

Japanese Postposing as an Indicator of Emerging Discourse Pragmatics¹

Jun Nomura

University of Hawai'i at Mānoa

1. Introduction

Japanese is a pro-drop language that is claimed to be strictly predicate-final (e.g., Kuno, 1973; Shibatani, 1991). (1) shows some examples of predicate-final utterances.

- (1) a. Basu(-ga) kita yo!
 bus(-nom) came PCL
 'There comes the bus!'
 b. Keeki(-o) tabeta?
 cake(-ACC) ate
 'Did you eat that cake?'

However, in casual speech, non-predicate elements such as NPs, PPs, adverbials, etc. often occur in the sentence-final position (postposing). (2) shows two examples of postposing (postposed elements are bolded).

- (2) a. Kita yo, **basu(-ga)**!
 came PCL bus(-NOM)
 b. Tabeta, **keeki(-o)**?
 ate cake(-ACC)

Postposing is not an unusual phenomenon in Japanese casual speech. For example, Takahara & Peng (1981) report that 9.7% of adult utterances contain postposed elements.

It is generally claimed that postposing is motivated mainly by discourse-pragmatic factors (see Section 2). The present study is aimed mainly at examining Japanese-speaking children's discourse-pragmatic competence by examining their use of different types of postposing. I argue that, contrary to the claims by some existing studies, two-year-olds are quite good at inferring the activation state of referents in the listener's mind, which is closely related to discourse-pragmatic features like focus and topicality (Lambrecht, 1994; Shimojo, 1995).

2. Motivations for postposing

2.1 Traditional ideas

It has been traditionally claimed that Japanese speakers use postposing to provide afterthoughts (e.g., Shibatani, 1991) that come from lapses in speech planning. Since speech planning processes occur very quickly, lapses in planning do occur, especially in casual speech. For example, the speaker may have trouble retrieving appropriate lexical items. Or the speaker may fail to infer the activation level of a referent in the listener's mind. Such lapses in speech planning may lead to inappropriate omission of an element that is crucial to understanding the utterance. If the speaker finds that the listener may not understand the utterance due to such inappropriate omission, s/he may produce the necessary element in the post-predicate position, resulting in postposing.

However, some researchers observe that afterthoughts do not explain all cases of postposing. For example, Clancy (1985) observes that postposed utterances are often very short (e.g. a predicate followed by a demonstrative); it is unlikely that a lapse in speech planning occurred in such utterances. Clancy further claims that such short postposed utterances usually do not have a pause between the main sentence (hereafter called the body) and the postposed element (the tail) that would indicate the planning of the tail as a separate portion of the utterance. These considerations lead Clancy to propose another type of postposing where the speaker deliberately defocuses an element that is shared and highly presupposed by the listener.

¹ I sincerely thank Kamil Ud Deen, William O'Grady, and Ann Peters for their advice on all aspects of the present study. I am responsible for all the remaining errors in this paper.

2.2 Ono & Suzuki (1992)

The present study is based heavily on Ono & Suzuki's (1992) classification of postposing, because it offers, either explicitly or implicitly, several criteria for identifying different types of postposing.

2.2.1 Pragmatic Repair

The first type, which I call Pragmatic Repair (PR), roughly corresponds to the traditional "afterthought" type of postposing. (3) shows an example of this type of postposing.

- (3) Yurusite-kunnai yo, **syatyoo-ga**.
 allow-not PCL president-NOM
 '(He) would not allow us to do that, the president.' (Ono & Suzuki, 1992, p. 431)

According to Ono & Suzuki, this utterance is the first one in this conversation that mentions *syatyoo* 'president', which indicates that the speaker produced it to provide information that is missing from the body.

PR is motivated by an inferred lack of understanding on the part of the listener. Therefore, it is sometimes triggered by a negative response (e.g. *E?* 'Huh?'; *Nani?* 'What?'), or a lack of response, from the listener (4).

- (4) K: Nanpun-ni tuitaa?
 what.time-at arrived
 'What time did you arrive?'
 M: ... (no response)
 K: ... **kaizyoo-ni**.
 hall-at
 'at the hall' (Ono & Suzuki, 1992, p. 433)

In this case, the lack of response suggests that M does not understand K's utterance. This leads K to repair the utterance by adding *kaizyoo-ni* 'at the hall'.

2.2.2 Deliberate Defocusing

The second type of postposing, which I call Deliberate Defocusing (DD), corresponds to Clancy's second type, which is usually short and lacks a pause between the body and the tail. An example is given in (5).

- (5) Yaa da na **kono kokonatu**.
 disgusting COP PCL this coconut
 'Tastes awful this coconut drink.' (Ono & Suzuki, 1992, p. 439)

According to Ono & Suzuki, the tails of this type of postposed utterances are almost always demonstratives, or demonstratives followed by a noun. This predominance of demonstratives in DD is understandable, considering that demonstratives' referents are usually present in the scene. Their presence guarantees their accessibility for both the speaker and the listener, which in turn increases the chance of them becoming "presupposed."

2.2.3 Sophisticated Pragmatics

The third type of postposing, Sophisticated Pragmatics (SP) in my term, is claimed to serve at least three different pragmatic functions.² Using SP, the speaker does one of the following things (6).

- (6) a. Further specification: provides extra information by further specifying a referent or by elaborating an expression that appeared in the main sentence.
 b. Emphasis: expresses emphasis by repeating an element in the main sentence or by adding an adverbial or adjective.
 c. Discoursal linking/contrast: adds discourse-pragmatic information utterance-finally by

² Ono & Suzuki actually recognize two types in this category depending on whether or not a pause exists between the body and the tail. (6c) usually involves a pause, while (6a) and (6b) usually do not. However, the present study did not distinguish them due to a technical difficulty; since the present study focused on text analysis, it was difficult to reliably tell whether a pause was present or absent in each postposed utterance.

linking or contrasting the present utterance with the previous utterance.

Examples of (6a) and (6c) are shown in (7) and (8), respectively.

- (7) Jikan kimendemo ee si, **owatta tokoro de yametara ee kara.**
 time decide good PCL ended place at stop.if good because
 ‘We don’t have to decide the time, because we can stop when it is over.’
 (Ono & Suzuki, 1992, p. 434)
- (8) O: Itsunomani sukii nanka itte, nani yatten da.
 before.one.knows ski such.as go what doing COP
 ‘You went skiing without telling me... what are you doing?’
- T: Gomen. Repooto-mo dasitenai noni, sukii itte-kimasita yo **watasi.**
 Sorry report-even submit.not though ski have.been PCL I
 ‘Sorry. Although (I) haven’t submitted (my) report, (I) went skiing, I.’
 (Ono & Suzuki, 1992, pp. 437–38)

In (7), the postposed adverbial clause provides extra information as to why they do not have to decide the time. In (8), T contrasts her situation with O’s (i.e. T went skiing while O did not) by producing a personal pronoun *watasi* ‘I’, which is usually omitted in pro-drop languages like Japanese.

2.2.4 Grammatical Repair

The fourth type, Grammatical Repair (GR), is used to correct a grammatical error made in the body. An example is given in (9).

- (9) Sigoto-nitaisuru hyooka-**ga** ano hito nee, site-nai, **hyooka-o.**
 work-about credit-NOM that person PCL do-NEG credit-ACC
 ‘That person does not give credit to our work.’
 (Ono and Suzuki, 1992, p. 434)

In (9), the speaker first attaches the nominative marker *-ga* to the noun *hyooka* ‘credit’. However, the correct marker here is accusative *-o*. Therefore the speaker repeats the NP in the tail, replacing *-ga* with *-o*.

3. Postposing by children

3.1 Early pragmatic competence?

Though there are not many studies of postposing by children, the few existing studies observe that two-year-olds, or even younger children, use at least DD appropriately. Since postposing is motivated largely by discourse-pragmatic factors (see Section 2), children’s appropriate use of it indicates their sensitivity to discourse pragmatics and information structure. For example, Clancy (1985) shows many examples of postposing from child and adult speech to argue that children’s postposing, especially DD, is adult-like in terms of information structure; the tails of children’s postposed utterances seem to always involve presupposed elements. This can be interpreted as a sign of children’s early sensitivity to discourse pragmatics.

Sugisaki (2005), though it is of a generative nature, also implies that two-year-olds are quite sensitive to discourse pragmatics. Sugisaki claims that two-year-olds have set the Head-Direction Parameter, supporting the Very Early Parameter Setting Hypothesis (Wexler, 1996), by showing that they strictly follow a constraint that prohibits postposing of the *wh*-word in an object *wh*-question. That is, two-year-olds never postpose a *wh*-word, and this in turn demonstrates their awareness of postposing as a marked order. Apart from Sugisaki’s claim, I interpret his results as indicating children’s sensitivity to information structure, because the focused status of a *wh*-word potentially conflicts with the defocused status of a tail.

Lust and Wakayama (1979) report that when Japanese-speaking children were instructed to repeat postposed utterances, they often corrected the postposed orders to predicate-final orders. This may also be explained by children’s sensitivity to information structure. Since Lust and Wakayama did not control information structure or complexity of the stimulus sentences, it is plausible that the children actively reformulated the word order to the “default” one.

In sum, the few existing studies of children’s postposing all indicate that children are sensitive to discourse pragmatics and information structure. This implication seems to conflict with the claim that discourse pragmatics is hard for children, which is described in 3.2.

3.2 Discourse pragmatics as late development

Whether implicit or explicit, there has been a strong assumption in the field that discourse pragmatics is a late development, while morpho-syntax develops early. For example, Schaeffer (2000) claims, through a truth value judgment task and an elicited production task, that Dutch-speaking and Italian-speaking children do not use direct object scrambling appropriately in obligatory contexts. Schaeffer & Matthewson (2005) argue through experiments on the use of English articles that children lack the Concept of Non-Shared Knowledge; that is, they do not understand that the speaker's and listener's minds are always independent. Batman-Ratyosyan & Stromswold (2002) report that their two-year-old subjects' comprehension was poor only when context, which is intended to make scrambled sentences sound natural, is provided. They argue that the poor performance with context is evidence for late discourse-pragmatic development.

The late-pragmatics assumption shared by the above studies apparently conflicts with the findings about Japanese-speaking children's use of postposing, which indicate that two-year-olds are quite sensitive to information structure.

3.3 Goals of the present study

In light of the literature described so far, the present study has two goals. First, since the literature lacks comprehensive quantitative data, the present study is aimed at providing such data in order to obtain a general picture of the developmental process of Japanese postposing. Using the classification described in 2.2, I analyzed postposed utterances by two Japanese-speaking children to examine the order of emergence of the four postposing types.

The second goal is to tease apart the conflicting claims outlined in 3.1 and 3.2. If the existing studies on children's postposing are on the right track, it is predicted that at least DD emerges quite early, possibly around age two.

4. Method

4.1 Data

Data from two Japanese-speaking male children, available from the CHILDES archives (MacWhinney, 2000), were used. The Tai data (Miyata, 2000) consist of conversations mainly between the child (Tai) and his mother. The Jun data (Ishii, 1999) mainly involve the child (Jun) and his father. Both children were recorded approximately once a week, and each recording session is about 60 minutes long. The analyzed age ranges were 1;9-2;5 for Tai, and 2;1-2;9 for Jun. These periods include very early stages to more-or-less adult-like stages of their postposing.

For the purpose of showing what the children's developmental target was like, two months' data from Tai's mother (1;9 and 2;5) and Jun's father (2;2 and 2;6) were analyzed, too.

The number of postposed utterances was 367 for Tai, 404 for Tai's mother, 1483 for Jun, and 276 for Jun's father.

4.2 Analysis and identification criteria

The target postposed utterances were classified into the four types using the identification criteria described below. In general, the identification criteria were made as conservative as possible. This is because the present study focused on text analysis, whereas the existing studies mention the presence or absence of a pause in their classification of postposed utterances (see Section 2). In other words, the present study examined examples that clearly belong to each type of postposing based only on textual judgments.

4.2.1 Pragmatic Repair (PR)

As described in 2.2.2, PR tails provide, as afterthoughts, information that is crucial to comprehending an utterance. Considering its function, the identification criteria for PR were set as follows.

(10) Identification criteria for PR:

Unrepeated postposing of an NP/PP that is both new and not jointly attended to.

Repeated NPs or PPs were excluded because repetitions tend to be used for emphasis, which is a function of Sophisticated Pragmatics (SP) rather than PR. Also, since only NPs or PPs serve as arguments of a sentence and provide crucial information, non-NPs/PPs were not included in PR. In addition, the NP (or the NP that is

subordinate to a PP) had to be both new and not jointly attended to by the speaker and the listener, because such elements are highly likely to carry important information. An NP was judged as new if its referent was not mentioned in the previous twenty utterances, following Guerriero, Cooper, Oshima-Takane, & Kuriyama (2001) and Skarabela & Allen (2002). Whether the speaker and the listener are paying joint attention to the referent was judged through the context.

An example of PR is shown in (11).

- (11) <Jun, 2;6.28>
 Ita desu, **kamakiri**.
 was/existed COP mantis
 ‘Here (it) is, a mantis.’

In this situation, Jun unexpectedly finds a toy mantis when he and his father are playing with toy cars. The postposed NP *kamakiri* ‘mantis’ is not repeated and is not mentioned before. Also, since neither Jun nor his father was expecting to find a toy mantis, it is quite likely that the father was not paying attention to it. Therefore this utterance was judged as a case of PR.

4.2.2 Deliberate Defocusing (DD)

The criteria for identifying DD utterances are shown in (12).

- (12) Identification criteria for DD:
 Postposing of a demonstrative (plus a noun) that is both old and jointly attended to.

As discussed in 2.2.2, DD defocuses an element that is already shared and presupposed by both the speaker and the listener. DD tails are typically demonstratives (or demonstrative adjectives followed by a noun), because their referents are usually present in the scene, guaranteeing their accessibility. Though full NPs may well carry shared and presupposed information, the present study conservatively considered only demonstratives (optionally followed by a noun) as DD tails. Also, the tail’s referent had to be both old and jointly attended to by the speaker and the listener, because it is such elements that are assumed to be subject to defocusing.

An example of DD by Tai is shown in (13). The contextual utterances were translated into English.

- (13) <Tai, 2;5.19>
 Mot: Then Mom will make this one.
 Tai: Well...
 Tai: ii yo, **kore**.
 okay this
 ‘It’s okay, this one (you can do this).’

Here “this one” in the mother’s utterance and *kore* ‘this’ in Tai’s utterance refer to the same object. Therefore the tail is clearly old and jointly attended to, and thus is classified as DD.

4.2.3 Sophisticated Pragmatics (SP)

SP serves at least three different functions (see 2.2.3): further specification, emphasis, and discursial linking/contrast. Four different criteria were used set to identify cases of SP (14).

- (14) Identification criteria for SP:
 a. Repetition of an NP/PP that is already old and jointly attended to.
 b. A paraphrase of a body element.
 c. Postposing of adverbials, adjectivals, or conjunctions.
 d. Unrepeated postposing of a personal pronoun.

Repeating an NP or PP that is presupposed (i.e., old and jointly attended to) may well reflect emphatic intention on the listener’s part. Therefore (14a) is expected to capture cases of emphasis. (14b) is the most straightforward way of identifying cases of further specification. (14c) captures further specification and discursial linking. Finally, (14d) is a way of creating contrast with the preceding utterance, as exemplified in (6b).

Examples of (14a) and (14b) are shown in (15) and (16), respectively.

(15) <Jun, 2;8.5>

Jun: The missile is not flying.

Fat: No?

Jun: Oops?

Jun: Misyairu tonde-hen yan, **misyairu**.
missile fly-not PCL missile
'The missile is not flying, missile.'

(16) <Jun, 2;9.29>

Ozisan ni taiya naosite-morawa-na akan wa, **torakku-no taiya**.
uncle by tire fix-CAUS-not bad PCL truck-GEN tire
'We have to get the tire fixed by the man, the truck's tire.'

In (15), though *misyairu* 'missile' is clearly old and jointly attended to, Jun repeats it in the tail position, probably to emphasize an element that should be flying but actually is not. In (16), Jun further specifies exactly which tire needs to be fixed.

4.2.4 Grammatical Repair (GR)

The identification criteria for GR are shown in (17).

(17) Identification criteria for GR:

A repeated NP/PP involving either:

- a. addition of a case marker/postposition, or
- b. replacement of the existing case marker/postposition.

The present study limited the scope of GR to repairs involving case markers and postpositions, because other types of grammatical errors usually cannot be repaired using postposing. For example, in order to correct word order errors, the speaker usually repeats the whole sentence. If the error is in the verb inflection, the repair will repeat the verb in the correct form.

An example of (17b) is shown in (18).

(18) <Jun, 2;8.15>

Jun: Tumiki-ga asobo ka.
block-NOM play Q
'Shall we play [NOM] blocks?'

Fat: Huh?

Jun: **Tumiki de**.
block with
'With blocks.'

Here, Jun first uses the nominative marker *-ga* for the noun *tumiki* 'block'. However, since the father does not understand the utterance, he says it again with the correct postposition.

5. Results and Discussions

Tables 1A and 1B show the number of each type of postposing for Jun, Jun's father, Tai, and Tai's mother. The point of emergence for each type of postposing was determined based on the number of instances in each month. Each type was judged to be emergent when more than one instance were observed in a month.

As shown in the tables, nearly half of the target utterances remained unclassified. This is due to the identification criteria that were made intentionally conservative (see 4.2). I plan to examine the audio data in the future study to classify those unclassified cases.

5.1 Order of emergence

The two children showed almost the same pattern in the order of emergence. PR and DD emerged very early, SP slightly was slightly later, and GR was the last to appear for both children (19).

(19) Order of emergence of the four types of postposing:

PR \approx DD > SP > GR

(\approx : almost simultaneous; >: earlier than)

A possible reason for the relatively late emergence of SP is that it usually involves non-essential information, which lowers the motivation for SP. Similarly, GR is late and not very frequent probably because case marker or postposition errors (or omissions) do not affect the interpretability of the utterance very often.

The very early emergence of PR and DD provides important evidence, especially in light of studies that claim that young children are not good at discourse pragmatics (see 3.2). Its implications are considered in 5.2.

5.2 Sign of early discourse pragmatics

The fact that PR and DD appear very early, possibly at the onset of the two-word stage, provides evidence against the claim that young children are not good at discourse pragmatics.

As described in 2.2.1, PR is used mainly to provide information that is inappropriately omitted in the body of a postposed utterance. Its early emergence indicates that children are quite sensitive to what elements should or should not be omitted in order for the listener to understand the utterance. In other words, they are sensitive to each element's level of activation/accessibility in the listener's mind (Lambrecht, 1994; Shimojo, 1995).

The early sensitivity to discourse pragmatics is seen in the early emergence of DD, too. In a DD utterance, the tail is defocused, as discussed in 2.2.2. An element can be defocused only when it is readily accessible in the speaker and listener's minds, though not totally active (Clancy, 1985; Lambrecht, 1994). The children analyzed in the present study seem to be using DD appropriately and frequently as soon as they start to use it.

Tables 1A & 1B. Number of each type of postposing for Jun, his mother, Tai, and his mother. Each month contains four one-hour recording sessions.

A. Tai

Age	PR	DD	SP	GR	Unclassified
1;09	5.0% (1/20)	# 20.0% (4/20)	5.0% (1/20)	0.0% (0/20)	70.0% (14/20)
1;10	# 12.7% (7/55)	20.0% (11/55)	1.8% (1/55)	0.0% (0/55)	65.5% (36/55)
1;11	15.7% (8/51)	51.0% (26/51)	0.0% (0/51)	0.0% (0/51)	33.3% (17/51)
2;00	25.0% (3/12)	8.3% (1/12)	# 25.0% (3/12)	0.0% (0/12)	41.7% (5/12)
2;01	5.3% (2/38)	18.4% (7/38)	18.4% (7/38)	0.0% (0/38)	57.9% (22/38)
2;02	14.0% (6/43)	16.3% (7/43)	25.6% (11/43)	0.0% (0/43)	44.2% (19/43)
2;03	12.1% (8/66)	18.2% (12/66)	25.8% (17/66)	# 1.5% (1/66)	42.4% (28/66)
2;04	8.2% (4/49)	14.3% (7/49)	24.5% (12/49)	4.1% (2/49)	49.0% (24/49)
2;05	0.0% (0/33)	39.4% (13/33)	12.1% (4/33)	0.0% (0/33)	48.5% (16/33)
Total	10.6% (39/367)	24.0% (88/367)	15.3% (56/367)	0.8% (3/367)	49.3% (181/367)
Mot	5.4% (22/404)	19.3% (78/404)	23.0% (93/404)	0.7% (3/404)	51.5% (208/404)

B. Jun

Age	PR	DD	SP	GR	Unclassified
2;01	# 16.0% (4/25)	# 28.0% (7/25)	4.0% (1/25)	0.0% (0/25)	52.0% (13/25)
2;02	25.0% (16/64)	29.7% (19/64)	# 9.4% (6/64)	0.0% (0/64)	35.9% (23/64)
2;03	19.7% (30/152)	14.5% (22/152)	7.9% (12/152)	0.7% (1/152)	57.2% (87/152)
2;04	9.0% (12/133)	15.0% (20/133)	9.8% (13/133)	# 3.8% (5/133)	62.4% (83/133)
2;05	15.1% (21/139)	17.3% (24/139)	12.2% (17/139)	2.2% (3/139)	53.2% (74/139)
2;06	14.9% (41/276)	31.5% (87/276)	10.5% (29/276)	2.9% (8/276)	40.2% (111/276)
2;07	14.8% (38/256)	25.4% (65/256)	14.1% (36/256)	2.3% (6/256)	43.4% (111/256)
2;08	14.1% (14/99)	19.2% (19/99)	16.2% (16/99)	2.0% (2/99)	48.5% (48/99)
2;09	7.1% (24/339)	34.2% (116/339)	13.6% (46/339)	1.8% (6/339)	43.4% (147/339)
Total	13.5% (200/1483)	25.6% (379/1483)	11.9% (176/1483)	2.1% (31/1483)	47.0% (697/1483)
Fat	4.0% (11/276)	29.7% (82/276)	20.7% (57/276)	0.7% (2/276)	44.9% (124/276)

Bold: Significantly higher than the adjacent period by Fisher's Exact ($p < .05$)

#: Putative point of emergence

6. Summary and conclusion

The present study examined Japanese-speaking children's use of postposing, using the criteria based on Ono & Suzuki (1992). It was found that the two children started to use the four types of postposing in basically the same order: PR≈DD>SP>GR. The early emergence of PR and DD calls into question the claim that young children are not good at discourse pragmatics.

There are multiple reasons for the gap between studies arguing for late development of discourse pragmatics on one hand, and studies of Japanese postposing on the other. One possible reason is that the two parties are looking at different phenomena. For example, children may not do well in scrambling, because it requires them to process at least three constituents (two NPs and one predicate). On the other hand, postposing requires a minimum of two constituents. Another possible reason for the seeming conflict is that studies that argue for late discourse-pragmatic development are often experimental, while the studies of postposing that indicate early pragmatic awareness are mostly naturalistic. Children as young as two years old may show their discourse pragmatic competence only in real life, not in experimental/game situations. In fact, De Cat (2003), who argue that French-speaking two-year-olds encode topics in an adult-like manner, also analyzes instances of left and right dislocation produced in naturalistic situations.

In addition to the analysis of audio data mentioned at the beginning of Section 5, these two points will be examined in the future study. I conclude for now that Japanese postposing produced in naturalistic situations can be a useful indicator of two-year-olds' emerging discourse pragmatics.

References

- Batman-Ratyosyan, N., & Stromswold, K. (2002). Morphosyntax is easy, discourse/pragmatics is hard. *Proceedings of the Annual Boston University Conference on Language Development*, 26(2), 793–804.
- Clancy, P. (1985). The acquisition of Japanese. in D. I. Slobin (Ed.), *The crosslinguistic study of language acquisition, vol.1: The data*. (pp. 373–524). Hillsdale, NJ: Lawrence Erlbaum.
- De Cat, C. (2003). Syntactic manifestations of very early pragmatic competence. *Proceedings of the Annual Boston University Conference on Language Development*, 27(1), 209–219.
- Guerriero, A. M. S, Cooper, A., Ohima-Takane, Y; & Kuriyama, Y. (2001). A discourse-pragmatic explanation for argument realization and omission in English and Japanese children's speech. *Proceedings of Boston University Conference on Language Development*, 25, 319–30.
- Ishii, T. (1999). The Jun Corpus. Unpublished.
- Kuno, S. (1973). *The structure of the Japanese language*. Cambridge, MA: MIT Press.
- Lambrecht, K. (1994). *Information structure and sentence form: Topic, focus, and the mental representations of discourse referents*. Cambridge: Cambridge U Press.
- Lust, B. & Wakayama, T. K. (1979). The structure of coordination in young children's acquisition of Japanese. In Eckman F. & Hastings A. (Eds.), *Studies in first and second language acquisition* (pp. 134–152). Rawley, MA: Newbury House Publishers.
- MacWhinney, B. (2000). *The CHILDES project: Tools for analyzing talk*. Mahwah, NJ: Lawrence Erlbaum.
- Miyata, S. (2000). The TAI corpus: Longitudinal speech data of a Japanese boy aged 1;5.20–3;1.1. *Bulletin of Shukutoku Junior College*, 39, 77–85.
- Ono, T., & Suzuki, R. (1992). Word order variability in Japanese conversation: Motivations and grammaticization. *Text*, 12(3), 429–445.
- Schaeffer, J. (2000). *The acquisition of direct object scrambling and clitic placement: Syntax and pragmatics*. Amsterdam: John Benjamins.
- Schaeffer, J., & Matthewson, L. (2005). Grammar and pragmatics in the acquisition of article systems. *Natural Language & Linguistic Theory*, 23(1), 53–101.
- Shibatani, M. (1990). *The languages of Japan*. Cambridge: Cambridge University Press.
- Shimojo, M. (1995). Focus structure and morphosyntax in Japanese: Wa and ga, and word order flexibility. Doctoral dissertation, State University of New York at Bualo.
- Skarabela, B., & Allen, S. (2002). The role of joint attention in argument realization in child Inuktitut. *Proceedings of Boston University Conference on Language Development*, 26, 620–30.
- Sugisaki, K. (2005). Early acquisition of basic word order: New evidence from Japanese. *Proceedings of the Annual Boston University Conference on Language Development*, 29(2), 582–591.
- Takahara, P. & Peng, F. C. (1981). Gojun toochi. in Peng, F. C. (Ed.). *Nihongo no danjosa: Male-female difference in Japanese* (pp. 97–115). Tokyo: The East-West Sign Language Association.

- Wexler, K. (1996). The development of inflection in a biologically based theory of language acquisition. In Rice, M. L. (Ed.). *Toward a genetics of language* (pp. 13–144). Mahwah, NJ: Lawrence Erlbaum.