the Dative Case Assignment after Movement in (65a) takes place, which assigns dative Case to that argument. When the CAUSEE is included within the c-command domain of causation  $v_{\text{acc}}\text{-}v_{\text{acc}}$  *sase* 'CAUSE', it obtains a coercive meaning with *o*-marking. On the other hand, when the CAUSEE is outside of this domain, it obtains a permissive reading with *ni*-marking; in other words, the coercive meaning becomes less obvious. Although I have no clear account for what induces this semantic difference at this stage of my research, I stipulate that this can be explained in terms of structural relation; the coercive reading is created by the structure where the CAUSEE is "included" in the lower  $vP$  (i.e., it is dominated by the lower  $vP$ ), whereas the permissive reading is induced by the structure in which the CAUSEE is "contained" in the higher  $vP$  (i.e., it is adjoined to the lower  $vP$ ).

If my analysis is on the right track, we expect the dative-marked CAUSEE and the accusative-marked CAUSEE of causative intransitive verbs to show a difference in the distribution with respect to the manner adverb. Similarly, we also expect that the indeterminate dative-marked CAUSEE cannot form an NPI (Negative Polarity Item) with respect to the quantificational *mo* 'also' attached to the verb infinitive. On the other hand, the indeterminate accusative-marked CAUSEE can. The data in (86) and (87) show that our first prediction is borne out; the data in (88) show that our second prediction is also borne out.

## CHAPTER VI

- (86) a. Taro-wa yukkuri Hanako-o aruk-ase-ta  
 Taro-NOM slowly Hanako-ACC walk-CAUSE-PAST  
 ‘Taro made Hanako slowly walk at the beach’
- b. ??Taro-wa yukkuri Hanako-ni aruk-ase-ta  
 Taro-NOM slowly Hanako-DAT walk-CAUSE-PAST  
 ‘Taro let Hanako slowly walk at the beach’
- (87) a. ??Taro-wa Hanako-o yukkuri aruk-ase-ta  
 Taro-NOM Hanako-ACC slowly walk-CAUSE-PAST  
 ‘Taro made Hanako slowly walk at the beach’
- b. Taro-wa Hanako-ni yukkuri aruk-ase-ta  
 Taro-NOM Hanako-DAT slowly walk-CAUSE-PAST  
 ‘Taro let Hanako walk at the beach’
- (88) a. Taro-wa dare-o aruk-ase-mo-si-nakat-ta  
 Taro-NOM who-ACC walk-CAUSE-also-LV-NEG-PAST  
 ‘Taro didn’t make anyone(ACC) walk’
- b. ??Taro-wa dare-ni aruk-ase-mo-si-nakat-ta  
 Taro-NOM who-DAT walk-CAUSE-also-LV-NEG-PAST  
 ‘Taro didn’t let anyone(DAT) walk’

The NPI licensing of the indeterminate CAUSEE, in conjunction with the adverb placement, further backs up my hypothesis. As shown in (89a), the accusative-marked indeterminate CAUSEE can appear lower than the locational adverb and, at that position, it can form an NPI with respect to *mo*. This is because the CAUSEE can be marked as accusative lower than the manner adverb and the indeterminate CAUSEE is bound by *mo* at the same position under the assumption of the c-command condition of NPI licensing of the indeterminate NPs. The grammaticality of (89b) is also predicted. The CAUSEE is assigned dative at the higher position of the locational adverb and, hence, this sentence is illicit even though the IP satisfies the condition of NPI licensing.

## CHAPTER VI

- (89) a. Taro-wa yukkuri dare-o aruk-ase-mo-si-nakat-ta  
Taro-NOM slowly who-ACC walk-CAUSE-also-LV-NEG-PAST  
'Taro didn't make anyone(ACC) walk at the beach'
- b. ??Taro-wa yukkuri dare-ni aruk-ase-mo-si-nakat-ta  
Taro-NOM slowly who-DAT walk-CAUSE-also-LV-NEG-PAST  
'Taro didn't let anyone(DAT) walk at the beach'

### 6.5 Two types of *v*

As a matter of fact, there is no multiple dative marking of ditransitive verbs and causative verbs in Japanese.

- (90) a. \*Taro-ga Hanako-ni ringo-ni age-ta  
Taro-NOM Hanako-DAT apple-DAT give-PAST  
'Literally: Taro gave to an apple to Hanako'
- b. \*Taro-ga kabe-ni penki-ni nut-ta  
Taro-NOM wall-DAT paint-DAT paint-PAST  
'Literally: Taro painted to paint onto the wall'
- c. \*Taro-ga Hanako-ni gohan-ni tak-ase-ta  
Taro-NOM Hanako-DAT rice-DAT cook-CAUSE-PAST  
'Literally: Taro made/let Hanako to cook to rice'
- d. \*Taro-ga Hanako-ni hamabe-ni aruk-ase-ta<sup>13</sup>  
Taro-NOM Hanako-DAT beach-DAT walk-CAUSE-PAST  
'Literally: Taro made/let Hanako walk to the beach'

The grammaticality of these sentences is not improved even under a cleft, in contrast to the double accusative marking in *spray/load* verbs and causative motion verbs.

---

<sup>13</sup> This sentence can be understood under the context that Taro let Hanako walk toward the beach, but this is not the reading that we are concerned with.

## CHAPTER VI

- (91) a. \*Taro-ga ringo-ni age-ta no-wa Hanako-ni da  
Taro-NOM apple-DAT give-PAST C-TOP Hanako-DAT COP  
'Literally: It is to Hanako that Taro gave to an apple'
- b. \*Taro-ga penki-ni nut-ta no-wa kabe-ni da  
Taro-NOM paint-DAT paint-PAST C-TOP wall-DAT COP  
'Literally: It is onto the wall that Taro painted to paint'
- c. \*Taro-ga gohan-ni tak-ase-ta no-wa Hanako-ni da  
Taro-NOM rice-DAT cook-CAUSE-PAST C-TOP Hanako-DAT COP  
'Literally: It is Hanako that Taro made/let to cook to rice'
- d. \*Taro-ga hamabe-ni aruk-ase-ta no-wa Hanako-ni da  
Taro-NOM beach-DAT walk-CAUSE-PAST C-TOP Hanako-DAT COP  
'Literally: It is Hanako that Taro made/let walk to the beach'

From these facts, we can say that it is possible for  $v_{acc}$  to be [+multiple], while it is not possible for  $v_{dat}$  to be [+multiple].

I have proposed that  $v_{dat}$  selects a  $\nu P$  that includes a transitive verb, which derives a causative transitive verb;  $v_{acc}$  selects a  $\nu P$  that includes a motion verb, which derives causative motion verbs and causative intransitive verbs. But how does each higher head select the right  $\nu P$  for it to merge?

I suggest that whether or not the lower  $\nu$  head has Case feature determines a set of right lexical items for two types of causative constructions. Merge has to select  $\nu[+Case: ACC]$  but not  $\nu[-Case: ACC]$  for a numeration of causative transitive verbs. Contrary to this, Merge must select  $\nu[-Case: ACC]$ , but not  $\nu[+Case: ACC]$  for a numeration of causative motion verbs. Hence, they are in mutually exclusive relation. I propose the following selectional restriction for Select:

- (92) a. Select  $v_{acc}[+multiple]$ ; do not select  $v_{dat}$  and  $v_{acc}[+Case]$   
b. Select  $v_{dat}$ ; select  $v_{acc}[+Case]$ ; do not select  $v_{acc}[+multiple]$

## 6.6. Consequences

### 6.6.1 Scrambling and Cleft

In theory, scrambling must pass through the edge of  $\nu P$  (Ko 2008, Hiraiwa 2010). Under the PIC (Phase Impenetrability Condition) of the Phase theory, i.e., the operation that only has

## CHAPTER VI

access to the element at the edge of the functional head, we expect the remerged CAUSEE to move higher from the edge of the higher  $v$ . This expectation is borne out. As in (93), the given DP can be scrambled to the specifier of TP or CP, assuming that the external argument *kantoku* ‘movie.director’ has moved to T for tense and EPP agreement (Ura 2000). Imagine *Hanako* is an actress and three film directors want to test her acting.

- (93) Hanako-ni<sub>i</sub> kantoku-ga<sub>j</sub> san-nin<sub>j</sub> t<sub>i</sub> hamabe-o aruk-ase-ta  
Hanako-DAT movie.director-NOM three-CL beach-ACC walk-CAUSE-PAST  
‘Literally: Hanako, movie director<sub>j</sub>, three<sub>j</sub> let walk at the beach’

It is also expected that the same DP can undergo cleft from that position under the assumption of the derivational hypothesis of the cleft (Hiraiwa and Ishihara 2002).<sup>14</sup> This expectation is also borne out.

- (94) Kantoku-ga hamabe-o aruk-ase-ta no-wa  
movie.director-NOM beach-ACC walk-CAUSE-PAST C-TOP  
(ano jyoyuu denaku) Hanako-ni da  
(that actress not) Hanako-DAT COP  
‘Literally: It is (not that actress) but Hanako that the movie director let walk at the beach’

In Chapter IV, I proposed that VP-internal scrambling in Japanese with *spray/load* verbs is actually  $v$ P-internal scrambling; the base order of this type of verb is DAT-ACC, but this reflects a derivation where the higher goal has been remerged to the edge of  $v$ P. I have also proposed that the landing site of the lower goal is the specifier of  $v$ . I argue that the same holds for the short scrambling of causatives with motion verbs. Under this analysis, the CAUSEE is assigned Dative at the edge of the higher  $v$ , and the PATH is remerged to the same edge, crossing over the CAUSEE, as in (95).

- (95) Taro-ga sono hamabe-o Hanako-ni aruk-ase-ta  
Taro-NOM that beach-ACC Hanako-DAT walk-CAUSE-PAST  
‘Taro made Hanako walk on that beach’

---

<sup>14</sup> For the evidence that clefts with causative motion verbs are instances of regular clefts, see appendix B.

## CHAPTER VI

The landing position of the  $DP_{PATH}$  must be the inner specifiers of the higher  $v$  under the assumption that no other element can intervene between the subject and its floated NQ. As shown in (96), it cannot cross over the base position of the external argument in one movement.

- (96) \*Gakusei-ga<sub>i</sub> hamabe-o san-nin<sub>i</sub> Hanako-ni aruk-ase-ta  
Taro-NOM beach-ACC three-CL Hanako-DAT walk-CAUSE-PAST  
'Literally: Three students made Hanako walk on the beach'

Under this analysis, we further expect that the remerged lower goal can move higher. As shown in (97a), this expectation is borne out; the  $DP_{PATH}$  *hamabe* 'beach' that is scrambled to the edge of  $vP$  can undergo middle scrambling. Similarly, the same DP undergoes cleft formation from the edge of  $vP$  as in (97b).

- (97) a. Hamabe-o<sub>i</sub> kantoku-ga<sub>j</sub> san-nin<sub>j</sub> Hanako-ni t<sub>i</sub> aruk-ase-ta  
beach-ACC movie.director-NOM three-CL Hanako-DAT walk-CAUSE-PAST  
'Literally: Beach, three movie directors made/let Hanako walk at the beach'
- b. Kantoku-ga Hanako-ni aruk-ase-ta no-wa  
movie.director-NOM Hanako-DAT walk-CAUSE-PAST C-TOP  
sono hamabe-o da  
that beach-ACC COP  
'Literally: It is that beach that the movie director let Hanako walk at'

We have observed that the causative with motion verbs is compatible with multiple accusative constructions, i.e., multiple accusative scrambling and the multiple accusative cleft.<sup>15</sup>

---

<sup>15</sup> I have eleven informants for this particular experiment. I interviewed four of them (those who are not used to making intuition judgments); I asked the other eight people to fill in the questionnaire, which was sent by email. Out of the eleven people, only four are syntacticians. I tested a simplified version of a pair of instances of scrambling, which is given in (i) to (iv). (i) is a sentence that contains a derivation in which the higher goal is moved to the edge of  $vP$ ; (ii) is a sentence that contains a derivation in which the lower goal is scrambled to the edge of  $vP$ . (iii) is a sentence in which a higher goal is scrambled over the subject; (iv) is sentence in which a lower goal is scrambled over the subject.

CHAPTER VI

- 
- (i) Taro-wa Hanako-o yukkuri hamabe-o aruk-ase-ta  
 Taro-TOP Hanako-ACC slowly beach-ACC walk-CAUSE-PAST  
 ‘Literally: Taro slowly let Hanako walk on the beach’
- (ii) Taro-wa hamabe-o yukkuri Hanako-o aruk-ase-ta  
 Taro-TOP beach-ACC slowly Hanako-ACC walk-CAUSE-PAST  
 ‘Literally: Taro slowly let Hanako walk on the beach’
- (iii) Hanako-o Taro-wa yukkuri hamabe-o aruk-ase-ta  
 Hanako-ACC Taro-TOP slowly beach-ACC walk-CAUSE-PAST  
 ‘Literally: Hanako, Taro slowly let walk on the beach’
- (iv) Hamabe-o Taro-wa yukkuri Hanako-o aruk-ase-ta  
 beach-ACC Taro-TOP slowly Hanako-ACC walk-CAUSE-PAST  
 ‘Literally: The beach, Taro slowly let Hanako walk on’

I also tested a pair of instances of scrambling with *nobo-ase-ru* ‘climb-CAUSE-PRES.’ The results of the acceptability of the type of sentences in (i) and (ii) were as follows:

	CAUSEE > PATH	PATH > CAUSEE	Both OK	Both *
<i>arukaseru</i>	4	2	4	1
<i>Noboraseru</i>	5	1	4	1

The results about the acceptability of the type of sentences in (iii) and (iv) came as follows:

	CAUSEE > PATH	PATH > CAUSEE	Both OK	Both *
<i>Arukaseru</i>	3	1	6	1
<i>Noboraseru</i>	1	3	5	3

From the results, we see that a multiple realization of the accusative phrase is not fully acceptable in Japanese. But it is likely that scrambling of the higher goal or of the lower goal does not show much difference with respect to causativized motion verbs, which is in contrast to *spray/load* verbs, which we have discussed in Chapter IV. A possible reason is a surface accusative marking *o* on the DP<sub>CAUSEE</sub> with these verbs when the PATH argument is omitted, as in (v). However, this is not clear because the LOC argument of *spray/load* verbs can be marked with *o* when the MAT argument is omitted, as in (vi).

- (v) Taro-ga Hanako-o aruk-ase-ta  
 Taro-NOM Hanako-ACC walk-CAUSE-PAST  
 ‘Taro let Hanako walk’
- (vi) Taro-ga kabe-o nut-ta  
 Taro-NOM wall-ACC paint-PAST  
 ‘Taro painted the wall’

With these, I cannot provide a clear reason for the contrast between *spray/load* verbs and causativized motion verbs with respect to the issue. But it may be that the sentences used in the experiments are not controlled enough. The matter is left for future work.

## CHAPTER VI

- (98) a. ?Kantoku-ga<sub>i</sub>                    san-nin<sub>i</sub>    ekisutora-o    yukkuri    hamabe-o  
           movie.director-NOM   three-CL    extra-ACC    elegantly   beach-ACC  
           aruk-ase-ta  
           walk-CAUSE-PAST  
           ‘Literally: Three movie directors made/let extra walk elegantly at the beach’
- b. ?Ekisutora-o<sub>i</sub>    kantoku-ga                    san-nin<sub>i</sub>    yukkuri    hamabe-o  
           extra-ACC    movie.director-NOM   three-CL    elegantly   beach-ACC  
           aruk-ase-ta  
           walk-CAUSE-PAST  
           ‘Literally: Extra, three movie directors made/let walk elegantly at the beach’
- (99) a. ?Kantoku-ga<sub>i</sub>                    san-nin<sub>i</sub>    hamabe-mo<sub>i</sub>    ekisutora-o    aruk-ase-ta<sup>16</sup>  
           movie.director-NOM   three-CL    beach-also    extra-ACC    walk-CAUSE-PAST  
           ‘Literally: Three movie directors made/let extra walk at the beach’
- b. ?Hamabe-o    kantoku-ga<sub>i</sub>                    san-nin<sub>i</sub>    ekisutora-o    aruk-ase-ta  
           beach-ACC    movie.director-NOM   three-CL    extra-ACC    walk-CAUSE-PAST  
           ‘Literally: Beach, three movie directors made/let extra walk at’
- (100) a. ?Taro-ga    hamabe-o    aruk-ase-ta                    no-wa    ano ekisutora-o    da  
           Taro-NOM    beach-ACC    walk-CAUSE-PAST    C-TOP    that extra-ACC    COP  
           ‘Literally: It is that extra that Taro let walk on the beach’
- b. Taro-ga    ekisutora-o    aruk-ase-ta                    no-wa    ano hamabe-o    da  
           Taro-NOM    extra-ACC    walk-CAUSE-PAST    C-TOP    that beach-ACC    COP  
           ‘Literally: It is that beach that Taro let extra walk’

I argue Dative Case Assignment after Movement applies to the given derivation optionally; when it is applied, a cleft with the dative-marked CAUSEE is derived; when it is not applied, a cleft with the accusative-marked CAUSEE is derived. One thing that is not clear to me is why causatives with motion verbs are much more acceptable under these multiple accusative constructions, compared to those of *spray/load* verbs. I stipulate a possible reason: it may be

---

<sup>16</sup> The reason of attaching *mo* ‘also’ instead of *o* ‘accusative’ on the PATH is to avoid complications with the DoC violation effect. This kind of replacement is legitimate for PF Case suppression strategies of the DoC violation effect (Hiraiwa 2010).

## CHAPTER VI

related to the base argument structure of the lexical verb. *Spray/load* verbs are inherently ditransitive, while causatives with motion verbs are not.

### 6.6.2 Distribution of secondary depictives

In chapter III, I have modified Koizumi's condition on the distribution of object-oriented SDs (Secondary Depictives), repeated in (101) (see also 3.3.3).

(101) Condition on Secondary Depictives (only for object-oriented SDs)

A DP can be predicated of an SD iff both the DP and the SD mutually c-command each other in the same minimal lexical domain of a verb.

This captures the predication of the accusative object of transitive verbs and an SD, of the two accusative objects of *spray/load* verbs and SDs, and of the accusative object of *give* verbs and an SD. The same condition successfully excludes the predication of the dative object of *give* verbs; the dative DP is merged outside of the MLD of the *give* structure.

Under (101), the predication of the complement object of both types of causative verbs can be predicted; the object and an SD are merged to the SDP (Secondary Depictive Phase) that is the complement of the verb within its smallest domain (i.e., MLD), satisfying the condition.

- (102) a. Taro-ga Hanako-ni okome-o<sub>i</sub> **arawa-nai-de<sub>i</sub>** tak-ase-ta  
Taro-NOM Hanako-DAT rice-ACC rinse-NEG-SD cook-CAUSE-PAST  
'Literally: Taro let Hanako cook rice<sub>i</sub>, without **rinsed<sub>i</sub>**'
- b. Taro-ga Hanako-ni sono hasi-o<sub>i</sub> **kuzure-kake-de<sub>i</sub>**  
Taro-NOM Hanako-DAT the bridge-ACC nearly.broken-SD  
watar-ase-ta  
cross.over-CAUSE-PAST  
'Literally: Taro let Hanako cross over the bridge<sub>i</sub> **nearly.broken<sub>i</sub>**'

However, the given condition cannot explain the predication of SDs of the CAUSEE; the CAUSEE can be a predicate of an SD in both types of causative constructions, as in (103a) and (103b), even though it is merged to the lower vP, which is outside of the MLD.

## CHAPTER VI

- (103) a. Taro-ga Hanako-ni<sub>i</sub> **sude-de**<sub>i</sub> unagi-o tsukam-ase-ta  
 Taro-NOM Hanako-DAT barehanded-SD eel-ACC catch-CAUSE-PAST  
 ‘Literally: Taro let Hanako<sub>i</sub> barehanded<sub>i</sub> catch the eel’
- b. Taro-ga Hanako-ni<sub>i</sub> **suasi-de**<sub>i</sub> hamabe-o aruk-ase-ta  
 Taro-NOM Hanako-DAT barefoot-SD beach-ACC walk-CAUSE-PAST  
 ‘Literally: Taro let Hanako<sub>i</sub> barefoot<sub>i</sub> walk at the beach’

Koizumi (1994) argues that the distribution of the subject-oriented SDs is also accounted for under his Principle of Predication (POP) (see 3.3.4). According to him, an SD must be c-governed (constituent-governed; the command relation includes c- and m-command) by the external argument; it must also be c-governed by INFL (i.e., a zero-level category). For example, in (104), an SD *hadashi-de* ‘barefoot’ is predicated of the external argument, because it satisfies both conditions mentioned above; it is c-governed (m-command) by the subject, *Hanako*, and is c-commanded by INFL. Koizumi assumes a ternary branching structure. An SD can appear under I’ that is sister to I.

- (104) [<sub>IP</sub> Hanako-ga<sub>i</sub> [<sub>I’</sub> **hadasi-de**<sub>i</sub> [<sub>VP</sub> hasit- V] -ta I] ]  
 Hanako-NOM barefoot-SD run -PAST  
 ‘Hanako<sub>i</sub> ran barefoot<sub>i</sub>’

This relation must hold at D-structure. The level of D-structure has been eliminated in the MP. However, this corresponds to the base merge positions of the arguments in the MP. Given this, I can translate Koizumi’s condition of the subject-oriented SDs into our structural terms under Merge. The external argument is merged to the specifier of the higher *v* in causative constructions. The SD must be mutually c-commanded with the DP in SDP.

- (105) [<sub>SDP</sub> EX(CAUSER)<sub>i</sub> SD<sub>i</sub> ]

This phrase must be m-commanded by any zero-level category at the base structure. The higher *v* is a zero-level category which m-commands the phrase.

- (106) [<sub>vP(upper)</sub> [<sub>SDP</sub> EX(CAUSER)<sub>i</sub> SD<sub>i</sub> ] [<sub>v’</sub> [<sub>vP</sub> ...] *v* ] ]

## CHAPTER VI

In both sentences, the CAUSEE also shows the subject-oriented nature and, as we have observed above, it licenses the SD. This leads us to assume that it is possible to treat the predication of the CAUSER (i.e., external argument) and the CAUSEE under the same condition. Let us take this approach.

(107) [<sub>VP(lower)</sub> [<sub>SDP</sub> CAUSEE<sub>i</sub> SD<sub>i</sub>] [<sub>v'</sub> [<sub>VP...</sub>] v ]]

Both the higher and the lower *vs* are strong functional heads under our assumptions. Combining the facts about the predication of subject-oriented SDs into our old version of the condition of predication by object-oriented SDs, I propose a new version of the condition of predication of the SD, as in (108).

(108) Condition on Secondary Depictives (final)

A DP can be predicated of an SD iff the SD is c-commanded by the DP that is (i) the specifier of the strong functional head *v*; (ii) the specifier or the complement of the MLD.

Under (108), we can capture all the facts about the predication of a DP and SDs in transitive, ditransitive and causative constructions, excluding the licensing of predication between the DP<sub>GOAL</sub> of *give* verbs and an SD; the DP<sub>GOAL</sub> can satisfy the c-command relation, but it cannot satisfy the semantic relation with the verbal head. It is outside of the MLD.

### 6.7 Chapter conclusion

In this chapter, I have argued that it is possible to extend the two types of Dative Case Assignment that is proposed for the ditransitive verbs to an analysis of causative verbs in Japanese. I have also proposed that causative with transitive verbs involves In-Situ Dative Case Assignment. For the analysis of causative transitive verbs, I have adopted Harley's (2008) double *vP* analysis. I have developed the Case licensing system on the basis of Harley's structure and proposed that there are two functional heads in this structure. The evidence to support this analysis comes from the passivizability of the complement object. I have argued that since the passive morpheme attaches to the higher *v* and the lower head is another functional head, which includes the complement object. Inside the projection the complement object is protected and cannot be affected under the passivization.

## CHAPTER VI

Despite this high predictability of the structure of causative transitive verbs, I have shown that it is hard to extend the structure of causative transitive verbs to causative motion verbs, although both causative constructions are the same with respect to argument structure. The evidence for this comes from the availability of multiple accusative constructions with causative motion verbs. For this reason, I have proposed that the upper  $\nu$  of this type of causative construction is  $\nu_{acc}[+multiple]$ . I have also proposed that the lower  $\nu$  of this type of causative verb is also another strong functional head. This is evidenced by the impossibility of passivization of the complement object. However, it inherits the Case feature from the higher  $\nu$  only when the PATH argument is merged to the derivation.

Since the higher  $\nu$  of causative motion verbs is  $\nu_{acc}$ , it is necessary to propose a theory of how the CAUSEE (i.e., the goal of  $\nu_{acc}$ ) is dative-marked. I have extended the Dative Case Assignment mechanism that has been proposed for the dative marking of the LOC of *spray/load* verbs. There are two pieces of evidence for this argument. One is the distribution of the dative-marked CAUSEE with respect to the manner adverb, and the other is the licensing of the NPI of the indeterminate CAUSEE. In both tests, the CAUSEE of causative motion verbs patterns with the LOC of *spray/load* verbs.

I have also attempted to extend this analysis to causative constructions with an intransitive verb. A derivation in which the Dative CAUSEE is involved implicates the permissive reading, while a derivation in which the Accusative CAUSEE is involved implicates the coercive reading. Syntax is partially responsible for this semantics. In my analysis, these derivations are created derivationally, but not representationally contra Koizumi (1995).

Since motion verbs can be intransitive or transitive, the lower  $\nu$  does not necessarily have an accusative Case feature, as mentioned above. On the other hand, the lower  $\nu$  that takes VP with regular transitive verbs must have an accusative Case feature. Taking these into account, I have proposed that it is necessary to have a system such that the lower  $\nu$  of motion verbs can obtain accusative Case whenever it requires (i.e., when it has an extra PATH argument). I stipulate accusative Case transmission such that the higher  $\nu$ , being multiple, can transmit accusative Case when the lower  $\nu$  requires it. With this system, I have also stipulated a rule for Select: if Merge selects  $\nu$  with  $[+multiple]$ , it cannot select  $\nu_{dat}$ , and vice versa.

## Chapter VII

### Conclusion

#### 7.1 Two types of *v*

The preceding chapters have investigated the syntax of dative-accusative constructions in Japanese within the framework of Phase theory. I have proposed that there are two different types of Dative Case Assignment among these constructions: the In-situ assignment and the assignment after Movement. The former type of assignment is manifested in the VP of *give* verbs and causative transitive verbs, while the latter type of assignment is identified in the VP of *spray/load* verbs and causative motion verbs. In Phase theory, Case licensing is implemented under the probe-goal relation of the functional head and the terms (i.e., Agree). In standard assumptions, the accusative Case domain is the c-command domain of *v* (Chomsky 2004, among others). Following these general assumptions, I claimed that these two different types of Dative Case Assignment can ultimately be attributed to the two distinctive Case features on the functional head *v*:  $v_{acc}$  and  $v_{dat}$ . If  $v_{acc}$  selects a verb, the Dative Assignment after Movement is implemented, while if  $v_{dat}$  selects a verb, the In-situ Dative Assignment is implemented. Hence, the difference is predicted by a selection of primitive vocabulary that is available in UG.

The crucial fact to the present thesis is whether or not a verb can be compatible with double accusative scrambling and with the double accusative cleft. In other words, the locational element of the verb can be associated with structural accusative Case or not. At some point in the derivation, both of them are known for being salvation strategies against a DoC violation in the literature (for scrambling: Shibatani 1978, Hiraiwa 2006; 2010; for the cleft: Harada 1973, Kuroda 1978, Hiraiwa 2006; 2010). I have shown that *give* verbs and causative transitive verbs cannot be associated with either construction, while *spray/load* verbs and causative motion verbs can. Thus, the locational element of the latter two verbs is structural Case; and constitutes a category that is subject to the DoC (Hiraiwa 2006c; 2010), whereas the former two verbs are irrelevant to the condition.

In Chapter III, we observed pieces of evidence for a hypothesis that the LOC argument of *spray/load* is linked to a different structural position from the GOAL argument of *give* verbs; the former argument is merged within the MLD (Minimal Lexical Domain) of the given verbs, while the latter argument is merged within the upper VP of the VP-shell structure (Larson 1988), being excluded from the MLD of the given verbs. The predication

## CHAPTER VII

of SDs (Secondary Depictives) and these arguments, in particular, shows the difference in syntax between the two types of verbs. The GOAL argument of *give* verbs cannot be a subject of an SD, while the LOC argument of *spray/load* verbs can. A modified assumption of the distribution of the SDs that I have developed based on Koizumi (1994) requires that the former argument must be merged outside of the MLD of the main predicate, while the latter argument must be merged inside of that domain. On the basis of this fact, I have hypothesized that the MLD of *spray/load* verbs is a double accusative structure:  $DP_{MAT}$  is its complement and  $DP_{LOC}$  is its specifier. On the other hand, the MLD of *give* verbs is a single accusative structure;  $DP_{THEME}$  is its complement, but  $DP_{GOAL}$  is an argument of the upper verb of the VP-shell.

In Chapter IV, I argued that a *spray/load* VP manifests remerge for its Dative Case Assignment; namely, the LOC argument of *spray/load* verbs is valued as Accusative Case in its base position and it is assigned Dative Case at the edge of  $vP$  after movement. I have shown two pieces of evidence for this proposal; one is the distribution of the locational argument with respect to the manner adverb; the other is the licensing of the NPI (Negative Polarity Item) of indeterminate locational arguments. The distribution of the LOC argument with respect to the  $vP$ -internal adverbs (i.e., the manner adverb) is sensitive to the type of Case on the argument. Accusative-marked LOC arguments can appear lower than the adverbs, while Dative-marked LOC arguments cannot. In contrast, Dative-marked GOAL arguments of *give* verbs can appear lower than the adverbs. Accusative-marked indeterminate LOC can form an NPI with respect to a particle *mo* ‘also’, that is attached to the verb infinitive, whereas Dative-marked indeterminate LOC cannot. Under the assumption of c-command condition of NPI licensing (Hiraiwa 2005; 2006), I hypothesize that the LOC arguments of *spray/load* verbs is not Dative-valued within VP, while the GOAL arguments of *give* verbs is Dative-valued within the domain of  $V_1$  plus  $V_2$  (i.e., the VP-shell). The fact that the LOC argument can appear higher than the adverbs, while it cannot appear lower with Dative Case further confirms that the hypothesis is correct. On the basis of these facts, under Multiple Agree (Hiraiwa 2002), I have claimed that a type of functional head  $v_{acc}$  [+multiple] values Accusative Case on both  $DP_{LOC}$  and  $DP_{MAT}$  in a *spray/load* VP. As a result, both are Accusative-valued in situ. In contrast, *give* VP has a bundle of Case features  $v_{acc}$  and  $v_{dat}$  and  $v_{acc}$  is [-multiple] in this case. Each feature has its own goal;  $v_{dat}$  probes  $DP_{GOAL}$  and  $v_{acc}$ ,  $DP_{THEME}$ . As a result,  $DP_{GOAL}$  is Dative-valued and  $DP_{THEME}$  is Accusative-valued in situ.

## CHAPTER VII

This proposal makes an important consequence, among others, for the analysis of argument alternation in Japanese. It predicts whether or not a ditransitive verb can be associated with two syntactic alternants or not – a condition on argument alternation, which was the main concern of Chapter V.

In Chapter V, I have discussed in detail the syntax of argument alternation in Japanese which has not been investigated thoroughly in the literature (Kageyama 1980, Fukui, Miyagawa and Tenny 1985, Kishimoto 2001c). I have proposed that whether or not a verb can constitute a paradigm of argument alternation depends on the type of the functional head. If  $v_{\text{dat}}$  selects a verb, a complex verb will not characterize the alternation, while if  $v_{\text{acc}}$  [+multiple] selects a verb, a complex verb will embody the alternation. *Spray/load* verbs manifest the latter case, whereas *give* verbs manifest the former case. This condition also explains why some inherently non-alternation verbs (e.g., *haru* ‘put’, *maku* ‘sprinkle’, *tsumu* ‘pile’, etc.) come to constitute the paradigm when they are attached by the morpheme – *tsukusu* ‘exhaust’ or its kin (e.g., *-ageru* ‘up’). I have hypothesized that that operation licenses the locational element of the original verb to merge within the MLD of the complex verb, thereby creating a double accusative VP.  $v_{\text{acc}}$  [+multiple] can select this complex verb, hence the verb can participate in argument alternation.

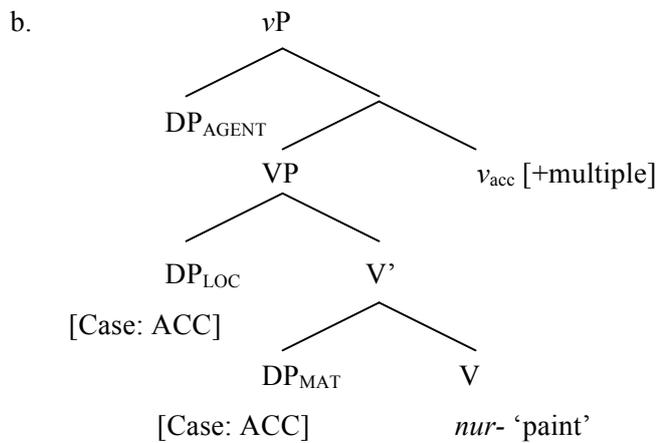
In Chapter VI, I have further shown that it is possible to extend the proposed Dative Case Assignment system to the domain of syntactic causative constructions in Japanese. I have analyzed two types of causative verbs: causative transitive verbs and causative motion verbs. The former type has been much studied in the literature of Japanese syntax since Kuroda (1965a; 1965b), while the latter type has not been paid much attention in the literature (cf. Kuroda 1978, Miyagawa 1989). Adopting Harley’s (2008) double  $vP$  analysis, I have hypothesized that causative motion verbs have two functional projections and one lexical projection; the higher  $v$  takes the CAUSER as its argument; and the lower  $v$  introduces the CAUSEE to the structure. The MLD of this VP can be optionally a mono-accusative structure; it may or may not include the PATH argument. This head has  $v_{\text{acc}}$  and it is [+multiple]. Hence, the CAUSEE is assigned Dative Case after it moves to the edge of  $vP$ . The lower  $v$  of this VP can be  $v_{\text{acc}}$ . More accurately, I have suggested that the lower  $v$  of this type of causative verbs is not an inherent accusative valuer; rather, when the PATH argument is merged to the structure it has been transmitted structural Case feature by the higher  $v_{\text{acc}}$  which is [+multiple] in Case. When there is no complement argument, the lower  $v$  must not obtain Accusative Case; otherwise the derivation will crash with a [-interpretable] Case feature. When there is an argument, the lower  $v$  must obtain Accusative Case;

CHAPTER VII

otherwise the derivation will also crash with a [-valued] Case feature. The VP of causative transitive verbs has two different functional projections and one lexical projection. The higher  $v$  has  $v_{\text{dat}}$ . Hence, the In-situ Dative Assignment is implemented. I have also argued that if Merge selects  $v_{\text{dat}}$ , it cannot select  $v_{\text{acc}}$  [+multiple] in the same numeration, and vice versa. To sum up: I have proposed the following structures in the thesis:

**The proposed structure for *spray/load* verbs**

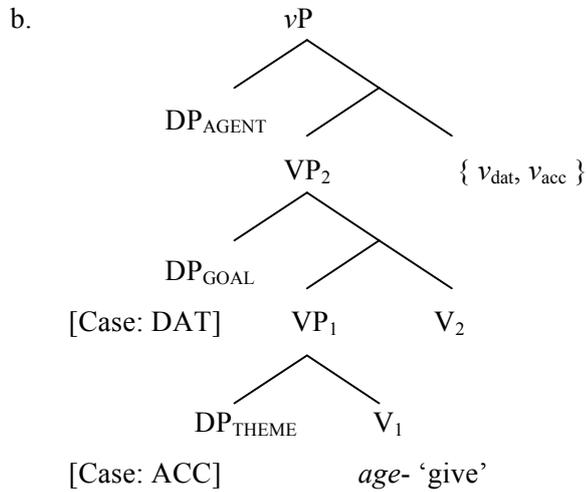
- (1) a. Taro-ga      doa-ni      penki-o      nut-ta  
          Taro-NOM   door-DAT   paint-ACC   paint-PAST  
          ‘Taro painted paint onto the door’



CHAPTER VII

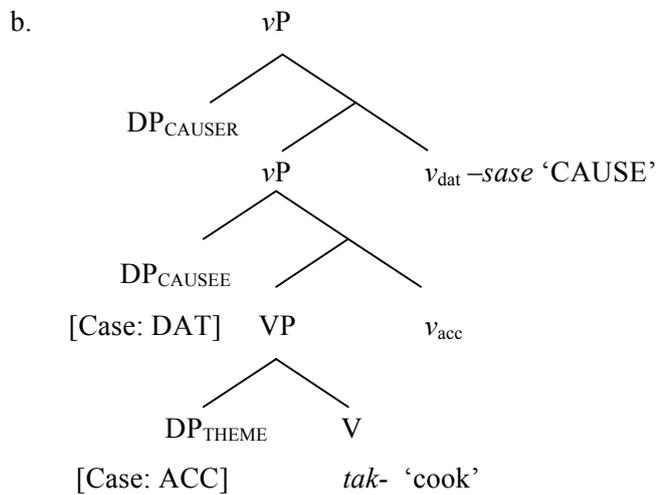
**The proposed structure for *give* verbs (based on Ura 2000)**

- (2) a. Taro-ga Hanako-ni ringo-o age-ta  
 Taro-NOM Hanako-DAT apple-ACC give-PAST  
 ‘Taro gave an apple to Hanako’



**The proposed structure for causative transitive verbs (based on Harley 2008)**

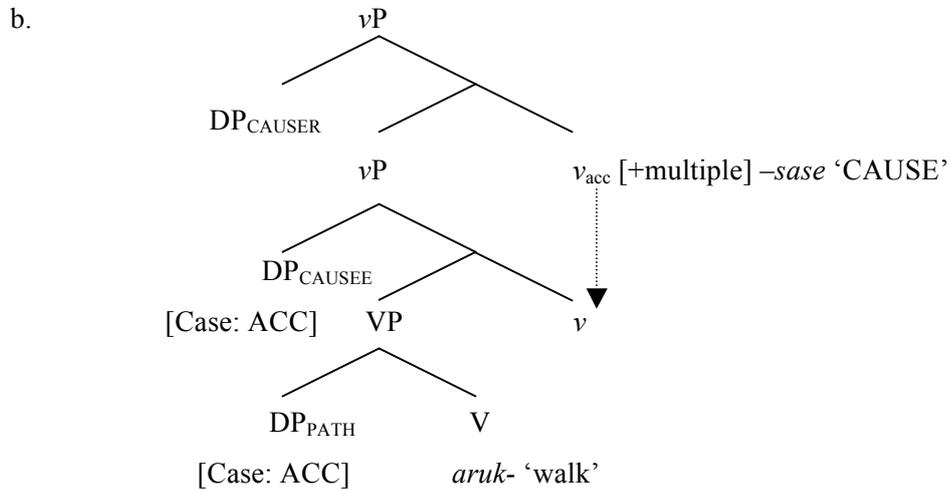
- (3) a. Hanako-ga Taro-ni mesi-o tak-ase-ta  
 Hanako-NOM Taro-DAT rice-ACC cook-CAUSE-PAST  
 ‘Hanako let Taro cook rice’



CHAPTER VII

**The proposed structure for causative motion verbs**

- (4) a. Taro-ga Hanako-ni hamabe-o aruk-ase-ta  
 Taro-NOM Hanako-DAT beach-ACC walk-CAUSE-PAST  
 ‘Taro let Hanako walk on the beach’



There is the fact that causative motion verbs occur in the sentence pattern in (5b), which is seemingly one of the syntactic variants of argument alternation. Under the two ways of Dative Case Assignment, which predict whether or not a verb can participate in argument alternation, a question arises: is this sentence an instance of the *with*-accusative variant of argument alternation?

- (5) a. Taro-ga Hanako-ni hamabe-o aruk-ase-ta  
 Taro-NOM Hanako-DAT beach-ACC walk-CAUSE-PAST  
 ‘Taro make/let Hanako walk on the beach’
- b. Taro-ga Hanako-o hamabe-de aruk-ase-ta  
 Taro-NOM Hanako-ACC beach-with walk-CAUSE-PAST  
 ‘Literally: Taro make/let Hanako walk with the beach’

The answer is no. If the accusative-marked DP is merged to the complement position, or equally the LOC argument of the *with*-accusative *spray/load* construction, we would not expect this DP to be assigned Dative Case after movement. This is because this assignment system cannot apply to a complement DP with a structural accusative Case. As (6b) shows, *Hanako* can be marked with the morphological dative case, which means that this DP is not the complement to the lexical verb; hence (5b) is not an instance of one of variants of

## CHAPTER VII

alternation.

- (6) a. \*Taro-ga        kabe-ni        aopenki-de        nut-ta  
         Taro-NOM    wall-DAT    blue.paint-with    paint-PAST  
         ‘\*Taro painted onto the wall with blue paint’
- b. Taro-ga        Hanako-ni        hamabe-de        aruk-ase-ta  
         Taro-NOM    Hanako-DAT    beach-with        walk-CAUSE-PAST  
         ‘Literally: Taro make/let Hanako walk with the beach’

### 7.2 Contribution of the thesis to the literature

A movement-based dative case assignment of the ditransitive construction has not been discussed in the literature, although the in-situ type of analysis has been proposed for the *give*-type VP in the past. The core of my thesis, among others, is the link between two hitherto unrelated issues: Dative Case Assignment and the condition on argument alternation. Argument alternation has attracted much attention in the literature of lexical semantics as being independently analyzed from most of the syntactic properties of these ditransitive verbs that I have examined in the thesis. I have shown that my theory accommodates them all, which has never been attempted in the literature, to the best of my knowledge. A further contribution of my thesis is to have accommodated a new pair within the causative-ditransitive paradigm in Japanese. I have identified another pair of causative-ditransitive verbs in Japanese, i.e., a pair of causative motion verbs and *spray/load* verbs, in addition to the already established membership of causative transitive verbs and *give* verbs (Kuno 1973, Miyagawa 1996). The pairing is solely motivated by the Dative Case Assignment that I have proposed.

There are some related issues that are left untouched in the thesis, however. Firstly, I have not clarified the syntax of the VP of Korean *spray/load* verbs, although I have occasionally suggested that it bears on my theory. However, because of the lack of clear evidence, I have not been able to propose that a VP of *lo*-accusative constructions of *chilha* is identical to that of Japanese *nuru* ‘paint’. This prevents me from arguing that the Korean *spray/load* alternation is conditioned by my Dative Case Assignment system. The other issue that remains untouched is the syntax of unaccusative verbs, e.g., the verb class of *afureru* ‘be.full.of’ which is also famous for participating in argument alternation (Fukui, Miyagawa and Tenny 1985, among others). If my proposal is on the right track, one of the alternative structure of the verb type is expected to include Dative Assignment after Movement,

## CHAPTER VII

confirming that the proposed system is further extendable to the domain of Nominative Case.

## Appendix A:

### An argument to support the split *vP* hypothesis

Before the split *vP* hypothesis was introduced, the major hypothesis of phrase structure grammar in the generative literature was the VP-internal subject hypothesis (Fukui and Speas 1986). This hypothesis claims that the subject is initially merged to the specifier of VP. I assume the former hypothesis in the thesis, on the basis of the evidence of the distribution of subject-oriented floating numeral quantifiers (henceforth, NQFs) in a sentence, based on Koizumi (1995).

It is well known that NQs (Numeral Quantifiers) as in (1a) in Japanese can float off from their host DPs (Miyagawa 1989, Miyagawa and Arikawa 2007, among others).<sup>1</sup> However, a manner adverb cannot intervene between the subject and its associated NQF as in (1b).

- (1) a. Gakusei-ga<sub>i</sub>      **fu-tari**<sub>i</sub>    sakana-o    tabe-ta  
      student-NOM    two-CL    fish-ACC    eat-PAST  
      ‘Two students ate fish’
- b. \*Gakusei-ga<sub>i</sub>    yukkuri    **fu-tari**<sub>i</sub>    sakana-o    tabe-ta  
      student-NOM    slowly    two-CL    fish-ACC    eat-PAST  
      ‘Two students slowly ate fish’

Two hypotheses have different predictions about the distribution of the NQF in (1b), as in (2).

- (2) a. [<sub>VP</sub> Suj Obj V]      (VP-internal subject hypothesis)  
      b. [<sub>VP</sub> Suj [<sub>VP</sub> Obj V]]    (Split *vP* hypothesis)

The manner adverb or the instrumental adverb (e.g., *yukkuri* ‘slowly’, *naifu-de* ‘with knife’) marks the left edge of the lexical projection VP as in (3) (Ura 2000, among others),

- (3) [<sub>VP</sub> manner adv [<sub>VP</sub> ... v]]

---

<sup>1</sup> Although I follow Copy theory in the MP, I use a trace for expository reasons in the thesis.

The VP-internal subject hypothesis wrongly predicts the grammaticality of (1b). If the subject is initially merged to VP, we would expect the argument to leave a copy inside VP when it is scrambled. Miyagawa (1989) proposes that the non-local NQF is licensed under a mutual c-command relation between a copy of a DP and its associated NQF. Given this, the copy of the moved DP must c-command the NQF in VP, and hence the NQF must be properly licensed by the host subject DP in (1b), contrary to the fact. The split *v*P hypothesis, on the other hand, correctly predicts the ungrammaticality in (1b). Since the subject *gakusei* ‘student’ is not merged within the VP under this hypothesis, it is impossible for the subject to leave a copy inside VP under any movement. Since there is no copy of the subject inside of VP that can be c-commanded by an NQ, a predication of *gakusei* and *fu-tari* ‘two-CL’ is not licensed. Hence the sentence is ungrammatical.

## Appendix B:

### Three pieces of evidence for the movement analysis of clefts with *spray/load* verbs

In the literature of cleft sentences in Japanese, it has been discussed that if a focus of cleft has a case-marker, as a regular cleft sentence, while if it is not, it is a pseudo-cleft. For instance, (1a) is a regular cleft because the focus *kono ekisutora* ‘this extra’ has an accusative case marker, while (1b) is a pseudo-cleft because the focus has no case marker.

#### (1) Island effect

- a. \*Taro-ga [[ e<sub>j</sub> e<sub>i</sub> hamabe-o aruk-ase-ta] eiga.kantoku<sub>j</sub>]-o  
Taro-NOM beach-ACC walk-CAUSE-PAST movie.director-ACC  
hihansi-ta no-wa kono ekisutora-o<sub>i</sub> da  
criticize-PAST C-TOP this extra-ACC COP  
‘Literally: It is this extra<sub>i</sub> that Taro praised the movie director<sub>j</sub>; e<sub>j</sub> let e<sub>i</sub> walk on the beach’
- b. \*Taro-ga [[ e<sub>j</sub> e<sub>i</sub> hamabe-o aruk-ase-ta] eiga.kantoku<sub>j</sub>]-o  
Taro-NOM beach-ACC walk-CAUSE-PAST movie.director-ACC  
hihansi-ta no-wa kono ekisutora-ø<sub>i</sub> da  
criticize-PAST C-TOP this extra-ø COP

The second condition of regular clefts is whether or not they allow multiple foci. If a given cleft allows multiple foci, it is a diagnostics of the regular cleft. As in (2), clefts of causativized motion verbs with a multiple accusative phrases allow multiple foci, although this sentence is marked with ‘\*’. For the reason of this ungrammaticality, I argue that this has an effect of the DoC violation (Hiraiwa 2010). This is because if an adverb is inserted between the two accusative phrases, the effect is alleviated, as in (3). With this fact, I argue that the cleft in (2a) passes the second requirement of regular clefts.

(2) Multiple foci

- a. \*Taro-ga aruk-ase-ta no-wa ekisutora-o hamabe-o da  
Taro-NOM walk-CAUSE-PAST C-TOP extra-ACC beach-ACC COP  
'Literally: It is (ACC) the beach, (DAT) the extra that Taro let walk'
- b. \*Taro-ga aruk-ase-ta no-wa ekisutora- $\emptyset$  hamabe-o da  
Taro-NOM walk-CAUSE-PAST C-TOP extra- $\emptyset$  beach-ACC COP  
'Literally: It is (ACC) the beach, ( $\emptyset$ ) the extra that Taro let walk'
- c. \*Taro-ga aruk-ase-ta no-wa ekisutora-o hamabe- $\emptyset$  da  
Taro-NOM walk-CAUSE-PAST C-TOP extra-ACC beach- $\emptyset$  COP  
'Literally: It is ( $\emptyset$ ) the beach, (DAT) the extra that Taro let walk'

- (3) Taro-ga aruk-ase-ta no-wa ekisutora-o **yukkuri** hamabe-o da  
Taro-NOM walk-CAUSE-PAST C-TOP extra-ACC slowly beach-ACC COP  
'Literally: It is (ACC) the beach, (DAT) the extra that Taro let walk'

The last condition is about the category of *no* in clefts. If *no* is not pronominal, it is a sign of the fact that the given cleft is a regular one. If *no* in a given cleft is pronominal, it is a sign of pseudo-clefts. As given in (4), since the category of *no* is not pronominal, I argue that the given clefts in (4a) is a regular cleft.

(4) Category of *no*

- a. Taro-ga hamabe-o aruk-ase-ta {no/\*hito}-wa  
Taro-NOM beach-ACC walk-CAUSE-PAST C/person-TOP  
kono ekisutora-ni da  
this extra-DAT COP  
'Literally: It is (DAT) this extra {that/\*who} Taro let wall on the beach'
- b. Taro-ga hamabe-o aruk-ase-ta {no/hito}-wa  
Taro-NOM beach-ACC walk-CAUSE-PAST C/person-TOP  
kono ekisutora- $\emptyset$  da  
this extra- $\emptyset$  COP  
'Literally: It is ( $\emptyset$ ) this extra {that/who} Taro let wall on the beach'

## References

- Alsina, A. 1992. On the argument structure of causatives. *Linguistic Inquiry* 23, 517-555.
- Anderson, S.R. 1971. On the role of deep structure in semantic interpretation. *Foundation of language* 7, 387-396.
- Anon, J., and Y.A. Li. 1989. Scope and constituency. *Linguistic Inquiry* 20, 141-172.
- Anon, J., and Y.A. Li. 1993. *Syntax of scope*. Cambridge, MA: MIT Press.
- Baker, M. 1988. *Incorporation: a theory of grammatical function changing*. Chicago: University Chicago Press.
- Baker, M. 1997. Thematic roles and syntactic structure in L. Haegeman, ed. *Elements of Grammar*, 73-137. Dordrecht: Kluwer Academic Publishers.
- Baker, M., Johnson K., and Robert, I. 1989. Passive argument raised. *Linguistics Inquiry* 20, 219-251.
- Baltin, M., and C. Collins. 2001. *The handbook of contemporary syntactic theory*. Oxford: Blackwell.
- Basilico, D. 1998. Object position and predication forms. *Natural Language & Linguistic Theory* 16, 541-595.
- Barss, A., and H. Lasnik. 1986. A note on anaphora and double objects. *Linguistic Inquiry* 17, 347-354.
- Blake, J. B. 1994. *Case*. Cambridge: Cambridge University Press.
- Beavers, J. 2006. *Argument/oblique alternations and the structure of lexical meaning*. Ph.D. dissertation, Stanford University.
- Belletti, A., and L. Rizzi. 1988. Psych-verbs and  $\theta$ -theory. *Natural Language & Linguistic Theory* 6, 291-352.
- Brinkmann, U. 1997. *The locative alternation in German*. Amsterdam: John Benjamins.
- Bruening, B. 2001a. QR obeys superiority: frozen scope and ACD. *Linguistic Inquiry* 32, 233-273.
- Bruening, B. 2001b. *Syntax at the edge: cross-clausal phenomena and the syntax of Passamaquoddy*. Ph.D. dissertation, MIT.
- Bruening, B. 2010. Ditransitive asymmetries and a theory of idiom formation. *Linguistic Inquiry* 41, 519-562.
- Burzio, L. 1986. *Italian syntax: a government-binding approach*. Dordrecht: Reidel.
- Chomsky, N. 1957. *Syntactic structures*. Paris: Mouton publishers.
- Chomsky, N. 1965. *Aspects of the theory of syntax*. Cambridge, MA: MIT Press.

- Chomsky, N. 1970. Remarks on nominalization. In *Readings in English transformational grammar*, eds. Jacobs, A. Roderick and P. S. Rosenbaum, 184-221. Waltham, Massachusetts: Ginn and Company.
- Chomsky, N. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, N. 1986a. *Barriers*. Cambridge, MA: The MIP Press.
- Chomsky, N. 1986b. *Knowledge of language: its nature, origin, and use*. New York: Praeger Publishers.
- Chomsky, N. 1995. *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, N. 2000. Minimalist inquiries: The framework. In *Step by step: essays on minimalism in honor of Howard Lasnik*, ed. R. Martin et. al., 89-155. Cambridge, MA: MIT Press.
- Chomsky, N. 2001. Derivation by phase. In *Ken Hale: a life in language*, ed. M. Lenstowicz, 1-52. Cambridge, MA: MIT Press.
- Chomsky, N. 2004. Beyond explanatory adequacy. In *Structures and beyond: the cartography of syntactic structures* vol. 3, ed. A. Belletti, 104-131. New York: Oxford University Press.
- Chomsky, N. 2008. On phases. In *Foundational issues in linguistic theory: essays in honor of Jean-Roger Vergnaud*, eds, R. Freidin, C. Otero, and M.L. Zubizarreta. Cambridge MA: MIT Press.
- Chomsky, N., and H. Lasnik. 1993. The theory of principles and parameters. [reproduced as Chomsky (1995): chapter 1: 13-127].
- Citko, B. 2005. On the nature of merge: external merge, internal merge, and parallel merge. *Linguistic Inquiry* 36, 475-496.
- Cormack, A., and N. Smith. 1999. Why are depictives different from resultatives? *UCLWPL* 11, 251-286.
- Dowty, D. 1991. Thematic proto-roles and argument selection. *Language* 67, 547-619.
- Dubinsky, S. 1994. Predicate union and the syntax of Japanese causatives. *Journal of Linguistics* 30, 43-79.
- Epstein, D. S., N. Hornstein. 1999. *Working minimalism*. Cambridge, MA: MIT Press.
- Fiengo, R. 1977. On trace theory. *Linguistic Inquiry* 8, 35-61.
- Fillmore, C. 1968. The case for case. In *Universals in linguistics* eds. E. Back and R. Harms, New York: Holt, Rinehart, & Winston.
- Fodor, J. 1970. Three reasons for not deriving 'kill' from 'cause to die.' *Linguistic Inquiry* 1, 429-38.
- Fraser, B. 1971. A note on the spray paint cases. *Linguistic Inquiry* 2, 604-607.

- Fukui N., S. Miyagawa., and C. Tenny. 1985. Verb classes in English and Japanese: A case study in the interaction of syntax, morphology and semantics. *Lexicon project working papers 3*, Center for cognitive science. Cambridge, MA: MIT.
- Fukui, N. 1995. *Theory of projection in syntax*. Stanford, CL: CSLI Publications/Tokyo: Kuroshio Publishers.
- Fukui, N. 2000. Wh-gimonbun no bunseki (An analysis of wh-question sentences). In *Syntax and meaning: S. I. Harada collected works in linguistics*, ed. N. Fukui, 817-830. Tokyo: Taishukan.
- Fukui, N. 2001. Phrase structure. In *The handbook of contemporary syntactic theory*, eds. M. Baltin and C. Collins, 374-406. Oxford: Blackwell.
- Fukui, N., and M. Speas. 1986. Specifiers and projection. In *MITWPL 8, Papers in Theoretical Linguistics*, eds. N. Fukui, T. R. Papoport and E. Sagey. Cambridge, MA: MITWPL.
- Goldberg, A. E. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago: The University of Chicago Press.
- Grimshaw, J. 1990. *Argument structure*. Cambridge: MIT press
- Haegeman, L. 1997. *Elements of grammar: handbook of generative syntax*. Dordrecht: Kluwer Academic Publishers.
- Hale, K. 1980. Remarks on Japanese phrase structure: comments on the papers on Japanese syntax. In *MITWPL 2*, eds. Y. Otsu and A. Farmer, 185-203.
- Hale, K., and S. J. Keyser. 2002. *Prelegomenon to a theory of argument structure*. Cambridge: MIT press.
- Hale, K., and S. J. Keyser. 1992. Syntactic character of thematic structure. In *Thematic structure: its role in grammar*, ed. I.M Roca, 247-269. New York: Foris.
- Harada, N., and R. Larson. 2009. Datives in Japanese. Ms.
- Harada, S-I. 1973. Counter equi NP deletion. In *Annual Bulletin 7*, 113-147. Research institute of logopedics and phoniatics, Tokyo: University of Tokyo.
- Harada, S-I. 1975. The functional uniqueness principle. In *Attempts in Linguistics and Literature 2*, 17-24. Tokyo: IUC.
- Harley, H. 2002. Possession and the double object construction. *Linguistic Variation Yearbook 2*, 29-68.
- Harley, H. 2008. On the causative construction. In *Oxford handbook of Japanese linguistics*, eds. S. Miyagawa and M. Saito, 20-53. Oxford: Oxford University Press.
- Hayashishita, J-R. 2000. Scope ambiguity and 'scrambling'. *Proceedings of WCCFL 19*.
- Heycock, C. 1988. The syntax of Japanese causative. In *Proceedings of ESCOL 5*,

- 198-209.
- Heycock, C. 1993. Syntactic predication in Japanese. *Journal of East Asian Linguistics* 2, 167-211.
- Hiraiwa, K. 2001. Multiple Agree and the Defective Intervention Constraint in Japanese. In *Proceedings of the MIT-Harvard Joint Conference* 40, 67-80.
- Hiraiwa, K. 2002. EPP: Object shift and stylistic fronting in Scandinavian. In *Proceedings of WCCFL 20*, 290-303. Somerville, MA: Cascadilla Press.
- Hiraiwa, K. 2005. Indeterminate-agreement: some consequences for the case system. *MITWPL* 50, 93-128.
- Hiraiwa, K. 2006a. *Syugo-mokutekigo kuriage koubun (the subject-object raising construction)* in K. Mihara., and K. Hiraiwa. (eds.), *Shin nihongo no tougo kouzo (Japanese syntax (a new edition))* pp. 217-247.
- Hiraiwa, K. 2006b. *Bunretsu bun (Cleft constructions)* in K. Mihara., and K. Hiraiwa. (Eds), *Shin nihongo no tougo kouzo (Japanese syntax (a new edition))* pp. 249-280).
- Hiraiwa, K. 2006c. *Nijyuutaikaku seiyaku to kaku (Double-o constraint and Case)* in *Shin nihongo no tougo kouzo (Japanese syntax (a new edition))* eds. Mihara, K. and K. Hiraiwa, 281-306.
- Hiraiwa, K. 2010. Spelling Out the Double-o Constraint. *Natural Language and Linguistic Theory* 28, 723-770.
- Hiraiwa, K., and S. Ishihara. 2002. Missing links: Cleft, sluicing and ‘no da’ construction in Japanese. In *The proceedings of humit 2001. MIT working papers in linguistics* 43, eds. T. Ionin, H. Ko, and A. Nevins, 35-54. Cambridge, MA: MITWPL.
- Hoekstra T., and Mulder R. 1990. Unergatives as copular verbs; locational and existential predication. *The linguistic review* 7, 1-79.
- Hoji, H. 1985. *Logical form constraints and configurational structures in Japanese*. Ph.D. dissertation, MIT.
- Hoji, H. 2003. Falsifiability and repeatability in generative grammar: a case study of anaphora and scope dependency in Japanese. *Lingua* 113, 377-446.
- Holmberg, A. 2000. Am I unscientific? A reply to Lappin, Levine, and Johnson. *Natural Language & Linguistic Theory* 18, 837-842.
- Hornstein, N., J. Nunes, and K.K. Grohmann. 2005. *Understanding minimalism*. New York: Cambridge University Press.
- Hoshi, H. 1999. Passives. In *The Handbook of Japanese Linguistics* ed. N. Tsujimura, 291-235. Oxford: Blackwell.
- Inoue, K. 1976. *Henkei bunpoo to Nihongo (jô) (Generative grammar and Japanese vol 1)*.

- Tokyo: Taishukan.
- Iwata, S. 2008. *Locative alternation: a lexical-constructional approach*. Amsterdam: John Benjamins Publishing Company.
- Jackendoff, R. 1977. *X-bar syntax: a study of phrase structure*. Cambridge MA: MIT Press.
- Jackendoff, R. 1990. *Semantic structures*. Cambridge MA: MIT Press.
- Jeffries, L., and P. Willis. 1984. A return to the spray paint issues. *Journal of Pragmatics* 8, 715-729.
- Jung, Y-J., and S. Miyagawa. 2004. Decomposing ditransitive verbs. In *Proceedings of SICGG*.
- Kageyama, T. 1980. The role of thematic relations in the spray paint hypallage. *Papers in Japanese linguistics* 7: 35-46.
- Kageyama, T. 1996. *Dosi imiron (The lexical semantics approach to verbs)* Tokyo: Kuroshio Publishers.
- Kageyama, T. 2001. *Nitieitaisyoo doosi-no imi-to koobun (Verb semantics and constructions in Japanese and English)*. Tokyo: Taishukan.
- Kang, B-M. 2002. Categories and meanings of Korean floating quantifiers – with some reference to Japanese. *Journal of East Asian Linguistics* 11, 375-398.
- Kayne, R. 1984. *Connectedness and Binary Branching*. Dordrecht: Foris.
- Kawano, Y. 1997. Itihenkadoosi-to zyootaihenkadoosi-no setten – iwayuru kabenuridaikan-o tyuusin-ni (The relation between change of location verbs and change of state verbs: based on the *spray paint* hypallage). *Tsukuba Nihongo Kenkyuu* (Tsukuba Japanese Study) 2, 28-40.
- Kim, M. 1999. A cross-linguistic perspective on the acquisition of locative verbs. Ph.D. Dissertation, University of Delaware.
- Kishimoto, H. 1996. Split intransitivity in Japanese and the unaccusative hypothesis. *Language* 72, 248-86.
- Kishimoto, H. 2001a. Binding of indeterminate pronouns and clause structure in Japanese. *Linguistic inquiry* 32, 597-633
- Kishimoto, H. 2001b. “Nizyuu mokutekigo koobun (double object constructions).” In *Nitieitaisyoo Doosi-no Imi-to Koobun (Verbs and Constructions in Japanese and English)* ed. T. Kageyama, 127-153. Tokyo: Taishukan.
- Kishimoto, H. 2001c. *Kabenuri koobun (Spray/load alternations)*. In *Nitieitaisyoo doosi-no imi-to koobun (A comparative study of verb semantics and constructions in Japanese and English)*, ed. T. Kageyama, 127-153. Tokyo: Taishukan.

- Kishimoto, H. 2005. *Tougokouzou to bunpoukankei (Syntactic structures and the grammatical relation)*. Tokyo: Kuroshio.
- Kitagawa, Y., and S-Y. Kuroda. 1992. Passives in Japanese. Ms. University of Rochester and University of California.
- Ko, H. 2007. Asymmetries in scrambling and cyclic linearization. *Linguistic Inquiry* 38, 49-83.
- Koizumi, M. 1994. Secondary predicates. *Journal of East Asian Linguistics* 3, 25-79.
- Koizumi, M. 1995. Phrase structure in minimalist syntax. Ph.D dissertation, MIT.
- Krazter, A. 1996. Severing the external argument from its verb. In *Phrase structure and the lexicon*, eds., J. Rooryck and L. Zaring, 109-137. Dordrecht: Kluwer Academic Publishers.
- Kubo, M. 1992. Japanese syntactic structures and their constructional meanings. Ph.D. dissertation, MIT.
- Kuno, S. 1973. *The structure of Japanese language*. Cambridge MA, MIT Press.
- Kuroda, S-Y. 1965a. Causative forms in Japanese. *Foundations of language* 1, 30-50.
- Kuroda, S-Y. 1965b. *Generative grammatical studies in the Japanese language*. Ph.D. dissertation, MIT.
- Kuroda, S-Y. 1970. Remarks on the notion of subject with reference to words like also, even, or only. Part II. *Annual Bulletin, Research Institute of Logopedics and Phoniatrics* 4: 127-152. Tokyo: The university of Tokyo, [reproduced as Kuroda (1992: chapter 2 (pp. 78-113))].
- Kuroda, S.-Y. 1978. Case-marking, canonical sentence patterns and counter equi in Japanese, in Hinds, John and Irwin Howard (eds.), *Problems in Japanese syntax and semantics*, Kaitakusya: Tokyo. [reproduced as Kuroda (1992: chapter 6 (pp. 222-239))].
- Kuroda, S.-Y. 1979. On Japanese passives, in Bedell, George, Eichi Kobayashi and Masatake Muraki (eds.), *Exploitations in Linguistics: Papers in Honor of Kazuko Inoue*. Kenkyusha: Tokyo. [reproduced as Kuroda (1992: chapter 5 (pp. 183-221))].
- Kuroda, S.-Y. 1988. Whether we agree or not: A comparative syntax of English and Japanese. In Papers from *the Second International Workshop on Japanese Syntax*, ed. [reproduced as Kuroda (1992: chapter 2 (pp. 78-113))].
- Kuroda, S.-Y. 1992. *Japanese syntax and semantics: collected papers*. Dordrecht: Kluwer Academic Publishers. William J. Poser, 103-143. Stanford, Calif: CSLI Publications.
- Kuroda, S-Y. 2005. *Nihongo-kara mita seiseibunpou. (Generative grammar from the perspective of Japanese)*. Tokyo: Iwanami.

- Lakoff, G. 1970. *Irregularity in syntax*. New York: Holt.
- Landau, I. 1999. Possessor raising and the structure of VP. *Lingua* 107, 1-37.
- Lappin, S., R.D. Levine, and D.E Johnson. 2001. The revolution maximally confused. *Natural Language & Linguistic Theory* 19, 901-919.
- Larson, R. 1988. On the double object construction. *Linguistic Inquiry* 19, 335-391.
- Larson, R. 1990. Double object revisited: replay to Jackendoff. *Linguistic Inquiry* 21, 589-632.
- Lasnik, H. 1999. On feature strength: Three minimalist approaches to overt movement. *Linguistic Inquiry* 30, 197-217.
- Lasnik, H., and M. Saito. 1984. On the nature of proper government. *Linguistic Inquiry* 15, 235-289.
- Levin, B. 2010. The semantic bases of Japanese and Korean ditransitives. In *Conference handout of the 20<sup>th</sup> Japanese/Korean linguistics conference*.
- Levin, B. 1993. *Verb classes in English*. Cambridge, MA: MIT Press.
- Levin, B., and M. R. Hovav. 1995. *Unaccusativity*. Cambridge MA: MIT press.
- Levin, B., and M. R. Hovav. 2005. *Argument realization*. Cambridge: Cambridge University Press.
- Levine, D. R., and G. M. Green. 1999. *Studies in contemporary phrase structure grammar*. Cambridge: Cambridge UP
- Manning, D. C., I. A. Sag, and M. Iida. 1999. The lexical integrity of Japanese causatives. In *Studies in contemporary phrase structure grammar*, eds. Levine, D. R., and G. M. Green, 39-79. Cambridge: CUP.
- Maling, J. 2001. Dative: the heterogeneity of the mapping among morphological case, grammatical functions, and thematic roles. *Lingua* 111, 419-464.
- Maling, J., and S. Kim. 1992. Case assignment in the inalienable possession construction in Korean. *Journal of East Asian Linguistics* 1, 37-68.
- Marantz, A. 1984. *On the nature of grammatical relations*. Cambridge, MA: MIT Press.
- Marantz, A. 1993. Implications of asymmetries in double object construction, in *Theoretical Aspect of Bantu Grammar*, ed. S. Mochombo, 113-150. Stanford, California: CSLI Publications.
- Matsuda, Y. 1997. A syntactic analysis of focus sentences in Japanese. In *Proceedings of the 8<sup>th</sup> student conference in linguistics (SCIL8)*, ed. Benjamin Bruening, 291-310. Cambridge, MA: MITWPL.
- Matsumoto, Y. 1998. A reexamination of the cross-linguistic parameterization of causative predicates: Japanese perspectives. In *Proceedings of the LFG98 Conference*, eds.

- Butt, M., and T. H. King, 1-16
- Matsuoka, M. 2003. Two types of ditransitive constructions in Japanese. *Journal of East Asian Linguistics* 12, 171-203.
- May, R. 1985. *Logical Form*. Cambridge, MIT: The MIT Press.
- McCawley, J. D. 1968. Lexical insertion in a transformational grammar without deep structure. In *4<sup>th</sup> regional meeting of CLS*, eds. B.J. Darden et al., 71-80.
- McCloskey, J. 1997. Subjecthood and subject positions. In *Elements of grammar*, ed. L. Haegeman, 197-235. Dordrecht: Kluwer Academic Publishers.
- McGinnis, M. 2008. Applicatives. *Language and Linguistics Compass* 2, 1225-1245.
- Mihara, K., and K. Hiraiwa. 2006. *Shin nihongo no togo kozo (Japanese syntax (a new edition))*. Tokyo: Syouhakyusa.
- Miyagawa, S. 1984. Blocking and Japanese causatives. *Lingua*, 177-207.
- Miyagawa, S. 1989. *Structure and case marking in Japanese*. *Syntax and semantics* 22. Academic Press: San Diego, California.
- Miyagawa, S. 1996. Word order restrictions and nonconfigurality. In *Proceedings of Formal Approaches to Japanese Linguistics 2*, (also In *MIT Working Papers in Linguistics* 29), 117-142.
- Miyagawa, S. 1997. Against optional scrambling. *Linguistic Inquiry* 28, 1-25
- Miyagawa, S. 1999. Causatives. In *The handbook of Japanese linguistics*, ed. N. Tsujimura, 236-268. Oxford: Blackwell.
- Miyagawa, S. 2005. Locality in syntax and floated numeral quantifiers in Japanese and Korean. *Proceedings of the 14<sup>th</sup> Japanese and Korean linguistics conference, CSLI*, 1-14.
- Miyagawa, S. 2010. Blocking and causatives: Unexpected competition across derivations. *MITWPL. Ms*, 1-19.
- Miyagawa, S., and Koji, Arikawa. 2007. Locality in syntax and floating numeral quantifiers. *Linguistics inquiry* 38, 645-670.
- Miyagawa, S., and T. Tsujioka. 2004. Argument structure and ditransitive verbs in Japanese. *Journal of East Asian Linguistics* 13, 1-38.
- Miyagawa, S., and M. Saito. 2008. *The handbook of Japanese linguistics*. New York: Oxford University Press.
- Müller, G. 1998. *Incomplete category fronting. A derivational approach to remnant movement in German*. Netherlands: Kluwer Academic Publishers.
- Nunes, J. 1999. Linearization of chains and phonetic realization of chain links. In *Working minimalism*, eds. S.D. Epstein and N. Hornstein, 217-249. Cambridge MA: MIT Press.

- Oehrle, R.T. 1977. Reivew of semantics and syntactic regularity by G.M. Green. *Language* 53,198-208.
- O’Grady, W. 1991. *Categories and case*. Philadelphia: John Benjamins.
- Okutsu, K. 1981. Joutaihenka doosibun – iwayuru spray paint hyppalage-ni tsuite (On change of state constructions – the so-called *spray paint* hyppalage). *Kokugogaku (Japanese study)* 127, 21-33.
- Park, S. D., and J. Whitman. 2003. Direct movement passives in Korean and Japanese. Ms.
- Pesetsky, D. 1995. *Zero Syntax*. Cambridge, MA: MIT Press.
- Perlmutter, D. 1978. Impersonal passives and the unaccusative hypothesis. In *Proceedings of BLS* 4, 157-189. Berkeley, Calif.: BLS.
- Pinker, S. 1989. *Learnability and cognition: The acquisition of argument structure*. Cambridge MA: MIT Press.
- Poser, W. J. 2002. The double-*o* constrains in Japanese. Ms., University of Pennsylvania.
- Pylkkänen, L. 2002. *Introducing Argument*. Ph.D dissertation, MIT.
- Pylkkänen, L. 2008. *Introducing Argument*. Cambridge, MA: MIT Press.
- Rappaport H., and B. Levin. 1988. What to do with theta-roles. *Syntax and semantics* 21, 7-36. Academic Press: San Diego, California.
- Rappaport, M. H., and B. Levin. 1992. The lexical semantics of verbs of motion: the perspective from unaccusativity. In *Thematic structure: its role in grammar*, ed. IM Roca, 247-269 New York: Foris.
- Rappaport, M. H., and Beth, Levin. 2005. All dative verbs are not created equal. MS.
- Richards, N. 1999. Featural cyclicity and the ordering of multiple specifiers. In *Working minimalism*, eds. S.D. Epstein & N. Hornstein, 127-158. Cambridge MA: MIT Press.
- Rizzi, L. 1990. *Relativized minimality*. Cambridge, Mass.: MIT Press.
- Rizzi, L. 1986. On chain formation. In *Syntax and Semantics 19: The Syntax of Pronominal Clitics* ed. H. Borer, 65–96. Academic Press: New York.
- Rizzi, L. 1997. The fine structure of the left periphery. In *Elements of grammar: handbook of generative syntax*, ed. L. Haegeman, 281-337. Dordrecht: Kluwer Academic Publishers.
- Roberts, I. 2001. Who has confused what? More on Lappin, Levine and Johnson. *Natural Language & Linguistic Theory* 19, 887-890.
- Ross, J. R. 1967. *Constraints on variables in syntax*. Ph.D. dissertation, MIT.
- Roeper, T and M. Siegel. 1978. A lexical transformation for verbal compounds. *Linguistic Inquiry* 9, 199-260.

- Reuland, E. 2001. Confusion compounded. *Natural Language & Linguistic Theory* 19, 879-885.
- Sabbagh, J. 2008. Right Node Raising and Extraction in Tagalog. *Linguistic Inquiry* 39, 502-511.
- Sadakane, K., and M. Koizumi. 1995. On the nature of the “dative” particle *ni* in Japanese. *Linguistics* 33, 5-33.
- Saito, M. 1982. *Case-marking in Japanese: a preliminary study*. Ms., MIT.
- Saito, M. 1985. Some asymmetries in Japanese and their theoretical implications. Ph.D. dissertation, MIT.
- Saito, M. 1989. Scrambling as semantically vacuous A'-movement. In *Alternative conceptions of phrase structure*, eds. Baltin, M., and A. Kroch, 182-200. Chicago: University of Chicago press.
- Saito, M. 1992. Long distance scrambling in Japanese. *Journal of East Asian Linguistics* 1, 69-118.
- Saito, M. 2004. Japanese scrambling in a comparative perspective. *Studies in natural language and linguistic theory* 59, 143-163.
- Saito, M., and H. Hoji. 1983. Weak cross over and move  $\alpha$  in Japanese. *Natural language & linguistic theory* 2, 245-259.
- Saito, M., and K. Murasugi. 1999. Subject predication within IP and DP. In *Beyond Principles and Parameters*, eds. K. Johnson., and I. Roberts, 167-188.
- Sakai, H., A. Ivana and C. Zhang. 2004. The role of light verb projection in transitivity alternation. *English Linguistics* 21, 348-375.
- Sano, M. 1985. LF-movement in Japanese. *Descriptive and applied linguistics*. vol XVIII: 245-259.
- Schütze, C. 2001. On Korean “case stacking”: the varied functions of the particles *ka* and *lul*. *The linguistic review* 18, 193–232.
- Shibatani, M. 1972. Three reasons for not deriving ‘kill’ from ‘cause to die’ in Japanese. In *Syntax and semantics* 1, ed. Kimbell, J. P., 125-137. New York: Seminar Press.
- Shibatani, M. 1973. Semantics of Japanese causativization. *Foundations of Language* 9, 327-373.
- Shibatani, M. 1977. Grammatical relations and surface cases. *Language* 53, 789-809.
- Shibatani, M. 1978. *Nihongo no bunseki. (An analysis of Japanese: the method of generative grammar)*. Tokyo: Taishukan.
- Shibatani, M. 1990. *The languages of Japan*. Cambridge: Cambridge University Press.
- Sugioka, Y. 1984. *Interaction of derivational morphology and syntax in Japanese and*

- English*. Ph.D. dissertation, the University of Chicago.
- Tada, H. 1992. Nominative objects in Japanese. *Journal of Japanese Linguistics* 14, 91-108.
- Takano, Y. 1998. Object shift and scrambling. *Natural language & linguistic theory* 16, 817-889.
- Takano, Y. 2003. *Nominative objects in Japanese complex predicate constructions: a prolepsis analysis*. *Natural Language & Linguistic Theory* 21, 779-834.
- Takano, Y. 2008. Ditransitive constructions. In *The Oxford Handbook of Japanese Linguistics*, eds. S. Miyagawa and M. Saito: chapter 16, 423-455. New York: Oxford University Press.
- Takezawa, K. 1987. *A configurational approach to case-marking in Japanese*. Ph.D. dissertation, University of Washington.
- Takezawa, K. 1993. Secondary predication and locative/goal phrases. In *Japanese syntax in comparative grammar*, ed. N. Hasegawa, 45-77. Tokyo: Kuroshio.
- Tenny, C. 1994. Aspectual roles and the syntax-semantics interface. Dordrecht: Lluwer.
- Tomioka, S., and C-Y Sim. 2005. The event semantic root of inalienable possession. Ms., University of Delaware.
- Toribio, A. J. 1990. Specifier-head agreement in Japanese. In *Proceedings of WCCFL 9*, 535-548. Stanford, Calif.: SLA.
- Ueyama, A. 1998. Two types of dependency. Ph.D. dissertation, University of Southern California.
- Ura, H. 2000. *Checking theory and grammatical functions in universal grammar*. Oxford university press: New York.
- Ura, H. 2001. Case. In *The handbook of contemporary syntactic theory*, eds. Baltin, M and C. Collins, 334-373. Oxford: Blackwell.
- Yatsushiro, K. 1998. Structure within VP in Japanese. Ms.
- Yatsushiro, K. 2003. VP internal scrambling. *Journal of East Asian Linguistics* 12, 141-170.
- Watanabe, A. 1992. Subjacency and s-structure movement of wh-in situ. *Journal of East Asian Linguistics* 1, 225-299.
- Watanabe, A. 1993. *Agr-based case theory and its interaction with the A-bar system*. Ph.D. dissertation, MIT.
- Wexler, K., and P. Culicover. 1980. *Formal principles of language acquisition*. Cambridge, MA: MIT Press.
- Williams, E. 1980. Predication. *Linguistic Inquiry* 11, 203-238.

- Yang, D. C. 1999. Unordered Merge and its Linearization. *Syntax* 2, 38-64.
- Yoon, J-M. 1997. The Argument structure of relational nouns and inalienable possessor constructions in Korean. *Language Research* 33, 231-264.
- Zarnen, A., J. Maling, and H. Thráinsson. 1985. Case and grammatical functions: the Icelandic passive. *Natural Language & Linguistic Theory* 3, 441-483.
- Zushi, M. 1992. The syntax of dative constructions in Japanese. Ms. McGill University.
- Vermeulen, R. 2005. External possession in Korean. In *ULCWPL* 17, 175-213.