CHANGE IN INTERCLAUSAL RELATION: UNIVERSAL SIDE OF SECOND LANGUAGE ACQUISITION

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1. BACKGROUND AND RATIONALE

This study is based on the logitudinal interlanguage data of a nine year old Japanese girl who is acquiring English as a second language in a natural setting.

This study has the following two objectives:

- 1. To identify the relationships between the linguistic forms and functions in an interlanguage, and to describe the changes these relationships undergo over the period of ten months.
- 2. To find out whether the changes in the interclausal relation in the interlanguage system provide evidence for the syntacticization hypothesis proposed by Givon(1979).

The syntacticization phenomenon mentioned in the second objective above was first noted by Givon(1979). As the result of his extensive studies of the differences between the diachronically earlier form of a language and its later development, between pidgin and creole, child and abult language, and between unplanned-informal and planned formal speech, Givon found a common tendency of movement from one extreme end of a scale to another. In spite of the fact that these four sets of communication systems are not related to each other, the directions and processes of the movement each system undergoes as it proceeds from the former constituent to the latter in each set are surprisingly similar. He thus sees a language universal here, and advocates a hypothesis to explain this phenomenon. This phenomenon is called syntacticization, and the two extreme ends of the scale are termed the pragmatic mode and the syntactic mode, respectively.

In the pragmatic mode, communication heavily relies on its pragmatic environment. Pragmatic presupposition, vocabulary, word order and phonological patterns play major roles there. This mode is characteristic of the former constituents of the sets, i. e., the diachronically earlier form of a language, child language, pidgin, and informal speech.

In contrast, the syntactic mode makes elaborate use of morphology and syntax as machinery to express case functions and meanings. This mode is found in the latter constituents of the sets, i. e., the diachronically late development of a language, adult language, creole and formal speech.

The differences in these two modes are illustrated by Givon (1979) (see the chart below)².

This study fucuses on Section(b) of the chart below and attempts to discover whether the shift from "loose conjunction" to "tight subordination" also occurs in the change of interclausal relations in the subject's interlanguage. In addition, It attempts to find out whether Givon' hypothesis that syntax arises out of pragmatic relations also holds true here, by means of a close examination of three representative changes in these interclausal relations.

	Pragmatic Mode	Syntactic Mode
(a)	topic-comment structure	subject-predicate structure
(b)	loose conjunction	tight subordination
(c)	slow rate of delivery (under several intonation contours)	fast rate of delivery (under a single intonational contour)
(d)	word-order is governed mostly by one PRAG- MATIC principle: old information goes first, new information follows	uord-order is used to signal SEMANTIC case-func- tions) though it may also be used to indicate pragmatic-topicality relations)
(e)	roughly one-to-one ratio of verbs-to-nowns in discourse, with the verbs being semantically simple	a larger ratio of nouns-over-verbs in discourse, with the verbs being semantically complex
(f)	no use of grammatical morphology	elaborate use of grammatical morphology
, (g)	prominent intonation-stress marks the focus of new information: topic intonation is less prominent	very much the same, but perhaps not exhibiting as high a functional load, and at least in some languages totally absent

2. METHOD

2. 1. Subject

The subject of this study is a nine year old Japanese girl, Kazuko, who was born on March 15, 1976. Kazuko came to the United States with her parents and two younger brothers (aged six and one) on December 3, 1984, and in the same month, she enrolled in the third grade of a public elementary school serving an international, affluent neighborhood in Bethesda, Maryland. Before leaving Japan, Kazuko had had no exposure to English. Japanese had been the only language spoken to her. Therefore, her first encounter with English was in the local American elementary school, and she has acquired mainly in the classroom and through her playmates.

2. 2. Time Period

I began studying the development of Kazuko's English on February 8,1985 when she was 8.11. Between February and June, 1985, I visited her home monthly and since July, 1985 twice monthly, gathering a total of at least one and a half hours of recorded speech data per month. The frequency of observation increased since July, 1985 in order to keep up with her rapid progress in English.

2. 3. Data Collection

The data collection was conducted in a natural settings where Kazuko, her younger brothers, a native English speaker assistant and I played happily together. Whenever we played together, I constantly reminded Kazuko and her six year old brother (the other could not speak yet) that they had to use English as one of (the native English speaker speaker assistant) us could not understand Japanese. The tapes were transcribed immediately after each session, and transcriptions were made in traditional orthography except in those cases where a more accurate phonological record seemed necessary.

2. 4. Corpus

The corpus analyzed in the present study consists of the data described above. The corpus contains ten samples of data based on the four-week period in which the data was collected. That is, Sample 1 comes from the first month of data collection, which was February, 1985, and Sample 10 comes from the last month, which was November, 1985.

ANALYSIS

3. 1. Application of "Form-to-Function" Analysis

This analysis applies some of the basic procedures of the "function-to-form" mode of analysis as Long and Sato(1984)define³, for they well suit the purposes of this study described above.

Thus, the analysis starts with a question, "How is a clause in Kazuko's interlanguage connected to another?", and follows the nature of the change in such interclausal relations. Section 3.2. describes the early paratactic constructions in multi-clausal utterances and the functional relations among clauses in such constructions. Section 3.3. focuses on the distributional pattern of the two types of relations: coordination and subordination. A shift from coordination to subordination is clearly shown. Finally, in Section 3.4., detailed investigations of the syntactic development of three representative relations are conducted to demonstrate the process of syntacticization phenomenon.

3. 2. Early Paratactic Constructions

Interclausal relations necessarily require at least two clauses. They are seen either in a sequence of utterances, each of which has at least one clause, or an utterance with more than two clauses (a multi-clausal utterance).

These constructions begin to appear as early as in Sample 2. In addition to the one-word utterances which dominate the early stages, Kazuko learns to put her thoughts into a clause, and then quickly learns to hold more than two clauses in an utterance. It is noticeable, however, that in earlier stages, until sample 4, most of these utterances juxtapose two or more clauses without any syntactic conjunctions, as shown below.

(A sequence of utterances with more than one clause for each)

(Kazuko is explaining one scene from Little Black Sambo. In the story, Sambo gives his shoes to a tiger.)

2-186: K: Shoes is tiger give. (Sambo gives his shoes to the tiger.)

B: He gives the tiger shoes.

2-187: K: Sambo is (with a gesture of crying) cry!

(NOTE: The number before each utterance is the utterance number for each utterance. For example, 2-186 identifies the utterance as the 186th utterance of Sample 2. K: Kazuko, B: Betsy: The native assistant.)

(A multi-clausal utterance)

(Kazuko, one of her younger brother, the native assitant and the writer are playing

cards.)

4-178: K: O. K. Give me the joker, give you this. (=O. K. If you give me the joker, I'll give you this.)

Note that the two clauses presented in each set are not unrelated, but rather are pragmatically tied to each other. The internal functional relation between them is that of subordination (a cause and the effect in the first example and a condition and the subsequent result in the second). In fact, none of Kazuko's juxtaposed clauses are unrelated to each other, but have some king of internal coherence. It is interesting that as early as three or four months after being exposed to the target language for the first time, she can already construct internally coherent multi-clausal utterances in it.

I examined the nature of the functional relations between clauses in these paratactic multi-clausal constructions, and found both coordinations and subordinations. They are considered as material to be lexicalized or grammticalized later as I will describe in the following sections.

3. 3. Coordination and Subordination

3. 3. 1. Coordination

The first devices which appear to connect these already functionally related paratactic clauses are "and" and some other coordinating conjunctions. They appear as early as in Sample 2(see Table 1) and dominate the interclausal relations in Kazuko's interlanguage until subordinating devices of the later stages begin to develop.

In earlier samples, where only coordinating conjunctions are available, Kazuko sometimes uses coordinating conjunctions to express functionally subordinated relations, as demonstrated below.

5-150: K: No, this can jump and we can go this way. (=No, because this[a piece of a game we were playing] can jump, we can go this way.)

All the five coordinating conjunctions which appear in the corpus are listed below with one example each.

A. and

e.g. 4-167: You pick up the Betsy's card, and you pick up the Satoshi's card.

B. but

e. g. 5-238: I'm not move, but you can go.

C. and then

e. g. 5-295: You see, elephant is so hungry, and then elephant finds a fruit.

D. then

e. g. 6-380: We walk almost, ahm, we can't see, then, firework's finished.

\mathbf{E} . so

e.g. 8-128: I want to do put something on here, so I put "IMAI" on it...

3. 3. 2. Subordination

Subordination is syntactically more complicated than coordination. The devices which appear in the corpus are divided into three categories based on the grammatical functions of the subordinating clauses. The three categories are (1) adverbial, (2) nominal, and (3) adjectival.

First of all, adverbial subordination is linguistically encoded by subordinating conjunctions just like coordination. Five conjunctions are used in the present corpus, and they are listed with an example below.

A. if

e.g. 5-132: If you like Checker, put your hand up!

B. because

e. g. 7-389: Koji was crying because he likes chocolate.

C. before

e. g. 8-173: Before I came here, I just live three days or two days in my mother's mother's house.

D. until

e. g. 10-254: I didn't change my dress until I finish my book.

E. when

e.g. 9-35: When I went to camp, I roded a horse.

Nominal subordination creates a nominal clause. The devices for this are either the conjunction "that" or the "wh-" interrogative pronouns. The examples from the corpus are given below.

A. that clause

e.g. 8-27: Satoshi told me that you spell GUM.

7-375: But we didn't know he's eating.

B. wh-interrogative clause

e.g. 8-6: And now I tell you what my teacher is.

10-154: I don't know why we learn.

The final category is adjectival. It is a connection by means of relative clauses which modify the preceding nouns. Examples are given below.

e.g. 9-284: There's table that you have to sit.

10-431: That's what I thought.

4. 4. Frequency Distribution of Interclausal Relations

Table 1 presents the frequency distribution of all the interclausal relations I have described

above, along with the total number of utterances in each sample. From the columns of "Total of Coordination" and "Total of Subordination", one can observe the first dominance of coordination over the all interclausal relations and the gradual expansion of the use of subordination. In other words, since we can assume that coordination is generally looser than subordination,⁵ Table 1 shows one of the features of syntacticization—a shift from loose conjunction to tight subordination.

In addition to the macro-level observation of distribution conducted above, micro-level analyses are necessary in order to examine the internal change in Kazuko's interlanguage constructions. Developmental changes of some of the typical interclausal relations will give some insight into what is happening during the shift from loose coordination to tight subordination we have seen above. The following sections will illustrate the process through which interclausal relations expressed as coordinations come to be reanalyzed as relations of subordination, and lexicalized or / and grammaticalized into tighter syntactic structures. Along with examples from the corpus I will show three typical processes: (1) Coordination to adverbial subordination, (2) Coordination to nominal subordination and (3) Coordination to adjectival subordination.

TABLE 1
FREQUENCY DISTRIBUTION OF INTERCLAUSAL RELATIONS

	Total Number of Utterances	COORDINATION					Total Number	SUBORDINATION							Total
				and			of Cordi- nation #(X)	Adverbial					NowInel	Adjectivel	Mumber of
		nnd f	but.	then #	then	FO #		15		*	until	when		,	Subordi- nation #(x)
1	12	0	0	0	0	0	0 (0)	0	0	0	0	0	0	0	0(0)
2	171	4	0	0	0	0	0(100)	٥	0	0	0	0		0	0(0)
3	58	0	0	0	0	0	0(0)	0	0	0	0	0			0(0)
4	193	25	2	0	0 .	0	27 (100)	0	0	0	. 0	0 '			D(0)
5	323	20	10	39	1	0	70 (93.3	4	0	0	0	0	,	•	8 (8.7)
	408	31	39	.115	0	2 -	197 (90.0	14	3	1	0	0		4	22 (10. 0)
7	475	59	32	104	1	4	200 (81.3	13	20	0	0	0		6	46 (18.7)
8	50A	40	36	87	4	40	177 (74. 4	18	17	1	0	3	20	2	61 (25. 6)
9	331	30	11	74	1	5	121 (80.7	3	2	0	0	12	10	2	29(19.3)
10	488	72	38	03	4	30	207 (73. 9	5	18	0	1	19	27	3	73 (28. 1)

3. 5. Developmental Sequence of Some Interclausal Relations

3. 5. 1. From Coordination to Subordination (1): Advervial

Some of the interclausal relations which are potentially relations of subordination, are first expressed by means of coordinating conjunctions, and later become differentiated by subordinating conjunctions. The example below clearly demonstrates this developmental change in one sequence of utterances, since it is thought to be taken from a transitional stage.

(Kazuko was talking about the trip she took with her family. On their way to go home, she got car-sick.)

7-178: Come back, and two, three hours, two hours (=When we came back, it took two or three hours to come home), and then, I don't like to rode, ah, ride, ah, cars, trains, and then, I... (With a gesture of throwing up)HAKUTTE NANTE IUNO(What is the English expression for "to throw up")?

G: Threw up.

M: You threw up?

7-179: K: Threw up two times.

M: Really?

7-180: K: Because I don't like to ride.

(Note: K: Kazuko, G: Genine: The native assistant, M: Miyuki: The writer)

The functional relations between the two clauses: "I don't like to ride" and "I threw up two times" is of interest here. Kazuko repeats "I don't like to ride" twice with "threw up two times" in the middle. However the conjunctional device to connect the first "don't like to ride" and "I threw up two times", and that to connect "I threw up two times" and the second "I don't like to ride" are different (see the illustration below).

7-178-179: I don't like to ride. I threw up two times. 7-179-180: I threw up two times. I don't like to ride.

The first conjunction is coordination and the second is subordination. From the context, however, it is obvious that the underlying semantic relation between the two clauses is that of the cause and effect. In the first relation, Kazuko's interlocutors' interpretation of this meaning totally depends on the discourse-functional environment because the coordinating conjunction "and" does not convey the meaning of "cause and effect" in itself. In contrast, in the second relation this semantic relation is lexicalized into the subordinating conjunction "because" which conveys the meaning of "cause and effect" in itself. Thus, it is demonstrated here that the intended interclausal relation is first expressed by using a pragmatic means(i. e. from the context), and later expressed by using a linguistic means(i. e. by the conjunction "because").

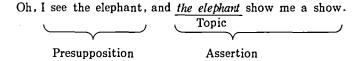
4. 5. 2. From Coordination to Subordination in : Nominal

This section follows the developmental sequence moving from simple coordination of two clauses to more complex relations of nominal subordination with the verb "see" in the center.

The first example is from Sample 5.

(Kazuko is talking about what she saw at a zoo.) 5-294: K: Oh, I see the elephant, and the elehant show me a show.

In this utterance, the two clauses, "I see the elephant" and "the elephant show me a show" are functionally related to each other with the first one as the presupposition to the second one, but only loosely connected by a coordinator "and" (see the illustration below).



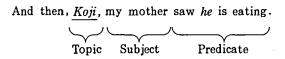
They are just juxtaposed with the semantically neutral "and", and the underlying semantic relation between the two clauses is not expressed linguistically.

The second example is from Sample 7.

(Kazuko is telling us about her visit to the Harshey Park with her family. In one of the exhibition buildings, Koji, one of her younger brothers eats half of a big chocolate bar before her mother notices.)

7-378: And then, Koji, my mother saw he is eating.

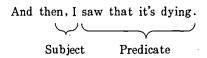
In this utterance, although the topic of the sentence, Koji (one of Kazuko's younger brothers), is presented before the main clause (probaly a variation of a topic-comment order), the clause including the topic is embedded as a subordinate clause to the main clause, "my mother saw—" (see the illustration below).



The last example is from Sample 8.

(Kazuko is explaining how her mother cooks crabs in a pot.) 8-342: And then, I saw that it's dying.

The subordinate clause in this example reveals even a further syntacticized structure with the emergence of the conjunction "that". With the help of this grammatical device, the embedded clause, "it's dying" can now firmly establish its status as a subordinate clause to the main clause, "I saw—" (see the illustration below).



The developmental sequence from Utterance 5-294 to 8-342 evidently indicates some features of syntacticization: that is, the development from loose conjunction of pragmatic structures into tighter subordination with more use of morphological devices and the shift from early topic-comment structures to subject-predicate structures while economizing the rate of delivery. But the shift is also of interest from the viewpoint of transferability of a syntactic structure from the first language to the second. Kazuko's first language,

Japanese, has a linguisitic device (a particle) "NO" to nominalize a sentence, just like its English equivalent, "that." The interlingual relationship between Japanese and English in this case is "categorical congruence (i.e., both languages have comparable categories)" to borrow Zobl's term. It has been claimed in the past that these areas allow for a positive transfer, and the language learning process would be accelerated. Thus it would have been possible for Kazuko to transfer the construction rule of the category "NO" in order to connect two sentences. Nevertheless, she starts with a pragmatic word order without any morphological device to nominalize the second sentence as we have seen in Utterance 7-378. This fact may provide evidence that syntax grows out of the pragmatic mode regardless of the nature and transferability of the concerned linguistic construction.

The same type of development as described here is introduced by Givon(1979). ⁷ Using an example from Biblical Hebrew, Givon demonstrates that the sentential complements as we have seen in Utterances 7-378 and 8-342 arose from "the looser, paratactic blends" as seen in Utterance 5-294.

3. 5. 3. From Coordination to Subordination in: Adjectival

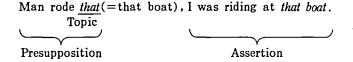
This section presents progressive analysis of the change from coordination with the possibility of adjectival subordination to subordination with an embedded relative clause. Since Japanese, Kazuko's first language, does not possess a linguistic device equivalent to English relative pronouns, the developmental sequences mapped out below are free from any linguistic transfer from the first language.

The first example is from Sample 7.

(Kazuko is telling us her visit to Niagara Falls with her family. In the museum beside the falls, her mother takes a picture of Kazuko when she gets on a boat with a historical story.)

7-295: I was riding at that boat who man rode that (=I was riding at that boat which the man rode)

This utterance comes from the earliest stage where relative clauses are first used. Here, the modified noun "that boat" is repeated in the relative clause as a the pronoun "that." '9 This makes it easier to see the case relation between the modified noun and other constituents in the relative clause, and further helps to infer the prototype behind this more syntacticized structure (see the illustration below).



I was riding at that boat who man rode <u>that.</u>

Topic

Subject Predicate

As illustrated above, it can be assumed that Utterance 7-295 has a paratactic structure with two clauses in its underlying structure. The proto-type structure is more pragmatic since the interpretation of its meaning depends on the pragmatic order of presenting information: the presupposition precedes the assertion. In this context, Utterance 7-295 is considered to have become more syntacticized, with its subject-predicate structure and its use of the morphological device of the relative pronoun "who" (although the usage does not match the standard English grammar rule).

From Sample 8 on, this repetition of modified noun in relative clauses disappears as is seen in the example below.

(Kazuko is explaining how her class eat lunch at school.)

9-284: K: There's table that you have to sit. (= There's a table that you have to sit at.)

Even more syntacticized are the two example from Sample 10 given below.

(Kazuko has received a letter from the administration office of a camp which she was in in the previous summer. She is explaining about the camp)

10-317: Camp Remlock was where I went to camp.

(Kazuko is explaining how she wrote a report about George Washington. She explains why she wrote a particular section in the report.)

10-431: That's what I thought.

In both examples, the modified nouns which used to be repeated as in Utterance 7-295 are absorbed into the relative adverb "where" in the first example and into the relative pronoun "what" in the second example. In terms of speed of delivery and weight of functional load of the related grammatical morphemes, there may be said to be ultimate forms since standard English grammar does not have more syntacticized structure in this developmental sequence.

In conclusion, the developmental movement from Utterance 7-295 to Utterances 10-317 / 431 presents further evidence to verify Givon's hypothesis of syntacticization.

3. 6. Conclusion

As the result of the analysis above, I found the following two points.

- 1. Changes in the relationship between form and function in the interlanguage is systematic, and therefore, describable.
- 2. The changes in the interclausal relation in the interlanguage system provide evidence for the syntacticization hypothesis proposed by Givon (1979).

Thus, we may say that Givon(1979)'s claim about a language universal of syntacticization also holds true in the second language acquisition process examined in this study.

3. 7. Prediction of Kazuko's Interlanguage Development

As the result of the analyses in this chapter, we may say that the syntacticization in Kazuko's interlanguage will progress further with more exposure to the traget language. Her language will further approximate to the syntactic mode with more and better lexical and morphological coding devices.

NOTES

- T. Givon, "From Discourse to Syntax: Grammar as a Processing Strategy," in T. Givon (ed.), Syntax and Sematics, vol. 12: Discourse and Syntax (New York Academic Press, 1979), pp. 81-112.
- ² Ibid., p. 98.
- M. H. Long and C. J. Sato, "Methodological Issue in Interlanguage Studies: An Interactionist Perspective," in A. Davies, C. Criper and A. Howart (eds.), Interlanguage (Edinburgh: Edinburgh University Press, 1984), pp. 268-271.
- The use of grammatical terms in this chapter such as "coordination", "coordinating conjunction", "subordination" and "subordinating conjunction" is based on the definitions and explanation in R. Quirk and S. Greenbaum, A Concise Grammar of Contemporary English (New York: Harcourt Brace Jonanovich, Inc., 1973).
- See, for example, Quirk and Greenbaum (1973)'s discussion on subordination, p. 309. Givon(1979) also presents some cases where "looser paratactic" coordination develops into "tightly-bound" subordination over time.
- 6 H. Zobl, "A Direction for Contrastive Analysis: The Comparative Study of Developmental Sequence," TESOL Quarterly, 16, 2, 1982, p. 172.
- ⁷ Givon (1979), op. cit., pp. 93-94.
- For example, Japanese does not possess a relative marker morphology unlike many other languages in the world. For further explanation of the differences in relative clause pattern between English and Japanese, see, for example, S. Gass, "Language Transfer and Universal Grammatical Relations," in S. Gass and R. Selinker, Language Transfer in Language Learning (Rowley, Mass.: Newbury House, 1983), pp. 69–82.
- Some languages in the world have this kind of noun retention (or pronoun retention) in the relative clause as a grammatically correct form. See Gass (1983), Table 1, p. 75.