The Acquisition of English Articles by Japanese Adult and Child Learners[*]

YAMADA Kazumi[**], MIYAMOTO Yoichi[***]

I. Introduction

Errors in second language (L2) English article usage, under the generative approach to second language acquisition (SLA), have been studied widely by many researchers (e.g., Ionin, Ko and Wexler 2003, 2004, 2007, Ionin, Zubizarreta and Philippov, 2009, Hawkins et al. 2006, Trenkic, 2008, Snape, 2008, Zdorenko and Paradis, 2008). To account for errors in L2 English article usage, in an examination of domain-specific linguistic knowledge, Ionin, Ko and Wexler (2004 : hereafter, IKW) propose the fluctuation hypothesis (FH) alongside with the Article Choice Parameter (ACP). The hypothesis in point will be discussed in section II, but in essence, L2 learners fluctuate between two values of the ACP; the definiteness setting and the specificity setting, which results in non-native-like article choice if the setting is not the appropreate setting for the L2 being acquired. Recently, based on new data from Samoan and cross-linguistic evidence, Ionin, Zubizarreta and Philippov (2009: hereafter, IZP) refine the original proposal of IKW (2004), and propose new article groupings for the ACP.

Given IZP's new article groupings, the present study tests the FH with new data from Japanese L2 learners of English. The acquisition of articles by Japanese L2 learners of English has been discussed in the literature (e.g., Hawkins et al., 2006, Snape, 2008), but to date, no study investigates acquisition of articles, focusing on the FH with the new article

groupings. The present study examines whether the FH is equally applicable to both groups of learners, adults and children.

This paper is organized as follows. In section I, we first review the ACP and the FH proposed in IKW (2004), and introduce the new article groupings of the ACP in IZP (2009). In section II, we summarize IZP (2009). The discussion in this section sets the stage for our experiment. In section III, we report our experiment and results. In section IV, we discuss the implications of our findings for the FH focusings on the ACP. Section V concludes the paper.

II. Proposals by IKW (2004) and IZP (2009)

IKW (2004) focused on article substitution errors: L2 English learners overuse the definite article *the* in contexts where the indefinite article *a* is required. In particular, they examined the role of specificity (e.g., Fodor and Sag, 1982) in the errors in point.

According to IKW (2004), natural languages can be divided into two types. They argue that languages such as English use articles to mark [+/−definite] whereas articles in languages such as Samoan indicate [+/−specific] (see Mosel and Hovdhaugen 1992 for relevant discussion). The examples in (1) illustrate all the possible combinations of these two features in English (IKW, 2004: 8-10).

(1) English

a. Peter intends to marry a/this merchant banker – even though he doesn't get on at all with her.   [−def, +spec]

b. Peter intends to marry a/??this merchant banker – though he hasn't met one yet.

[−def, −spec]

c. I'd like to talk to the winner of today's race – she is my best friend!   [+def, +spec]

d. I'd like to talk to the winner of today's race – whoever that is; I'm writing a story about this race for the newspaper.   [+def, −spec]

Samoan also makes use of two articles; *le* and *se*; however, these two articles in Samoan mark specificity, but not definiteness: *le* for [+specific] and *se* for [−specific] feature as shown in (2).

(2) Samoan

a. [−definite, +specific]

'O	le	ulugāli'i,	fānau	l=a	lā	tama	'o	le
PRES	ART	couple	give birth	ART=Poss	3.du.	child	PRES	ART

teine   'o   Sina
girl   PRES   Sina
"There was a couple who had a child, a girl called Sina."
                    (IKW, 2004: 12 cited in Mosel and Hovdhaugen 1992:259, ex. 6.37)

b. [+definite, +specific]
   Māsani 'o   le   tamāloa   e   usua'i=ina   lava   ia.....
   used   PRES ART   man   GENR   get up early=ES EMPH   3sg
   'ae nonofo   'o   le   fafine   ma   l=a=na   tama   i
   but stay(pl.) PRES   ART   woman   and   ART=POSS=3.sg   child   LD
   le   fale
   ART   house
   "It was the man's practice to get up early and... while the woman stayed at home with her
   child."
                    (IKW, 2004: 12 cited in Mosel and Hovdhaugen 1992:259, ex. 6:38)

c. [−definite, −specific]
   'Au=mai   se   niu!
   take=DIR   ART(nsp.sg.) coconut
   "Bring me a coconut [no matter which one]!"

d. [−definite, −specific]
   Sa   fesili mai   se   tamaitai po=o   ai   l=o   ma
   PAST ask   DIR   ART(nsp.sg.) lady   Q-PRES   who   ART=Poss 1.exc.du.
   tama.
   father
   "A lady asked us who our father was."
                    (IKW, 2004: 13 cited in Mosel and Hovdhaugen 1992:261, ex. 6.46, 6.50)

e. [+definite, −specific]
   Alu i   se   tou   aiga   e   moe.   Pe se   tama a
   go   LD ART(nsp.sg.) 2.pl. family GENR   sleep. Q   ART(nsp.sg.) boy   POSS
   ai!
   who
   "Go to your family – whoever that may be – and sleep! [I wonder] whose boy you might
   be!" [said to a boy who is selling necklaces at night in front of a hotel]

f. [+definite, −specific]

Tapagai	lava	ulavale	l=o=u	pua'a	po='o
[term of abuse]	EMPH	troublesome	ART=Poss=2.sg.	pig	Q=PRES

ai	s=o=u	tamā.
who	ART(nsp.sg.)	father

"Oh you filthy little bastard, you pig, whoever is your father."

(IKW, 2004: 13 cited in Mosel and Hovdhaugen 1992:262, ex. 6.53, 6.54)

In short, in the English article system definiteness plays a crucial role while the Samoan article system is sensitive to specificity.

Considering this dichotomy between English and Samoan articles, IKW (2004) proposed the ACP, as shown in (3).

(3) The Article Choice Parameter
The Definiteness Setting: Articles are distinguished on the basis of definiteness.
The Specificity Setting: Articles are distinguished on the basis of specificity.

(IKW, 2004:15)

In addition, they claim that the choice of the ACP value is subject to the FH.

(4) The Fluctuation Hypothesis
a. L2 learners have full access to UG principles and parameter-settings.
b. L2 learners fluctuate between different parameter-settings until the input leads them to set the parameter to the appropriate value.

(IKW, 2004:20)

IKW's dichotomy is summarized in Table 1.

Table 1: English

	+definite	−definite
+specific	the	a
−specific		

Samoan

	+definite	−definite
+specific	le	
−specific	se	

However, partly based on Fuli (2007) and Tryzna (2009) who argue that [+definite] in Samoan is marked with *le* regardless of specificity, IZP (2009) proposed the new article groupings shown in Table 2 below.

Table 2: English

	+definite	−definite
+specific	*the*	*a*
−specific		

Samoan

	+definite	−definite
+specific	*le*	
−specific		*se*

Given the new article groupings in Table 2, the FH predicts that L2 learners of English would fluctuate in the specific indefinite context: they would overuse *the* with specific indefinites. However, they would not fluctuate with non-specific definites. In Section III, we turn to IZP's experimental results regarding this prediction.

III. IZP's (2009) Experimental Results

IZP (2009) examined L2 learners of English, whose L1 is Russian, an article-less language. They included both adult and child subjects in their study to investigate whether both groups make the same errors of *the* overuse with specific indefinites and overuse of *a* with non-specific definites. They revised the task used in IKW (2003, 2004) by providing a blank in which the participants had to fill independently, rather than giving three alternatives, *a/the/ Ø*. The task used was a written elicitation task, which included 60 short dialogues. They also added fillers, so the target items were 24 out of 60. The 24 items were categorized into four types of contexts, [+definite, +specific], [+definite, −specific], [−definite, +specific], and [−definite, −specific], each of which has six tokens. Example contexts are given in (5).

(5)

a. [+definite, +specific]: target *the*

Louise: Where's your mother?

Julie: She is meeting **the** principal of my brother's elementary school. He is a very nice man. He is talking to my mother about my brother's grade.

b. [+definite, −specific]: target *the*

Ruby: It's already 4p.m. Why isn't your little brother home from school?

Angela: He just called and told me that he got in trouble! He is talking to **the** principal of his school! I don't know who that is. I hope my brother comes home soon.

c. [−definite, +specific]: target *a*

Grandmother comes for a visit

Grandmother:Where is my little granddaughter Beth? Is she home?

Father: No…She is not going to be back till late. She is having dinner with **a** girl from class-her name is Angie, and Beth really likes her.

d. [−definite, −specific]: target *a*
Mother comes home
Mother: How did Peter spend the day at his grandmother's?
Father: He had a good time. He did his homework for tomorrow. Then he went outside and played with a little girl—I don't know who it was.
            Then he came back inside; and then I came and took him home.

Twenty-one adults (age: 18–22) and 18 children (age: 10–12) met the benchmark in their performance and were included in the final analysis. The FH predicts that L2 learners overuse *the* with specific indefinites. Their results show that only child learners appear to have access to the ACP because they made errors as predicted by the FH. Conversely, adult learners made the specificity distinction in definite contexts. In order to account for the adult L2 learners' behavior, which does not yield any fluctuation effects, IZP (2009) argued that adults used explicit strategies; that is, they found a statement of "explicitly denied knowledge" in a given dialog. Explicitly denied knowledge concerns the speakers' unfamiliarity with the referent. Conversely, "explicitly stated knowledge" concerns the speakers' familiarity with the referent. IZP (2009) argued that their adult L2 learners' behavior can be explained by both domain specific knowledge (i.e., the ACP) and explicit strategies. If explicitly stated knowledge is present in a dialog, L2 learners link it to *the*, while if explicitly denied knowledge is present (i.e., the case of the dialog in (5b) where the statement, "I don't know who that is." is involved), they link it to *a*. In this regard, IZP (2009) stated that "this strategy is based on learners' underlying sensitivity to specificity" (p. 355).

IV. The present study

The present study responds to the following two research questions:

(6)

a. Do Japanese child and adult L2-English learners make the same errors of *the* overuse in specific indefinite contexts?

b. Do Japanese child and adult L2-English learners make the same errors of *a* overuse in non-specific definite contexts?

The FH with the new article groupings in Table 2 predicts that fluctuation appears only with specific indefinites. In other words, the FH should give a positive answer to (6a), but a negative answer to (6b); they should make errors of *the* overuse in specific indefinite contexts. As for adult L2 learners, however, IZP (2009) observed that the choice of the value made by explicit strategies takes precedence over the one made by the ACP. Based on their

observation, we hypothesize that adult L2 learners overuse *a* in non-specific definite contexts where explicitly denied knowledge is involved.

1. Participants

The participants were 30 Japanese learners of English (with three English native speakers as controls). Eleven Japanese child learners and 19 Japanese adult learners participated in the experiment. English is not a primary means of communication for the participants. We tested child learners twice in order to confirm how they perform on the test items. We therefore set a benchmark in the first (pre-) test: if children gave a correct answer in type 5 (simple definite context: target *the*) and type 10 (simple indefinite context: target *a*) sentences, they were included in the main test. The sentence types 5 and 10 are those used in IKW (2004). Only 11 children met our benchmark, although 20 children participated in the pre-test. The child learners ranged in age from 7 to 12 and study English in a classroom once a week at the Osaka YMCA Tenoji. They began studying English between the ages of 2 and 6 years. The adult learners (age: 20-22) were university students. They took the Oxford Quick Placement Test (2001) and all were placed at intermediate level. Their first exposure to English was between 10 and 13 years of age. The three native English speakers each had the 1st grade on the Japanese Proficiency Test, and so were deemed to be advanced Japanese learners who had no difficulty in completing the questionnaire, in which the explanation of contexts was written in Japanese.

2. Materials

The forced-choice elicitation task was administered, which is similar to that used in IKW (2004). However, we revised the task in order to enable the child learners to fully understand the contexts where each test item was provided. We replaced dialogs with explanations of contexts. The explanations were in Japanese, and the target sentences were in English. The participants were told to choose one of the three alternatives, *a/the/ Ø*, for a singular noun involved in the target sentence. Words were carefully chosen so that child learners did not receive any extra-linguistic influence. Our task consisted of 40 items including 10 types of sentences, each type having four tokens. Examples of the test items are given below (with the underlined choice being the target).

Type 1 [+definite, +specific]: wide scope
Mary and Chris bought some books at a book store. He asked her to go out together soon. Then she asked him to wait for a minute, and said, "This is my friend's book store. I want to talk to (an, <u>the</u>, ---) owner of this bookstore."

Type 2 [+definite, −specific]: narrow scope
A raccoon suddenly disappeared three days ago. It seems that somebody stole it because its cage was broken. Children asked a staff member of the zoo how the affair had developed. Then the staff member said, "The police are trying to find (a, the, ---) suspect."

Type 3 [+definite, +specific]
John's father is about to go to the firm. He told his wife that he did not need dinner tonight since he would have dinner outside. She asked him who the person he is having dinner with is. He said, "I have dinner with (a, the, ---) manager of Hanshin Tigers–his name is Mayumi."

Type 4: [+definite, −specific]
Mary asked John who Laura had married. He just heard this news as a rumor, so he didn't know much about it. So he answered, "Laura married (a, the, ---) principal of a school in New York."

Type 5: [+definite, +specific]: simple definite
Mary's mother baked three small cakes. A chocolate cake, a cheese cake, and a fruit cake are on a plate. She asked Mary which one she wanted to eat. Mary said, "I like (a, the, ---) chocolate cake."

Type 6: [−definite, +specific]: wide scope
Monica's flight will arrive at the airport at 9:00. Mary came to the airport to meet Monica. Since Monica's hair is red, Mary thought she could find Monica immediately. However, the airport was so crowded that she could not find Monica. Then Mary asked a staff member at the airport, "I want to find (a, the, ---) red-haired girl; her flight arrived at 9:00."

Type 7: [−definite, −specific]: narrow scope
John's family moved to Osaka. Osaka is a convenient city, but the company John's father works for is a bit far from Osaka. His father asked his mother, "I want to buy (a, the, ---) new car."

Type 8: [−definite, +specific]
Chris saw Mary by chance. Mary looked so happy. Chris asked her what happened. Mary answered, "I saw (a, the, ---) player of the Hanshin Tigers."

Type 9: [−definite, −specific]
His mother said the dinner was ready. Chris immediately came down to the table. But John did not come out of his own room. It seems that John had dinner with someone outside. Chris said to his mother "John had dinner with (a, the, ---) friend."

Type 10: [−definite, −specific]: simple indefinite
Today is Sunday. John asked Mary what she would do. Then Mary seemed not to decide what she would do and said, "Maybe, I write (a, the, ---) letter to my grandmother."

We created two versions of the test (version A and version B), both of which consist of the same test items distributed differently on each test. This allowed us to detect any possible ordering effects. Our participants took one of the two versions of the main test.

3. Results
3.1 Control group

Table 3 shows that the three native English speakers selected the articles accurately. They categorically chose *the* in definite contexts but *a* in indefinite contexts except for type 8. The results for type 8 was ascribed to their interpretation of one item in the English sentence, "I saw (a, the, ---) hero of the soccer club!". The native English speakers interpreted *hero* as definite here, rather than specific, which lead them to use *the*. Given this interpretation, we can leave aside the peculiar results for type 8.

Table 3: Article choice in definite contexts (n=3)

	Contexts	*the*	*a*	Ø
Type 1	[+def, +spec] wide	12/12 (100%)	0/12 (0%)	0/12 (0%)
Type 2	[+def, −spec] narrow	12/12 (100%)	0/12 (0%)	0/12 (0%)
Type 3	[+def, +spec]	12/12 (100%)	0/12 (0%)	0/12 (0%)
Type 4	[+def, −spec]	11/12 (91.7%)	1/12 (8.3%)	0/12 (0%)
Type 5	[+def, +spec] simple	11/12 (91.7%)	0/12 (0%)	1/12 (8.3%)

Table 4: Article choice in indefinite contexts (n=3)

	Contexts	*the*	*a*	Ø
Type 6	[−def, +spec] wide	1/12 (8.3%)	11/12 (91.7%)	0/12 (0%)
Type 7	[−def, −spec] narrow	0/12 (0%)	12/12 (100%)	0/12 (0%)
Type 8	[−def, +spec]	3/12 (25.0%)	9/12 (75.0%)	0/12 (0%)
Type 9	[−def, −spec]	0/12 (0%)	12/12 (100%)	0/12 (0%)
Type 10	[−def, −spec] simple	0/12 (0%)	12/12 (100%)	0/12 (0%)

3.2 L2 learners

We first compare the results from the child and adult learners in terms of total accuracy scores, following factors such as age at the time of testing and age of first English exposure. We then examine the results of both groups in detail along with their native English speaker counterparts.

3.2.1 Comparison

We compare the two, adult and child learner groups. A t-test found no significant difference in total scores between the child group and the adult group (t(28) = −1.485, p = .159). Our data does not therefore support the hypothesis that the length of exposure to English plays a role in L2 acquisition. The total scores were also compared in the following ways: age at the time of testing, age of first exposure to English, and the adults' OPT score. We again found no significant correlation between the article total scores and any of these three variables: the age at the time of testing (r = .280, p = .133), the age of first exposure to English (r = .215, p = .253), and the adults' OPT score (r = .207, p = .395).

3.2.2 Child L2 learners

The children's results are given in Tables 5 and 6 below. Types 6 and 8 are colored grey where the FH with the new article groupings of the ACP predicts that fluctuation occurs.

Table 5: Article choice in definite contexts (n=11)

	Contexts	*the*	*a*	Ø
Type 1	[+def, +spec] wide	37/44 (84.1%)	6/44 (13.6%)	1/44 (2.3%)
Type 2	[+def, −spec] narrow	28/44 (63.6%)	13/44 (29.6%)	3/44 (6.8%)
Type 3	[+def, +spec]	26/44 (59.1%)	17/44 (38.6%)	1/44 (2.3%)
Type 4	[+def, −spec]	29/44 (65.9%)	13/44 (29.6%)	2/44 (4.5%)
Type 5	[+def, +spec] simple	16/44 (36.4%)	20/44 (45.4%)	8/44 (18.2%)

Table 6: Article choice in indefinite contexts (n=11)

	Contexts	*the*	*a*	Ø
Type 6	[−def, +spec] wide	19/44 (43.2%)	21/44 (47.8%)	4/44 (9.0%)
Type 7	[−def, −spec] narrow	9/44 (20.5%)	31/44 (70.5%)	4/44 (9.0%)
Type 8	[−def, +spec]	20/44 (45.5%)	20/44 (45.5%)	4/44 (9.0%)
Type 9	[−def, −spec]	21/44 (47.7%)	22/44 (50.0%)	1/44 (2.3%)
Type 10	[−def, −spec] simple	5/44 (11.4%)	32/44 (72.7%)	7/44 (15.9%)

Table 5 shows that the children chose the correct answer *the* at the rate of 60% or above and so did relatively well with definites. However, they did so in every context except for that of type 5. A repeated-measures ANOVA shows there was a statistically significant difference in the choice of the difinite article among the five types (F (4,40) = 4.389, p = .005)[1]. Since the rate of correct responce in type 5 is particularly low compared to other types, we briefly comment on type 5. The test item of type 5 is repeated below.

---

1) A multiple comparison (by LSD) found that there was a significant difference in *the* use between Types 1 and 2 (p < .05), Types 1 and 5 (p < .001), and Types 2 and 5 (p < .05).

Type 5: [+definite, +specific]: simple definite
Mary's mother baked three small cakes. A chocolate cake, a cheese cake, and a fruit cake
are on a plate. She asked Mary which one she wanted to eat. Mary said 'I like (a, the, ---)
chocolate cake.'

The target article here is *the*, but some children opted for *a* in this context, which may be
because the children did not have to point to one of the three cakes, but they just mentioned a
"kind" of cake because these three cakes are all different. This would have made them choose
a at the relatively high rate of 45.4% in type 5.

In indefinite contexts, on the other hand, the children showed fluctuation in specific
indefinite contexts: in type 6 *the* was selected 43.2%, and *a* 47.8% while in type 8 *the* was
selected 45.5% and *a* 45.5%. Thus, it is plausible that their behavior follows the prediction
made by the FH with the new article groupings. With types 7 and 10, the children could
choose *a* correctly at the rate of 70%. A statistically significant difference was observed in
correct *a* choice among types 6 through 10 ($F_{(4,40)} = 2.936$, $p < .05$). A multiple comparison
(by LSD) found that the child learners chose *a* in types 6 and 8 less than that in types 7 ($p
< .05$, $p < .05$ each) and type 10 ($p < .01$, $p < .05$ each). However, we observed unpredicted
fluctuation in type 9; the type 9 examples are intended to depict [−definite, −specific] context,
as shown below.

Type 9: [−definite, −specific]
His mother said the dinner was ready. Chris immediately came down to the table. But John
did not come out of his own room. It seems that John had dinner with <u>someone</u> outside. Chris
said to his mother 'John had dinner with (<u>a</u>, the, ---) friend.'

We speculate that all the contexts of type 9 involve *someone*. According to Fodor and Sag
(1982), *someone* has both referential and quantificational use. If this is correct, the children
in our study chose an incorrect answer *the* because they may have understood *someone* as a
referential expression, which may have created a pseudo fluctuation in type 9.

In summary, our child data indicates that they did relatively well in definite contexts while
they showed a fluctuation only with specific indefinites. Therefore, our child data provides
crosslinguistic support for the FH.

3.2.3 Adult L2 learners

Table 7 and 8 show the results of the adult learners. Overall, the adults correctly chose the
correct option with definites and indefinites. Interestingly, however, the results of the adult
learners are different from those of the child learners in four respects. First, the adult learners
performed relatively well with type 5 (correct choice of *the* 61.8% of the time). Second, they
chose *the* only 11.9% of the time in type 4. Third, they exhibited very little fluctuation with

specific indefinites. Fourth, the adults were not affected by the choice between the referential and quantification use of *someone*: they could choose the correct answer *a* 75.0% of the time in type 9.

Table 7: Article choice in definite contexts (n=19)

	Contexts	*the*	*a*	Ø
Type 1	[+def, +spec] wide	71/76 (93.4%)	3/76 (4.0%)	2/76 (2.6%)
Type 2	[+def, −spec] narrow	56/76 (73.7%)	13/76 (17.1%)	7/76 (9.2%)
Type 3	[+def, +spec]	53/76 (69.7%)	17/76 (22.4%)	6/76 (7.9%)
Type 4	[+def, −spec]	9/76 (11.9%)	59/76 (77.6%)	8/76 (10.5%)
Type 5	[+def, +spec] simple	47/76 (61.8%)	16/76 (21.1%)	13/76 (17.1%)

Table 8: Article choice in indefinite contexts (n=19)

	Contexts	*the*	*a*	Ø
Type 6	[−def, +spec] wide	18/76 (23.7%)	56/76 (73.7%)	2/76 (2.6%)
Type 7	[−def, −spec] narrow	5/76 (6.6%)	55/76 (72.4%)	16/76 (21.0%)
Type 8	[−def, +spec]	14/76 (18.4%)	58/76 (76.3%)	4/76 (5.3%)
Type 9	[−def, −spec]	3/76 (4.0%)	57/76 (75.0%)	16/76 (21.0%)
Type 10	[−def, −spec] simple	4/76 (5.3%)	63/76 (82.9%)	9/76 (11.8%)

In definite contexts, *the* was selected more than 60% of the time except for type 4, for an undetermined reason. A repeated-measures ANOVA shows there was a statistically significant difference in *the* choice among types 1 to 5 (F (4,72) = 23.027, p< .001). However, no significant difference was observed in the use of the definite article among types 2, 3, and 5. Type 4 may be worth examining viewed in the light of explicit strategies. The relevant test item is repeated below.

Type 4: [+definite, −specific]
Mary asked John who Laura had married. He just heard this news as a rumor, *so he didn't know so much about it.* So he answered 'Laura married (a, the, ---) principal of a school in New York.'

Note that a statement such as "...he didn't know so much about it..." was involved here since this context was non-specific. All the other three tokens of this context type also had such a statement. However, it should be noticed that the statement is apparently explicitly denied knowledge. The statement involved "the speaker's unfamiliarity with the referent." Following IZP (2009), we suggest that the adult learners used explicit strategies, which would have caused *a* overuse among the adult learners.

Alternatively, the adult's scores were somewhat higher in indefinite contexts than in

definite contexts. In all the indefinite contexts, the adult learners correctly selected *a* more than 70% of the time. No statistically significant difference was found among types 6 through 10 (A repeated-measures ANOVA, $F_{(2.539, 45.706)} = .390$, $p = .728$). Among the five types, only one pair, types 7 and 10, showed a statistically significant difference, although it is relatively weak ($p = .042$). Table 8 suggests that no overall fluctuation was observed in specific indefinite contexts in the adult data.

V. Discussion

Our findings related to the L2 learners' data are as follows.

a. Child L2 learners

Fluctuation was observed in specific indefinite contexts. This is accurately predicted by the FH with the new article groupings, which in turn implies that specificity does play a role in L2 grammar. On the other hand, the children were not sensitive to explicitly denied knowledge involved in the context of type 4: [+definite, −specific]. No clear contrast between type 2 and type 4 indicates that the child L2 learners did not use explicit strategies.

b. Adult L2 learners

Fluctuation was not observed in specific indefinite contexts. The adults made errors at a similar rate in all of the contexts except for one: non-specific definite contexts where they overused *a* nearly 80% of the time. Explicitly denied knowledge precisely predicts this very difference between child and adult L2 learners.

The results from the children are parallel to those in IZP (2009) in the relevant respect although the task used in the present study is a forced-choice elicitation task, while that in IZP (2009) is a written elicitation task. The adult's results also differ from the children's results in the way IZP predict. First, they exhibited overuse of *a* with non-specific definites. Following IZP (2009), we suggest that the Japanese adults used explicit strategies. Our L2 learners created their own rule such that *a* should be used when they did not know the relevant object regardless of definiteness; which appears to explain why our adult learners made errors of the overuse of *a* in non-specific definite contexts of type 4 but not in type 2 where explicitly denied knowledge is not involved.

In sum, within the framework of IZP (2009), we take our overall results to indicate that L2 learners, in general, fluctuate between the two settings of the FH.

VI. Conclusion

We have reported experimental results from Japanese adult and child L2 learners of English, and sought implications for the results for the FH given the new article groupings. Our results indicate that both children and adults access the ACP, although adult learners also use explicit strategies, as argued by IZP (2009). Our data, therefore, is fully consistent with the FH. However, the question of why fluctuation is observed only with specific indefinites remains. Note that within the minimalist framework (Chomsky 1995, 1999, 2000), we might consider language acquisition as a process of searching for the correct composition of features in the target language. In the present contexts, we could understand that the combination of [−definite] and [+specific] features in the D head is a source of the fluctuation observed by the present study. In our following project, we hope to answer why the combination of these two features yields fluctuation.

References

Chomsky, N. (1995). *The Minimalist Program*. The MIT Press.

Chomsky, N. (1999). *Derivation by Phase*. MIT occasional papers in linguistics 18. Cambridge, Mass.: MIT.

Chomsky, N. (2000). Minimalist Inquiry: The Framework. In R. Martin, D.Michaels, and J. Uriagereka ed. Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik. 89-156. MIT press: Cambridge, Mass.

Fodor, J. and Sag, S. (1982). Referential and quantificational indefinites. *Linguistics and Philosophy* 5, 355-398.

Fuli, L. T. (2007). Definiteness vs. specificity: an investigation into the terms used to describe articles in Gagana Samoa. Master's thesis, the University of Auckland.

Hawkins, R., Al-Eid, S., Almahboob, I., Athanasopoulos, P., Chaengchenkit, R., Hu, J., Rezai, M., Jaensch, C., Jeon, Y., Jiang, A., Leung, Y-k,I., Matsunaga, K., Ortega, M., Sarko, S., Snape, N., and Velasco-Zarate, K. (2006). Accounting for English article interpretation by L2 speakers. In S. Foster-Cohen, M. Medved Krajnovic and J. Mihaljević Djigunović (eds.), *EUROSLA Yearbook 6*, 7-25. Amsterdam: John Benjamins.

Hovdhaugen, E. (1992). Phonetic Vowel Length in Samoan. *Oceanic Linguistics*, 31, 281-285.

Ionin, T., Ko, H., and Wexler, K. (2003). Specificity as a grammatical notion: Evidence from L2-Engkish article use. In G. Garding & M. Tsujimura (eds.), *Proceedings of WCCFL 22*, pp. 245-258. Somerville, MA: Cascadilla Press.

Ionin, T., Ko, H., and Wexler, K. (2004). Article semantics in L2-acquisition: the role of specificity. *Language Acquisition* 12, 3-69.

Ionin, T., Ko, H., and Wexler, K. (2007). The role of semantic features in the acquisition of English articles by Russian and Korean speakers. In J. M. Liceras, H. Zobl & H. Goodluck (eds.), *The role of formal features in second language acquisition*, pp. 226-268. London: Routledge.

Ionin, T., Zubizarreta, M. L., and Philippov, V. (2009). Acquisition of article semantics by child and adult L2-English learners. *Bilingualism: Language and Cognition* 12, 337-361.

Snape, N. (2008). *The acquisition of the English determiner phrase by L2 learners: Japanese and Spanish. Saarbrücken, Germany.*

Syndicate, U.C.L.E. (2001). Quick Placement Test. Oxford: Oxford University press.

Tryzna, M. (2009). "Questioning the validity of the Article Choice Parameter and the Fluctuation Hypothesis: Evidence from L2 English article use by L1 Polish and L1 Mandarin Chinese speakers". In Second Language Acquisition of Articles, García Mayo, María del Pilar and Roger Hawkins (eds.), 67–86.

Zdorenko, T., & Paradis, J. (2008). The acquisition of articles in child L2 English: *Second Language Research*, 24, 227-250.