

# THE MAJORITY INFLUENCE IN ENGLISH-CHINESE-JAPANESE TRILINGUAL ACQUISITION\*

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This paper investigates the cross-linguistic influence in early trilingual acquisition involving English, Chinese and Japanese. Especially it focuses on checking the plausibility of the Majority Influence (Cenoz 2003, Clyne 1997), which is caused by a linguistic feature shared by two of the three languages being transferred to the third language in a trilingual constellation. Through the longitudinal utterance data of an English-Chinese-Japanese trilingual child (2;1-2;7), who has a Japanese-speaking father, a Chinese-speaking mother, and goes to a English daycare center (8 hours for 2days/week at the time of the study), it was found that the child produces errors, which are predicted by the Majority Influence. For example, the child produced ungrammatical sentences with head-initial NegP or VP in Japanese which are clearly influenced by the majority linguistic features shared by the two languages, i.e. Chinese and English. On the other hand, we have found no Majority Influence errors regarding wh-movement in English where it is predicted that the child would produce wh-in-situ questions more often in English by the majority linguistic feature in Japanese and Chinese. We discussed that this is due to the potential ambiguity in Japanese input caused by scrambling and ellipsis, which cancels out the majority factor in the constellation.

**Keywords:** early trilingualism; cross-linguistic influence; majority influence; language dominance; head parameter; wh-movement

## 1. Introduction

Hoffman (2001) distinguished different types of trilinguals, including children growing up with two languages at home that are different from the language of the wide community and the bilingual children who become trilingual via immigration and third language learner. This paper

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focuses on the first type, which can be referred to simultaneous trilinguals. Research on the trilingualism is still in its infancy (Unsworth 2013). The most studies on simultaneous trilinguals involve observational case studies with rather little sentence-internal linguistic data, focused on the question of e.g. early language differentiation (Montanari 2009a, 2009b, 2010, 2011, Quay 2008, 2010) or potential effect of reduced input (Yang and Zhu 2010, Barnes 2006, 2011, Place and Hoff 2011).

For example, Quay (2008) conducted a case study with a two-year-old girl (-2;4) named XiaoXiao, who has a bilingual father (American English native/ fluent in Japanese), a trilingual mother (Mandarin Chinese native/Japanese fluent/English fluent), and lives in Tokyo, Japan where she attends a daycare (weekdays for 7h/day from 0;5, and 8.5h/day from 1;5). Both parents use one-parent-one-language approach (mother-Chinese, father-English). The findings include that Xiaoxiao prefers to speak English or Japanese to her father, English, Japanese, or Chinese to her trilingual mother, and that Xiaoxiao's preference for Japanese comes out particularly when she addresses both parents together, which shows that it serves as a *lingua franca* in her family. Also, it was mentioned that the child spoke mainly Japanese in the monolingual daycare setting. Based on these findings, Quay concludes that a Chinese-English-Japanese trilingual child at age of two is aware of which languages the father/mother could handle best, and can select languages according to her interlocutor's linguistic knowledge in terms of their native language as well as the language they speak to her.

On the other hand, there are few qualitative studies, looking at the sentence-internal linguistic data of early trilingual child, more specifically, how the three languages influence each other (i.e. Cross-linguistic Influence; henceforth the CLI) in early trilingual acquisition. Thus, the goal of this paper is to shed light on the CLI pattern of a trilingual child by looking at the longitudinal linguistic data, more specifically, of an English-Chinese-Japanese 2 years old child, who has Japanese-speaking father, Chinese-speaking mother, and lives in the U.S.A.

The section 2 briefly reviews the cross-linguistic influence in early bilingual acquisition before moving on to the CLI in trilingual acquisition, where we introduce the Majority Influence, which is resulted from a linguistic feature shared by two of the three languages being transferred to the third language. Then, I will make some predictions in English-Chinese-Japanese acquisition based on this Majority Influence hypothesis. Section 3 describes the actual study and shows its result, where it is shown that the child produced ungrammatical sentences with head-initial NegP or VP in Japanese which are influenced by the majority linguistic features shared by the two languages, i.e. Chinese and English. The section 4 discusses the result of the study and the section 5 concludes the paper.

## 2. Effects of the Mixed Input: Cross-linguistic Influence (CLI)

### 2.1. The CLI in Early Bilingual Acquisition

Although the CLI in early trilingual acquisition has been paid little attention, the possibility that the two grammars of a bilingual child may interact each other has been investigated vigorously in the past decades. For instance, Grosjean (1982) claims that only the dominant<sup>1</sup> language

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<sup>1</sup> "dominance" is broadly defined as "the condition in which bilingual people have greater grammatical proficiency in, more vocabulary in, or greater fluency in one language or simply use one language (i.e., the dominant language) more often" (Genesee et al., 2004, p. 80)

interferes with the weaker one. This influence underlies the so-called ‘dominant language hypothesis’ (Petersen 1988). However, this hypothesis dealt only with overt phenomena, such as lexical insertion. The most outstanding hypothesis was proposed by Hulk and Müller (2000) and Müller and Hulk (2001), which claim that children may transfer the use of a grammatical construction from language A to language B if (i) the construction in question is at the interface between two modules of grammar, and (ii) if the two languages overlap at the surface level. Based on this cross-linguistic influence hypothesis, many studies have been conducted and some general pattern of cross-linguistic influence in bilinguals is established as follows (Serratrice 2013).

- (a) Higher omission rates than those observed in monolingual acquisition  
e.g. Pervasiveness of null topicalized objects in German causes a higher rate of omissions in the Italian of a German-Italian bilingual child
- (b) Use of a construction in language A that is unattested in contexts in which it is not semantically or pragmatically appropriate in language B  
e.g. overt pronominal subjects in the Spanish of an English-Spanish bilingual
- (c) Use of a construction in language A that is unattested in monolingual acquisition  
e.g. pronominal relative clauses in the English of a Chinese-English bilingual

However, it is clear that these conditions on cross-linguistic influence are sufficient but not necessary. For instance, not all children exhibit cross-linguistic influence even when the relevant conditions are met (Gathercole, 2007).

## 2.2. The CLI in Early Trilingual Acquisition

In a trilingual acquisition, imbalanced relationship within trilingual constellation regarding overall typological distance is regarded as an important factor in triggering the CLI (Cenoz, 2003). As Clyne (1997) pointed out, if two languages may share a linguistic feature not found in the third language, it may lead to such a feature being transferred to the third language. Such a constellation is referred to as the *majority factor*, and its effect as *majority influence*. It could also prevent the transfer from a third language to first/second languages. This majority factor/influence is only manifested in the trilingual acquisition and not in bilingual counterpart, which makes it interesting to examine the CLI in early trilingual acquisition in this regard.

One of the few previous studies in this regard is conducted by Kazzazi (2011), which looked at compound nouns in two Persian-English-German trilingual children. In such a trilingual constellation, two of the three languages (English and German) behave similarly in attribution structures, i.e. German and English are both predominantly pre-modifying whereas Farsi is predominantly post-modifying as shown below.

(1) a. German	<i>roter Apfel</i>	<i>mein Apfel</i>	<i>Apfelbaum</i>
b. English	<i>red apple</i>	<i>my apple</i>	<i>apple-tree</i>
c. Farsi	<i>sib-e qermez</i>	<i>sib-e man</i>	<i>derakht-e sib</i>
	apple-ezafe red	apple-ezafe my	tree-ezafe apple
	=‘red apple’	=‘my apple’	=‘apple-tree’

Thus the majority influence hypothesis predicts that German and English, being majority, would cause children to make pre-modification errors in Farsi.

Data from a longitudinal naturalistic case study of the author's two children growing up with three languages (main data from Anusheh 1;0-/- some corpus of written notes from Irman) was investigated for such errors. The mother of the children is a German/English-native, knows Farsi, and speaks mainly in English to the children and German to the father. The father is a Farsi-native, German-fluent, and speaks only Farsi to the children. The children were growing up in Germany since birth and answering each of the parents mainly in German, but occasionally also in English (to mother) or Farsi (to father). Irman started day-care at the age of 3, then with only little knowledge of German, his active language use was English and Farsi. He became fluent in German and Farsi by 11;7. Anusheh spent up to 8 hours, 5 days a week in a day-care, from the age of 13 months, making German her sociopragmatically dominant language, and thus she was an early trilingual. The author notes that their language strength was German > Farsi > English.

Results show that the pre-modification in German, the dominant language, triggers pre-modification error in Farsi:

- (2) *surati kafšhā*      cf. F. *kafšhā-ye surati*  
       'pink shoes'                shoes-*ezafe* pink (Anusheh, 3;9.17)

However, converse instances of Farsi postmodification are observed in German and English, in compounding as shown below.

- |                                       |                        |                    |                   |
|---------------------------------------|------------------------|--------------------|-------------------|
| (3) <i>Schuhehaus</i>                 | G. <i>Hausschuhe</i>   | 'slippers'         | (Anusheh 1;5.1)   |
| (4) <i>schau mal, [autopōtsalait]</i> | G. <i>Polizeiauto</i>  | 'Look, police car' | (Anusheh, 2;3.12) |
| (5) <i>Keksebutter</i>                | G. <i>Butterkekse</i>  | 'butter biscuit'   | (Anusheh 2;4.15)  |
| (6) <i>Feuerlager</i>                 | G. <i>Lagerfeuer</i>   | 'campfire'         | (Anusheh 3;3.14)  |
| (7) key-car                           | E. car-key             |                    | (Irman 2;7.24)    |
| (8) bath-swimming                     | E. swimming-bath       |                    | (Anusheh, 3;3.26) |
| (9) dog-sheep                         | E. sheep-dog           |                    | (Anusheh, 3;3.27) |
| (10) wall-sky                         | Metaphorical neologism | 'ceiling'          | (Irman, 3;4.19)   |

The author extensively discusses the reason why both the children like post-modification although they hear and use the language presenting this model less than the German and English model taken together and have acquired the pre-modifying structure of German and English. Kazzazi claims that post-modifying compound is more iconic than a pre-modifying one, saying the ordering 'determined → determining element' is cognitively more motivated due to logical iconicity, i.e. first you mention what you want to talk about and then what you want to say about it (i.e. Topic-Comment order). It is claimed that the Farsi morpho-syntactic structure is conceptually closer to such language-external, ontogenetic iconic principles and thus serves as a trigger for overlaying the German and English language-internal morpho-syntactic structures. Thus, Farsi structures, though in the minority, 'win out' over the majority of the Germanic structures, contrary to the prediction by the majority influence.

Overall, because of the converse errors caused by the iconicity, it is not clear whether the pre-modification errors in Farsi in this study is due to the Majority Influence effect from German and English. Also, the errors can be explained by the dominant language hypothesis (Petersen 1988), by saying that the dominant language, German, influenced the grammar of a weaker language, Farsi. Thus, in order to test the plausibility of the effect, we need to show clearer cases with different kind of constructions in different trilingual constellation without the converse errors

caused by a language-external principles or the possibility of the dominant language influence.

### 2.3. Predictions in English-Chinese-Japanese Trilingual Acquisition

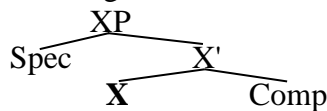
Based on the discussion above and the previous research, the research questions in the present research of an English-Chinese-Japanese 2 years old child are the following:

- (i) Are there any cross-linguistic influence pattern in Japanese-Chinese-English trilingual child's utterances similar to that of Kazazzi (2011)<sup>2</sup>?
- (ii) Is the majority influence (Clyne 1997) observed in his utterances?

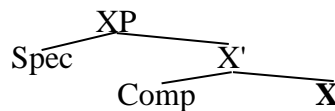
Now, considering the majority factor among Japanese, Chinese and English, there are mainly two linguistic features which are shared by two languages and not found in the third language, which may lead to majority influence, i.e. such features being transferred to the third language.

The first of such feature is the head parameter setting, where it is head-initial in Chinese and English but head-final in Japanese, based on the X-bar theory (Chomsky 1970):

(11) a. Chinese/English



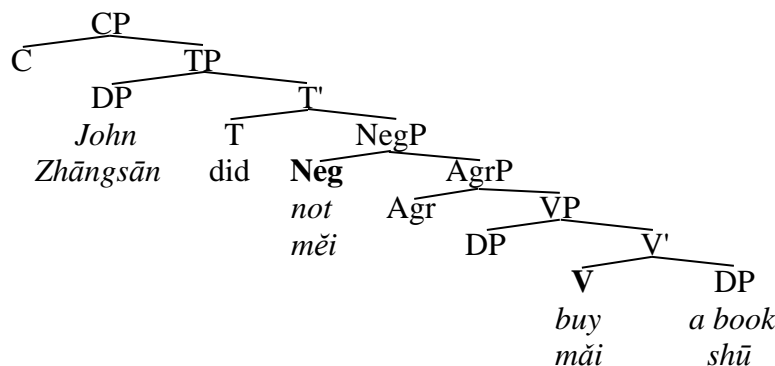
b. Japanese



This structural difference among 3 languages (Japanese/Chinese/English) is salient in e.g. the position of internal argument (object) of verbs or negation of a predicate as in (12). The tree structures are shown in (13), based on Chomsky (1995) and Ouhalla (1991).

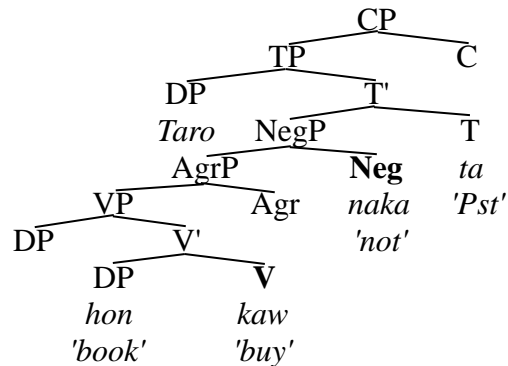
- (12) a. John did not [buy a book] English
- b. Zhāngsān měi [mǎi shū] Chinese
- not-Pst buy book
- c. Taro-ga [hon-o kawa] nakat-ta Japanese
- Nom book-Acc buy -not-Pst

(13) a. English/Chinese



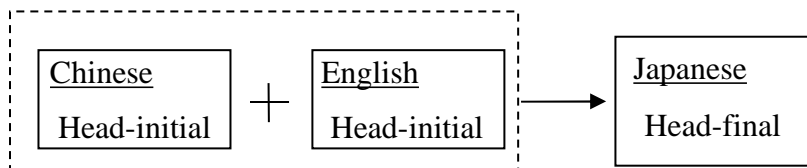
<sup>2</sup> Here I cannot look at the compounding since Japanese, Chinese and English share pre-modifying property.

## b. Japanese



Here, since the head is always in the initial position in a phrase in English or Chinese, the verbs in these languages precede their objects while Japanese verb follows its object because it is located in the final position within a phrase. Similarly, the Neg head, which hosts a negative item like *not*, precedes a predicate in English or Chinese but follows it in Japanese due to its different positions (initial/final) in a phrase. Based on this, we can predict that the head-initial property as a shared linguistic feature in English and Chinese would be transferred to Japanese, the third language. Thus, it is expected that an English-Chinese-Japanese early trilingual would produce errors in Japanese, in which a verb precedes an object or negation precedes a predicate. This is summarized below.

- (14) Prediction 1: Majority factor from Chinese and English causes the errors in Japanese, e.g.  
 (a) a verb precedes its object, (b) negative element precedes a predicate



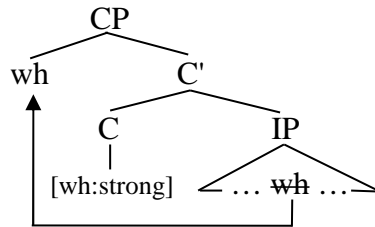
Another linguistic feature shared by two of the three languages is *wh-in situ*, i.e. a *wh* phrase stays in the original position in Japanese/Chinese *wh*-questions, but moves to the beginning of the sentence in English, as shown below.

- (15) a. **When**<sub>i</sub> did [ the visitors arrive t<sub>i</sub> ]? English  
 b. **Who**<sub>i</sub> do [ the parents think [that the children saw t<sub>i</sub>]]  
 (16) a. [ kengakusha-wa **itsu** tsuki- mashita- ] ka ? Japanese  
 visitor -Top when arrive Pst Q  
 'When did the visitors arrive?'  
 b. [ ryoshin-wa [kodomo-tachi-ga **dare-o** mita to] omoi- masu- ] ka ?  
 parents -Top child -Pl -Nom who-Acc see-Pst that think Pres Q  
 'Who do the parents think that the children saw?'  
 (17) a. [canguan de ren **shenme shihou** dao de ?] Chinese  
 visit Gen people what time arrive F  
 'When did the visitors arrive?'

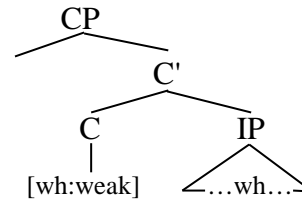
- b. [fumuqin renwei [haizimen kandao **shei** le]]?  
 parents think children saw who Pst  
 'Who do the parents think that the children saw?'

It is assumed (Chomsky 1995) that *wh*-phrase is base-generated in a canonical position and *wh*-features on a C head require checking (and thus movement) only if it is strong and that the feature is strong in languages like English, but weak in languages like Japanese or Chinese.

(18) a. English

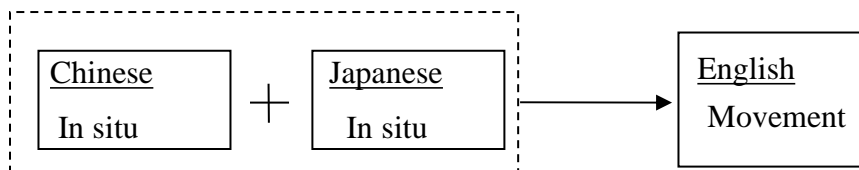


b. Japanese/Chinese



Based on this, the weak *wh* feature as a shared linguistic feature of Japanese and Chinese is predicted to be transferred to English, by which we expect that an English-Chinese-Japanese trilingual would make *wh-in situ* errors<sup>3</sup> in English, as a majority influence effect (Prediction 2).

(19) Prediction 2: Majority factor from Chinese and Japanese causes an error, i.e. *wh*-element appears in situ in English



Now we are turning to the present study on an English-Chinese-Japanese trilingual child in the next section to check if these predictions are borne out.

### 3. The Study

#### 3.1. Method

The study is based on the author's Japanese/(Mandarin) Chinese/English trilingual son, named Xun. His mother is a Chinese (Mandarin) native speaker and his father, a native Japanese speaker. The parents followed the one person-one language principle (Ronjat 1913) from the birth of the child, however since the family moved to the U.S. when he was 0;11, the parents try to speak English to him when it is appropriate (e.g. when reading a picture book in English). The mother was the primary caretaker since only father works outside during the day at the time of study. Conversation between parents were mainly in Japanese. The child regularly spent 2 days (about 8

<sup>3</sup> Wh-in-situ is possible in English when the set of possible answers is part of the common ground, e.g. echo questions (Pires & Taylor 2007). Thus, such cases are excluded from/not considered to be the errors here.

hours each) at a daycare center where he speaks with monolinguals (in English), from the age of 2 years and 5 months. Language strength (dominance) is calculated based on quantity/quality of cumulative exposure to each language from the birth, using the Utrecht Bilingual Language Exposure Calculator (UBiLEC; Unsworth 2013). His dominant language was Japanese, followed by Chinese and English (Japanese > Chinese > English) at the time of this study. The child mainly speaks Japanese to his father and Chinese to his mother, and sometimes uses/responses in English when he is spoken to in English<sup>4</sup>. His utterances are sometimes mixed with two or more languages<sup>5</sup>. Recordings (n=98, 10min-1hour), in addition to written notes, were made every 2-3 days before, during or after the dinner time at home where both parents are usually present. The present study looks at longitudinal data between the age of 1;0 and 2;7.

## 3.2. Result

### 3.2.1. Head Parameter Errors

As shown below, there are some ungrammatical instances where a verb precedes its object in his Japanese, as predicted by the majority influence (14: Prediction 1-(a)).

(20) F: Xunxun kore tabe-ru?  
           This eat-Pres  
           'Xunxun, do you want to eat this?'  
 X: chocolate! Xunxun **taberu chokoreeto!** (2;6.08)       cf. Xunxun chokoreeto tabe-ru<sup>6</sup>  
           Eat-Pres chocolate  
           'intended: Xunxun will eat chocolate'

(21) X: Xunxun karee tabe-ta  
           curry eat-Pst  
           'Xunxun ate curry rice'  
 F: tabe-ta no?  
       Eat-Pst Q  
 X: xunxun **tabeta karee** (2;6.08)       cf. Xunxun karee tabe-ta  
       eat-Pst curry  
       'intended: Xunxun ate curry rice'

His English/Chinese verbs, on the other hand, consistently precede their objects, suggesting no converse errors.

(22) Chinese  
 a. xunxun **xi shoushou** (2;3:23)  
       wash hands  
       'Xunxun washes hands'  
 b. baba **mǎi nori** (2;4,01)  
       Father buy seaweed(J)

<sup>4</sup> This conforms to the conclusion reached by Quay (2008, 2011), where it is argued that the Japanese-Chinese-English trilingual child can differentiate her language use (choice) at the early age of 2;0.

<sup>5</sup> The number of mixed utterances has decreased as he grows up, suggesting that it is resulted from vocabulary gap, rather than code-switching (cf. Montanari 2009a, 2009b, 2010, 2011).

<sup>6</sup> The grammatical counterpart of the sentences are shown here in *cf.*



'Daddy bought seaweed'

c. **kan shu** (2;6,10)

read book

(23) English

a. **open door** (2;4,01)

b. **Fixed it!** (2;6,02)

c. X: stop **stop your hands** (2;6,08)

M: mama hold your hands. No?

Also, there are some ungrammatical instances where a negative element *-ja nai* 'is not' precedes a predicate in Japanese, as expected by the prediction (14: Prediction 1-(b)).

(24) F: hai, gohan tabe yo

Ok, food eat Q

'Ok, let's eat this'

X: **janai** kore da (2;4,05) cf. kore janai

Is-not this Cop

'not this one'

(25) F: xunxun samui no?

cold Q

'Xunxun, are you cold?'

X: **Janai** samui (2;6,01) cf. samu-ku-nai

Is-not cold

cold-Infl-not

(26) F: Xun-kun okatazuke siyou

-Hon cleanup do-let

'Xun, let's clean up'

X: no

F: Thomas katazukete ii?

clean-up good

'Can I clean up the Thomas?'

X: **janai** katazuke! (2;6,04) cf. katazuke janai

is-not clean-up

(27) F: Xun kun, mou ne-you ka?

Xun-Hon already sleep-let Q

'Xun, let's go to bed now'

X: **Janai** onenne. Yom-ou **book!** (2;7,8) cf. Onenne janai. Book yomou

Is-not sleep read-let

'intended: I'm not going to bed, let's read books'

Again, there were no converse errors, as no converse orders were observed in negation in Chinese and English. Here are some examples of his utterances.

(28) a. zhei-ge bee, zhei-ge **mei you** bee. (2;03:29) Chinese

This-CL this-CL not have

b. M: Zhe-ge re yixia ba?

This-CL warm a little Q

- 'Shall I warm this up a little?'
- X: **Bu yao** (2;6,07)  
not need
- (29) a. F: Have you found one? English  
X: **Nothing** chocolate (2;5,16)
- b. F: What's this?  
X: **I don't know** (2;6,10)

The result is summarized in the table below (one-word utterances are excluded;  $p < 0.01$  by Fisher Exact Probability Test<sup>7</sup>):

	NegP Target order	NegP nonTarget order	VP Target order	VP nonTarget order
Japanese	3	4	3	4
English	2	0	9	0
Chinese	7	0	7	0

Table 1: Number of Phrases with non-/target Head Parameter Setting

### 3.2.2. Wh-Movement Errors

Regarding the prediction 2 in (19), I could not find any pieces of evidence for the predicted errors, as Xun's English wh-questions never had wh-phrase in situ, as shown below.

- (30) a. **Which** one like? (2;5,10)  
b. **Which** one book you like? (2;5,22)  
c. **Which** one papa like? (2;6,19)  
d. (playing with a train set)...stop. Hi this way. **Where** you going? (2;6,19)  
e. **How many** do you see? (2;7,11)

Also, there were no errors in Japanese/Chinese wh-question sentences either, i.e. wh-phrase appears correctly at the in situ positions, as shown below.

- (31) a. xunxun -de puppy **doko**? (2;4,1) Japanese  
-Gen(C) where  
'Where is my puppy?'
- b. kore **nanji** -da (2;4:05)  
this what-time -Cop  
'What time is this?'
- (32) Baba, gan (**shen**)ma ne? (2;5,18) Chinese  
daddy do what Q  
'What is daddy doing?'

<sup>7</sup> Combined NegP and VP tables and used 2x3 contingency table (Freeman and Halton 1951)

## 4. Discussion

The result of the study in the previous section shows that the CLI predicted by the Majority effect hypothesis is observed as expected. Specifically, the head-initial property of the majority languages (English and Chinese) caused the errors in Japanese (head-final language) in which heads appear in the initial position in phrases like NegP or VP, without converse errors in English or Chinese. Therefore, the prediction 1 was borne out. Also, it should be pointed out that the observed errors, e.g. verb-object/negation-predicate word order in Japanese, are not due to the “dominant language hypothesis” (Peterson 1988), by which it is claimed that only the dominant language (i.e. the language with greater proficiency, more vocabulary or greater fluency) interferes with the weaker one (Grosjean 1982), since Xun’s dominant language was Japanese at the time of the study (language strength: Japanese > Chinese > English) while it does not interfere with the weaker ones, i.e. Chinese or English. It was actually the other way around, i.e. the weaker languages Chinese/English interfere with the dominant language.

Now, regarding the *wh*-movement typology, we could not find the errors in English expected by the prediction 2, by which *wh*-in-situ property of the majority languages (Japanese and Chinese) should appear in the child’s English *wh*-questions. I claim that this has been caused by the ambiguity in Japanese input regarding the position of *wh*, which is due to its atypical syntactic operations. For example, Japanese has scrambling operation (Ross 1967=1986), which derives non-canonical word order where constituents can occur in a variety of orders without changing the meaning of the sentence. For instance in the following sentence, the object can be scrambled to the front of the sentence over the subject without meaning changes.

- (33) a.    S            O            V  
           Mary-ga   sono hon-o   yonda (koto)  
           Mary-NOM that book-ACC read (fact)  
           ‘Mary read that book’
- b.    O            S            V  
           sono hon-o   Mary-ga   yonda (koto)  
           that book-ACC Mary-NOM read (fact)  
           ‘Mary read that book’

Crucially, this same scrambling of object can apply to the *wh*-phrases, as shown below. Here, although there is no *wh*-movement as found in English, *wh*-phrase moves to the same surface position in Japanese.

- (34) a.    S            O            V  
           Mary-ga   nani-o    yonda no  
           Mary-NOM what-ACC read Q  
           ‘What did Mary read?’
- b.    O            S            V  
           **nani-o**   Mary-ga   yonda no  
           what-ACC Mary-NOM read Q  
           ‘What did Mary read?’

Another problematic example comes from ellipsis in Japanese, where any pronouns can be

dropped, as shown in (35B) below.

- (35) A: kono keeki -wa oishii. Dare -ga yaita no?  
 this cake -Top tasty who -Nom bake-Pst Q?  
 "This cake is tasty. Who baked **it**?"  
 B: shiranai. ki ni itta?  
 know-Neg. like-Pst?  
 "I don't know. Did **you** like **it**?"

Because of this rather atypical ellipsis property in Japanese, *wh*-phrase can appear at the beginning of the sentence, for example in cases like the following, where pronominal subject is elided and as a result object *wh*-phrase appears in the beginning of the sentence.

- (36) a. Kare/anata-wa nani-o tabeta no?  
 He/you -Top what-Acc eat-Pst Q  
 b. **Nani-o** tabeta no?  
 what-Acc eat-Pst Q  
 "What di you/he eat?"

My claim is that because the child gets the inputs like these (e.g. (34b) or (36b)), he might have mistakenly thought that the *wh*-phrases can be both at the sentence initial position and in situ in Japanese. That is, the value of the *wh*-movement feature is now, [English: movement], [Chinese: in situ] and [Japanese: both]. In fact, as the following table shows, about a half of the Japanese *wh*-question input (mainly from his father) in the transcript were such ambiguous cases with *wh*-phrases appearing at the sentence-initial positions.

	Unambiguous	Scrambling	Ellipsis	Total
Number	11	4	5	20
Percentile	55	20	25	100

Table 2: Japanese *wh*-question Input

This configuration now cancels out the majority factor, since there is no majority syntactic feature (neither sentence-initial nor *wh*-in situ). Therefore, we did not encounter the majority errors regarding the *wh*-movement.

## 5. Conclusion

This paper discussed the cross-linguistic influence of an English-Chinese-Japanese trilingual child (-2;7), who has a Japanese-speaking father, a Chinese-speaking mother, lives in the U.S.A. and goes to a English daycare center (8 hours for 2days/week). Through the longitudinal utterance data, we found that the English-Chinese-Japanese trilingual child produces errors, which are predicted by the Majority Influence (Cenoz 2003, Clyne 1997), caused by a linguistic feature shared by two of the three languages being transferred to the third language in a trilingual constellation. For example, the child uttered ungrammatical sentences with head-initial NegP or VP in Japanese which are clearly influenced by the majority linguistic features shared by the two

languages, i.e. Chinese and English. On the other hand, we have found no predicted Majority influence errors regarding wh-movement in English, where wh-phrases should appear in situ as in Japanese and Chinese. We discussed that this is due to the ambiguity in the Japanese input (by scrambling and ellipsis), which cancels out the majority factor in the constellation.

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