

**A PRELIMINARY STUDY OF ENGLISH DP ACQUISITION
BY CHINESE EFL LEARNERS IN TAIWAN**

Ai-li C. Hsin

ABSTRACT

We explored the interlanguage variations and development by Chinese EFL learners of their acquisition of determiner phrases (DP) in the argument position in an English sentence of four types—definite, specific, indefinite and generic references. Ninety subjects, classified according to their proficiency in English at four levels based on their duration of learning English, participated in this project. They were guided to complete a task of inserting a DP into a sentence, and data were then gathered for quantitative analysis. According to a cross-linguistic comparison of the reference systems and their representations in these two languages, we found that acquisition errors basically derive initially from the discrepant representing systems between the languages, and from the lack of attention to the contextual information and requirement of syntactic agreement in the target language in subsequent stages. Interlanguage development reveals that L1 transfer exists at the initial stage and then gradually shifts to development errors such as overuse of articles *a* and *the*. The order of acquisition of DP of the four types is roughly definite > [signifying before] specific > indefinite > generic; acquisition follows an ascending curve rising steeply at the beginning and then gradually leveling off towards the end.

Key Words: DP acquisition, argument, definiteness, referential system, article

INTRODUCTION

Much evidence indicates that Chinese learners have problems with English articles. The difficulties might derive from the fact that the Chinese language lacks functional equivalents of English definite and indefinite articles. By clarifying the distinctions of the reference systems

and the types of determiners in the argument determiner phrases (DP) of the two languages, we might recognize better and predict precisely the causes of errors that learners make, and subsequently discover a solution to aid Chinese learners with English argument DP.

Most preceding researchers attributed the learning problems of Chinese learners to the lack of articles in the Chinese linguistic system, and suggested that bare nouns are thus wrongly utilized in DP of other references. Observations of interlanguage development by Chinese learners reveal, however, that, in addition to the errors of a bare noun phrase (NP), errors arise of other types such as an incorrect exchange of the two articles—that is, *a* for *the* or *the* for *a*—and the overuse of articles, especially definite article *the*. How can one take account of these errors if errors are mainly from the absence of articles in Chinese?

Similarly to English, Chinese argument DP have four references—definite, indefinite, specific and generic. As these references are universal and necessary in linguistic systems, the cause of learning errors might be not necessarily the lack of articles in the target language but something more conceptual. In this project we sought to inquire into the reference systems and their forms of representation in Chinese and English, for the purpose of a cross-linguistic comparison of basic views regarding the various DP.

Our objective was to probe the interlanguage variations and development by Chinese L2 learners of the use of English articles in referring to argument DP in a sentence, to investigate whether the varied uses are systematic, the causes of the variations, and whether their performance in use of English articles increases and improves with their level of proficiency.

The nominal phrase in sentences was recognized as a noun phrase (NP) until the time when Longobardi (1994) proposed that referential NPs in sentences are actually determiner phrases (DP) in all languages. The determiner head such as English articles takes NP as its complement and by so doing specifies its reference type and thus decide the referent of the NP in the discourse. In this study, we regard all nominal arguments in English to be DPs and aim to diagnose how Chinese EFL learners distinguish English DPs in relation to its articles. Demonstratives such as *this* and *that*, or possessives such as *my* and *John's* are also determiners and are associated with the definite reference. Since the semantics and obvious definiteness of these determiners make the DP reference transparent and thus would not be too difficult for L2 learners, these

types of DP, therefore, would not be included in the current study and the focus would be mainly on English articles, including the zero article \emptyset , before the NP in interpreting the English DP types.

LITERATURE REVIEW

English Reference System

The system of articles in English is deemed a major difficulty for an ESL/EFL learner, especially one whose native language does not employ articles or article-like morphemes, such as Mandarin Chinese (Bataineh, 2005). Because the Chinese language lacks functional equivalents of English definite and indefinite articles, much observational evidence shows that Chinese learners have difficulty with the article system in English. In particular, Robertson (2000) found that these learners have a marked tendency to omit the article in instances in which a native speaker of English would use one. Researchers (Ekiert, 2004; Master, 1997; Parrish, 1987) reported that for learners whose native languages lack articles, the zero article usually dominates in all environments for articles at the initial stages of language learning. Parrish (1987) observed the acquisition order for English articles is the zero article, the definite article, and the indefinite article consecutively. Butler (2002) claimed that part of the complexity of use of articles in English could be attributed to the fact that the system of English articles does not consist of one to one relationships between form and meaning; this complexity poses multiple challenges for L2 learners of English.

Several authors (Chaudron & Parker, 1990; Huebner, 1985; Parrish, 1987; Thomas, 1989) found an overuse of the definite article by L2 learners, but learners of greater proficiency improved in accuracy with indefinite *a*. Although both Master (1997) and Huebner (1983) referred to a phenomenon ‘*the*-flooding’ in which *the* is overgeneralized with a greatly increased usage, Thomas (1989) found that the *zero* article overgeneralized across proficiency levels (Bataineh, 2005).

The use of an article is determined by the category of the NP that accepts it. In his model of a semantic wheel, Huebner (1983, 1985) classified English NP according to two features of referentiality—a specific reference [+/-SR] and a hearer’s knowledge [+/-HK]. These two aspects of referentiality thus produce four basic NP contexts that determine article use. According to their findings of the overuse of *the*,

Huebner (1983, 1985) and Master (1987, 1988) suggested that L2 learners initially might associate *the* with the feature [+HK], whereas Thomas (1989) hypothesized that L2 learners initially associate *the* with the feature [+SR] (Butler, 2002).

In addition to the binary features of referentiality, noun countability is suggested to be an important component in determining which article to use. The failure to detect successfully the countability of a reference has been found also to be a major problem for some L2 learners (Butler, 2002). Celce-Murcia and Larsen-Freeman (1999) claimed that problems of the use of articles lie partly in the non-corresponding countability of lexical classification between the native and target languages. This mismatch might add to the complexity of the learner's task, for he or she must learn both the article system and other noun distinctions (Bataineh, 2005).

In contrast with the above researchers, Hakuta (1976), in observing L1 Japanese young learners acquiring L2 English, adopted Brown's method of analysis: one category for articles (making no distinction between definite, indefinite and zero), but, in addition, a separate score for what he called errors of commission (supplying articles in nonobligatory contexts), as opposed to errors of omission (not supplying articles in obligatory contexts). In his analysis he found errors of commission to be preponderant. This finding indicates that a learner might recognize the form of an article before recognizing its function (Parrish, 1987).

Chinese Reference System

Mandarin is a language oriented to topics. A sentence comprises two parts—topic and comment, rather than subject and predicate as in English. The topic represents given information, i.e., information that is known to the speaker and assumed by the speaker to be known to the hearer. Topics (or subjects) are thus invariably not indefinite. Li and Thompson (1981) stated that definiteness of NP in Chinese is marked in the noun phrase, and its markedness is manifested through the use of word order or through the use of demonstratives (Robertson, 2000). They claimed that definiteness is partially signaled by the preverbal position of topics, subjects and sometimes objects. Because topics must not be indefinite, they are invariably preverbal, but subjects and objects might be either pre- or post-verbal. Hsin (2002, 2003) and Tsai (2001) recorded similar observations about the specificity of subjects and preverbal

objects.

The notion of definiteness involves the notion of reference. According to Li and Thompson (1981), a NP might be either referential or non-referential.¹ A noun phrase is referential when it is used to refer to an entity that might be physical or conceptual, real or hypothetical, singular or plural. Only referential nouns can be definite or indefinite. This situation is depicted in the diagram of Figure 1.

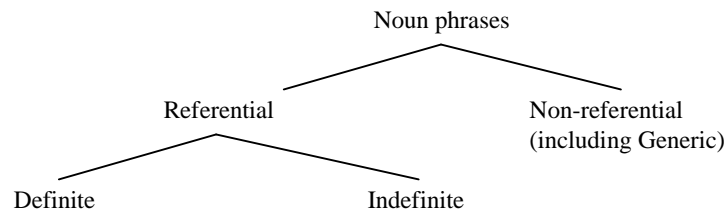


Figure 1. Referential categorizations of NP by Li and Thompson (1981, p. 129)

Based on Li and Thompson, nonreferential NPs can occur in several sentence positions in Chinese: object of a verb as in (1a), object component of a verb-object compound as in (1b), noun complement of a copula as in (1c), NP within the scope of the negation as in (1d), or NP in the topic position as in (1e). The definite NP is normally preceded by a demonstrative and a quantifier phrase with classifier as in (2a) or is simply a bare N as in (2b). The indefinite NP can be a bare N as in (3a) or a quantifier phrase with classifier as in (3b) or a bare N preceded by an existential verb *you* in the subject position as in (3c).

- 1a. wo²¹⁴ men⁰ zhong⁵¹ hua⁵⁵-sheng⁵⁵. (object of a verb)
 we grow peanut
 We grow peanuts.
- 1b. ta⁵⁵ hui⁵¹ chang⁵¹-ge⁵⁵. (object of a V-O compound)
 he can sing-song
 He can sing.
- 1c. Xin⁵¹mei²¹⁴ shi⁵¹ gong⁵⁵cheng³⁵shi⁵⁵. (N complement of
 a copula)
 Xinmei be engineer
 Xinmei is an engineer.

- 1d. Wo₂₁₄ mei₃₅ jian₅₁-guo₅₁ jing₅₅yu₃₅. (NP within the scope
of a negation)
I not see-EXP whale
I have never seen a whale.
- 1e. mao₅₅ xi₂₁₄-huan₅₅ he₅₅ niu₃₅nai₂₁₄. (Topic NP as
Generic reading)
cat like drink milk
Cats like to drink milk.
- 2a. zhei₅₁-(san₅₅)-tiao₃₅ xiang₅₅jiao₅₅ wo₂₁₄ chi₅₅-bu₃₅-xia₅₁.
(demonstrative+NumP)
this-(three)-CL banana I eat-not-descend
This banana I can't eat. / I can't eat this banana.
- 2b. xiang₅₅jiao₅₅ lan₅₁-diao₅₁ le₀. (bare N)
banana rotten-PHASE part.
The banana is rotten already.
- 3a. wo₂₁₄ mai₂₁₄-le₀ shui₂₁₄guo₂₁₄ le₀. (bare N)
I buy-PFV fruit CRS
I have bought some fruit.
- 3b. ta₅₅ zhong₅₁-le₀ yi₅₁-ke₅₅ shu₅₁ zai₅₁ men₃₅-kou₂₁₄.
(NumP)
he plant-PFV one-CL tree at door-mouth
He planted a tree at the door.
- 3c. you₂₁₄ren₃₅ gei₂₁₄ ni₂₁₄ da₂₁₄-dian₅₁hua₅₁.
(you+bare N)
exist person to you hit-telephone.
Someone telephoned you.

As Li and Thompson did not distinguish specific from indefinite NPs, Tang (1988b) added a further classification of noun phrases: he categorized a NP as determinate or indeterminate. A determinate noun phrase is further classified into three types—definite, generic and specific. A determinate NP refers to old information that can be a topic, whereas an indeterminate NP refers to new information that can be no topic. This situation is depicted as follows in Figure 2. The purpose of such distinction is not without reason. The specific NP with the structure of you+NumP can, whereas the indefinite NP with the structure of

you+N cannot, appear as the topic of a Chinese sentence, as illustrated in (4). Moreover, the generic NP is not totally non-referential but determinate in some way, as the generic NP can appear in the topic and subject positions, which are normally only for referential and definite NPs in Chinese.

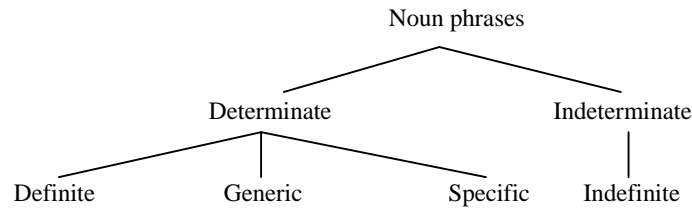


Figure 2. Referential System of NP by Tang (1988b)

- 4a. you₂₁₄ yi₃₅-wei₅₁ zuo₅₁ jia₅₅, wo₂₁₄ men₀ dou₅₅ hen₂₁₄ xi₂₁₄ huan₅₅
 exist one-CL writer we DIS very
 like
 One writer, we are all very fond of.
- 4b. *you₂₁₄ zuo₅₁-jia₅₅, wo₂₁₄ men₀ dou₅₅ hen₂₁₄ xi₂₁₄ huan₅₅
 exist writer we DIS very like
 (*There is/are writer(s), we are all very fond of.)

Cross-Linguistic Comparison Between Chinese and English

Longobardi (1994) proposed that every NP in the argument position in a sentence is a DP. The reference types are basically similar universally. In this research, I adopted Huebner's model to classify English argument DP in various contexts and Tang's (1988a) model to classify Chinese DP; I then made some adjustment to create a corresponding usage between English and Chinese in the four specified NP environments. Through such a comparison, we can improve our perception of how the languages differ in their referential system and the expressions of argument DP.

Table 1. Comparison of the Forms of Argument NP Between English and Chinese in Four Contexts

Type	Feature	Mandarin	English
1. Generic	[-SR, +HK]	1. bare N	1. a N[C] 2. the N[C] 3. Ns[C] 4. bare N[U];
2. Definite	[+SR, +HK]	1. bare N, 2. Det+Num+Cl+N	1. Det N
3. Specific	[+SR, -HK]	1. Postverbal: Num+Cl+N 2. Preverbal: <i>you</i> +Num+Cl+N	1. a N[C] 2. Ns[C] 3. bare N[U];
4. Indefinite/ Indeterminate	[-SR, -HK]	1. Postverbal: bare N; (one)+Cl+N 2. Preverbal: <i>you</i> +bare N	1. a N[C] 2. Ns[C] 3. bare N[U];
N: noun SR: specific reference [U]: non-count noun Det: determiner Num: number		Ns: plural noun HK: hearer's knowledge [C]: count noun Cl: classifier <i>you</i> : existential verb <i>have</i>	

Table 1 above is a cross-linguistic contrast between English and Chinese of the possible forms of argument DP in a sentence. In both languages, the referential system and the argument DP forms are in display of relations one to many and many to one. For instance, in English, the generic reference can be expressed by nouns of four forms—a N, the N, Ns[C] and bare N[U]—and concurrently the ‘a N’ form serves to display generic, specific and indefinite references. Chinese has similar situations. A bare N has the most prevalent use and serves to express generic, definite and indefinite references. At the same time, a specific reference can be represented by a NP in two forms—‘Num+Cl+N’ (i.e. NumP) in a postverbal situation and ‘*you* Num+Cl+N’ in a preverbal situation. Cognitively, the distinction between definite and non-definite in the referential system and the corresponding argument DP forms are similar in the two languages: both use determiners plus nouns (Chinese with additional classifiers before nouns) to refer to definite entities, and plural nouns or indefinite article *a*

plus noun (Chinese with the classifier and the empty number *one* before nouns) to refer to indefinite entities. Furthermore, the semantic association between specific and indefinite references and their similar syntactic DP forms are alike in both systems, but the two languages use separate ways to clarify the ambiguities of one to many and many to one. In Chinese, one tries to make the reference form a one-to-one relation in using the sentence positions, such as preverbal and postverbal, and by using sentences of separate types, such as stative and eventive. In contrast, in English one uses a more semantic way, which thus becomes confusing for a Chinese EFL/ESL learner. At the initial stage a Chinese EFL/ESL learner might overuse English bare nouns in improper sentence positions for definite or indefinite references; errors of this type gradually diminish with the input of positive evidence from increasing English exposure. A more advanced Chinese EFL/ESL learner might confront a problem of which form to choose between two forms *Ns* or *a N* for specific or indefinite reference and among three forms *Ns*, *a N* or *the N* for generic reference.

In this project we sought to explore the most prevalent article errors and the interlanguage variations in English argument DP acquisition for Chinese EFL/ESL learners. Our research questions follow.

1. Does the interlanguage vary without a pattern, or does it gradually improve with the level of English proficiency of subjects?

We expect learners to improve as their general English proficiency increases; however, we want to know if the improvement is from general accuracy of all DPs or from corrections of one or two particular types of DP.

2. Among the four types of DP, what is the order of acquisition for Chinese EFL learners?

We hypothesize the acquisition order to be somewhat like definite > (before) generic > indefinite > specific. Based on Huebner's binary system, [+SR, +HK] is most salient and, moreover, there is only one form *the* for definite DPs in English (other determiners such as demonstratives and possessives are not considered here); definite DP is thus expected to be acquired first. Generic DP with [-SR, +HK] is next, since hearer's knowledge is conceptually clearer than specific reference and Generic DP with +HK, though -SR, should be easier to acquire. In

addition, four forms are available in English, which seems to imply that whatever form one chooses is correct. Indefinite and specific DPs are indecisive because they are similar in semantics and both have three varied forms in English. Even so, we predict indefinite DP could be easier than specific DP because indefinite DP with [-SR, -HK] is conceptually universal and the forms are related to numbers or indefinite markers such as English *a* cross languages.

3. What are the common types of errors for Chinese learners and what are the causes?

As English is an article language and Chinese, a classifier language, it is possible that the function of DP is manifested in two quite different conceptual systems and that Chinese EFL learners might be able to use the forms but still do not quite understand the underlying functions of English articles. If Chinese nouns are all countable mass nouns as Cheng and Sybesma (1999) propose, the countability of English nouns would be a major problem for Chinese learners and thus a cause of errors to distinguish DP types since singular vs. plural is the main distinction in DP forms in English.

4. Do beginning learners and advanced learners have disparate error patterns? If so, how do the error patterns differ?

As L1 transfer is unavoidable in adult L2 acquisition, we expect errors of negative L1 transfer common for beginning learners, which is bare N for definite and indefinite DPs. For more advanced learners, overgeneralization and analogy could be useful learning strategies and Chinese learners might overuse articles, either definite *the* or indefinite *a*, as they might overgeneralize that all DPs need an article in an article language like English.

METHOD

Subjects

In total, ninety students participated in this project. They constitute four proficiency groups based on their lengths of learning English. Group 1 (G1), having the greatest proficiency, comprised eight graduate students with English as their major subject. Group 2 (G2) comprised eighteen college students in their third year, whose major subject was

other than English but who studied English as their second professional specialty. Group 3 (G3) comprised thirty-one pupils in their second year of senior high school. Group 4 was composed of thirty-two pupils in their second year of junior high school.

Procedures

In a questionnaire (see Appendix A) consisting of sixteen English sentences, four questions of each DP type were listed. All 90 subjects were asked to complete the DP test without Chinese translation. In the questionnaire, the head nouns were given within parentheses as the only clue to the answers. The participants were asked to insert either a bare NP (singular or plural) or a noun with an appropriate article based on their own knowledge of English. To prevent fortuitous guesses, the participants were required also to provide grammatical information appropriate to the situation. For instance, if the required NP were the subject of a sentence in present tense, a participant also had to circle the corresponding verb between two options provided.

The data gathered from the questionnaire were graded either correct or incorrect, corresponding to values 1 and 0, respectively, in the statistics software (SPSS). A statistical comparison of acquisition of English articles among the four Chinese L2 groups was conducted to discover whether significant differences exist among the groups of English proficiency at various levels.

RESULTS AND DATA ANALYSIS

We present the results of the experiment and base our discussions on the order of the research questions presented at the end of section two.

Interlanguage Variations and Different Performances Among Four Groups

The performance results on the DP test by four groups with varied English proficiency are shown in Figure 3. The average test scores increase with the proficiency of English of the subjects: the graduate group had an accuracy rate 88.45%, the undergraduate group 74.23%, the senior high school group 56.43%, and the junior high school group 38.18%. The improvement intervals seem almost equal, but a statistical comparison among the four groups with English proficiency at varied

levels was conducted. The results are illustrated in Table 2. The discrepancies among the four groups are all significant except between the graduate and undergraduate groups. The performance difference between junior high and senior high school students also attained a significance level 0.05. These observations show that article acquisition has the greatest improvement between junior and senior high school years, then gradually levels off to an insignificant difference from undergraduate to graduate years.

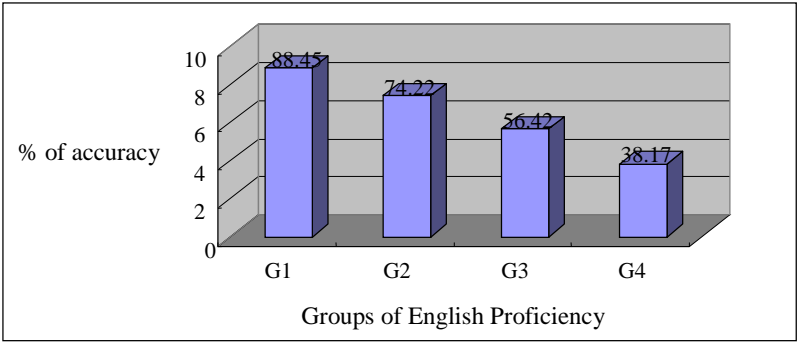


Figure 3. Rate of Accuracy of Subjects in Four Groups

Table 2. Statistical Comparisons Between Subjects in Four Groups

Table 3 shows the average mean scores of the four subject groups in the four DP types. The definite and specific DPs started with a relatively high score, as indicated in G4-definite of 0.406 and G4-specific of 0.461. Since both definite and specific DPs are [+SR], this could indicate that DPs with specific reference are easier for Chinese EFL learners to start with. However, it is definite and indefinite DPs that ended with a relatively high score, as indicated in G1-definite of 0.983 and G1-indefinite of 0.906. The improvement of DP acquisitions are not equal among the four types and the major improvements lie mainly in the great leaps of definite DP (0.577) and indefinite DP (0.617), as indicated by the differences between G1 and G4 in the two categories in Table 3.

Table 3. Average Means of Four Groups in Four DP types

Group	Gen	Def	Spe	Ind	Total
G1	0.813	0.983	0.881	0.906	0.88
G2	0.684	0.763	0.759	0.763	0.74
G3	0.508	0.661	0.556	0.532	0.56
G4	0.371	0.406	0.461	0.289	0.38
Improvement G1-G4	0.442	0.577	0.42	0.617	0.50

Order of Acquisition of Four DPs

Among the DP environments of four types, the similarity in language use between English and Chinese varies. What differences do they make in acquisition order is shown in Figure 4.

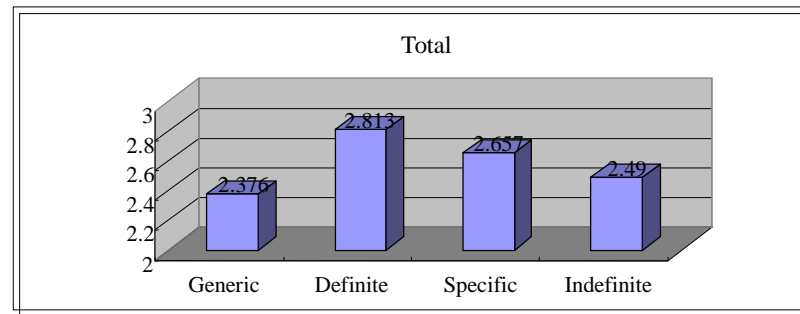


Figure 4. Total Accuracy in DP Contexts of Four Types

Based on the accuracy average of DP of four types, subjects did best in the definite type, followed by the specific, the indefinite, and last—to our astonishment—the generic type; that is Def > Spec > Ind > Gen in order of acquisition. Not all four subject groups, however, follow this order. The varied orders of acquisition for the four groups are listed in Table 4.

Table 4. Order of Acquisition in Four Groups

Group	Order of acquisition of DP of four types
G1	Def > Ind > Spe > Gen
G2	Def > Ind = Spe > Gen
G3	Def > Spe > Ind > Gen
G4	Spe > Def > Gen > Ind

The order patterns for G1, G2 and G3 are similar, with the difference only in the order of specific and indefinite DP. G4 shows a dissimilar pattern, with the specific DP best and indefinite DP worst. We might thus assume that G4 is the initial state and G1-3 attain a stable state in acquiring articles. A careful observation of this interlanguage development reveals also that the learning of indefinite DP has the greatest advance, from being the most difficult at the initial stage to becoming second easiest at the stable stage. This is within our previous prediction because indefinite DP has the least salient [-SR, -HK] features and thus is difficult at the initial stage but its forms are conceptually similar cross-linguistically with indefinite NumPs. A definite DP is easy at both initial and final stages as previously predicted owing to its most salient [+SR, +HK] features and similar concepts and forms in L1 and L2. A specific DP displays the opposite development in interlanguage, being easy initially but becoming more difficult than Definite or Indefinite DP in subsequent stages. This could be due to its [+SR] feature, which makes it easy to understand at the beginning for learners but confusing at later stages when it gets mixed with definite DP in concept or with indefinite DP in forms.

A generic DP, to our surprise, appears to be most difficult and advances least in acquisition. Since generic reference exists in all languages and is not conceptually hard to acquire, the difficulty might arise from the uncertain choice of the four generic forms available. Take the two generic sentences in (5) as an example. Sentence (5a) can only

have a singular NP, definite or indefinite, as its answer and sentence (5b) can only have a bare N (for uncountable noun) as its answer. Consequently, though four forms are at hand for the generic DP, only some, not all, forms are considered correct.

5a. _____ (bat) is/are a mammal.

5b. _____ (language) is/are a great invention of humankind.

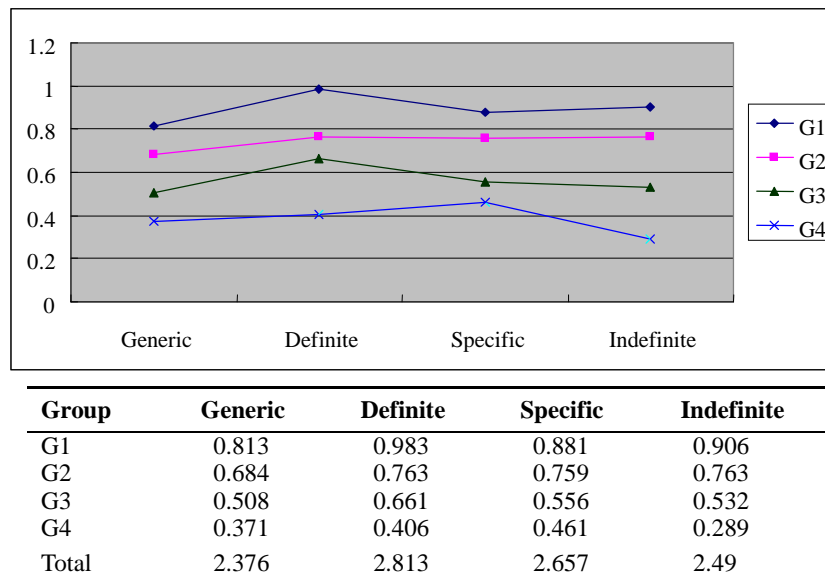


Figure 5. Mean Averages of DP of Four Types Among the Groups

Figure 5 lists the mean averages of DP of the four types among the four proficiency groups. Whereas for generic and specific DP there is gradual improvement, for definite and indefinite DP there is a substantial advance in article acquisition. We conclude hence that the major improvement in Chinese L2 learners in acquiring English DP results mainly from major progress in the indefinite and definite DP. This phenomenon could suggest DPs with both positive or both negative in [SR, HK] features are easier to acquire since they are conceptually simple and consistent in forms cross-linguistically.

Types and Causes of Errors in Various DPs

Table 5 presents the error rates for each question and the average sum of each DP type. A detailed examination of the errors within each particular DP type has been conducted with a focus on those sentences with large error rates. To investigate the possible causes of errors, we undertook a cross-linguistic comparison of the reference systems between English and Chinese.

Table 5. Average Error Rates of Test Questions

DP type	Gen. sum	Q-3	Q-6	Q-8	Q-15
Error rate	48.75%	53%	50%	29%	63%
bare NP error		14%		11%	30%
other major error			the/a N		Ns
DP type	Def. sum	Q-1	Q-4	Q-10	Q-11
Error rate	38.5%	27%	62%	39%	26%
bare NP error		21%	22%	21%	14%
other major error			a N		
DP type	Spe. sum	Q-2	Q-7	Q-12	Q-13
Error rate	41%	63%	26%	23%	52%
bare NP error		17%	14%	11%	10%
other major error		a/the N			the N
DP type	Ind. sum	Q-5	Q-9	Q-14	Q-16
Error rate	47.25%	44%	49%	29%	67%
bare NP error		11%	24%	14%	23%
other major error		a/the N	the N		Ns; the N

Errors in DP of the generic type

Chinese learners have the greatest error rate in DP of the generic type, which refers to generic and unspecifiable argument DP and is characterized with the feature [-SR, +HK]. In Mandarin, only the bare NP is used for DP of this type, whereas, in English, four forms (c.f. Table 1) can be used, but not in free variation. The concept of dividing nouns into countable and uncountable categories is a major barrier for Chinese learners because Mandarin has almost no plural suffixes to mark the plurality of a noun, except “men”(人) for [+human] nouns; this major reason reflects the distinct concepts in distinguishing nouns in the two languages. Regular nouns are regarded as individual items in their terms

in English, but Chinese nouns are countable mass nouns unless they are preceded by a classifier and henceforth become individualized. Chinese EFL/ESL learners must learn to alter from their Chinese system to the English system to master the English language. The large error rate in Question 6 (Q6, henceforth) is a representation of the problem of distinction between countable and uncountable nouns. The major type of errors in Q6 is the inappropriate plural form made mainly by the senior high school group. Other errors, such as an abstract noun preceded by the article *a* or *the*, are made by the junior high school group.

The countable nouns in generic DP were originally thought to be of less problem because any form of the three—a N, the N, or Ns—is correct. Because Chinese can use a bare noun to express a generic noun, the most common errors for Chinese learners are the wrong use of a bare noun in generic DP. In addition, among the three acceptable forms, the plural form is the most used, indicating that a generic noun is like a mass noun in English according to the Chinese manner of thinking. Errors are also distinct in the various proficiency groups. In the high proficient groups, the errors derive from the misuse of article *the* before a plural noun or misspelling of a plural form, whereas, in the low proficient groups, the errors are bare nouns or a mismatch between two corresponding generic DPs in the same sentence, as in Q8.

Errors in DP of the definite type

DP of the definite type refers to nouns of definite references, which are characterized by the feature [+SR, +HK]. Although Mandarin has no article system, a bare noun preceded by personal possessives or by demonstratives and classifiers can have functions similar to that of an English article. That Chinese learners have the least problems with DP of this type is not astonishing because English has basically one form, whereas Chinese has definite expressions in two forms. Among the four sentences testing a definite DP, Q4 and Q10 have greater rates of error than the others because Chinese EFL learners are insensitive to the information given in the context or assumed in the background knowledge. In Q4, when the pen is mentioned the second time, this information is old and hence should be referred to as a definite object. In Q10, the sun as a unique object in the universe carries a definite reference. When expressions are fixed such as a definite article before an ordinal number, errors rarely occur probably due to much classroom instruction and simplicity in concept.

Among the types of error in the definite DP, a bare noun is prevalent

because it is a definite reference in Chinese. Here we perceive evidence of L1 transfer especially among groups of low English proficiency. Groups with proficient English hardly made mistakes in DP of this type, with few and occasional misjudgment of the semantic context and hence a replacement of indefinite article *a* with definite article *the*.

Errors in DP of specific type

A DP of the specific type refers to a referential indefinite noun, or first mentioned NP, which are characterized by the feature [+SR, -HK]. Whereas English distinguishes the singular and plural forms in a specific DP, Chinese distinguishes the preverbal and postverbal forms. Both English and Chinese use indefinite NumP, such as [a + singular noun]/[Ns] in English and [Num + Cl + noun] in Chinese, as the default structure to refer to a specific DP. Because Chinese allows no indefinite NP in the subject position (Hsin 2002, 2003), NumP must have an existential marker *you* to license this indefinite NumP, whereas English lacks this restriction. Carrying this semantic restriction in L1, Chinese learners tend not to have the indefinite DP form and hence choose the definite DP for a specific-referenced subject NP, as illustrated in the large rate of error for Q13.

An error from another source emanates from the necessary discernment of a singular or plural form in English. In Q2, the semantics of the sentence (from *keeps sending* in this case) requires a plural expression of the specific DP, but Chinese learners were insensitive to this context agreement and erred by providing either a singular form or a definite DP.

Except for the preceding two examples, Chinese learners performed satisfactorily on the specific DP, but the replacement of a bare noun with a correct answer is common for them, especially for groups with poor English proficiency. For advanced English groups the errors tend to arise on substituting a definite DP for a specific DP. Chinese seem to tend to take the NP with feature [+SR] as a clue to a definite environment causing overuse of definite article *the*.

Errors in DP of indefinite type

A DP of indefinite type refers to indefinite, or indeterminate, NP, which are characterized by the feature [-SR, -HK]. Similar to DP of the specific type, English uses either a singular or plural noun for countable nouns and a bare noun for uncountable nouns, whereas Chinese uses bare nouns postverbally, or bare nouns preceded by an existential verb

you preverbally. As two possible forms exist for countable nouns, the difficulty for Chinese learners would lie in the choice of form. The context normally provides clues for one particular form, such as the singular noun in Q16 but the plural noun in Q5. Chinese EFL learners are insensitive to the information in the context and thus make errors when choosing the other form. Bare nouns remain a common type of error in this case, especially among groups with poor English proficiency. The Definite NP (i.e. the N) is another type of error made by Chinese subjects with intermediate English proficiency.

Upon a closer look at the interlanguage development, we found that Chinese learners seem to take the DP of indefinite type as the generic one, in which countable nouns of three forms are all acceptable. Bare nouns are used at the earliest stage from their L1 transfer. The-N erroneous form also exists at an initial stage of the interlanguage before evolution into the more advanced stage of two potential forms of the indefinite DP. When learners can discern the two forms from the information of the context, they have acquired the indefinite type of DP, as shown in the greatly improved performance of advanced learners.

Error Patterns for Learners in Different Stages

We do find learners from disparate English proficiency levels have different error patterns. For beginning learners, the most errors came from the wrong use of bare N in all types of DP, but mainly on definite and indefinite DPs. This is mainly from L1 transfer since bare N is a common form in definite and indefinite DPs in Chinese.

For more advanced learners, the bare N error is gradually reduced to its minimum and the major error arises from the wrong choice from several possible forms of generic or indefinite DP, especially in the distinction of countable or uncountable nouns such as in Q6, or in the choice of singular form for the plural form or the opposite such as in Q5 and Q16. Since nouns in Chinese are mass nouns in nature and no countability feature is required, the distinction of countable and uncountable nouns in English is a constant learning problem for Chinese EFL/ESL learners. Specific, generic, and indefinite DPs all have more than one form of expression and the decisive hint or clue is the context information and the countability feature of the noun. Chinese learners are deficient in both areas. That is why these three types of DP are more difficult.

To sum up, except for uncountable nouns, bare nouns are never a

correct form for any DP in English, but the most prevalent error made by Chinese learners is the bare noun. Errors of more advanced learners arise basically from incorrect choices of more than one option in English because of their insensitivity to the information provided in the context. We conclude hence that Chinese interlanguage starts with a L1 reference system and gradually evolves into the L2 system, finally developing other syntactic or morphological knowledge to incorporate with the reference system and to make the correct choice when multiple options are possible.

CONCLUSION

We explored the order of acquisition by Chinese L2 learners and causes of errors of four types of DP in English. Previous researchers focused on the absence of articles in Chinese, but our work shows that the problem derives more from the discrepancies of the forms the two languages use in the reference system than from the superficial article problem.

Chinese nouns are conceptually mass nouns; unless individuality is required, they are regarded as a whole element, and bare nouns are generally used for definite, generic and indefinite references. Classifiers emerge when an individual concept or particular number is mentioned. The most important syntactic restriction is the necessity of an existence verb marker *you* for preverbal indefinite references; otherwise, all preverbal DP are considered definite. With such a prevalence of bare nouns, the common error of a bare noun in substituting for English DP of all types is understandable. Because bare nouns are rarely an acceptable form in English DP reference, this substitution phenomenon occurs only at an initial stage at which the learners are under the influence of the L1 reference system, which is inconsistent with the finding of Thomas (1989) that the *zero* article overgeneralized across proficiency levels. Errors in subsequent stages arise mainly from the inability to select the right form when English allows several options for DP of a particular type. According to our research, Chinese learners are insensitive to the context information or restriction on syntactic agreement within the sentence and thus make mistakes, in agreement with Butler's (2002) claim that the English article system does not consist of a one-to-one form and meaning relationship, thus imposing complexity and challenges for Chinese L2 learners of English.

The results of the work also show the order of acquisition of DP of four types to be Def > Spec > Ind > Gen. A definite DP is easiest because it is most salient in both features of [SR, HK] and there is basically one form to represent it, whereas the generic DP is most difficult because of four possible forms and selecting the correct one requires years of experience for Chinese learners. The indefinite DP is also a difficult type in the initial stage due to the discrepancies in the forms the two languages use and multiple forms to choose from in English. However, it is the type that has the greatest improvement probably because both negative features in [-SR, -HK] make it simple in concept to acquire and the forms are basically similar cross-linguistically.

In general, the accuracy of acquisition increases with the level of proficiency. The averages of the correct answers of the four subject groups clearly show that learners improve with their duration of learning English and with more input of English. The major improvement falls between the groups of junior and senior high school pupils. A significant difference is also observed between senior high school pupils and undergraduate students with English as their major subject, but not between undergraduate and graduate students of English. We therefore assume that interlanguage development conforms to a curve with a steep ascent at the beginning and gradual leveling off towards the end.

NOTES

1. Previously the nominal phrases in a sentence are all referred to as noun phrases. However, based on Longobardi (1994), argument NPs with reference are actually DPs in nature. Hence, the NP mentioned by Li and Thompson are what we call DP.

REFERENCES

English References

- Bataineh, R. F. (2005). Jordanian undergraduate EFL students' errors in the use of the indefinite article. *Asian EFL Journal*, 7(1), 56-76.
- Butler, Y. G. (2002). Second language learners' theories on the use of English articles. *Studies in Second Language Acquisition*, 24(3), 451-480.
- Celce-Murcia, M., & Larsen-Freeman, D. (1999). *The grammar book: An ESL teacher's course*. Boston: Heinle and Heinle.
- Chaudron C., & Parker, K. (1990). Discourse markedness and structural markedness: The acquisition of English noun phrases. *Studies in Second Language Acquisition*, 12, 43-64.
- Cheng, L. L., & Sybesma, R. (1999). Bare and not-so-bare nouns and the structure of NP. *Linguistic Inquiry*, 30(4), 509-542.
- Ekiert, M. (2004). Acquisition of English Article System by Speakers of Polish in ESL and EFL Settings Teachers College. *Columbia University Working Papers in TESOL and Applied Linguistics*, 4(1), 1-23.
- Hsin, A. (2002). On indefinite subject NPs in Chinese. *Chinese Studies*, 20(2), 353-376.
- Hsin, A. (2003). Indefinite subject NPs between English and Chinese: An error analysis. (ERIC Document Reproduction Service No. ED475018)
- Huebner, T. (1983). A longitudinal analysis of the acquisition of English. Ann Arbor, MI: Karoma.
- Huebner, T. (1985). System and variability in interlanguage syntax. *Language Learning*, 35, 141-163.
- Li, C., & Thompson, S. (1981). *Mandarin Chinese: A functional reference grammar*. Berkeley, CA: University of California Press.
- Longobardi, G. (1994). Reference and proper names. *Linguistic Inquiry*, 25, 609-666.
- Master, P (1997). The English article system: Acquisition, function, and pedagogy. *System*, 25, 215-232.
- Mizuno, M. (1999). Interlanguage analysis of the English articles system: Some cognitive constraints facing the Japanese adult learners. *IRAL*, 37(2), 127-152.
- Parrish, B. (1987). A new look at methodologies in the study of article acquisition for learners of ESL. *Language Learning*, 37(3), 361-383.
- Robertson, D. (2000). Variability in the use of the English article system by Chinese learners of English. *Second Language Research*, 16(2), 135-172.

- Thomas, M. (1989). The acquisition of English articles by first- and second-language learners. *Applied Psycholinguistics*, 10, 335-355.
- Tsai, W.-T. D. (2001). On subject specificity and theory of syntax-semantics interface. *Journal of East Asian Linguistics*, 10, 129-168

Chinese References

- Tang, T.-c. (湯廷池). (1988a). 《英語認知語法：結構、意義與功用（上集）》 [*English cognitive grammar: Structure, meaning, and function, Part I*]. Taipei, Taiwan: Student Bookstore.
- Tang, T.-c. (湯廷池). (1988b). 《漢語詞法句法論集》 [*Academic collection of Mandarin Chinese morphology and syntax*]. Taipei, Taiwan: Student Bookstore.

CORRESPONDENCE

Ai-li C. Hsin, Department of English, National Kaohsiung Normal University, Kaohsiung City, Taiwan
E-mail address: gealhsin@nknucc.nknu.edu.tw

APPENDIX A

Questionnaire

I. Personal information:

You are currently a (graduate / undergraduate / senior high / junior high) student

Grade: _____

II. Questions:

Please fill in the blank with an appropriate noun phrase (with or without an article, in a singular or plural noun) following the indication of the noun within the parentheses, and circle the corresponding verb when needed. An example is provided in the following:

請於空格中，填入一適當的名詞片語（可能需要冠詞，也可能不需要；名詞可為單數或複數），若該名詞片語為主詞，尚需圈出適當的動詞。例句如下：

e.g. The hero (hero) was were killed at the end.

Once upon a time, there was a hero (hero) in a remote village.

Heroes (hero) usually die dies hard.

1. I won a million-dollar lottery. _____ (news) spread all over school quickly.
2. Mike keeps sending _____ (letter) to her.
3. _____ (mouse) like/likes cheese.
4. John saw a pen on the desk. He said to Mary, "Please pass me _____ (pen)."
5. I enjoy reading _____ (novel).
6. _____ (language) is/are a great invention of humankind.
7. I saw _____ (strange man) walking upstairs.
8. _____ (woman) live/lives longer than _____ (man) in general.
9. In general, Taiwanese are friendly to _____ (foreigner).
10. There are nine planets traveling around _____ (sun).
11. _____ (first man) to jump into the pool was John.
12. Steve met _____ (beautiful girl) yesterday.
13. _____ (man) called you this morning.
14. She used to be _____ (nurse).
15. _____ (bat) is/are a mammal.
16. Everyone has _____ (chance) to perform in this drama.