L2 Acquisition of Japanese Case Drop[*]

Mizuki Mazzotta
McGill University

ABSTRACT

This study investigates whether a nonparametrized principle of Universal Grammar, namely the Empty Category Principle (ECP), is accessible to adult second language (L2) learners. Kanno (1996, 1998) investigates this issue by looking at the L2 acquisition of Japanese Case drop, which is regulated by the ECP. She claims that adult learners have access to the ECP even at very early stages of L2 acquisition. The present study demonstrates that, contrary to the previous findings, even advanced L2 learners are not sensitive to the syntactic constraints on Case drop (i.e. the ECP) by examining the L2 learners' knowledge of pragmatic constraints as well as those of the ECP. Advanced and intermediate English-speaking learners of Japanese were given a test of naturalness judgments on Japanese Case drop. Test sentences were manipulated in such a way that they would only violate either the pragmatic or the syntactic constraints of Case drop, but not both, as had been the case in previous studies.

1. LANGUAGE ACQUISITION AND UG

Universal Grammar (UG) is proposed to be part of the innate language faculty with which human beings are endowed (e.g. Chomsky 1965, 1981; Pinker 1984, 1994). The claim about the existence of UG is motivated by 'the learnability problem' (also called the projection problem, and the logical problem of language acquisition). The child acquires knowledge of subtle, abstract and complex properties of language (e.g. structure dependency, Binding Principles, etc) in a short period of time. However, these properties are underdetermined by the language input available to the child. If such properties cannot be learned from the input, then they must be built-in to the mind. The following examples illustrate this point.

(1) a. Who do you think Mary saw _ yesterday?
     b. Who do you think that Mary saw _ yesterday?

(2) a. Who do you think _ saw Mary yesterday?
     b. *Who do you think that _ saw Mary yesterday?

Let us assume that a child will hear sentences such as those in (1). If the child acquires language only by some cognitive ability such as induction, he would presumably assume that the use of *that* is optional. However, the child must learn that the sentence in (2b) is ungrammatical though nothing in the input would tell the child this. Since ungrammaticality of (2b) cannot be learned from the input, it is assumed that UG mediates the gap between input and grammar. The sentence in (2b) is ungrammatical because it violates the Empty Category Principle (ECP), a principle which is part of UG.

In the case of adult second language (L2) acquisition, on the other hand, there is much debate regarding the role UG plays, that is, whether UG is not at all operative (e.g. Clahsen & Muysken 1986; Schachter 1988), operative only through the L1 (e.g. Schachter 1990), or fully operative (e.g. Eubank 1994; Schwartz & Sprouse 1994; Thomas 1993; White 1996). The issue of L2 acquisition is not straightforward since there are both similarities (e.g. the input underdetermines the grammar) and differences (e.g. most L2 learners do not master the target grammar perfectly and the degree of success is not uniform among learners), as well as the fact that L2 learners have a mother tongue grammar. Though there are some differences between L1 and L2 acquisition, the learnability problem should be investigated to demonstrate whether UG constrains L2 acquisition (White 2003). With respect to the above examples, if L2 learners know that (2b) is ungrammatical, then that knowledge may be attributed to UG (i.e., the ECP). However, due to the differences between L1 and L2 acquisition, two conditions should hold in order to make the strongest claim for UG (White 1990): (i) the L2 grammatical property in question is underdetermined by the input including classroom instruction; and (ii) the grammatical property in question is different in the L1 and the L2. If L2 learners attain some grammatical property under these two conditions, then one can make a claim that UG is fully operating in L2 acquisition.

Keeping these conditions in mind, this study investigates the role of UG in L2 acquisition by examining the acquisition of Japanese Case particle drop by English speaking learners. I begin by outlining the syntactic property of the structure in question. In Section 3, pragmatic constraints on Case drop are described since the phenomenon of Japanese Case drop is constrained by both the syntax and pragmatics. Section 4 provides a review of previous studies which examined the acquisition of Japanese Case drop, and points out a potential problem in previous experimental design. The experimental design for this study is outlined in Section 5. I then report on the results of this study in Section 6. Section 7 discusses the issues that arise from these results, followed by a brief conclusion in Section 8.

2. SYNTACTIC BACKGROUND

In Japanese, noun phrases (NP) are marked by Case particles or topic markers. However, in informal colloquial Japanese, Case particles, in some cases, can be omitted. This is shown in (3). In (3a) nominative and accusative Case particles are both present. In (3b) the Accusative Case particle is dropped and the sentence is still grammatical. In (3c) the Nominative Case particle is omitted and the sentence is ungrammatical.

(3) a. Taro-ga   inu-o   sawatta.
       Taro-NOM   dog-ACC   touched[1]
       'Taro touched a dog.'
    b. Taro-ga   inu-∅   sawatta
    c. *Taro-∅   inu-o   sawatta

The constraints on Case drop are regulated by the Empty Category Principle (ECP) (Fukuda 1993). In (3b), the empty Accusative Case position is lexically governed by the verb and thus it does not violate the ECP, whereas in (3c), the ECP is violated since the empty Nominative Case position lacks a proper governor as Infl is not a lexical head. The relevant properties of (3b) are illustrated in (4).

(4)   K = Case
                                                      KP = Case Phrase

(Kanno 1996: 320 with modification)
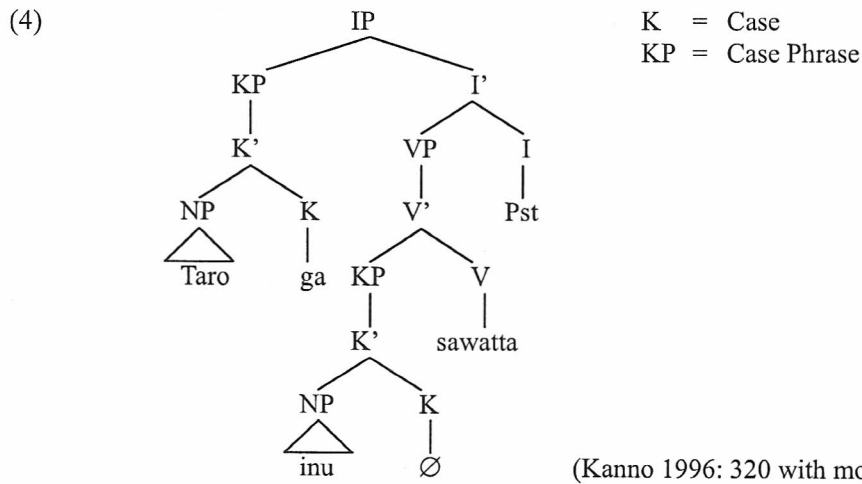
Thus, in general, there is an asymmetry between subjects and objects in Case particle omissibility. However, this asymmetry disappears when a sentence ends with either the question marker or the sentence-final particle (Fukuda 1993; Masunaga 1988) as seen in (5) and (6), in which Case the Nominative Case particle also can be omitted.

(5) *Sentences with the question marker* no
    a. Taro-ga   inu-o   sawatta no?
       Taro-NOM   dog-ACC   touched Q
       'Did Taro touch a dog?'
    b. Taro-∅   inu(-o)   sawatta no?

---

[1] The following abbreviations will be used: NML – nominalizer; NOM – Nominative Case; ACC – Accusative Case; TOP – topic marker; PART – particle; Q – question marker; NEG – negation.

(6) *Sentences with the sentence-final particle* yo
    a. Taro-ga   inu-o   sawatta yo.
         Taro-NOM   dog-ACC   touched PART
         'Taro touched a dog.'
    b. Taro-∅   inu(-o)   sawatta yo.

Fukuda argues that the question marker and sentence-final particles head CP and thus function as the proper head-governor for empty categories. The structure of (6b) is shown in (7).

(7)
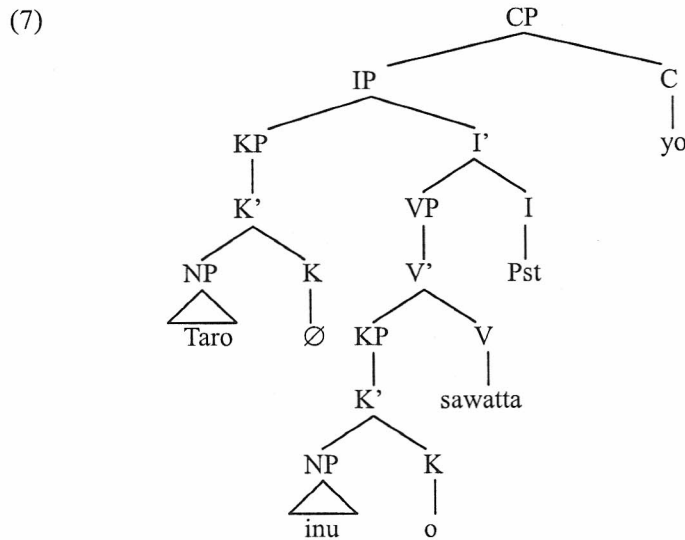
The situation with Case drop is even more complicated for the following three reasons. First, a topic marker *wa*, which is attached to a subject, can be dropped freely (Kuno 1973). When the subject NP is interpreted as the theme of the sentence, it is marked by *wa* and this can be dropped, as seen in (8). However, when the subject NP is not interpreted as the theme of the sentence, as seen in (9), the particle, in this case *ga*, cannot be dropped.

(8) Otosan-wa/∅   nemasita.
      Father-TOP/∅   slept
      'Father slept.'

(9) John-ga/*∅   nemasita.
      John-NOM/∅   slept
      'It is John who slept.'

Second, in a sentence with an unaccusative verb, the Nominative Case marking the subject NP can be omitted freely as the position of the subject is inside VP (cf. Kageyama 1993; Nakayama & Koizumi 1991; Nishigauchi 1992; Suzuki 1999). For example, the verb in (10a)

okoru 'happen' is unaccusative and thus the subject may or may not be marked by *ga*. This is not the case for an unergative sentence as seen in (10b).

(10) a. [Kootsu-jiko-ga/∅   okoru] no   mita koto nai.
              traffic-accident-NOM/∅ happen NML saw   fact   NEG
              'I have never seen traffic accidents happen.'
       b. [Kodomotati-ga/*∅ asobu] no   mita koto nai.
              children-NOM/∅   play   NML saw   fact   NEG
              'I have never seen children play.'   (Kageyama 1993: 56)

Third, Case drop is regulated not only by syntactic, but also by pragmatic constraints. This point is explained in the following section.

3. PRAGMATIC CONSTRAINTS

It has been noted that both syntactic constraints and pragmatic constraints play a role in the deletion of the Nominative Case marker *ga* (cf. Masunaga 1988). Let us first consider two different usages of *ga,* (i) exhaustive listing, and (ii) neutral description, since the deletion rules do not apply equally to them. Examples of each usage are seen in (11).

(11) a. *exhaustive listing interpretation* ga
              John-ga   gakusee desu.
              John-NOM   student is
            '(Of all the people we are talking about) John (and only John) is a student;
              it is John who is a student.'   (Kuno 1973: 38)
       b. *neutral description interpretation* ga
              Ame-ga   hutte   imasu
              rain-NOM falling is
              'It is raining.'

Exhaustive listing interpretation *ga*, as seen in (11a), is non-deletable because it is *ga* that is assigning an exhaustive listing interpretation to the subject NP (Lee 2002: 694). The neutral description *ga*, on the other hand, can be deleted depending on the context. Lee (2002) has investigated Japanese Nominative Case deletion by looking at the information status of the subject NP. Lee claims that when the subject NP represents new, and thus the most important information, the Nominative Case marker *ga* cannot be deleted (Lee 2002: 696). To illustrate this point, consider examples (12)-(14).

(12) Ah, basu-ga   kita.
        oh bus-NOM came
        'Oh, a bus is coming.'

As the verb *kita* in (12) is unaccusative, *ga* should be deletable according to the syntactic constraint on Case drop seen in Section 2. However, deletion of *ga* is only possible when the pragmatic constraint on Case drop is not violated. Observe examples (13) and (14) that are accompanied by the context which signals the information status of the subject NP.

(13) *Context: Some people are waiting for a bus to come. One of them sees a bus*
           toward them. He informs the others by saying:
      Ah, basu-∅ kita.
      oh bus-∅   came
      'Oh, a bus is coming.'   (Masunaga 1988:149)

Here *basu* in (13) is not new information as everyone is waiting for a bus at the bus stop, and
therefore Nominative Case drop is possible. However, when the context is changed, the very
same expression cannot be used as illustrated in (14).

(14) *Context: Some people are waiting for an ambulance to come in front of their office*
           building. One of them sees a bus coming toward them. He informs the
           others by saying:
      #Ah, basu-∅ kita.
        oh bus-∅   came
      'Oh, a bus is coming.'

In (14), no one is expecting a bus to come, so *basu* is new information and thus the speaker
cannot drop the Nominative Case. He has to say (12) in this context. These examples show
that a syntactically licit Case drop sentence could be ungrammatical if it violated the
pragmatic constraint on Case drop.

      In this section, we have seen that Nominative Case deletion is regulated both by
syntactic and pragmatic constraints. This means that the Nominative Case marker can be
deleted when all of the following conditions are met: (i) its position is properly governed, (ii)
it is used for the neutral description interpretation, and (iii) the subject NP does not present
new information. I consider the acquisition of Japanese Case drop to present a learnability
problem for L2 learners because of its complexity and the fact that Case drop is not taught in
classrooms. Furthermore, English has an abstract Case marking system (Cases are often not
overtly marked) and thus lacks any counterpart of Case drop in its grammar.

4. PREVIOUS STUDIES

Kanno (1996) investigated whether adult English speaking L2 learners are sensitive to the
Nominative-Accusative asymmetry in the permissibility of Case particles omission
(examples are seen in (3)), that is, whether L2 learners know the syntactic constraints on
Case drop. Her subjects were beginners and the task employed was a grammaticality
judgment task which included four types of test sentences, shown in (15). All sentences are
constructed in a way such that a Case particle is deleted from a *wh*-phrase in order to avoid
the interpretation that the missing particle is the topic marker *wa* (*wa* cannot occur with a
wh-phrase).

(15) a. *Accusative drop (2 overt arguments in the sentence)*
          Suzuki-san-wa   dono   biiru-∅ nomimasita ka?
          Mr(s).Suzuki-TOP which beer-∅   drank   Q
          'Which beer did Mr(s) Suzuki drink?'
      b. *Nominative drop (2 overt arguments in the sentence)*
          *Dono   gakusee-∅ biiru-o   nomimasita ka?
           which student-∅ beer-ACC   drank   Q
          'Which student drank beer?'
      c. *Accusative drop (1 overt argument in the sentence)*
          Dono biiru-∅ nomimasita ka?
          which beer-∅   drank   Q
          'Which beer did (he/she/you/they) drink?'
      d. *Nominative drop (1 overt argument in the sentence)*
          *Dono   gakusee-∅ nomimasita ka?
           which student-∅ drank   Q
          'Which student drank (it)?'

Results showed that L2 learners accepted Accusative Case drop much more than Nominative Case drop, similar to the native speaker control group. In a subsequent study, Kanno (1998) tested intermediate level Japanese learners and the results confirmed the original findings. Thus, Kanno concluded that L2 learners knew the syntactic constraints on Case particle drop. That is, they had access to the ECP and knew that Case can be dropped under government.

Though Kanno intended to test the learners' syntactic knowledge, it is not clear whether the tasks she used actually did. In the test sentences she used, all subject NPs were *wh*-phrases. She chose *wh*-phrases because when they are the subject of the sentence, they can only be marked by *ga*, and not by the topic marker *wa*. Though the use of *wh*-phrases allowed her to avoid the missing particle to be interpreted as the topic marker, it also presented a problem. As mentioned above, and by Kanno herself as well, *wh*-phrases call for new information. Recall that there is a pragmatic constraint stating that if the subject NP provides new information, the Nominative Case cannot be deleted. Since all ungrammatical sentences with missing Nominative *ga*, in Kanno's study, are ungrammatical for both syntactic and pragmatic reasons, one cannot tell if Kanno's test subjects' judgment was based on syntax or pragmatics. In her task, it is sufficient to know only the pragmatic constraint on Nominative Case drop to reject ungrammatical Nominative Case drop. Thus, contrary to her conclusion, it is possible that Kanno's subjects did not know the syntactic constraint, but only knew the pragmatic constraint.

Although, in general, the Nominative-Accusative asymmetry is observed in the permissibility of Case particles omission, the phenomenon of Case drop is much more complex. It is assumed in Kanno's studies that Accusative Case can be dropped freely, but there is in fact a constraint on Accusative Case drop. Yoo, Kayama, Mazzotta & White (2001) looked at the interaction of Case drop with scrambling (e.g. Otsu 1994; Saito 1983) in the context of L2 acquisition. In the basic SOV word order, the object NP can be with or without the Accusative Case marker as its position is governed by the verb. However, in the scrambled OSV order, the presence of the Accusative Case marker is obligatory because once the object NP is not adjacent to the verb, its position is no longer governed by the verb. Yoo et al. examined whether English speaking learners of Japanese are sensitive to this particular

constraint on Accusative Case drop, which they called the adjacency requirement on NPs lacking Accusative Case, by testing 18 learners (12 intermediate and 6 advanced). They conducted an experiment using a grammaticality judgment task in which basic SOV sentences were manipulated in four ways. These four types of test sentences are illustrated in (16).

(16) a. *Adjacency and Case marking* (–scr, +ACC)
          Mayumi-wa furansugo-o naratta.
          Mayumi-TOP French-ACC learned
      b. *Adjacency without Case marking* (–scr, –ACC)
          Mayumi-wa chulippu-∅ ueta.
          Mayumi-TOP tulip-∅   planted
      c. *Scrambling and Case marking* (+scr, +ACC)
          Hamuretto-o Junko-wa yonda.
          Hamlet-ACC Junko-TOP read
      d. *Scrambling without Case marking* (+scr, –ACC)
          *Mango-∅ Kyoko-wa toriageta
          Mango-∅ Kyoko-TOP picked   (cf. Yoo et al. 2001: 829)

The results showed that intermediate, advanced and native control groups accepted ungrammatical scrambled sentences (as seen in (16d)) significantly less than their grammatical counterparts (as seen in (16c)). Thus, Kanno's (1996, 1999) findings that L2 Japanese learners are sensitive to Case drop restrictions were confirmed by Yoo et al. by looking at a different syntactic issue.

There is yet another aspect of Case drop which has not been investigated, namely the restrictions on Nominative Case drop. It is not the case that the Nominative Case marker must be present in all transitive sentences. As was illustrated in Section 2, Nominative Case can be dropped in a transitive sentence if either a sentence final particle or question marker is present. Here, I examine whether L2 learners of Japanese are sensitive to the constraints on Nominative Case drop. In addition, the tasks in this study were designed to tease apart the issue of syntax and pragmatics, which was not at all clear in Kanno's studies. In order to do so, test sentences used in this study were manipulated in such a way that each ungrammatical sentence violated only the syntactic constraint or the pragmatic constraint on Case drop. With this design, it was possible to see whether the learners knew the syntactic constraint, the pragmatic constraint, both, or neither. Test sentences as well as the experimental design are outlined in the following section.

5. THE EXPERIMENT
5.1 HYPOTHESIS
An experimental study was conducted to test whether English speaking learners of Japanese have syntactic knowledge of Case drop. Assuming that UG is still active, my hypothesis is that learners will know the syntactic constraint of Case drop and can thus apply their knowledge of the ECP to a phenomenon quite different from their L1. If learners do not have access to UG, they will not be able to reject syntactically illicit Case drop sentences given the complexity of the phenomenon.

5.2 PARTICIPANTS

Seven intermediate and five advanced level L2 learners participated in this study. All intermediate level learners were enrolled in the second level Japanese course at McGill University, in Montreal. At the time of testing, they had studied Japanese a little over two semesters. Though these learners had seen instances of Case drop sentences, they had not received instructions on Case drop. Advanced level learners consisted of university students who had completed at least a third level Japanese course at McGill or an equivalent course at another university. These learners reported that they had heard some explanations about Case drop which were not thorough. Three people in this group had lived in Japan for a few years. All participants were native speakers of English, or English and some other language. Those who grew up bilingual spoke Armenian, French, or Polish in addition to English. These bilingual subjects were included since the above mentioned languages do not provide evidence as to when Nominative Case can be dropped. French lacks Case markers. Armenian and Polish have overt Case marking system, but they do not allow Case marker drop. There was also a control group consisting of 5 native speakers of Japanese.

5.3. TASKS

Two aural naturalness judgment tasks were developed in order to assess participants' syntactic and pragmatic knowledge with respect to the omissibility of the Case particles in spoken Japanese. In these tasks, Nominative drop sentences were manipulated in three ways as shown in (17). The first type (Type 1) consisted of grammatical Nominative drop sentences which were syntactically and pragmatically licit. An example is seen in (17a). The second type (Type 2) consisted of ungrammatical Nominative drop sentences which violated only the syntactic constraint on Case drop. An example is seen in (17b). The difference between the sentences in (17a) and (17b) is that the one in (17b) lacks sentence final particle *yo* which governs the empty Case position in (17a). As (17b) lacks a proper governor for the empty Case position, Nominative Case drop is ungrammatical. The third type (Type 4) consisted of ungrammatical nominative drop sentences which violated only the pragmatic constraint of Nominative Case drop. This means that these sentences were ungrammatical only when they were presented in an inappropriate context. In fact, sentences identical to those in Type 1 were re-used for Type 4. An example of Type 4 sentence is seen in (17c). Type 4 sentences were presented with a context which forced the reading such that the subject NP was new information and thus Nominative Case could not be dropped. This design allowed one to observe participants' knowledge of syntax and pragmatics on Case drop separately.

(17) Three types of Nominative Case drop sentences
      a. *Grammatical Nominative Case drop (Type 1)*

√NOM drop	Syntax	Yes	(with the sentence final particle *yo*)
	Pragmatics	Yes	(Subj. NP not new information)

      Michiko-∅ aisukurimu-o tabeta yo.
      Michiko-∅ ice.cream-ACC ate   PRT
      'Michiko ate ice cream.'

      b. *Ungrammatical Nominative Case drop (Type 2)*

*NOM drop	Syntax	No	(lacks sentence final particle *yo*)
	Pragmatics	Yes	(Subj. NP not new information)

      *Taro-∅   hanbaga-o   tabeta.
       Taro-∅   hamburger-ACC   ate
      'Taro ate a hamburger.'

      c. *Ungrammatical Nominative Case drop with the sentence final particle* yo *(Type 4)*

*NOM drop	Syntax	Yes	(with the sentence final particle *yo*)
	Pragmatics	No	(Subj. NP new information)

      *Michiko-∅   aisukurimu-o tabeta yo.
       Michiko-∅   ice.cream-ACC ate   PRT
      'Michiko ate ice cream.'

In addition to the three sentence types seen in (17), grammatical Accusative Case drop sentences (called Type 3) were included in the task to allow proper interpretation of the responses to the Nominative Case drop sentences. For example, there might be some learners who reject any type of Case drop. Such learners could be identified by their responses to Type 3 sentences along with their responses to Type 1, 2, and 4. An example of a Type 3 sentence is seen in (18). Each type consisted of 5 tokens and in addition there were 5 distracters.

(18) *Grammatical Accusative Case drop sentence (Type 3)*
      Taro-ga   sinbun-∅   yonda
      Taro-NOM   newspaper-∅   read
      'Taro read a newspaper.'

These four test sentence types were presented in two tasks. Task 1 consisted of sentences from Types 1, 2, 3 and some distracters. They were presented in random order following an example question. Test sentences were presented as a description of a picture for two reasons. For one, in the context of neutral picture description, Nominative drop is pragmatically possible. The other reason is that the subject NP in the neutral description context cannot be marked by the topic marker *wa*. In this way, it was ensured that the missing Case particle be interpreted as the Nominative Case *ga*, but not the topic marker *wa* (which can be deleted freely). Participants were instructed to first look at the picture, and then they heard the recorded test sentence which was the description of the picture they were looking at. In order to avoid the situation that participants could not make judgment due to unknown vocabulary, all relevant nouns were labeled in the picture, and a list of verbs used in the task was provided to the participants beforehand. Each sentence was repeated twice, and when

requested by the participants, the tape was played more than once.

Task 2 consisted of Type 4 sentences and some distracters. Type 4 sentences, which violated the pragmatic constraint on Nominative Case drop, were presented separately from the other types of sentences because a more elaborate context was necessary. Whether the subject NP presented new information or not was controlled by the context, presented in English in order to ensure the participants' comprehension (Dekydtspotter, Sprouse & Anderson 1998) and also to prevent the participants from being influenced by the language usage of the context. If it had been presented in Japanese, participants would have been able to compare how the Case markers were used in the written context with how they were used in the test sentences. As it was somewhat odd to read a context in English and then listen to a sentence spoken in Japanese, a picture that depicted the situation was added for each sentence in an attempt to minimize this oddness. Participants were asked to first read the context and look at the picture. Then they heard the test sentence which was supposedly uttered by Hanako and judged whether Hanako's utterance sounded like natural Japanese in the given context.

The test procedure was explained in English. The participants were asked to rate test sentences on a scale of 3 (1 = unnatural, 2 = in-between, 3 = natural). The experimenter stressed that learners should judge each sentence in the given context and not imagine another situation in which the sentence in question could be uttered. Participants were encouraged to ask questions during the experiment if they were uncertain of something.[2] Also, the choice of 'don't know' was given so that the participants would not rate the sentences by guessing.

6. RESULTS

Results from the two tasks are presented in Table 1. There was a total of 25 sentences: 5 grammatical Nominative drop sentences, 5 ungrammatical (due to syntax) Nominative drop sentences, 5 grammatical Accusative drop sentences, 5 ungrammatical (due to pragmatics) Nominative drop sentences, and 5 ungrammatical distracters. All three groups judged distracters unnatural (the average scores for all groups are well below 2.0), suggesting that subjects can perform a naturalness judgment on this task.

---

[2] This has prevented the participants from rejecting some sentences for wrong reasons. A few intermediate level learners asked if they should consider names presented without titles unnatural. They thought it is unnatural, but were not sure if it should be part of the judgment. The experimenter replied that in casual speech, names do not have to be accompanied by a title, and their judgment should not be influenced by that.

	Type1	Type 2	Type 3	Type 4	
	NOM drop	NOM drop *syntax	ACC drop	NOM drop *pragmatics	*distracters
Intermediate (n = 7)	2.20	2.58	2.40	2.43	1.62
Advanced (n = 5)	2.64	2.56	2.04	1.92	1.08
Controls (n = 5)	2.88	2.04	2.36	1.52	1.00

Table 1. Naturalness judgment task: mean scores
(Scale of 1/unnatural to 3/natural)

Japanese controls responded as expected, in the sense that their ratings of grammatical test sentences were high and their ratings of ungrammatical ones were low. For Type 1 sentences (grammatical Nominative drop), the mean score is 2.88. Thus, the controls perceive those sentences as being quite natural. For Type 2 sentences (ungrammatical Nominative drop,*syntax), the mean score is 2.04 which indicates that the controls perceive those sentences 'in-between' natural and unnatural. A t-test for two-samples shows that the difference between these two scores is highly significant ($p < 0.00001$). In other words, the controls made a clear distinction between grammatical and ungrammatical (*syntax) Nominative drop sentences. An even clearer contrast in the rating of naturalness is found between Type 1 and Type 4 sentences, which consist of identical sentences except that they were presented in a different context to control for the effect of pragmatics. Type 4 sentences were presented in a context in which Nominative drop sentences were illicit due to violation of the pragmatic constraint on Case drop. The controls perceive those sentences as being quite unnatural, with a mean score of 1.52. The difference in scores for Type 1 and 4 sentences is statistically significant (t-test for two-samples: $p < 0.00001$). Thus, controls clearly distinguished between grammatical and ungrammatical (*pragmatics) Nominative drop sentences. Furthermore, the difference between their mean scores for ungrammatical sentences, Type 2 and Type 4, is statistically significant (t-test for two-samples: $p < 0.027$). Type 2 sentences are ungrammatical due to violation of the syntactic constraint; the mean score for this type is 2.04. Type 4 sentences are ungrammatical due to violation of the pragmatic constraint; the mean score for this type is 1.52, much lower than that of Type 2. This result thus suggests that native Japanese speakers perceive sentences that violate the pragmatic constraint on Case drop to be worse than the ones that violate the syntactic constraint. The mean score for Type 3 sentences (grammatical Accusative drop) is 2.36, indicating that they perceive this type to be better than 'in-between.' Though they perceive Type 3 sentences to be on the natural side, the mean score is much lower than that for the other type of grammatical sentences, Type 1. The difference between these mean scores is statistically significant (t-test for two-samples: $p < 0.001$). This suggests that the controls prefer grammatical Nominative drop sentences to grammatical Accusative drop sentences. This rating difference between two types of grammatical sentences was not anticipated.

Advanced learners show a pattern partially similar to the controls. Like the controls, they perceive Type 1 sentences (grammatical Nominative drop) as being quite natural (mean score 2.64). However, unlike the controls, their mean score for Type 2 (ungrammatical Nominative drop,*syntax) is also rather high (2.56). Though the mean score for Type 1 is higher than that of Type 2, the difference is not statistically significant (t-test for two-samples: $p<0.712$). In other words, advanced learners do not differentiate the two types, unlike the controls, suggesting that they do not know the syntactic constraint on Case drop. However, it seems that they know the pragmatic constraint on Case drop. Type 4 sentences (ungrammatical Nominative drop, *pragmatics) are perceived as being quite unnatural. The mean score for Type 4 sentences is 1.92 and this score is significantly different from that of Type 1 (t-test for two-samples: $p<0.003$). This response pattern mirrors that of the control group. Similarly to the control group, advanced learners perceive grammatical Nominative drop sentences (Type 1, mean score 2.64) as being better than grammatical Accusative drop sentences (Type 3, mean score 2.04). The difference between the two mean scores is statistically significant (t-test for two-samples: $p<0.006$).

The intermediate learners' response pattern is not similar to either the control group or the advanced group. The mean score for Type 1 sentences (grammatical Nominative drop) is 2.20, which indicates that they perceive those sentences as being slightly better than 'in-between.' The mean score for Type 2 (ungrammatical Nominative drop, *syntax) (2.58) is significantly higher than that of Type 1 (t-test for two-samples: $p<0.018$) indicating that they do not know the syntactic constraint on Case drop. Moreover, it was unexpected that they would perceive ungrammatical Type 2 sentences as being more natural than grammatical Type 1 sentences. If these subjects have not learnt the syntactic constraint on Case drop, they should have treated Type 1 and 2 sentences equally, as the advanced group does. The mean score for Type 4 sentences (ungrammatical Nominative drop, *pragmatics) is 2.43 which indicates that they perceive this type as being rather on the natural side. This result suggests that they do not know the pragmatic constraint on Nominative Case drop either. The mean scores for Type 1 sentences (2.20) and Type 4 sentences (2.43) are not significantly different (t-test for two-samples: $p<0.199$). Furthermore, the difference between the mean score of Type 2 sentences (2.58) and that of Type 4 (2.43) is not statistically significant (t-test for two-samples: $p<0.398$). For Type 3 sentences (grammatical Accusative drop), the mean score is 2.40. Contrary to the response patterns of control and advanced group, the mean score of grammatical Accusative drop sentences is higher than that of grammatical Nominative drop sentences (Type 1), though the difference between the two is not statistically significant (t-test for two-samples: $p<0.302$).

Turning now to individual data, Tables 2, 3 and 4 present the distribution of subjects based on their preferences between sentence types. The figures in the table were obtained by comparing each subject's mean score for each sentence type. That is, if the mean score of Type 1 sentences is higher than that of Type 2 for a particular subject, then he is considered to prefer Type 1 sentences.

For the native Japanese control group, the contrast between grammatical and ungrammatical Nominative drop sentences is very clear. As seen in Table 2, all subjects prefer Type 1 (grammatical Nominative drop) sentences over Type 2 (ungrammatical Nominative drop, *syntax) sentences. Similarly, all subjects prefer Type 1 sentences over Type 4 (ungrammatical Nominative, *pragmatics) sentences. Comparing between two ungrammatical

Nominative drop types, most subjects prefer Type 2 over Type 4 sentences. Therefore, the result of the group data is confirmed by the individual data.

	Yes	No preference	No
Prefer Type 1 (√NOM drop) over Type 2 (*syntax)	5 (100%)	0	0
Prefer Type 1 (√NOM drop) over Type 4 (*pragmatics)	5 (100%)	0	0
Prefer Type 2 (*syntax) over Type 4(*pragmatics)	4 (80%)	1 (20%)	0

Table 2. The distribution of controls based on their
preference between sentence types

Table 3 presents the same analysis for the advanced learners. As was apparent in the group data, the majority of this group considers Type 1 (grammatical Nominative drop) sentences and Type 2 (ungrammatical Nominative drop, *syntax) sentences equally natural. The group result for the comparison between Type 1 and Type 4 (ungrammatical Nominative drop, *pragmatics) is also confirmed by the individual data. 4 subjects (80%) prefer Type 1 over Type 4. Comparing the two ungrammatical sentence types, most advanced learners perceive syntactically illicit Nominative drop sentences to be better than pragmatically illicit ones. Four subjects (80%) prefer Type 2 (*syntax) over Type 4 (*pragmatics). This result is in accordance with their group results.

	Yes	No preference	No
Prefer Type 1 (√NOM drop) over Type 2 (*syntax)	1 (20%)	3 (60%)	1 (20%)
Prefer Type 1 (√NOM drop) over Type 4 (*pragmatics)	4 (80%)	1 (20%)	0
Prefer Type 2 (*syntax) over Type 4(*pragmatics)	4 (80%)	1 (20%)	0

Table 3. The distribution of advanced L2 learners based on
their preference between sentence types

Table 4 presents the distribution of intermediate learners. Unlike the control group and the advanced group, this group shows great variance even though they were taking the same course at the time of testing.

	Yes	No preference	No
Prefer Type 1 (√NOM drop) over Type 2 (*syntax)	2 (29%)	1 (14%)	4 (57%)
Prefer Type 1 (√NOM drop) over Type 4 (*pragmatics)	3 (43%)	0	4 (57%)
Prefer Type 2 (*syntax) over Type 4(*pragmatics)	4 (57%)	2 (29%)	1 (14%)

Table 4. The distribution of intermediate L2 learners based
on their preference between sentence types

As for the comparison between Type 1 (grammatical Nominative drop) and Type 2 (*syntax), more than half of the subjects perceive ungrammatical Type 2 sentences as being better than grammatical Type 1 sentences or have no preference. This result is in accordance with the group data. This group is divided evenly in two for the preference of Type 1 over Type 4 (*pragmatics). Comparing between ungrammatical sentences, only 4 subjects show the same pattern as the control and advanced group.

7. DISCUSSION

To summarize the results of the tasks, no learners knew the syntactic constraint on Case drop. This suggests, contrary to my prediction, that their knowledge of the ECP had not been activated to acquire the Japanese Case drop phenomenon. As for the pragmatic constraint on Case drop, advanced learners had acquired it, but intermediate learners had not. The results of this study provide clarification of the syntax – pragmatics issue which was unclear in Kanno's study. It appears from this study that advanced learners only knew the pragmatic constraint on Case drop, and not the syntactic one. Thus, it is highly likely that the participants in Kanno's study, too, only knew the pragmatic constraint. Recall that in her task, the knowledge of the pragmatic constraint alone was sufficient to determine whether a given sentence was natural or not.

Turning now to the explanation of why learners did not know the syntactic constraint on Case drop, let us consider the issue of triggering and overgeneralization. Intermediate learners' access to Case drop sentences was quite limited. In classroom, they had encountered Case drop sentences, but not many because Case drop occurs mainly in casual speech. Also, none of them had lived in Japan (although two of them had visited Japan). In this situation, it is highly likely that the acquisition of Case drop had not been triggered for lack of sufficient amount of positive evidence. For the very same reason, they had not acquired the pragmatic

constraint on Case drop. I assume that the intermediate learners accepted both grammatical and ungrammatical Case dropped sentences simply based on their knowledge that Japanese Case particles can be dropped sometimes. Although some might consider that the acquisition of Case drop had been triggered for these learners for their acceptance of Case dropped sentences, the fact that they rated ungrammatical sentences (Type 2 and 4) higher than grammatical ones (Type 1 and 3) confirms that their judgment was not based on either syntactic or pragmatic constraints on Case drop. As for the advanced learners, they had had much more exposure to Case drop sentences. In particular, three advanced learners had lived in Japan for 3 to 4 years and were quite familiar with spoken Japanese and the high rate of Case particle omission in a casual setting. The responses from these three subjects did not differ very much from other advanced learners except in that they rejected pragmatically illicit sentences more clearly. Though this group had received ample positive evidence, they still were not sensitive to the syntactic constraint on Case drop. It is possible that they were at a stage of overgeneralization, allowing more types of Case drop than native speakers do. Thus, in their grammar, Type 1 and Type 2 (*syntax) were equally natural. Nevertheless, there was an indication that they might have some syntactic knowledge with respect to the constraints on Case drop. Advanced learners' ratings on Type 3 sentences (grammatical Accusative drop) were significantly lower than those for Type 1. This was the case for control group as well. Though exploring what makes Type 1 (grammatical Nominative drop) much more natural than Type 3 is beyond the scope of this study, this result implies that advanced learners and controls share some intuitions about Case drop. Though it seems that advanced learners did not know the syntactic constraint on Case drop, the results indicate that they knew the pragmatic constraint on Case drop. The pragmatic constraint on Case drop is rather straight forward compared to the syntactic constraint. All they needed to figure out was that a subject NP which presents new information needs to be marked by *ga*. In summary, it was confirmed in this study that the acquisition of Case drop does not take place in the early stages of L2 acquisition, contrary to the claim of Kanno (1996). Whether it will take place eventually or not needs to be confirmed by further studies which test even more advanced level L2 learners.

Lastly, there is one more issue that requires explanation. In Kanno's study, intermediate learners knew the pragmatic constraint (under my interpretation) on Case drop, while intermediate learners of this study did not. This difference was possibly due to the type of test sentences that were used. In Kanno's study, all subject NPs in question were *wh*-phrases and violation of the pragmatic constraint was probably more salient in her task since *wh*-phrases always call for new information regardless of the context. In this study, each subject NP was the name of a person, and thus whether a particular subject NP called for new information or not depended on the context and subsequently the information status of the subject NP was less salient than that found in Kanno's test sentences.

8. CONCLUSION

This study investigated whether the ECP, a principle of UG, was still available to adult L2 learners in order to confirm whether UG is active in adult L2 acquisition. In particular, this was done by looking at the acquisition of Japanese Case drop by English speaking L2 learners. The effects of the ECP manifest themselves differently in Japanese and English. In

Japanese, the ECP determines the omissibility of Case markers. In English, the ECP determines *that*-trace effects, among other things. As the links between these are not at all obvious, and given the complexity of the Case drop phenomenon, if English speaking L2 learners of Japanese were to learn the constraints on Case drop, it would suggest that the ECP continues to be available to adult L2 learners. Such a finding would provide strong evidence that UG is fully active for adult L2 learners. The results of Kanno (1996, 1998) seem to indicate that, from early stages of L2 acquisition, English speaking L2 learners know the syntactic constraints on Case drop, suggesting that the ECP is active enough to apply to the Case drop phenomenon in Japanese. However, in her study, no attention was paid to the pragmatic constraint on Case drop. Thus, it was not clear if L2 learners in her study really knew the syntactic constraint on Case drop, or whether it was the pragmatic constraint which was available to them. The present study demonstrates that advanced learners know only the pragmatic constraint. Therefore, it is unlikely that the acquisition of Case drop takes place in the early stages of L2 acquisition. However, it might be the case that even advanced learners had not had sufficient positive evidence to trigger the acquisition of Case drop. Further studies involving near native level learners are necessary to investigate whether English speaking learners of Japanese can eventually acquire the syntactic constraint of Case drop or not.

REFERENCES

Chomsky, Noam. 1965. *Aspects of the Theory of Syntax*. Cambridge, MA: MIT Pres.

Chomsky, Noam. 1972. *Problems of Knowledge and Freedom*. London: Fontana.

Chomsky, Noam. 1975. *Reflections on Language*. New York: Pantheon.

Chomsky, Noam. 1981. Principles and parameters in syntactic theory. In Norbert Hornstein & David Lightfoot, eds., *Explanation in Linguistics: the Logical Problem of Language Acquisition*, 32-75. London: Longman.

Clahsen, Harald & Pieter Muysken. 1986. The availability of Universal Grammar to adult and child learners: a study of the acquisition of German word order. *Second Language Research* 2: 93-119.

Crain, Stephen. & Mineharu Nakayama. 1987. Structure dependence in grammar formation. *Language* 63:522-43.

Dekydtspotter, Laurent, Rex Sprouse & Bruce Anderson. 1998. The interpretive interface in L2 Acquisition: the process-result distinction in English-French interlanguage grammars. *Language Acquisition* 6: 297-332.

Eubank, Lynn. 1994. Optionality and the initial state in L2 development. In Teun Hoekstra & Bonnie Schwartz, eds., *Language Acquisition Studies in Generative Grammar*, 369-388. Amsterdam: John Benjamins.

Fukuda, Minoru. 1993. Head government and Case marker drop in Japanese. *Linguistic Inquiry* 24:168-172.

Kageyama, Taro. 1993. *Bunpou to Gokeisei* 'Grammar and Word Formation'. Tokyo: Hituzi.

Kanno, Kazue. 1996. The status of a nonparameterized principle in the L2 initial state. *Language Acquisition* 5: 317-332.

Kanno, Kazue. 1998. Consistency and variation in second language acquisition. *Second Language Research* 14: 376-88.

Kuno, Susumu. 1973. *The Structure of the Japanese Language*. Cambridge, MA: the MIT Press.

Lee, Kiri. 2002. Nominative Case-marker deletion in spoken Japanese: an analysis from the perspective of information structure. *Journal of Pragmatics* 34: 683-709.

Masunaga, Kiyoko. 1988. Case deletion and discourse context. In William J. Poser, ed., *Papers from the Second International Workshop on Japanese Syntax*, 145-156. Stanford, CA: CSLI Publications.

Nakayama, Mineharu & Masatoshi Koizumi. 1991. Remarks on Japanese subjects. *Lingua* 85:303-319.

Nishigauchi, Taisuke. 1992. The unaccusative construction in Japanese and θtheory. *Osaka Daigaku* Gengo-bunka-gaku 1: 41-52.

Otsu, Yukio. 1994. Case-marking particles and phrase structure in early Japanese acquisition. In Barbara Lust, Margarita Suñer & John Whitman, eds., *Syntactic Theory and First Language Acquisition: Cross-Linguistic Perspectives - Vol 1: Heads, Projections and Learnability*, 159-169. Mahwah, NJ: Lawrence Erlbaum.

Pinker, Steven. 1984. *Language Learnability and Language Development*. Cambridge, MA: Harvard University Press.

Pinker, Steven. 1994. *The Language Instinct*. New York: William Morrow and Co.

Saito, Mamoru. 1983. Case and government in Japanese. In Michael Barlow, David Flikinger & Michael Westcoat, eds., *Proceedings of West Coast Conference on Formal Linguistics* (WCCFL) 2, 247-259. Stanford: Stanford University.

Schachter, Jacquelyn. 1988. Second language acquisition and its relationship to Universal Grammar. *Applied Linguistics* 9: 219-235.

Schachter, Jacquelyn. 1989. Testing a proposed Universal. In Susan Gass & Jacquelyn Shachter, eds., *Linguistic Perspectives on Second Language Acquisition*. Cambridge: Cambridge University Press.

Schwartz, Bonnie & Rex Sprouse. 1994. Word order and Nominative Case in nonnative language acquisition: a longitudinal study of (L1 Turkish) German interlanguage. In Teun Hoekstra & Bonnie Schwartz, eds., *Language Acquisition Studies in Generative Grammar*, 317-368. Amsterdam: John Benjamins.

Suzuki, Takaaki. 1999. Two aspects of Japanese Case in acquisition. Ph.D. dissertation, University of Hawai'i.

Thomas, Margaret. 1993. *Knowledge of Reflexives in a Second Language*. Amsterdam: John Benjamins.

White, Lydia. 1990. Another Look at the logical problem of foreign language learning: a reply to Bley-Vroman. *Linguistic Analysis* 20: 50-63.

White, Lydia. 1990. Second language acquisition and universal grammar. *Studies in Second Language Acquisition* 12: 121-133.

White, Lydia. 1996. Universal grammar and second language acquisition: Current trends and new directions. In William Ritchie & Tej Bhatia, eds., *Handbook of Language Acquisition*, 85-120. New York: Academic Press.

White, Lydia. 2003. *Second Language Acquisition and Universal Grammar*. Cambridge: Cambridge University Press.

Yoo, Myunghyun, Yuhko Kayama, Mizuki Mazzotta & Lydia White. 2001. Case drop in L2 Japanese. In Anna H.-J. Do, Laura Domínguez & Aimee Johansen, eds., *Proceedings of the 25th Annual Boston University Conference on Language Development*, 825-834. Somerville, MA: Cascadilla Press.

Mizuki Mazzotta
Department of Linguistics
McGill University
1085 Dr. Penfield
Montreal, PQ   H3A 1A7
Canada

mizuki.mazzotta@mail.mcgill.ca

RÉSUMÉ

Cette étude examine si un principe nonparamétrique de la grammaire universelle, le principe de catégorie vide (PCV), est accessible aux adultes apprenant une deuxième langue (L2). Kanno (1996, 1998) a exploré cette question en examinant l'acquisition de l'omission du cas en japonais qui est réglementé par le PCV. Elle prétend que les apprenants adultes ont accès au PCV à des stades précoces de l'acquisition de L2. La présente étude démontre que, contrairement aux données précédentes, même des apprenants avancés de la L2 ne sont pas sensibles aux contraintes syntaxiques de l'omission du cas (c.à.d. le PVC) en examinant la connaissance des apprenants des contraintes pragmatiques de même que celles du PCV. On a donné un test de jugement sur le caractère naturel de l'omission du cas en japonais à des anglophones de niveau intermédiaire apprenant le japonais. Les phrases du test étaient manipulées de telle façon qu'elles ne violent que les contraintes pragmatiques ou les contraintes de l'omission du cas, mais non les deux, comme c'était le cas dans les études précédentes.