

Co-constructions in English and Japanese Revisited: A quantitative approach to cross-linguistic comparison¹

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1. Background

This paper compares co-constructions in English and Japanese. We define a co-construction as 'a (syntactic) sentence constructed by more than one speaker'.² For example,

Ex.1 (ENGLISH) (A and B talk about Uluru, formerly called Ayers Rock)

- A. Imagine naming this fantastic object <after>.
- B. <After> some public servant. (Note: <Brackets> indicate an overlap.)

Ex.2 (JAPANESE) (Mizutani, 1984, English translation added by the authors)

- A. Kinoo atami no hoo de ookina jishin ga....
Yesterday Atami (=place name) of direction in large earthquake SUB
Yesterday, in the Atami area, a big earthquake...
- B. Ee, arimashita ne.
Yes, existed PTCL
Yes, occurred (,didn't it?).

Japanese conversation has often been characterized as 'collaborative' or 'cooperative', especially compared to English (Furo, 2001; Matsuda, 1988; Maynard, 1997:133; Mizutani, 1984; 1988). Mizutani (1984) claimed that the high frequency of co-constructions, along

¹ This study was originally conducted as part of a joint research project by the authors and KIBAYASHI Rie. An earlier version of this paper was presented at the 9th International Pragmatic Conference, Riva del Garda, Italy, July 10-15, 2005.

² The word 'syntactic' is included in the definition in order to avoid confusion with a 'discourse sentence' (discussed in subsection 4.1 of this paper), which is defined in prosodic and pragmatic, as well as syntactic, terms.

with that of backchannels, is one of the salient features that characterize such a conversational style. She interpreted this 'cooperative' conversational style as a manifestation of the Japanese people's 'orientation towards building good personal relationships' (1984:278 Translated from Japanese by the authors). Furo (2001) and Matsuda (1988) also provide cultural explanations to account for this supposed characteristic of Japanese conversation.

While the high frequency of backchannels in Japanese seems to have been generally recognized (Furo, 2001; Matsuda, 1988: 64; Maynard, 1989: 168), that of co-constructions has been a controversial point.

In contrast to Mizutani's claim, Ono & Yoshida (1996) reported that co-constructions are 'rare' in Japanese conversation³ and attributed this 'rarity' of co-constructions to a pragmatic constraint in Japanese. They argued that Japanese speakers generally consider it impolite to finish another speaker's sentence, and particularly so when the second speaker is not directly involved in the event described in it. In the latter case, according to Ono & Yoshida (1996), the second speaker is considered to be 'intruding on the private territory of another speaker', as in the following example.

Ex.3 (ENGLISH) (Ono & Thompson, as cited in Ono & Yoshida, 1996:121)

D: I don't have any time for basketball.

G: [B]ecause you're working twelve hours. (Note: Periods added by the authors)

In this example, the second speaker completes the sentence started by the first speaker, even though he/she is not directly involved in the described event. According to Ono & Yoshida (1996), this type of co-constructions are frequently found in English but rare in Japanese because the second speaker would be considered to be intruding on the other speaker's territory of information.

Hayashi & Mori (1998) focused on co-constructions in Japanese and, in contrast to Ono & Yoshida's (1996) claim, concluded that co-constructions are 'not rare' in Japanese. Drawing on Schegloff's (1993) argument, however, they also cautioned against cross-linguistic comparisons of the frequency of interactional phenomena such as co-constructions because according to them, the 'basis of comparison cannot be established clearly' (Hayashi & Mori 1998: 89). With regard to the pragmatic constraint on co-constructions suggested by Ono & Yoshida (1996), they questioned the effect of such a

³ Ono & Yoshida's (1996) definition of co-construction is 'a syntactic unit (i.e. phrase, clause, and sentence) produced by more than one speaker, in which the utterance by the first speaker is taken by the second speaker as a part of his/her unit' (1996:116). This definition overlaps very closely with the one used in this paper (a 'sentence' constructed by more than one speaker) since 'sentence's in our definition include those the second speaker attempted to complete but stopped for some reason before completion.

constraint, arguing that 'so much in someone's "private territory" can become public or "sharable"' (1998:90) through interactive processes.

Against this background, the main purpose of our study is to compare the frequency of co-constructions in English and Japanese, using data gathered under controlled conditions. A cross-linguistic comparison of the frequency of co-constructions is worthwhile not only because this has been a controversial issue, but also because of the possible application of the results to various areas of inquiry including language learning/teaching and cross-cultural communication. We also hope that by using data obtained under controlled conditions, such as the relationship between, and the gender of, the participants, we may be able to gain a more accurate and deeper understanding of co-constructions while also exploring the factors possibly affecting their occurrence.

2. Data

Table-1 summarizes the data used in this study. The data was gathered from two different participant relationships; non-acquaintances and friends/family members; Non-acquaintances represent a relatively large socio-psychological distance between the participants, and friends and family members a smaller distance. We used more than 5 hours (319.5 min.) of data recorded from spontaneous, face-to-face conversations between female speakers. The conversations were all dyads, except for a portion of one conversation.

Table-1: Data used in this study

Language	Participant Relationship	Mode	Conversations	Sex	No. of Participants
Japanese	Non acquaintances	Face to face	30 conv. · 90min.	Females	2
	Friends		5 conv. · 130min.		
English	Non acquaintances (Aust)*		8 conv. · 24min.		2 (3 in 1 conv.)
	Friends, family (US)*		3 conv. · 75.5min.		

* Australian English. ** U.S. English (acquired as both audio data and transcripts from Du Bois, Chafe, Meyer, & Thompson (2000)).

Comparing this database with the data used in the two previous studies introduced earlier, it can be seen that the conditions were controlled more thoroughly in this study (Table-2).

Table-2: Data used in Ono & Yoshida (1996) and Hayashi & Mori (1998)

Study	Language	Participant Relationship	Mode	Conversations	Sex	No. of Participants
Ono & Yoshida (1996)	Japanese	'Spontaneous, informal conversations'		19 conv · 100min	Not controlled	2 to 5
	English	Examples were taken from Ferrara (1992), Lerner (1991) and Ono & Thompson (to appear) ⁴				
Hayashi & Mori (1998)	Japanese	Adult peers	Face to face & telephone	17 conv · approx 300min	Not controlled	2 to 4

3. General Methodology

The following steps were taken in this study. First, we gathered data under comparable conditions mostly from our corpora of spoken Japanese and English and partly from another source (Du Bois et al. 2000).

After identifying the co-constructions in the data as defined in this paper, we calculated the frequency of them using three standards; frequency per minute, per 'discourse sentence' (discussed below), and per speaker change. As Schegloff (1993) and Hayashi & Mori (1998) pointed out, comparison of the frequency of interactional phenomena is not a simple task since the identification of a valid standard of comparison can be problematic. Multiple standards were used in this study to compare the frequency of co-constructions from different perspectives and to ensure validity of the results of our comparison.

Finally, in order to investigate the existence of the pragmatic constraint on co-constructions as proposed by Ono & Yoshida (1996), we classified the co-constructions found in the data according to the 'territory' to which the event or state described in the sentence belongs.

When the coding involved subjective judgment, such as in the segmentation of audio data into discourse sentences or the classification of co-constructions according to the

⁴ References as cited in Ono & Yoshida (1996).

'territory', two coders independently coded a portion of the data. We then checked the inter-coder reliability using Cohen's Kappa (Bakeman & Gottman, 1997) and ensured it was at or over the level generally considered satisfactory.

4. Results

4.1 Frequency of co-constructions in Japanese and English

In this section, we show the results of comparison of the frequency of co-constructions using three standards; frequency per minute (Table-3), per 'discourse sentence' (Table-4) and per speaker change (Table-5).

Table-3: Frequency of co-constructions per minute

Language	Participant Relationship	No. of co-constructions	Total time (min.)	Frequency (number of co-constructions/minute)	Average interval (in minutes)
Japanese	Non acquaintances	62	90	0.69	1.45
	Friends	47	130	0.36	2.77
English	Non acquaintances	6	24	0.25	4.00
	Friends, Family	12	75.5	0.16	6.29

Table-3 shows the frequency of co-constructions per minute. Compared in terms of time, we can see that co-constructions occurred more frequently in Japanese than in English, and between non-acquaintances than friends or family members. For example, co-constructions occurred 0.69 times per minute on average in the Japanese non-acquaintances data, and 0.16 times per minute in the English friends/family data.

Table-4: Frequency of co-constructions per 'discourse sentence' (Non-acquaintances data only)

Language	Participant Relationship	No. of co-constructions	No. of discourse sentences	Ratio of co-constructions to all discourse sentences
Japanese	Non acquaintances	62	3021	2.1%
English	Non acquaintances	6	661	0.9%

Table-4 shows the frequency of co-constructions calculated using the total number of discourse sentences as the denominator. In other words, it shows the ratio of co-constructed sentences to all discourse sentences in the data. A discourse sentence is defined as 'a sentence in interaction' and generally corresponds to a syntactic sentence but is identified also in prosodic and pragmatic terms (Usami, 2003). For example, a 'one-word sentence', or an elliptical sentence can be considered to be a full discourse sentence depending on its prosodic and pragmatic environment. Only the non-acquaintances data was used for this comparison since the discourse sentence segmentation of our friends/family data is still in progress.

The results in Table-4 are consistent with those based on time (Table-3). Between non-acquaintances in our Japanese data, co-constructions occurred more than twice as frequently as in the equivalent condition in English.

Table-5: Frequency of co-constructions per speaker change

Language	Participant Relationship	No. of co-constructions	No. of speaker changes	Percentage (C.C./S.C.)
Japanese	Non acquaintances	62	3510	1.8%
	Friends	47	3474	1.4%
English	Non acquaintances	6	588	1.0%
	Friends, Family	12	620	1.9%

Next, Table-5 shows the frequency of co-constructions calculated using the total number of speaker changes as the denominator. In other words, it shows what proportion of all speaker changes in our data took the form of co-constructions. Following Clancy et al. (1996), we judged a 'speaker change' to have occurred when a second speaker took a recognizable turn whether it was a full turn or a backchannel.

The results shown in Table-5 are consistent with those based on the other two standards (Table-3 & Table-4) for the first three categories; The frequency was highest for Japanese non-acquaintances, followed by Japanese friends, and lowest for English non-acquaintances. However, the frequency of co-constructions in the English friends/family data, which was the lowest per minute among all categories, is much higher when calculated per speaker change. As shown in Table-5, a higher proportion of speaker changes took the form of co-constructions in the English family/friends data than in the equivalent condition in Japanese.

4.2 'Private territory' as a pragmatic constraint on co-constructions ⁵

In this section, we classify the co-constructions found in our data according to the territory of information to which the described event or state belongs. We put each co-construction in one of the following three categories; 1) the described event/state belongs to the first speaker's territory, 2) it belongs to the second speaker's territory, or 3) it is judged to be neutral or cannot be clearly classified. We excluded the friends/family data from this

⁵ Regarding the concept of 'private territory of information', there seems to be a difference in emphasis between Ono & Yoshida (1996) and Hayashi & Mori (1998). According to Kamio (1994), which Ono & Yoshida (1996) drew on to explain the 'rarity' of co-constructions in their data, a speaker's private territory of information refers to 'a conceptual category which contains information close to the speaker him/herself' (Kamio 1994, cited in Ono & Yoshida 1996: 121). Kamio (1994) also states that his concept of territory of information is based on the notion of psychological distance between a given piece of information and the speaker/hearer (Kamio, 1994: 90).

Hayashi & Mori (1998) view the private territory of information as something more dynamic. They state that 'so-called "speaker's private territory" is not some static organization...' (1998: 90), and argue that '[w]hat is considered to belong to one speaker's private territory at one moment in the interaction can be recast as something "shared" in the next moment' (1998: 91). It seems that their concept of territory of information refers more to the accessibility of information (i.e. 'known/unknown') rather than psychological distance.

In this study, we followed Kamio's (1994) original definition, since this is the concept that Ono & Yoshida (1996) claimed to have a constraining effect on the occurrence of co-constructions in Japanese.

analysis since in conversations among friends or family members, it was often difficult for us to determine whose territory a particular piece of information belongs to. In conversations between non-acquaintances, on the other hand, this was a fairly straightforward task. In the following exchange, for example, A is describing her long commute to B, whom she has never met before. The topic of her commute, therefore, clearly belongs to A's territory, rather than B's.

Ex.4 (JAPANESE) (A describes her two-hour commute by train.)

- A. Rokujihan gurai demo moo minna tatte masu kara, dakara kaette, jikan wa kakaru keredomo suwareru to iu imi de wa
 Six-thirty about even already everybody standing is since, so rather, time PTCL takes although can sit QUOT sense in PTCL....
Even at around 6:30 [in the morning], many passengers have to stand, so though it takes me a long time [to commute], in the sense that I can sit,
- B. Raku de wa irassharu wake desu ne.
 Easy PTCL be (Honorific) case be PTCL
It's more comfortable for you.

We thus sorted the co-constructions in our non-acquaintances data by the territory of information to which the event or state described in the sentence belongs. The result is shown in Table-6.

Table-6: Co-constructions sorted by 'private territory'

Co-constructions in Japanese non-acquaintance data	Event/state belonging to the first speaker's territory	Event/state belonging to the second speaker's territory	Neutral/Unclear
62	30	14	18

As shown in Table-6, in our Japanese non-acquaintances data, the described event or state belongs to the first speaker's territory in about half of the co-constructions (30/62). This result suggests that Japanese speakers do not refrain from producing co-constructions even if the event or state described in the sentence belongs to the first speaker's private territory.

5. Analysis

To sum up the results above, Mizutani's claim that co-constructions occur more frequently in Japanese than in English was found to be valid in our data when time or the number of discourse sentences was used as the standard of comparison (Table-3 & 4). When the number of speaker changes was used for comparison, however, the result did not show such a clear pattern. The proportion of speaker changes which took the form of co-constructions was higher in Japanese in the non-acquaintances data but not so in the friends/family data (Table-5).

Within the Japanese data, co-constructions occurred more frequently between non-acquaintances than between friends (Table-3 & 5).

Finally, as discussed in subsection 4.2, we could not confirm the existence of a pragmatic constraint on co-constructions as suggested by Ono & Yoshida (1996). Rather, the Japanese speakers in our non-acquaintances data did not refrain from producing co-constructions at all even if the event or state described in the sentence belongs to the first speaker's private territory.

Three points can be raised from these results. First, can the differences found in the frequency of co-constructions, whichever standard of comparison we are to use, be interpreted as indicating the difference in the degree of collaboration or cooperation by the speakers of the two languages, as suggested by Mizutani (1984)? Second, what enabled co-constructions to occur more frequently among non-acquaintances in Japanese even though there is relatively less information shared by them than by friends? Finally, what can be the motivation for the more frequent occurrence of co-constructions between non-acquaintances in our Japanese data?

First, regarding how we should interpret the differences in frequency between the two languages, whichever standard of comparison is used, it is important to note that in this study, we focused on co-constructions as a form (i.e. a syntactic sentence constructed by more than one speaker) and not necessarily as a realization of a participant's intent. The link between co-constructions as a form and the speaker's intent, such as collaboration or cooperation, must be re-examined through further research. As Schegloff (1993) pointed out, a speaker's intent can be realized through a number of different means, and identifying all of them is not a simple task. Not all of the co-constructions found in our data may be of collaborative or cooperative nature, either. Also, as demonstrated by Ono & Yoshida (1996), some of the syntactic differences between Japanese and English influence the occurrence of co-constructions. A Japanese speaker can, for example, complete another speaker's sentence by changing it into a question or confirmation thanks to the sentence-final position of question markers in Japanese. Since there are substantial syntactic differences between the two

languages, it is expected that they affect the frequency of co-constructions considerably. Further, as we saw in Table-5, the proportion of speaker changes which took the form of co-constructions was higher in English than in Japanese for the friends/family category. This result indicates that although friends or family members in English do not produce co-constructions as frequently (in terms of time) as their counterparts in Japanese, one reason for it is a relatively small number of speaker changes in their conversation. It seems reasonable to expect that when speakers change less frequently per minute in one language or context, the frequency of co-constructions per minute will also remain low. For these reasons, although we found co-constructions do occur more frequently in Japanese than in English when compared per minute or per discourse sentence, we do not necessarily agree with Mizutani (1984) that such a difference directly reflects the difference in the degree of collaboration or cooperation by the speakers of the two languages.

Second, regarding how co-constructions can occur frequently between non-acquaintances when there is a relatively small amount of shared information, we found that many co-constructions in our data were made possible by lexical cues or the content of the first speaker's utterance, as shown in the next example.

Ex.5 (JAPANESE) (B is the first person to take a maternity leave in her office.)

- A. Ima made no kata wa doo nasatte itan...?
Now until of people TOP what doing (honorific) were
What did (pregnant) women do up to now?
- B. Ima made wa kekkonshita, kekkonshite tsuzukeru hito ga mazu,
Now until TOP married, marry (self-repair) and continue person SUB in the first place
Up to now, to begin with, people who got married and continued to work.
- A. Aa inai.
Oh, not exist.
Oh there's been no one (who's done that).

In Example-5, A and B are discussing B's pregnancy and maternity leave. Just before A's first line in this example, B said that she was the first person to take a maternity leave in her office. A then asked B how the other expecting women had managed without taking a maternity leave. To this B started replying, but before she completed her sentence, A took over and completed it with 'Aa inai'. In this example, although A did not have access to the information about B's workplace, she was able to predict the ending of B's sentence, largely because of the lexical item 'mazu' which is usually used with a negative predicate. We thus found that the second speaker can use various resources within the sentence started by the

first speaker, as well as in the prior discourse, to predict and supply the ending of the sentence. In other words, prior sharing of information is not necessarily required for the production of co-constructions.

Finally, in order to analyze why non-acquaintances produced more co-constructions than friends in our Japanese data, we need to consider the kind of topics people often discuss when they first meet. In our data, non-acquaintances always introduced themselves to each other first, exchanging information about their names, occupations, and places of residence, for instance. This explains why more than half of the co-constructions which occurred among non-acquaintances described an event or a state belonging to the first speaker's territory. The fact that co-constructions occurred more frequently in this context, in which speakers try to get to know each other and reduce the socio-psychological distance between them, seems to suggest that co-constructions can be used as a means to display positive politeness toward the other speaker. The fact that there is less amount of shared information between non-acquaintances may even enhance the effect of such a display of politeness; The second speaker can show that she and the first speaker share the same values and ways of thinking, or in other words 'stand on the same ground', by displaying that she can predict and complete the first speaker's sentence even without access to the particular information included in it.

Sato & Okamoto (1999) compared Japanese conversations under two conditions and found more 'cooperative' features such as frequent backchannels among friends than among family members. They suggested that in very intimate relationships such as those between family members, speakers can express themselves freely without using many cooperative linguistic features. Our results also suggest that co-constructions perform interactional functions including display of politeness, which may account for the differences in frequency between different participant relationships.

6. Conclusion

In this paper, we saw that co-constructions occurred more frequently in Japanese than English when the frequency was compared per minute or per discourse sentence. This difference, however, should not be interpreted as directly indicating the difference in the degree of 'collaboration' or 'cooperation' among participants because such an intent of the participants may be realized through different means in different languages and also because syntactic differences affect the occurrence of co-constructions as well. Further, the fact that the proportion of speaker changes which took the form of co-constructions was higher in English than Japanese for one data category indicates that the relatively low frequency of co-constructions in English per minute at least partially results from the low frequency of

speaker changes in English in certain contexts. We also found that in Japanese, co-constructions occurred more frequently between non-acquaintances than between friends, which likely suggests that in Japanese, co-constructions are used as one of the preferred means to display positive politeness among non-acquaintances.

Due to the relatively small number of data sets, especially in the friends/family data, we need to be aware that the results obtained in our study may not generalize beyond the particular settings or the individual participants. Further research with a larger number of data sets is needed to achieve a higher level of generalizability. We hope to have demonstrated, however, that a comparison of the frequency of interactional phenomena, such as co-constructions, can be made valid through the use of data obtained under controlled conditions and that of multiple standards of comparison, and that the results of studies such as this one can serve to examine our instincts or impressions about cross-linguistic differences.

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