

The Acquisition of English Articles by Chinese Learners

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Abstract—English articles pose a lot of problems even after years of L2 English exposure and learning. The question is why it is so difficult to acquire these elements when a learner does not have them in their native language. This question points to a deeper reason that involves looking into the structure of L1 and L2 and understanding their differences. In this paper, we focus on Chinese learners of English, where Chinese is a language without articles. In order to find out more about the differences in the structure of the grammar between the elementary and advanced learners, we conducted a simple empirical study using a close test. The results show that there are differences between article use among elementary and advanced learners, and that advanced learners were more target-like in their article use than the elementary learners.

Index Terms—Chinese speakers, English articles, second language acquisition, UG access.

I. INTRODUCTION

It is a well-known fact that articles in English present difficulties for learners of English whose L1 lacks articles (Fen and Lu 2001 [1], Ionin, Ko and Wexler 2004 [2], Trenkic 2004 [3] 2008 [4]). These morphologically small elements, the use of which is well-defined in prescriptive grammar books, pose a lot of problems even after years of L2 English exposure and learning. The question is why it is so difficult to acquire these elements when a learner does not have them in their native language. This question points to a deeper reason that involves looking into the structure of L1 and L2 and understanding their differences. This fact is interesting because it reveals structural differences between the two languages and the way learners deal with these differences in the course of second language acquisition.

We focus here on Chinese learners of English, where Chinese is a language without articles. In order to find out more about the differences in the structure of the grammar between the elementary and advanced learners (we will call these grammars “interlanguage” grammars), we conducted a simple empirical study using a close test. The results show that there are differences between article use among elementary and advanced learners, and that advanced learners were more target-like in their article use than the elementary learners.

The article is organized as follows. In section 2, we review previous studies concerning the acquisition of articles in learners' L2 acquisition. In section 3, we present theoretical background on the L2 acquisition hypothesis. In section 4, we then introduce our research questions and hypotheses and also present the method of the current study. In section 5, we show results. In section 6, we discuss the main findings and

interesting results with the advanced learners. In section 7, we briefly conclude, and we mention questions for further study.

II. PREVIOUS STUDIES

In this overview, we are going to focus on three studies in the domain of article acquisition: Tania Ionin, Danijela Trenkic, Crystal Fen- Chuan Lu. We focus on these studies because they are relevant for the current study.

A. *Definiteness and Specificity*

Tania Ionin's study addresses the meaning of articles (Ionin, Ko and Wexler, 2004). The Ionin study showed that learners confuse two types of meaning when it comes to article use: specificity and definiteness. Commonly, *definiteness* is a common ground knowledge shared between speaker and hearer, and *specificity* is knowledge contained in the mind of the speaker only (Ionin, Ko and Wexler 2004). Some languages, such as English, encode definiteness rather than specificity in the article system. The examples (1) and (2) show that English articles encode [- definite] (1) and [+ definite] (2) features (Ionin 2003) [5]. In (1), the referent “dog” is introduced for the first time in the discourse and, therefore, in English we use an indefinite article. In (2), “dog” is a part of the shared knowledge between the speaker and the hearer, therefore we use the definite article.

- (1) I saw **a** dog. The dog followed its master.
[- definite]
- (2) I saw **the** dog that my mother bought me as a gift.
[+definite]

Conversely, English article system doesn't encode specificity. In (3), we can assume (given the context) that the identity of “winner” is not a part of the shared knowledge between the hearer and the speaker (because of the continuation form the part of the speaker “whoever he is”). In this case, the “winner” is non-specific. However, we still need to use a definite article in this context because this is a unique referent and uniqueness is marked by the definite article. Use of “the” differentiates between [\pm definite] features, but not between [\pm specific] features, because in (4), where the “winner” is a specific referent - “the best friend of the speaker”, definite article the is still used (not some other morphological element).

- (3) I want to take a picture with **the** winner of this singing competition – whoever he is.
[+definite – specific]
- (4) I want to take a picture with **the** winner of this singing

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competition – she is my best friend.

[+definite + specific]

However, other languages, such as Samoan can encode specificity in the article system (Ionin 2004). There are some relevant data in Samoan given in the following cases, where it can be clearly observed that there are different articles (specific article *le* and non-specific article *se*) in Samoan to encode specificity (Ionin et al. (2004)).

(5) 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.”

[+definite, +specific]

(6) Alu i *se* tou aiga e moe. Pe *se*
go LD ART (nsp.sg.) 2.pl. family GENR sleep. Q ART
(nsp.sg.)
tama a ai!
boy POSS 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]

[+definite, -specific]

(Data are from Mosel and Hovdhaugen 1992: 259-262 (see Ionin et al. (2004), Ionin (2003, 2006) [6] for more discussion))

B. The Second Language Acquisition Data in the Domain of Article Use in English

Looking at the second language acquisition data of articles in English (for example, Ionin, Ko and Wexler, 2004), we observe that L2 acquisition of English article by learners whose L1s lack articles, such as Russian and Korean, it is shown that the L2 learners' article use errors were not random. They largely overuse definite article *the* in the [-def, +spec] environment or overuse indefinite article *a/an* in the [+def, -spec] environment (see in (7) and (8), borrowed from Ionin et al. 2004)). For instance, in (7), the referent “friend” here is not the common ground knowledge between the speaker and hearer but with specific reference only in speaker’s mind (e.g., “he is name is Jack Lee, and he lives in London now”). However, learners overuse definite article *the* in this environment because they might be influenced by the specifics regarding Andy’s friend’s identity (e.g., his name) and fail to differentiate the definiteness and specificity.

(7) Meeting in a street:

John: Hi, Andy! It’s nice to see you again. I didn’t know that you were in New York.

Andy: I am here for a week. I am visiting **a** friend from college – his name is Jack Lee, and he lives in London now.

¹I am visiting **the** friend from college – his name is Jack Lee, and he lives in London now.

(Overuse definite article *the* in the [-def, +spec] environment)

Also, in (8) environment, definite article *the* should be used due to the uniqueness of referent “owner of a company” (usually, there is only one owner of a company) even though the continuation form the part of the speaker “I don’t know who that person is”. Overuse of indefinite article *a/an* here is related to learners’ fluctuation between definiteness and specificity.

(8) Anna: I’m looking for Lily. Is she home?

Lucy: Yes, but she’s on the phone. It’s an important business matter. She is talking to **the** owner of her company! I don’t know who that person is – but I know that this conversation is important to Lily.

She is talking to **an** owner of her company! I don’t know who that person is.

(Overuse indefinite article *a/an* in the [+def, -spec] environment)

C. Trenkic (2008)

The second study is by Danijela Trenkic, and it addresses the structural properties of articles in the learner’s interlanguage. Languages without a system of articles (Serbian/Croatian/Bosnian) may express definiteness through some other linguistic means, for instance, word order, the use of adjectives, and demonstrative determiners (Trenkic, 2008). Semantic definiteness, as a universal category, can be inferred in communication and it is not grammaticalised in a form of article system in these languages (Trenkic, 2004). So, we could expect, from the second language acquisition point of view, that the learners may use articles in L2 English incorrectly because their L1 doesn't have articles system as a part of the core grammar. Trenkic assumes that problem with using articles in English is closely related to the L2 learners’ analysis of articles in English as adjectives.

As we see in example (9a) and (9b), Serbian learners of English sometimes use and sometimes do not use the articles. This lack of systematic use of articles is what Trenkic calls “optionality”.

(9) a: Yesterday while he was crossing **the/a** bridge over the Thames on his way to Parliament...

b: Yesterday while he was crossing \emptyset ²bridge over the Thames on his way to Parliament...

1) “Articles as adjectives” analysis in the interlanguage grammar of Serbian L2ers of English

The theoretical idea that inspired Trenkic’s hypothesis is the NP/DP hypothesis by Boskovic (2005) [7]. Boskovic divides languages in DP and NP languages depending on whether they have articles system (and therefore a DP) or lack articles system (and therefore have only an NP). NP is a

¹ # symbol means inappropriate use of the article

² \emptyset symbol means the omission of articles.

lexical category and DP is a functional category. According to Boskovic, NP languages don't have DPs but only bare NPs.

For example, the Fig. 1 shows the standardly assumed internal structure of English nominals, which is the DP structure. Articles are heads of a DP. Since DP is always projected on top of the NP, the English nominal structure is more complex because it has an additional functional layer on top of the NP.

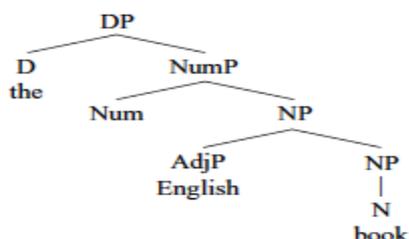


Fig. 1. The internal structure of English nominals

And this Fig. 2 shows the internal structure of Chinese/Croatian/Russian nominals, which Boskovic assumes has the NP structure. Languages without articles do not have DPs, they have bare NPs. Since they lack the functional layer, we can informally say that bare NPs are structurally “smaller” than DPs.

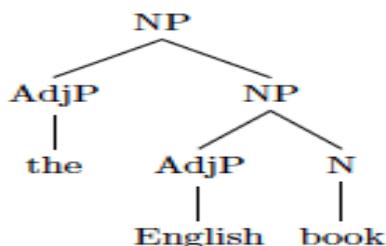


Fig. 2. The internal structure of Chinese/ Croatian/ Russian nominals

Having in mind the NP/DP structural distinction and L1 transfer effects, from the second language acquisition point of view, we can predict that when the learner from the NP language acquires a DP language, she/he only resorts to the available structure in their L1 which is inadequate to accommodate the DP structure because a functional layer is not projected above the NP layer in their L1, shown as above. What is available to the learners from their L1, however, is ‘the adjectival slot’ for any element that co-occurs with a noun.

The analysis above can also account for the optionality. Since adjectives are lexical categories, and as such are not the part of the “core” grammar as opposed to functional categories, they can be used in some cases but left out in the others. If articles are “misanalysed” as adjectives in the learners’ interlanguage grammars, this explains optionality observed in Trenkic’s data.

D. Fen and Lu (2001)

The study of Crystal Fen and Chuan Lu (2001) is focused on the difficulties in article choice for Chinese learners. Fen and Lu explains the semantics of articles in a similar way as Ionin (i.e., it addresses how learners “fluctuate” between definiteness and specificity). They find that the learners wrongly replace English definite article *the* with the

indefinite article *a/an* since they have difficulty in distinguishing specificity from definiteness (for illustration, see Ionin’s examples in (7) and (8), which are conceptually and structurally similar to the examples in Fen and Lu).

III. THEORETICAL BACKGROUND

In our study, we focus on the predictions of the Full Transfer Full Access Hypothesis of Schwartz and Sprouse (1994, 1996) [8], Article Choice Parameter of Tania Ionin (2004) and NP/DP hypothesis of Boskovic (2005/2008).

The Full Transfer/ Full Access (FT/FA) Hypothesis (Schwartz & Sprouse, 1994;1996) claims that at the initial state in L2 acquisition, the learners transfer both functional and lexical categories from their L1. During the course of development, L2 learners are able to restructure their interlanguage grammar to accommodate L2 inputs. The authors also point out that the L2 development is UG-constrained.

Ionin (2004) argues that specificity and definiteness are two values of a semantic parameter, which is called the Article Choice Parameter (ACP). Ionin, Ko, and Wexler (2004) propose that L2 English learners with article-less L1 will “fluctuate” between specificity and definiteness in their use of L2 articles until they are exposed to sufficient input to set the parameter correctly. From their perspective, the access to both specificity and definiteness as semantic universals is coming from the UG.

NP/DP hypothesis (Boskovic 2005/2008) rests on the division of languages into DP languages (with articles system) and NP languages (without articles system). We use this theory to make predictions w.r.t the use of articles in the interlanguage grammar. The prediction is that learners whose L1 is an NP language (according to Boskovic’s typology) will have difficulty acquiring English articles because their interlanguage lacks the DP structure, at least in the initial stages of acquisition.

IV. METHOD

A. Research Questions

- 1) How do L1 Chinese L2ers of English use English articles? How do they represent articles in their interlanguage?
- 2) Do L1 Chinese learners of English overuse a definite article, for example, in [-def +spec] environments?
- 3) Are articles optional in the interlanguage of Chinese L2ers of English?
- 4) Is there a transfer from L1 to L2 regarding the nominal structure?
- 5) Can advanced learners use the articles more correctly than elementary learners?
- 6) Does UG constrain the interlanguage grammar of the learners at two different levels of proficiency?

B. Hypotheses

According to the Full Transfer/Full Access Hypothesis, there is a transfer of L1 functional and lexical categories in the L2. The L2ers have a full access to UG. Given this, I predict that L1 Chinese learners transfer the structure of NP from L1 to L2 which, following Trenkic (2008), predicts that they use articles optionally.

Next, we assume the UG constrains the grammar of L2ers. If we observe a clear pattern/system of article use in the interlanguage grammar of the learners, this means, following previous studies, that their grammar is UG constrained, and the learners have access to the UG. If, on the other hand, the interlanguage is not UG constrained, we would expect to see “wild” grammar, or a grammar without a clear and systematic structure (White 2003) [9].

According to the Article Choice Parameter (Ionin 2004) (the meaning of articles in L2), learners who do not have articles in their L1 “fluctuate” between specificity and definiteness, so I predict that L1 Chinese L2ers of English may be confused with the meaning of articles; they may be using a definite article in [-def +spec] environment.

C. Learners’ Background

The target learners in this study were 17 L1 Chinese learners of L2 English. It was divided into two groups: 9 elementary learners and 8 advanced learners. All spoke Chinese as their first language.

The elementary group consisted of 10- to 14-year-old Chinese teenagers. They had all received, at least, 2 years of English instruction in school prior to testing. However, they had never experienced total immersion into English, and they have relatively limited opportunities to use English on a daily basis.

The advanced learners are all over 22 years old and have studied English in school for more than 10 years. Among them, 6 had studied and lived in English-speaking countries (UK, Australia) for a period of 2-3 years for their undergraduate or master's degree. Their IELTS score is 6.5 or higher. The other two are university students in China, receiving bilingual instruction and using English more often in their daily lives.

The details of the participants’ characteristics are given in the following table.

TABLE I: CHARACTERISTICS OF L1 CHINESE LEARNERS OF ENGLISH

	Elementary learners	Advanced learners
Number	9 (6 male, 3 female)	8 (2 male, 6 female)
Age range	10 to 14 (mean 11.6)	22 to 26 (mean 24.75)
Years of studying English	2 to 8 (mean 4.4)	10 to 16(mean 13,125)
The Environment of using English	in school	in daily life and school
Years of traveling abroad	0	0 to 5 (mean 2.5)

D. Data Collection Method

All participants were asked to complete a cloze test. This cloze test consisted of 20 test items and 20 fillers.

The 20 test items were divided into 4 conditions: [+def, +spec], [+def, -spec], [-def, +spec], [-def, -spec], with 5 tokens in each group. The groups in the environments of [+def, +spec] and [+def, -spec] targeted the use of the definite article *the* and the groups in the environment of [-def, +spec], [-def, -spec] targeted the use of the indefinite article *a/an*. The 20 fillers are similar in length and structure to the test items, and they tested other grammatical properties, such as prepositions or verbs. The test items and fillers were randomized. Examples of a token in each condition are provided below:

(10) Look! There is a lady in blue! I know **_the_** lady from my school.

[+def, +spec]

(11) I want to take a picture with **_the_** winner of this singing competition – whoever he is.

[+def, -spec]

(12) Yesterday, I met **_a_** girl in school. Her name is Lily, and she is 5 years old.

[-def, +spec]

(13) There is **_an_** old woman in the car but I don’t know who she is.

[-def, -spec]

All participants received the cloze test questions via email. Before starting, participants were clearly asked to finish the test in one sitting within 40 minutes. During the process of testing, participants were allowed to consult the Chinese translation of any unfamiliar English words they encountered. After completing the test, participants were also required to return the entire test via email or other online means.

V. RESULTS

A. Using of English Articles for Elementary Learners

Table I shows that the elementary learner’s group was able to use the English indefinite article *a/an* more correctly in the [-def, -spec] condition, with the highest correct rate of 84.4%. On the contrary, the error rate of the use of the English definite article *the* in the [+def, -spec] condition was 42.2%.

TABLE I: THE PERCENTAGES OF CORRECT AND INCORRECT USE OF ARTICLES FOR ELEMENTARY LEARNERS

Condition	% correct	% incorrect
[+def, +spec]	66.7 %	33.3 %
[+def, -spec]	57.8 %	42.2 %
[-def, +spec]	75.6 %	24.4 %
[-def, -spec]	84.4 %	15.6 %

In the [+def, -spec] condition, some elementary learners incorrectly replace the definite article *the* with adjectives. This typical error is shown in example (14), where some elementary learners chose to use the adjective “blue” instead of definite article *the*. Also, the omission of articles can be clearly observed in the [+def, -spec] condition, see example (15).

(14) a: I can see a bird in **the** sky. It is very beautiful.
 b: # I can see a bird in **blue** sky. It is very beautiful.

(15) a: Mary and John love to travel, and they always take **the** train.
 b: # Mary and John love to travel, and they always take **Ø** train.

Generally speaking, elementary learners use indefinite article *a/an* more correctly than definite article *the*. This is shown by the higher accuracy percentage in [-def] conditions rather than in [+def] conditions.

B. Using of English Articles for Advanced Learners

Table II shows that advanced learners obtained 92.5% for the use of the indefinite article *a/an* in the [-def, +spec]

condition; the lowest correct rate was observed in the [+def, +spec] condition.

TABLE II: THE PERCENTAGES OF CORRECT AND INCORRECT USE OF ARTICLES FOR ADVANCED LEARNERS

Condition	% correct	% incorrect
[+def, +spec]	60 %	40 %
[+def, -spec]	67.5 %	32.5%
[-def, +spec]	92.5 %	7.5 %
[-def, -spec]	87.5 %	12.5 %

In the [+def, +spec] condition, some advanced learners were more likely to use demonstratives *this/that* instead of definite article *the*, which can be shown in example (16):

(16) a: Look! There is a lady in blue! I know **the** lady from my school.

b: # Look! There is a lady in blue! I know **this/that** lady from my school.

In a similar way to the elementary learners, the advanced learners also received higher scores concerning the use of indefinite article *a/an* than the use of definite article *the*.

C. Comparison between Elementary and Advanced Learners

By comparing these two tables, the accuracy rates of advanced learners are higher than that of elementary learners in the most conditions, with the most significant difference observed in the [-def, +spec] condition.

However, in the [+def, +spec] condition, elementary learners in this test performed better than advanced learners, with a score of 66.7% for elementary learners and 60% for advanced learners. What we observe is that in [+def+spec] the advanced learners overused the demonstrative *this/that* instead of *the* (for illustration, see example (16) above).

VI. DISCUSSION

The results indicate that both elementary and advanced learners make mistakes with definite and indefinite article in English. The current study shows that Chinese learners of English have problems with articles even at the advanced stages of proficiency.

According to the Fluctuation hypothesis (Ionin, 2004), we expected that L1 Chinese L2ers of English might be confused with the meaning of articles, and they might overuse definite article in [-def +spec] environment. The current study shows that the [-def+spec] environment, indeed, creates the most problems for the learners (especially the elementary learners). Namely, they overuse definite article *the* in this condition. This result supports the previous finding by Ionin et al. (2004) which shows that L2 English learners without article system in their L1 “fluctuate” between specificity and definiteness in their L2.

According to the Full Transfer/Full Access Hypothesis (Schwartz&Sprouse 1997), we also predicted that L1 Chinese learners transfer the structure of the NP from L1 to L2. The effects of the NP transfer into the L2, given the adopted theoretical assumption behind the NP/DP hypothesis (Boskovic 2005), could be observed as a large number of article omissions in the learners’ data. The fact that we

observe large number of article omission is consistent with Trenkic’s study, where she connects article omissions in the learners’ interlanguage with the analysis of articles as adjectives.

The analysis of articles as adjectives is motivated by the structural properties of NPs and DPs as in Boskovic (2005), which we also followed in this study. Implementing this theoretical analysis into the results of the study forces us to assume that learners (due to transfer from L1) do not have the adequate structure to “accommodate” English articles. Because Chinese lacks articles, its internal structure is that of an NP (according to Boskovic 2005). If learners transfer the NP from their L1 into the L2, this structure is not adequate to accommodate articles because articles require a DP.

The results of the current study also suggest that the acquisition of articles is UG-constrained. This is supported by the observation where the learners systematically resorted to two semantic systems which articles may encode more generally as observed in natural languages, namely specificity or definiteness. While the elementary learners used articles as consistent with specificity (i.e., they overused the in [-def+spec] context), the advanced learners used the articles more consistently with definiteness (i.e., used the in a target-like manner). This suggest that their grammar is UG constrained, and the learners have access to the UG.

This study also suggests that long and consistent exposure to L2 input is enough to develop a DP layer in the learners’ interlanguage grammar. This assumption is motivated by the advanced learners’ data which show that the advanced learners did better on [-def+spec] condition in comparison to elementary learners. Given this data, we can assume that even though learners start without a DP, given the amount of time of exposure to L2 and a proficiency level, L2 learners can eventually restructure their interlanguage grammar to accommodate L2 inputs.

Finally, the current study also showed an interesting result with the advanced learners. The interesting result, which, to my knowledge, has not been reported in the previous studies we consulted, is that the advanced learners, although highly proficient in the article use, overuse the demonstrative *this/that* in the [+def+spec] environment. This overuse of demonstratives has not been observed with the elementary learners in the same environment in the current study. Here are some speculations as for why advanced learners use demonstratives in the abovementioned environment, and some further questions that the result raises.

- 1) Chinese lacks articles, but has demonstratives, such as *zhège* “this”, *nàgè* “that”. Therefore, we could conclude that the use of demonstratives is a clear example of L1 transfer effect. However, given FA/FT, we would predict that the transfer should be the most prominent at the initial stages of acquisition. Therefore, we would expect to see the same transfer effects with the elementary group as well. However, we don’t see this happening with elementary learners and the question is why.
- 2) Form the theoretical syntactic literature, we independently know that demonstratives occupy a syntactic position which is even higher than the DP (Alexiadou, Haegeman, Stavrou 2008) [10]. This potentially means that advanced learners have a “bigger” structure than NP (maybe even “bigger” than the DP, we

assume). If, consequently, the advanced learners have a “bigger” structure than NP, this would explain why only the advanced learners overuse demonstratives. Elementary learners may not have a structure larger than a NP in their interlanguage, therefore, we don’t see demonstratives used instead of articles in their L2 data.

- 3) Definite article and demonstratives intersect in their semantics. This means that they both can be used to refer to something which is known to both the speaker and the hearer. Given this, we could expect to see elementary learners overuse demonstratives in L2 English because demonstratives are the closest element (from the point of view of meaning) to articles in English. However, this is not what we observe. We believe that the overuse of demonstratives observed only with the advanced learners further supports the view that the nominal structure in the interlanguage of advanced learners is “bigger” than the nominal structure of elementary learners. This further suggests that demonstratives in Chinese must be different elements than adjectives, located “outside” the NP we assumed for elementary Chinese learners of English (see Fig. 2).

VII. CONCLUSION

This study focused on the L2 article acquisition by L1 Chinese learners of English. It shows that advanced learners were more target-like in their article use than the elementary learners. Therefore, we assume that advanced learners, structurally speaking, show evidence of having a “bigger” nominal structure than elementary learners that helps them accommodate articles. Furthermore, the study also shows that advanced learners also overuse the demonstratives in the environment where English articles are required. This point deserves further research.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Lijia Xiong conducted the research, analyzed the data and wrote the paper. She had approved the final version.

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