Acquisition of Zero Pronouns in Discourse by Korean and English Learners of L2 Japanese

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1. Introduction

Recent SLA studies have reported that optionality phenomena are observed even in L2 grammar at near-native or advanced levels, and those studies concluded that L2 learners have problems in syntax-discourse interface, but not on their syntactic representation (Sorace 1993, Robertson and Sorace 1999, Montul and Slabakova 2003, Hopp 2004, Sorace 2006, Sorace and Filliati 2006, Sorace 2007). One phenomenon which relates to both syntactic and discourse levels is a pronoun. So far few research studies on the use of Japanese pronominals in discourse have been identified in SLA. Hasatani (1991) examined Japanese essays written by her elementary English and French learners and found that they showed asymmetry in use of null pronouns: they dropped more subjects than objects1. Does such asymmetry still exist in advanced L2 grammar? Do advanced learners show optionality where both overt and null forms are allowed to be topic-referring in topic context? The following preliminary study reports on the issue by examining the use of zero pronouns by advanced English and Korean learners of Japanese. Finally, we will discuss the results considering two accounts, a syntax-discourse interface account by Sorace (2007), and a syntactic account by Park (2004), which explain L2 learners’ selection of null/overt pronouns.

2. Japanese pronouns in discourse

In Japanese a noun phrase in both subject and object positions could be null if the meaning is recoverable from the context (Kuroda, 1965; Yano, 1981; 1983; Hasegawa, 1996).

(1) A: Suzuki san-wa mou bangohan-o tabemashita ka
   “Has Mr. Suzuki had dinner already?”
B: Ee, \( \theta_i \) tabemashita
   “Yes, (he) had (it).”

Yano (1981:97) explains pronominalization in discourse as follows.

(2) a. In normal non-focused construction, zero pronouns are used to refer to its antecedent.

   b. In focused construction, reflexive pronoun “zibun” or personal pronoun are used instead of zero pronoun. Focused construction has not only a function of “focus” but also functions of “comparison/contrast” and “disambiguation”. (translated by author)

* An early form of this paper first appeared in Osaka Jogakuin College Kiyo, 38. This is an expanded and revised version of the paper based on comments given in GASLA-10.
1 It should be noted here that since the 1990’s an asymmetry relating to null subjects and null objects has been observed in the acquisition of English (Zobl, 1994; Yuan, 1997; Wakabayashi and Negishi, 2003; Park, 2004).

Therefore, example sentences of each function which focused construction has are given in (3a-c).

(3) a. focus

A: Kenji-wa kyampu ni ikenai mitai
    Kenji-Top camp to cannot go seem
    “Kenji seems not to be able to go to the camp.”

B: zibun-ga kikaku shita noni?
    self-Nm plan did though
    “He planned it by himself, did he?”

b. comparison/contrast

A: Saito san to okusan docchi-ga kasei-deiru kana?
    Saito Mr. and wife which-Nm earning-is Q
    “Which earns more, Mr. Saito or his wife?”

B: kare mitai
    he seems
    “It seems he does.”

c. disambiguation

Taro-wa aishi-teiru josei-o toutou korosenakat-ta
    Taro-Top loving-is woman-Acc after all kill-not-past
    “Taro could not kill a woman whom he loves after all.”

Taro-wa zibun-o aishi-teiru josei-o toutou korosenakatta
    Taro-Top self-Acc loving-is woman-Acc after all kill-not-past
    “Taro could not kill a woman who loves him after all.”

(Yano 1983:44)

In the next section, we will look at zero pronoun use in non-focused/topic context by elementary learners of L2 Japanese.

3. Subject/object asymmetry in L2 Japanese


Hasatani reports the acquisition process of zero pronouns by English and French learners of L2 Japanese. Her informants are 15 students who study at a university in Japan. Their Japanese proficiency level is elementary, and they learn Japanese language 15 hours per week. Most of them started studying Japanese after they came to Japan. The data which Hasatani used is Japanese essays that were written by the students in the 8th, 9th, 12th, and 18th weeks of the Japanese course.

First, we look at subject omission. The topic of the essay written in the 8th week is “a letter to your friends in your hometown”. The results show that the learners produced zero pronouns for about 50% of all subject positions, and 90% of the zero pronouns referred to “I”. The topic of the second essay (in 9th week) was “my town”. Therefore, the names of towns appeared many times in subject opposition. For the learners, the names of towns were less likely to be null compared to “I”. The omission rate of subjects except for “I” was still only 30% of all subject omission. In the third essay (in the 12th week), the learners described their “winter holiday plan”. Compared to the first essay, the rate of subject omission increased by 20%, and 95% of the omissions were “I”. As for the final essay (in the 18th week), the learners had to select one of the three titles: “a person whom they don’t forget”, “an event which they don’t forget” and “The life of foreign students”. The variety of the titles allowed the learners to produce various overt subjects. Therefore, the rate of subject omission was reduced to 40% of all sentences. The omission rate of subjects except for “I” was 30% of all subject omissions.

On the other hand, object omission was not observed as many times as subject omission in their
essays. In the first essay, 20% of all sentences included an object, but only 2 cases of object omission were found. In the second essay, no object omission was observed. In the third essay, only one case of object omission was found, although objects were used in 30% of all sentences. In the final essay, 15 cases of object omission were identified, which was 20% of all object positions.

In Hasatani (1993), it was not mentioned that what subjects and objects (e.g. person or thing) were omitted. Besides, the data was not regularly collected. However, we can see clear subject-object asymmetry in learners zero pronoun use in L2 Japanese.

3.2. Research questions

Our research questions are as follows.

a. Do advanced L2 learners of Japanese still show asymmetry in null subject and null object use?
b. Are there any cross-linguistic effects in behavior between English learners and Korean learners of L2 Japanese?
c. If learners show the asymmetry, why do they drop more subjects than objects in their L2 Japanese?

4. Empirical Study

4.1. Test: Forced-written elicitation task

The test consisted of 20 sets of stimulus sentences. One set included a sentence(s) that describes a situation, followed by a picture showing the situation, and a question sentence which asks about the situation. Test items were created following Pérez-Leroux and Glass (1999), which is a pioneering study of acquisition of pronominals in discourse in second language acquisition research. In the experiment, two kinds of context are included, topic and focus, are included, and two positions, subject and object, are examined. Since Pélez-Leroux and Glass examined the acquisition of Spanish, which has only null subjects but does not allow null objects, I created new test items for the object positions. The example sets of stimulus sentences are as follows.

(4) a. SUBJECT-TOPIC: embedded subject = 0
   Sentence: minnade kakurenbo o shiyou to shiteimasu
     ‘They are playing hide and seek together.’
   Question: sono otokonoko wa nani o shiyou to kangaeteirudeshou ka
     ‘What is the boy thinking he will do?’
   (Target topic sentence: 0; 1, kuroozetto no ushiro ni kakureyou to kangaeteiru)
     ‘He/*0; is thinking he/*0; will hide behind the closet.’

b. OBJECT-TOPIC: embedded object = 0
   Sentence: kyoudai wa naka ga waruku, mata kenka o shiteimasu
     ‘The brother and sister don’t get along with each other and they’re fighting again.
   Question: okaasan wa musuko o dou shiyou to kangaeteirudeshou ka
     ‘What is the mother thinking she will do to her son?’
   (Target topic sentence: 0; 1, 0; 2, shikarou to kangaeteiru)
     ‘She/*0; is thinking that she/*0; will scold him/*0;.’

c. SUB-FOCUS: embedded subject ≠ 0
   Sentence: gakkou de undoukai ga arimasu
     ‘An athletic meeting is held at school.’
   Question: Hiroshi kun wa dare ga 100m sou de katu to kangaeteiru deshou ka
     ‘Who is Hiroshi thinking will win the 100m?’
   (Target focused sentence: 0 zibun ga katu to kangaeteiru. / Zibun)
     ‘He/*0; is thinking that self will win.’
d. OBJ-FOCUS: embedded object ≠ Ø

Sentence: eigo no tesuto ga hajimarimashita. Kenichi kun wa omoidashiteimasu.
‘An English exam has begun. Kenichi remembers.’
maiban kyoukasho wo yonda koto, tango o oboetakoto,
‘To read the textbook every night, to remember vocabulary words,
maiisa risuningu renshuu o shitakoto
to practice listening every morning…’

Question: Kenichi kun wa dare o shinjyou to kangaeteirudeshou ka
‘Who is Keinichi thinking he will believe?
(Target focused sentence: Zibun)

Figure 1: Picture

Five of the 20 stories were asking about the object (i.e. the embedded subject is ‘topic’), another five stories were asking about the subject (i.e. the embedded subject is ‘focus’), and the other 10 stories, which were not tested in Pérez-Leroux and Glass (1999), were asking about what the subject did to a person who is shown in pictures: interpretation of pronouns in the object position (i.e. the embedded object is ‘topic’), and also asking about who the subject does something to (i.e. the embedded object is ‘focus’).

The participants were given a practice session to learn how to complete the questionnaire. In the session, they were asked to read a sentence setting out a situation, to look at a picture and answer a question asking about the situation. The participants were allowed to ask the meaning of vocabulary words on the questionnaire if they encountered any word that was unfamiliar to them.

4.2. Informants

The informants in the present study were five advanced Korean L2 learners of Japanese (mean age: 19), five advanced English L2 learners of Japanese (mean age: 43), and five control native speakers. There were asked to take the MJT (Minimal Japanese Test) (Maki, Dunton, and Obringer, 2003) in order to obtain their current proficiency level unless they have already passed 1st level in the Japanese proficiency test authorized by Japan Educational Exchanges and Services. Although there seems to be a gap between the two groups of learners in the mean age, the MJT confirms that all learners are advanced².

4.3. Results

As Table 1 shows, all groups use zero pronouns in the SUB-TOP context. One of the English native speaking learners used reference NPs repeatedly four times out of five. Using reference NPs is not wrong in Japanese. Korean learners produced ‘other’ answers, but they sometimes misunderstood the questions though they understood the situation.

² All of the learners got 39–46 correct answers out of 46 questions, which indicates they are advanced.
Table 1: SUB-TOP context

<table>
<thead>
<tr>
<th></th>
<th>English learners n=5</th>
<th>Korean learners n=5</th>
<th>Japanese natives n=5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero pronoun</td>
<td>84% (21/25)</td>
<td>92% (23/25)</td>
<td>100% (25/25)</td>
</tr>
<tr>
<td>Overt form</td>
<td>16% (4/25)</td>
<td>0% (0/25)</td>
<td>0% (0/25)</td>
</tr>
<tr>
<td>Other</td>
<td>0% (0/25)</td>
<td>8% (2/25)</td>
<td>0% (0/25)</td>
</tr>
</tbody>
</table>

In the SUB-FOC context, no groups used zero pronouns. They allowed overt pronouns (Table 2). One English learner produced *kare* / *kanojo*, [and] [who] repeated reference NPs in the subject position. Most of the answers which Korean learners produced were *zibun* or *zibunzishin*. On the other hand, English learners produced *zibun* but never used *zibunzishin*. Japanese natives used several forms: *zibun*, *zibunzishin*, a full NP, full NP *zishin*.

Table 2: SUB-FOC context

<table>
<thead>
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<th>English learners n=5</th>
<th>Korean learners n=5</th>
<th>Japanese natives n=5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero pronoun</td>
<td>0% (0/25)</td>
<td>0% (0/25)</td>
<td>0% (0/25)</td>
</tr>
<tr>
<td>Overt form</td>
<td>100% (25/25)</td>
<td>92% (23/25)</td>
<td>80% (20/25)</td>
</tr>
<tr>
<td>Other</td>
<td>0% (0/25)</td>
<td>8% (2/25)</td>
<td>20% (5/25)</td>
</tr>
</tbody>
</table>

While the three groups behaved in the same way when they were asked for an interpretation of subject position, their answers in the object position vary somewhat (Table 3). Both Korean and Japanese native groups allowed zero pronouns in topic context (96% and 88% each). However, English learners used both zero pronouns (60% of the time) and a full NP (40% of the time). Three out of five English learners produced full NPs, and one of them always answered with full NPs. She is the same informant who repeated reference NPs in the SUB-TOP context. The other two English learners used full NPs in three or four sets out of five. As for Japanese natives, we found three cases where they produced overt forms, namely full NPs. We shall return to this point in the discussion section.

Table 3: OBJ-TOP context

<table>
<thead>
<tr>
<th></th>
<th>English learners n=5</th>
<th>Korean learners n=5</th>
<th>Japanese natives n=5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero pronouns</td>
<td>60% (15/25)</td>
<td>96% (24/25)</td>
<td>88% (22/25)</td>
</tr>
<tr>
<td>Overt form</td>
<td>40% (10/25)</td>
<td>0% (0/25)</td>
<td>12% (3/25)</td>
</tr>
<tr>
<td>Other</td>
<td>0% (0/25)</td>
<td>4% (1/25)</td>
<td>0% (0/25)</td>
</tr>
</tbody>
</table>

In OBJ-FOC context, overt pronouns were used by all the groups (Table 4). Each group of informants categorically chose overt forms. The option most preferred among the informants was *zibun*.

Table 4: OBJ-FOC context

<table>
<thead>
<tr>
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<th>English learners n=5</th>
<th>Korean learners n=5</th>
<th>Japanese natives n=5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero pronoun</td>
<td>0% (0/25)</td>
<td>0% (0/25)</td>
<td>0% (0/25)</td>
</tr>
<tr>
<td>Overt form</td>
<td>96% (24/25)</td>
<td>100% (25/25)</td>
<td>96% (24/25)</td>
</tr>
<tr>
<td>Other</td>
<td>4% (1/25)</td>
<td>0% (0/25)</td>
<td>4% (1/25)</td>
</tr>
</tbody>
</table>

Let us go back to our research questions. The first question asked whether advanced L2 learners of Japanese still show asymmetry in null subject and null object use? The second questions whether there is any cross-linguistic effect in behavior between English learners and Korean learners of L2 Japanese? The answer to both these questions is yes. The results of the experiment indicate that subject-object asymmetry was observed in advanced L2 grammar of English learners. In SUB-TOP contexts, the English learners categorically selected zero pronouns. In OBJ-TOP contexts, however, they showed optionality; the learners’ responses are not categorical (zero pronouns 60%, a full NP 40%). That is, they
produced more null forms in the subject position than in the object position. On the other hand, the results from Korean learners are almost the same as Japanese natives’ results. Thus, at least advanced Korean L2 grammar does not seem to involve such subject-object asymmetry. The third research question asks, if the learners show asymmetry, why do they drop more subjects than objects in their L2 Japanese? To think about this question, we will consider two accounts where L2 learners’ selection of null/overt pronouns is explained.

5. What is a trigger for L2 learners’ selection of null/overt pronouns?


It can be predicted that as L2 learners’ proficiency levels increase, they gradually acquire the grammar of the target language. However, advanced English learners of L2 Italian produce phonetically overt pronouns in the topic context in which native Italian speakers use null pronoun since the meaning is recoverable from the context. On the other hand, the learners also use null forms in the topic context. Therefore, they use both forms optionally. The learners’ error is as follows.

(5)  A: Perché Maria non ha parlato con nessuno?
Why Maria not has talked to anyone?
B: Perché lei */ø è troppo timida. (* = ungrammatical)
because she/ø is too shy
Because she is too shy.

(Sorace, 2005)

Both Italian and Japanese allow null forms in the subject position, though the licensing conditions differ. According to Sorace (2007), the errors shown in (5) result from a problem at the level of syntax-discourse interface. Sorace assumes two problems are involved at the interface level in L2 grammar. First, at the interface level, interpretable features such as [Focus] are underspecified, which causes indeterminacy in pronominal use. [Focus] triggers the use of phonetically overt forms. Therefore, if the [Focus] is underspecified, overt forms are possibly used by L2 learners in topic context where null forms should be used in the grammar of natives. The second problem is the incorrect “coordination of information from different domains-syntact, on the one hand, and discourse-pragmatics, on the other” (Sorace, 2007:9). In the case of Italian, the structure of discourse information and form selection is more complex than English because Italian has a null form which English does not. Moreover, this complex structure should be processed on-line since actual communication speed is really fast. This on-line processing causes ‘shallow’ processing which depends more on discourse information rather than syntactic information. This might make [Focus] underspecified, and leads L2 learners to wrong form selection. Therefore, they produce an overt form in a topic context. It should be noted that “the shallow processing is an option available to the human processor” (Sorace, 2007:10). Therefore, even adult native speakers also use this option under circumstances in which they are under a lot of time-pressure, or when they are in a great hurry, and so on.


Park (2004) gives us a linguistic account which suggests licensing conditions on null subjects and objects. He examined the data of six Korean children learning English as an L2, and found that they rarely dropped subjects from the early stages while they dropped more objects. His analysis is as follows.

First, Park claims that a licensing condition of null subjects extends over two levels: the syntactic level and the pragmatic level. Park’s claim is based on Alexiadou and Anagnostopoulou (1998) where it is argued that null subject phenomena relates to feature checking of the extended projection principle in the framework of Chomsky (1995). According to Alexiadou and Anagnostopoulou, the D feature exists in the head of an Agreement phrase (i.e. Agr) to be checked against the D feature in an element which is like a subject. In a language like English, which has weak agreement because it has a poor verb inflection system, an affix is attached to a verb in the verb phrase. As a result, the internal subject in the
specifier position in the Verb Phrase (i.e. VP) needs to be raised to the specifier position in AgrP since the D feature in Agr needs to be checked by the D feature in an element like subject. The DP in the specifier position of VP merges into AgrP: XP merge. Therefore, English does not allow null subjects since the specifier position is filled with the subject. The diagram of agreement phrase (=AgrP) is shown in (6).

(6) Weak Agr
(English)

As for Korean, Park claims it is classified in the group of weak Agr languages because Korean has agreement morphology encoding honorificity and mood. It should be noted here that Japanese also could be classified in the weak agreement group as it has agreement morphology which is, however, limited to human/animate agreement (honorification and *aru*/*iru* alternation) (Niimura, 2003:59). Thus it is considered that Korean and Japanese have [-interpretable].

Furthermore, Alexiadou and Anagnostopoulou suggest languages like Spanish have the [+interpretable] agreement feature since the affix can be considered as nominal and has a semantic content, while languages like English have the [-interpretable] agreement feature since the affix of English verbs has no such content.

However, the accounting for null subject phenomena by Alexiadou and Anagnostopoulou does not include languages like Korean and Japanese which have [-interpretable] but allow null subjects. Therefore, Park (2004) considers the level of pragmatics to explain the case of Korean and Japanese. According to him, licensing conditions on null subjects involve not only rules of syntax but also rules of discourse/pragmatics. The difference between English and Korean/Japanese lies on the pragmatic level where several options of morphemes (e.g. zero pronominials, overt pronouns) are available. Table 5 summarizes the licensing conditions on null subjects.

**Table 5: Licensing conditions on null subjects**

<table>
<thead>
<tr>
<th></th>
<th>Pragmatic level (topic-referring NP)</th>
<th>Syntactic level</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>pronoun</td>
<td>[-interpretable]; XP-merge</td>
</tr>
<tr>
<td>Korean Japanese</td>
<td>zero anaphora</td>
<td>[-interpretable]; XP-merge</td>
</tr>
</tbody>
</table>

(Based on Park, 2004: p22)

Park (2004) also discusses the licensing condition of null objects following Bošković and Takahashi (1998) where a parameter based on the strength of the theta-features is proposed. Park extended their analysis to null object phenomena. According to Bošković and Takahashi, English verbs have a strong theta-feature and the feature should be checked before it is spelled out. That makes the object position phonetically overt. From their assumption, Park supposes Korean verbs have a weak theta feature, so the features do not need to be checked before they are spelled out, but they could be checked at the level of LF. Thus, the object position could be null in Korean. Again, the level of pragmatics is also considered here and Park's idea is shown in Table 6. Since Japanese also allows null objects, it would be classified in the group with Korean.
Table 6: Licensing conditions on null objects

<table>
<thead>
<tr>
<th></th>
<th>Pragmatic level (Topic-referring NP)</th>
<th>Syntactic level</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>pronoun</td>
<td>strong theta-feature</td>
</tr>
<tr>
<td>Korean</td>
<td>zero anaphora</td>
<td>weak theta-feature</td>
</tr>
<tr>
<td>Japanese</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Based on Park, 2004: p27)

6. Discussion

If we extend Sorace’s (2007) working hypothesis to L2 grammar of Japanese, especially object position, we might explain the non native-like behavior of advanced English learners. Japanese also has two forms (overt and null), so it has a complex structure. Because of underspecified [Focus] and shallow processing, English L2 learners of Japanese select a phonetically overt form even in a topic context. That is, L2 learners have a problem in computing syntactic and pragmatics information, which results in inconsistent access to zero pronoun use in object position. As for subject position, English learners group behaved as the other two groups did. This might be relevant to the fact that there is a distance between the subject and object positions. This distance might keep English learners from null form selection. A crucial thing, however, is that the method we used in our experiment is a forced-written elicitation task where the learners might not have had a lot of time pressure. Thus, to seek a greater possibility of Sorace’s (2007) hypothesis, we need to use longer sentences than those in the current study. Moreover, we need to conduct an experiment with an aural task where L2 learners would suffer more ‘shallow processing’. Then we might observe more clear-cut subject-object asymmetry. However, with our data, we do not have enough evidence to support Sorace (2007).

Park (2004) nicely accounts for why it is easier for English learners to produce null forms in subject position than in object position. English and Japanese have the same feature value [-interpretable] agreement feature in the subject position, while the two languages differ in the feature value in the object position: that is, a strong theta feature in English but a weak theta feature in Japanese. English learners in our study produced full NPs in the object position. However, they might have used a full NP as a pronoun, the same as *him/her* in English. As we saw in Table 3, Japanese natives also used full NPs three times. However, they might have produced a full NP in a different way from English learners. Japanese natives would have adopted a strategy because they might thought they need to disambiguate a person in object position from other people involved in the contexts (cf. Kanzaki, 1994). Therefore, Japanese natives’ behavior comes from a pragmatic factor while some English learners are still under the influence of the strong theta feature. Pronominal form selection in the object position seems to be still open to further discussion in syntax.

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3 Interestingly, a parameter which is related to derivation has been proposed by Saito (2002). He suggests that in English, Merge is not possible without the operation of checking between elements, while in Japanese, Merge is possible without such checking relation. Under the Derivational Configurationality Parameter (Saito, 2002), it would be assumed that in English, objects cannot move from an originally generated position without feature checking such as Topicalization. On the other hand, in Japanese, objects can freely move without such checking. Therefore, scrambling could occur in Japanese, but not in English. According to Saito’s parameter, a phenomenon which looks like a covert pronoun in Japanese is, in fact, an outcome of an operation at LF: that is, an appropriate NP is inserted at the level of LF.
References


