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**Relationships between Universal Tendencies and Typological Contrasts
in Japanese-English Interlanguage**

by

Midori Hayashi, B.A.

A thesis submitted to:

the Faculty of Graduate Studies and Research

in partial fulfillment of

the requirements for the degree of

Master of Arts

School of Linguistics and Applied Language Studies

Carleton University

Ottawa, Ontario

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acceptance of the thesis***

***The Relationship between Universal Tendencies and Typological Contrast in Japanese-
English Interlanguage***

submitted by Midori Hayashi

***in partial fulfilment of the requirements for
the degree of Master of Arts***

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ABSTRACT

This thesis investigates what linguistic factors contribute to making the Japanese-English interlanguage non-native like. A typological approach is employed and two typological contrasts between Japanese and English were focused on: Topic-Prominent languages (Japanese) and Subject-Prominent languages (English) (Li and Thompson, 1976), and the contrast in the set of thematic relations that map onto a transitive structure in English compared with the set of the relations in Japanese. This second contrast was also exemplified with reference to a transitivity scale (Hopper and Thompson, 1980).

The informants are 15 Japanese, 9 Spanish, 5 Arabic, and 2 Farsi students, and the tasks that they were involved in were oral narratives and description of pictures. By comparing the Japanese group to the groups with different language backgrounds, whether observed difficulties result from L1 typological influences or universal tendencies was illuminated.

The analysis revealed that, as far as the first contrast concerned, the Japanese-English interlanguage is more affected by L1 typological features. At the same time, it was also suggested that topic-comment organization is a universal developmental feature at earlier stages. For the second contrast, the typological contrast was not influential; what was more influential seems to be a universal tendency to employ a transitive structure to describe events high in transitivity, and L1 lexical influences.

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TABLE OF CONTENTS

Abstract	iii
Acknowledgements	iv
 1. Introduction	 1
1.1. History of SLA Research	1
1.2. Two Contrastive Approaches to SLA	5
1.2.1. Typological Approach	6
1.2.2. UG Approach	8
1.3. On the Term <i>Transfer</i>	9
1.4. Research Questions	10
 2. Literature Review	 13
2.1. Typological Contrast I	13
2.1.1. Topic-Prominent Languages and Subject-Prominent Languages	13
2.1.2. Characteristics of TP Languages	14
2.1.3. Differences between Topics and Subjects	16
2.1.3.1. Characteristics of Topics	16
2.1.3.2. Characteristics of Subjects	18
2.1.4. Historical Background: Development of Topics into Subjects	20
2.1.5. Typological SLA Research Based on the Contrast between TP Languages and SP Languages	 22
2.1.5.1. Discussion	27
2.1.6. Conclusion	30
2.2. Typological Contrast II	31
2.2.1. What is Transitivity	31
2.2.2. Transitivity Encoded in Japanese	33
2.2.3. Differences between English and Japanese in Encoding Transitivity	35
2.2.4. Historical Background: Development of Languages and Transitivity ...	37
2.2.5. Transitivity and L1 Acquisition Research and its Implication for SLA ..	41

2.2.6. Conclusion	44
3. Methods	46
3.1. Informants	46
3.1.1. Proficiency Levels	46
3.1.2. Language Background	50
3.2. Typological Contrast I	51
3.2.1. Task A: Oral Narratives	51
3.2.1.1. Procedure	53
3.2.2. Task B: Picture Description	54
3.2.2.1. Procedure	54
3.3. Typological Contrast II	55
3.3.1. Picture Description	55
3.3.1.1. Categories and Target Sentences	56
3.3.1.2. Procedure	59
3.4. Pilot Studies - Problems with Drawing Pictures	59
4. Results: Typological Contrast I	60
4.1. Evidence for Influence from the Category of Topic	63
4.1.1. Use of the Copula Verb as a Topic Marker	63
4.1.1.1. Criteria	63
4.1.1.2. Results	63
4.1.1.3. Examples	68
4.1.1.4. Ambiguous Examples	72
4.1.2. Sentence Initial Locatives	76
4.1.2.1. Unexpected Outcome	77
4.2. Zero Anaphora	80
4.3. Avoidance of Indefinite NPs as Subject	83
4.3.1. Overuse of Dummy Subjects	83
4.3.1.1. Overuse of <i>There</i>	83
4.3.1.2. Overuse of Extraposed Dummy <i>It</i>	85

4.3.2. Comparison on Use of Indefinite Subject (Oral Narratives)	86
4.3.2.1. Criteria	86
4.3.3. Comparison on Use of Indefinite Subject (Pictures)	94
4.3.3.1. "Somebody is knocking on the door".	94
4.3.3.2. "Nobody came to his birthday party".	95
4.3.3.3. "Many people came to her party".	96
4.3.3.4. "A butterfly landed on his head".	97
4.3.3.5. "An apple hit his head".	98
4.3.3.6. "An alien arrived on the earth".	101
 5. Results: Typological Contrast II	 102
5.1. Prototypical Transitive Sentences	
(+ Animacy, + Volitionality, + Kinesis, + Affectedness of O)	
[Actor (+ Volition) + V + Patient]	104
5.1.1. Avoidance and Non-Native Tendencies	105
5.1.2. L1 Influence	105
5.1.3. Summary	105
5.2. Less Prototypical Sentences	
(+ Animacy, - Volitionality, + Kinesis, + Affectedness of O)	
[Actor (- Volition) + V + Patient]	105
5.2.1. "John hit his head".	106
5.2.1.1. Avoidance and Non-Native Tendencies	108
5.2.1.2. L1 Influence	109
5.2.2. "Mary hurt her knee".	110
5.2.2.1. Avoidance and Non-Native Tendencies	111
5.2.2.2. L1 Influence	112
5.2.3. "John dropped the cup".	114
5.2.3.1. Avoidance and Non-Native Tendencies	115
5.2.3.2. L1 Influence	116
5.2.4. "Mary burnt the meat".	117
5.2.4.1. Avoidance and Non-Native Tendencies	118

5.2.4.2. L1 Influence	119
5.2.5. Summary	120
5.3. Less Prototypical Transitive Sentences	
(+ Animacy, - Volition, + Kinesis, - Affectedness of O)	
[Actor (-Volition) + V + Location (-Affected)]	121
5.3.1. "Mary crossed the street".	122
5.3.1.1. Avoidance and Non-Native Tendencies	123
5.3.1.2. L1 Influence	124
5.3.2. "John left the house".	125
5.3.2.1. Avoidance and Non-Native Tendencies	126
5.3.2.2. L1 Influence	127
5.3.3. "Mary entered the restaurant".	128
5.3.3.1. Avoidance and Non-Native Tendencies	129
5.3.3.2. L1 Influence	129
5.3.4. "John reached the top of the mountain".	130
5.3.4.1. Avoidance and Non-Native Tendencies	131
5.3.4.2. L1 Influence	132
5.3.5. Summary	133
5.4. Less Prototypical Transitive Sentences	
(- Animacy, - Volition, + Kinesis, + Affectedness of O)	
[Instrumental (Location) + V + Patient]	134
5.4.1. "The stone broke the window".	135
5.4.1.1. Avoidance and Non-Native Tendencies	136
5.4.1.2. L1 Influence	137
5.4.2. "The key opened the treasure box".	138
5.4.2.1. Avoidance and Non-Native Tendencies	139
5.4.2.2. L1 Influence	140
5.4.3. "The rain washed the cars".	142
5.4.3.1. Avoidance and Non-Native Tendencies	143
5.4.3.2. L1 Influence	144
5.4.4. "The leaves changed color".	145

5.4.4.1. Avoidance and Non-Native Tendencies	146
5.4.4.2. L1 Influence	147
5.4.5. Summary	148
5.5. Less Prototypical Transitive Sentences	
(+ Animacy, - Volition, - Kinesis, - Affectedness of O)	
[Experiencer + V + Theme (- Affected)]	149
5.5.1. "Mary can see the singer".	150
5.5.1.1. Avoidance and Non-Native Tendencies	150
5.5.1.2. L1 Influence	152
5.5.2. "John heard the noise".	152
5.5.2.1. Avoidance and Non-Native Tendencies	153
5.5.2.2. L1 Influence	154
5.5.3. "Mary knows the answer".	156
5.5.3.1. Avoidance and Non-Native Tendencies	157
5.5.3.2. L1 Influence	157
5.5.4. "John needs glasses".	158
5.5.4.1. Avoidance and Non-Native Tendencies	159
5.5.4.2. L1 Influence	159
5.5.5. Summary	161
5.6. Less Prototypical Transitive Sentences	
(+ Animacy, - Volition, - Kinesis, - Affectedness of O)	
[Location (+ Animacy) + Have + Theme (- Affected)]	162
5.6.1. "Susan has three children".	163
5.6.1.1. Avoidance and Non-Native Tendencies	164
5.6.1.2. L1 Influence	164
5.6.2. "John has a fever".	165
5.6.2.1. Avoidance and Non-Native Tendencies	166
5.6.2.2. L1 Influence	166
5.6.3. "John has a broken leg".	167
5.6.3.1. Avoidance and Non-Native Tendencies	168
5.6.3.2. L1 Influence	169

7. Conclusion	219
References	230
Appendix	241

Chapter 1

Introduction

1.1. History of SLA Research

The history of second language acquisition (SLA) research covers a relatively short period of about 40 years or 50 years (Rutherford, 1988). Even though its history is short there is a great flux in research directions and assumptions (Gass, 1988; 1996), but the role of first language (L1) influence has been one of the constant concerns (Odlin, 1989).

The history can be divided into three phases (Gass, 1988; 1996). The first one is from the 40's to the 50's and is represented by the work of Fries and Lado (Fries, 1945; Lado, 1957; for discussion, see Kellerman, 1977; Gass, 1988, 1996; Selinker, 1992). Their approach is called Contrastive Analysis (CA), which claimed that language learning is just like other forms of learning, a matter of habit formation (Towell and Hawkins, 1994; Huebner, 1983). It systematically compares the learner's L1 and the second language (L2) and predicts that where there is a difference between L1 and L2, the learner will transfer the feature of L1 into their interlanguage, which leads to errors. At the same time, where there is no difference, positive transfer will occur and learning will be facilitated. CA, which was developed based on the contemporaneous frameworks of behaviorism in the fields of psychology and structuralism in linguistics, was one of the earliest attempts to provide a theoretical account of transfer (for discussion, see Towell and Hawkins, 1994; Yip, 1995).

In the second phase, which began in the early 70's, researchers such as Dulay and Burt (1974) attacked the CA Hypothesis (CAH), pointing out that many errors that

learners made were not attributable to the L1. They examined SLA by children focusing on the acquisition order of English morphemes and found that the order of acquiring morphemes was very highly correlated to that of L1 learners of English. Based on this finding, they developed the Creative Construction Hypothesis (CCH). They claimed that SLA was not guided by L1 but by innate principles and predicted that L1 acquisition and SLA involve the same subconscious mechanism (Dulay and Burt, 1974; for discussion, see Gass, 1988, 1996; Selinker, 1992; Towell and Hawkins, 1994). Bailey, Madden, and Krashen (1974) also made a similar claim based on their research on adult SLA. Here the CCH minimized the influence of L1 on SLA. Thus, from the 40's to 70's the main direction of SLA research swayed from one extreme to the other. CA claimed that all L2 errors were attributable to L1, and CCH claimed that most of the L2 errors were the results of universal developmental sequences.

In the third phase, beginning in the late 70's, as more qualitative research was conducted, CCH in its extreme form was rejected by a number of researchers. L1 transfer was again considered to play an important role, but it was viewed as a cognitive and a mental activity that can affect the shape of learner's interlanguage in more subtle ways.

Kellerman (1977) claimed that transfer does occur in SLA but not always in obvious ways. He maintained that learners' perception of the distance between their L1 and the target language plays an important role in whether or not something will be transferred. He referred to this as the learners' psychotypology of their L1 and L2 (Kellerman, 1983). He examined lexical acquisition of English by L1 Dutch learners and came to the conclusion that learners consciously or subconsciously make a judgement about the distance between L1 and L2, and transfer a specific L1 feature into L2 when

they decide that L1 and L2 are somehow close. At the same time, he suggested that learners do not transfer when they perceive that there is a great difference between L1 and L2 and claimed that this has something to do with the degree of markedness of a given L1 structure.

Schachter (1974) and Kleinmann (1977) also denied CCH and claimed that CA was still a useful tool to predict learners' errors. Schachter (1974) examined the use of English relative clauses by learners whose L1s have different characteristics of relative clauses and observed a significant tendency by Chinese and Japanese learners to avoid using relative clauses. She concluded that they avoided relative clauses since they perceived that there was a great difference between their L1 and English in terms of relative clause structure and positioning. She claimed that only CA could predict this avoidance, as well as other obvious errors. Kleinmann (1977) also examined the use of several different English syntactic structures, such as passives and present progressives, by Arabic, Spanish and Portuguese learners. He also observed avoidance patterns in accordance with the difficulties that were predicted by CA.

Importantly, not only L1 influences but also universal developmental principles were considered to play an important role (Anderson, 1983; Zobl 1980a, b, c). Thus, in this third phase, people tried to determine what the relationship was between L1 influences and universal principles in SLA.

Corder (1983) is among them and his perspective on the relation between L1 and language universals is that L2 syntactic acquisition starts with a basic grammar that is universal to all interlanguages. The basic grammar increases in complexity and he calls this growing entity the "*complexificational continuum*". In this continuum, the mother

tongue plays a role in helping learners to discover new properties of the target language and facilitates learning where a specific L2 feature is similar to the L1.

Zobl (1980a, b, c) viewed transfer and developmental mechanism, which universally exist in interlanguage regardless of learners' L1, not as two opposing processes, but as processes that were interacting with each other. He stated that if L2 structural properties trigger certain developmental errors and if any of those were compatible with a certain L1 structure, transfer would be activated. Furthermore, if an L1 structure more closely conforms to natural acquisitional principles (Slobin (1973)'s operating principles. e.g. "*Underlying semantic relations should be marked overtly and clearly*"), transfer will be facilitated. These transferred elements may affect a learner's interlanguage for a longer period of time than developmental errors that are not congruent with the L1. Similarly, Anderson (1983) proposed the Transfer to Somewhere Principle (TTS), which claimed that transfer occurs in conjunction with natural acquisitional processes. He suggested further constraints on transfer and one of them being L2 input; transfer may occur if L2 input contains the potential to lead learners to (mis-)analyze a certain structure that has the same structure as the L1. In such transfer, free, invariant, and functionally simple morphemes in L1 that are congruent with L2 will be given a preference to transfer. He suggested that if two or more conditions are met for transfer, the errors which result from the transfer may persist longer.

In summary, in the third phase, which has lasted up until now, CA was again considered to be an important tool for understanding the mechanism of SLA. As Rutherford says (1983, p. 358):

From the collective research in L2 acquisition, it is possible to extract convincing evidence in support of two interlanguage tendencies as an either/or proposition.

They are the tendency for interlanguage development to proceed along lines that are common to all language learners and the tendency for any interlanguage to be shaped by features of the learner's mother tongue.

This is still the main stream view in current SLA research, and many researchers have tried to discover how L1 and universal principles interact with each other. Although each theory has its own characteristics and uniqueness, there seems to be a wide agreement to that the relationship between universal principles and L1 holds the key to understanding SLA phenomena.

In the next section, I will introduce two contrastive approaches that SLA researchers employ in examining the interaction between L1 and universal principles. These have evolved since the 80's based on two different theories in the field of general linguistics.

1.2. Two Contrastive Approaches to SLA

In order to examine the relation between L1 and universal principles, SLA researchers have employed two different theoretical frameworks (Hyltenstam, 1986). One is typology, which goes back to the work of Greenberg (1963). What he did was to establish a word order typology and assert that there are two different types of language universals: statistical universals and implicational universals. Statistical universals show a tendency, such that when a language has a feature A, then it is likely to have B as well (e.g. SOV languages tend to have postpositions). Implicational universals indicate that if a language has a certain feature C, it must have feature D as well, but not vice versa (e.g. if a language allows an object NP to be relativized, relativization of a subject NP must

also be allowed, but the reverse needs not be the case (Keenan and Comrie, 1977). This is related to the notion of markedness, which I will explain later.

The other framework is Universal Grammar (UG) theory, which goes back to the work of Chomsky (1965). UG is a set of abstract principles that children are assumed to know innately and that allows them to acquire language quickly with little evidence from input. UG contains two kinds of principles. One is a set of absolute principles that are supposed to be shared by all languages. The other principles are the parameters (Chomsky, 1981), which allow for different options, such as the position of head of the phrase.

1.2.1. Typological Approach

The researchers who take this approach make use of theories of typology in SLA research. They make the following four assumptions about the relationship between universals and interlanguage (Hyltenstam, 1986):

- 1) Interlanguages are natural languages in that they are subject to constraints related to language universals.
- 2) L2 data are valid data in the search for language universals.
- 3) The order of acquisition for structures follows markedness conditions as defined either in the transformational approach or in the Greenbergian approach.
- 4) The structural character of interlanguages is determined by the typological differences between languages at a general level.

Eckman (1977) is another one of the first researchers who defended the CA.

However, he maintained that CA needed to be revised to include the notion of markedness so that researchers could predict more accurately where learners' difficulties will occur. In this discussion, markedness means that: *A phenomenon A in some language*

is more marked than B if the presence of A in a language implies the presence of B: but the presence of B does not imply the presence of A. He proposed the Markedness Differential Hypothesis (MDH). This hypothesis claimed that there are number of potential difficulties predicted by CA, but only some of them will actually cause difficulties, and these will be areas of difficulty as determined by markedness relations. For example, German allows only voiceless obstruents in word final position while English allows both voiced and voiceless ones. German learners of English have more difficulty in learning voiced obstruents in the word final position in English than English learners of German learning the rule that only voiceless obstruents are allowed in word final position in German. The MDH explains this one-way learning difficulty on the basis that the occurrence of voiced obstruents in word final position is the most marked position for the voicing.

Another typological approach makes use of the concept of language types similar to Geenberg's word order types (e.g. English is a S(subject) V(verb) O(object) language, and Japanese is a SOV language). This approach predicts that the typological nature of the learners' L1 (and L2) will characterize learners' interlanguage (Hyltenstam, 1986). Schachter and Rutherford (1979) are researchers who made use of this approach and proposed that the typological organization of sentence structure in L1 has a shaping influence on learners' interlanguage. The typological contrast that this research was based on is the one between topic-prominent languages vs. subject-prominent languages (Li and Thompson, 1976). They examined the English interlanguage of Japanese and Chinese learners (both languages are topic-comment languages) and found that both of the groups have a tendency to overuse dummy subjects. They attributed this phenomenon to the

influence of the category of topic in learners' L1 on learners' interlanguages; learners use dummy subjects so that they can avoid having indefinite or generic subjects at the beginning of the sentence, since topics, which usually are placed at the beginning of sentence, have to be definite and referential (for a similar observation, see Zobl, 1989).

1.2.2 UG Approach

In the early 80's, along with the above typological approaches to SLA, a number of researchers approached the mechanism of SLA from the perspective of Universal Grammar (UG) theory. UG is assumed to be part of the innate language faculty proposed to account for both the relatively limited diversity of attested languages and the relative speed and uniformity of primary language acquisition (Eckman, 1988). UG theory claims that UG puts limits on the forms of world languages, which allows children to acquire their L1 with little evidence from input. There has been a debate among SLA researchers whether or not SLA is guided by knowledge of UG, and a number of studies suggest that the learners do initially transfer their L1 parameter settings (Hulk, 1991; Clahsen & Muysken, 1986; duPlessis et al, 1987; White, 1985a, b; Schwarz and Tomseill, 1988). The question is how learners reset L1 parameters, or activate new parameters, which do not exist in their L1. This is called the learnability problem.

The Principles and Parameters model has attracted a number of researchers and they have attempted to account for the diversity of languages on the basis of parametric options. In this model, universal principles are equated with UG, a set of innate principles, which puts limits on linguistic variation. On the other hand, in the typological approach, universals are always empirically extracted from data of many languages. These two approaches are said to be mutually exclusive, but as far as SLA research is

concerned, their practitioners share the same goal of predicting interlanguage development based on L1 specific features and universal principles (Hawkins, 1985).

1.3. On the Term *Transfer*

The definition of *transfer* has been a matter of controversy. Corder (1983) argued that the use of the term *transfer* was not appropriate. He suggested that the term *mother tongue influence* should be employed since the term *transfer* does not really denote many phenomena that are attributable to L1, such as avoidance (Schachter, 1974; Kleinmann, 1977). Kellerman and Sharwood Smith (1986) made a similar suggestion, and claimed that the term *transfer* should be replaced with *cross-linguistic influence*, since this covers a broader range of phenomena, such as effects of L2 on L1 (e.g. L1 attrition).

Throughout this paper, I would like to use the term, *L1 influence*, agreeing with Corder's view of transfer. When learners with a certain language background share certain interlanguage characteristics that are not present in the data from other L1 groups, it is fair to say that there is a L1 specific tendency. However, those L1 specific features do not always result in L1 like structures, as shown by the instances of avoidance of certain L2 structures. In this case learners have not really directly transferred anything from their L1, but one can see some influence of the L1 on learners' interlanguage. The reason why I modified the term proposed by Corder "*mother tongue influence*" to "*L1 influence*" is because the latter is shorter than the former. Furthermore, the term "*cross-linguistic influence*" is not appropriate for this thesis since the focus will not be extended to the domains of L1 attrition or language contacts of any sort, which Kellerman and Michael Sharwood Smith (1986) were trying to capture with it.

1.4. Research Questions

This thesis investigates the English interlanguage of Japanese learners and tries to determine 1) what makes Japanese learners' interlanguage non-native like, and 2) where those non-native features come from, whether universal principles of interlanguage development or L1.

The focus will be on two different typological contrasts between Japanese and English 1) that between topic prominence and subject prominence, and 2) that between transparent versus opaque mapping of thematic relations onto transitive sentence structure (Hawkins, 1985; Ikegami, 1991, 1995).

Topic-prominence is rather a syntactic and discourse pragmatic notion and its relation to SLA has been investigated by many researchers (Schachter and Rutherford, 1979; Rutherford, 1983; Fuller and Gundel, 1987; Zobl, 1989; Sasaki, 1990; Jin, 1994; Yip and Matthews, 1995). However, whether the features of topic-prominent languages in interlanguages are universal phenomena or specific to the interlanguage of topic-prominent language speakers is still a matter of controversy (Fuller and Gundel, 1987; Jin, 1994). The notion of transitivity is rather a semantic one (Halliday, 1968). It has not been applied to SLA yet, but I believe that it should be discussed more since many researchers in other fields of linguistics claim that the mapping relationship between the transitivity of events and syntactic structures is one of the most important factors for diachronic development of languages and development of L1 (Hopper and Thompson, 1980; Slobin, 1982; Givon, 1984a).

I named the approach based on the first typological contrast, "Typological Contrast I", and the other approach based on transitivity, "Typological Contrast II". By

taking these two different theoretical bases, I am hoping to show that analyses based on syntactic differences between L1 and L2, which seem to be predominant in current SLA research, are not sufficient and that more discursual, pragmatic and semantic factors need to be taken into consideration.

Out of the two different approaches mentioned earlier, the typological approach and the UG approach, the former will be employed in this present thesis since it allows me to investigate more subtle influences of the L1. As I mentioned before, it is reported that the topic-prominence in L1 will influence the English interlanguage in a way that is not apparent from the surface comparison between L1 and L2 (Schachter and Rutherford, 1979; Rutherford, 1983; Zobl, 1989; Yip and Matthews, 1995), and this would be difficult to detect by the parametric analysis which the UG approach features. Moreover, since semantic factors that regulate sentence structure will be examined, I believe that the typological approach is better suited for this purpose as well since the UG approach has difficulty incorporating subtle semantic factors.

I hope this thesis will make a contribution to current interlanguage studies by shedding light on the relationship among L1 influence, universals in development, and language universals (Gass, 1979).

In chapter 2, the theoretical backgrounds to the two different typologies will be presented along with SLA studies that have been conducted which have the same, or a similar focus as mine. In Chapter 3, the methods for the empirical investigation will be introduced, and the findings from it will be summarized in Chapter 4. In Chapter 5, the

implications of the results will be discussed, and the thesis will be concluded in Chapter 6.

Chapter 2

Literature Review

This chapter will be divided into two parts. The first part is going to be the theoretical background to Typological Contrast I and the other part is going to be to the Typological Contrast II. The structure of each section is more or less the same. First I will explain the typological contrast that is being discussed, and how the two languages, Japanese and English, differ in terms of the contrast. Then, I will briefly present the historical background to the contrast and discuss its implications for the present research. After that I will introduce those SLA studies that have been done on the issues that I am dealing with and I will present the hypothesis for my research questions.

2.1. Typological Contrast I

2.1.1. Topic-Prominent Languages and Subject-Prominent Languages

This typological contrast among the world languages, TP languages and SP languages, was established by Li and Thompson (1976). It had long been considered that the notion of subject was basic to sentence structure and was universal to world languages. However, they found that some languages were indeed better described by considering the concept of subject to be basic (e.g. English), while other languages can be more insightfully described by taking the notion of topic as basic (e.g. Chinese). They called the former Subject-Prominent (SP) languages and the latter Topic-Prominent (TP) languages. The structural difference between TP languages and SP languages can be clarified by the following English and Chinese examples:

SP language

1) John hit Mary.

(Subject) (Predicate) (Li and Thompson, 1976, p. 459)

TP language

2) Nei-xie shumu shu-shen da.

Those tree tree-trunk big.

Those trees, the trunks are big.

(Topic) (Comment) (Li and Thompson, 1976, p. 462)

Which type a language belongs to is not determined in a straightforward way. Li and Thompson (1976) speak of a continuum and the question is in which category, topic or subject, a language is more prominent.

According to them, a typical TP language is Chinese; however, Japanese is also widely recognized as one of the typical TP languages (Fuller and Gundel, 1987; Zobl, 1989; Sasaki, 1990)¹.

¹ Li and Thompson (1976) suggested that Japanese is a language that is prominent in both subject and topic pointing out that it has a "subject marker" besides a "topic marker". However, the NPs marked by the "subject marker" in Japanese are in fact not equivalent to the subject NPs as in English. One of the reasons is that NPs with "subject marker" in Japanese is not obligatory. For example, the Japanese sentence below that was cited in Li and Thompson (1976, p. 462), is unusual:

?Gakko wa, watashi ga isogashikatta
 School-TOP, I-SUB busy-PAST.
 School (topic), I was busy.

In this sentence, "*watashi ga*" should not be expressed unless the sentence means "*I was busy at school, but others had nothing to do*". If one intends to simply say "*I was busy at school* (whether others were busy or not is not a question)", "*watashi ga*" should not be expressed, as shown below, since it is usually obvious from the context.

Gakko wa, isogashikatta.
 School-TOP, busy-PAST
 School (topic), (I) was busy.

2.1.2. Characteristics of TP Languages

I would like to introduce more detail about the characteristics of TP languages, so that one can have a clear picture of what a TP language is like and in what way they are different from SP languages.

1. In TP languages, topics are overtly coded in the surface structure (Li and Thompson, 1976).

Since topic-comment is basic, topics are given a special status and overtly marked in the surface. For example, in some languages, such as Chinese, topics have to come in initial position. In some other languages, such as Japanese and Korean, topics are coded with an overt morphological marker.

2. TP languages allow double subject constructions to occur (Li and Thompson, 1976).

The term *double subject construction* refers to a sentence that has a topic and an NP marked as a nominative in the comment. This type of sentence does not seem to be allowed in SP languages.

- 3) Zo-wa, hana-ga nagai.

Elephant-TOP, nose-NOM long.

Elephants (topic), nose is long. (Mikami, 1960, p. 9)

3. TP languages do not have dummy subjects (Li and Thompson, 1976).

Since there is no pressure to fill the subject position as in SP languages, TP languages do not need dummy subjects.

4. In TP languages, the information that is obtainable from the context is usually expressed by null categories in a sentence (Huang, 1984).

Co-referential deletion is discursively controlled, whereas it is grammatically controlled in SP languages.

2.1.3. Differences between Topics and Subjects

Now the focus shifts from TP languages to the notion of topic. In this section the characteristics of topics are briefly presented and how they are different from those of subjects is discussed.

2.1.3.1. Characteristics of Topics

The following are the main characteristics of topics, as proposed by Li and Thompson (1976).

1. Topics should be definite.
2. Which NP should be the topic in the sentence is discursively determined, and is not be determined by the verb since topics are grammatically independent of the main clause (i.e. Topics are not part of the verb's argument structure).
3. Topics must remain in sentence initial position.²
4. Topics are not obligatory in sentences as long as they are understood from the contexts (Huang, 1984).

In order to make clear how topics function, some examples from Japanese will be presented below. The underlined parts are the topic of the sentences.

- 4) Kyou wa, ame da.
 Today-TOP, rain AUX.
 Today (topic), it is raining.

² Japanese sometimes allows the NPs marked by the topic marker to be in positions other than the beginning of the sentence. In that case, those NPs tend to have more of a contrastive function, as in the following example (Makino and Tsutsui, 1986):

Taro wa, tennis wa dekimasu.
 Taro-TOP, tennis-TOP can do.
 Taro (topic), (he) can play tennis (but not soccer).

- 5) Ashita wa, Yamada-san ga untenshu da.
Tomorrow-TOP, Mr. Yamada-NOM driver AUX.
Tomorrow (topic), Mr. Yamada is the driver.
- 6) Meron wa, takai.
Melon-TOP, expensive.
Melon (topic), it is expensive.
- 7) Tokyo wa, hito ga ooi.
Tokyo TOP, person-NOM many.
Tokyo (topic), people are a lot.)
- 8) Boku wa, unagi da. (Shibatani, 1994)
I-TOP, eel AUX.
I (topic), (what I will eat) is an eel.
- 9) Ane wa, gakkou ni itta.
Elder sister-TOP, school -to went.
My elder sister (topic), she went to school.

Indefinite NPs cannot be topics; therefore, the examples below are odd.

- 10) *Dare wa, heya o souji-shimashita ka?
*Who-TOP, room-ACC clean-PAST QUESTION
*Who (topic), cleaned the room?
- 11) *Shiranai hito wa, michi ni suwatte ita.
*Unknown person-TOP, street-in sitting exist-PAST.
*A stranger (topic), (he or she) was sitting on the street.

There seems to be no widely accepted definition of topics (Sasaki, 1990). The following are some definitions that have been proposed by different linguists.

“The part of the sentence which constitutes what the speaker is talking about is being called the topic of the sentence in the present work” (Hornby, 1971, p. 1976).

“The topic sets a spatial, temporal, or individual framework within which the main predication holds” (Chafe, 1976, p. 50).

I would like to take Chafe’s definition, since I agree with his argument that as far as topic-comment languages are concerned topics are not always what the sentences are about (Chafe, 1976). For example, sentence (4), which has an NP *Kyou (today)* marked

with a TP marker, is not precisely about today, but it is rather about today's weather.

Moreover, the definition has been used for many discourse analysis studies and proven to be useful (Sasaki, 1990). According to Chafe's definition, it follows that the topic NPs in sentences (4) (*Kyou (today)*) and (5) (*Ashita (tomorrow)*) function as temporal frameworks for the sentences, and in the sentence (7), the function of *Tokyo* is a spatial framework. In sentences (6), (8) and (9), *Meron (melon)*, *Boku (I)* and *Ane (my sister)* (respectively) may be the ones that correspond to the notion of individual framework.

In summary, the notion of topic is a discursial one, and which NPs should be the topic is discursively determined. Topic NPs are articulated when the speaker needs to set up the framework for what he or she is going to say; when the speaker thinks that the listener knows what the framework is, it does not have to be expressed.

2.1.3. Characteristics of Subjects

In the previous section, the characteristics of topics and how topics function in sentences were presented. Now I would like to briefly present the characteristics of subjects and show how subjects differ from topics, based on Li and Thompson (1976).

1. Subject NPs can be non-referential.
2. Subject NPs always have a selectional relation with predicates (dummy subjects are the exception), and can be identified through the verb agreement.
3. Subject NPs need not be at the beginning of the sentence (However, as far as English concerned, subject is coded at the beginning of the sentence).
4. Subject NPs are obligatory in sentences (Keenan, 1976).

The Japanese sentences that I used in the previous section are now translated into English in order to make the differences between the function of subjects and that of

topics clear (The parts underlined are the subjects of the sentences, and in the parenthesis is the topic in the original Japanese sentence).

4)'. Today it is raining. (Today)

5)'. Tomorrow Mr. Yamada is the driver. (Tomorrow)

6)'. Melons are expensive. (Melons)

7)'. In Tokyo, there are many people./ Tokyo has a lot of people. (Tokyo)

8)'. I will take eel. (I)

9)'. My sister went to school. (My sister)

10)'. Who cleaned up the room? (-)

11)'. A stranger was sitting on the street. (-)

As one may see from the above, there is a gap between what can be the subject and what can be the topic in a sentence. In 10', 11', indefinite NPs can be subjects, whereas they cannot be topics in Japanese. The dummy subjects in 1' (*it*) and 7' (*there*) do not exist in Japanese. Instead, Japanese has a temporal NP (*Ashita (Today)*) and a Locative NP (*Tokyo*) respectively.

However, it is also true that subjects are often thematic just like topics (Firbas, 1964, 1966; Chafe, 1976; Lehmann, 1976; Cole et al, 1980; Tomlin, 1986; Shibatani, 1991), and they coincide in sentences 5, 8 and 6 (for the sentence, "*Tokyo has a lot of people*"). It is natural that subjects still retain characteristic of topics, since many historical linguistic studies suggest that topics grammaticized into subjects over time in Indo-European languages (Li and Thompson, 1976; Chafe, 1976; Lehmann, 1976; Shibatani, 1991). Therefore, the contrast between TP languages and SP languages is not only a synchronic phenomenon, but also a diachronic one. However, the notion of subject

is a grammatical one, and cannot be identified thoroughly either semantically or pragmatically. Indeed subjects can take on the role of topics, but not always (Firbas, 1964, 1966; Tomlin, 1986; Shibatani, 1991). Similarly, subjects are often agents, but there are many other cases where they are not (Hawkins, 1985; Tomlin, 1986; Shibatani, 1991). Moreover, subjects sometimes carry none of those characteristics (e.g. dummy subjects). Therefore, I believe that the best way to distinguish subjects from topics is to look for the syntactic cues, such as subject-verb agreement and binding a gap in a coordinated clause (e.g. I ate the banana and (I) threw away the skin.).

In the next section, I would like to present some studies that show how topics developed into subjects in Indo-European languages in order to clarify diachronic and synchronic relationships between topics and subjects.

2.1.4. Historical Background: Development of Topics into Subjects

Lehmann (1976) is one of the researchers who claimed that SP languages developed from TP languages. He traced back the history of Indo-European languages and proposed that early stages of Indo-European languages were characterized by the features of TP languages, which were proposed by Li and Thompson (1976). For example, in early Indo-European languages, such as Vedic and Hittite, typical clause patterns were verb-final, and subject NPs did not have any selectional relation with a verb in a predicate. In addition, dummy subjects were not developed yet, therefore natural phenomena, such as *rain*, *snow*, were expressed without overt subjects. He claimed that these constituted evidence that Indo-European languages used to be TP languages. He also suggested that subject-verb agreement was brought about with this development,

which indicates that the syntactic ties between predicates and subjects NPs became stronger.

Then one may wonder by what process a TP language has become a SP language. This question was approached by Shibatani (1991). He examined the grammaticization process whereby topics turn into subjects by examining Philippine languages, including Tagalog and Cebuano, which, he claimed, are in transition from TP into SP languages. In Philippine languages, there are topic markers and actor markers, where the two distinct functions, a topic and an actor, are kept separate by different morphological markers. This is similar to modern Japanese (*wa* (the topic marker) and *ga* (the subject marker)); however, the functions of topics between these two languages show striking differences. For example, while topicless sentences are common in Japanese, topics are obligatory in Philippine languages (except in a few cases, such as existential sentence and meteorological expressions). In addition, in Philippine languages, topic NPs can be non-referential, where there is no other topicworthy element in the sentences. Furthermore, the topic NPs control transformational syntactic processes, which are unique to grammatical subjects, such as binding a gap in a coordinated clause. Japanese topics do not have control over these phenomena. He claimed that these phenomena represent one of the stages of the grammaticization from topics into subjects; the topic NPs become obligatory elements and increasingly become linked to the semantic role of actor or agent in the sentence, and then they started controlling syntactic phenomena that are unique to subject NPs. His implication was that English also went through the same process.

In short, topics and subjects are diachronically correlated; the former developed into the latter. At the same time, this diachronic change of some languages of the world

such as Indo-European languages brought about the synchronic differences between contemporary topics and subjects: 1) Subjects cover a larger set of functions than topics in that subject NPs, which are typically agents, can include non-thematic NPs as well, 2) Subjects are syntactically integrated into the predicate, and 3) subjects have control over transformational syntactic processes in a sentence. Topics do not always. 4) Subjects are obligatory elements in sentences, but topics are not.

2.1.5. Typological SLA Research Based on the Contrast between TP Languages and SP Languages

Now I would like to introduce some studies that have pursued the influence of TP typology on the acquisition of SP languages. A number of researchers are involved in this particular area of SLA research (Schachter and Rutherford, 1979; Rutherford, 1983; Fuller and Gundel, 1987; Zobl, 1989; Sasaki, 1990; Jin, 1994; Yip and Matthews, 1995), and there are two contradictory findings. One set of claims is that the features of TP languages are universally observable regardless of the typology of the learners' mother tongue. The other set of claims is that the features of TP languages are transferable, and the interlanguage of learners whose mother tongues are TP languages will be influenced by TP features.

The first set of claims is represented by the work of Fuller and Gundel (1987). They claimed that all the early stages of interlanguage, regardless of the learners' mother tongue, have the features of TP languages. They examined oral narratives from native topic-comment language speakers (Japanese, Korean and Chinese) and those of non topic-comment language speakers (Spanish, Arabic, and Farsi) at an intermediate level of proficiency. They found that the interlanguage of both groups tends to have no dummy

subjects, no passives, no subject-verb agreement and zero anaphora, which are the characteristics of TP languages proposed by Li and Thompson (1976). This led them to a conclusion that the features of TP languages are also the features of English interlanguages, regardless of the type of L1.

Schumann (1987) examined the English interlanguage of five informants with different mother tongues (one Japanese, one Chinese, three Spanish). Their English proficiency level was lower than Fuller and Gundel's informants, at what Schumann called the Basilang stage (the earliest stage of L2 development). He examined ten-page texts from each of the five informants and found that, regardless of their L1, all the informants' speech followed a theme-rheme structure - the topic comes first and the comment follows in a sentence. Some of Schumann's examples follow:

12) Grandson – nice head, you know. (A Japanese: Tamiko. p. 147)
(My grandson, he's very bright, you know.)

13) And then my daughter, Patricia – oh, right now separate. (A Spanish: Anita. p. 149)
(And Patricia, right now she's separated from her husband.)

He came to the conclusion that the topic-comment structure is a universal feature at the early stages of English interlanguage.

Klein and Perdue (1993) also looked at early stages of interlanguage from learners with different L1 backgrounds. Their informants were L1 Italian: L2 German, L1 Italian: L2 English, and L1 Spanish: L2 French learners. They were tested on their arrival in their new country and the level of L2 proficiency was considerably low. Their oral samples, which were from retelling the story of a movie, were examined and three basic varieties were observed. They are "strong controller comes first", "NVN word order", and the last

one is “topics come first”. Here again, it was suggested that topic-comment structure was a universal feature of interlanguages at early stages.

Givon (1984b) proposed a universal developmental process for languages. According to him, pidgins and early interlanguages universally represent the “pre-syntactic mode (pragmatic mode)”. This is characterized as little use of grammatical morphology, loose conjunction, pragmatic government of word order, topic-comment structure and so on. As learning progresses, according to Givon (1984b), syntacticization occurs and the pragmatic mode is replaced by the “syntactic mode”. The syntactic mode is characterized by extensive use of grammatical morphology, tight subordination, subject-predicate structure, and so on. He claimed that the process from the pre-syntactic mode to the syntactic mode is a universal process, and that it will be seen in the development of child languages and in historical language change, as well as in interlanguage.

The other, opposing set of claims is that the features of TP languages are the result of transfer from L1. Schachter and Rutherford (1979) are the ones who examined interlanguages based on the typological contrast between TP languages and SP languages.

Schachter and Rutherford (1979) examined writing samples from learners whose L1s were Japanese and Chinese. The English proficiency level of their informants is relatively high; they were at an entrance examination for university and the writing samples came from the examination. Schachter and Rutherford (1979) found that L1 Mandarin speakers tend to use more serial verb constructions, and L1 Japanese speakers

overuse extraposed dummy *it*, and these resulted in unique errors. Examples follow (Schachter and Rutherford, 1979, p. 4):

14) There is a tire hanging from the roof served as their playground. (A Chinese informant)

15) It is a tendency that such friendly restaurants become less in the big city. (A Japanese informant)

Despite the fact that dummy subjects do not exist in TP languages, Schachter and Rutherford (1979) attributed this phenomenon to the influence of the learners' L1; what learners were doing was making use of dummy subjects so that they can avoid having indefinite NPs at the beginning of the sentence. They do this because they have difficulties placing indefinite NPs at the beginning of the sentence since they are used to having topics at the beginning, which are definite. This led them to the conclusion that topic-comment organization of L1 affected their construction of English syntax. Zobl (1989) examined writing samples of Japanese ESL learners at all kinds of proficiency levels and made a similar observation. Examples follow:

16) It was strange everything. (Zobl, 1989, p. 65)

17) Now there are no people die of hunger in Japan. (Zobl, 1989, p. 62)

He also attributed these phenomena to influences of L1 function, which is topic-comment structure, suggesting that the learners made use of dummy subjects in order to satisfy their pragmatic demands in sentences.

Rutherford (1983) claimed that TP typology is transferable. He examined writing samples from two groups of subjects; L1 TP languages (Mandarin, Korean, and Japanese) and L1 non-topic prominent languages (Arabic, Spanish), and he observed a striking

tendency to use sentence-initial locatives by Japanese and Korean speakers. Examples follow (Rutherford, 1983, p. 365):

18) Japan, just like other countries, we have distinctive history.

19) In America, there are many kinds of people. But Japan there are not many kinds.

He proposed that such sentences represented a L1 influence of locative topics from Japanese and Korean, since locatives are topicalized in existentials in both languages. He claimed that discourse phenomena such as TP typology are transferable, while the syntactic typological features, such as word order typology (e.g. SVO for English and SOV for Japanese and Korean (Greenberg, 1974)) are not.

Speaking of existentials, Sasaki (1990) investigated existential constructions in the English interlanguage of Japanese learners at all levels. She looked into their writing samples and found that earlier stages of their existential sentences were affected by topic-comment organization and a structure that Sasaki called “topic-comment type” was dominant. Examples follow (Sasaki, 1990, P. 350):

20) Taro’s school is twenty seven students.

21) In Taro’s school students are twenty seven.

She also observed that, as they proceeded towards higher proficiency, their existential constructions became more subject-predicate oriented; existentials with a dummy *there* are employed by the majority of informants. These findings suggested that the earlier stages of English interlanguage of Japanese speakers are characterized by L1-specific topic-prominent constructions.

Huebner (1983) collected oral samples for a year from an adult Hmong / Lao bilingual speaker named Ge, who had no formal instruction and was low in English proficiency level. He found that Ge's interlanguage was influenced by the structure of discourse, which followed a topic-comment organization. One of his findings was that *is* was used as a topic-comment boundary marker. An example is shown below (Huebner, 1983, p. 107):

22) Ow. In wan haws -n- piipow sliip, isa tuw handred.

Oh. In one house, people sleep, is two hundred.

(Oh, two hundred people slept in each house.)

Huebner attributed the topic-comment oriented structures to both the pragmatic function of interlanguage and the languages that he previously learned. Use of *is* as a topic marker by a TP language speaker was also reported in Sasaki (1987). She observed that the initial utterances of her nine-year-old Japanese speaker named Kazuko were more like word-for-word-translation-from-Japanese, and *is* as a topic marker is one of the major characteristics. An example follows (Sasaki, 1987, cited in Sasaki 1990, p. 340):

23) Shoes is tiger give.

(The boy gave his shoes to tiger.)

She attributed this phenomenon to the influence of the topic-comment structure of L1 Japanese.

2.1.5.1. Discussion

First of all, I would like to draw a line between the studies that examined the learners whose proficiency level was very low with no or very little control over L2

grammar, and the ones that looked at the learners with relatively secure grammatical knowledge.

Most of the ones claiming that TP features are universal at early stages of acquisition drew their data from learners whose proficiency levels were low. In the study by Klein and Perdue (1993), the informants had had a very little L2 instruction with little exposure to L2. In Schumann (1987), the informants' proficiency level was still at the Basilang stage. The examples from these studies showed striking similarities: topic-comment structures with a very little grammatical control. This corresponds to what Givon (1984b) called the "pre-syntactic stage". It may be possible to say that their interlanguages are TP because the learners do not have adequate grammatical means available so there is no way for them to resort to syntactic subject-predicate organization, which is grammatically governed. Among the group claiming universality of TP features at earlier stages, Fuller and Gundel (1987) looked at informants who were at a "lower intermediate" proficiency level at an ESL institute of a university. The term "lower intermediate" is ambiguous here; however, it is obvious from their examples that their informants had far better control over L2 grammar than those of Schumann (1987) and Klein and Perdue (1993). Therefore, the real contradiction seems to be rather between Fuller and Gundel (1987) and the studies claiming that TP features of L1 have influence on interlanguage, such as Schachter and Rutherford (1979), Rutherford (1983), Zobl (1989) and Sasaki (1990). She also looked at informants who seemed to have a fair control over L2 grammar.

In this present thesis, I would like to take the position that the typological organization of the L1 has a shaping influence on interlanguage. The reasons are twofold.

One is that Fuller and Gundel's (1987) analysis is somewhat superficial overall and it is fair to say that it lacks validity. For example, they took left-dislocation as an instance for coding of topics and found 14 occurrences of it in total in their oral samples: eight from Arabic speakers, three each from Spanish and Chinese speakers. They considered this result as evidence for topic-prominence in early interlanguage regardless of the type of L1. However, this is misleading, since it was not observed with Japanese and Korean speakers, and they needed an explanation of this. The number of informants being small for each group (two Chinese, four Japanese, five Korean, four Arabic, three Spanish, two Farsi) may have contributed to this discrepancy. The other reason is that Jin (1994) lends strong support to the claim that L1 typological organization has an influence on interlanguage. His question was that if the features of topic-prominence are universal in interlanguage regardless of L1, learners whose L1 is a SP language also should reveal TP features. He examined L1 English learners who were learning Mandarin Chinese at all levels and focused on their use of zero-anaphora and topic-comment structures. Based on the analyses of oral samples and writing samples, he found that his informants initially used more subject-predicate structures and overused pronouns where they were not required and progressed towards topic-comment structures as their proficiency levels went up. This led him to conclude that SP typology had a shaping influence on the learners' interlanguages. Hence the claim that the early stages of interlanguage are universally characterized by features of TP languages was cast in doubt.

Considering all the above, I would like to make the following assumption. When the L2 learners' proficiency levels are very low and they have inadequate control of L2 grammar, their interlanguage, regardless of the type of L1, may exhibit more of the

pragmatic mode, which corresponds to the characteristics of TP languages. Then once they reach a certain level of L2 proficiency, they reveal more influences from the L1 and eventually interlanguages of TP speakers will reveal TP features since they have acquired more grammatical means to reflect their mental representations from the L1.

2.1.6. Conclusion

As a conclusion to this section, I would like to state my hypothesis for the present research concerning typological influence from L1 Japanese into English interlanguage.

Hypothesis:

English interlanguage of Japanese ESL speakers will have more TP features than those of ESL speakers whose mother tongues are non-TP languages.

In order to test this assumption, I would like to focus on three things in analyzing the data.

1. Evidence for influence from the category of topic

I assume that they impose the topic-comment structure onto the subject-predicate structure, which may create a number of L1-specific problems. There are two criteria for interpreting a sentence to have the topic-comment organization. One is an employment of a copular verb as if it were a topic-marker (Huebner, 1983; Sasaki, 1987). The other is sentence initial locatives (Rutherford, 1983). I assume that Japanese learners will use more of these than non-TP language speakers.

2. The number of zero-anaphora

It can be assumed that Japanese ESL students may use more zero-anaphora (omission of arguments of the verbs), if their interlanguage is influenced by L1 typology,

since TP languages do not articulate the elements that can be retrieved from the context (Huang, 1994).

3. Definiteness of the subject NPs.

Using an indefinite subject NP at the beginning of a sentence may be more difficult for the Japanese learners, since the beginning of a sentence is supposed to be filled by a topic, which has to be definite (Li and Thompson, 1976). In order to avoid having an indefinite NP at the beginning of the sentence, they may make use of certain syntactic constructions or elements, such as dummy subjects

In terms of subjects, ESL speakers who are at intermediate to higher intermediate levels will be examined, for they are considered to have control over L2 grammar. The methods will be described in detail in Chapter 3.

Now I would like to move on to the literature review on transitivity and discuss how it relates to SLA.

2.2. Typological Contrast II

2.2.1. What is Transitivity

According to Hopper and Thompson (1980), transitivity is the effectiveness of an action. A number of researchers have claimed that transitivity is a central property of a language and has a number of universally predictable consequences in grammar (French, 1971; Jacobsen, 1979; Hopper and Thompson, 1980; Slobin, 1982). In other words, transitivity of events will surface in sentences according to a certain universal principle.

A transitive relationship can be represented as “actor-action-object” (French, 1971), and this is called a prototypical semantic transitive structure, which describes

activities “carried-over” or “transferred” from an agent to a patient (Hopper and Thompson, 1980). The following are some examples of prototypical transitive sentences from English which encode prototypical transitive events (Givon, 1984a, p. 97):

24) She smashed the glass.

25) He built a house.

26) They moved the barn.

According to Givon (1984a), an agent subject and a patient-of-change object are the two properties that a prototypical transitive verb takes. It is apparent that in sentences (24), (25), (26), the subjects are all agentive and the objects are the patients which undergo change-of-state. Importantly, it should be noted that the basic grammatical structure that encodes transitive events is Subject-Verb- (direct) Object (NP V NP) in English.

However, which of two events is more prototypical in transitivity than the other cannot be determined in a straightforward manner. Hopper and Thompson (1980) claimed that transitivity is a continuum, and the degree of transitivity is determined by a number of components, such as the number of participants in the events, kinesis (action or non-action), volitionality of the actions, affectedness of the object, and so on. The more components the sentence has, the more prototypical the event the sentence describes³. The following three sentences provide an illustration of different degrees of transitivity going from high to low:

↓ 27) He kicked a stone. (+kinesis, +volition, +affectedness of O)

28) He injured his leg. (+kinesis, -volition, +affectedness of O)

³ Which component is more dominant than the other in deciding degree of transitivity seems to vary judging by the samples in their study from different languages of the world (Hopper and Thompson, 1980).

29) He likes Jane.(-kinesis, -volition, -affectedness of O)

In other words, in examining the relationship between sentence structure and the transitivity of the events that are encoded in it, degree of transitivity should be taken into consideration. If the transitive structure is used to express more transitive events, then one can say that the sentence is more semantically transparent. On the other hand, if it is used for less transitive events, it is semantically less transparent. The above scale shows that different degrees of semantic transitivity can be mapped onto a syntactically transitive sentence. Thus it can be said that English allows a transitive sentence structure to express events low in transitivity, which results in the sentence being semantically less transparent and more opaque.

In short, transitivity of events is an important notion, since different languages have evolved their own structural devices to encode different degree of transitivity (Hopper and Thompson, 1980). What degree of transitivity of events can be mapped onto a transitive sentence structure seems to vary from language to language.

In the next section, I will discuss how different degrees of transitivity are encoded in sentences in Japanese and in English.

2.2.2. Transitivity Encoded in Japanese

Japanese has an overt case marking system, and each case marker is morphologically independent and is placed after the noun. The following are the three case markers in Japanese that I am going to mainly deal with in the present thesis.

Nominative marker (NOM)... *ga*

Accusative marker (ACC)... *o*

Dative marker / Locative marker (DAT / LOC)... *ni*

In addition to the presence of the accusative marker, there is another criterion for interpreting a sentence to be transitive, which is the morphology of verbs. Japanese verbs can typically fall into pairs of intransitive and transitive, and these are distinguished by different verb endings (Jacobsen, 1979; Makino and Tsutsui, 1986). Examples follow (Makino and Tsutsui, 1986):

yakeru (Intransitive: to burn by itself) / *yaku* (Transitive: to burn something)

aku (Intransitive: to open by itself) / *akeru* (Transitive: to open something)

kawaru (Intransitive: to change by itself) / *Kaeru* (Transitive: to change something)

tooru (Intransitive: to pass) / *toosu* (Transitive: to let somebody pass)

Verbs that end with *-su* as in *toosu* are always transitive since *-su* comes from a verb *suru* (*do*), which refers to a volitional human action (Kanaya, 2001). Furthermore, Kanaya (2001) suggested that verbs with *-eru* endings are always derivative, since they are semantically marked.

The problem is, these two different cues, the syntactic cues and the morphological cues, do not always interpret the same sentences as transitive. It seems that syntactic cues interpret a larger set of sentences as transitive, since there are cases where the accusative marker *o* is used with morphologically intransitive verbs. For example, *tobu* (*fly by itself*) is a morphologically intransitive verb but takes the accusative marker (The transitive counterpart to this verb is *tobasu* (*fly something*)). This is somewhat similar to the fact that the English syntactic cue, which is NP V NP structure, interprets sentences describing less transitive events as well as prototypical transitive events (Givon, 1984a).

Which cues are considered as criteria for determining whether a verb is transitive is still a matter of controversy, and is beyond the scope of this thesis. However, the question is, which cue better fits the purpose of this thesis, investigating the relationship between SLA and the way L1 and L2 encodes transitivity of events in syntactic structure. I would like to take syntactic ones as criteria for the sake of consistency; English does not have an overt morphological cue for interpreting a sentence as a transitive structure, and the only thing it has is a syntactic one. However, one should be aware that besides the syntactic cue, the morphology of verbs also signals transitivity in Japanese and that syntactic cues will identify a larger set of verbs as transitive than morphological cues will.

2.2.3. Differences between English and Japanese in Encoding Transitivity

According to McCawley (1976), there are many languages in the world that do not assign nominative case but dative case to the NP referring to a human who is unvolitionally / unself-controllably involved in a situation. She claimed that Japanese, besides Russian, is one of those languages. Examples follow:

30) Taro (ni) wa, dareka no ashioto ga kikoeta.

Taro-(DAT/LOC)-TOP, somebody's footstep-NOM hear-PAST.

(Taro heard somebody's footsteps.)

31) Masao (ni) wa, kane ga iru.

Masao-(DAT / LOC)-TOP, money-NOM be necessary.

(Masao needs money.)

32) Yamada-san (ni) wa, kotae ga wakatta.

Mr. Yamada-(DAT/LOC)-TOP, answer-NOM understand-PAST).

(Mr. Yamada understood the answer.)

The situations expressed in these sentences are very low in transitivity because humans are passively involved in the events. As one may have noticed, from (30) to (32), intransitive structures are used where two participants are involved, and the argument that acts as stimulus is marked by nominative case. On the other hand, in the English translations, a transitive structure is employed with human experiencers as subject.

Furthermore, according to the typological contrast among world languages between “Have-languages” and “Be-languages”, which was proposed by Isacenko (1974), Japanese is a Be-language since *be* (its equivalent) is employed for possessive constructions and intransitive structure is employed. Examples follow:

33) Masao ni wa, kuruma ga aru.

Masao-DAT/LOC-TOP, car-NOM be.

(Masao has a car.)

34) Yamada-san ni wa, musume ga iru.

Mr. Yamada-LOC-TOP, daughter-NOM be.

(Mr. Yamada has a daughter.)

One may tell from the English translations, English is a Have-language and *have* (or its equivalent) is employed in a transitive structure with the possessor as the subject (Isacenko, 1974). (This typological contrast will be explained in more detail from the perspective of historical change later in this chapter). Possession is not an action, rather a state, and it can be said that English is semantically more opaque than Japanese in terms of possessive sentences.

Hence, one claim consider that these Japanese sentences are relatively semantically transparent in assigning intransitive structures to express events that are low in transitivity, and that there is a tendency for English to prefer a transitive sentence structure to express different kinds of relations between verbs and their arguments (Ikegami, 1991,1995; Hawkins, 1985).

Now I would like to introduce some studies which have explored historical explanations to why these two distinctive ways of coding transitivity evolved.

2.2.4. Historical Background: Relationship between Development of Languages and Transitivity

One may wonder why Japanese and English are so different in coding the same events. The answer can be found in the development of fixed Subject-Verb-Object structure in English, which a number of researchers believe was brought about by loss of the morphological case marking system.

Hawkins (1985) claimed that in English the categories of subject and direct object have a greater semantic diversity than in German. In German, non-agentive subjects and non-patient objects are not common, but they are in English. For example, an English sentence, *I like the book*, is translated into German as *To-me pleases the book* (Hawkins, 1985, p. 56). He attributed this expansion of semantic relations that subjects and objects can have to the loss of the morphological case marking system in English, pointing out that Old English had an overt case system and impersonal structures were common, as in Modern German (for a similar argument, McCawley, 1976). He referred to a study by Kirkwood (1978) as a plausible explanation; the fixed word order of English, Subject-Verb-Object, sometimes conflicts with the universal pragmatic principle of theme-rheme

order. The conflict has been naturally resolved by allowing more semantic types of NPs, besides agentive NPs, to be subject and more semantic types of NPs to be direct object. This gave rise to, for example, a sentence with an experiencer subject and a stimulus object, *I like the book*.

In addition to the syntactic change, many researchers claim that a change in perception of events should be also considered (McCawley, 1976; Ikegami, 1991, 1995; Givon, 1984a). Particularly being concerned with the change from “impersonal” to “personal” constructions (e.g. From *To me, the book is pleasing* type of sentences to *I like the book*), McCawley (1976) rejected the explanation that dative experiencer NPs were confused as “subjects” due to SVO pattern pressure (Lightfoot, 1979; Kirkwood, 1978). She argued that the confusion theory has to explain why *me* was confused with *I* (van der Gaaf, 1904), where the morphological difference seems too significant to be confused. She claimed that there is a change in the perception of events from human as a recipient to human as a doer, and without this perceptual change among the users of English, the change from “impersonal” to “personal” constructions would not have occurred.

Givon (1984a) proposed the notion of metaphorical extension of prototypical events onto less-prototypical events. He suggested that metaphorical extension is a diachronic phenomenon in language; events low in semantic transitivity started being encoded with a transitive structure, since the events were construed as more prototypically transitive ones by the speakers over time. This resulted in an expansion of semantic transitivity in events from a prototypical one, and more events started being encoded with a transitive structure. For example, the sentence *She entered the house* is low in transitivity even though a transitive structure is assigned. Behind this, there is a

metaphorical extension from merely “moving into the house”, to dramatically altering the condition of the house from “empty” to “occupied”. He also referred to the fact that the subjects of verbs of cognition, sensation, and desiring used to take a dative case marking and an intransitive structure in the history of English. He suggested that this extension of a transitive structure onto more events can be explained in such a way that human NPs became more important in the events and the perceived object was construed as being more affected over time, and this perceptual diachronic change is reflected in the syntactic sentence structure.

As I previously mentioned, Isacenko (1974) proposed a typological contrast between Have-languages and Be-languages among world languages. English is a Have-language as well as French, whereas German, Czech, Russian and Polish are Be-languages. Japanese also fits the category of Be-languages. The former make use of *have* for various syntactic and semantic relations, such as periphrastic past tense (e.g. He has gone to Canada) and possession, but the latter do not have *have* or use it under only limited circumstances. It is well known that Have-languages developed from Be-languages, and the origin of the verb *have* is *hold* or *take*. This semantic change occurred widely in some Indo-European languages and affected the semantics of various relational verbs over time.

In addition, comparing Japanese to English, Ikegami (1991, 1995) claimed that English is more oriented toward actor-action-object structure. He also discussed that English has extended the actor-action-object schema to express events low in transitivity, which results in non-human NPs occurring in subject position of a transitive structure

acting as if they were humans. For example, it is possible to say *The key opens the door* in English. However, the Japanese equivalent of it given below is odd:

35) ?Kono kagi wa, doa o akemasu.

This key-TOP, door-ACC open-TRANSITIVE.

(The key opened the door.)

And it is more natural to use an intransitive sentence structure:

36) Kono kagi de, doa ga akimasu.

This key-INSTRUMENTAL, door-NOM open-INTRANSITIVE.

(With the key, the door opens.)

Personification of non-human NPs like this is not as common in Japanese (Ikegami, 1991, 1995). To support his argument, he introduced the following two quotations, from a Japanese author, Soseki Natsume (in Ikegami's translation), and English Japanologist, Basil Chamberlain (Ikegami, 1991).

Whenever I come across an instance of personification [of English, M.H.], I am nauseated by its artificiality and snobbiness.it looks as if a monkey is trying in vain to look like a feudal lord by placing a crown on his head (Natsume, 1906)

Another negative quality (of Japanese) is the habitual avoidance of personification ...Thus this language rejects such expressions as "the heat makes me feel languid", "despair drove him to commit suicide,"...etc. One must say, "being hot, I feel languid," "having lost hope, he killed himself"(Chamberlain, 1939).

Ikegami (1991, 1995) attributed this phenomenon to a preference in English for the actor-action-object construction and this schema has been extended to express a wider set of semantic relations over time. At the same time, it is also reported that personification is not common in German as well (Hawkins, 1985).

In summary, in English, a syntactically transitive structure is able to deviate from semantic prototype transitivity to a much greater extent than in Japanese, Russian, and

German. This means that English is semantically less transparent in terms of coding transitivity than those languages. I would like to suggest a typology of languages, which allows them to be placed on a continuum from semantically more transparent to semantically less transparent in terms of coding transitivity, with English at one end and Japanese, Russian and German towards the other end, as illustrated below:

2.2.6. Transitivity and L1 Acquisition Research and its Implication for SLA

There is not much SLA research that has looked at how the way of encoding transitivity of events in L1 influences the learners' L2 interlanguage. However, there are many L1 acquisition studies that have shown how important the notion of transitivity is in L1 acquisition. I would like to introduce some here and explore what implications they have for SLA.

French (1971) is one of the child language researchers who claimed that the early stages of L1 acquisition is best characterized by the semantic relationship, actor-action-object, rather than by a grammatical relationship⁴. He introduced a study by Gvozdev (1961) who looked at Russian children. Gvozdev (1961) found that they acquired the accusative case first and it was used only with NPs which were presented to be affected patients, while other object NPs which were low in degree of affectedness were not

⁴ This is not subscribed to by the most language acquisition researchers.

marked (e.g. an object of the verb, *read*). French (1971) concluded that the early syntax evolved from the actor-action-object relationship (Bowerman, 1973), and this congruence of perception and early syntax allowed children to know that “perceptual and linguistic signs share a common representational and organization system” (Osgood, 1971, cited in French (1971) p.132) (for similar discussions, see Halliday, 1973; Inhelder and Piaget, 1958).

Slobin (1982) is another child language researcher who has claimed that prototypical transitive events play a role in the early stages of L1 acquisition. He argued that the prototypical events provide an initial conceptual framework for early syntax. He also referred to a study (Schieffelin, 1979) that looked at the L1 acquisition of Kaluli, which marks agent NPs with an ergative suffix. The study showed that this ergative suffix was acquired early, by the two-word utterance stage. It also showed that, at the early stages, the suffix was used only with highly kinetic verbs such as *hit*, *grab* and so on, not with verbs such as *say* and *see*. He discussed how encoding prototypical events could be at the origin of an association between real life events and forms in language (Fillmore, 1975, 1977, cited by Slobin, 1982), and that children need to metaphorically extend the use of the transitive structure to become able to use it for less-prototypical events.

Pinker (1984) suggested the semantic bootstrapping hypothesis. This hypothesis predicts that children first acquire the semantic relation between agent of action, which is typically human, and patient of action, which is typically a concrete noun. The grammatical relations, subjects and objects, are inferred from the semantic relationship (French had a similar discussion. p.133). The difference between the semantic

bootstrapping hypothesis and Slobin's (1982) is that according to the semantic bootstrapping hypothesis, metaphorical extension is not necessary. What is necessary for the child is to generalize the category of subjects and objects to different events, which are not prototypically transitive.

However, it seems that it is still an open question why the prototypical transitive event is given such a special status, and other semantic relations are not. Possible answers would be that prototypical transitive events are perceptually salient and easy to understand for the child (French, 1971; Bowerman, 1973; Hopper and Thompson, 1980; Slobin, 1982) but I am not going into this particular detail in the present thesis.

Now one may wonder if there has been any SLA study conducted to examine the influence of coding transitivity of events in L1 on L2 interlanguage. I would like to introduce a study by Klein and Perdue (1993). They claimed that there is a semantic constraint on the utterance structure at the early stages: The NP with highest control comes first. The degree of control (of the controller) is an important notion here; a verb such as *hit* provides a strong asymmetry in terms of degree of control between the arguments of the verb, but a verb such as *see* does not. This corresponds to the notion of transitivity. They claimed that this semantic constraint is one of the most influential organizational principles on the interlanguage of learners at the early stages⁵.

It is unfortunate that there are not many SLA studies to be introduced here. However, the data from a number of L1 acquisition studies and the study by Klein and Perdue (1993) provides me some important insights. It can be said that:

⁵ Besides the semantic constraint, Klein and Perdue (1993) raised phrasal constraints (the basic ones being NP V NP, NP V, and NP copula PP/Adj./NP), and pragmatic constraints (Topic comes first).

1. Prototypical transitive events surface in a transitive sentence structure and this facilitates syntacticization of early utterances.
2. Children generalize or metaphorically extend the use of transitive structure to other semantic events, which are low in transitivity. Hence, children acquire semantically transparent form-meaning relationships first, less transparent ones later.
3. The prototypical transitive events also seem to be perceptually salient to adult L2 learners as well (French, 1971) and may play an important role in L2 acquisition.

However, it should be noted that there are still many things left to be questioned about the relationship between transitivity and SLA; Does the way L1 encodes different degrees of transitivity influence SLA or not? Or, are L2 learners similar to L1 learners in terms of acquisition of grammar, starting with describing prototypical events with transitive structure? Or are there some other factors which are specific to L2 learners?

2.2.7. Conclusion

I would like to conclude this section by stating my hypothesis:

Hypothesis:

Japanese learners will have more difficulties mapping transitive structure onto different semantic relations that a verb can enter into, since Japanese encodes semantic transitivity in a more semantically transparent way than English does.

In addition to the hypothesis, there are following two subhypotheses.

1. L2 learners may have trouble mapping a transitive structure onto events which are low in semantic transitivity. This may be universal at the very early stage of acquisition regardless of L1.
2. At a somewhat more advanced stages, the learner's interlanguage will be influenced by the way L1 encodes transitivity of events, since they have more grammatical means to reflect the L1's encoding of it in their interlanguage. This means that where there is a difference between L1 and L2 in terms of coding transitivity, learning will be hampered by it; where there is no difference, learning will be facilitated.

In the next chapter, I would like to introduce the methods employed in the investigation and clarify how I approach the issues that I raised.

Chapter 3

Methods

3.1. Informants

3.1.1. Proficiency Levels

All the informants are ESL students who were studying English as a second language at Carleton University. First of all, I would like to introduce the different proficiency levels that the Carleton ESL program has.

The students all went through a placement test. According to the test scores, they were placed in one of several classes. The classes are divided into six: IC 10, 15, 20, 25, 30, PPD (PPD is a mixed class with the level of IC 25 and 30. It is designed for the students who wish to learn English for non-academic purpose, while the other classes are designed for the students who wish to brush up their academic writing skills). My informants were volunteers from the IC 20, IC 25, and PPD levels, which are supposed to be intermediate levels.

The distribution of students from each level for both subject groups (Japanese /TP and non-TP / non-Japanese) was as follows:

1. 17 Japanese ESL students (the Japanese group): 6 from IC 20, 9 from IC 25, 2 from PPD
2. 16 ESL students whose mother tongues are non-topic comment languages (the Non-TP group): 5 from IC 20, 10 from IC 25, 1 from PPD

The distribution of the classes according to L1 is:

- 9 Spanish (2 from IC 20, 6 from IC 25, 1 from PPD)

- 5 Arabic (3 from IC 20, 2 from IC 25)
- 2 Farsi (2 from IC 25)

The students were almost evenly distributed for both of the groups. Therefore, it is fair to say that the English proficiency levels of both groups are more or less the same as far as the distribution of the students in each class is concerned.

It should be noted that it is very important in this thesis that the two groups have the same proficiency level in order to avoid a bias arising from a proficiency level difference. Hence, it was decided that the results of the proficiency test were taken as a criteria for the indication of the proficiency levels of informants for that purpose and the homogeneity should be statistically calculated. First of all, the two groups were compared by the averages (means) of the placement test.

All the informants have been numbered according to the score (e.g. Japanese 1 to be the one who has the highest score), so that it would be easier for readers to see the relationship between observed non-native tendencies and the scores on the informants' placement tests. Please refer to the following table below that shows the distribution of all the informants' total scores, means and standard deviations (Table 1).

Table 1. Total scores of the informants

Japanese group	Total score	Non-TP group	Total score
Japanese 1 (J1)	109 / 120	Non-TP 1(NT1) / Farsi 1 (F1)	118 / 120
J2	100	NT 2 / Spanish 1 (S1)	111
J3	95	NT 3 / S2	110
J4	95	NT 4 / S3	106.5

J5	95	NT 5 / S4	104
J6	94	NT 6 / F2	102.5
J7	90	NT 7 / S5	100
J8	90	NT 8 / S6	100
J9	90	NT 9 / Arabic 1 (A1)	99
J10	86	NT 10 / A2	97.5
J11	85	NT 11 / A3	96
J12	85	NT 12 / S7	91
J13	85	NT 13 / S8	87.5
J14	82.5	NT 14 / A4	87.5
J15	80	NT 15 / S9	81
J16	79	NT 16 / A5	81
J17	79		
N=17	Total 1519.5 $\bar{x} = 89.38$ s.d. 9.38	N=16	Total 1572.5 $\bar{x} = 98.28$ s.d. 10.64

It became apparent that the non-TP group has a slightly higher average score in spite of the almost equal distribution of the students in each class. In order to find out whether or not the difference between the two groups is statistically significant, the T-test, was employed. If the T-test finds that there is no significant difference between the means for both groups, the two groups will be treated as being statistically at the same proficiency level in this study. If it finds that there is a significant difference, then a statistical method called an ANCOVA (Analysis of Covariance) will be employed to

adjust the mean difference so that the two groups become comparable on the assumption that they have the same means for the total score of the placement test. This way the bias with observational data that the proficiency level difference would bring out will be corrected (Neter et al, 1996).

The results from the T-test is given below (Table 2) (SPSS (Statistical Package for the Social Sciences) was used):

Table 2. T-test Results on Mean Difference

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
SCORE	Equal variances assumed	1.077	.307	-2.720	31	.011	-8.8989	3.2721	-15.5724	-2.2254
	Equal variances not assumed			-2.696	27.891	.012	-8.8989	3.3003	-15.6604	-2.1374

In order for the T-test to be conducted properly, Levene's Test was first conducted to test the null hypothesis that the sample variances for each group are equal. The P-value in the column for the "Levene's Test for Equality of Variance" show that $P = .307$. Since significance level is fixed at 95%, the null hypothesis was satisfied ($P = .307 > .05$), which indicates that there is no significant difference between the two groups in terms of the sample variances.

On the assumption that the sample variances for each group are equal, the T- test was conducted. It shows that $t(31) = -2.720$ ($p = .011$); the null hypothesis that the means

of the total scores are equal for the two groups is rejected, which is interpreted that the proficiency level difference between the two groups is not ignorable. Therefore, ANCOVA was used in analyzing the data. The procedure will be shown in Chapter 4.

3.1.2. Language Background

The informants' language background information follows (Table 3).

Table 3. Language Background Information of the Informants (The numbers () are the number of the people).

	Age (years old)	Gender (M : F)	Country of origin	Length of formal English education in country of origin (years)	Chance to speak to native English speakers	Length of stay in Canada and other English speaking countries (months)	Chance to speak to native English speakers
Japanese group (N=17)	$\bar{x}$ =21.50 s.d., 3.70	2 : 15	Japan (17)	$\bar{x}$ =7.60 s.d., 1.78	Some (10) Very little (3) None (3)	$\bar{x}$ =5.10 s.d., 3.48	Many(8) Some(8) Very little (1)
Non-TP group (N=16)	$\bar{x}$ =26.13 s.d., 6.99	8 : 8		$\bar{x}$ =6.19 s.d., 3.84	Some (3) Very little (6) None (7)	$\bar{x}$ =5.31 s.d., 4.74	Many(3) Some(8) Very little (3) None(2)
Spanish (N=9)	$\bar{x}$ =26.80 s.d., 8.28	4 : 5	Mexico (5) Spain (1) Peru (1) Chile (1) Venezuela (1)	$\bar{x}$ =7.00 s.d., 3.54	Some (3) Very little (3) None (3)	$\bar{x}$ =5.50 s.d., 5.88	Many(3) Some(5) Very little (1)
Arabic (N=5)	$\bar{x}$ =25.40 s.d., 6.58	3 : 2	Saudi Arabia (2) Libya (3)	$\bar{x}$ =4.20 s.d., 2.48	Very little (2) None (3)	$\bar{x}$ =6.50 s.d., 2.57	Some (2) Very little (1) None (2)
Farsi (N=2)	$\bar{x}$ =25.00 s.d., 1.00	1 : 1	Iran (2)	$\bar{x}$ =7.50 s.d., 7.78	Very little (1) None (1)	$\bar{x}$ =1.50 s.d., 2.24	Some (1) Very little (1)

There are some gaps among the main two groups and the subgroups of the non-TP language group: 1) The average age for the Japanese group is about four years younger than the other groups. 2) For the Japanese group, female subjects are in the majority (15 out of 17). 3) For the Farsi speakers, the average length of stay in Canada and other English speaking countries is about five months lower than for the others.

In addition to information on the charts, it should be noted that almost all of the informants have no second language except English⁶.

3.2. Typological Contrast I

There are two different tasks: A) English oral narratives, B) picture description. A description of these tasks and the procedures follows.

3.2.1. Task A: Oral Narrative

This task does not require the participation of native speakers of English.

There are two different topics for this oral narrative task. Firstly the students were asked to compare their country of origin to Canada. Secondly they were asked to tell what their best memory and worst memory in Canada was. These topics were chosen for the following two reasons.

1. Comparison between two things makes the topics very clear (Canada and Japan in the discourse will often serve as topics). Therefore, it is easier to see how Japanese ESL students integrate the notion of topic into sentence structures.

⁶ There is one exception for each L1 subgroup of the Non-TP group. One Spanish and one Farsi speaker are fluent in French, and one Arabic speaker is fluent in both French and Spanish.

2. Furthermore, since the topics of the sentences tend to be *Canada* and their country, which involve location, existential sentences with *Canada* and their country of origin are expected to occur. According to Sasaki (1990), an existential sentence with a locative topic can be an effective tool for examining the “typological state” of the interlanguage production (Sasaki, 1990), since the structure of existential sentences between Japanese and English is strikingly different (As in Isacenko (1974), Japanese is Be-language and English is Have-language).

37) Nihon ni wa, yama ga takusan aru.

Japan LOC-TOP, mountain-NOM many be.

(Japan has a lot of mountains./ In Japan, there are lots of mountains.)

Comparing this Japanese sentence and its English translation, it becomes apparent that in English, the location NP, *Japan*, should be grammatically integrated into the sentence either by using the transitive verb *have* or by integrating it into the predicate argument of *be*. Therefore it should be easy to examine whether learners are able to grammatically integrate locative topics, which are locative NPs in this case, into the sentence.

At the same time, the second topic, which was a description of the best memory and worst memory in Canada, was employed because informants would find it easier to talk about their experiences rather than giving a general comparison between two countries. It was hoped that the informants would feel more comfortable and that more diverse evidence of L1 typological influence, such as null pronouns, overuse of dummy subjects, and the use of copular verb *be* as topic marker, would be observed.

3.2.1.1. Procedure

Before they started speaking, the informants were given at most 5 minutes to write down the topics that they chose on a piece of paper. However, they were not allowed to write out the sentences that they were going to say, since this would have prevented the speech from being spontaneous.

For the first topic, a comparison between Canada and their country of origin, the informants were asked to choose five topics that they were going to make a comparison about (such as food, nature etc.), and write them down. They were allowed to choose whatever topics they felt comfortable speaking about. However, the pilot studies showed that the informants sometimes had difficulties finding topics. Therefore, sample topics were provided as given below so that the informants could pick topics from there when they could not come up with anything. The topics provided were, *nature, weather, festival, holidays, multiculturalism, education, students, languages, food, the way people act, transportation, shopping, and prices.*

For the second topic, the informants were asked to choose one topic for each, the best memory in Canada and worst memory in Canada. For example, the best memory may be “the trip to Montreal” and the worst memory may be “the cold winter”.

After the informants wrote down all the topics, they were given 7 minutes to speak about them (approximately one minute for each topic). They were asked to move onto topic 2), when they had finished with topic 1). However, the distribution of time to each topic was flexible and left up to the individual informant, since I did not want the informants to feel strained to keep the time while speaking. Therefore, the most important thing was to speak around 7 minutes in total.

3.2.2. Task B: Picture Description

Here the participation of 15 native speakers of English was required, as well as that of the ESL students. All the informants were shown six pictures. These pictures were first piloted on 15 native speakers of English and the pictures were improved again and again until all the pictures were described with indefinite subjects by 60.0% to 100.0% of native speakers of English. The target sentences are below (Please refer to Appendix to see the picture for each sentence. The Appendix reference number is shown after each sentence):

- *Somebody is knocking at the door.* (Appendix. Indf-a)
- *Nobody came to John's birthday party.* (Indf-b)
- *Many people came to Mary's birthday party.* (Indf-c)
- *An apple fell on his head.* (Indf-d)
- *A butterfly landed on his head.* (Indf-e)
- *An alien (or a Martian, etc.) landed on the earth.* (Indf-f)

Whether Japanese ESL students are able to encode the indefinite NPs as subjects or not is to be examined with this method, and the data are compared to those of ESL students whose mother tongues are non-topic-prominent. As I mentioned earlier, it was expected that the Japanese ESL students would have more difficulties to produce indefinite subjects and would take indefinite subjects out of the sentence initial position by using the dummy subjects.

3.2.2.1. Procedure

This task was conducted as part of the task for the semantic approach, where picture description was the main source of data. The task is explained in the next section.

3.3. Typological Contrast II

3.3.1. Picture Description

Twenty-six pictures representing events which have different degrees of transitivity are the main source of data. All the pictures were tested on 15 native speakers of English and the pictures were improved many times until each one was described with a transitive structure by more than 70.0%. In addition to those, another set of twenty-one pictures served as distracters. These pictures were designed to be described with intransitive structures, such as *"Mary ran to school"*, *"John sat down in the chair"*, etc.

Now I would like to briefly introduce how the 26 pictures differ in degrees of transitivity and how the pictures and the target sentences were developed and determined.

From the conditions proposed by Hopper and Thompson (1980) for determining degree of semantic transitivity, the following three semantic features were employed: Kinesis (action or non-action), Volitionality (volitional or non-volitional), Affectedness of Object (Object totally affected or Object not affected). In addition to these, Animacy (Animate or Inanimate) was added. This is not listed in the conditions proposed by Hopper and Thompson (1980), however, I believe that Animacy is an important condition, in order to examine the influence of the strong tendency of Japanese not to use personified inanimate NPs as agents (Ikegami, 1991, 1995), such as *"The key opened the door"*. Furthermore, Animacy should be distinguished from the notion of Volitionality, since it is the case that animate subjects can be involved in an event without volition. This can be represented as [-Volition, + Animate]. Based on the four semantic features, seven categories are set up and they are shown below in 3.3.1.1.

In addition, information on what kinds of semantic roles map onto NP V NP is shown for each category. For example, [Actor (- Volition) + V + Patient] is attached to the category that is represented as [+ Animacy, - Volitionality, + Kinesis, + Affectedness of O] (e.g. "*John hit his head*".) Definition of the semantic roles that were used follows (Haegeman, 1994):

Actor: the one who intentionally initiates the action expressed by the predicate.

Experiencer: the entity that experiences come (psychological) state expressed by the predicate.

Patient: the person or thing undergoing the action expressed by the predicate.

Instrument: the entity used by a controller in performing an Action or maintaining a position (Dik, 1981)

Theme: the person or thing moved by the action expressed by the predicate.

Location: the place in which the action or state expressed by the predicate is situated.

Seven different categories were set up according to different degrees of transitivity and different semantic representations of sentence schema. The semantic traits of each category and the target sentences that exemplified it will be introduced in the next section.

3.3.1.1. Categories and Target Sentences

Each of the categories has four pictures, except for the last two categories which have three sentences each. I will describe the six different categories going from most prototypical transitive to least prototypical, and give the sentences that were used below

(Please refer to Appendix to see the picture for each sentence. The Appendix number is shown after each sentence):

1. Prototypical transitive sentences (+ Animacy, + Volitionality, + Kinesis, + Affectedness of O) [Actor (+ Volition) + V + Patient]

- *Mary kicked the stone.* (Appendix 1-a)
- *John built the house.* (1-b)
- *Mary cleaned the room.* (1-c)
- *John drank some beer.* (1-d)

2. Less prototypical transitive sentences (+ Animacy, - Volitionality, + Kinesis, + Affectedness of O) [Actor (-Volition) + V + Patient]

- *John hit his head.* (2-a)
- *Mary hurt her leg.* (2-b)
- *John dropped the cup.* (2-c)
- *Mary burnt the meat.* (2-d)

3. Less prototypical transitive sentences (+ Animacy, - Volitionality, + Kinesis, - Affectedness of O) [Theme (+ Animacy) + V + Location]

- *Mary crossed the street* (3-a)⁷
- *John left the house.* (3-b)
- *Mary entered the restaurant.* (3-c)
- *John reached the top of the mountain.* (3-d)

4. Less prototypical transitive sentences (- Animacy, - Volitionality, + Kinesis, + Affectedness of O) [Instrument + V + Patient]

⁷ For the sentences “*Mary crossed the street*”, “*John left the house*”, and “*Mary entered the room*”, the semantic feature, ‘Volitionality’, can be positive, for they can take an adverb such as *intentionally*.

- *The stone broke the window.* (4-a)
- *The key opened the treasure box.* (4-b)
- *The rain washed the cars.* (4-c)
- *The leaves changed color.* ([Location + V + Theme (+ Affected)]) (4-d)

5. Less prototypical sentences (+ Animacy, - Volitionality, - Kinesis, - Affectedness of O) [Experiencer + V + Theme (- Affected)]

- *Mary could see the singer.* (5-a)
- *John heard the noise.* (5-b)
- *Mary understands the answer.* (5-c)
- *John needs glasses.* (5-d)

There are two more categories, which look at the use of the transitive verb *have*.

The target sentences are as follows:

6. Less prototypical transitive sentences: *have*

(+ Animacy, - Volitionality, - Kinesis, - Affectedness of O) [Location (+ Animacy) + have + Theme (- Affected)]

- *Susan has three children.* (6-a)
- *John has a fever.* (6-b)
- *John has a broken leg.* (6-c)

7. The least prototypical transitive sentences: *have*

(- Animacy, - Volitionality, - Kinesis, - Affectedness of O) [Location (- Animacy) + have + Theme (- Affected)]

- *The car has two airbags.* (7-a)
- *The dictionary has 700 pages.* (7-b)

- *The T-shirt has a picture of a dog.* (7-c)

3.3.1.2. Procedure

All the informants are instructed to describe each picture with one short sentence. Two example pictures are shown to the informants at the beginning and the demonstrations are given to them, so that they can gain an idea of what they should do and how short the sentence should be. The sentences that were used in describing the example pictures are: 1) *John ate the banana.* (Appendix, example-1), 2) *The dress is 65 dollars.* (Appendix, example-2). In addition, the informants were told that there was no right answer or wrong answer to this, since I did not want them to be nervous about making mistakes.

The procedure can be divided into three steps.

Step 1. The pictures are presented to individual informants one by one. Here, they are not given any clues how to form a sentence, such as what nouns or verb to use. If the informant did not use a transitive structure, he/she moved on to the next step.

Step 2. The same picture, but this time with the two noun phrases on it, was shown to the informants. They were instructed to use these two NPs in one sentence (These two NPs are arguments of the verbs in the target sentences). If the informants still did not employ a transitive sentence structure, he/she moved on to the third step.

Step 3. The informants were given a verb, and instructed to use the verb and the two NPs that were presented in step 2 in a sentence.

It should be noted that even if the informants were able to employ a transitive structure, they were required to move on to the next step if they interpreted the picture in a different way from the way I expected them to. For example, the sentence *John likes*

drinking is not desirable since the event that the informants need to encode into the sentence is *A person is taking something to drink into his/her body*. Therefore, *John is drinking his beer*, *He drank some beer*, or *Taro drank his milk* are all fine, but not *John likes drinking*.

After the informants were tested, they were asked to describe the pictures in their mother tongues. This was needed to see how the events are encoded in their L1s. Therefore, the results of the first English description were compared to those of the native English speakers, and in what way the ESL students are different in terms of encoding the events was examined. Then, they were again compared to those descriptions in their L1s in order to see how the way L1 encodes different degrees of transitivity influences their encoding the events in L2 English.

3.4. Pilot Studies - Problems with Drawing Pictures

The pilot studies aimed to improve the validity of this method, and the pictures were redone again and again in order to achieve as high a level of uniformity among the NS's as possible. The procedure of the pilot studies is following.

1. The pictures were tested on native English speakers to see if the event each picture represents is clear and if the majority of them employ a transitive structure to encode the events of all the six categories.

The pictures were tested on native speakers of Japanese to make sure that the L1 data makes a clear contrast with that of English, in terms of coding semantic transitivity.

As previously mentioned, pilot studies were conducted again and again until at least more than 70.0% of the native English speakers that were tested agreed. Along with

improving the pictures, I encountered many problems and I would like to describe the main three below.

Firstly, I noticed that the informants tended to use *look at* instead of *see* when the experiencer was overtly drawn in the picture. This tendency was persistent even though the experiencer was drawn in a very small figure. It seemed that the informants saw a volition to *look at* things in the person. The picture was redone again and again and tested on native speakers of English and the picture that represents the event that is mostly encoded as *Mary can see the singer better* was finally employed.

Secondly, another problem was with category 4, (- Animacy, - Volition, + Kinesis, + Affectedness of O). I noticed that, based on the theory of a universal theme-rheme order in a sentence (Firbas, 1964), discourse should be controlled and an environment created so that the inanimate NP will become the topic of the sentences. However, no native speakers of English that I tested said *The key opened the door*, even when I put the lead on the picture *John lost the key to the office. There was nobody inside the office to open the door. Just in case, he searched underneath the doormat and found a key* so that the topic of the sentence would be *the key*. In the next picture, a smiling man (who is supposed to be John) is opening the door with the key that he found and the informants are instructed to describe this part. However, they never said the sentence, *The key opened the door*; instead, what they said was *He opened the door with the key*. It seemed that a person in an event has a considerable force to lead the sentence to one that is human agent centered. Then, it was decided that a person should be totally removed from the picture, and the picture was redrawn showing a treasure chest with a red key stuck in the keyhole, and which had just been opened by that (Appendix 4-b). There is no

sign of a human in the picture. Considering all this, I suggest that the sentences with personified inanimate NPs as subjects are marked. Furthermore, in order for them to say a sentence with a personified inanimate subject as in *The key opened the door*, a strong control over the discourse is needed in which the human in this event is totally out of focus.

Thirdly, it was extremely difficult to draw pictures for events to be described with indefinite subjects in English. It might have to do with the nature of the picture. In order to have the informants able to use an indefinite NP as subject, the object that the NP is referring to must be something that newly comes into a speaker's sight. In addition, if the object is an animate entity, such as a person or domesticated animals such as a dog or a cat, the likelihood that the informants would use a definite article increased.

Chapter 4

Results: Typological Contrast I

As I mentioned earlier in 2.1.6, there are mainly three things that were focused on.

I will repeat them here.

1. Evidence for influence from the category of topic
 - Use of the copula verb *is* as a topic marker.
 - Sentence initial locatives in existential sentences.
2. Zero-anaphora
 - Omission of referential objects.
3. Avoidance of indefinite NPs as subject
 - The percentages of occurrences of indefinite subjects
 - Avoidance of indefinite subjects

The data that was examined here was English oral samples. Responses to picture stimuli were also examined for (3) to see if the informants would be able to employ an indefinite subject where it was required. The results will be presented according to the above three different focuses.

4.1. Evidence for influence from the category of topic

4.1.1. Use of the copula verb *is* as a topic marker

4.1.1.1. Criteria

The criteria for interpreting *is* as a topic marker follow (The categories are derived from the informants' oral samples):

1. Copula *is* was employed but the resulting sentence was ungrammatical, due to its topic-comment organization. The sentence needs to meet the condition that literal translation of it into the Japanese topic-comment structure is possible.
2. The third person singular *is* is the only form of the copula to be considered here, since other forms such as the first person singular *am* and the second person singular / plural *are*, tensed forms *was* and *were* are analyzed as instances where informants intended to make subject-verb agreements.

The above two are the main criteria for extracting the sentences that are affected by a topic-comment sentence structure. The following conditions further refine the selection.

- a) Even though the sentences meet the above criteria, they are not counted if they can be analyzed in such a way that the sentences resulted from missing subject NPs (missing subject NPs including dummy subjects that are retrievable from the contexts), and not because the *is* is employed as a topic marker. Examples are given below (The missing subject NPs are shown in the brackets).

38) But here (it) is different. (A2)

39) In Mexico (the food) is more spicy and it's cheaper. (S3)

- b) The use of *is* that can be analyzed as an instance of self-repair. The sentences were analyzed as an instance of self-repair when a pause was observed after *is*. Examples are below:

40) Between eh Canada and Japanese, different thing is, culture is, hmm for example bath tub, ...(J16)

- c) *Is* used as a chunk as in *it's*.

41) It's...it's not variety. (J4)

d) *Be* showing an agreement, such as *are*, *am*, or *were*.

42)especially ten guys are have a good relationship and....(J4)

43) It could be because here are, is few population in Mexico. (S7)

e) *Is* that is stranded between subject NP and VP. This is considered as an immature form consisting of auxiliary *be* and main verb. Since *is* is one of the most frequent verbs, learners may place *is* after the subject NP hoping that they can continue the sentence from there. This is very common regardless of the type of L1.

44) Canada's weather is changes, change easily. (J14)

45), and something is called *gochora*, which is cover the head. (A4)

f) Sentences that are ungrammatical because abstract nouns, such as *difference*, *risk*, *kindness*, are employed as if they were adjectives.

46) I think food is very difference between Japan and Canada. (J10)

47) Ah...well, if you want to be alone, it's ahh very risk. (S7)

g) Sentences that are ungrammatical because of missing prepositions. This type of mistake is common regardless of the type of L1.

48) Ah I think ah when I was (in) Japan, (J14)

49) and dinner is (at) 6, 7 o'clock. (S6)

The occurrences of *is* were chosen from all occurrences of *is* according to these criteria.

4.1.1.2. Results

The result for the Japanese informants is presented below (Table.4). The percentage is calculated by the number of occurrences of *is* that can be analyzed as a topic marker divided by the number of all the copula verbs in a speaker's sample.

Table 4. Employment of *Is* as a Topic Marker for the Japanese Group

Japanese 1	0/52 (0.0%)	Japanese 10	3/28 (10.7%)
Japanese 2	0/55 (0.0%)	Japanese 11	0/17 (0.0%)
Japanese 3	0/25 (0.0%)	Japanese 12	1/27 (3.7%)
Japanese 4	1/46 (0.2%)	Japanese 13	0/31 (0.0%)
Japanese 5	0/23 (0.0%)	Japanese 14	3/26 (11.5%)
Japanese 6	0/21 (0.0%)	Japanese 15	1/32 (3.1%)
Japanese 7	0/14 (0.0%)	Japanese 16	13/35 (37.1%)
Japanese 8	1/16 (6.25%)	Japanese 17	1/15 (6.7%)
Japanese 9	0/28 (0.0%)		
Total (Higher half)	2/251 (0.8%)	Total (Lower half)	22/221 (9.9%)
Total 25/473 (5.3%)			

The lower half of the Japanese group employed *is* as a topic marker about 9% more than the higher half. (Lower half: 9.9%, higher half: 0.8%, total: 5.3%). However, it should be noted that it was one individual who made a major contribution to the percentage for the lower half (J16). Therefore it may be premature to say that the lower

the Japanese students' proficiency levels are, the more likely they are to employ *is* as a topic marker. Now the percentage is compared to that of the non-TP group (Table. 5).

Table 5. Employment of *Is* as a Topic Marker for the Non-TP Group

Farsi 2	1/19 (3.4%)	Arabic 1	0/6 (0.0%)
Spanish 7	0/38 (0.0%)	Arabic 3	1/35 (2.9%)
Spanish 1	0/26 (0.0%)	Arabic 4	3/78 (3.8%)
Spanish 6	0/58 (0.0%)	Arabic 5	0/34 (0.0%)
Spanish 3	0/21 (0.0%)	Spanish 8	0/27 (0.0%)
Farsi 1	1/34 (14.7%)	Spanish 2	0/27 (0.0%)
Spanish 5	0/14 (0.0%)	Spanish 9	0/37 (0.0%)
Spanish 4	1/29 (2.9%)	Arabic 2	2/27 (7.4%)
Total (higher half)	3/239 (1.3%)	Total (lower half)	6/271 (2.2%)
Total 9/510 (1.7%)			

For the non-TP group, the difference is not noticeable between the lower half and the higher half, and the percentages are low (higher half: 1.3%, lower half: 2.2%, total: 1.7%). Comparing the Japanese group and the non-TP group, the Japanese group seems to employ *is* as a topic marker more often (Japanese: 5.3%, non-TP 1.7%): However, one should be cautious to conclude that the English interlanguage of the Japanese group is more oriented toward a topic-comment structure because of that, since the difference may be due to the proficiency difference between them, the Japanese group being slightly

lower. Therefore, an ANCOVA was conducted to test the null hypothesis that there is no difference between the two groups in terms of employment of *is* as a topic marker. First, all the percentages were changed into other forms by arcsine transformation so that the scores for each group have a normal distribution and a constant variance; when any scores are smaller than 10% or more than 90%, the chance that the scores are normally distributed and have constant variance will become small, and an arcsine transformation is a useful tool for the adjustment (Woods, et al., 1986). Then an ANCOVA calculated the P-value for the group effect on the transformed scores for use of *is* as topic marker, and the result rejected the null hypothesis ($P = .030 < .05$). It follows that there is a significant difference between the two groups in terms of the use of *is* as a topic marker.

However, since the number of variables is small, it is not desirable to totally depend on the statistical calculation to decide whether the two groups differ or not in terms of the interlanguage features that is examined here. Therefore, it was decided that the sentences that the informants produced should also be observed. A comparison between the types of sentences produced by both groups was made, which showed that there was also a difference between the groups in terms of what kinds of linguistic environment they used *is* as a topic marker in.

4.1.1.3. Examples

Sentences that were analyzed as instances of *is* as a topic marker are divided into five different categories. The categories are derived from the examples. The percentages of occurrence are summarized below (Table 6). They are calculated by dividing the number of occurrences for each category by the number of all occurrences of *is* as a topic marker.

Table 6. Types of Sentences with *Is* as a Topic Marker for both Groups

Sentence types	Japanese	Non-TP
NP(PP) + is + NP (Existential)	7/25 (28.0%)	1/9 (11.1%)
NP(PP) + is + NP	4/25 (16.0%)	2/9 (22.2%)
NP(PP) + is + AP	0/25 (0.0%)	0/9 (0.0%)
NP(PP) + is + VP	5/25 (20.0%)	1/9 (11.1%)
NP(PP) + is + S (Double subject construction)	9/25 (40.0%)	5/9 (55.6%)

All the examples are shown below, starting with the ones from the Japanese group.

Japanese informants

Existentials (NP + is + NP) (7/25, 28.0%)

50) This means ah Japan textbook, and real real English is a little contradiction. (J4)

51) Canada is a lot of ah foreigner, ... (J8)

52) Japan, especially Tokyo, is not, not green. (J12)

53) ...every bus driver is different nationality. (J14)

54) I think ah Japan is, is ah not too much expression. (J14)

55) I think ah English is a too much expression. (J14)

56) Canadian food is many fri- something, like French fry, (J15)

NP or PP + is + NP (4/25, 16.0%)

57)so now is the worst memory in my Canadian life, maybe. (J10)

58) Everything is new for me, everything is studying.... (J10)

59) In Japan **is** hmm very simple, simple taste, ... (J16)

60)in Canada **is**, not boiled vegetable, ... (J16)

NP or PP + is + AP (0/25, 0.0%)

None

NP or PP + is + VP (2/25, 8.0%)

61) ...but Japanese, in Japan **is**, hmm take bus tub, inside ah bus tub.

(J16)

62) ...in Canada **is** only take shower, ... (J16)

NP or PP + is + Sentence (Double subject construction) (10/25, 40.0%)

63) But in school, everywhere air conditioner, so inside very good, so this,
this different, **is**, be, careful. (J8)

64) ...in Japan **is** bus hmm a little bit expensive. (J9)

65) ...the shop **is** everything **is** the same. (J10)

66) ...in Japan **is** vegetable **is** boiled. (J16)

67) Hm food **is** different **is**, hm Cana, Canadian food **is** very oily... (J16)

68) In Japan **is** May **is** very cold. (J16)

69) In Canada **is** sunset **is** very hm...very late. (J16)

70) ...but in Canada **is** now (sunset) **is** 8:30⁸. (J16)

⁸ This sentence does not seem to fit this category, since the underlined comment part "*Canada is now is 8:30*" is not a sentence. However, the literal translation of this sentence in Japanese is grammatical as shown below. It should be noted that the discourse topic of this sentence is *sunset* and it is not expressed in the sentence.

Canada **is** now **is** 8:30.

Canada *wa*, *ima wa* 8:30 *desu*.

Canada-TOP, now-TOP **be**.

Therefore, the English sentence seems to be actually a direct translation of Japanese that has double topics. The latter topic *ima wa* is more contrastive, which has an implication of not other times but now. It is interesting that the two topic markers were all realized as *is* in the English sentence.

71) In Canada **is** thing, many many things **is** cheap, ... (J16)

72) Next in Japan **is** popular **is** by train. (J16)

73) But now **is** I'm OK. (J17)

Non-TP group

Existentials (1/9, 11.1%)

74) Canada **is** more population than ah than my country. (A3)

NP or PP + is + NP (2/9, 22.2%)

75)Between each other, the train **is** only one hour, ... (S6)

76) ..., food **is** all the people, we have a native food. (A3)

NP or PP + is + AP (0/9, 0.0%)

None

NP or PP + is + VP (1/9, 11.1%)

77) Ah but ah when you talk about Canada here **is** talk about multicultural.

(A5)

NP or PP + is + Sentence (Double subject construction) (5/9, 55.6%)

78) I think the management **is** Canada **is** better their good economy. (F1)

79) ...ah my country **is** Iran **is** the capital **is** Teheran. (F2)

80) The population in Libya, you know Libya **is** half of it **is** desert. (A2)

81) ..., because Mediterranean sea **is** my country coasted to this area. (A3)

82) Ah someday **is** there **is** horrible you can't go out, ... (A5)

The difference becomes obvious when the examples are categorized as above.

One noticeable difference is that the majority of the examples from the Japanese are by

nature existentials (Japanese 7/25 (28.0%), while only one such example is observed for the non-TP group (A3, 1/9 (11.1%)).

Furthermore - this did not surface in the percentages - the examples from the Japanese group show that in many cases prepositional phrases [in + place] occupied the topic position. It can be assumed that this resulted from L1 influence, since locative NPs with locative markers occur in topic positions in Japanese. A direct translation of (66) is shown below.

83) ...in Japan is vegetable is boiled.

Nihon de wa, yasai wa yudete arimasu.

Japan-in-TOP, vegetable-TOP boiled be.

Prepositional phrases did not occur in topic positions in their L2 productions, even though the use of *is* as a topic marker was observed with the other ESL groups as well. It can be assumed that this is one of the manifestations of L1 topic-comment structure. However, it should be noted that the instances of prepositional NPs in topic positions were almost exclusively from one individual (J16) (one out of 11 from J9, and the rest from J16).

This may have something to do with their acquisition process of subject-predicate structure in L2 English. This will be further discussed in Chapter 6.

Another difference is in the so-called “double subject construction”. Two examples (from Arabic speakers) out of six have an NP which refers back to the NP in topic position.

84) The population in Libya, you know Libya is half of it is desert. (Arabic 3)

85) ..., because Mediterranean sea is my country coasted to this area. (Arabic 4)

These two examples can be considered as instances of *is* as a topic marker according to the criteria, however, it can be said that these have a tighter syntactic relationship between the topic NPs and the predicates. This type of sentence was not observed in the examples of Japanese informants.

4.1.1.4. Ambiguous Examples

As previously mentioned in 4.1.1, examples of *is* were not counted when it was not clear whether they were based on the topic-comment organization with *is* as a topic marker. The reason is that Spanish, Arabic and Farsi are languages which are more oriented toward subject-predicate structure but differ from English in that they allow zero subjects to occur when the referent and verb agreement are retrievable from the context. Furthermore, they do not have equivalents to dummy subjects in English either. Therefore, it is reasonable to think that the L2 production of the learners whose mother tongues are one of those languages may be organized along subject-predicate structure but may possibly omit a retrievable subject NP or a dummy subject in a sentence. This would make it difficult to see whether an apparently odd use of *is* resulted from their imposition of topic-comment structure or their omission of the subject NP.

However, the data showed that there was a noticeable difference between the Japanese groups and the non-TP groups in terms of the distribution of the types of ambiguous sentences, even though there is not a significant difference between the two groups in terms of the number of occurrences (The number of ambiguous examples is 14 for both groups). However, the difference surfaces when they are categorized as shown below. Table 7 is a summary of the frequencies of occurrence for each category.

Table 7. Types of Ambiguous Sentences for both Groups (The elements in the parentheses [] are possible elements that were omitted)

Sentence types	Japanese	Non-TP
Existentials NP(PP) + [there] + is + NP, AP, VP, or S	6/14 (42.9%)	0/14 (0.0%)
Dummy it NP(PP) + [it] + is + NP, AP, VP, or S	6/14 (42.9)	4/14 (28.5%)
Referential subject NP(PP) + [referential NP] + is + NP, AP, VP, or S	2/14 (14.3%)	10/14 (71.4%)

Examples follow starting with the ones from the Japanese group:

The Japanese group

1. Existentials (6/14, 42.9%)

- 86) ..., but here (there) is no my mother so.... (J6)
- 87) ...but here (there) is a lot of oil, oily food, so....(J8)
- 88) ...so I usually take bus or train, but here (there) is no train, so only bus, ...(J8)
- 89) And shopping, Japan has many shops, but here (there) is maybe no,(J10)
- 90) Here (there) is very very a lot of green. (J12)
- 91) But in Canada (there) is many many bus, ... (J16)

2. Dummy it (6/14, 42.9%)

- 92) ...ah for example in the morning (it) is very sunny day, ... (J4)
- 93) My hometown is Sizuoka, here (it) is very warm, ...(J8)
- 94) ..., at that time in Japan (it) is very warm. (J14)
- 95) In the noon (it) is very hot, (J14)
- 96) ...in the night (it) is very cold, ... (J14)

97) Next weather is, in Canada (it) is very cold. (J16)

3. Referential subject (2/14, 14.3%)

98) ...so I like Japanese fruit but here (it) is not fresh ("it" refers to fruits in general). (J10)

99) But here (the common transportation) is only bus, buses, ... (J12)

Non-TP group

1. Existentials (0/14, 0.0%)

2. Dummy *it* (4/14, 28.5%)

100) ..., because here in Canada (it) is very cold. (S6)

101) ..., here (it) is too cold in the, and ... (S9)

102) ..., but in my country (it) is difficult to find educated peoples. (F1)

103) And ah about weather, ah here (it) is ah ... very humid, (F2)

3. Referential subject (10/14, 71.4%)

104) In Mexico (it) is more spicy and it's cheaper. ("it" refers to food in general) (S3)

105) So a plate here is like a ten dollars, in Mexico maybe (it) is five dollars.
("it" refers to a plate) (S3)

106) For example, in Mexico, soccer is the most popular sport and here in Canada (it) is the hockey. ("it" refers to the most popular sport) (S4)

107) Ah then ah the Spanish people can go to eat at home for the lunch and dinner, but here (it) is different. ("it" refers to places where they eat in general)(S6)

108) For dinner (it) is similar but the kind of food is different. ("it" refers to the meal hour in general) (S7)

109) ...but here (it) is not important. ("it" refers to lunch in general) (S9)

110) In here (it) is only sandwich ("it" refers to lunch in general) (S9)

111) But in my country (it) is different. ("it" refers to the life style in general) (S9)

112) ...but here (it) is different. ("it" refers back to holidays) (A2)

113) But here (it) is very different. ("it" refers to the meal hour in general) (A4)

A difference can be seen in the category of existentials. Out of all the occurrences of ambiguous sentences from the Japanese group, half can be interpreted as an existential, but there is no such occurrence observed from the non-TP group.

At the same time, another difference is in the category of "retrievable subject NPs". Most of the sentences from the non-TP group (10/14, 71.4%) are in this category, while only two out of 14 (14.3%) from the Japanese group were categorized in this way. Therefore, it can be argued that even though both L2 groups' interlanguages do seem to have a topic-comment organization, it is also possible to analyze them in such a way that the L2 interlanguage of the non-TP group is more oriented toward a subject-predicate organization and what they did was to omit the subject NPs since they were retrievable from the context, just as they do in their L1s.

4.1.2. Sentence Initial Locatives

As I previously mentioned, Rutherford (1983) argued that the existential sentences in the English interlanguage of L1 Japanese and Korean speakers suggested

direct influence from their mother tongues; the sentences exclusively begin with locatives (“sentence-initial locatives”(Rutherford, 1983))⁹. The examples below are from Rutherford (1983).

114) In my country, hasn't army, navy and airforce.

115) In this aspect, there are may similarities

Out of all the occurrences of existential sentences with locative NPs in the Japanese group, 90.9 % (30/33) were instances of sentence initial locatives. As for the non-Topic prominent group, 84.4% (38/45) were instances of sentence initial locatives. It can be said that Japanese speakers tend to put locative NPs at the beginning of existential sentences slightly more than non-topic prominent speakers do, but the difference is not noticeable enough to agree with Rutherford's (1983) conclusion. Also this high percentage of sentence initial locatives in both groups may have something to do with the topic of the speech (comparison between your country of origin and Canada). In summary, the data did not seem to lend strong support to the hypothesis that the Japanese group has a preference for sentence initial locatives.

4.1.2.1. Unexpected Outcome

However, differences between the two groups were observed in the way they form existential sentences. This was not expected, however it is worth mentioning since this could support the hypothesis that the L2 English interlanguage of Japanese speakers is more oriented toward a topic-comment organization. The types of existential sentences

⁹ In Japanese the most natural word order of an existential sentence with a topicalized locative is “Locative (=topic) + comment, as in (Kuno, 1971 cited in Sasaki (1990))

Teiburu no ue ni wa, hon ga aru.

On the table-TOP, book-ACC exist.

(There are two books on the table.)

that were produced by the informants were categorized as shown below. The percentages of occurrence for each category are summarized in Table 8. Examples for each category follow.

Table 8. Occurrences of Sentence Initial Locatives for each Sentence Type

Sentence types	Japanese	Non-TP
1. <u>Locative PP</u> + there + be + NP	4/30 (13.3%)	11/38 (28.9%)
2. <u>Locative PP</u> + personal pronouns + have + NP	2/30 (6.7%)	20/38 (52.6%)
3. <u>Locative NP</u> + have + NP	13/30 (43.3%)	5/38 (13.2%)
4. *<u>Locative PP or NP</u> + be + NP	11/30 (36.7%)	2/38 (5.3%)

Examples:

1) [Locative PP, There + be + NP]

116) In Canada there are many languages, ... (J15)

117) It's because in Canada there are too many people from different countries,
... (S6)

2) [Locative PP, + I, we, they, you, or people + have + NP]

118) ..., ah in Japan we don't have presentation or discussion so many times,
so...(J17)

119) In Mexico we have many many different ah dishes or plates, ... (S1)

3) [Locative NP + have + NP]

120) Canada has a lot of tree or park. (J8)

121) ...Canada has a lot of different cultures. (S5)

4) ***[Locative PP or NP + be + NP]**

122) Canada is a lot of foreigner. (J8)

123) But in Canada is many many bus, ... (J16)

124) Canada is more population than ah my country. (A3)

An ANCOVA calculated P-values for all the four categories in order to test whether the null hypotheses that there are no differences between the two groups in the four categories is supported. The P values for the group effects were all higher than 0.05 (P= .963, .882, .589, .347 > .05), which says that the null hypothesis is supported for all the categories. However, the number of variables is small, which affects the validity of the test results (Appendix 8 to see how sparse the variables are distributed). Therefore, one cannot totally depend on the results to decide whether the difference between the groups is distinct or not. The differences are at least noticeable in all the categories, especially in categories 3 and 4, where Japanese informants are frequent in comparison to the non-TP group. This could still suggest that Japanese informants have a preference for the schema [Locative NP + have + NP] and [Locative NP (or PP) + be + NP]. In addition, it could be possible to suggest that Japanese ESL speakers employ the schema [Locative NP + be + NP] when they are at the lower proficiency level, and as their proficiency levels go up, the sentences will be reanalyzed to [Locative NP + have + NP]. In terms of the non-TP group, they have a striking preference for the sentence schema [Locative PP + personal pronoun + have + NP]. However, this type of existential sentences is very rare for Japanese informants (2/33, 6.1%).

4.2. Zero-anaphora

In terms of zero-anaphora in direct object positions, there was no significant difference observed. The percentages of occurrence of null objects out of all the referential object NPs are shown below (Table 9):

Table 9. Employment of Zero Anaphora in Direct Object Positions for the Japanese Group

Japanese 1	0/11 (0.0%)	Japanese 10	1/4 (0.0%)
Japanese 2	0/0 (0.0%)	Japanese 11	2/10 (20.0%)
Japanese 3	1/8 (1.3%)	Japanese 12	0/0 (0.0%)
Japanese 4	0/18 (0.0%)	Japanese 13	0/5 (0.0%)
Japanese 5	0/3 (0.0%)	Japanese 14	0/3 (0.0%)
Japanese 6	1/10 (10.0%)	Japanese 15	3/13 (23.1%)
Japanese 7	1/6 (16.6%)	Japanese 16	0/0 (0.0%)
Japanese 8	0/0 (0.0%)	Japanese 17	0/3 (0.0%)
Japanese 9	0/9 (0.0%)		
Total (Higher half)	3/65 (4.6%)	Total (Lower half)	6/38 (15.8%)
Total 9/103 (8.7%)			

It shows that the lower half of Japanese informants tend to leave out referential direct objects more often than the higher half. However, since the occurrences of null objects are not frequent enough to make a fair comparison, no conclusion can be drawn.

Examples follow:

- 125) ..., here the cloth are more cultural, they, they I think they don't mind _
so much.... (J3)
- 126) ...so everybody really likes festival and enjoy _ , ...(J6)
- 127) So, and they use washer dryer and it's for only to make ah them
convenient. But I think, I think we can, we can wash, dry _ by ourselves. (J7)
- 128) ... for example, my host family speaks Spanish everyday so I can't
understand _ . (J10)
- 129) I think Canadian people like holidays because my host parents always
invite their friend t my house hmm and they stay up late night and every shop
close, close early about 6 o'clock on weekend. I couldn't believe it when I
saw _ first. (J11)
- 130) So he invited, invite us pride festival. It was very nice. I enjoyed _ so
much. (J11).
- 131) I think it's easy for Canadian people to accept many culture. They can
understand _ very well. (J15)
- 132) So in Japan there are still really strict culture, so they can't understand and
accept _ . (J15)
- 133) And she was so kind, so tried to speak very slowly and clearly and I could
understand _ very well, ... (J15)

Now the percentages will be compared to those for the non TP group which is
summarized below in Table 10.

Table 10. Employment of Zero Anaphora in Direct Object Positions for the Non-NP Group

Farsi 1	0/6 (0.0%)	Arabic 1	0/1 (0.0%)
Spanish 1	0/0 (0.0%)	Arabic 2	0/0 (0.0%)
Spanish 2	1/4 (25.0%)	Arabic 3	0/4 (0.0%)
Spanish 3	0/2 (0.0%)	Spanish 2	1/3 (33.3%)
Spanish 4	0/0 (0.0%)	Arabic 4	0/2 (0.0%)
Farsi 2	0/0 (0.0%)	Spanish 8	0/3 (0.0%)
Spanish 5	1/7 (14.2%)	Spanish 9	0/9 (0.0%)
Spanish 6	1/2 (50.0%)	Arabic 5	0/9 (0.0%)
Total (higher half)	3/21 (14.3%)	Total (lower half)	1/31 (3.2%)
Total 4/52 (7.7%)			

It seems that the higher half leaves out referential direct objects more often than the lower half does. The total number of referential objects is small and this anomaly may derive from it. Examples follow:

134) I felt terrible. I thought that it was all my cloth for one year. I thought I was going to lose _ . (S2)

135) ..., because ah I speak French, so hmm I I I see ah I think I could learn _ better if I I stay in in another place only with English speaker people. (S5)

136), I have a problem with my English, I was studying _ my school but only grammar, I never speak, spoke so I also have many problems with the pronunciation, ... (S6)

- 137) We have for example, tacos, we have (?) this kind of food, I cannot find _
here in Canada. (S7)¹⁰

An ANCOVA calculated the P-value for the group effect, which shows there is no significant difference between the two groups in terms of the use of null pronouns in direct object position ($P = .971 > .05$). An inspection of the examples did not show any noticeable difference either. Therefore, it can be said that this does not lend support to the hypothesis for the English interlanguage of Japanese being more oriented towards topic-comment organization.

4.3. Avoidance of Indefinite NPs as Subject

4.3.1. Overuse of Dummy Subjects

4.3.1.1. Overuse of *There*

The number of occurrences of [there + be + NP] constructions was counted first, and divided by the number of all the clauses in a speaker's sample. The percentages shown below are for the Japanese group (Table 11).

Table 11. Employment of the Existential *There* for the Japanese Group

Japanese 1	3/100 (3.0%)	Japanese 10	0/56 (0.0%)
Japanese 2	0/55 (0.0%)	Japanese 11	3/55 (5.5%)

¹⁰ This example is ambiguous, since in addition to omission of the referential object as in the above, there are two more different ways of interpreting it.

- 1) We have (?) this kind of food, (which) I cannot find here in Canada. (Omission of a relative pronoun)
- 2) We have this kind of food, I cannot find here in Canada. (Left dislocation which is acceptable in English)

Japanese 3	2/68 (2.9%)	Japanese 12	2/61 (3.3%)
Japanese 4	0/136 (0.0%)	Japanese 13	0/53 (0.0%)
Japanese 5	0/56 (0.0%)	Japanese 14	0/138 (0.0%)
Japanese 6	1/72 (1.4%)	Japanese 15	5/107 (4.7%)
Japanese 7	0/50 (0.0%)	Japanese 16	0/36 (0.0%)
Japanese 8	0/65 (0.0%)	Japanese 17	0/63 (0.0%)
Japanese 9	1/100 (1.0%)		
Total (Higher half)	7/702 (1.0%)	Total (Lower half)	10/567 (1.8%)
Total 17/1269 (1.3%)			

The number of occurrences of the existential *there* was small, and the difference between the higher half and the lower half was not noticeable (higher half: 7/702 (1.0%), lower half: 10/567 (1.8%)). These numbers will be compared to those of the non-TP group (Table 12).

Table 12. Employment of the Existential *There* for the Non-TP group

Farsi 1	1/59 (1.7%)	Arabic 1	0/31 (0.0%)
Spanish 1	0/72 (0.0%)	Arabic 2	0/81 (0.0%)
Spanish 2	2/73 (2.7%)	Arabic 3	23/162 (14.2%)
Spanish 3	0/112 (0.0%)	Spanish 7	4/67 (6.0%)
Spanish 4	0/45 (0.0%)	Spanish 8	0/129 (0.0%)
Farsi 2	1/86 (1.2%)	Arabic 4	2/76 (2.6%)

Spanish 5	0/67 (0.0%)	Spanish 9	0/106 (0.0%)
Spanish 6	1/65 (1.5%)	Arabic 5	0/125 (0.0%)
Total (Higher half)	5/579 (1.0%)	Total (Lower half)	29/777 (3.7%)
Total 34/1356 (2.5%)			

The difference between the Japanese group and the non-TP group is not noticeable (non-TP group: 2.5%, and the Japanese group: 1.3%). The percentage for the non-TP is slightly higher than that of the Japanese group. However, this seems to be due to one individual, Arabic 3, who had as many as 23 occurrences of existential there. An ANCOVA calculated the P-value for the group effect and it shows that there is no significant difference between the two groups ($P = .831 > .05$), which does not support the hypothesis. Their sentences did not show any distinct difference between the two groups either.

4.3.1.2. Overuse of Extraposed Dummy *It*

Not many instances of the use of extraposed dummy *it* were observed; only one from the Japanese group and three from the non-TP group. Examples follow:

138) It was really amazing stuff ah during that trip to Banff. (J1)

139) I think this is the most important issue ahh, how is difference between a country¹¹. (S2)

140) Because it's different that the cultures in many country. (S8)

¹¹ This example is also considered as an instance of extraposed dummy *it*, since the function of *this* in the sentence is the same as that of *it* in the other examples.

141)it's mix, spring summer. (A3)

The number of occurrences was too small to make a fair comparison. It can only be said that no evidence for avoiding non-topicworthy subject NPs by using the dummy *it* as proposed in Schachter and Rutherford (1979) and Zobl (1989), was found. This may have something to do with the type of the data source; both Schachter and Rutherford (1979) and Zobl (1989) examined written data, which may have enabled informants to express more complex ideas in their L2 production because they have more time to prepare for their production. This could end up with more frequent use of extraposed dummy *it* in order to avoid having indefinite NPs in the subject positions. However, again, no evidence for the avoidance in question was observed from the data in this thesis, which was produced orally.

4.3.2. Avoidance of Indefinite NPs as Subject (Oral Narratives)

4.3.2.1. Criteria for Indefiniteness

The number of indefinite subjects that occurred in the texts was counted. First, the criteria for interpreting a specific NP as indefinite were established. In order to do this, first of all, a topicworthiness scale proposed in Givon (1978), which is cited in Zobl (1989), was considered.

Highest: - *I, you*

- Anaphoric pronouns
- Referential definite descriptions (e.g. *Lady Di, my broker*)
- Indefinite NP-specific (e.g. *a well-known TV evangelist*)
- Indefinite NP-non-specific (e.g. generics: *lawyers*, quantified NPs: *many linguists*)

Lowest: - Non-referential NPs (e.g. idiom NPs: tabs, *any*-generics, end-of scale superlatives, abstract NPs of place, time and extent.)

However the problem with choosing this scale is that some types of NPs which are low in topicworthiness on the scale can also be a good candidates for topics in Japanese, such as generics and superlatives. Examples follow:

142) Kuruma wa, benri desu.

Cars-TOP, convenient is.

(Cars are convenient.)

143) Kono kurasu de ichiban no gakusei wa, Taro desu.

This class-in best student-TOP, Taro AUX.

(The best student in this class is Taro.)

These two types of sentences with generic and superlative topics are very common in Japanese and the above scale does not offer reliable criteria for identifying un indefinite NP.

Lyons (1999) suggested that these generics and superlatives are semantically definite. According to him, it is important that definiteness should be treated both semantically and pragmatically, which means that the presence of an article is not sufficient to show whether an NP is definite or indefinite. He tried to establish new definitions for definiteness in his book *Definiteness*, and suggested that the notion of definiteness is better explained with the notions of identifiability, uniqueness and inclusiveness.

The idea of identifiability is that the definite article is used when the hearer is in position to identify the entity that the speaker is referring to, such as “*the hammer*” in

“Pass me the hammer, will you?” (Lyons, 1999). What he means by uniqueness is that there is only one entity that the description of the NP is referring to, an example is *the car*, as in *“Mary’s gone for a spin in the car she just bought (Lyons, 1999)”*. The notion of inclusiveness comes from the observation of plural and mass NPs. The references are to the whole entity of the objects or mass, such as *dogs* in *Dogs bark* (Lyons, 1999). Under the treatment of “uniqueness”, superlatives are definite. At the same time, generics are definite as well because they can be categorized under the notion of “inclusiveness”. Lyons’s view of definiteness seems to be more appropriate considering the fact that superlative NPs and generic NPs can be topics and marked by a topic marker in Japanese.

Examples of what Lyons called indefinite NPs in English are shown below. These will be criteria for determining if a subject NP is indefinite:

1. NPs with the indefinite article (e.g. **a house, a car, some man**)
2. NPs that are negative in any of identifiability, uniqueness and inclusiveness, without any definite determiner, such as definite articles or demonstratives.

Examples follow (Lyons, 1999)

3. NPs with cardinal determiners
- 144) I bought **three books** this morning.
- 145) I wonder if Helen has **many books**.
- 146) I don’t want **any noise**¹².

¹² Lyons (1999) argued that there are two different kinds of “any” in terms of definiteness. One is *any* with random sense (“random” *any*), indicating an unrestricted choice, as in *Anyone could paint a picture like that* (Lyons, 1999). The other is *any* in interrogative and negative contexts (“Non-assertive” *any*), as in *Have you brought any vegetables?* He considers only the latter case as an instance of indefinite NPs, since it is not phonologically stressed and fails on there is/are test:

*There is anyone who could paint a picture. (Lyons, 1999)

4. Non-referential pronominal indefinites

147) **One** should always keep one's problem in perspective.

(*One* is uncommon in colloquial English. Instead of “one”, personal pronouns are commonly used such as *you*, *we*, or *they*. Therefore, these personal pronouns which can be replaced with “one” were counted as an instance of indefinite subject NP.)

148) **Someone** is knocking at the door.

5. Mass and plural NPs without definite determiners

149) I've already put **spoons** on the table.

150) John has gone out to buy **milk**.

Following the criteria above, all instances of indefinite subject NPs were counted and the percentages were calculated by dividing the number of those occurrences by the number of all the clauses in the texts (Table 13).

Table 13. Employment of Indefinite Subject NPs for the Japanese Group

Japanese 1	5/100 (5.0%)	Japanese 10	1/56 (1.8%)
Japanese 2	5/55 (9.1%)	Japanese 11	0/55 (0.0%)
Japanese 3	8/68 (11.8%)	Japanese 12	0/61 (0.0%)
Japanese 4	3/136 (2.2%)	Japanese 13	2/53 (3.8%)
Japanese 5	10/56 (17.9%)	Japanese 14	1/138 (0.7%)
Japanese 6	3/72 (4.2%)	Japanese 15	1/107 (0.1%)
Japanese 7	4/50 (8.0%)	Japanese 16	2/36 (5.6%)
Japanese 8	3/65 (4.6%)	Japanese 17	9/63 (14.2%)

Japanese 9	4/100 (0.4%)		
Total (Higher half)	45/702 (6.4%)	Total (Lower half)	15/567 (2.6%)
Total 60/1269 (4.7%)			

The percentage for the higher half was 6.4% (45/702), and for the lower half the percentage is 2.6% (15/567). It can be said that there seems to be a correlation between the use of indefinite subject NPs and the proficiency level; the higher the proficiency levels of learners are, the more indefinite NPs they are able to employ as a subject in a sentence. These percentages will be compared to those for the non-TP group, which is summarized in Table 14.

Table 14. Employment of Indefinite Subject NPs for the Non-TP Group

Farsi 1	10/59 (16.9%)	Arabic 1	9/31 (29.0%)
Spanish 1	26/72 (36.1%)	Arabic 2	21/81 (25.9%)
Spanish 2	17/73 (23.3%)	Arabic 3	16/162 (9.9%)
Spanish 3	40/112 (35.7%)	Spanish 7	5/67 (7.5%)
Spanish 4	17/45 (37.8%)	Spanish 8	27/129 (20.9%)
Farsi 2	11/86 (12.8%)	Arabic 4	7/76 (9.2%)
Spanish 5	17/67 (25.4%)	Spanish 9	14/106 (13.2%)
Spanish 6	10/65 (15.4%)	Arabic 5	38/125 (30.4%)
Total (Higher half)	148/579 (25.6%)	Total (Lower half)	137/777 (17.6%)
Total 285/1356 (21.0%)			

For the non-TP group, the higher half has 25.6% (148/579), the lower half has 17.6% (137/777), and the average for the entire non-TP group is 21.0% (285/1356). Here, there also seems to be a correlation between a high proficiency level and a higher percentage of indefinite NPs as subject in a sentence. The difference between the percentages for both groups is noticeable. An ANCOVA was used again to see if the null hypothesis that there is no difference between the two groups in terms of the use of indefinite subject was supported or not. The P-value is higher than 0.05 ($P = .971 > .05$), and the null hypothesis was supported, which indicates that the seeming difference between the two groups in terms of the percentages for using indefinite subjects was not actually statistically significant.

It should be noted that the majority of the observed indefinite are indefinite personal pronouns, such as *we* or *they*, which can be replaced with *one*. 43 out of 60 (71.6% of all the occurrences of indefinite subject NPs) for the Japanese group and 240 out of 285 (84.2% of all the occurrences of indefinite subject NPs) for the non-TP group, are indefinite personal pronouns. Examples follow:

- 151) ...in Japan we...we don't live with nature. (J4)
- 152) But in Canada, hmm **they** are not interested in cloth or jewelry ... (J5)
- 153) Talking about Canada, ah it's very interesting experience to be in
Canada, because sometimes **you** have the opportunity to compare your
country and and this country. (S4)
- 154) Ah....a in my country we eat ah the rice more than a ah vegetables
(A1)

- 155) Religion is more different in my country, **they** care about religion more than here. (F1)

In addition to the difference in terms of the percentages of employment, a Japanese-specific tendency was also observed in the use of these indefinite personal pronouns as subject NPs. Some Japanese informants make use of *I*, *he*, or *that person*.

Examples follow:

- 156) OK greetings. My final topic is greetings. **I**....I think...how can I say, OK, ahh if I met, I met somebody who I don't know at all, in Canada, **I** still can say hi, how are you something to them.... (J1)
- 157) I think Canadian people are very friendly, so hmm if **I** say hi to someone who I don't know, he or she would tell me hi or how are you... (J7)
- 158) In Japan my, my parent, ah used to care us very much. But here, they, seven years boy, their, his mother doesn't care him so much. So he **he** is playing by himself..... (J3)
- 159) In Japan it's very strict to...strict, if, if the policeman find **that person** is smoking drug, maybe he will ah....policeman will catch that person. (J15)
- 160) I think Canadian people is very kind like.....like travel agency, **that person** help me because recently I went to travel agency to ta...take reservation of flight, you know I can't speak English very well... (J15)

These examples can be replaced with other pronouns such as *they* or *you*, which would make their statements more idiomatic. They show that the informants were trying to bring their statements to a more personal or a more individual level. Even though the difference between the two groups in terms of the employment of indefinite subject NPs is not statistically significant, it seems that there is a noticeable tendency for the Japanese speakers to avoid more generic uses of the personal pronouns. I would like to show three pairs of narrative examples on the same topic from both groups so that the different patterns of making generic statements will be clearer. Each pair was drawn from the

informants who have more or less the same score on the placement test. Examples follow

(The subject NPs of sentences that are generic statements are in bold):

Topic: Transportation

161) **Transportation** is also difference, because **Ottawa** has one company, that is hmm OC Transpo,and I think **here's transportation** is, especially OC transpo, is.....so loose?....(J10, the placement test score 86/120)

162) And the transportation here in Canada,**you** have to respect the old people, **you** know what time the bus stopping eh some place, but **you** don't have another option, or **you** walk or **you** take a bus, I think that, I don't know it's because here is small city, but I think that eh here **we** need another option, I don't know, public car, or I don't know. (S8, the placement test score 87.5/120)

Topic: Food

163) Hm how about food, the Canada, **Canadian people** likes fast food, for example Macdonald or Kentucky Fried Chicken, or Burger King, **Japanese** also like fast food, but here, **Canadian people** like meat, **Japanese** always eat fish, and meat the both, so I got fat. I really got fat. **Everybody** eat rice, but it's little bit different, because **Japanese rice** is short, but **Canadian rice** is little long..... (J6, the placement test score 94/120)

164) (In her country of origin) All the grocery is fresh. **You** can get it fresh. **You** can get meat for example fresh, **you** can get chicken fresh. **You** can get anything fresh. **We** don't have eh **we** don't have frozen, food. I think frozen food is not healthy food. Yeah, not healthy food. And even a some kind of food, there is a hormone. (A3, the placement test score 96/120)

Topic: Languages

165) And hmmm...in Canada there are many languages, like...because I'm ESL students, so I can hear many language like Korean, Arabic, Chinese, Japanese, ahh....French, Spanish. Ah hmm I think it's good for me, because in Japan I can hear only Japanese so I just it's....it's good to....ah..... (J15, the placement test score 80/120)

166) Ah the second topic I will talk about languages, in my country we use ah Arabic language as ah our tongue languages, also we ah we study little bit English in ah university and ah and ahhhh little bit of ah French too, if **you** want to study French language ahhh so but in street everything Arabic ah sign and everything. (A5, the placement test score 81/120)

These examples also show that Japanese informants tend to make a generic statement around their own perspective by using *I*, while non-TP groups make use of non-referential *we*, *you*, *they* as in the narratives. At the same time, the statements of the Japanese informants also tend to be impersonal as in (161), where it can be assumed that this is due to their tendency to make a topic NP a subject. In (163), the informant used what Lyons (1999) considered generic terms such as Canadian people, Canadian rice, or everybody, instead of saying "*In Canada, they....*", "*in Canada, rice is.....*" or "*they...*" Respectively. These tendencies were not commonly observed in non-TP group.

4.3.2. Avoidance of Indefinite NP as Subject (Pictures)

The use of indefinite subjects was also tested with picture stimuli methods. As previously mentioned, the data were gathered from native English speakers as well in order to make sure that the events which are described in the pictures encourage indefinite subject NPs. Six pictures are employed and the results will be shown one by one. The sentence in the index is the most common response from the native speakers of English (N=15) who were tested.

4.3.2.1. "Somebody is knocking at the door"

The difference among the three groups is not very significant (Figure 1.a). It is somewhat odd that the percentage of the NS (native English speakers) group (73.3 %) is smaller than those of the other groups; the percentage for the Japanese group is 100.0%, and for the non-TP group, the percentage is 93.8% (Spanish 100.0%, Arabic 100.0%, Farsi 50.0%). Four out of 15 NS informants said "*There is a knock on the door*". This type of answer was not observed among the ESL groups, and Farsi 1 is the only one who did not use *someone* as subject and said, "*I can hear knock at the door*" (Farsi 1).

No hesitation was observed among the informants in forming the sentence. It seemed that there was no difficulty employing *someone* as subject in a sentence.

Figure 1.a. Employment of indefinite subject for "Somebody is knocking at the door".

NS: Native English Speakers (N=15)
 J: Japanese informants (N=17) NT: Non-TP group (N=16)
 (S): Spanish informants (N=9) (A): Arabic informants (N=5)
 (F): Farsi informants (N=2)

4.3.2.2. "Nobody came to his birthday party"

There is also no significant difference observed across the groups including the NS group. The percentages are NS 100.0%, Japanese 94.1, and non-TP group 100.0% (Spanish 100.0%, Arabic 80.0%, Farsi 100.0%). J15 and A1 are the two who did not employ *nobody* as a subject. Their answers follow:

167) There is no person without him. (J15)

168) His friends, they didn't come. (A1)

However, these are the only examples and they are not enough to draw any conclusion regarding a general difficulty in employing *nobody* as subject in a sentence. The majority of the informants reached the target sentence without any hesitation and it can be said that there seems to be no noticeable difficulty for either group in using *nobody* as subject.

Figure 1.b. Employment of indefinite subject for "Nobody came to his party".

NS: Native English Speakers (N=15)
 J: Japanese informants (N=17) NT: Non-TP group (N=16)
 (S): Spanish informants (N=9) (A): Arabic informants (N=5)
 (F): Farsi informants (N=2)

4.3.2.3. "Many people came to her party"

The percentages are very low across the groups, even for the NS group: NS 40.0%, Japanese 23.5%, Non-TP 5.6% (Spanish 33.3%, Arabic 0.0%, Farsi 0.0%) (Figure 1.c).

This may be due to the somewhat rigid definition of indefiniteness that was taken. NPs which have possessives (*my, his, her, their* etc), and NPs with quantifiers which indicate a totality of objects, such as *every, both, all, most*, were considered as definite and were not counted for the percentages¹³.

The percentage for the NT group was due entirely to the Spanish group. The percentage for the Spanish is slightly higher than for the Japanese group. However, this does not strongly support the hypothesis that the Japanese would employ fewer

¹³ It is worth mentioning that NPs with *many* or *all* were excluded from the percentages if they were used with possessives. For example, "*All her friends go to her birthday*" (NS 9), or "*Most of her friends come to her party*" (J10). An example such as *Many friends came her party* (J17) is a tricky one, but it was considered as definite and excluded; *friends* here mean *her friends* from the context and it can be analyzed that possessive *her* simply dropped from the sentence.

indefinite subject NPs, since the difference between the Japanese group and the Spanish group was minor (23.5% and 33.3% respectively).

Figure 1.c. Employment of indefinite subject for "Many people came to her party".

NS: Native English speakers (N=15)
 J: Japanese informants (N=17) NT: Non-TP group (N=16)
 (S): Spanish informants (N=9) (A): Arabic informants (N=5)
 (F): Farsi informants (N=2)

4.3.2.4. "A butterfly landed on his head"

The differences among the groups were significant here. The percentages for each group are as follows: the NS group 86.7%, the Japanese group 17.6% (J1, J2, J4) the NT group 37.5% (Spanish 66.7%: S1, S3, S4, S5, S7, S8), Arabic 0.0%, Farsi 0.0%). Even though the NT group has a high percentage, it is due to the Spanish group and not the other two, Arabic and Farsi, who were not able to employ *a butterfly* as a subject.

Figure 1.d. Employment of indefinite subject for "A butterfly landed on his head".

NS: Native English speakers (N=15)
 J: Japanese informants (N=17) NT: Non-TP group (N=16)
 (S): Spanish informants (N=9) (A): Arabic informants (N=5)
 (F): Farsi informants (N=2)

Two major ways of unsuccessful use of the indefinite subject NP, *a butterfly*, were observed. One is that a bare NP *butterfly*, was used without an indefinite article. The other is the definite article, *the*. Examples follow:

169) Butterfly came...to...his head. (J7; similar response with a bare NP: J3, J8, J11, J15, J16, J17; A5, F2)

170) The butterfly stopped boy's head. (J12; similar response with a definite article: J5, J6, J7, J9, J10, J12, J13, J14; S6, S9; A1, A4)

There were other ways, one of which is using an existential *there* as in “*There is a butterfly on his head* (A2)” (similar responses: A3, F1), and the other is using a verb *have* as in “*He has a butterfly...*(S2)”. At first it was hypothesized that many Japanese informants would resort to these types of sentences or would passivize the sentence so that they would not have to face the difficulty of dealing with an indefinite NP that is a strong candidate as subject of the sentence. However, this was not the case. As already shown, all of them were able to employ *butterfly* as a subject in a sentence anyway. The problem is with the fact that they were not able to use an indefinite article where it was needed. Furthermore, this was also the case with the Arabic and the Farsi groups, which suggests that the difficulty of the Japanese group in employing an indefinite article does not result from the topic-comment organization of their L1.

4.3.2.5. “An apple fell on his head”

The result here is similar to the previous one for *A butterfly landed on his head*; The percentage is high for the NS group (73.3%), low for the Japanese group (35.3%: J1, J2, J11, J13, J15) and almost as high as the NS group for the non-TP group (62.5%).

Again the main contribution was made by the Spanish group (77.8%: S1, S2, S3, S5, S6, S7, S8) (The percentage for the Farsi group is 100.0%; however, the number of Farsi informants is small (N=2) and one should be cautious about making a judgment that Farsi speakers did not have difficulty employing indefinite subject NPs. The percentage for the Arabic group was 20.0% (A5). It should be noted that 4 out of 15 native English speakers passivized the sentence with *the boy* or *Newton* (This name seemed to have been associated with a falling apple) as a subject in a sentence such as in “*While he was reading a book, Newton was hit on the head by an apple* (NS15)”. However, no passives were observed among the ESL groups.

Figure 1.e. Employment of indefinite subject for “An apple fell on his head”.

NS: Native English speakers (N=15)
 J: Japanese informants (N=17) NT: Non-TP group (N=16)
 (S): Spanish informants (N=9) (A): Arabic informants (N=5)
 (F): Farsi informants (N=2)

The response patterns for the ESL groups were very similar to those for the one *A butterfly landed on his head* in the previous section; they employed *apple* as the subject in a sentence but either left out any articles or employed a definite article. However this time the employment of the definite article was far more preferred. Examples follow:

171) Apple fall down. (A4; similar response with a bare NP: J3)

172) The apple hit the boy's head. (J11; similar response with a definite article: J5, J6, J7, J8, J9, J10, J12, J14, J16, J17; S4, S9; A1, A2, A4)

In one instance, an informant (Arabic 3) used an existential *there* and said "*There is one apple, drop drop on his book*". However, this type of response was not observed in any other groups.

Therefore, in this category, evidence for a relation between L1 topic-comment organization and difficulty in employing indefinite subject NPs was not found. Again it is more plausible to assume that the Japanese group's difficulty in employing an indefinite article has more to do with the absence of an indefinite article in Japanese.

4.3.2.6. "An alien arrived at the earth"

Again the result was similar to the previous two (Chart 1.f). The percentage for the NS group was 66.7%, and 56.3% for the non-TP group, which was mainly contributed by the Spanish group (77.8%: S1, S2, S3, S4, S5, S6, S7). The percentages are 17.6% for the Japanese group (J2, J11, J13) and 20.0% for the Arabic (A2) and 50.0% for the Farsi group (F2).

Figure 1.f. Employment of indefinite subject for "An alien landed on the earth".

NS: Native English speakers (N=30¹⁴)

¹⁴ It should be noted that only for the sentence "An alien arrived on the earth", the number of the native English speakers who were tested was 30. These informants were all from the pilot studies. The reason was because, in the first pilot study with 15 native English speakers, the percentage was high at 86.7% (13/15); however, in the second pilot study, the percentage dropped down to 46.7% (7/15) due to their frequent uses

J: Japanese informants (N=17) NT: Non-TP group (N=16)
 (S): Spanish informants (N=9) (A): Arabic informants (N=5)
 (F): Farsi informants (N=2)

The response patterns for the ESL groups were again very similar to those for the other two. They could employ *alien* or *martian* as a subject but either used it as a bare NP or employed a definite article. Examples follow:

- 173) Alien came earth. (J8; similar response with a bare NP: J7, J9, J10, J12, J15, J17; A1, A3)
- 174) The martian go out his....spaceship. (S8; similar response with a definite article: J1, J5, J16, J4, J14; S9; A4)

In addition to these examples, there are some instances where the informants interpreted the alien in the picture as a human being and referred to it as *he* as in "*He got off from the airplane and ...*" (A5; similar response with a personal pronoun: F2).

Again it is more plausible to assume that the fact that the Japanese group was not able to employ an indefinite article with the subject NP has more to do with Japanese not having an indefinite article, since the Arabic and the Farsi, speakers, whose L1s do not have an indefinite article either, also showed a tendency not to use the indefinite article.

In summary, no evidence for difficulty with avoidance of indefinite subject NP is due to an imposition of a topic-comment organization of L1 Japanese onto L2 English syntax was found.

of a definite article. Therefore, the sentence was replaced with a sentence "*A girl was walking through the woods*", and the full experiment was conducted with it. However, this sentence gained only 26.7%, and it was decided to employ "*An alien landed on the earth*" back as a target sentence for the full experiment with the ESL groups. The results from the first and second pilot studies were combined together and the percentage was calculated according to it.

Chapter 5

Results: Typological Contrast II

The results will be presented in the following way, mainly in three sections. In the first part, the percentages for all the groups will be presented with charts. In addition, in order to make it clearer which group has more difficulty to reach the target sentence, the number of the informants who needed the third attempt and who still could not reach the target sentence will be shown in a table. Furthermore, the presence of hesitation among the informants who could reach the target sentence will be also shown, since this can also be an important indicator for acceptability of the sentence to the informants. The criteria for determining what kind of examples will be considered as an instance of hesitation follow:

1. There is a long pause after the first NP (a subject, or a part of subject NP) in a sentence or after the verb. e.g. *"He hit ..John hit ah...his head with a tree. (S4)" "John...John...has broken leg? (J5)"*
2. There is a long pause before producing a sentence. e.g.
".....hm...I have no idea. Leaves changing color? (J17)"
3. There is a sign or a comment by an informant that shows their discomfort with the sentence. (This is considered as discomfort, rather than hesitation.) e.g.
"Mary burn the meat. I don't know. (Interviewer asked: You don't like the sentence?) No. (S8)"

In the second section, examples that did not meet the conditions for the target sentence will be presented and will be examined to see if there is any specific pattern for

avoiding forming the target sentence and if there are any L1 specific tendencies to any of those.

In the second part, typical examples of avoidance or non-native like features will be shown. The criteria for determining an example to be an instance of avoidance follow:

1. Use of passive or an intransitive structure when a verb and its arguments are given is considered as an avoidance of the target structure, since the informants supposedly know what a transitive structure is (they all successfully employed the transitive structure in the category for the prototypical events (5.1.)).
2. A very unusual pattern of forming a sentence describing a specific event, which is unique to a specific L1 group, and which is different from the target structure. This may not fit in the category of avoidance but those sentences should be examined and discussed since they may contain some important information concerning some L1 specific difficulty in forming the target sentence.

In the third part, L1 descriptions that were produced by the same informants will be presented and the results will be compared to their L2 production to see if there is any correlation between them. A summary will be given for each category.

Now the results will be examined according to the above procedure.

5.1. Prototypical Transitive Sentences (+ Animacy, + Volitionality, + Kinesis, + Affectedness of O) [Actor (+ Volition) + V + Patient]

The target sentences here are the ones that are thematically represented as [Actor (+ Volition) + V + Patient]. Agent is an animate entity and volitionally involved in the action. The action causes the patient to undergo a change-of-state (Givon, 1984a). This schema is mapped onto NP V NP.

The percentages of employment of target structure are high for all the four sentence across all the groups, including the NS group. No sign of hesitation was observed across all the groups.

Figure 2.a. Employment of NP V NP for "Mary kicked the stone"

Figure 2.b. Employment of NP V NP for "John drank the beer".

Figure 2.c. Employment of NP V NP for "Mary cleaned the room".

Figure 2.d. Employment of NP V NP for "John built the house".

■ First response ■ second response (Two NPs) ▨ Third response (Two NPs + a verb)

NS: Native English speaking informants (N=15)

J: Japanese informants (N=17) S: Spanish informants (N=9)

A: Arabic informants (N=5) F: Farsi informants (N=2)

5.1.1. Avoidance and Non-Native Tendencies

There was no obvious sign of avoidance of the target sentence. The only thing is that the Spanish group and the Farsi group have rather low percentages for the sentence “*She kicked the stone*” on the first response and the second response; four out of nine Spanish informants and all the Farsi informants interpreted the event in a different way and produced a sentence such as, “*The girl wants to play football* (first response, S2)” or “*She is playing with ah with ah stone* (second response, F2)”. However, after they were instructed to use the verb *kick* on the third response, they were all able to produce the target sentence. These different ways of interpreting a picture can always be expected, especially on the first response.

5.1.2. L1 Influence

All the informants’ L1s, Japanese, Spanish, Arabic, and Farsi, commonly employ a transitive structure for describing these four events. However, whether or not it was because of L1 influence or the universal tendency to employ a transitive structure for describing prototypical transitive events is not clear.

5.1.3. Summary

A common tendency to employ NP V NP was observed among all the groups.

5.2. Less Prototypical Transitive Sentences (+ Kinesis, - Volitionality, + Animacy, + Affectedness of O) [Actor (- Volition) + V + Patient]

The target sentences here are the ones that are semantically represented as [Actor (- Volition) + V + Patient]. The agent is still an animate entity and the action causes the

patient to undergo a change-of-state. But this time, volition of the actor is not involved in the action. This schema is mapped onto NP V NP.

Differences were observed across the groups, especially between native English speakers and English as second language speakers (Japanese, Spanish, Arabic, and Farsi).

Details will be shown sentence by sentence.

Figure 3.a. Employment of NP V NP for "John hit his head".

Figure 3.b. Employment of NP V NP for "Mary hurt her knee".

Figure 3.c. Employment of NP V NP for "John dropped the cup".

Figure 3.d. Employment of NP V NP for "Mary burned the meat".

■ First response ■ second response (Two NPs) □ Third response (Two NPs + a verb)

NS: Native English speaking informants (N=15)

J: Japanese informants (N=17) S: Spanish informants (N=9)

A: Arabic informants (N=5) F: Farsi informants (N=2)

5.2.1. "John hit his head".

93.3 % of native English speakers (N=15) produced the target structure on the first attempt (the other 6.7 % employed *the tree* as direct object and said *John hit the tree*,

but this type of sentence was not counted towards the percentage), and reached 100.0% on the third attempt. There was no sign of hesitation observed. On the other hand, the ESL groups have low percentages on their first responses (Japanese 29.4%, Spanish 11.1%, Arabic 40.0%, Farsi 0.0%). The percentages increased on the second response (Japanese 76.4%, Spanish 77.8%, Arabic 80.0%, Farsi 50.0%) and on the third response (Japanese 88.2%, Spanish 100.0%, Arabic 80.0%, Farsi 100.0%). The informants who needed the third attempt and the ones who still could not produce the target sentence will be shown in the table below (Table 15).

Table 15. Informants who needed the third attempt and those who still could not achieve the target sentence *"John hit his head"*.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None
Japanese	J3, J4, J15, J16 (4/17, 23.5%)	J15, J16 (2/17, 11.8%)
Spanish	S3, S6 (2/9, 22.2%)	None
Arabic	A3 (1/5, 20.0%)	A3 (1/5, 20.0%)
Farsi	F2 (1/2, 50.0%)	None

However, even though the percentages for the ESL groups were rather high, there were informants who were able to produce the target sentence but showed a sign of hesitation (J4, J5, J8, J11, J12; S4, S6; F1). Examples are below:

175) He hitted hm.....he hitted his head at the tree. (first response, J15)

176) John's head?John hit his head. (third response, J12)

177) John hit ...John hit ah ...his head with a tree (laughing). (third response, S4).

These examples show informants' uncertainty about the sentence. Therefore, the percentages for the instances that the informants comfortably employed the target sentence should be lower than the percentages shown in Chart 3.a.

5.2.1.2. Avoidance and Non-Native Tendencies

In order to avoid forming a sentence with *John* as a subject NP, *his head* as a direct object NP and the verb *hit*, informants resorted to different types of sentences. "*John hit the tree.*" (first response, J6 (similar responses: J8, J9, J14, J16; S8; A3; F1) was the most common and was seen in the NS group as well. Other examples follow:

178) John crashed into the tree. (first response, J7 (similar responses: J4, J6, J13, J15))

179) The boy had an accident with ah his bicycle. (first response, S6 (similar response: F1))

180) John's head crashed the tree. (second response, A3 (similar response: J14))

181) John ah ...hit...John have a headache. (second response, S6)

182) John hit ah hm tree his head. (third response, J16)

183) John hit his head. Nonononono. I can't explain. John's head bumped into the tree. (third response, J15)

Example (178) type of intransitive sentence was only produced by the Japanese group. Example (180) show that the informants managed to find a way to put the two NPs together into a sentence in a grammatical way but the resulting sentences were unusual ones. Example (181) shows that the informant once tried to employ *hit* but he could not continue the sentence from there and used a different verb *have*. Example (179)

shows that the informant was not able to integrate the NP *his head* into the sentence and stranded it at the end of the sentence. Example (183) is an instance where the informant achieved the target sentence, but then rejected it and produced a different one. These examples show a difficulty experienced in using NP V NP.

5.2.1.3. L1 Influence

The following sentences represent the most frequent L1 response to pictures. These are the ones that the majority of the informants of each L1 group reached.

184) Japanese (17/17, 100.0%)

John wa, atama o ki ni butsuketa.

John-TOP, head-ACC tree-against hit-TRANSITIVE.

185) Spanish (6/8¹⁵, 75.0%)

Juan se pego en la cabeza.

John REF-hit on the head.

186) Arabic (2/3, 66.7%)

Baynama hova yazab bildarrajab darab rasahou fi al shujara.

During he went using-the-bike hit his-head in the tree.

187) Farsi (2/2, 100.0%)

John sar-ash ra be berakht kooband

John head-his to tree hit.

It became obvious that even though people employ a transitive structure in describing the same event in their L1¹⁶, it does not help them employ a transitive

¹⁵ It should be noted that the data could not always be drawn from all the informants of each group, due to the fact that some sentences were not clearly articulated or recorded.

¹⁶ For Spanish, Arabic and Farsi, the criteria for interpreting sentences as being transitive depends on a syntactic cue, which is whether or not a verb has a direct object.

structure for describing it in the L2. In addition, the cause for the Japanese-specific tendency to use “*John crashed into the tree* (as in example (178))” remains unclear.

5.2.2. “Mary hurt her knee”

86.7% of native English speakers reached the target structure on the first response, the remaining ones on the second. No hesitation was observed. As for the ESL group, on the first response, the percentages are very low (Japanese 29.4%, Spanish 44.4%, Arabic 20.0%, Farsi 50%). They increased on the second response (Japanese 35.3%, Spanish 66.6%, Arabic 60.0%, Farsi 100.0%), and on the third response (Japanese 64.7%, Spanish 100.0%, Arabic 80.0%, Farsi 100.0%). Table 16 shows who needed the third attempt and who still could not reach the target structure.

Table 16. Informants who needed the third attempt and those who still could not achieve the target sentence “*Mary hurt her knee*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None
Japanese	J1, J2, J4, J5, J7, J8, J10, J11, J13, J14, J15 (11/17, 64.7%)	J2, J4, J5, J7, J10, J11 (6/17, 35.3%)
Spanish	S5, S7, S9 (3/9, 33.3%)	None
Arabic	A2, A5 (2/5, 40.0%)	A2 (1/5, 20.0%)
Farsi	None	None

There is only one instance of hesitation among the informants who reached the target structure. It is from a Farsi informant.

188) She hurtsshe hurts her knee. (first response, F2)

5.2.2.1. Avoidance and Non-Native Tendencies

There are many cases of avoidance, or unusual formations across the ESL groups. It should be noted that the Japanese group has a unique tendency to make the sentence passive or intransitive.

189) She got hurt. (first response, J11; similar response, J5, J7)

190) The girl has injure. (first response, J8)

191) She is suffered from her.....her pain in her leg. (first response, J4)

192) She has hurt on her leg. (second response, J11; similar response, J15)

193) Mary's leg has got injured (second response, J7)

194) Mary's leg hurt. (third response, J2)

195) Mary got hurt her leg. (third response J5)

196) Mary's leg is looks so hurt. (third response, J10)

These examples show their preference for an intransitive (or passive) structure with *Mary* or *Mary's leg* in the subject position. Indeed there are two instances where NP V NP schema was employed, but the word order was not target like.

197) (After a long pause)..... Her leg hurt
Mary. (third response, J4)

198) Her leg hurt her. (third response, A2)

Even though they employed the NP V NP schema, they used *her leg* as a subject and *Mary* (or *her*) as a direct object in a sentence. These examples show a strong resistance to interpreting *Mary* as an actor and *her leg* as an entity affected by the action, since they violate the universal theme-rheme principle. It can be assumed that they interpreted the sentence in such a way that *Mary* is an affected entity and the causer of

the pain on Mary is *her leg*, and it seemed more reasonable to them to put *Mary* in the direct object position and *her leg* in the subject position.

An instance of using an intransitive structure with *Mary* in the subject position was observed from the Arabic group.

199) She got injury her knee. (first response, A5)

The use of reflexive pronouns in the direct object position were also observed:

200) The girl hurt herself. (first response, A1)

201) She hurt herself. (first response, F1)

The preference for the intransitives, reflexives or passives with *Mary* in the subject position was not observed for Spanish group, but there are two instances which use VP *have a pain* on the first response, which were not observed for the other groups.

202) She has a pain in her knee. (first response, S2; similar response: Spanish 5)

In short, compared to the NS group, the use of the NP V NP schema with *Mary* as subject, and *her leg* as direct object was not their first intuition and each L1 group seems to have their own tendency. The Japanese group is more distinct in its preference for an intransitive structure and has more difficulty in reaching the target sentence.

5.2.2.3. L1 Influence

203) Japanese (17/17, 100.0%)

Mari wa, ashi o kega-shimashita.

Mary-TOP, leg-ACC injury-do-PAST.

204) Spanish (8/9, 88.9%)

Maria se lastimo su pierna.

Mary REF-hurt her leg.

205) Arabic (3/4, 75.0%)

Mary aawarit rijluha.

Mary hurt her-foot

206) Farsi (1/1, 50.0%)

Mary zahuash ra zakhmi kard.

Mary knee-her injure -ed.

207) Farsi (1/2, 50.0%)

Zahu-ye Mary zakhmi shadeh ast.

Leg-of Mary injure has been.

Japanese employs an accusative marker for the affected entity *ashi* (foot), but the verb itself does not have a transitive connotation. It can be said that this L1 tendency may have influenced their L2 organization, which resulted in a difficulty in employing the target transitive structure to describe the event.

However, there are two things that should be noted. First, the verb that the Japanese group employed in their L1 description is not an equivalent to the verb *hurt*, and what is most frequently employed is the verb *kega-suru* (injure). Japanese has an equivalent verb to *hurt*, which is *kidutsuku* (intransitive) or *kidutsukeru* (transitive). If this is the verb whose meaning is associated with the verb *hurt* in their mind, it is fair to say that the discrepancy will have an influence on their L2 organization. This issue will be discussed in the following chapter.

Second, most of the Spanish group employed a transitive structure (with a reflexive pronoun) to describe this event and it seemed that they were the ones that

employed the target transitive structure most easily. However, even so, some of them still seemed to have a difficulty and showed a hesitation in producing the target sentence. This shows their discomfort with the target sentence, which means that the sentence is still not easy in spite of their L1 employing a transitive structure.

5.2.3. “John dropped the cup”.

The NS group has a high percentage (80.0%) of employment of NP V NP with *John* as subject NP, and *the cup* as direct object. The other 20.0% are instances of using an intransitive structure with the verb *fall*, e.g. “*The cup fell from the tray* (NS6) ”. However, on the second and third response, they were successfully able to say “*John dropped the cup* (NS 6)” and no sign of hesitation was observed.

The percentages for the target transitive sentence were varied from group to group on the first response (Japanese 88.2%, Spanish 0.0%, Arabic 20.0%, Farsi 0.0%). The Japanese group has a much higher percentage than the other three groups. The percentages increased on the second response (Japanese 88.2%, Spanish 33.3%, Arabic 40.0%, Farsi 0.0%) and on the third response (Japanese 88.2%, Spanish 77.8%, Arabic 40.0%, Farsi 100.0%). The informants who needed the third response and who still could not achieve the target sentence are shown in the table below (Table 17).

Table 17. Informants who needed the third attempt and those who still could not achieve the target sentence “*John dropped the cup*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	1/15 (6.7%)	None
Japanese	J5, J17 (2/17, 11.8%)	None
Spanish	S3, S4, S8, S9 (4/9, 44.4%)	S3 (1/9, 11.1%)

Arabic	A1, A3, A5 (3/5, 60.0%)	A1, A3, A5 (3/5, 60.0%)
Farsi	None	None

For the ESL groups, many instances of the verb *fall* were observed on the first and second response as if it were a transitive verb, e.g., “*He fall down the cup* (J11, first response)”. It can be assumed that they did not know the verb *drop* or simply that it was not very familiar to them. Although *fall* itself is a strictly intransitive verb, this kind of sentence was counted as a successful use of NP V NP target schema as long as they have *John* as subject and *cup* as direct object¹⁷.

5.2.3.1. Avoidance and Non-Native Tendencies

There are many instances where learners avoid using the target transitive schema by using intransitive structures. Examples follow:

- 208) The cup fell down (first response, J7; similar responses: S3; A1, A2, A5; F2)
- 209) The waiter fell down the cup (first response, J14; similar responses: J8, J10, J11, J16; S2, S8; A3, A4; F1; F2 (Some of them are from second responses)).
- 210) John notice the cup fall down. (second response, J17)
- 211) John was working and a cup fell down. (second response, S3)
- 212) The cup fell down from John (second response, A1; similar response, F2)
- 213) The cup dropped by John. (third response, J10)
- 214) John’s cup dropped down. (third response, A3; similar response S3; A5)

¹⁷ The use of intransitive verbs transitively in the process of early L1 acquisition of English was reported in Bowerman (1974), e.g., “*I, gonna just fall this on her*” (=make this fall on her; drop this on her). “*Come her!*” (=make her come).

These examples again suggest a difficulty integrating *John* (or *he*) as subject and *the cup* as direct object into one sentence.

There is one example in which an informant reached the target structure but with an adverb, *accidentally*.

215)hmm.....he dropped one cup....he dropped one cup
accidentally. (first response, J4)

This informant expressed the idea that the event that he was describing did not involve any volition of the actor by adding the adverb. However, there were no NS informants who added an adverb of this kind to the sentence since lack of volition is already expressed in the target sentence itself.

No significant L1 specific tendency to avoid the target NP V NP schema was observed.

5.2.3.2. L1 Influence

216) Japanese (12/17, 70.6%)

Weita ga cappu o otoshita.

Waiter-NOM cup-ACC dropped-TRANSITIV

217) Japanese (5/17, 29.4%)

Waita ga cappu o otoshite shimatta¹⁸.

Waiter-NOM cup-ACC dropped-TRANSITIVE AUX.

214) Spanish (6/7, 85.7%)

¹⁸ “*Shimatta*” is an auxiliary verb, which emphasizes the fact that an action has been completed. This is also used when someone did something that he/she should not have done (Makino and Tsutsui, 1986).

El mesero se le cayo una taza.

The waiter REF it fall a cup.

215) Arabic (3/4, 75.0%)

Al koub taH min John. /Aamil almatam sakat min-ho fantan.

The cup fell from John./ The waiter fell from-him a glass.

216) Farsi (2/2, 100.0%)

Leevan az dast-e John oftad.

Cup from hand-of John fell.

Japanese employs a transitive structure with both the morphological cue and the accusative marker for the affected entity. Spanish also employs a transitive structure with a reflexive pronoun. Farsi and Arabic seem to prefer an intransitive structure with a verb, which is equivalent to *fall*. Indeed this seems to have much to do with the low percentage for the Arabic group (but not for the Farsi group). However, again, some of the Japanese informants did show a difficulty employing the target transitive schema, which means that the target sentence is still a difficult one to form despite L1 employing a transitive structure to encode this event.

5.2.4. "Mary burned the meat"

Again a significant difference was observed between the NS group and the ESL groups. 80% of the NS group employed the transitive structure with two NPs, *Mary* (or *she*) as subject and *meat* as direct object on the first response, and no sign of hesitation was observed. However, the ESL groups have very low percentages for the target NP V NP schema on all the three attempts (except the Farsi group): the first response (Japanese

11.8%, Spanish 0.0%, Arabic 0.0%, Farsi 50.0%), the second response (Japanese 29.4%, Spanish 11.1%, Arabic 20.0%, Farsi 100.0%), and the third response (Japanese 40.2%, Spanish 55.6%, Arabic 40.0%, Farsi 100.0%). The informants who needed the third attempt and who still could not achieve the target sentence are shown in the table below (Table 18).

Table 18. Informants who needed the third attempt and those who still could not achieve the target sentence “*Mary burned the meat*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	2/15 (13.3%)	2/15 (13.3%)
Japanese	J1, J4, J6, J7, J8, J10, J11, J12, J13, J14, J15, J17 (12/15, 70.6%)	J1, J4, J6, J7, J10, J11, J13, J15, J17 (9/17, 52.9%)
Spanish	S1, S2, S3, S4, S7, S6, S8, S9 (7/9, 88.9%)	S2, S3, S4, S6 (3/9, 44.4%)
Arabic	A1, A3, A4, A5 (4/5, 80.0%)	A1, A3, A4 (3/5, 60.0%)
Farsi	F1 (1/2, 50.0%)	F1 (1/2, 50.0%)

5.2.4.1. Avoidance and Non-Native Tendencies

There were many different ways of avoiding the target structure and non-native like tendencies. Examples follow:

- 217) The food get burn. (first response, S3; similar response with passives: J11, J15; S5, S6, S7; A1, A3)
- 218) The food burn. (first response, S8; similar response: J14; S2, S4; A5; F2)
- 219) She didn't notice that the meat was burning. (first response, J1; similar response with the verb *notice*: J6, J15 (second response), J17)

220) She seems to be surprised with burnt meat (second response, J4; similar response with the verb *surprise*; J6; S9; A3)

221) Anitathe meat that Anita was cooking is burn. (second response, S3)

222) The meat burnt by Mary. (third response, J10; similar response: A3)

223) The meat got burnt by Mary. (third response, J7)

The most common sentence type on the first response is an intransitive one with *meat* as subject (e.g. “*The food get burn* (S3)”). The informants generally seemed to have a hard time integrating *Mary* (or *she*) into the sentence on the second and third response, and their solutions either use embedded clauses or make the sentence passive.

Furthermore, a Spanish informant reached the target sentence structure, however, she showed signs of discomfort about the sentence.

224)Mary burn the meat. I don't know. (Interviewer asked: You don't like the sentence?) No. (third response, S8)

No obvious L1 specific tendency was observed except that the Japanese group was the only group that used the verb *notice* and produced “*Mary noticed that -*” type pf sentences to avoid the target transitive structure.

5.2.4.3. L1 Influence

225) Japanese (7/17, 41.1%)

Kanojo wa, niku o kogashite shimatta.

She-TOP, meat-ACC burn-TRANSITIVE AUX.

226) Japanese (4/17, 23.5%)

Mari wa, niku ga kogeteiru no ni kiduita.

Mary-TOP, meat-NOM burning-INTRANSITIVE nom to noticed.

227) Spanish (6/8, 75.0%)

Mary se le quemo la carne.

Mary REF it burnt the food.

228) Spanish (2/8, 25.0%)

Maria quemo la carne.

Maria burnt the meat.

229) Arabic (5/5, 100.0%)

Baynama tatakallam maa sadikaha fakad a'hrakata

While speaking with her-friend therefore she-did burn
al lahm.
the meat.

230) Farsi (2/2, 100.0%)

Mary dar hale sohbat kardan ba telefon ghazayash ra soozand.

Mary while talking with telephone food burned.

All the languages seem to employ a transitive structure to describe the same event.

However, even so, the percentages for the target transitive schema were low across all the ESL group, which indicates that the target sentence was more challenging for the ESL informants. In addition, the use of the verb *notice* can be analyzed as a result of L1 influence from Japanese. Four speakers of the Japanese group described the same event with the equivalent Japanese verb in their L1 description, as in (226).

5.2.5. Summary

With all four target sentences, employment of the target NP V NP structure is low. Except for the Arabic group having a low percentage for the sentence “*John*

dropped the cup", the influences from L1s on their L2 production were not very clear; even though a L1 employs a transitive structure to describe the same event with the same elements in equivalent positions, this does not contribute to easy formation of target sentences. It can be assumed that there may be a universal tendency that disagrees with the mapping of [Actor (-volition) + V + Patient] onto the grammatical structure NP V NP. On the other hand, some L1 specific tendencies were observed in the patterns of avoidance, even though it was not clear where these tendencies came from. The implications of this will be discussed further in the next chapter.

5.3. Less Prototypical Transitive Sentences (+ Animacy, - Volitionality, + Kinesis, - Affectedness of O) [Theme (+ Animate) + V + Location]

The event that is examined here is one in which an animate subject is the theme of the verb, and is non-volitionally involved in the action. This is thematically schematized as [Theme (+ animate) + V + Goal, Source, or Location], and it is mapped onto NP V NP. The locative NPs that are in the direct object position are not affected by the action. The degree of transitivity is lower here than in the previous category; however, employment of the NP V NP structure was higher across all the ESL groups.

Figure 4.a. Employment of NP V NP for "Mary crossed the street".

Figure 4.b. Employment of NP V NP for "John left the house".

Figure 4.c. Employment of NP V NP for "Mary entered the restaurant".

Figure 4.d. Employment of NP V NP for "John reached the top of the mountain".

■ First response ■ second response (Two NPs) □ Third response (Two NPs + a verb)

NS: Native English speaking informants (N=15)

J: Japanese informants (N=17) S: Spanish informants (N=9)

A: Arabic informants (N=5) F: Farsi informants (N=2)

5.3.1. "Mary crossed the street".

100% of the NS group employed the target structure on the first response with no sign of hesitation. The percentages were also high across the ESL groups, and over 80% of each ESL group (except the Farsi group) reached the target sentence on the first response (Japanese 94.1%, Spanish 88.9%, Arabic 80%, Farsi 50%) and gained none on the second response. At the third response, 100% of all the ESL groups reached the target sentence. The informants who needed the third attempt and who still could not reach the target sentence are shown below in the table 19.

Table 19. Informants who needed the third attempt and those who still could not achieve the target sentence "Mary crossed the street".

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None
Japanese	J17	None
Spanish	S5	None
Arabic	A4	None
Farsi	F1	None

It should be noted that there are many occurrences of the preposition *across* employed by the informants¹⁹. This tendency was especially significant for the Japanese group (Japanese, 10 out of 17 (58.8%)) and there is one such instance from the Spanish group and the Farsi group. Below is an example:

- 231) She acrossed the road. (first response, J15; similar response: J1, J3, J5, J6, J7, J9, J10, J11, J12; S1; F2)

Two instances of hesitation were observed from the Japanese group. However, their hesitation seems to be due to the confusion between *across* and *cross*.

- 232) She is across the st...., she is, she is, she was,she across the street.
(first response, J3)

- 233) She cro....across the street. (first response J1)

However, the hesitations in these examples seemed to result from their confusion between a verb *cross* and a preposition *across*, which has little to do with the difficulty in employing the target NP V NP schema.

5.3.1.1. Avoidance and Non-Native Tendencies

There were no instance which could be analyzed as avoidance, though there are some instances of intransitive structures on the first response.

- 234) She go through the road. (first response, J17)
235) She is going across all through the street. (first response, S5)
236) The girl pass from one side to another. (first response, A5)

¹⁹ Use of locative particle as transitive verbs in an early stage of L1 English acquisition (of a four-year-old child) is again reported in Bowerman (1974). Examples follow (Bowerman, 1974, pp. 142):

Up your legs! (=make your legs go up; put your legs up)
I wanta...wanta...wanta round it. (=make it go around; turn it)

237) She ran across the street. (first response, F1)

However, once they were given the verb *cross*, the target schema was successfully employed by all of the informants.

Even though the transitivity of this event is low, the informants did not seem to have any difficulty employing NP V NP.

5.3.1.2. L1 Influence

238) Japanese (17/17, 100%)

Kanojo wa, douro o watarimashita.

She-TOP, street-ACC crossed.

239) Spanish (9/9, 100.0%)

Maria cruzo la calle.

Mary crossed the street.

240) Arabic (4/4, 100.0%)

Mary kataat al tariqu.

Mary crossed the street.

241) Farsi (2/2, 100.0%)

Mariam as khiaban rad shod

Mariam through road cross -ed.

All the L1s, except for Farsi, employed a transitive structure to describe this event (however, Japanese lacks a morphological cue to interpret the sentence as a transitive structure). Hence whether or not the high percentages of the NP V NP structure across all the ESL groups resulted from their L1's organization is still unclear. In addition, the correlation between the use of *across* as a verb and the lack of a

morphological cue in Japanese also remains unclear, but investigation of this issue is beyond the scope of this thesis.

5.3.2. “John left the house”.

The differences among groups were not significant. 53.3 % of the NS group reached the target sentence on the first response with no hesitation. This relatively low percentage seemed to result from the picture (Appendix 3-b); there is a man who wears a suit with a bag in his hand. He has just come out of his house to go to work. Therefore, on the first response, the other 46.7% focused on the fact that he is wearing a suit more than the *house* and produced sentences such as “*he is going to work*”, “*he left for work*”. However, 100% of them reached the target structure without hesitation on the second response.

For the ESL groups, the percentages were slightly lower on their first response (Japanese 35.3%, Spanish 33.3%, Arabic 20.0%, Farsi 50.0%), and increased on the second (Japanese 70.6%, Spanish 66.6%, Arabic 60.0%, Farsi 50.0%) and on the third response (Japanese 88.3%, Spanish 100.0%, Arabic 80.0%, Farsi 100.0%). There was no hesitation observed among people who reached the target sentence. The informants who needed the third try and who still could not form the target sentence are shown in the table below (Table 20).

Table 20. Informants who needed the third attempt and those who still could not achieve the target sentence “*John left the house*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None

Japanese	J3, J5, J6, J9, J14 (5/17, 29.4%)	J5, J14 (11.8%)
Spanish	S6, S8, S9 (3/9, 33.3%)	None
Arabic	A2, A3 (2/5, 40.0%)	A3 (1/5, 20.0%)
Farsi	F2 (1/2, 50.0%)	None

5.3.2.1. Avoidance and Non-Native tendencies

As the NS group did, ESL informants interpret the sentence in an unexpected way and had a tendency to produce a sentence such as “*He is going to school*”, or “*He is going to work*” on the first response. This fact contributed to the lower percentage.

Sentence types that were not observed in the NS group did occur with the ESL groups. They were intransitive sentences making use of VP such as *go out*, *come from* on the first and the second response (five instances from the Japanese group, four from Spanish, two from Arabic, and one from Farsi). On the third response, there are instances that use *leave* with preposition *from* between the verb and the locative NP (source), *the house* (two instances from the Japanese group, and one from the Arabic group).

Examples follow:

242) He just went out from his house. (first response, J9; similar response: S6; A2 (second response); F2)

243) The man will through the door. (first response, J6)

244) John get off his house. (second response, S8)

245) John get out from his house. (second response, A2)

246) John is leaving from his house. (third response, J5; similar response: A3)

No L1 specific tendency was observed.

5.3.2.3. L1 Influence

247) Japanese (17/17, 100.0%)

Jon wa, ie o demashita.

John-TOP, house-ACC left.

248) Spanish (9/9, 100.0%)

Juan salio de su casa.

John left from his house.

249) Arabic (5/5, 100.0%)

John kharaja min baytihi.

John left from his-house.

250) Farsi (2/2, 100.0%)

John as khaneh kharej shod.

John from home exit -ed.

Japanese is the only language that has an accusative marker for the locative NP.

The other three require a preposition that is equivalent to *from*. If this influenced their L2, it would follow that the Japanese group should successfully employ *leave* with a locative NP as a direct object, and the others should have more of a preference toward intransitive structure with VP, *leave from*. However, this was not the case. Once they were given the verb *leave*, most of them could use the verb transitively with no difficulty. Therefore, the correlation between the results and the L1s is not clear.

5.3.3. “Mary entered the restaurant”.

The verb *enter* did not seem to be very accessible to NS speakers to describe this event and 60.0% of them produced a sentence such as “*She went into the restaurant* (NS6)”. However, once they were given the verb *enter*, they did not have any difficulty using it in the target NP V NP schema and the percentage reached 100.0%.

The differences among the ESL groups were significant, especially between the Japanese group and the Spanish group. The Japanese group has a high percentage for the target transitive structure, but the Spanish group failed to produce any. The percentages for the first response were, Japanese 52.9%, Spanish 0.0%, Arabic 20.0%, Farsi 0.0%, and remained the same on the second response, and on the third response, the percentages increased except for the Spanish group (Japanese 94.1%, Spanish 0.0%, Arabic 40.0%, Farsi 100.0%). The informants who needed the third attempt and who still could not reach the target sentence are shown in Table 21 below.

Table 21. Informants who needed the third attempt and those who still could not achieve the target sentence “*Mary entered the restaurant*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	9/15 (60.0%)	None
Japanese	J1, J3, J6, J7, J11, J16, J17 (7/17, 41.1%)	J7 (1/17, 5.9%)
Spanish	All (9/9, 100.0%)	All (9/9, 100.0%)
Arabic	A1, A2, A3, A4 (80.0%)	A1, A2, A3 (60.0%)
Farsi	F2 (1/2, 50.0%)	None

There was an instance of hesitation from a Farsi speaker showing his confusion whether or not he should employ a preposition *to* after the verb.

251) She is enter to...she enters the restaurant. (first response, F1)

5.3.3.1. Avoidance and Non-Native Tendencies

As seen in the NS group, “*She went to restaurant (J7)*” type of sentences frequently occurred on the first and second response. Another response is to insert a preposition between the verb *enter* and the locative NP, which all the Spanish speakers employed. Examples follow:

252) Mary went to restaurant. (first response, J4; similar response: J1, J7, J11, J17; S2, S9; A3, A4; F1, F2)

253) The girl enter to the restaurant. (first response S1; similar response: S2, S3, S4, S5, S6, S7, S8, S9; A1, A2, A3 (some of them from the second response and he third response)

No L1 specific tendency was observed other than the fact that the Spanish informants could not use the verb *enter* without inserting a preposition *to* (or *into*) between the verb and the locative NP.

5.3.3.2. L1 Influence

254) Japanese (17/17, 100.0%)

Mari wa, resutoran ni hairimashita.

Mary-TOP, restaurant to entered.

255) Spanish (8/9, 88.9%)

La nina entro al restaurante.

The woman entered to-the restaurant.

256) Arabic (4/4, 100.0%)

Mara daakhilaton ila al mataam.

A woman entering to the restaurant.

257) Farsi (2/2, 100.0%)

Mariam dakhele restaurant shod.

Mariam enter restaurant -ed.

All the L1s except Farsi employ an intransitive structure with an equivalent preposition (or postposition) to *to* (or *into*) after the verb. The Japanese employ an intransitive structure in their L1 description of the event, but their use of a transitive structure in English is as high as that of the NS group. On the other hand, the lower percentage for the Arabic and Farsi groups correlated with the fact that an intransitive structure and a transitive structure were employed in their L1 description respectively. The preference for the intransitive structure in L2 for the Spanish group was strong since none of them could employ the transitive structure. In the description of the picture in L1 Spanish, eight out of nine Spanish informants employed the verb *entrar* in the sentence, which is a cognate with the English verb *enter*. This may be a direct influence from their L1 onto the L2 English sentence.

5.3.4. "John reached the top of the mountain".

60.0% of the NS group employed the NP V NP schema with a verb *reach* and *John* (or *he*) the other 40.0% produced sentences such as "*John climbed to the top of the mountain* (NS12)", "*He made it to the top* (NS1)", in a subject position and a locative NP *the top of the mountain* in a direct object position. The percentage increased to 86.7% on the second response and reached 100.0% on the third response.

However, use of the verb *reach* was very rare among the ESL groups at the first response (Japanese 5.9%, Spanish 0.0%, Arabic 20.0%, Farsi 0.0%) and there were only three instances of it (from A1 and J15, which were successful, and J2, which was not successful (“*Finally he reached to on top of the mountain*”). Instead, at the first and the second response, a VP such as *climb the mountain*, *get to the top*, *arrive to the top* were commonly employed. The percentages did not improve much at the second response (Japanese 5.9%, Spanish 0.0%, Arabic 40.0%, Farsi 0.0%), but they did to a great extent at the third response (Japanese 82.4%, Spanish 88.9%, Arabic 60.0%, Farsi 100.0%), where the verb *reach* was provided. There was no sign of hesitation observed among the informants who reached the target NP V NP schema.

The informants who needed the third attempt and who still could not produce the target sentence are shown below in table 22.

Table 22. Informants who needed the third attempt and those who still could not achieve the target sentence “*John reached the top of the mountain*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	2/15 (13.3%)	None
Japanese	J1 to J6, J8 to J17 (16/17, 94.1%)	J2, J8 (2/17, 11.8%)
Spanish	All (9/9, 100.0%)	S6 (1/9, 11.1%)
Arabic	A2, A3, A4 (3/5, 60.0%)	A2, A3 (2/5, 40.0%)
Farsi	All (2/2, 100.0%)	None

5.3.4.1. Avoidance and Non-Native Tendencies

These are the instances where the transitive verb *reach* was used intransitively, or other verbs are used intransitively.

258) John climbed to the top of the mountain. (first response, J3)

259) Finally he climbed of the top of the mountain. (first response,F1)

260) John get to top of the mountain. (second response, S4; similar response: J14)

261) Finally he arrived to the top. (first response, A2)

262) The professor went up to the top of the mountain. (first response, S2: similar response, J17)

263) Finally he reach to the top of the mountain. (third response, A2)

264) The guy reached on the top. (third response, J8; similar response: S6; A3 (second response))

265) Finally he reached to on top of the mountain. (Japanese 16, first response)

It seems that until the verb was provided on the third response they tend to employ a verb such as *climb*, *arrive* intransitively. However, once they were provided the verb, it did not seem to be too difficult to employ NP V NP even though there were some instances of intransitive use of the verb *reach*. No significant L1 specific tendency was observed.

5.3.4.2. L1 Influence

266) Japanese (17/17, 100.0%)

Tsuini Jon wa, yama no choujou ni tsukimashita.

Finally John-TOP, mountain 's top to arrived.

267) Spanish (4/8, 50.0%)

Juan llego a la cima (al final de montana)

John arrived to the top.(the end of the mountain)

268) Spanish (3/7, 42.9%)

Juan esta arriba de la montana.

John is up on the mountain.

269) Arabic (5/5, 100.0%)

Wa akhiiran wasala ila al kimma.

Finally he-reached to the summit.

270) Farsi (2/2, 100.0%)

John be balla-ye kuh reseed.

John the top -of mountain reached.

All the languages (except for Farsi) employ an equivalent verb to *reach* or *arrive* with an intransitive structure. An influence of the L1s on their L2 production was not observed. However, the fact that all the L1s (except for Farsi) have a preference for an intransitive structure may have contributed to the low employment of the verb *reach* on the first and second response, and some instances of intransitive use.

5.3.5 Summary

Differences among the groups including the NS group were indeed observed but were not as noticeable as with the previous category. Even though transitivity of the events that they were describing was low, the ESL informants seemed to have little difficulty employing NP V NP for “*Mary crossed the street*”, “*John left the house*” and “*John reached the top of the mountain*”, when the verb was provided. The influence of their L1 on their L2 productions was not clear. The only clear L1 specific tendency was with the sentence “*Mary entered the restaurant*” where the Spanish group employed the verb *enter* intransitively. It can be analyzed that this resulted from their L1. However, the high percentage of NP V NP for the Japanese group seems to have little to do with their

L1 since an intransitive structure was employed by 100.0% of the Japanese informants in their L1 description. The cause of this phenomenon is unknown.

5.4. Less Prototypical Transitive Sentences (+ Kinesis, -Volitionality, -Animacy, + Affectedness of O) [Instrument + V + Patient] ([Location + V + Patient])

The type of event that is dealt with in this section is one in which an inanimate entity acts as a causer, and the NP in the direct object position is affected by the action and undergoes a change of state due to the action. This is thematically represented as [Instrument + V + Patient] and [Location + V + Patient], which are mapped onto NP V NP.

Figure 5.a. Employment of NP V NP for "The stone broke the window".

Figure 5.b. Employment of NP V NP for "The key opened the treasure box".

Figure 5.c. Employment of NP V NP for "The rain washed the cars".

Figure 5.d. Employment of NP V NP for "The leaves changed color".

■ First response ■ second response (Two NPs) □ Third response (Two NPs + a verb)

NS: Native English speaking informants (N=15)

J: Japanese informants (N=17) S: Spanish informants (N=9)

A: Arabic informants (N=5) F: Farsi informants (N=2)

5.4.1. “The stone broke the window”.

40.0% of the NS group reached the target NP V NP schema on the first response, and the percentage increased to 60.0% at the second and to 73.3% on the third response. These percentages are rather low compared to their percentages for the other target sentences.

It should be noted that, even though the percentages of the target transitive sentence were relatively low compared to the ones in the previous categories, most of the sentences that were not counted were also in NP V NP structure but with “someone” in the subject position, e.g. “*Somebody broke the window* (NS 2)” or “*Someone broke the window with a rock* (NS 11)”. This type of sentences was eliminated, since the focus of this section is on the treatment of inanimate NPs that are causers of action in the subject position. The reason why this is important to be noted is because this still supports that preference of English for SVO syntax. In addition, if the affected entity “the window” comes in the subject position with the verb *break*, the sentence will be more likely intransitive or passive, e.g. “*The window broke*. (NS6)”, or “*The window was broken by a stone*. (NS14)”, respectively. However there are only two instances of an intransitive structure with *the window* in the subject position from the NS group.

The percentages for the ESL groups were lower than those of the NS group. The percentages on the first response are Japanese 17.6%, Spanish 11.1%, Arabic 20.0%, Farsi 0.0%, and on the second response, Japanese 23.5%, Spanish 44.4%, 60.0%, Farsi 50.0%, and the third response, Japanese 41.2%, Spanish 44.4%, Arabic 60.0%, Farsi 50.0%. The informants who needed the third attempt and who still could not reach the target sentence are shown in Table 23.

Table 23. Informants who needed the third attempt and those who still could not achieve the target sentence *"The stone broke the window"*.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	6/15 (40.0%)	4/15 (26.7%)
Japanese	J1, J3, J4, J7, J8, J9, J10, J11, J12, J14, J15, J16, J17 (13/17, 76.5%)	J3, J4, J7, J8, J10, J11, J12, J15, J16, J17 (10/17, 58.8%)
Spanish	S1, S2, S3, S5, S6 (5/9, 55.5%)	S1, S2, S3, S5, S6 (5/9, 55.5%)
Arabic	A2, A5 (2/5, 40.0%)	A2, A5 (2/5, 40.0%)
Farsi	F2 (1/2, 50.0%)	F2 (1/2, 50.0%)

There are two instances of hesitation from the Japanese group, but not from the other groups.

271) The ball...the ball ahh has broken the window. (first response, J5)

272) Stone....broke the window. (second response, J13)

5.4.1.1. Avoidance and Non-Native Tendencies

Examples follow:

273) The window is broken. (first response, J10; similar response: J15, J12, J16, J17, J8; S4, S5, S9; A4; F1)

274) The window is broken by stone. (second response, J10; similar response: J4, J11, J12, J16, J17; F1 (some of them are from the first response))

275) The window....break.....with stone. (first response, S3)

276) Somebody broke the window. (first response, J7; similar response: J3, J4; S1, S2, S7; A5)

277) Somebody broke the window by using a stone. (third response, J7; similar response, J4, J8; A3)

278) Somebody broke the window with a stone. (first response, S3; similar response, S1)

279) The stone, ah the window, the stone, the window is broken by the stone.
(second response, J12)

280) Ah the stonethe stone brokenthe window was broken by stone.
(second response, J8)

The use of a passive structure was commonly observed across all the ESL groups, especially the Japanese group, as a way to integrate two NPs (*window, stone*), but this is not the case for the Spanish group and the Arabic group.

(279) is an interesting example since the speaker could not decide which NP should be the subject of the sentence, and swayed back and forth between them, and he actually rejected the instrument NP, *the stone* as the subject of the sentence. (280) is also an example where the instrument NP was rejected and the patient *the window* was employed by the informant.

5.4.1.2. L1 Influence

281) Japanese (9/17, 52.9%)

Ishi de mado ga waremashita.

Stone with window-NOM broke-INTRANSITIVE.

282) Japanese (6/17, 35.3%)

Ishi ga mado o warimashita.

Stone-NOM window-ACC broke-TRANSITIVE

283) Spanish (4/7, 57.1%)

La piedra rompio la ventaba.

The stone broke the window.

284) Spanish (2/7, 28.6%,)

Alguien lanzo una piedra y rompio la ventana.

Someone threw a stone and broke the window.

285) Arabic (2/2, 100.0%)

Al hajara kasar al haswatu.

The stone broke the window.

286) Farsi (2/2, 100.0%)

Yek sang sheesheh ra shekasj.

One stone glass broke.

The majority of the Japanese informants described the event with an intransitive structure. This might be contributing to the fact that the Japanese used the passive structure in their L2 production more often than the others. However, Spanish, Arabic, and Farsi informants produced sentences whose structures are more or less the same as the one that was the target NP V NP schema; however, this did not seem to help them in using the target schema very much.

5.4.2. “The red key opened the treasure box”.

93.3% of the NS group reached the target structure on the first response without hesitation. However, the percentages for the ESL groups were much lower on the first response (Japanese 41.2%, Spanish 22.2%, Arabic 0.0%, Farsi 0.0%) and the percentages increased only for the Spanish group at the second response (Japanese 41.2%, Spanish 55.5%, Arabic 0.0%, Farsi 100.0%). They continued to increase on the third response, but

remained about 40.0% short compared with the NS group, except the Farsi group (Japanese 58.8%, Spanish 55.5%, Arabic 60.0%, Farsi 100.0%). The informants who needed the third attempt and who still could not reach the target sentence are shown in Table 24.

Table 24. Informants who needed the third attempt and those who still could not achieve the target sentence "*The key opened the treasure box*".

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	(1/15, 6.7%)	(1/15, 6.7%)
Japanese	J1, J2, J4, J5, J8, J11, J13, J14, J15, J16 (10/17, 58.8%)	J2, J4, J5, J8, J14, J15, J16 (7/17, 41.2%)
Spanish	S3, S4, S7, S8 (4/9, 44.4%)	S3, S4, S7, S8 (4/9, 44.4%)
Arabic	All (5/5, 100.0%)	A2, A5 (40.0%)
Farsi	F1, F2 (2/2, 100.0%)	None

There was one instance of hesitation from the Japanese group.

287) The red key ahh...the red key...make...the red key makes the treasure box open. (first response, J1)

This example showed difficulty in continuing the sentence from *the key* as the subject. The solution she found was to employ a causative verb *make*, which enabled her to employ NP V NP schema with the instrument NP *the key* as if it were a doer of the action.

5.4.2.1. Avoidance and Non-Native Tendencies

It was common to employ an indefinite personal pronoun (e.g. *you, they, we*, which can be replaced with *one*) as the subject to form a sentence such as "*You can open*

the box with the key” type of sentence (This was not observed from the NS group) to avoid using the target NP V NP schema.

288) You can open the box use a red key. (J14, first response; similar response with the pronoun *you*: S4, S9; A2, A5)

289) The ...hmm...open ...hm...we can open the treasure box by red key. (J5, second response; similar response with the pronoun *we*: J3, J4, J12, J15)

290) I am looking for the right key for open the box. (first response, S7; similar response with the pronoun *I*: S3, S4, S6)

There is one instance of a passive structure from the Japanese group. The example follows:

291) This box is opened by key. (first response, J17)

Examples below show that they started off the sentences *with key*, but it did not lead them to the target NP V NP structure.

292) The right key is to open the treasure box is red key. (second response, A5)

293) The red key is thegood one. (first response, S5; similar response: J2, J5, J11)

These examples were not always ungrammatical, but none like them were observed in the NS group. Furthermore, while the NS group seemed to employ the target NP V NP schema with ease, the ESL groups in many cases ended up with non-target like sentences and showed signs of struggling to form a sentence.

There was no L1 specific tendency observed.

5.4.2.2. L1 Influence

294) Japanese (8/17, 47.1%)

Akai kagi wa, takarabako o akemashita.

Red key-TOP, treasure-box-ACC opened-TRANSITIVE

295) Japanese (3/17, 17.6%)

Akai kagi de, hako o akerare masu.

Red key with, box-ACC can-open-TRANSITIVE AUX.

296) Japanese (2/17, 11.8%)

Kono akai kagi de, takarabako wa akimasu.

This red key with, treasure-box-TOP, opened-INTRANSITIVE

297) Spanish (7/8, 87.5%)

La llave roja abre la caja de los tesoros.

The key red opens the box of the treasure.

298) Arabic (4/5, 80.0%)

Al mouftah al aHmar biftah al dlbatu.

The key red opens the box.

299) Farsi (2/2, 100.0%)

Yek keeled dar-e jaabeh ra baz kard.

One key door-of box open -ed.

It was not expected that 47.1% of the Japanese informants would employ a transitive structure with *the key* as if it were an agent of the transitive verb *akeru* (to open something), although two of them employed an intransitive structure with a verb *aku* (to open by itself). The other L1 groups employed a transitive structure equivalent to the target NP V NP structure; however, it did not seem to contribute to easy formation of the

target NP V NP schema. Again, it can be assumed that they were guided by a universal principle that disagrees with the target transitive schema.

5.4.3. "The rain washed the cars".

The differences across all the groups including the NS group were not significant. None of the NS informants could reach the target sentence on the first response. The percentage increased on the second response (53.3%) and on the third response (73.3%).

The percentages for the ESL groups are similar to that of the NS group. On the first response the percentages are zero, except for the Japanese group (Japanese 11.8%, Spanish 0.0%, Arabic 0.0%, Farsi 0.0%). On the second response the percentages increased (Japanese 64.7%, Spanish 55.6%, Arabic 40.0%, Farsi 100.0%) and gained some more for the Spanish group and the Arabic group (Japanese 64.7%, Spanish 77.8%, Arabic 80.0%, Farsi 100.0%). It should be noted that, beside the target sentence, sentences with causative verbs such as "*The rain caused the cars clean* (NS 9, similar response with the causative verb *make*: NS11; J1, J11, J15; S8)" were also considered to have met the conditions. The informants who needed the third response and who still could not reach the target sentence are shown in Table 25.

Table 25. Informants who needed the third attempt and those who still could not achieve the target sentence "*The rain washed the cars*".

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	7/15 (46.7%)	5/15 (33.3%)
Japanese	J2, J3, J6, J8, J9, J17 (5/17, 35.3%)	J2, J3, J6, J8, J9, J17 (6/17, 35.3%)
Spanish	S1, S2, S6, S7 (4/9, 44.4%)	S2, S7 (2/9, 22.2%)
Arabic	A1, A2, A3 (3/5, 60.0%)	A3 (1/5, 20.0%)

Farsi	None	None
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There were many signs of hesitation observed among the informants who were able to employ the target NP V NP (J6, J7, J10, J15, J16; S4; F2). Examples follow:

300) The rain ...clean cars. (first response, J7)

301) After the rain wash a car? Clean? Clean the car. (second response, J17)

302) The car is very clean because the rainwas washed car? (first response J10)

303) The rain wash the car? (first response, S4)

These examples show their discomfort with the target sentence.

Furthermore, It should be noted that the target sentence was also denied by one native English speaker:

304) Wash? Rain doesn't wash the cars..... It rained so the cars needed to be washed. (third response, NS13)

It shows that the target sentence is difficult even for the NS speakers, which explains their low percentage of NP V NP use.

5.4.3.1. Avoidance and Non-Native Tendencies

Since no significant difference was observed between the NS group and the ESL groups, the avoidance pattern of the NS informants is also looked into here.

There are two different patterns. One is an intransitive structure with *the cars* in the subject position and the verb *become* (“.....ah ah after after rain heavily all cars become clean” (J9))”. This is very common on the first and the second response across all the groups, including the NSs. Another common sentence type was a passive

(*"The car was washed by the rain"* (J3)) and it became more common especially on the third response, where they were instructed to use the verb *wash*. Examples follow:

- 305) The cars were washed by the rain. (second response, NS5; similar responses: NS6, NS12, NS13, NS14; J2, J3, J4, J7, J8, J9, J17; A3; F1)
- 306) As a result, the cars in the parking lot became cleaner. (first response, NS11; similar response: NS1, NS3, NS9, NS11, NS15, J11, J9; A1)

L1 specific features were not observed except for the fact that a passive structure was the most common for the Japanese group, and it was not employed by the Spanish group.

5.4.3.2. L1 influence

- 307) Japanese (11/17, 64.7%)
 Ame de kuruma ga kirei ni narimashita.
 Rain with car-NOM cleanly became.
- 308) Japanese (6/17, 35.3%)
 Ame ga kuruma o kirei ni shimashita.
 Rain-NOM car-ACC cleanly did.
- 309) Spanish (5/8, 62.5%)
 La lluvia limpio los carros.
 The rain cleaned the cars.
- 310) Arabic (4/4, 100.0%)
 Al matar ghassul koul el sayrraatu.
 The rain washed all the cars.
- 311) Farsi (1/1, 50.0%)

Baran machin-ha ra shasteh ast.

Rain car -s wash -ed.

Rain has washed cars.

An intransitive structure most frequently occurred for the Japanese group, and there were two unique features to the Japanese group's L2 production. The first one is their preference for passive structures. The second one is the frequent hesitation among those who reached the target sentence. However, even though their L1 productions more often employ a transitive structure equivalent to the target NP V NP schema, they still seem to have difficulty employing it in their L2 production. Again it can be assumed that the target sentence is challenging regardless of the type of L1.

5.4.4. "The leaves changed color". [Location + V + Patient]

The semantic representation of the structure of this sentence is [Location + V + Theme], which is different from the other three.

The difference between the NS group and the ESL groups was considerable. 93.3% of the NS group reached the target sentence right away and 100% reached it on the second attempt with no hesitation. The ESL groups have very low percentages on the first response (Japanese 11.8%, Spanish 22.2%, Arabic 0.0%, Farsi 0.0%). The percentages increased on the second response (Japanese 64.7%, Spanish 44.4%, Arabic 20.0%, Farsi 0.0%), and on the third response (Japanese 64.7%, Spanish 77.8%, Arabic 40.0%, Farsi 0.0%).

The informants who needed the third attempt and who still could not reach the target sentence are shown in Table 26.

Table 26. Informants who needed the third attempt and those who still could not achieve the target sentence “*The leaves changed color*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None
Japanese	J4, J10, J11, J12, J15, J17 (6/17, 35.3%)	J4, J10, J11, J12, J15, J17 (6/17, 35.3%)
Spanish	S1, S3, S4, S5, S9 (5/9, 55.6%)	S3, S5 (2/9, 22.2%)
Arabic	A1, A2, A3 (3/5, 60.0%)	A1, A2, A3 (3/5, 60.0%)
Farsi	F1, F2 (100.0%)	F1, F2 (100.0%)

There are two instances of hesitation among the informants who reached the target sentence.

312) This leave change? Hmm.....This leaves change the color.

(third response, J16)

313)hm....I have no idea. Leaves changing color?

(third response, J17)

5.4.4.1. Avoidance and Non-Native Tendencies

The most common way of avoiding NP V NP is to use an intransitive structure with the two NPs integrated into the subject NP, which is “*The color of leaves changed*” (F1), or “*The leaves’ color changed*” (J11). However, this type of avoidance of the target NP V NP schema was not observed from the Spanish group. Examples follow:

314) The color of leafalready changed. (second response, J4; similar

response: A3; F1, F2)

315)leave uh? Leave...leave....leaves’ color changed. (second response,

J11; similar response: J12)

For the Spanish group, there are two informants who could not reach the target structure, and their sentences use the preposition *of*.

- 316) The leaves are changing of color. (third response, S5; similar response, S3)

This can be considered as a L1 Spanish specific tendency since it was not observed from the other ESL groups.

5.4.4.2. L1 Influence

- 317) Japanese (16/17, 94.1%)

Ha no iro ga kawarimashita.

Leaves 's color-NOM changed-INTRANSITIVE

- 318) Spanish (8/9, 89.9%)

Las hojas cambiaron de color.

The leaves changed of color.

- 319) Arabic (2/4, 50.0%)

Shajara taghayar laounha.

A tree changed its-color.

- 320) Farsi (1/2, 50.0%)

Barg-ha-ye derakht-ha taagheere rang dadehand.

Leaves-s-of tree -s change color have.

It shows that Farsi and Arabic employ an equivalent transitive structure, but not Japanese and Spanish. However, this difference did not surface in their L2 production. The percentages of transitive sentences for the Arabic and the Farsi informants were even

lower than those for the Japanese and the Spanish group. An influence of the L1s on their L2 production was not clear.

The L1 specific tendency that the Spanish group employed the preposition *of* before the direct object seemed to be a direct influence from their L1, since the majority of Spanish group employed the preposition *de*, which is the equivalent to *of* in their L1 description.

5.4.5. Summary

The differences between the NS group and the ESL group were considerable for the target sentences "*The key opened the treasure box*" and "*The leaves changed color*". For the other two, no significant difference was observed between the NS group and the ESL groups. The percentages were much lower than the one for strongest transitivity, which gained almost 100 % for all the four sentences. This means that the sentences that have an inanimate causer are marked.

There were some important L1 specific features in their L2 productions. One is a tendency for the Japanese group to use passives to avoid a transitive structure with an inanimate NP as subject for "*The stone broke the window*" and "*The rain washed the cars*". The other L1 specific tendency is with the Spanish group in describing the event for "*The leaves changed color*"; The Spanish informants who could not achieve the target sentence on the third response employed a preposition *of* and produced a sentence such as *The leaves changed of color*, which can be analyzed as a direct influence from their L1. This phenomenon was seen in the previous section for the sentence *Mary*

entered the restaurant, where all of them employed the prepositions *into* or *to* before the locative NP. This can also be analyzed as a direct influence from their L1.

However, the important thing is that across the ESL students in many cases the structure of the L1 seems to have little influence on L2 English sentences in this category. For example, for the sentence "*The leaves changed color*", both Arabic and Farsi employed a transitive structure, and Japanese employs an intransitive structure. However, no significant difference was observed between the Japanese group and the Farsi / Arabic group. Furthermore, for the sentence "*The key opened the treasure box*", all the L1s except Japanese employed an equivalent transitive structure to describe the same event. However, this difference did not surface in their description of the event in their L2 production in an obvious way, and the percentage of their employing NP V NP was as low as the Japanese group. Considering all these, it is reasonable to think that there is a universal tendency that they follow in the course of L2 English acquisition, which goes against the use of NP V NP.

5.5. Less Prototypical Transitive Sentences (+ Animacy, - Volitionality, - Kinesis, - Affectedness of O) [Experiencer + V + Theme (- Affected)]

In this category, the events that are investigated deal with psychological and sensory verbs. The target sentences can thematically be represented as [Experiencer + V + Theme]. The degree of transitivity is much lower here, since no kinesis is involved and the direct objects are not affected entities.

It was very difficult to draw pictures for these sentences, since they are all mental processes, which are invisible. Therefore, on the first response, informants interpreted the event in many different ways, which makes the percentages at the first response low.

Figure 6.a. Employment of NP V NP for "Mary can see the singer".

Figure 6.b. Employment of NP V NP for "John heard the noise".

Figure 6.c. Employment of NP V NP for "Mary knows the answer".

Figure 6.d. Employment of NP V NP for "John needs glasses".

■ First response ■ second response (Two NPs) □ Third response (Two NPs + a verb)

NS: Native English speaking informants (N=15)

J: Japanese informants (N=17) S: Spanish informants (N=9)

A: Arabic informants (N=5) F: Farsi informants (N=2)

5.5.1. "Mary can see the singer".

73.3% of the NS group reached the target sentence on the first response without any hesitation. The percentage increased on the second response (93.3%) and reached 100.0% on the third response. The reason why 100.0% of them could not reach the target

sentence on the first response was that 5 out of 15 informants left out the object NP and said “*She can see better* (NS 4)”.

The ESL groups also did not seem to have any difficulty employing the target NP V NP schema. All of the groups reached a relatively high percentage on the first response (Japanese 88.2%, Spanish 55.6%, Arabic 60.0%, Farsi 0.0%). The percentages increased on the second response (Japanese 100.0%, Spanish 66.7%, Arabic 80.0%, Farsi 100.0%), and on the third response, all of the groups reached 100.0%. The informants who needed the third attempt and who still could not achieve the target sentence are shown in Table 27.

Table 27. Informants who needed the third attempt and those who still could not achieve the target sentence “*Mary can see the singer*”.

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None
Japanese	None	None
Spanish	S2, S6, S9 (3/9, 33.3%)	None
Arabic	A5 (1/5, 20.0%)	None
Farsi	None	None

Three out of five Arabic informants employed the verb *hear*. This shows an L1 Arabic specific tendency to interpret the same picture that *Mary* is involved in the experience of hearing his song, not in seeing him. This use of the verb *hear* was also counted, since a mental process is involved, even though the meaning was different.

There was no instance of hesitation among the informants who reached the target sentence.

5.5.1.1. Avoidance and Non-Native Tendencies

No clear instance of avoiding the target NP V NP schema was observed.

However, as seen in the NS group, some instances of zero objects were observed.

- 321) She can see better. (first response, Farsi 2; similar response with zero object: J7; S5, S6; F1, F2)

In addition, there are some occurrences of verbs, such as *watch*, or *look at*, which change the verbs to activity verbs.

- 322) She can, she can, she can watch the musician. (first response, J16; similar response with the verb *watch*: J7, S6)

- 323) She is look at singer. (first response, S9)

No obvious L1 specific tendency was observed. The only thing is that the Arabic group employed the verb *hear* more often than *see* in describing the particular picture.

5.5.1.2. L1 Influence

- 324) Japanese (12/17, 80.6%)

Mari wa, kashu o yoku mirukoto ga dekimasu.

Mary-TOP, singer-ACC well see-TRANS. nom NOM can.

- 325) Japanese (5/17, 19.4%)

Mari wa, kashu ga yoku mieru.

Mary-TOP, singer-NOM well see-INTRANSITIVE.

- 326) Spanish (8/9, 88.9%)

Maria pudo ver claramente al cantante.

Mary could see clearly the singer.

- 327) Arabic (2/4, 50.0%)

Aashan te'nir tshouf el moutrib.

So that be able to-see the singer.

328) Arabic (2/4, 50.0%)

Mary thahabat ila al soufouf al oula hatta tasmaa al moughanni.

Mary went to the rows the first so that hear the singer.

329) Farsi (2/2, 100.0%)

Mary khanand-eh ra khoob meebeehad.

Mary singer-the well seeing.

Japanese is the only language that allows an intransitive structure. However, it did not seem to have any influence on the L2 English sentence. Again no clear correlation between their L1 productions and the performance on the target sentence was observed.

5.5.2. "John heard the noise".

No significant difference among the groups including the NS group was observed. The percentages on the first response were low (NS 26.7%, Japanese 17.6%, Spanish 0.0%, Arabic 20.0%, Farsi 50.0%), and it can be assumed that this is due to the picture. There were many informants who produced a sentence such as "*While John was reading a burglar came into his house* (NS 1)". This is not the sentence that was expected and contributed to the low percentages on the first response. On the second response, the percentages increased more than 40.0% for all the groups (NS 100.0%, 82.3%, Spanish 77.8%, Arabic 80.0%, Farsi 100.0%), and on the third response the percentages reached 100.0% for all the groups. No sign of hesitation was observed. The

informants who needed the third attempt and who could not achieve the target sentence are shown in Table 28.

Table 28. Informants who needed the third attempt and those who still could not achieve the target sentence “*John heard the noise.*”

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None
Japanese	J3, J11, J17 (3/17, 17.6%)	None
Spanish	S1, S2 (2/9, 22.2%)	None
Arabic	A1 (1/5, 20.0%)	None
Farsi	F1, F2 (100.0%)	None

5.5.2.1. Avoidance and Non-Native Tendencies

No clear sign of avoiding the target NP V NP schema was observed. There were two cases of *listen to* on the first and the second response, but other than that, no obvious sign of avoidance of the target NP V NP schema was observed.

330) John was reading and then he suddenly listen to a noise. (second response, S2; similar response with the use of *listen to*: A1)

In addition, there was a strong tendency for the Japanese group to use the verb *notice* more often than *hear*. The number of Japanese informants who used the verb *notice* on the first and the second response is 13, which is 76.5% of the Japanese group. It was counted towards the percentages for the target transitive schema. This tendency was observed from none of the other ESL groups (but there is one from the NS group).

5.5.2.2. L1 Influence

331) Japanese (12/17, 70.6%)

Jon wa, nanika no oto ni kiduita.

John-TOP, something's noise to noticed.

332) Japanese (4/17, 25.5%)

Jon wa, nanika no oto o kikimashita.

John-TOP, something's noise-ACC heard-TRANSITIVE.

333) Spanish (3/6, 50.0%)

Juan oyo un ruido.

John heard a noise.

334) Spanish (2/6, 33.3%)

Juan escucho un ruido.

John listened-to a noise.

335) Arabic (2/4, 50.0%)

John semeaa haad el dajij.

John heard that noise.

336) Arabic (2/4, 50.0%)

Bayna ma kan John yadroHs aHad al lousous dakhala ila

While was John studying one-of the thieves entered to

al bait fa, istataa an yomaiz saotahu.

the house then, was-able to notice his-voice.

337) Farsi (2/2, 100.0%)

John dar hale ketab khandan ast ke nakahan sedayee ra

John in-the-process-of book reading is that suddenly sound

meeshehavad.

hears.

Japanese is the only language that allows an intransitive structure to describe this event. 70.6% of them employed the verb *kiduku* (an equivalent to English *notice*) in their L1 productions, and it can be said that the strong tendency to use *notice* instead of *hear* in their L2 production resulted from an influence from their L1 Japanese. Arabic also seems to be a language that employs a verb which is equivalent to the English verb *notice*, however, the influence of it on their L2 English was not observed; there were only five Arabic informants and whether or not it has the same influence as seen in the results of the Japanese group should be left open.

However, when it comes to employment of the NP V NP schema, no significant difference was observed across all the groups including the NS group, and whether the L1 employs an intransitive structure in describing the event did not seem to affect employment of the target NP V NP schema in L2 English.

5.5.3. “Mary knows the answer”.

Again the percentages showed that no significant differences were observed among all the groups, including the NS. The percentages were low on the first response (NS 26.7%, Japanese 23.5%, Spanish 55.6%, Arabic 0.0%, Farsi 0.0%) across all the groups because of the different ways of interpreting the pictures. The percentages increased on the second response (NS 100.0%, Japanese 76.4%, Arabic 80.0%, Farsi 100.0%) and all of them reached the target sentence on the third response. There was no hesitation observed among the informants who reached the target NP V NP schema. The informants who needed the third attempt and who still could not achieve the target sentence are shown in Table 29.

Table 29. Informants who needed the third attempt and those who still could not achieve the target sentence “*Mary knows the answer.*”

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None
Japanese	J2, J4	None
Spanish	None	None
Arabic	A1	None
Farsi	None	None

It should be noted that not only the sentence with the verb *know*, but also the ones with the verbs *get* (*Mary got an answer*), *have* (*Mary has an answer*), *find* (*Mary found an answer*), and *understand* (*Mary understands the answer*), were all counted towards the percentages.

5.5.3.1. Avoidance and Non-Native Tendencies

No obvious avoidance of the target NP V NP schema and no obvious L1 specific tendency that is non-native like were observed.

5.5.3.2. L1 influence

338) Japanese (12/17, 70.6%)

Ima Mari wa, kotae ga wakatta.

Now Mary-TOP, answer-NOM become-comprehensible.

339) Japanese (5/17, 29.4%)

Ima Mari wa, kotae o mitsukemashita.

Now Mary-TOP, answer-ACC found-TRANSITIVE

340) Spanish (7/7, 100.0%)

Maria encontro (sabe, tuvo, entiende) la resquesta.

Mary found (knows, got, understands) the answer.

341) Arabic (3/3, 100.0%)

Mary lakit al jawab.

Mary found the answer.

342) Farsi (1/1, 100.0%)

Mary saaleh ra meedanad

Mary question knows.

Again Japanese is the only language that employs an intransitive structure to describe this event. However, its influence on their L2 production was not clear.

5.5.4. "John needs glasses".

60.0% of the NS group reached the target sentence on the first response, and 100.0% of them reached it on the second response. For the ESL groups, the percentages were very low except for the Farsi group on the first response (Japanese 11.8%, Spanish 33.3%, Arabic 0.0%, Farsi 100.0%). The reason why the percentages were low is because of the different interpretations of the picture. The percentages increased at the second response (Japanese 29.4%, Spanish 66.6%, Arabic 20.0%, Farsi 100.0%) and at the third response as well (Japanese 64.7%, Spanish 88.8%, Arabic 80.0%, Farsi 100.0%). The informants who needed the third attempt and who still could not achieve the target sentence are shown in Table 30.

Table 30. Informants who needed the third attempt and those who still could not achieve the target sentence "*John needs glasses.*"

Group	Informants who needed the third attempt	Informants who needed the third try but were unsuccessful
NS	None	None

Japanese	J2, J3, J4, J6, J7, J9, J10, J11, J13, J14, J16, J17 (12/17, 70.6%)	J2, J4, J6, J9, J13, J16 (6/17, 35.3%)
Spanish	S4, S6, S7 (3/9, 33.3%)	None
Arabic	A1, A2, A3, A4 (4/5, 80.0%)	A1 (1/5, 20.0%)
Farsi	None	None

There was no sign of hesitation among the informants who reached the target sentence.

5.5.4.1. Avoidance and Non-Native Tendencies

There was no clear instance of avoiding the NP V NP schema. Some of the ESL informants did not use the transitive structure because they used the verb *need* combined with an infinitive or gerund, or as an auxiliary verb. This type of sentence was not counted towards the percentages. This tendency was more common to the Japanese group (J4, J6, J9, J13, J17; S4, S6; A2). An example follows:

343) John need gla....wearing glasses. (third response, J9)

344) John need to use glasses. (third response, S3)

There is one instance of an ungrammatical sentence because of a redundant preposition before the object NP.

345) John needs for glasses. (first response, A1)

These are the only L1 specific tendencies that were observed.

5.5.4.2. L1 Influence

351) Japanese (11/15, 73.3%)

Jon wa, megane ga hituyou desu.

John-TOP, glasses-NOM necessary AUX.

352) Japanese (2/15, 13.3%)

Jon wa, megane o kakenakereba narimasen.

John-TOP, glasses-ACC wear-have-to.

353) Japanese (2/15, 13.3%)

Jon wa, megane o kakeru hituyou ga arimasu.

John-TOP, glasses-ACC to-wear necessity-NOM be.

354) Spanish (7/8, 87.5%)

John necesita anteojos.

John needs glasses.

355) Spanish (1/8, 12.5%)

John no ve bien, entonces tiene que usar lentes.

John no sees well, therefore have-to use glasses.

356) Arabic (5/5, 100.0%)

John daif alnazar wa lizalk fa hoowa yahtaj ila nazzara.

John short-sighted therefore he need to glasses.

357) Farsi (2/2, 100.0%)

John ehtiaj be einak darad.

John need to glasses 3rd.sg.

The majority of the Japanese group employed an intransitive structure with something that is needed (the glasses) in the nominative case. Two speakers out of the Japanese group employed a transitive structure with an equivalent of *have to*. Whether or not this has something to do with the L1 Japanese specific tendency to use the verb *need* with a gerund or infinitive is not very clear.

Arabic and Farsi employed an intransitive structure with *ila (to)* and *be (to)* after the verb respectively. It can be assumed that the peculiar sentence “*John needs for glasses (A1)*” resulted from it.

Overall, even though Arabic and Japanese learners employ an intransitive structure in describing this specific event in their L1 description, it did not seem to affect their L2 production, since it seems that there was no difficulty for them in employing the target NP V NP schema.

5.5.5. Summary

In this category, where the target structure is represented by thematic roles [Experiencer + V + Theme], which maps onto the grammatical schema [Subject + V + Object], no significant difficulties were observed across all the groups including the NS group.

However, some L1 influences were observed. There was a L1 Japanese specific tendency, which was a preference for the verb *notice* instead of *hear* in describing the specific event. This has a correlation with their picture description in Japanese; the majority of the Japanese informants employed the equivalent verb of *notice* to describe it. Another thing is with an example from Arabic, which is peculiar in inserting *for* after the verb *need*. This can be analyzed as an influence from L1 Arabic, where *ila (to)* is always employed after the equivalent Arabic verb of *need*. In addition, it was also noticeable that the Japanese group used *need* as an auxiliary verb more often than the other groups. It

can be assumed that this resulted from Japanese having no common main verb²⁰ that is equivalent to *need* in English while all the other L1s have it.

Therefore, the L1 influence is manifested at a lexical level, not at a syntactic level in this category, and there is a common tendency to employ the target NP V NP schema regardless of whether or not their L1 employs an equivalent transitive structure.

5.6. Less Prototypical Transitive Sentences (+ Animacy, -Volitionality, -Kinesis, -Affectedness of O) [Location (+ Animacy) + have + Theme (- Affected)]

The sections 5.6 and 5.7 deal with the use of the NP V NP schema with the possessive/locative verb *have*. In 5.6. the subject NP is an animate entity and the direct object is what is possessed. It can semantically be schematized [Location (+ Animacy) + have + Theme (- Affected)], and this is mapped onto the grammatical schema [Subject + have + direct object]. The third step was omitted, since it can be assumed that giving the verb to the informants may make them more aware that they can utilize the verb *have* whenever they do not have any solution to integrating the two NPs into one sentence.

Figure 7.a. Employment of [NP have NP] for "Susan has three children".

Figure 7.b. Employment of [NP have NP] for "John has a fever".

²⁰ There is a main verb *hinuyotosuru*, which is equivalent transitive verb to need in Japanese. However, it was not used in the L1 Japanese description by any Japanese informants.

Figure 7.c. Employment of [NP have NP]
for "John has a broken leg".

5.6.1. "Susan has three children".

It should be noted that for this sentence, the first attempt was omitted and the informants were given the two NPs at the very beginning. The reason is because, in the pilot studies, on the picture was drawn a mother with three children. When this picture was piloted with native English speakers it became obvious that the informants tended to say, "*There is a mother and her three children*" instead of [NP have NP] with the picture which has only a mother and three children, with no indication of two NPs. Then it was decided that the informants should be given the arguments of the verb at the beginning, with the mother given a name (*Susan*) and no names given to the children, which turned out to be successful in getting the majority of the informants to use [NP have NP].

More than 80% of all the groups including the NS group, but excluding the Spanish group, reached the target sentence on the second response (NS 86.7%, Japanese 88.2%, Spanish 55.6%, Arabic 80.0%, Farsi 100.0%). The reason why the percentage for the Spanish group is low is that four out of nine of the Spanish informants produced sentences such as, "*Susan is taking care of three children* (S1, S2)" and "*Susan is a mom*

of three children (S3, S7)". The informants who needed the second attempt (there is no third attempt for this category, [NP have NP]) and who still could not achieve the target sentence are shown in Table 31.

Table 31. Informants who needed the second attempt and those who still could not achieve the target sentence "*Susan has three children.*"

Group	Informants who needed the second attempt	Informants who needed the second attempt but were unsuccessful
NS	All (15/15, 100.0%)	2/15 (13.3%)
Japanese	All (17/17, 100.0%)	J2, J3 (2/17, 11.8%)
Spanish	All (9/9, 100.0%)	S1, S2, S4, S7 (4/9, 44.4%)
Arabic	All (5/5, 100.0%)	A2 (1/5, 20.0%)
Farsi	All (2/2, 100.0%)	None

No sign of hesitation was observed among the informants who reached the target sentence.

5.6.1.1. Avoidance and Non-Native Tendencies

No clear sign of avoiding [NP have NP] was observed. The reason why the percentage for the Spanish group is low is that 4 out of 9 informants produced sentences such as, "*Susan is taking care of three children* (S1, S2)" and "*Susan is a mom of three children* (S3, S7)".

5.6.1.2. L1 Influence

358) Japanese (12/17, 70.6%)

Susan (ni) wa, san-nin no kodomo ga imasu.

Susan-(in)-TOP, three 's children-NOM be.

359) Japanese (3/17, 17.6%)

Susan wa, san-nin no kodomo o motteiru²¹.

Susan-TOP, three 's children-ACC having.

360) Spanish (8/8, 100.0%)

Susan tiene tres niños.

Susan has three sons.

361) Arabic (4/5, 80%)

Suzan ladaiha thalathat atfalu.

Susan has three kids.

362) Farsi (2/2, 100.0%)

Susan se bancheh darad.

Susan three children has.

Japanese is the only language that allows an intransitive structure to describe this event. However, their percentages of [NP have NP] did not seem to be affected by it.

5.6.2. "John has a fever".

The percentages across all the groups including the NS group were very high on the first response (NS 86.7%, Japanese 94.1%, Spanish 55.6%, Arabic 40.0%, Farsi 100.0%). On the second response, the percentages increased on the second response (NS 100.0%, Japanese 94.1%, Spanish 88.9%, Arabic 60.0%, Farsi 100.0%). Again the reason why the percentage for the Spanish group was low is because four of them interpreted the picture in different ways and produced a sentence such as "*The boy is sick.* (first response, S4; similar response: S1, S3, S6)". In addition, there are some cases where

²¹ This use of *motteiru* (having) is odd and not idiomatic. It can be assumed that there is an influence from L2 to L1.

informants used the verb *get* instead of *have*. Those cases were not counted towards the percentages. The informants who needed the second attempt and who still could not achieve the target sentence are shown in Table 32.

Table 32. Informants who needed the second attempt and those who still could not achieve the target sentence “*John has a fever.*”

Group	Informants who needed the second attempt	Informants who needed the second attempt but still were unsuccessful
NS	2/15 (13.3%)	None
Japanese	J5, J15 (2/17, 11.8%)	J5 (1/17, 5.9%)
Spanish	S1, S3, S4, S6, S7 (5/17, 29.4%)	S7 (1/9, 11.1%)
Arabic	A2, A3, A5 (3/5, 60.0%)	A3, A5 (2/5, 40.0%)
Farsi	None	None

No sign of hesitation was observed among the informants who reached the target sentence.

5.6.2.1. Avoidance and Non-Native Tendencies

No obvious sign of avoiding the target [NP have NP] or no L1 specific tendency was observed. There were a few cases of the verb *get* instead of *have*. An example follows:

363) John hmm John got high fever. (second response, J5; similar response with the verb *get*: S7, A5)

5.6.2.2. L1 Influence

364) Japanese (16/17, 94.1%)

Jon wa, netsu ga aru.

Jon-TOP, fever-NOM be.

365) Spanish (9/9, 100.0%)

Juan tiene fiebre.

John has a fever.

366) Arabic (3/3, 100.0%)

Tifl ladaihi Houmma.

A kid has fever.

367) Farsi (2/2, 100.0%)

John tab darad.

John fever has.

Again Japanese is the only language that allows an intransitive structure with the equivalent verb *be*. However, this did not seem to affect their employment of [NP have NP] in describing the same event very much. A correlation between the way the L1 encodes the event and their L2 production was not observed.

5.6.3. “John has a broken leg”.

The percentages on the first response across all the groups are low (NS 33.3%, Japanese 11.8%, Spanish 0.0%, Arabic 0.0%, Farsi 0.0%) since their first intuition led them to produce a sentence such as “*The boy broke his leg* (first response, J1)” in many cases²². Once they were given the two NPs, *John* and *broken leg*, the percentage increased (NS 100.0%, Japanese 58.9%, Spanish 88.9%, Arabic 60.0%, Farsi 50.0%);

²² Indeed the type of sentence with the verb *break*, “*He broke his leg*”, was commonly seen on the first response, but, as seen for the sentence “*John hit his head*”, some instances where informants could not use *break* transitively (two from the Japanese group and one from the Arabic group) were also observed. An example follows:

John's leg is broken. (A3, first response; similar response: J10, J12)

however, there were differences among the ESL groups and the Spanish group is the one that had the least difficulty employing the target [NP have NP] to describe this specific event. The informants who needed the second attempt and who still could not achieve the target sentence are shown in Table 35.

Table 35. Informants who needed the second attempt and still could not achieve the target sentence "*John has a broken leg.*"

Group	Informants who needed the second attempt	Informants who needed the second attempt but were unsuccessful
NS	10/15 (66.6%)	None
Japanese	J1 to J14, J17 (15/17, 88.2%)	J1, J2, J4, J6, J8, J13, J14 (7/17, 41.1%)
Spanish	All (9/9, 100.0%)	S2 (1/9, 11.1%)
Arabic	All (5/5, 100.0%)	A2, A4 (2/5, 40.0%)
Farsi	All (2/2, 100.0%)	F1 (1/2, 50.0%)

There were two instances of hesitation from the Japanese group, but not from the others. Examples follow:

368) John....John....has broken leg? (second response, J5)

369) John had? Hmm..... John had? Had? Has. John has broken legs? (second response, J17)

These examples show their discomfort using [NP have NP] for describing this event. It should be noted again that the sign of hesitation was not observed from the other groups.

5.6.3.1. Avoidance and Non-Native Tendencies

Different ways of avoiding [NP have NP] and non-native like tendencies were observed across the ESL groups. Examples follow:

- 370) The boy has injure (first response, J8)
- 371) John is using a tool for broken leg. (second response, J2)
- 372) John.....how can I say? John.....John.....ah how can I say? John.....John...hm....John walking his broken leg? (second response, J17)
- 373) John will be with a broken leg for a month. (second response, S2)
- 374) John walking by his broken leg. (third response, A4)
- 375) I can see John with broken leg. (third response, F1)

There is a L1 Japanese specific tendency to avoid the [NP have NP] for describing this specific event; 4 out of 7 Japanese informants who could not reach the target sentence used this schema, the copular verb schema [NP is NP (John is broken leg)].

Examples follow:

- 376) John is broken leg. (second response, J5)
- 377) John.....John.....in, ah I don't know.....John was.....broken leg.
(second response, J8)

What they seemed to do is to loosely connect the two NPs with the verb *be* and integrate them into one sentence. Furthermore, the people who fell into this pattern are all in the higher half group, which indicates that the level of proficiency has little to do with this tendency. In addition, it was not observed from the other groups at all and was specific to the Japanese group.

5.6.3.2. L1 Influence

(The answers from the Japanese informants are varied. Examples below are part of those)

378) Jon wa, oreata ashi o hikidutte imasu.

John-TOP, broken leg-ACC dragging be.

379) Jon wa, oreata ashi o shite iru.

John-TOP, broken leg-ACC doing be.

380) Jon wa, oreata ashi o kabatte iru.

John-TOP, broken leg-ACC protecting be.

381) Spanish (5/5, 100.0%)

Juan tiene la pierna rota.

John has the leg broken.

382) Arabic (1/1, 100.0%)

John aindahou rijlou maksouka.

John has a-leg broken.

383) Farsi (1/1, 100.0%)

Pesar yek paye shekaste darad.

John one broken leg have.

The Japanese informants' answers were varied in 6 or 7 patterns, and there were only two instances with the verb *motsu* (equivalent to *have*). However, this type of sentence is very odd and it can be said that those sentences were affected by English. In addition, some of the Japanese informants had a hard time integrating the two NPs in Japanese, *Jon (John)* and *oreata ashi (broken leg)*. Examples follow:

384)Jon wa, oreata ashi ...o.....he?.....he? Jon wa,

John-TOP, broken leg-ACC

John-TOP,

oreata ashi o kabatte imasu.

broken leg-ACC protecting be

385)Jon ga,Jon ga oreta ashi o

John-NOM, John-NOM broken leg-ACC

naoshite iru.

healing-TRANSITIVE be.

These examples show that the Japanese group has difficulty describing the picture in the way that the NS group did. It can be assumed that the fact that a language does not have a verb *have* (or the equivalent of it) makes it more difficult to connect the two NPs in one sentence.

This explains the low percentage of [NP have NP] for the Japanese group and their hesitations in forming the sentence. However, it should be noted that the percentages for the other ESL groups were still lower than that of the NS group, even though their L1s employ a structure equivalent to [NP have NP] schema to describe this specific event. This suggests that the fact that their L1s employ a transitive structure equivalent to [NP have NP] may help them with formation of the target sentence to some extent, but the schema are still challenging.

5.6.4. Summary

There were no significant differences among the groups including the NS group for the first two sentences. Their L1 description showed that Japanese is the only language that allows intransitive structures to occur to describe the states. However, this difference did not seem to have any influence on their L2 production.

In terms of the last sentence "*John has a broken leg*", the Japanese group has the lowest percentage and their L1 productions show that there is a correlation between their L1 and their L2 production. The Japanese informants' answers were varied and showed peculiar ways to interpret the event. Another thing that should be noted is that there was a L1 Japanese specific pattern of avoiding [NP have NP], namely, [NP be NP], such as "*John was broken leg*". The reason why they preferred this type of sentence will be explored in the next chapter.

5.7. Least Prototypical Transitive Sentences (-Animacy, -Volitionality, -Kinesis, -Affectedness) [Location (-Animacy) + have + Theme (- Affected)]

This category deals with existentials and the degree of transitivity is the lowest. The target schema is thematically represented as [Location (-Animacy) + have + Theme (- Affected)], which is mapped onto [Subject + have + Direct Object].

Figure 8.a. Employment of [NP have NP] for "The car has two airbags".

Figure 8.b. Employment of [NP have NP] for "This dictionary has 700 pages".

Figure 8.c. Employment of [NP have NP]
for "The T-shirt has a dog on it".

5.7.1. "The car has two airbags".

93.3% of the NS group reached the target sentence on the first response and the percentage increased to 100.0% on the second response. No hesitation was observed among them.

The percentages for the ESL groups were generally lower than for the NS group (except Farsi) on the first response (Japanese 29.4%, Spanish 55.6%, Arabic 40.0%, Farsi 100.0%), but the percentages all increased to more than 80.0% on the second response (Japanese 82.3%, Spanish 77.8%, Arabic 80.0%, Farsi 100.0%). The informants who needed the second attempt and who still could not achieve the target sentence are shown in Table 34.

Table 34. Informants who needed the second attempt and those who still could not achieve the target sentence "The car has two airbags."

Group	Informants who needed the second attempt	Informants who needed the second attempt but were unsuccessful
NS	1/15 (6.7%)	None

Japanese	J1, J2, J3, J5, J7, J8, J10, J9, J13, J15, J16, J17 (12/17, 70.6%)	J1, J9, J15 (3/17, 17.6%)
Spanish	S1, S2, S6, S9 (4/9, 44.4%)	S1, S2 (2/9, 22.2%)
Arabic	A1, A2, A3 (3/5, 60.0%)	A2 (1/5, 20.0%)
Farsi	None	None

There were two signs of hesitation from the Japanese group. Examples follow:

386) Hmm this car is, hmm have, this car have airbag? (second response, J4)

387)ah....this car.....this car is ah.....I wanna make two sentence. This car.....This car have....this car have two airbags.
(first response, J14)

Even though they were able to employ the [NP have NP] schema, they did not seem to have confidence whether or not the sentence was right. No sign of hesitation like this was observed from the other groups.

5.7.1.1. Avoidance and Non-Native Tendencies

The answers were varied, especially on the first response. Most of them were not existential sentences, such as “*The small car is on sale* (first response, J5)”, “*This car is made of Toyota* (first response, J13)”, “*There is a big car two airbags on the board it mention* (first response, J15)”, “*Toyota has special discount for 2 airbags car.* (first response, S2)”, “*This is a very old car* (first response, A1)”. Whether or not they intentionally avoided the target NP have NP schema is not clear, but there is one from the Japanese group.

388) This car is, airbag is included. (second response, J15)

5.7.1.2. L1 Influence

389) Japanese (13/17, 76.5%)

Kono kuruma wa, eabaggu ga tsuite imasu.

This car-TOP, airbag-NOM attaching-INTRANS. be.

390) Spanish (5/6, 83.3%)

Este coche tiene dos bolsas de aire.

This car has two bags of air.

391) Arabic (3/4, 25.0%)

Sayyarton laha shantataiin hawa'iya.

A car has two-airbags.

392) Farsi (1/2, 50.0%)

Masheeb do airbag darad.

Car two airbag has.

Again Japanese is the only language that employs an intransitive structure to describe this specific event. This seems to have an influence on their L2 production; examples of hesitation such as (386), (387) and the avoidance example (388) were not observed from the other groups. It is fair to say that even though all the ESL groups showed almost the same percentages of employment of [NP have NP], the Japanese group had more difficulty in employing the schema in describing this specific event.

It should be noted that the percentages across all the groups including the NS group were high, but those for the first response were lower for the ESL groups (except Farsi) than that for the NS group. This means that even though Spanish and Arabic use a transitive structure with the verb that is equivalent to [NP have NP], this does not facilitate their use of *have*, and it can be assumed that this kind of sentence is more marked.

5.7.2. “The dictionary has 700 pages”.

86.7% of the NS group reached the target sentence on the first response without any hesitation. The percentages for the ESL groups were high on the first response as well (Japanese 76.5%, Spanish 77.8%, Arabic 60.0%, Farsi 50.0%), and increased at the second response (Japanese 94.1%, Spanish 77.8%, Arabic 100.0%, Farsi 50.0%). There was no sign of hesitation among the informants who reached the target structure. The informants who needed the third attempt and those who still could not achieve the target sentence are shown in Table 35.

Table 35. Informants who needed the second attempt and those who still could not achieve the target sentence “*The dictionary has 700 pages.*”

Group	Informants who needed the second attempt	Informants who needed the second try but were unsuccessful
NS	(2/15, 13.3%)	(2/15, 13.3%)
Japanese	J3, J4, J14, J16 (4/17, 23.6%)	J14 (1/17, 5.9%)
Spanish	S2, S3 (2/9, 22.2%)	None
Arabic	A1, A2, A3 (3/5, 60.0%)	A2 (1/5, 20.0%)
Farsi	F1 (1/2, 50.0%)	F1 (1/2, 50.0%)

5.7.2.1. Avoidance and non-native tendencies

On the first response, the answers were varied, such as “*The dictionary is quite thick* (J4)”, “*Dictionary, that’s what I need to improve my language* (Arabic 2)”.

The following examples were instances of not using [NP have NP] with both NPs *the dictionary* and *700 pages* in a sentence. Examples follow:

393) The dictionary is 700 pages long. (first response, NS 6, 10)

394) There are 700 pages in the dictionary. (first response, J14)

395) I have a dictionary with 700 pages. (first response, S2)

396) That is a dictionary of 700 pages. (first response, S3)

397) This dictionary is about 700 pages. (first response, F1)

All the ESL groups have high percentages of employment of the schema.

5.7.2.2. L1 Influence

398) Japanese (17/17, 100.0%)

Kono jisho wa, 700 pe-ji aru.

This dictionary-TOP, 700 pages be.

399) Spanish (9/9, 100.0%)

El diccionario tiene setecientas paginas.

The dictionary has 700 pages.

400) Arabic (2/5, 40.0%)

Al kamous yahtawi ala sabaa miat safha.

The dictionary contains on 700 pages.

401) Arabic (2/5, 40.0%)

Al kamous fiti sabaa miat safha.

The dictionary in-it 700 pages.

402) Farsi (2/2, 100.0%)

Een dictionary haftsad safheh darad.

This dictionary 700 pages has.

Japanese and Arabic employ intransitive structures to describe this specific event, and the other languages employ an equivalent to the transitive schema [NP have NP]. The

correlation between the way their L1 encodes the event and their L2 production was not observed in their L2 production.

5.7.3. “The T-shirt has a dog on it”.

The differences among the groups are biggest on this sentence and somewhat similar to the result for “*John has a broken leg*” (the NS group and the Spanish have high percentages and the others are rather low (except Farsi)). While 93.3% of the native speakers reached the target sentence without any hesitation, the percentages were much lower for the Japanese and the Arabic on the first response (Japanese 23.5%, Spanish, 55.6%, Arabic 20.0%, Farsi 100.0%), and the percentages did not improve very much on the second response (Japanese 29.4%, Spanish 77.8%, Arabic 20.0%, Farsi 100%). The informants who needed the second attempt and those who could not achieve the target sentence are shown in Table 36.

Table 36. Informants who needed the second attempt and those who still could not achieve the target sentence “*The T-shirt has a dog on it.*”

Group	Informants who needed the second attempt	Informants who needed the second attempt but were unsuccessful
NS	1/15 (6.7%)	1/15 (6.7%)
Japanese	J1, J2, J3, J4, J9, J10, J11, J12, J13, J15, J16, J17 (12/17, 70.6%)	J1, J2, J3, J4, J9, J10, J12, J13, J15, J16, J17 (11/17, 64.7%)
Spanish	S1, S2, S3, S6 (4/9, 44.4%)	S1, S3 (2/9, 22.2%)
Arabic	All (5/5, 100.0%)	A1, A2, A4, A5 (4/5, 80.0%)
Farsi	None	None

Hesitation was observed from the Japanese group; two out of five Japanese informants who reached the target sentence showed a hesitation when forming the sentence. Examples follow:

403) ...ah....one dog, one white dog is designed. (first response) / AhT-shirt.....T-shirt.....T-shirt has the dog picture? (second response, J11)

404) The...hmm the T-shirt has a hmm dog's drawing. (first response, J5)

Hesitation was not observed from the other groups.

5.7.3.1. Avoidance and Non-Native Tendencies

The following examples illustrate common structures, which avoided the [NP have NP] schema to describe this specific event.

405) There is a dog on the T-shirt. (first response, J3; similar response: J9, J12; S3, A1, A2, A4)

This "*There is a dog on the T-shirt*" type of a sentence was also observed from the NS group.

The Arabic and the Japanese were the ones who had low percentages of employment of [NP have NP] schema, but their patterns of avoidance were different. Three out of five Arabic informants could not reach the target sentence and three of them are the ones who produced "*There is a dog on the T-shirt*" type of sentence, and the other one interpreted the picture slightly differently and said, "*I think this is a T-shirt suit for people who love dogs*" (first response, A5). Therefore, even though the percentage for the Arabic group was low, their un-target like sentences were not peculiar to the Arabic group.

However, the sentences from the Japanese group were unique and 5 out of 12 who could not achieve the target sentence avoided the target transitive schema by using passives. This was not observed from the other groups. Examples follow:

- 406) One cute dog is printed on the T-shirt. (first response, J2)
- 407) Hm one dog is written on the shirt. (first response, J4)
- 408) The T-shirt was painted by dog? (first response, J6)
- 409) The T-shirt is printed a dog. (first response, J16)
- 410)ah.....one dog, one white dog is designed. (first response, J11)

One instance, which shows the informant's confusion in forming a sentence to describe this specific event, did not express the idea that she intended to. The example follows:

- 411)One dog put on a T-shirt. (first response, J13)

There is another speaker who showed a great hesitation forming a sentence. The resulting sentence was grammatical but also can be analyzed as a direct influence from Japanese. The example follows:

- 412) Hm.....picture of dog and[Let me tell you about the T shirt].....ah?(first response) / ah.....The T-shirt's picture is dog. (second response, J17)

Considering all these, it is fair to say that the Japanese group experienced the most difficulty forming sentence with the two NPs, *dog* and *T-shirt*.

5.7.3.2. L1 Influence

- 413) Japanese (8/17, 47.1%)

Kono T-shirt ni wa, inu no e ga kaite arimasu.

This T-shirt in-TOP, dog 's picture-NOM written be.

414) Japanese (2/17, 11.8%)

Kono T-syatsu no gara wa, inu no e desu.

This T-shirt 's print-TOP, dog 's picture is.

415) Japanese (2/17, 11.8%)

Kono T-syatsu ni wa inu ga kopisarete iru.

This T-shirt to-TOP, dog-NOM copy-PASSIVE be.

416) Spanish (4/7, 57.1%)

La camisa tiene un perrito.

The T-shirt has a dog.

417) Arabic (2/3, 66.7%)

Kamis fihi sourat kalb.

Shirt in-it picture dog.

418) Arabic (1/3, 33.3%)

Al kamis lahu souret kalb.

The T-shirt on-it picture dog.

419) Farsi (1/2, 50.0%)

Rooye teeshirt axe sag hast.

On T-shirt picture dog is

420) Farsi (1/2, 50.0%)

Yek aks-e sag yuye T-shirt copy shoden ast.

One picture-of dog on T-shirt copy has been.

The tendency to use the equivalent schema to [NP have NP] is strongest for the Spanish group. The Farsi group and the Arabic groups did not employ equivalents to [NP have NP] schema; however, it is possible for both Farsi and Arabic to form a sentence with it²³. The Japanese group did not employ a transitive structure for describing this specific event either, however, it is different from Arabic and Farsi in that, in Japanese, the use of an equivalent schema to [NP have NP] is very odd.

In addition, for the other two sentences, “*The car has two airbags*” and “*The book has 700 pages*”, Japanese informants’ L1 production did seem to be affected by English in some cases and unnaturally employed the transitive structure with the equivalent verb to *have*. However, this did not occur for describing this specific event, which means that there is a strong resistance to employing the verb *motsu* (to hold, to have) for describing this event. This may explain their considerable difficulty in employing [NP have NP].

5.7.4. Summary

For this category, the differences among the groups were most significant for “*The T-shirt has a dog on it*”; the Japanese group seemed to have more difficulties than the other ESL groups. It can be said that their L1 does have an influence on their L2 production. The sentence “*The car has two airbags*” also shows an L1 Japanese specific

²³ Sentences with an equivalent [NP have NP] in Arabic and Farsi follow. (These are totally grammatical and acceptable):

Arabic: Al Kamis lahu souret kalbu.

The T-shirt has picture dog.

Farsi: T-shirt yek ask-e sag yuyash darad.

T-shirt one picture-of dog on it has.

tendency to some extent, however, the result for “*This dictionary has 700 pages*” did not show any specific L1 influence even though Japanese and Arabic have a preference for an intransitive structure.

5.8. Correlation between Proficiency Levels and Percentages

There were some L1 specific tendencies observed but the correlation between them and the learners’ proficiency levels (scores of the placement test) was not noticeable, as opposed to the fact that there was a correlation for the Typological Contrast I. Table 37 shows the number of sentences out of all the sentences (26 sentences altogether) for which the Japanese informants needed the third attempt and that they could not achieve. It shows that there is not a noticeable difference between the higher half and lower half (Higher half, Mean 9.20/26 and 4.30/26; Lower half, Mean 9.50/26 and 4.00/26). In Table 38, the results for the other groups are presented, and there is no noticeable difference between the higher half and lower half either (Higher half, Mean 9.38 and 4.38; Lower half, Mean 11.38 and 5.13). By using an ANCOVA, the results from both groups will be compared to see if the two groups are statistically significantly different in terms of the difficulties in achieving the target sentences.

Table 37. The number of the sentences out of all (N=26) for which the Japanese informants needed the third attempt (and the second attempt for [NP have NP]), and the number of the sentences which were unsuccessful.

	Needed the third attempt	Needed the third attempt but were unsuccessful		Needed the third attempt	Needed the third attempt but were unsuccessful
Japanese 1	9/26	3/26	Japanese 10	9/26	5/26

Japanese 2	8/26	6/26	Japanese 11	11/26	4/26
Japanese 3	12/26	3/26	Japanese 12	6/26	2/26
Japanese 4	12/26	7/26	Japanese 13	8/26	3/26
Japanese 5	9/26	4/26	Japanese 14	10/26	4/26
Japanese 6	8/26	3/26	Japanese 15	10/26	6/26
Japanese 7	8/26	4/26	Japanese 16	9/26	4/26
Japanese 8	9/26	5/26	Japanese 17	13/26	4/26
Japanese 9	8/26	3/26			
	83/234 $\bar{x} = 9.2/26$ s.d. 1.548	39/234 $\bar{x} = 4.3/26$ s.d. 1.397		76/208 $\bar{x} = 9.5/26$ s.d. 1.935	32/208 $\bar{x} = 4.0/26$ s.d. 1.118
Means and standard deviations for all the Japanese group:					
Number of sentences (out of 26) they needed the third attempt					
$\bar{x} = 9.4/26$ (per person) s.d. 1.747					
Number of sentences (out of 26) they failed					
$\bar{x} = 4.1/26$ (per person) s.d. 1.278					

Table 38. The number of the sentences out of all (N=26) for which the non-Japanese informants needed the third attempt (and the second attempt for [NP have NP]), and the number of the sentences which were unsuccessful

	Needed the third attempt	Needed the third attempt but were unsuccessful		Needed the third attempt	Needed the third attempt but were unsuccessful
Farsi 1	9/26	4/26	Arabic 1	13/26	6/26
Spanish 1	12/26	5/26	Arabic 2	15/26	10/26
Spanish 2	12/26	7/26	Arabic 3	16/26	9/26

Spanish 3	13/26	7/26	Spanish 7	8/26	4/26
Spanish 4	10/26	4/26	Arabic 4	8/26	3/26
Farsi 2	10/26	2/26	Spanish 8	9/26	2/26
Spanish 5	8/26	3/26	Spanish 9	11/26	2/26
Spanish 6	13/26	3/26	Arabic 5	11/26	5/26
	75/234 $\bar{x} = 9.38/26$ s.d. 1.763	35/234 $\bar{x} = 4.38/26$ s.d. 1.728		91/208 $\bar{x} = 11.38/26$ s.d. 2.870	42/208 $\bar{x} = 5.13/26$ s.d. 2.848
Means and standard deviations for all the non-Japanese group:					
Number of sentences (out of 26) they needed the third attempt					
$\bar{x} = 11.13/26$ (per person)					
s.d. 2.395					
Number of sentences (out of 26) they failed					
$\bar{x} = 4.75/26$ (per person)					
s.d. 2.385					

An ANCOVA was used to test the null hypothesis that there is no difference between the two groups in terms of 1: the number of sentences out of 26 that they needed third attempts, and in terms of 2: the number of sentences out of 26 that they failed to achieve.

The first null hypothesis was supported ($P = .625 > .05$), and so was the second null hypothesis ($P = .501 > .05$). Considering these, I would like to conclude that the learners' proficiency levels do not have much to do with the results at least in this narrow range of proficiency levels that I looked into, and there is no significant difference between the two groups in terms of difficulties in employing the transitive structure to describe events low in transitivity. In other words, the fact that an L1 is oriented towards being semantically transparent in terms of encoding semantic transitivity did not affect

their learning wider mappings of subject and object that a transitive verb can enter into in English.

Chapter 6

Discussion

6.1. Typological Contrast I

Before going into the discussion, I would like to repeat my hypothesis below:

Hypothesis: The English interlanguage of Japanese ESL students will be more affected by topic-comment organization than those of ESL students whose mother tongues are non-TP languages.

In order to test this hypothesis, the following three linguistic features / aspects were focused:

1. Evidence for influence from the category of topic
2. Zero-anaphora
3. Avoidance of indefinite NPs as subject.

6.1.1. Summary of Findings

The first focus fell on (1): Evidence for influence from the category of topic, and use of *is* as a topic marker in L2 English production. It was hypothesized that the Japanese group would employ *is* as a topic marker more frequently. The difference between the groups in terms of frequency was statistically significant ($P = .03 < .05$), and differences between the two groups also became apparent when the examples from each group were examined in terms of the type of sentences in which *is* was used as a topic marker; the Japanese group used *is* as a topic marker more in an environment where the meaning of a sentence is existential, which resulted in [Locative NP + *is* + NP], but this type of sentence was not observed in the non-TP group except for one example from an

Arabic student (A3). Another difference that lends support to the hypothesis was that the Japanese group employed [in + Locative NP] before *is* as a topic marker, which literally corresponds with the Japanese existential sentence where Locative PP typically becomes a topic (Sasaki, 1990). This was not observed in the non-TP group. (However, it should be noted that this was observed exclusively from one individual Japanese informant (J16)).

In addition, the ambiguous sentences were examined. Whether the ambiguity of those sentences resulted from missing subject NPs or from the employment of *is* as a topic marker is not clear. There was no difference between the two groups in terms of frequency, but again almost half of the ambiguous sentences in the Japanese group were existentials and none of those in the non-TP group was existential. The sentences can be generalized as a schema [Locative PP / Locative adverbial (*here*) + *is* + NP], which can be interpreted both as resulting from L1 Japanese, which lacks an existential dummy *there*, and use of *is* employed as a topic marker. The other difference observed was that most of the ambiguous sentences in the non-TP group were ones that can be analyzed as resulting both from a missing subject NP that is not overtly expressed in their L1s or *is* employed as a topic marker. Only a few of such instances were observed in the Japanese group.

Second, occurrences of sentence initial locatives were investigated. It was hypothesized that the Japanese group would place locatives at the beginning of sentences because locatives make a good topic in TP languages and are placed at the beginning of sentences, but in SP languages this is not the case (Rutherford, 1983). In terms of frequency, the Japanese group has slightly more such instances, but the difference

between them is not very large (Japanese 30/33, 90.9%; non-TP, 38/45, 84.4%).

Therefore, in terms of frequency, the results did not strongly support the hypothesis.

The second focus fell on zero referential object pronouns. Since object pronouns are not expressed in TP languages when their referent can be recovered from the context, it was hypothesized that the Japanese group would leave out more. However, the occurrences of zero referential objects were not frequent for both groups, and the difference was not significant (Japanese 9/103, 8.7%; non-TP 4/52, 7.7%; $P = .971 > .05$). The results did not lend support to the hypothesis.

The third focus fell on (3): Avoidance of indefinite NPs as subject. It was hypothesized that the Japanese group would have difficulty employing indefinite NPs as subjects in L2 English since topic NPs are supposed to be definite. First, the use of dummy subjects, the extraposed dummy *it* and the existential *there*, were investigated on the assumption that the Japanese group would overuse dummy subjects in order to take an indefinite NP out of the sentence initial position by placing a dummy subject sentence-initially. The differences were minor for both dummy pronouns. Please refer back to section 4.3.1., and Tables 11 and 12. Second, the number of occurrences of indefinite subjects in both groups was compared. It was hypothesized that the Japanese group would employ fewer indefinite subject NPs than the non-TP group would. The difference between the two groups was not significant ($P = .971 > .05$), even though the percentage was much higher for the non-TP group than for the Japanese group (Japanese 60/1269, 6.4%, non-TP 285/1356, 21.0%).

Third whether or not they were able to employ an indefinite NP as subject was examined by using pictorial stimuli. Both groups successfully employed *somebody*,

nobody as subject with no problem, and in terms of *many people*, the percentages were low across all the groups, including the NS group. For the other sentences with *an apple*, *a butterfly* and *an alien* as subject, the non-TP groups did better than the Japanese group. However, the main contribution to their high percentage was made by the Spanish group; the percentages for the Arabic group and the Farsi groups were as low as for the Japanese group. Furthermore, the main factor that lowered the percentages for the Japanese, Arabic and Farsi groups was the use of bare NPs or the definite article *the*. It is more reasonable to assume that this has more to do with an influence from their L1s having no indefinite articles. Therefore, from the picture stimuli, no evidence was found to support the hypothesis that the Japanese group would have more difficulty with employing indefinite subject NPs.

There are two additional findings that are worth mentioning. One is from the examination of existential sentences. It was observed that the Japanese group has difficulty employing [Locative PP + indefinite personal pronouns + have + NP], which half of the non-TP group used. Instead, they seemed to prefer [Locative NP (or PP) + is + NP] and [Locative NP + have + NP], which was not observed frequently in the non-TP group. Another is from the examination of indefinite subjects in oral narratives. It also has been observed that in generic statements, where indefinite personal pronouns were often employed by the non-TP group, the Japanese group revealed some odd uses of *I*, *someone*, *that person* as subject instead of indefinite personal pronouns such as *we*, *they*, or *you*, when they make generic statements. This was not observed in the non-TP group.

In summary, differences were noticeable in the use of *is* as a topic marker, existential sentences and the use of indefinite personal pronouns.

6.1.2. L1 Influence

6.1.2.1. Existential Sentences and Influence of Topic-Comment Structure

Use of *is* as a topic marker in an existential environment was a feature specific to the Japanese group, namely [Locative NP + *is* + NP]. Another example of this L1 Japanese specific feature was also observed in the results from the experiment for the typological contrast II; for the sentence “*John has a broken leg*”, four out of seven Japanese informants who could not reach the target sentence said “*John is broken leg*”. This was not observed among the other ESL groups. Sasaki (1990) examined topic prominence in existential constructions of the English interlanguage of Japanese students and also observed that [Locative NP + *is* + NP] was fairly common at the earlier stages. She came to the conclusion that earlier stages of Japanese-English interlanguage were characterized by topic-prominence.

Based on the fact that [Locative NP + *is* + NP] was not employed by non-TP language groups (except one Arabic informant), I would like to suggest that this supports the hypothesis that the interlanguage of the Japanese group was more affected by topic-comment organization than the non-TP group.

I would like to suggest that there is a developmental sequence that the Japanese group followed in learning target like existential sentences in L2 English. The data showed that the Japanese group used more of [Locative NP + *have* + NP] than the non-TP group (Japanese 13/34, 38.2%; non-TP 5/47, 10.6%). This corresponds with the result from Sasaki (1990), which showed her Japanese informants made use of [Locative NP + *have* + NP]. In considering this, the use of [Locative NP + *is* + NP], and the frequent use of Locative PP as subject, which were all unique to the Japanese group, it can be

suggested that there is a developmental sequence for them to learn English existential sentences. That is:

1. [Locative PP + *is* (topic marker) + NP]
2. [Locative NP + *is* (topic marker) + NP]
3. [Locative NP + *have* + NP]

First, existential sentences are expressed in a more unanalyzed way and the resulting sentences are more like a direct translation of the L1 equivalent sentence. Then the sentences are reanalyzed and locative PP is replaced with locative NP to meet the requirement that the subject has to be an NP. However the resulting sentence is still ungrammatical because *is* is employed as a topic marker. Then the sentences are analyzed again and *is* is replaced with the verb *have* to make the sentence grammatical. By looking at the three steps, it becomes obvious that locatives are always the subject of the sentence. On the other hand, the sentence type that the non-TP group made use of was [Locative PP + indefinite personal pronouns + *have* + NP], which was rare in the Japanese group (Japanese 2/34, 5.8%; non-TP 20/47, 42.5%). Here the locative is not a subject. This suggests that the Japanese group tend to impose topic-comment organization on subject-predicate structure in English.

6.1.2.2. Interpretation of Ambiguous Sentences

In the examination of ambiguous sentences, it was also the case with the Japanese group that half of the examples were existential sentences. I would like to suggest that it is more reasonable to interpret their ambiguous sentences as resulting from *is* being used as a topic marker rather than from a L1 influence due to the fact that Japanese lacks an existential dummy *there*. The reason is that ambiguous sentences that were existentials

were not observed from the non-TP group; if the ambiguity of those sentences in the Japanese group results from the lack of a grammatical equivalent to dummy *there* in their L1, more ambiguous sentences that are existential should be observed from the non-TP group, because their L1s also do not have an equivalent to existential dummy *there*. If this is the case, the result also will lend support to the hypothesis.

In addition, the majority of the ambiguous sentences can be categorized as missing a subject NP. Indeed this could result from *is* being employed as a topic marker. However, I would like to further suggest that it is also more plausible that the ambiguous sentences in the non-TP group resulted from subject pronoun omission and not from the use of *is* as a topic marker. The reason is that the sentences were drawn exclusively from the Spanish group (10 out of 14 of all the ambiguous sentences of the non-TP group are from the Spanish group), and in their L1, a copula verb has to remain in a sentence in order to indicate what is the subject of the sentence. Therefore, the ambiguous sentences observed in the non-TP group can be interpreted as a direct translation of Spanish sentences with copula verbs and subject pronoun omission. A possible example is given below:

420) For example, in Mexico, soccer is the most popular sport and here in Canada

Por ejemplo, en Mexico, el deporte mas popular es el futbol e aqui Canada
(the most popular sport) is hockey.

_____ es el hockey.

If this is not the case, more of this type of ambiguous sentences should be observed from the Japanese group, but the percentage was very low for them. (2/14,

14.3% of all the ambiguous sentences of the Japanese group are categorized as missing referential subjects, as opposed to 10/14, 71.4% for the non-TP group).

In short, there are 14 ambiguous sentences for each group, but it is more plausible to consider these as a result of *is* being used as a topic marker by the Japanese group, and as containing a null subject NP for the non-TP group. If this assumption is correct, it will be another support to the hypothesis.

6.1.2.3. Indefinite Personal Pronouns

It was apparent that the non-TP group employed more indefinite NPs than the Japanese group did. This is another piece of evidence to support the hypothesis that the Japanese group will have more difficulty in employing indefinite subjects due to their preference for a topic, which has to be definite, to be subject in a sentence.

It should be noted that the majority of indefinite subjects that the non-TP group employed were indefinite personal pronouns. This suggested that the biggest difference is in the use of indefinite personal pronouns. This also corresponds with the result from the investigation of sentence initial locatives, which suggested that the Japanese group has employed [Locative PP + indefinite personal pronoun + have + NP] much less than the non-TP group.

The possible cause of difficulty for the Japanese group in employing indefinite personal pronouns as subject can be two-fold. One is that it may be easier for them to start a sentence with a topic as subject because of their imposition of topic-comment organization onto L2 subject predicate structure. The other cause has to do with the difference between Japanese and the other L1s, Spanish, Arabic, and Farsi in terms of the grammatical status of indefinite personal pronouns. For example, indefinite personal

pronouns are usually unexpressed in those languages. However, the difference between Japanese and the non-TP group is that in the latter subject and predicate are grammatically tied together and verbs conjugate according to the subject, but in Japanese neither verbs nor any element of the sentence carries information about the understood subject. This suggests that non-TP speakers may be more aware of the existence of *people* as subject in general, but Japanese speakers are not. This may be one of the reasons why Japanese speakers employed far fewer indefinite personal subjects than the non-TP group did. Furthermore, it also became apparent that the Japanese informants made use of *I* to make a general statement, as in “*OK greetings. My final topic is greetings. I...I think...how can I say, OK, ahh if I met, I met somebody who I don't know at all, in Canada, I still can say hi, how are you something to them... (J1)*”. This type of sentence was not observed in the non-TP group. It can also be suggested that since the Japanese speakers are not as aware of the category of person, where indefinite personal subjects are idiomatically required, the subject of the sentence in their L2 production may easily be taken over by a definite pronoun or a definite NP, such as *I* or *that person*. This makes their generic statement more anchored to the perspective of the speaker. There is one instance where a Japanese informant made use of *someone* in a generic statement. This is indefinite as well, but it can be assumed that this may be more accessible to them since *someone* is more individualized than *you*, *we*, or *they*.

6.1.3. Universal Tendency

The Japanese specific tendency to form a sentence with a topic as subject was suggested through the comparison of the types of existential sentences and the number and the type of indefinite NPs in their oral narratives.

However, it should be noted that *is* as a topic marker was observed in the non-TP group as well. Even though it was not used in an existential environment, it was used in other environments, as in “.....*between each other, the train is only one hour* (S6)”. “*I think the management is Canada is better their good economy* (F1)”. Furthermore, in terms of the number of indefinite subject NPs, indeed the percentage for the non-TP group was much higher than for the Japanese group; however the data suggested that the higher half of the non-TP group employed more indefinite subject NPs than the lower half did (higher half 148/579 (25.6%), lower half 137/177 (17.6%)). This suggests that the non-TP group may also have difficulty employing indefinite subjects at even lower stages, which may be taken to indicate that the lower their proficiency level, the more topic-comment organization their L2 production will show topic-comment organization.

Therefore, it is wrong to conclude that the topic-comment organization of L2 interlanguage is unique to the Japanese group. Rather, the topic-comment organization of L2 interlanguage is a universal phenomenon at the very beginning stages as suggested in Klein and Perdue (1993), Givon (1984b) and Schumann (1975), but at this specific proficiency level that I looked into, influence of L1 typological organization started emerging in the L2 productions of the two groups and surfaced with different features; the Japanese group have more difficulty internalizing subject-predicate structure in English, and the non-TP group seemed to make a much faster progress toward it.

6.2. Typological Contrast II

There are three hypotheses (a main hypothesis and two subhypotheses) that were advanced in Chapter 2. I would like to briefly repeat them here.

Hypothesis: Japanese learners will have more difficulties mapping transitive structure onto different semantic relations that a verb can enter into, since Japanese encodes semantic transitivity in a more semantically transparent way than English does.

Two subhypotheses follow:

- 1. L2 learners may have trouble mapping a transitive structure onto events which are low in semantic transitivity. This may be universal at the very early stage of acquisition regardless of L1.**
- 2. The more the learners become proficient, the more their way of encoding the event in L2 will become affected by their L1 because they are able to use more grammatical means to reflect their L1's encoding of it in their interlanguage. Therefore, where there is a difference between L1 and L2 in terms of coding transitivity, learning will be hampered.**

6.2.1. Summary of Findings

To test the hypotheses, six categories that have different combinations of semantic features were set up and they were examined starting with the one that is the highest in transitivity. The summary of the results is briefly presented in this section.

The first category was characterized as [+ Animacy, + Volitionality, + Kinesis, + Affectedness of O]. It can be also represented as [Actor (+ Volition) + V + Patient], and the target sentences were “*Mary kicked the stone*”, “*John drank the beer*”, “*Mary cleaned the room*”, and “*John built the house*”. The ESL groups did not show any problem forming all four target sentences.

The second category is [+ Animacy, - Volitionality, + Kinesis, + Affectedness of O], which can be characterized as [Actor (- Volitionality) + V + Patient]. The target sentences were *"John hit his head"*, *"Mary hurt her knee"*, *"John dropped the cup"*, and *"Mary burned the meat"*. In this category, forming the sentences seemed to be much more difficult and the percentage total for all three attempts were low across all the ESL groups. There was a noticeable group specific tendency in the patterns of avoiding the target structure; for the target sentence *"Mary hurt her leg"*, the Japanese group showed a tendency to make sentences passive or intransitive as *"She got hurt (J5, J7, J11)"*, which was not common for the other ESL groups or the NS group. For the sentence *"John dropped the cup"*, the Arabic group did not do well while the other groups have a high percentage, which corresponded to their L1 description; the Arabic speakers employed an intransitive structure with *cup* as subject while the Japanese speakers employed a transitive structure.

The third category is [+ Animacy, - Volitionality, + Kinesis, - Affectedness of O], which can be represented as [Actor (- Volitionality) + Action + Location (- Affected)]. The target sentences were *"Mary crossed the street"*, *"John left the house"*, *"Mary entered the restaurant"*, and *"John reached the top of the mountain"*. The percentages were fairly high across all the ESL groups, except for the Spanish with the target sentence *"Mary entered the restaurant"*; none of them could achieve the target sentence since they inserted the preposition *to* or *into* after the verb.

The fourth category is [- Animacy, - Volitionality, + Kinesis, + Affectedness of O], which can be represented as [Instrument + V + Patient (+ Affected)]. The target sentence were *"The stone broke the window"*, *"The key opened the treasure box"*, and

"The rain washed the cars". The fourth sentence *"The leaves changed color"* is semantically slightly different from the other three, and can be schematically represented as [Location + V + Patient]. The percentages were much lower across all the ESL groups. There were unique tendencies observed for the Japanese group with *"The stone broke the window"* and *"The rain washed the cars"*; they seemed to prefer passive sentences, exemplified by *"The window was broken by a stone"*, and *"The cars were washed by the rain"*.

The fifth category is [+ Animacy - Volitionality, - Kinesis, - Affectedness of O], which can be thematically represented as [Experiencer + V + Theme (-Affected)]. The target sentences were *"Mary can see the singer"*, *"John heard a noise"*, *"Mary knows the answer"*, and *"John needs glasses"*. The percentages were high across all the ESL groups, but there were some group specific tendencies. One is with the Japanese group who used the verb *notice* for the sentence *"John heard the noise"*. Another group tendency is that the majority of the Arabic group used *hear* instead of *see* on the first and second response for the sentence *"Mary can see the singer"*, where most of the informants including the NS group employed *see* right away. Furthermore, for the sentence *"John needs glasses"*, the Japanese group tended to use the verb *need* as an auxiliary verb as in *"John needs to wear glasses"* or *"John needs wear glasses"*.

The sixth category is [+ Animacy, - Volitionality, - Kinesis, - Affectedness of O], which can be thematically represented as [Location + have + Theme]. There were three sentences, which were *"Susan has three children"*, *"John has a fever"*, and *"John has a broken leg"*. For the first two sentences, no group specific tendency was observed. However, for the last sentence, the Japanese group appeared to have a difficulty

integrating the two NPs into one sentence; the resulting sentences were not of the same type of sentence that was employed by the other groups, as in *“John is using a tool for broken leg (J2)”*, *“John...how can I say? John..... John.....ah how can I say? John..... John... hm... John walking his broken leg? (J17)”*. It seemed as if they could not interpret the sentence simply in the meaning of *“John has a broken leg”*. Furthermore, four out of seven Japanese informants who could not achieve the target sentence said *“John is broken leg”*. This tendency was not observed in the other ESL groups either.

The last category is the lowest in transitivity and its semantic features are [-Animacy, -Volitionality, -Kinesis, -Affectedness of O]. Thematically it is represented as [Location (-Animacy) + have + Theme], which is an existential proposition. The target sentences were *“The car has two airbags”*, *“The dictionary has 700 pages”*, and *“The T-shirt has a dog on it”*. For the first two sentences, the percentages were high across all the ESL groups (except for the Farsi group with the sentence, for which the percentage is 50.0%). However, for the last sentence, the Japanese group showed a specific tendency to use a passive structure as in *“One cute dog is printed on the T-shirt (J2; similar responses with passives: J4, J6, J11, J16)”*. This type of sentence was not seen in the other groups including the NS group. The percentage for the Arabic group was also as low as for the Japanese, and their response pattern was mostly a *“There is a dog on the T-shirt”* type of sentence, which corresponds with their L1 description.

There was no apparent difference in forming target sentences in terms of informants' proficiency level, as far as this specific proficiency level that I looked into is concerned. Furthermore, no difference was observed between the Japanese group and the

other groups in terms of the number of attempts that they needed to achieve the target sentence, and the number of the target sentences that they could not achieve.

6.2.2. Universal Tendencies

Subhypothesis (1) was partly supported. The informants did not have any difficulty assigning transitive structures to descriptions of events which were prototypically transitive. However, Subhypothesis (1) was partly rejected in the sense that even though the percentages were more or less lower on all the less prototypical transitive events across all the ESL groups, the percentages did not go down in accordance with the degree of transitivity. For the category of the second highest transitivity [+ Animacy, - Volitionality, + Kinesis, + Affectedness of O], which can be schematized as [Actor (- Volition) + V + Patient], the ESL groups seemed to have more difficulty forming the target sentences and the percentages were lower than for a lower category [+ Animacy, - Volitionality, + Kinesis, - Affectedness of O].

The category that the informants struggled the most with is [- Animacy, - Volitionality, + Kinesis, - Affectedness of O], which can be schematized as [Instrument + V + Patient (and [Location + V + Patient])]. However, the category whose degree of transitivity is the same in a quantitative sense, which is [+ Animacy, - Volitionality, - Kinesis, - Affectedness of O], and which can be schematized as [Experiencer + V (- Kinesis) + Theme (- Affected)] obtained much higher percentages.

These are summarized in Table 39, where percentages stand for the frequency of informants' failure to form the target sentences for that category.

Table 39. The percentages for the NS informants and the ESL informants who could not achieve the target sentence for each category starting with the least difficulty (A: Animacy, V: Volitionality, K: Kinesis, O: Affectedness of O)

Semantic features	NS	ESL
+ A + V + K + O [Actor + V + Patient]	0/60 (0.0%)	0/132 (0.0%)
+ A – V – K – O [Experiencer + V + Theme (- Affected)]	0/60 (0.0%)	8/132 (6.1%)
+ A – V + K – O [Actor (-Volition) + V + Location]	0/60 (0.0%)	21/132 (15.9%)
+ A – V + K + O [Actor (-Volition) + V + Patient]	2/60 (3.3%)	34/132 (25.8%)
– A – V + K + O [Instrument (Location) + V + Patient]	9/60 (15.0%)	52/132 (39.4%)
+ A – V – K – O [Possessor + have + Theme (- Affected)]	2/60 (3.3%)	22/132 (16.7%)
+ A – V – K – O [Location + have + Theme (- Affected)]	2/60 (3.3%)	30/132 (22.7%)

The table shows that difficulty of employment of SVO syntax does not go strictly parallel with low degree in transitivity, even though there is a general correlation. This suggests that the higher the transitivity the easier it is for them to employ the transitive structure, but there are other factors that affect their formation of SVO syntax.

The way their L1s encode events did not seem to be a strong predictor for how they do it in their L2 production, since it was generally the case that they had difficulty forming the target sentences regardless of whether or not their L1s employ an equivalent transitive structure. For example, for the category [- Animacy, - Volitionality, + Kinesis, - Affectedness of O] which can be schematized as [Instrument (Location) + V + Patient], the Japanese were the only speakers that employed an intransitive structure in their L1 description while the others employed a transitive structure with an instrumental

(location) subject. However, the percentages were low across all the ESL groups, which means that the fact that L1 employs a transitive structure did not help them to form the target sentence. (However, there are some exceptions to this where L1 influence surfaced into L2 production in terms of coding semantic transitivity and they will be discussed later in this chapter.)

6.2.2.1. Semantic Transparency and SVO Structure

It could be suggested that not all the semantic relations that subject and direct object can enter into with a transitive verb are accessible to the ESL learners regardless of their L1s. In terms of the events that were dealt with here in this study, the resulting sentences were in many cases non-native like especially in the categories of [+ A, – V, + K, + O (Actor (-Volition) + V + Patient)], [– A, – V, + K, + O (Instrument (Location) + V + Patient)]. It can be suggested that these mappings were difficult ones for the ESL learners irrespective of the type of L1.

I would like to suggest that learners initially limit the number of semantic relations that subject and object can enter into with a transitive verb at early stages of acquisition. The meaning of a verb that they first see is assumed to be a more basic one (this can be universal or transferred from the learners' L1, which is unknown from the data). This is well-documented in Kellerman (1978). He looked at Dutch learners of English and examined the transfer of *breken* (a verb in Dutch, which is cognate with *break*) onto *break* in English. He found that only the core meanings (e.g. "*He broke the cup*") were transferred, but not the peripheral ones (e.g. "*Jane broke his heart*". = hurt emotionally). This may affect their L2 syntax since their sentences will evolve around

more prototypical meanings of verbs, which I suspect may contribute to making their descriptions semantically more transparent, but non-native like in many cases.

In order to make this picture clear, I would first like to take the examples, *burn* and *hit* from the category of [+ Animacy, - Volitionality, + Kinesis, + Affectedness of O] schematized as [Actor (- Volition) + V + Patient] to explain.

The first one to be looked at is the sentence “*Mary burned the meat*”. The percentages for this sentence were very low across all the ESL groups, while the majority of the NS group produced the target sentence on the first response without hesitation. This difference does not seem to result from the ways their L1s encode the event, since all the L1s employed an equivalent transitive structure. Then one may wonder what brought about this discrepancy between the two groups. It can be suggested that the ESL groups first see a more basic meaning in the verb *burn* that is more prototypical, such as an action that a human intentionally burns something (the schema [Actor (+ Volition) + burn + Patient]). In order for them to employ a transitive structure to describe the picture, they needed to extend the meaning to the target one, which is more peripheral, such that a human burns something by mistake (the schema [Actor (- Volition) + burn + Patient]), but they could not. Therefore, they did not use a transitive structure to describe the picture, since it simply did not match the event the picture represented. Instead, what they did was to make the sentence passive or intransitive with *food* as subject, such as in “*The food was burnt* (first response, S7)”, “*The food is burning* (first response, A5)”. One of the informants who achieved the target sentence showed discomfort with it, and said that she did not like the sentence (second response, S8). Furthermore, another one of the

informants could not include *Mary* as a subject and the resulting sentence was very odd; “*The meat burnt by Mary* (second response, J10)”.

Next, let us have a look at the sentence “*John hit his head*”. This had relatively higher percentages across all the ESL groups but still many non-native like examples were observed despite the fact that their L1s all employed an equivalent transitive structure. I would like to suggest that they see a meaning wherein John hit his head on purpose which can be schematized as [Actor (+ Volition) + hit + Patient]. This is a very unusual interpretation and does not match the event that the picture represents, so the ESL informants in many cases avoid using *hit* on the first and second response and said, “*John crashed into the tree* (first response, J4, J6, J7, J13, J15)”, “*I bumped with the tree* (first response, S2), and “*John’s head crashed the tree* (second response, A3)”. Furthermore, they showed some peculiar patterns when they were forced to use *hit*; one informant once employed the verb *hit* but eventually used another verb and said “*John ah ...hit.. John have a headache* (S6)”. Some placed *tree* in a direct object position, “*John hit ah hm tree his head* (J17)”. One informant actually reached the target sentence but rejected it right away, as in “*John hit his head. Nonononono. I can’t explain. John’s head bumped into the tree* (J15)”. This suggests that even though they used an equivalent verb that has the same mapping of semantic relations in their L1 production, [Actor (-Volition) + hit + Patient] was not one which was readily accessed by many of them in their interlanguages. In addition, it seemed that “*The boy hit the tree* (first response, J14)”, which can be schematized as [Actor (- Volition) + hit + Location] may be more accessible to the informants than the target sentence “*The boy hit his head*”. It can be assumed that what makes the target sentence even less accessible is in the unusualness of

the event where a person intentionally hits a part of his own body. This is not what the target sentence means, but it may possibly be in their English interlanguage, since the verb *hit* is tied to volitional action in their mental representation, not a notion of action being done by accident.

The last example is from the category [- Animacy, - Volitionality, + Kinesis, + Affectedness of O, (Instrument + V + Patient)], which had the lowest percentages across all the ESL groups. The sentence that is looked at here is "*The key opened the treasure box*". In the L1 description, all the groups employed an equivalent transitive structure, but the Japanese group did not. However, this difference did not surface in the L2 production, and the target sentence did not seem to be readily accessible to any of the groups. It is also suggested that the basic mapping is a prototypical transitive one [Actor (+ Volition) + open + Patient], and this mapping of semantic relations was not extended to [Instrument + open + Patient] yet. The way they avoided the target sentence was common across all the ESL groups, which was to employ an indefinite pronoun as the subject as "*We can open the treasure box by red key* (third response, J5)". The sentence "*The key opened the treasure box*" may sound odd to them, since *key* is acting like a person who intentionally does the action.

Furthermore, the lowest percentages of this category suggest that [Instrument + V + Patient] (and [Location + V + Patient] as well) is a more difficult mapping for the learners than any other types of mappings that were dealt with. This corresponds with the Semantic Function Hierarchy (SFH) proposed by Dik (1981) based on investigations of different languages, which suggests that semantic functions constrain subject and direct object assignment. In this hierarchy, 'instruments' are ranked lowest but two for the

subject, and 'location' being at the lowest. The subject assignment hierarchy going from the highest to the lowest is: Agent > Goal > Receptive > Benefactive > Instrumental > Locative > Temporal. He stated that as we proceed down the hierarchy to the right the resulting construction will become more unusual and the resulting sentences will be less and less frequent. This suggests that an instrumental subject is universally an unusual mapping. Interlanguages seem to be very conservative with respect to this hierarchy.

Now I would like to discuss why all the ESL groups have high percentages for the category [+ Animacy, - Volitionality, - Kinesis, - Affectedness of O (Experiencer + V + Theme (- Affected))], in spite of its low transitivity. In their L1 description, again for most of the cases the Japanese group employed an intransitive structure and the other groups employed a transitive structure. However, this difference did not surface in their L2 syntax; therefore, it can be said that the part of Subhypothesis (2) ("where there is a difference between L1 and L2 in terms of coding semantic transitivity, learning will be hampered") was rejected for this category. Dik's (1981) hierarchy corresponds with this result; the subject is a receptive (experiencer), which is relatively high on the SFH. This means that experiencer subjects (Dative subjects) are universally acceptable. Therefore, it is reasonable to think that [Experiencer + V + Theme (- Affected)] is more readily accessible to the learners in spite of its low degree in transitivity.

Then, one may wonder again why the acceptability of experiencer subjects is high. I would like to relate this to the diachronic development of dative constructions. Experiencers traditionally were marked with dative case in languages with morphological case, therefore experiencer subjects were not common in the history of languages as previously shown in Chapter 2. Kirkwood (1976) related this synchronic change towards

experiencer subjects to the high themeworthiness²⁴ of experiencers, and McCawley (1976) attributed it to a perception change in people from humans being a receiver of a stimulus to humans being doers and having control over experiencing a stimulus. I am not discussing which theory is more plausible to explain what actually makes it easier for the learners to employ SVO syntax to describe their perceiving or sensing something in spite of low transitivity. However, it is possible that the two different factors, themeworthiness and a change of perception in terms of human beings having control over their perception, may contribute to the learners' easy employment of [Experiencer + V + theme (-Affected)]; it is widely accepted that the higher the themeworthiness of an NP is, the higher the possibility for it to become a subject (Givon, 1984a; Tomlin, 1986; Davidson, 1984; Zobl 1989), and the perception of human beings having control over their perception would make an experiencer NP more analogous to an Agent.

For the category [+ Animacy, - Volitionality, + Kinesis, - Affectedness of O, (Theme (+ Animacy) + V + Location (- Affected))] (e.g. Mary crossed the street.), the percentages were third highest of all the categories despite the fact that they are low in transitivity. There is no equivalent to *Theme* on Dik's subject assignment hierarchy (Dik, 1981), however, Location is listed on his object assignment hierarchy (Goal > Receptive > Benefactive > Instrumental > Locative > Temporal). According to this, Location object was ranked near the bottom, which suggests that [Theme (+ Animacy) + V + Location (- Affected)] is a very unusual mapping. Then one may wonder why the learners did not have difficulty employing a transitive structures to describe these events. My suggestions are different for the sentence "*Mary crossed the street*" and the rest. For the sentences,

²⁴ 'Themeworthiness' refers to the degree of ease with which the referent of an NP can be identified or individuated (Zobl, 1989).

“John left his house”, “Mary entered the restaurant” and “John reached the top of the mountain”, they might have started out using the verb intransitively with a preposition, such as *“John left from home (J5)”*. Then in order to learn the grammatically correct use of *leave*, what learners should do is to drop the preposition. It can be said that this would be a rather easy process compared to changing the word order around. The only thing they need to encounter is evidence that the verb is used without preposition. However, this is not a strong explanation for why the sentence *“Mary crossed the street”* was far easier for all the ESL groups than the others; none of the informants failed to reach the target sentence. I would like to suggest that this event was more easily interpreted as being analogous to a prototypical transitive event in their mental representation, since *cross* is an action that goes all the way from one side to the other side of the street, in a way “conquers” it (Givon, 1984a). On the other hand, for the other sentences, the location NPs in the direct object position are either source or goal of the action, therefore, they may not be easily interpreted in the way *cross* may be. This may have brought about the discrepancy between *“Mary crossed the street”* and the other sentences.

Another thing that should be taken into account in explaining why the latter two categories [Experiencer + V + Theme (- Affected)] and [Actor (- Volition) + V + Location] are relatively accessible to SVO syntax may be because the meanings of the verbs that were dealt with here are intuitively more basic, while those used in the categories [Actor (-Volition) + V + Patient] and [Instrumental + V + Patient] are more peripheral. This may also have been contributed to the discrepancy among them in terms of percentages.

In short, it seems to be a universal tendency that the stronger the transitivity is, the more easily learners assign transitive structure. However, there are also other conditions that would make this picture more complex. It has been suggested that those conditions are, (1) how easily learners could adopt the mapping because of themeworthiness and analogy to agent subject (e.g. Experiencer subjects), (2) simplicity of syntactic modification to the transitive sentences (for the category [Actor (-Volition) + V + Location (- Affected)]) , or (3) analogy to prototypical transitive events (for the sentence “*Mary crossed the street*” .) . These all seemed to be universal influences, regardless of the way their L1s encode events.

6.2.3. L1 Influence

Subhypothesis (1) - that L2 learners may universally have trouble mapping a transitive structure onto events that are low in semantic transitivity at early stages of acquisition - was supported but there were other universal tendencies that seemed to make the picture more complex.

In addition to those universal factors, I would like to suggest that there are also L1 specific factors that add more variety to the picture of learning SVO syntax. One such factor is an influence from the L1 lexicon.

6.2.3.1. Lexical Influence from L1

I would like to suggest that when learners come to the task of performing in L2, they consciously or subconsciously look for a lexical item in L2 that is semantically equivalent to the one in L1. In addition, in order for an L2 lexical entry to match up with an L1 lexical entry, their grammatical categories should match up, as well as the meanings. Then it follows that learners also try to match up an L1 verb to an L2 verb,

which is semantically equivalent. This corresponds with Adjemian's (1983) suggestion that learners may compare the lexical relatedness possibilities expressed in the L1 lexicon with the lexical data in L2, and make use of elements that appear to match. However, it is unlikely that this matching would always turn out to be successful. One may find a semantically equivalent element in L2 to that of L1 in the same grammatical category, but it is not simply used in the same context in L2. Another time, one may not find any element in L2 that is semantically equivalent to a certain element of L1 in the same grammatical category. It is also possible that one may match up a certain element of L1 with an element of L2, but they are not semantically equivalent or their grammatical categories are not the same, and as a result, the L2 element acts in an unidiomatic way in L2 context. These may all bring about a number of L1 specific difficulties in forming idiomatic sentences and I would like to suggest that these may cause a delay in learning a certain mapping relationship.

In order to make the idea of L1 lexical influence clear, I would like to first show examples of lexical influence from L1 onto L2, but which do not affect L2 structure. One example would be frequent use of *notice* by the Japanese group for the sentence "*John heard the noise*", which was very rare for the other groups. In fact this corresponds with their L1 description in Japanese, where a majority of the Japanese group employed *kiduku* (*notice*). It can be suggested that *kiduku* and *notice* were matched up in their mental representation and they eventually use *notice* to describe the event in their L2. The same phenomenon was observed from the Arabic group for the sentence "*Mary can see the singer*". The majority of them used the verb *hear* instead of *see*, where the

majority of the other groups used on the first response. This also corresponds with the result of their Arabic description.

Now I would like to examine five examples where a specific L1 group was unsuccessful in employing transitive structure and ask why it was so in the light of L1 lexical influence on L2 syntax.

The first example is the Japanese learners' tendency to use the verb *need* in combination with *wear*. This can also be an example of lexical influence from L1, since the modality of *need* is not expressed by a verb but with other different grammatical categories. One of the examples is a noun (*megane ga*) *hituyou desu*, which can be roughly translated as (*Glasses-NOM*) *necessity is*. Considering all, it can be assumed that this may have hampered the Japanese group to employ *need* as a main verb. On the other hand, the other L1s all have a main verb which is semantically equivalent to *need*.

The second example is from the sentence, "*Mary hurt her knee*", which is in the category [+ Animacy, - Volitionality + Kinesis, + Affectedness of O, Actor (- Volition) + V + Patient]. Here the Japanese group showed a persistent tendency to use an intransitive or a passive structure, such as "*She hurted* (first response, J9)", "*She got hurt* (first response, J11)", "*Mary got hurt her leg* (third response, J5)", "*Mary's leg hurt* (third response)". They sometimes seemed to interpret the verb *hurt* as a noun or an adjective since there were examples such as, "*She hmm...get a hurt* (first response, J5)", "*Mary's leg is hurt* (third response, J7)", "*Mary's leg is looks so hurt* (third response, J10)". These suggest that, in their mental representation, the verb *hurt* is more associated with the notion of pain, so they associate *hurt* with a noun or adjective such as *itami*, *kidu* (pain, scar, respectively), *itai* (painful) in L1. Later on, they learn that *hurt* is a verb. This

suggests that the learners whose L1 backgrounds are different may see a different meaning in the same L2 lexical element. In short, it can be assumed that the Japanese group first think that the meaning of *hurt* is static, and then they learn that it can be more dynamic. This might have caused a discrepancy between the Japanese group and the other groups in the percentages. Then one may wonder why the Japanese did not use the equivalent of the verb phrase *kega o suru* (“do injury”, literally translated), which the majority of the Japanese informants used in their L1 description. I would like to assume that this is rather an idiomatic expression and it is well documented that idiomatic expressions are not likely to be transferred from L1 to L2 (Kellerman, 1977; Ikegami, 1995).

The third example is from the sentence “*Mary entered the restaurant*” from the category [+ Animacy, - Volitionality, + Kinesis, - Affectedness of O, Actor (- Volition) + V + Location]]. It was striking that none of the Spanish speakers reached the target sentence. They employed a preposition such as *in* or *into* after the verb, and the resulting sentence was intransitive, as in “*The girl enter to the restaurant*” (S1, similar response: S2 to S9, A1 to A3). In their L1 description, all the groups employed intransitive syntax, but the Japanese group and the Farsi group did fairly well. Indeed the Arabic group has a tendency to employ intransitive structure in L2 but the tendency is not as striking as that of the Spanish group. I would like to suggest that the Spanish equivalent verb *entrar*, being cognate with *enter* is the cause of delay in their employing transitive structure in describing this specific event; the Spanish learners may believe that *enter* should be used with a preposition just the way *entrar* is in Spanish, because of the similarity. The result for the sentence “*John left the house*” lends support to this view; in their L1 description,

all the Spanish informants used a semantically equivalent verb *salir* and this verb is used intransitively with a preposition *de*, which is an equivalent to *from* in English. However, in their L2 description, all of them successfully reached the target sentence. In short, I would like to suggest that cognates can affect L2 structure and this is also one of the lexical influences from L1.

The fourth example concerns the use of *have*. It became obvious that the Japanese had noticeably persistent difficulty employing *have* for the sentences “*John has a broken leg*” and “*The T-shirt has a picture of dog on it*”, and the resulting sentences were more or less direct translation from Japanese. The semantically equivalent verb of *have* in Japanese would be *motsu* (*hold, possess*), and it can be assumed that these are somehow matched up together in their mental representation. However, in their L1 description, *motsu* fits in describing none of the six sentences. Then one may wonder why the learners were unsuccessful in employing [NP have NP] for these two specific sentences. I would like to suggest that the learners initially project the meaning of *motsu* (*hold, possess*) onto the verb *have*, and I assume that because of this the Japanese learners initially might have difficulty using the [NP have NP] schema for all the six sentences since the sentences are semantically odd to them.

One may ask why they had more difficulty with the sentences “*John has a broken leg*” and “*The T-shirt has a picture of a dog*”. There are two possible explanations. One is that this may have something to do with the frequency of use; for example, intuitively, it is more likely that the learners will encounter sentences like “*Susan has three children*”, “*The dictionary has 700 pages*” than “*John has a broken leg*” or “*The T-shirt has a picture of a dog on it*”. The other is that these two sentences may be semantically

more challenging for extending the meaning *hold* or *possess* to. In any event, I would like to suggest that the Japanese have a more conservative semantic mapping for *have* than the other groups do, since the equivalent of *have* is made much more use of in Spanish, Arabic, and Farsi but not so in Japanese. This can be related to the typological contrast proposed by Isacenko (1974), between Be-languages and Have-languages; Japanese is a Be-language, therefore Japanese speakers will have more persistent difficulty in using *have* in the same context than the other learners, whose L1s are Have-languages.

The last example concerns the Arabic group's low percentage for the sentence "*John dropped the cup*". This is contrastive to the fact that the other groups have high percentages. In fact, in their L1 description, Arabic and Farsi speakers used an intransitive structure with the equivalent to *cup* as subject. Although the Farsi group used an intransitive structure in their L2 description, the fact that three out of five of the Arabic group employed *cup* as a subject in their L2 cannot be ignored and is worth discussing. I would like to suggest that they matched an Arabic intransitive verb equivalent to *fall* with *drop*, and projected the intransitive categorization onto it. This may have caused their delay in using *drop* transitively.

Considering all these, one of the proposals in Subhypothesis (2), which stated that when there is a difference between L1 and L2 in terms of coding semantic transitivity, learning will be hampered, is supported where an L1 specific lexical influence comes in, for example, for the category [NP have NP] and for these sentences discussed in this section. However, it is not supported when it comes to the categories for experiencer subjects; the Japanese speakers did not have any difficulty in using a transitive structure in this category in spite of their preference for an intransitive structure to describe the

same states in L1. For the other proposal, when there is no difference between L1 and L2 in terms of coding semantic transitivity, learning will be facilitated, is not supported for the categories of instrumental (Locative) subjects and [Actor (- Volition) + V + Patient (+ Affected)]. It was generally the case with these categories that even though the L1s employ an equivalent transitive structure in describing the events, they had difficulty in employing NP V NP in their L2 production. This may sound contradictory; however, I think these can be explained without contradiction when viewed from the perspective of what kind of meaning learners see in a verb. This will determine their L2 structures. In other words, lexical identifications between L1 and L2 and the associated transfer of the L1 subcategorization, and conservative mappings of a transitive verb when the verb is polysemic are more important factors in explaining the difficulties that learners encountered in this study. Bogaards (1996) stressed that SLA research should consider the lexical aspect of second language acquisition more; the lexical units of the L2 can be understood through learners' L1, and L2 will be processed in the light of corresponding elements in the mother tongue, which calls up lexical specific grammar in learners' interlanguages. This also explains the ease that learners have with cognates and the extra effort they have to make with misleading cognates, which corresponds to the observed difficulty that the Spanish group had for the sentence "*Mary entered the restaurant*". On the other hand, there is a constraint on the possibilities for projecting the meanings of L1 lexical elements onto L2 elements (Kellerman, 1978); when an element is a polysemic word, only the core meaning will be projected with peripheral ones deemed untransferable, which also agrees with the findings in this study; learners had difficulty

producing the sentences with instrumental (also locative) subjects, and human subjects without volition, with transitive verbs.

6.2.4. Generalization and Metaphorical Extension

In this study, we observed the phenomenon that when L2 learners encounter a wider mapping of transitive structure in L2 (such as English), this may result in less-target like constructions. How, then, do they internalize a wider set of semantic relations that a transitive verb can enter into. I would like to suggest that learners will need to generalize or metaphorically extend the transitive structure to events low in transitivity.

Since there is no concrete evidence that they were actually mentally engaged in extending the meaning of verbs, what I am discussing here does not go beyond the level of speculation. However, at least I would like to present what are the grounds for my speculation.

The first one is learners' hesitation in producing the target sentence (e.g. *"John's head? ...John hit his head"*. (third response, J12); *"The ball ...the ball ahh has broken the window"*. (first response, J5)). It suggests that even though they were not comfortable with the sentences, they managed to achieve the target sentence. It is reasonable to think that, behind it, there must be a psychological process in which some learners consciously or unconsciously somehow extend the mapping that they originally had to one which is more peripheral, but which is not yet internalized. It may be said that generalization of a thematic schema is taking place in their mental representation. Whether or not metaphorical extension is involved in this process (e.g. Extension of the mapping of the verb *break* for the sentence *"The ball broke the window"* by using a metaphor such that

the ball has a volition to break the window) is not clear but it is also plausible, since this is the strategy that I, a Japanese speaker of English, used to have in order to internalize wider semantic relations for subject and object that a transitive verb can enter into, especially with the verb *have*, as far as I remember. I suspect that it might also be the case with the Japanese speakers that in order to internalize the mapping of the sentence “*The T-shirt has a dog on it*”, they use a metaphor such that the T-shirt possesses a dog.

The second one is the fact that some studies on L1 acquisition and diachronic development of a language indicate that the extension of the meanings of prototypical transitive verbs to describe less transitive events over time (French, 1971; Slobin, 1982; Pinker, 1984; Givon, 1984a; Isacenko, 1974). As mentioned in Chapter 2, Pinker (1984) proposed the bootstrapping hypothesis and suggested that L1 learners generalize semantic relations which are more concrete to more abstract ones. Givon (1984a) and Slobin (1982) argued that metaphorical extension took place in diachronic language development and L1 development of an individual respectively. Since there is evidence to think that L1 development and diachronic development of a language are based on the same cognitive processes, I think it is reasonable to say that generalization and metaphorical extension occur to integrate wider semantic mappings for subject and object that a transitive verb can enter into in L2 development as well.

Again, these are only my speculations and I hope that some longitudinal studies will pursue this issue to understand the process of generalization and metaphorical extension of meaning of a prototypical transitive verb to more peripheral ones in the future.

Chapter 7

Conclusion

The English interlanguage of Japanese learners was investigated to try to figure out (1) what makes Japanese learners' interlanguage non-native like, and (2) where those non-native features come from, universal principles or L1.

This present thesis provided insights for these questions as follows. For (1), there is an effect from the L1 topic-comment organization on their L2 syntax. For (2), due to a universal developmental tendency, all the ESL groups including the Japanese group may have difficulty mapping a transitive structure to events low in transitivity. However, there is also a L1 influence from the L1 lexical entry, which affects their L2 syntax. The summary of the details follows.

A typological approach was adopted and two different typological contrasts between Japanese and English were focused on. One is Topic-Prominent (TP) languages (Japanese) and Subject –Prominent languages (English) (Li and Thompson, 1976) (=Typological Contrast I), and the other contrast is the wider set of thematic relations that map onto the transitive structure in English (Hawkins, 1985) and the narrower set of thematic relations in Japanese (Ikegami, 1991, 1995) (=Typological Contrast II). The former has more to do with pragmatic, discourse, and grammatical aspects of subjects and predicates and the latter has to do with the semantic of verbs. Through these two different approaches, this study hoped to contribute to our knowledge of the SLA of English by Japanese speakers and illuminate the relationship between universal tendencies and L1 influence.

For the first typological contrast, it was hypothesized that the interlanguage of the Japanese groups would be more characterized by a topic-comment organization. This was supported by the following three findings. One is with the use of *is* as a topic marker.

Although there were instances of *is* as a topic marker for both groups, it occurs in a more unique way for the Japanese group. For example, [In + Locative NP] before *is* as a topic marker was often employed and the resulting sentences were more like a word for word translation of a Japanese sentence, such as, "*In Japan is vegetable is boiled* (J16)".

Considering the fact that a locative PP makes a good topic in Japanese and that this type of sentence was rarely observed in the non-TP group, it is reasonable to think that this was one of the manifestations of the topic-comment organization of their L1. Another finding that supports the hypothesis is that the Japanese group used *is* as a topic marker for existential sentences, which can be schematized as [Locative NP *is* NP], such as "*Canada is a lot of foreigner* (J8)". Again this type of sentence was rarely seen for the non-TP group. This was considered to be a piece of evidence for their imposing the category of topic onto the category of subject, since locative NPs typically occupy the topic position in Japanese existential sentences. In addition, [Locative NP *have* NP] was another schema used more frequently by the Japanese group than the non-TP group. This is contrastive to the fact that [Locative PP, indefinite personal pronouns + *have* + NP] was the non-TP group's favorite. It suggests that the Japanese group had a tendency to integrate a locative NP as subject in the sentence, which lends another support to the hypothesis. Considering these, a developmental sequence for Japanese learners to learn English existentials was suggested; first they may start out with [Locative PP *is* NP] and

this may be analyzed into [Locative NP is NP]. The schema may be re-analyzed and modified into [Locative NP have NP] so that the sentence is not ungrammatical.

The other finding that lends support to the hypothesis is that the Japanese group employed a smaller number of indefinite subject NPs. The difference seemed to be in the use of indefinite personal pronouns in generic statements, such as, “*Ah ...in my country we eat ah the rice more than a ah vegetables (A1)*”. While the non-TP group made use of indefinite personal pronouns such as *you*, *they*, or *we*, the Japanese group showed some contrasting patterns such as overuse of the pronoun *I* in most cases, or *that person* instead of indefinite *you*, *they*, or *we*. This seemed to have contributed to making their statements sound more anchored to the perspective of a speaker or simply awkward.

However, the data also indicated that the topic-comment organization of sentences was universal at earlier stages; *is* as a topic marker was not unique to the Japanese group, even though there were very few instances of it used in an existential environment in the non-TP group; it was the case with the non-TP groups that the lower their proficiency level, the fewer indefinite subject NPs they employed, which suggests that at much earlier stages the number of indefinite subjects may become even smaller, and their interlanguages would be more oriented towards topic-comment organization. Considering these, it can be said that, as Schumann (1975), Givon (1984b) and Klein and Perdue (1993) argued, the topic-comment organization of sentence structure is universal regardless of the type of L1. However, the tendency would persist longer if the learners’ L1 is a TP language.

As I mentioned earlier in Chapter 2, this typological contrast between TP languages and SP languages was employed as a theoretical foundation by a number of

SLA researchers, and among them there were two contradictory claims: TP in an interlanguage as a universal phenomenon (Schumann, 1975; Klein and Perdue, 1993; Givon, 1992; Fuller and Gundel, 1987) or L1 specific (Schachter and Rutherford, 1974; Rutherford, 1983; Zobl, 1989; Sasaki, 1990; Jin, 1994; Yip and Matthews, 1995). This thesis provided support to the latter claim, and disagrees with Fuller and Gundel (1987), who claimed that the topic-comment organization was universal even if learners have a certain level of control over their L2 grammar. However, it should be noted that the findings of this thesis also imply the existence of a universal TP stage at much earlier phases in the course of SLA. This corresponds with Schumann (1987), Givon (1984a) and Klein and Perdue (1993), who claimed that the topic-comment organization is universal at the very beginning stages where learners do not have much control over L2 grammar.

For the Typological Contrast II, a main hypothesis and two subhypotheses were formulated. Subhypothesis (1) is that L2 learners may universally have trouble mapping a transitive structure onto events that are low in semantic transitivity at early stages of acquisition. This is partly supported in the sense that all the groups did not have any trouble employing a transitive structure to describe the prototypical transitive events. However, Subhypothesis (1) was partly rejected since the percentages did not go down in accordance with the degree of transitivity. It has been suggested that there were other conditions that would make the picture of encoding semantic transitivity more complex: marginality of the mapping of subject and object that a transitive verb assigns (the categories [Actor (-volition) + V + Patient] and [Instrument (Location) + V + Patient]), themeworthiness and analogy to agent of subject (the category [Experiencer + V +

Theme (- Affected)], and analogy of an event to a prototypical event (the sentence “*Mary crossed the street*”).

Subhypothesis (2) stated that, where there is a difference between L1 and L2 in terms of coding transitivity, learning would be hampered, and where there is no difference, learning will be facilitated. However, it turned out that the way L1 encodes semantic transitivity did not affect the way the informants’ encode it in L2 in many cases, which is not in agreement with the hypothesis. It was suggested that, irrespective of the type of L1, learners try to encode events in a semantically transparent a way as possible. In addition, it is also a universal tendency that if the verb is polysemous, learners consciously or unconsciously limit the number of semantic relations for subject and object that the verb can enter into to the ones that are supposed to be more basic ones (for a similar discussion, see Kellerman, 1978), which may affect their L2 syntax. Therefore, the L1’s employing as wide a mapping as English does not help or impede the learners with their formation of the target structure in this regard.

However, there are some exceptions where the way the learners’ L1s encode semantic transitivity did seem to affect their L2 syntax. It was suggested that this may result from the learners’ matching up seemingly similar elements from L1 and L2, which may or may not be of the same grammatical category. The learners may project the meaning of the L1 element onto the L2 counterpart (Similar discussion, see Adjemian (1983)). This may not always turn out to be successful, and it is likely that it would result in a number of non-native like features (For example, the Japanese group has a more persistent difficulty with the sentences with a verb *have*, and the sentence “*Mary hurt her knee*”, and the Arabic group has a more persistent difficulty with “*John dropped the*

cup"). In addition, it was also considered to affect L2 syntax when the learners could not make an interlingual identification (for example, many Japanese informants were not able to use *need* as a main verb), and also when cognates make the learners believe that they are used in much the same way in both L1 and L2, but actually they are not (For example, the Spanish group has a striking difficulty with the sentence "*Mary entered the restaurant*").

It was also discussed how the learners internalize wider mappings for a transitive structure in L2 (such as English) and speculated that learners need to generalize or metaphorically extend the transitive structure to events that have lower transitivity. As grounds for the speculation, it was suggested that the transitive use of *fall* and some learners' hesitation in producing the target sentence were signs of the learners' extending their original mapping to more peripheral ones, and it is natural to think that a psychological process is involved in this extension such as generalization or metaphorical extension. Furthermore, it has been argued that generalization and a metaphorical extension occurred in the development of syntax of L1 (Slobin, 1982) and in the diachronic development of languages (Givon, 1984a). Therefore it is reasonable to think that metaphorical extension will occur in the development of L2 syntax as well. However, this discussion will stay at the level of speculation since more concrete evidence is needed, and it is hoped that some longitudinal studies will pursue this issue in the future.

Considering all these, it can be summarized that the learners' L2 syntax is influenced by what kind of meaning the learners see in a verb; the more semantic discrepancy there is between the matched two elements from L1 and L2, the more

unusual the sentences will become. Even though the matching was rather a successful one, if the element is polysemous, the learners consciously or unconsciously become conservative and only the core meanings will be projected onto the L2 counterpart. In order for the learners to learn a wider set of semantic relations that a transitive verb can enter into, they possibly need to metaphorically extend or generalize the prototypical transitive meaning to the more peripheral ones.

As mentioned in Chapter 2, this typological contrast between mapping of a transitive structure on a wider set of semantic relations in English and a narrower set in Japanese is an area that has not been investigated in SLA research. As one of the pioneer works in this area, this study provided what is to be expected from SLA research on the perspective of transitivity; besides the universal tendency for easy employment of a transitive structure onto prototypical transitive events, there are other factors to be taken into account, as mentioned above. In addition, what may affect learners' L2 syntax are the meanings that they see in an L2 verb, and matching lexical items between an L1 and an L2.

It was unfortunate that, due to time constraints, some problems were left untouched. For example, not so much consideration could be given to the relations among the implications from the two different approaches. This would have revealed that different linguistic (and cognitive) factors such as discoursal, pragmatic, and semantic ones compete against each other in various contexts, which would enable one to look more deeply at the complex mechanism of SLA. The other thing is, I could not give too much thought to why the Japanese group did not have any trouble employing indefinite subjects, even though an indefinite article was missing there. However, there must be

some conditions under which the Japanese group can easily employ indefinite NPs as subjects in their L2 production. This could be approached by testing a greater variety of pictures with indefinite subjects on different informants whose L1s are different. There seemed to be much left open. I would like to put all of these into perspective and make them a proposal for future research.

Furthermore, the following things could not be dealt with in terms of the methodology, which might have contributed to making the findings even more convincing and generalizable. I would like to present some of the things that I could have done and some suggestions that could improve the methods here so that more effective methods can be developed by future research.

First, I have to admit that the numbers of informants was small; the largest number was 17 for the Japanese group and the smallest was two for the Farsi group. It is true that some studies were conducted with smaller numbers of informants than this; however, the validity of the data would have increased if the number of informants had been larger. It was also unfortunate that the data from the Arabic and the Farsi groups could not be made much use of due to their small population (five and two, respectively). In addition, it would be statistically more ideal if the distribution of the number of informants for each language group were more even.

Secondly, comparison among learners of more diverse proficiency levels would have brought about even better insights into developmental dynamics. In this study, I focused on only one specific range of proficiency (intermediate level). Even though, for Typological Contrast I, there was still a certain range of difference in proficiency that enabled me to suggest the correlation between the proficiency level and topic-comment

organization of interlanguages, for Typological Contrast II, the correlations between the learners' proficiency level and the difficulties forming the target sentences were not clear. It can be assumed that the correlation may have become clearer if the range of proficiency had been wider, and that it may have become even more noticeable for the Typological Approach I.

A final point concerns the transitive verbs that were dealt with. Here, only 26 sentences were used and the verbs were limited to very basic ones. I admit that 26 sentences were the best that I could deal with for each participant, otherwise length of the session would have become too strenuous, which would have affected the informants' concentration on the tasks. However, it would be beneficial to test the informants with a semantically more diverse range of verbs or events. I assume that there would be more instances where the Japanese have more persistent difficulty in using target structures; this would not be precisely because Japanese is the language that encodes events in a more semantically transitive transparent way than other languages do, but because it can be assumed that Japanese learners would have a harder time making an interlingual identification of verbs between their L1 and L2, due to the greater language distance between Japanese and English (Kellerman, 1977).

In addition, I also would like to draw attention to the strengths of the methods hoping that these also would offer some insights for more effective methods to researchers who are going to be involved in this area of SLA research.

The first one pertains to the topic of oral narratives for Typological Contrast I. The topic on the comparison between their country of origin and Canada succeeded in eliciting a number of existential sentences (and generic statements, which were not

expected) from the informants, and yielded evidence for more distinct characteristics of topic-comment organization in the Japanese group's interlanguage.

Another thing has to do with the picture instrument for Typological Contrast II. A picture description was employed and three steps were set up to describe the pictures. This turned out to be beneficial since it allowed me to observe their different patterns of avoiding the target sentences; on the first attempt, giving the pictures without any cues enabled me to take their first intuition into account. Without this step, even though they reached the target sentence, I could never tell if it was their natural response or not; it might be the case that, by being required to use certain elements in a sentence, the informants would be forced to say a sentence which they were not very comfortable with. In fact, it was often the case that informants could not reach the target sentences until the third response. Having the second step allowed me to observe how they integrate the two NPs with a particular verb; there were many instances that the learners used a verb which was not a target one, which could be a sign of avoiding the target sentence. The last step allowed me to examine how they integrate a transitive verb with the two NPs in a sentence to describe events low in transitivity.

Another aspect of my methodology that is important is having the informants describe events in their L1s. This turned out to be beneficial to increasing the validity in the interpretation of the data. I believe that it is not valid to generalize textbook examples and assume that this is the way that the majority of the people who speak the language would describe the picture²⁵.

²⁵ Indeed, there were some cases where some L1 sentences seemed to be affected by English. For example, some Japanese informants produced a sentence such as:

Sono kuruma wa, ea-baggu o motteiru.

The car -TOP, airbag-ACC having (holding, possessing).

I believe that this thesis provided a number of important insights to research on typological influences on learners' interlanguages and on the relationships between universal developmental tendencies and L1 influences. Furthermore, it also demonstrated that the phenomena in SLA are not straightforwardly explained and it is important to view them from different linguistic aspects, not only syntactic, but also discursal, pragmatic, and semantic aspects. I hope that the findings and implications of this thesis will be utilized for further understanding of the mechanisms of SLA.

This sentence is odd and is obviously a word for word translation of English sentence. However, this could be another evidence for a crosslinguistic influence of matching an L1 and an L2 lexical element, which would be an interesting to investigate in future study.

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Appendix

Indf-a. *Somebody is knocking on the door.*

Indf-b. *Nobody came to his party.*

Indf-c. *Many people come to her party.*

Indf-d. *A butterfly landed on his head.*

Indf-e. *An apple fell on his head.*

Indf-f. *An alien landed on the earth.*

1-a. *Mary kicked the stone.* 1-b. *John drank some beer.* 1-c. *Mary cleaned the room.* 1-d. *John built the house.* 2-a. *John hit his head.* 2-b. *Mary hurt her knee.*

2-c. John dropped the cup.

2-d. Mary burned the meat.

3-a. Mary crossed the street.

3-b. John left the house.

3-c. Mary entered the restaurant.

3-d. John reached the top of the mountain.

4-a. The stone broke the window.

4-b. The key opened the treasure box.

4-c. The rain washed the cars.

4-d. The leaves changed color.

5-a. Mary can see the singer.

5-b. John heard the noise.

5-c. Mary knows the answer.

5-d. John needs glasses.

6-a. Susan has three children.

6-b. John has a fever.

6-c. John has a broken leg.

7-a. The car has two airbags.

7-b. *The dictionary has 700 pages.*

7-c. *The T-shirt has a dog on it.*

Example 1. *John ate the banana.*

Example 2. *The dress is 65 dollars.*