Spanish, Turkish, Japanese and Chinese L2 Learners’ Acquisition of Generic Reference

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1. Introduction

The main aim of our paper is to present new data in article choice in relation to generic reference. Our study examines first language (L1) influence on the second language (L2) acquisition of English generic noun phrases (NPs) by native speakers of Spanish, Turkish, Japanese and Chinese. In Section 2 we discuss the cross-linguistic variation of generic reference, focusing on the L1s in our study. Section 3 presents the current study involving advanced and upper intermediate L2 learners of English. Section 4 provides the results of the study. Finally, Section 5 discusses the implications of our findings and concludes the paper.

2. Cross-linguistic variation in expressing generic reference

Much research has been conducted on the L2 acquisition of English articles (García Mayo 2008, Gürel 2007, Ionin, Ko & Wexler 2004, Leung 2001, Snape 2008 among many others). But, little research has been conducted on the L2 acquisition of generic reference (cf. Thomas, 1989). One way to capture differences found across languages is proposed by Chierchia (1998). He proposes a system that allows for certain semantic variation in terms of how the reference of the syntactic category NP is set - the Nominal Mapping Parameter (NMP). Three kinds of languages can be distinguished in terms of their NP type: whether all NPs can refer directly to kinds (i.e., have a generic interpretation), and hence are possible arguments in syntactic expressions, whether no NPs can refer directly to kinds, but are predicates that need to be accompanied by a determiner, and whether some NPs can refer to kinds directly and some cannot. These distinctions can be captured by using two primitive features [+argument] and [+predicate]. Languages characterized as [+argument, +predicate] like English have bare NPs that can be arguments, but only if they denote kinds – hence the availability of bare plurals with kind-reference (through type-shifting). The “Avoid Structure” Principle rules out the possibility of definite plurals with kind-reference. Since bare plurals can be used for kind-reference, additional structure should be avoided. Generic NPs can refer to a kind of object but not an ‘ordinary’ individual or object. Other types of propositions do not express specific episodes or isolated facts, but instead report a kind of general property. In other words, they report regularity (Kriřka et al. 1995: 2). The following examples illustrate this point:

(1) The potato was first cultivated in South America.

(2) Potatoes were introduced into Ireland by the end of the 17th century.

The generic NPs in the examples (i.e., the potato and potatoes) are kind-referring singular and plural NPs. The notion of genericity is a feature of the whole sentence (or clause), rather than of any one NP in it (Kriřka et al. 1995). Another type is the so-called ‘taxonomic’ interpretation, as shown in (3).

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(3) a. Mary designed **a coke bottle**.
    b. Mary designed **the coke bottles**.
    c. Mary designed **this coke bottle**.

All the examples in (3) have a taxonomic interpretation as they likely refer to some of the subtypes of ‘the coke bottle’ rather than *the* coke bottle as in e.g., Mary designed **the coke bottle**. One subtype (3a) is referred to using the indefinite article *a*. The indefinite article has a non-referential use which is equated with a generic interpretation (Lyons 1999). In example (4) the first two readings are distinct, so the third reading cannot be the same as non-specific.

(4) An Indian smokes a pipe every night.

i.) **Specific reading** = a particular Indian is a nightly smoker
    ii.) **Non-specific reading** = pipe smoking occurs nightly, but it may be a different Indian each night
    iii.) **Generic or non-referential reading** = nightly pipe-smoking is a defining property of Indians – to be a real Indian you have to smoke a pipe every night

No particular NP in English is uniquely identified as a generic NP. Instead, genericity is marked in sentences with a variety of morphosyntactic, semantic, and pragmatic cues. With respect to morphosyntactic cues, definiteness and number provide information regarding generic reference in English. Therefore, from the L2 acquisition perspective, an important challenge for learners is to differentiate between a generic and a nongeneric reading of such NPs and to select the correct article that would go with singular and bare NPs. The important point for our discussion on generics is that the four languages in our study all differ to English. The section below summarizes the semantic, pragmatic and morphosyntactic characteristics of genericity in these languages.

Languages like Spanish require all nouns to be licensed by some kind of determiner, hence are characterized as [-argument, +predicate]. Bare NPs cannot be arguments. Articles are obligatory and the definite article is used both for definiteness (maximality) and for kind-reference (Dayal 2004). The examples in (5) show that Spanish uses the definite article (singular and plural forms) and the indefinite singular article to mark generic reference.

(5) a. **El** leopardo es fácil de domesticar.
     The-SING cheetah is easy of tame.
     ‘The cheetah is easy to tame’

b. **Los** leopardos son fáciles de domesticar.
     The-PL cheetahs are easy-PL of tame.
     ‘Cheetahs are easy to tame’

c. **Un** leopardo es fácil de domesticar.
     A-SING cheetah is easy of tame.
     ‘A cheetah is easy to tame’

(5a) predicates a property of a natural group, (5b) attributes that property to a group of individuals (the ‘cheetah’ species) and (5c) takes one of the members of the group as a prototypical representative of the class to predicate a characteristic property. Unlike English, Spanish uses definite plurals for a ‘kind’ or generic interpretation, as in (5b). Bare NPs in the examples in (6) cannot mark generic reference in preverbal position with a plural noun.

(6) *Leopardos son fáciles de domesticar.

In example (7) only preverbal subject position, and not postverbal positions, allows for generic interpretations for the indefinite article in Spanish.
(7) **Un** ordenador portátil es necesario.
    a-SING computer portable is necessary
    ‘A laptop is necessary’

Therefore, the determining factor for a generic interpretation of *un* is not the subject position but, rather, the thematic position, the fact that it belongs to an NP of which something is predicated.

Japanese and Chinese are characterized as [+argument, -predicate] as bare nominals are allowed as arguments, which under Chierchia’s (1998) semantic account, have a mass denotation. There is no count/mass distinction in languages like Japanese and Chinese. The example from Japanese in (8) shows that when the bare noun ‘Itariazin’ (Italian) occurs alone, the generic reading is salient.

(8) **Itariazin**-wa yooki-da. [\generic reference]
    Italian-TOP cheerful-COP
    ‘Italians are cheerful’

With plural marking –*tachi*, it is difficult to obtain the generic interpretation, so ‘Itariazin-*tachi*’ has a specific reading meaning a particular group of Italians. Topic marking is used to differentiate between a generic and specific interpretation in the examples in (9).

(9) a. Tori-*wa* tobun-da. [\indefinite generic reference]
    bird-TOP fly-COP
    ‘A bird flys’

b. Tori-*ga* tonde-iru. [\indefinite or \definite specific reference]
    bird-TOP flying
    ‘A/The bird is flying’

The context provided by the speaker will allow the hearer to work out whether the speaker is referring to a specific person or object.

Chinese marks generic reference pragmatically rather than syntactically.

(10) Xiao ya zi yao yao bai bai de zou lu.
    ‘Little duck waddlingly walk road’

Possible English translations are specific, not generic interpretations.

i.) **The** duck is waddling
ii.) **The** ducks are waddling
iii.) Ducks are waddling

Up to this point we have characterized English, Spanish, Japanese and Chinese by referring to Chierchia’s (1998) semantic account of kind reference. However, there are a number of criticisms targeting empirical and theoretical issues concerning the NMP as it fails to capture plural marking found in languages such as Chinese (Cheng & Sybesma 1999), Japanese (Kurafuji 2004; see Borer 2005 and Lardiere 2009, for an overview of plural marking in classifier languages) and Turkish (Özturk 2005). Despite the fact that Chierchia’s (1998) generalizations do not hold for every language, his account clearly shows how languages differ in the distribution of definite and bare NPs. In the present paper we adopt Chierchia’s (1998) typology of kind reference without adopting the NMP in relation to the issue of parameter setting (Kupisch et al. 2009).

Like Japanese and Chinese, Turkish does not grammaticalize definiteness as it has no article system. Bare NPs in Turkish are ambiguous as they can be interpreted as definite or indefinite. Turkish employs three types of DPs to indicate generic reference: unmarked phrases, plural phrases, and *bir*-phrases (Tura, 1973:151).
In the first example (11a), all birds are viewed as forming an undifferentiated whole. What is specified here is the abstract notion of the class, detached from the individual members, yet representing all of them. In the plural generic example (11b), birds are viewed as a class consisting of individual members with different characteristics. The singular generic in (11c) specifies a single member of the class of birds, randomly chosen to represent the whole class. Singular generics are also common in Turkish but there are more context restrictions on them than on the other two. In the direct object position, generic nouns normally appear in the bare form with no case marking (as in 12a). However, a generic noun in the direct object position can be marked with the accusative case morpheme and still carry a generic meaning (as in 12b) (Kornfilt 1997: 280).

Turkish and Chinese have morphemes with article-like functions. Mandarin Chinese has demonstrative determiners nei- or na- (that) and zhei- (this), which seem to be taking on some of the functions of a definite article (Partee 2006). The quantifier yi- (one) if not stressed has similar functions to an indefinite article (Li & Thompson 1981). But, Mandarin Chinese does not mark generic reference by using demonstrative determiners or numerals. Lardiere (2009) argues that L2 learners from languages that lack direct grammaticalized morpheme-equivalents, in this case the articles the, a and plural –s, “seek the morpholexical equivalents of assembled lexical items in the L1 in the target language they are acquiring” (p. 213). On this view, kind reference is available in the grammars of the L1, but L2 learners whose language has morpholexical equivalents to the definite and indefinite articles i.e., Mandarin Chinese, may have difficulty in selecting articles to serve in the function of expressing generic reference. Turkish, however, has the indefinite article bir (see Kornfilt 1997, Lyons 1999) which can be used to express generic reference (see 11c). Japanese lacks any type of article or morpholexical equivalents (see Gundel et al. 1993).

We assume that although genericity is a universal phenomenon, its expression varies considerably across languages (Gelman & Tardif 1998). Therefore, we predict that Turkish, Japanese and Chinese L2 learners will have varying degrees of difficulty in correct article selection in a forced choice elicitation task with generic reference contexts as the three languages in question are article-less languages. Spanish L2 learners at lower proficiency levels are predicted to overuse “the” in indefinite plural contexts due to L1 transfer effects.
3. Study

The study involved four different L1 groups: Spanish (n=45), Turkish (n=88), Japanese (n=33), Chinese (n=22) and English native controls (n=17). The L2 participants were grouped as upper intermediate (Spanish n=24, Turkish n=38, Japanese n=24, Chinese n=14) and advanced (Spanish n=21, Turkish n=50, Japanese n=9, Chinese n=8) according to the score they received on the Oxford Quick Placement Test (2001). Most L2 participants were tested in their own country (i.e., Spain, Turkey and Japan) apart from the Chinese speaking participants, who were all recruited in Canada. Participants were given a forced choice elicitation task consisting of a total of 66 items (34 target; 32 filler) and asked to fill in the blank with their choice of article (the/a/an/Ø). The items appeared in subject and object positions in either count or mass contexts. We only discuss the count contexts here due to space limitations. There was a time limit on the placement test of 30 minutes. No time limit was imposed on the experimental task, but participants generally took 35-40 minutes to complete it.

3.1. Research question

i.) Can L2 learners acquire the form-meaning mappings underlying articles when the L1 and the L2 differ in the domain of expressing generic reference?

3.2. Predictions

English and Spanish lexicalize different concepts: English definite articles lexicalize maximality only whereas Spanish definite articles lexicalize maximality + kind reference (Dayal 2004). Hence, Spanish speakers are expected to perform near-native like in singular generic contexts but may overuse definites in plural generic contexts due to L1 transfer. The Turkish speakers are predicted to perform better than the Japanese and Mandarin Chinese speakers in indefinite singular contexts as Turkish has a direct indefinite article equivalent (bir). The Japanese speakers are expected to perform similarly to the Mandarin Chinese speakers as both languages lack articles or morpholexical equivalents marking generic reference. We predict the following for each language group.

- **Spanish L2 learners** at lower proficiency levels are expected to have problems in indefinite plural contexts due to persistent L1 transfer effects.
- **Turkish L2 learners** are expected to have problems in definite singular contexts as Turkish does not have definite articles. But, they are expected to perform well in indefinite singular contexts due to L1 transfer.
- **Japanese L2 learners** are predicted to produce omission and substitution errors in all singular contexts. Overuse of “the” is predicted in indefinite plural contexts if the generic reading is blocked or if they associate “the” as being a marker of specificity (Ionin et al. 2004).
- **Chinese L2 learners** are predicted to produce omission and substitution errors in all singular contexts. Overuse of “the” is predicted in indefinite plural contexts if the generic reading is blocked or if they associate “the” as being a marker of specificity (Snape 2009).

4. Results

Figures 1-6 below show the two proficiency groups (advanced and upper intermediate) in their suppliance of all the target determiners for definite singular, indefinite singular and indefinite plural in subject and object positions.
Figures 1-6. Correct article suppliance by advanced and upper intermediate groups

Figure 1.

Figure 2.

Figure 3.

Figure 4.

Figure 5.

Figure 6.
We conducted repeated measures ANOVAs on the group results. Separate ANOVAs were performed on proficiency (upper-intermediate and advanced). The target determiner type was the within-subjects variables and group and proficiency were the between-subject variables. We found a significant effect of determiner type in the upper intermediate groups (definite singular subject and object, $F_{(1,3)} = 14.454, p<.001$; indefinite singular subject and object, $F_{(1,3)} = 5.346, p=.023$; indefinite plural subject and object, $F_{(1,3)} = 1.079, p>.05$) and the advanced groups (definite singular subject and object, $F_{(1,3)} = 10.885, p<.001$; indefinite singular subject and object, $F_{(1,3)} = 4.898, p=.029$; indefinite plural subject and object, $F_{(1,3)} = 0.019, p>.05$). Post-hoc tests (Bonferroni) on the effects of group (definite singular subject and object) found that native speakers were significantly more accurate than the Turkish, Japanese and Chinese upper intermediate groups ($p<.001$) and native speakers were significantly more accurate than both the Turkish and Japanese advanced groups ($p<.001$). Post-hoc tests (indefinite singular subject and object) found that native speakers were significantly more accurate than both the Japanese and Chinese upper intermediate groups ($p<.001$). For the advanced groups a significant difference was found between the native speakers and the Japanese ($p<.001$). Post-hoc tests (indefinite plural subject and object) found that native speakers were significantly different to the advanced Turkish group. Paired samples t-tests revealed that within the advanced Japanese group there are no significant differences between definite subject vs. object positions, indefinite singular subject vs. object positions and indefinite plural subject vs. object positions. Within the advanced Chinese group significant differences were found in definite subject vs. object positions ($t=-3.087, p<.002$) and indefinite singular subject vs. object positions ($t=-2.806, p<.05$). Significant differences were found within the advanced Turkish group in definite subject vs. object positions ($t=-4.163, p<.001$) and indefinite plural subject vs. object ($t=-2.632, p<.002$). Within the advanced Spanish group a significant difference was found in definite subject vs. object positions ($t=-4.338, p<.001$). Within the upper intermediate Japanese group there are no significant differences between definite subject vs. object positions, indefinite singular subject vs. object positions and indefinite plural subject vs. object positions. A significant difference was found in the definite subject vs. object positions within the upper intermediate Chinese group ($t=-2.703, p<0.05$) and the upper intermediate Turkish group ($t=-4.247, p<.001$). Within the upper intermediate Spanish group a significant difference was found in definite subject vs. object positions ($t=-2.426, p<0.05$).

5. Discussion

Our findings show that L2 learners perform differently in choosing articles to represent generic reference. The overall results reveal that the Spanish L2 learners are much more successful, as predicted, due to Spanish being an article language like English. Turkish L2 learners tend to omit definite articles in definite singular generic contexts whereas the Japanese L2 learners substitute “the” for “a” in definite singular generic contexts. More omission of indefinite articles is found in the Japanese groups in indefinite singular generic contexts but the Turkish groups omit less and correctly supply the indefinite article. At advanced levels the Spanish, Turkish and Chinese L2 learners are much better in supplying the correct article and as predicted, the Japanese L2 learners continue to omit articles in definite and indefinite singular contexts.

A number of open questions remain, however. Given the methodological differences between our L2 study and previous L2 studies (e.g., Ionin & Montrul 2009, Thomas 1989), it is impossible to conclude that all L2 learners follow the same developmental pattern, although the similarities are suggestive. More investigation is needed into the interpretation of different types of generic reference i.e., kind, non-kind, taxonomic, in singular and plural NPs, as taxonomic interpretations seem to cause L2 learners more difficulty with article choice.

Perhaps greater accuracy with indefinite singular articles by the Turkish L2 learners is due to Turkish having a quasi indefinite article bir to mark generic reference and if morpholexical equivalents play a role in bootstrapping the acquisition of articles, it may partly help explain the differences found between the Mandarin Chinese and Japanese groups.
References


