

---

# ***That's not so different from the: Definite and demonstrative descriptions in second language acquisition***

Second Language Research

28(1) 69–101

© The Author(s) 2012

Reprints and permission: sagepub.

co.uk/journalsPermissions.nav

DOI: 10.1177/0267658311432200

slr.sagepub.com



**Tania Ionin, Soondo Baek, Eunah Kim**

University of Illinois at Urbana-Champaign, USA

**Heejeong Ko**

Seoul National University, Korea

**Kenneth Wexler**

Massachusetts Institute of Technology, USA

## **Abstract**

This article investigates how adult Korean-speaking learners of English interpret English definite descriptions (*the book, the books*) and demonstrative descriptions (*that book, those books*). Korean lacks articles, but has demonstratives, and it is hypothesized that transfer leads learners to (initially) equate definites with demonstratives. Following J Hawkins (1991), Roberts (2002) and Wolter (2006), it is assumed that definite and demonstrative descriptions have the same central semantics of uniqueness, but differ in the domain relative to which uniqueness is computed: while *the book* denotes the unique book in the discourse, *that book* denotes the unique book in the immediately salient situation. A written elicited production task and a picture-based comprehension task are used to examine whether Korean-speaking learners of English are aware of this distinction. The results indicate that learners distinguish definites and demonstratives, but not as strongly as native English speakers; low-proficiency learners are particularly likely to interpret definite descriptions analogously to demonstrative descriptions, in both tasks. These results pose interesting conceptual and methodological questions for further research into the second language acquisition of article semantics.

## **Keywords**

articles, definiteness, demonstratives, determiners, nouns, semantics

---

## **Corresponding author:**

Tania Ionin, University of Illinois, 4080 FLB, MC-168, 707 South Mathews Avenue, Urbana, IL 61801, USA

Email: [tionin@illinois.edu](mailto:tionin@illinois.edu)

## I Introduction

There has been much research in recent years on the second language (L2) acquisition of English articles by speakers of article-less first languages (L1s), such as Korean, Russian, Japanese, or Chinese (see, among many others, Goad and White, 2004, 2008; R Hawkins et al., 2006; Huebner, 1983; Ionin et al., 2004; Ko et al., 2010; Liu and Gleason, 2002; Murphy, 1997; Robertson, 2000; Snape, 2008; Thomas, 1989; Trademan, 2002; Trenkic, 2007, 2008; Wakabayashi, 1998; and the articles in García-Mayo and R Hawkins, 2009). L2-English learners from article-less L1s have been found to make many errors in their production of English articles, including errors of both article omission and article misuse (for an overview, see the articles in García-Mayo and R Hawkins, 2009). An example of an article omission error is given in (1a) (from Robertson, 2000): here, an L1-Chinese L2-English learner engaged in an oral collaborative task omits the article before the word *triangle*. An error of article misuse, of *the* in place of *a*, is given in (1b) (from Ionin et al., 2004): here, an L1-Korean L2-English learner is providing a written narrative about a valuable object that she owns. No ball or baseball player have been previously mentioned, and the target article for a native English speaker in this context would be *a*.

- (1) a. When you draw, you touch the centre of triangle, draw two circle.  
(Robertson, 2000: 166)
- b. The most valuable object that I have received is the ball and the signature of the famous baseball player is signed on it.  
(Ionin et al., 2004: 4)

The patterns of English article choice among learners from article-less L1s have received a number of explanations, including:

- access to semantic universals through Universal Grammar (Ionin et al., 2004);
- learners' (mis)interpretation of what the labels 'definite' and 'indefinite' mean (Trenkic, 2008);
- L1 transfer at the level of determiner prosody (Goad and White, 2004, 2008); and
- recoverability of (in)definiteness of an NP from the context (Robertson, 2000).

In this article, we are interested in another facet of L2-English article choice: namely, the role of transfer from the semantics of demonstrative determiners (such as *this* and *that*) in the L1.

Definite and demonstrative determiners are closely related. Diachronically, definite determiners frequently develop from demonstratives, as in the case of the English *the* developing from *that* (J Hawkins, 2004; Lyons, 1999). Semantically, both *the* and *that* can be used almost interchangeably in many contexts, including anaphoric contexts like (2); and indeed many authors (see, among others, J Hawkins, 1991; Roberts, 2002; Wolter, 2006) have analysed *the* and *that* as sharing the central semantics of uniqueness, as discussed in more detail below.

- (2) A dog was sitting next to a window as I was walking by. As I was leaving, the/that dog started barking at me.

Given the close relationship between definites and demonstratives, and the fact that many languages (including Chinese, Korean, Japanese, and Russian) lack articles but have demonstratives, it is reasonable to expect lexical transfer from the semantics of demonstrative determiners in the learners' L1 to affect learners' use and/or interpretation of English definite articles. However, there has been very little investigation of this question in L2 acquisition. A number of studies that have looked at L2-English learners' oral or written narratives (e.g. Genc and Bada, 2006; Kang, 2005; H Kim, 2000; Swierzbinska, 2004; see overview in Swierzbinska, 2010) have reported on the proportions of learners' and native speakers' uses of demonstratives (both demonstrative determiners, as in *that dog*, and demonstrative pronouns, as in *that's a dog*) relative to other expressions. As discussed by Swierzbinska (2010), the results of these studies (most of which lacked a theoretical framework for analysing demonstratives) are largely inconclusive, with some studies finding learners overusing demonstratives, and others underusing them; given the differences in learners' native languages and proficiency levels, as well as differences in the tasks employed, this is hardly surprising. Swierzbinska (2010: 998) notes that, even as relatively little is known about the frequency of demonstrative use by L2-English learners, 'even less is known about the functions learners associate with them.'

In the case of Korean, K Kim and Lakshmanan (2009) – following K Kim (2006) – suggest that L1-Korean L2-English learners map Korean demonstrative determiners to *the*, and that this leads to correct use of *the* in those contexts where Korean demonstratives are appropriate, such as anaphoric (second-mention) environments. However, K Kim and Lakshmanan do not directly test this possibility, focusing instead on the relationship between definiteness and specificity in L2-English article choice (we will come back to more discussion of K Kim and Lakshmanan's study in Section IV, in relation to our own findings).

The only study we are aware of that systematically examines learners' use of definite and demonstrative descriptions in an experimental setting is Robertson (2000), a study of semi-naturalistic oral production data of L1-Chinese L2-English learners engaged in a collaborative communication task.<sup>1</sup> Robertson found that some learners overused demonstratives (*this* and *that*) in contexts where *the* was the more appropriate option (as in (3)). Robertson proposes that this is a result of lexical transfer from Chinese, where – in the absence of articles – demonstratives are in the process of taking over some of the functions that the definite article plays in English (Huang, 1999; Li and Thompson, 1981).

(3) Okay. Finish it? Then, er, under this blue square ...

(Robertson, 2000: 167)

Robertson's findings point to the possibility that the presence and the semantics of demonstratives in the learners' L1 influence their acquisition of the English definite determiner. Robertson's study relied on fairly free-form production data and was not designed to look at subtle differences in the interpretation of definite vs. demonstrative expressions. In the present study, we take Robertson's basic finding – that L2-English learners from an article-less L1 may overuse demonstratives in place of definites – as the starting point and examine whether the patterns of such overuse are directly traceable to the semantics of demonstratives in the learners' L1 (in the case of our study, Korean). We furthermore examine learners' interpretation of definite and demonstrative descriptions

in comprehension, in order to determine whether transfer of the semantics of demonstratives is evident in comprehension as well as in production.

Following J Hawkins (1991), and subsequent literature, we assume that definites and demonstratives have the same central semantics (of uniqueness/maximality), but differ in the domain relative to which uniqueness is computed. Focusing on anaphoric contexts, we spell out the predictions of L1 transfer if learners have not fully grasped the distinction between definite and demonstrative descriptions. These predictions are tested with L1-Korean L2-English learners, in two separate tasks: written forced-choice elicited production, and picture-based comprehension. The results from the two tasks suggest that learners do distinguish between definite and demonstrative descriptions, but not as strongly as native speakers, and that the differences between learners and native speakers are precisely those expected under L1 transfer of demonstrative semantics.

## II Background: Semantics of definites and demonstratives

Two major approaches to definiteness in the semantic literature are ‘uniqueness’ and ‘familiarity’; on the uniqueness approach, which goes back to Russell (1905) (see also J Hawkins, 1978, 1991; Heim, 1991), *the dog* denotes a unique dog, while on the familiarity approach (e.g. Heim, 1982; Prince, 1992), *the dog* denotes a dog that is familiar to both speaker and hearer (for an overview of both approaches, and arguments for and against each one, see Abbott, 2003). Attempts at a synthesis of uniqueness and familiarity include J Hawkins (1984, 1991) and Roberts (2003), among others. For the purposes of the present article, we adopt the view of uniqueness put forth in J Hawkins (1991: 14), on which ‘*the* conventionally implicates that there is some subset of entities, {P}, in the universe of discourse which is mutually manifest to S[peaker] and H[earer] on-line and within which definite referents exist and are unique.’ As an illustration of this concept, consider the examples in (4). Use of *the dog* in (4a) is perfectly felicitous, because existence of a unique dog in the common ground of speaker and hearer is ensured through prior discourse (the first sentence). In contrast, in (4b) the discourse contains three dogs, so the uniqueness requirement on *the* is violated, and use of *the dog* is infelicitous; use of *a dog* (or alternatively, *one of the dogs*) is fine, because indefinites do not have a uniqueness requirement. Finally, in (4c) the existence requirement on *the* is violated: the existence of a particular dog is known only to the speaker, but not to the hearer, so once again use of *the* is infelicitous.<sup>2</sup>

- (4) a. The pet shop had one dog and one cat. I bought the dog.  
 b. The pet shop had three dogs and three cats. I bought a/#the dog.  
 c. Guess what I did yesterday? I bought a/#the dog.

In the case of plural definites such as *the dogs*, the concept of uniqueness is replaced by ‘inclusiveness’ (J Hawkins, 1978, 1991) or ‘maximality’ (Heim, 1991; Sharvy, 1980): *the dogs* denotes the totality of all dogs (the maximal set of dogs) in the discourse. Thus, in (5a) *the dogs* necessarily refers to all five dogs previously mentioned, not a subset of them. In contrast, the indefinite *some dogs* can denote a plural subset of the previously mentioned set, namely two, three, or four dogs. (In principle, *some dogs* could also

denote all five dogs, but this reading is ruled out by the pragmatic implicature that *some* means *not all*; see Grice, 1975; Horn, 1972, and much subsequent literature).

- (5) a. The pet shop had five dogs and three cats. I bought the dogs. [= all 5 dogs]  
 b. The pet shop had five dogs and three cats. I bought some dogs. [= 2, 3 or 4 dogs]

## 1 Definite and demonstrative descriptions in English

As discussed earlier, definite and demonstrative descriptions are interchangeable in certain contexts. At the same time, there are clear differences between them. For example, demonstrative descriptions are usually unacceptable with semantically unique descriptions (descriptions whose content ensures uniqueness, such as *mother of John*; see Löbner, 1985). Demonstrative descriptions like *that mother of John*, *that current president of the U.S.*, or *that tallest person in the room* are unacceptable out of the blue, unlike their definite counterparts with *the* (however, they are acceptable in certain environments, e.g. in emotive contexts; for more discussion, see Wolter, 2006).

Conversely, there are also environments where demonstrative descriptions are acceptable but definite descriptions are not. These are environments where the uniqueness requirement on *the* is violated, as seen both with deictic uses, such as (6a) (from Wolter, 2006: 3), and with anaphoric uses, such as (6b) (from Wolter, 2006: 4, based on a similar example in Roberts, 2002). In (6a) the discourse situation contains multiple paintings, so use of *the painting* is infelicitous; similarly, in (6b), two women are mentioned in the discourse, so once again *the woman* cannot pick out a unique referent. In contrast, use of a demonstrative description is perfectly felicitous: in (6a), the demonstrative description describes the painting singled out by the pointing gesture, while in (6b) it describes the most recently mentioned woman.

- (6) a. In an art gallery [speaker points at a painting]:  
That/this/#the painting is beautiful.  
 b. A woman entered from stage left. Another woman entered from stage right.  
That/this/#the woman was carrying a basket of flowers.

There are different accounts of the semantics of demonstrative descriptions in the literature. Importantly for our purposes, a number of otherwise distinct accounts (e.g. J Hawkins, 1991; King, 2001; Roberts, 2002; Wolter, 2006) agree that definite and demonstrative descriptions share the central semantics of uniqueness. This is illustrated in (7) (compare to (4)–(5)): in (7a) *that dog* refers back to the unique dog in the discourse; in (7b) *that dog* is infelicitous, since uniqueness has not been established; and in (7c), with a plural, *those dogs* must refer to the totality of dogs.

- (7) a. The pet shop had a dog for sale. I bought that dog.  
 b. The pet shop had three dogs for sale. #I bought that dog.  
 c. The pet shop had five dogs for sale. I bought those dogs. [= all 5 dogs]

J Hawkins (1991: 415) suggests (following Kadmon, 1990) that both definite and demonstrative descriptions denote uniquely, but that uniqueness is computed according to more restrictive parameters for demonstrative descriptions than for definite descriptions: in particular, for demonstrative descriptions, 'their uniqueness holds relative to immediately perceptible and textually introduced entities that satisfy the NP description, regardless of their pragmatic structuring.' For example, in (6a) the relevant picture is immediately perceptible; in (6b) the relevant woman is textually introduced by the second sentence. In a similar vein, Roberts (2002) argues that definite descriptions denote uniquely in the context, while demonstrative descriptions require an additional 'demonstration', such as a pointing gesture (as in (6a)), and that uniqueness is determined relative to the demonstration (in (7b), *that dog* will be fully felicitous if it is accompanied by a pointing gesture at one of the dogs).

In the present article, we focus specifically on use of definite vs. demonstrative descriptions in anaphoric contexts – such as (6b) – leaving aside the complexities of how definite and demonstrative descriptions behave in other environments. We focus on the differences between *the* and *that*, leaving aside *this*, which was not tested in our study (for differences in the uses of *this* vs. *that*, see, among others, Roberts, 2002; Wolter, 2006). As shown in (6b), *that* but not *the* can be used when the discourse contains two referents that fit the descriptive content of the NP: *that woman* picks out the most salient woman (the one who has just been introduced), but *the woman* is infelicitous because there are two women in the discourse. At the same time, in examples like (8a) below, both *the* and *that* are possible: *the woman* can be used because it denotes the unique woman in the discourse, and *that woman* can be used because a salient woman has been introduced in the discourse.

As discussed by Roberts (2002), definite descriptions are unmarked because they are compatible with any context where the uniqueness and existence requirements have been satisfied; in contrast, the more marked demonstrative descriptions require a 'demonstration', such as a pointing gesture or immediate prior mention. Roberts (2002) argues that in cases like (8a), where both definite and demonstrative descriptions are in principle possible, there has to be a reason to use the demonstrative description instead of the less marked definite description (or a pronoun). One such possible reason, suggested by Roberts, for why a demonstrative description is used instead of the unmarked definite description is implication of contrast: use of a demonstrative implies that the property attributed to the referent is not borne by other members of the relevant contrast set. Applied to (8a), use of *that woman* implies that only the woman mentioned in the sentence started singing and dancing, and no other women did: the woman in question is being implicitly contrasted with other women. This hypothesis is supported by (8b), where use of a demonstrative description is infelicitous: here, the first sentence establishes a contrast between a woman and a man, and the second sentence implies that the woman, but not the man, started singing and dancing. Since the contrast is between the woman and the man, rather than between the woman and other possible women, the contrastive reading is on the lexical noun rather than on the determiner. Consequently, contrastive use of a demonstrative is impossible, and there is no reason to use a demonstrative description: with uniqueness established in the discourse domain, a definite description is the preferred, unmarked option.

- (8) a. The curtain rose. A woman came onto the stage. Then the/that woman started singing and dancing.  
 b. The curtain rose. A woman and a man came onto the stage. Then the/#that woman started singing and dancing.

Finally, we ask the question of what counts as ‘discourse’ for the purposes of establishing uniqueness with definite descriptions. In J Hawkins’s (1991) framework, discussed above, uniqueness and existence have to be established in ‘the universe of discourse which is mutually manifest to S[peaker] and H[earer] on-line’. The question is, how much discourse is manifested on-line: presumably, something that the speaker has just uttered is part of the current on-line discourse, but something that the speaker said an hour ago may not be. The same holds for text: as shown by (6b), if two women are mentioned one after the other, uniqueness is violated and use of *the woman* is infelicitous. However, if additional text is inserted between mention of the first woman and mention of the second woman, as in (9) (based on Wolter, 2006: 91), felicity of *the woman* is much improved: uniqueness can be established relative only to the most recent part of the passage. As discussed by Wolter (2006), how much of the text is taken to be relevant for the computation of uniqueness is largely a matter of pragmatics, depending heavily on real-world knowledge and discourse relations between chunks of text (Asher, 1993).

- (9) A woman entered from stage left. She entered quietly and didn’t look at the audience. Then another woman entered from stage right. This was a completely different affair. The/that woman was singing, dancing and tossing flowers to the audience.

To sum up, we follow J Hawkins (1991) and Roberts (2002) in assuming that both definite and demonstrative descriptions denote uniquely, but that while definite descriptions denote uniquely in the discourse, demonstrative descriptions denote uniquely relative to the immediately salient context, where saliency is established by such means as pointing or textual mention (a ‘demonstration’ in Roberts’s terms). While definite descriptions are the unmarked case (meaning that they can be used whenever uniqueness is established in the discourse), demonstrative descriptions are the marked case, implying contrast.

The above judgments need to be empirically verified through the testing of native English speakers. We will see that the above claims are in fact supported by the results we obtained from the native speaker control group in our study.

## 2 Demonstrative descriptions in Korean

Korean has three demonstrative determiners: *i* ‘this’ (a proximal form), *ce* ‘that over there’ (a distal form) and *ku* ‘that’ (a neutral form; close to hearer or known to both speaker and hearer); see Sohn (1999: 210). As shown in (10), Korean demonstratives behave like English demonstratives in that they can be used to single out an immediately salient individual when uniqueness is not established in the discourse; compare (10a–b) to (6a–b). All three forms can be used in deictic contexts such as (10a). Additionally, *i*

'this' and *ku* 'that' can also be used in anaphoric contexts such as (10b), whereas *ce* 'that over there' can be used only in deictic, not anaphoric contexts (see, among others, K-H Chang, 1980; S-J Chang, 1984; Lee and Song, 2010) (in (10b), *ku* is better than *i*, but *i* is still possible). Since our study tests *that* in anaphoric contexts such as (10b), we focus on *ku*, which is the corresponding Korean determiner.

- (10) a. In an art gallery [Speaker points at a painting]:  
*i/ce/ku*      *kulim-i*      *alumtapta*  
 this/that/that   picture-nom   beautiful  
 'This/that painting is beautiful.'
- b. *yeca*      *hanmyeng-i*   *mwutay*   *oyncocok-eyse*   *tulewassta*.  
 woman   one-nom   stage   left-from   entered  
*talun*      *yeca*      *hanmyeng-i*   *mwutay*   *oluncocok-eyse*   *tulewassta*.  
 different   woman   one-nom   stage   right-from   entered  
*ku/?i*      *yeca-nun*   *kkoch*   *pakwuni-lul*   *tulko*      *issessta*.  
 that/this   woman-top   flower   basket-acc   carry-comp   was  
 'A woman entered from stage left. Another woman entered from stage right.  
 This/that woman was carrying a basket of flowers.'

The examples in (11) below, discussed by Cho (1999), further illustrate the point that *ku* can be used both in deictic contexts (as in (11a), where the book is visually present, and where use of *ku* can be accompanied by a pointing gesture) and in anaphoric contexts (as in (11b), where the book is previously mentioned and not visually present).

- (11) a. *ku*   *chayk*   *caymi*      *iss-ni?*  
 that   book   interesting   be-Q  
 'Is that book interesting?' (Cho, 1999: example 1)
- b. *Tom-i*   *nay-key*   *chayk-ul*   *sa-cwu-ess-ta.*   *ku*   *chayk-un*  
 Tom-nom I-to   book-acc   buy-past-dec   that   book-top  
*caymi*   *iss-ess-ta.*  
 interesting   was  
 'Tom bought a book for me. The book was interesting.' (Cho, 1999: example 2)

Focusing on anaphoric contexts such as (10b) and (11b), we address the question of whether *ku* behaves more like *that* or like *the*. First of all, *ku* can be used in contexts where uniqueness is not established in the discourse, where *that* but not *the* is acceptable in English, as shown by (10b) above. At the same time, as shown by (11b), *ku* can also be used in contexts where uniqueness is established in the immediately prior discourse; as discussed above, both *the* and *that* are felicitous in such contexts in English. S-J Chang (1984: 128) notes, however, that when *ku* is used in anaphoric contexts such as (11b), it places emphasis or contrastive focus on the NP; e.g. for (11b), this would mean that the book under discussion is being implicitly contrasted with other books.<sup>3</sup> This is the same type of interpretation that we obtain for *that* in English, as discussed above in reference to example (8). To sum up, the behavior of *ku* in anaphoric contexts is more like the behavior of *that* than the behavior of *the*.

In non-anaphoric contexts, however, the behavior of *ku* is not identical to the behavior of *that* in English. Specifically, Cho (1999) notes that *ku* can be used in contexts where uniqueness is satisfied in the common ground between speaker and hearer, but the referent is neither previously mentioned nor visually present, as in (12): Cho (1999) argues that the demonstrative description in (12) can be felicitously used to denote the coffee shop that both speaker and hearer know from prior experience. In this context, *the* would be more appropriate than *that* in English (Cho translates *ku* as *that* in this example; however, *the* would be a more appropriate translation).

- (12) Ku coffee shop-ey semannaca.  
 that coffee shop-at see  
 ‘See you at the coffee shop.’ (Cho, 1999: example 6)

While a formal analysis of the semantics of *ku* is beyond the scope of this article, the studies on Korean *ku* reviewed above suggest that the demonstrative determiner *ku* has taken over some of the functions normally associated with the definite determiner, while still retaining the characteristics of a demonstrative determiner (see C Chang, 2003), as has also been argued for demonstratives in Chinese (Huang, 1999). In anaphoric contexts such as (10b) and (11b), on the one hand, *ku* behaves more like *that* than like *the*. In non-anaphoric contexts such as (12), on the other hand, *ku* behaves more like *the* than like *that*.

The above facts present L1-Korean L2-English learners with a learning challenge: contexts which are compatible with *ku* in Korean may, in English, be compatible with *the* only, or with *that* only, or with both. Indeed, both *the* and *that*, when used in anaphoric contexts, are translated as *ku* in Korean, including in instructional materials. Thus, both input and instruction may lead L1-Korean L2-English learners to (at least initially) equate both *the* and *that* with *ku* (as noted in Section I, the same point is made by K Kim and Lakshmanan, 2009). One consequence of such L1 transfer might be to use both *the* and *that* in environments where *that* is preferred by native English speakers, such as (6a–b). Another consequence might be to use *the* and *that* interchangeably in contexts where *the* is preferred by native speakers, such as (8b). More specific predictions of L1 transfer are discussed in the next two sections, in reference to the contexts tested in our study.

In order to differentiate between *the* and *that*, learners need:

- to learn that *the* is the unmarked, default option for indicating uniqueness and *that* is the marked, non-default option; and
- to make use of the markedness relationship between *the* and *that*, which dictates that *the* should be preferred in contexts like (8a–b), where uniqueness is satisfied in the discourse, while *that* should be preferred in contexts like (6a–b), where uniqueness is not satisfied in the discourse, but a referent is made salient through prior mention or a physical demonstration.

### III The study

The present study was designed to address the two research questions in (13). Our first goal was to empirically test how native English speakers interpret and use definite and

demonstrative descriptions in anaphoric contexts. Our second (and primary) goal was to examine whether L1-Korean L2-English learners are influenced by L1 transfer in their use and interpretation of English definite descriptions, and to determine precisely the form that such transfer may take.

- (13) a. Research question 1: Is the use and interpretation of definite and demonstrative descriptions by native English speakers consistent with the claims in the literature? In particular, is there empirical evidence that native English speakers interpret definite descriptions as denoting uniquely/maximally in the discourse, and interpret demonstrative descriptions as referring to the immediately salient referent(s)?
- b. Research question 2: Do L1-Korean L2-English learners differentiate between definite and demonstrative descriptions, like native English speakers? Or do they, as a result of L1 transfer, fail to distinguish between definite and demonstrative descriptions?

## 1 Methodology

The participants in this study were 21 native English speakers and 48 L1-Korean L2-English learners. The native English speakers were students at a large US Midwestern university. Their mean age at testing was 21 (range: 18–26, median: 21). Of the 48 learners, 34 were tested at a large university in Korea; of these, 28 had never lived in an English-speaking country, and the remaining six had had a year or less of residence and study in an English-speaking country. The remaining 14 learners were tested at a large US Midwestern university, where they were enrolled in an intensive English program; their mean length of residence in the USA was six months (range: 1–20 months; median: 3 months). Even though the participants were tested in both Korea and the USA, all of them had received the bulk of their exposure to English in an English as a Foreign Language (EFL) context in Korea, having studied English in school and in college. The mean age at testing was 24 years (range: 18–51, median: 23); the mean age of exposure to English (in an EFL context) was 10 years (range: 4–14, median: 10; data based on 46 of 48 L2 learners, the other two did not provide this information).

All participants took three tasks, in the following order: a picture-based comprehension task; a proficiency cloze test; and a forced-choice elicited production task. The comprehension task, which required participants to draw objects, was administered using paper and pencil. The other two tasks, as well as a language background questionnaire, were administered via a web-based survey tool. The present study was a follow-up to an earlier study reported in Ionin et al. (2011), which tested demonstratives in comprehension but not in production.

The proficiency test was a multiple-choice cloze test with a maximum score of 40; the same test was used in several recent studies, including Ionin and Montrul (2010), who found it to be highly reliable. On the basis of performance on the cloze test, we divided the L2 learners into two groups: 24 learners with advanced proficiency (mean score: 34.2, range: 32–37) and 24 learners with intermediate proficiency (mean score: 27.5, range: 19–31).<sup>4</sup> The native English speakers performed at ceiling (mean score: 38.1, range 36–39).

61. Vicky was getting ready for a long train trip, and she wanted something to read on her trip. So she went to the library, and got out a book and a new magazine, and packed them in her bag. The next day, Vicky got on the train. She found her seat and sat down. Then, she read \_\_\_ book. It was really interesting.

For each form below, please indicate whether it is appropriate in the blank above:\*

	Yes	No
the	<input type="radio"/>	<input type="radio"/>
that	<input type="radio"/>	<input type="radio"/>
a	<input type="radio"/>	<input type="radio"/>
one	<input type="radio"/>	<input type="radio"/>

Which of the four forms is the best choice for the blank?\*

- the
- that
- a
- one

Figure 1. Sample item from the production task

## 2 Forced-choice written elicited production task

The forced-choice written elicited production task consisted of 32 items, where each item was a mini-story consisting of four or five sentences. One of the sentences towards the end of the story (but not the very last sentence) contained a blank, which needed to be filled in by a determiner. Participants were given a choice of four determiners, two definite (*the*, *that*) and two indefinite (*a*, *one*), and were asked to do two tasks: first, for each of the four options, to state whether it was an acceptable choice for filling in the blank; and, second, to determine which of the four options was the best choice for filling in the blank. A sample item is given in Figure 1.

*a Test categories:* Half of the items ( $n = 16$ ) targeted definite/demonstrative descriptions and half targeted indefinite descriptions; the items were blocked and randomized for order of presentation. All test items targeted singular NPs. The 16 definite/demonstrative items were broken down into four categories (four items per category). We focus on three test categories, exemplified in (14), where the target NP was used anaphorically.<sup>5</sup> The target NP following the blank is highlighted, while underlining marks first mention of this NP. There was no highlighting or underlining in the actual test.

- (14) a. *'Unique and salient' category: both 'the' and 'that' possible, but 'the' preferred*

Betsy was staying at a hotel, and didn't have anything to read. It was too early to go to bed. So she went to a bookstore, and bought a magazine. Then she came back to her hotel and read \_\_\_\_ **magazine**. She enjoyed it a lot.

- b. 'Unique and non-salient' category: 'the' preferred over 'that'

Vicky was getting ready for a long train trip, and she wanted something to read on her trip. So she went to the library, and got out a book and a new magazine, and packed them in her bag. The next day, Vicky got on the train. She found her seat and sat down. Then, she read \_\_\_\_ **book**. It was really interesting.

- c. 'Non-unique' category: 'that' preferred over 'the'

Richard went to a bookstore and bought two books to read. One of the books turned out to be long and boring. But the other book had a really exciting storyline. So Richard finished \_\_\_\_ **book**. He read it in just one night.

In the 'Unique and salient' category (14a) a first-mention indefinite NP is followed immediately (in the next sentence) by second mention of the same NP. In this case, uniqueness is satisfied in the discourse (so *the* is possible), and there is a just-mentioned, salient referent (so *that* is also possible). As discussed above (see (8a)), whenever uniqueness is satisfied in the discourse, *the* should be preferred by native English speakers, as the unmarked option; however, *that* is also possible.

The 'Unique and non-salient' category (14b) contrasts with the 'Unique and salient' category in two ways. First, two different NPs (in this case, a book and a magazine) are contrasted: Vicky read the book, not the magazine. As discussed in reference to (8b) such contrast between two different NPs is expected to decrease the felicity of *that*. Second, the stories in this category contain one or two intervening sentences between the first and second mention of the NP, making the referent (in this case, a book) less immediately salient. For these two reasons, we predict native English speakers to strongly prefer *the* over *that* in this category.

The 'Non-unique' category (14c) differs from the other two categories in favoring demonstratives over definites. Use of *the* is infelicitous in this category, because the discourse contains two books rather than one (cf. (6b)). Use of *that* is felicitous, since the prior mention ensures that one of the books – the one most recently mentioned – is more salient. Additionally, there is contrast between the two books, which also favors use of a demonstrative. For these reasons, we predict a preference for *that* over *the* on the part of native English speakers.

In order to determine whether *ku* would be allowed in the Korean equivalents of the test sentences, we presented eight native Korean informants with translations of six of the test items, two from each of the test categories. The informants were asked whether they would prefer *ku* or a bare NP in each case. In both the 'Unique and salient' category and the 'Non-unique' category, the informants overwhelmingly opted for *ku* over a bare NP (the preference was particularly strong in the 'Non-unique' category). In the 'Unique and non-salient' category, the informants' responses were about evenly split between *ku* and a bare NP (some informants preferred *ku*, some preferred the bare NP, and some indicated a preference for *ku* in one item, and for a bare NP in the other).

We interpret these judgments as follows. First, *ku* is used when uniqueness is established in the discourse, and the referent is salient, as in (14a). In English, *the* is preferred over *that* in this context, because it is the default option for marking uniqueness. In Korean – where there is no competition between a definite and a demonstrative – *ku* is preferred over a bare NP, because a bare NP is ambiguous between definite and indefinite readings, and use of the bare *capcilul* ‘magazine-acc’, would not convey that Betsy read the same magazine that she purchased. In contrast, *ku*, like *the* and *that*, marks uniqueness and conveys that the same magazine is still under discussion (use of *ku* here also implies that the magazine that Betsy read is contrasted with other magazines that she did not read, much as in the case of *that* in English; see also footnote 3).

At the same time, *ku* is not very felicitous in the ‘Unique and non-salient category’ (14b), for the same reasons that *that* is not very felicitous here in English: the book in question is no longer salient, and the book is being contrasted with a magazine, rather than with other books. As discussed earlier (see also footnote 3), use of a demonstrative implies a contrast with other members of the set denoted by the NP: while (14a) allows for an implicit contrast among magazines, (14b) does not allow for such an implicit contrast among books. A bare NP is also not very felicitous in the Korean version of (14b), because, as noted above, it can be interpreted as indefinite; for maximum felicity, the Korean version of (14b) needs additional modification of the NP (as in *ecey pilli-n chayk* ‘the book that she checked out yesterday’).

Finally, *ku* is also used to mark a uniquely salient referent when uniqueness is not established in the discourse, as in (14c). Like *that*, *ku* can be used for a salient referent without requiring uniqueness in the discourse.

The Korean and English facts allow us to formulate predictions for L1 transfer. We consider two possibilities: (1) that L1-Korean L2-English learners map *ku* to *that*, and Korean bare NPs to *the*; and (2) that such learners map *ku* to both *the* and *that*. We believe that possibility (2) is more likely than possibility (1), for two reasons: first, because Korean bare NPs are ambiguous between definite and indefinite readings, and hence do not obviously map to *the*; and second because, as discussed above, both *the* and *that* are translated as *ku*, and both are similar to *ku* in their distribution. Nevertheless, it is important to consider both possibilities.

The predictions of these two possibilities are spelled out in Table 1. As shown in Table 1, if learners map *ku* to *that*, and the bare NP to *the*, they should be target-like in the ‘Non-unique’ category and non-targetlike in the two ‘Unique’ categories. If, in contrast, they map *ku* to both *that* and *the*, they should allow the two forms in all three categories, overusing *that* in the two ‘Unique’ categories, and overusing *the* in the ‘Non-unique’ category.

Finally, if the learners have begun to differentiate the conditions on *the* from those on *that*, they should treat the categories differently, preferring *the* in the two ‘Unique’ categories, and *that* in the single ‘Non-unique’ category.

**b Results:** Figure 2 reports the proportion of times each determiner form was selected as the ‘best choice’ for the blank; the results are divided by category, and by group.<sup>6</sup> Responses with *a* and *one* are grouped together, since they were fairly infrequent, and completely non-target; our focus is on when *the* vs. *that* was chosen. Figure 2 shows

**Table 1.** Predictions for the production task

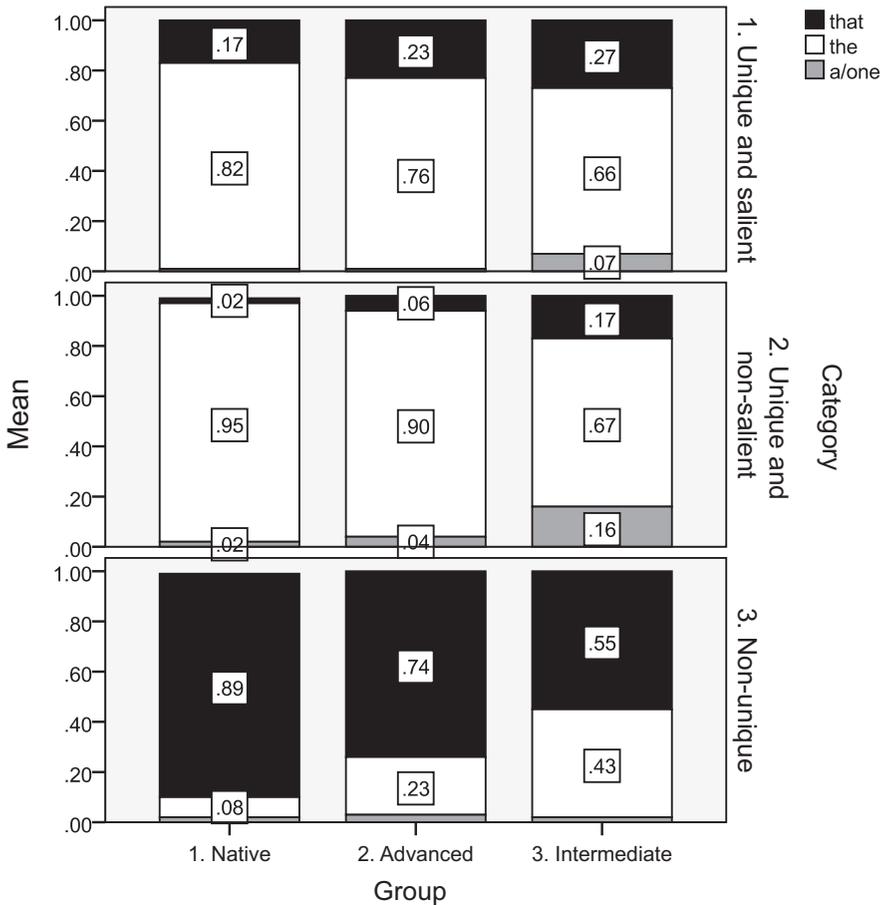
Category	English preference: <i>the</i> or <i>that</i> ?	Korean preference: <i>ku</i> or bare NP?	Prediction, if learners equate <i>ku</i> with <i>that</i> , and bare NP with <i>the</i>	Prediction, if learners equate <i>ku</i> with both <i>the</i> and <i>that</i>
Unique and salient	<i>the</i>	<i>ku</i>	<i>that</i>	<i>the / that</i>
Unique and non-salient	<i>the</i>	<i>bare NP / ku</i> (neither is perfect)	<i>the / that</i> (or avoid both)	<i>the / that</i> (or avoid both)
Non-unique	<i>that</i>	<i>ku</i>	<i>that</i>	<i>the / that</i>

similar preferences across groups: all groups preferred *the* for the two ‘Unique’ categories, and *that* for the ‘Non-unique’ category. Results of the advanced learners were quite similar to those of native speakers. Intermediate learners were quite different from both native speakers and advanced learners, especially in the ‘Non-unique’ category. No group preferred *a/one* to *the/that*, indicating that they were aware that the contexts required a determiner that marks uniqueness. Although the intermediate group did choose *a/one* more frequently than did the other two groups, these responses were still in the minority, with *the/that* chosen more than 80% of the time in all categories. At the same time, *a/one* responses by the intermediate group were particularly common in the ‘Unique and non-salient’ category: recall that it is precisely in this category that *ku* is not very felicitous in Korean; the learners may have occasionally avoided both *the* and *that* in this category, opting for *a/one*, because they considered both *the* and *that* to be equivalents of *ku* and, therefore, not very felicitous with a non-salient referent. Nevertheless, *the* was still the strongly preferred response, as shown in Figure 2; furthermore, for the ‘acceptable choice’ part, the learners rated *the* as acceptable 93% of the time, compared to a 68% acceptance rate for *that*, and a 35% acceptance rate for *a/one*. Thus, both the ‘best choice’ and ‘acceptable choice’ responses indicate that learners were aware that *the* is the best option for a unique, non-salient referent.

For the statistical analyses on the data, the dependent measure was the percentage of all *the* choices out of all choices of *the* plus all choices of *that*; choices of *a/one* were discarded for the purposes of the analysis, since they do not inform us about how uniqueness was computed. Table 2 reports the means and standard deviations for this measure, for each category and group.<sup>7</sup>

We conducted three types of analyses with the data in Table 2. First, we used one-sample t-tests to check whether each group’s performance on each category was significantly different from chance: if participants make no distinction between *the* and *that*, they should choose each one about 50% of the time. As indicated in Table 2, performance was significantly different from chance ( $p < .05$ ) for every group on every category, with the single exception of the intermediate group on the ‘Non-unique’ category ( $t(23) = 0.96$ ,  $p = .35$ ). In this category, intermediate learners used *the* and *that* interchangeably.<sup>8</sup>

For the second analysis, we compared learners and natives on their proportion of *the* choices out of all *the+that* choices, using a one-way independent ANOVA on each of the three test categories. The ANOVA found no differences among groups on the



**Figure 2.** Production task results: Proportion of determiner form (*that, the, a/one*) chosen as the best option for each category, by group

**Table 2.** Production task results submitted for statistical analysis: Percentage of the choices out of all the + that choices: Mean (standard deviation)

Category	Native speakers	Advanced L2 learners	Intermediate L2 learners
Unique and salient	83 (18)*	77 (21)*	71 (29)*
Unique and non-salient	98 (8)*	94 (13)*	82 (25)*
Non-unique	9 (19)*	23 (28)*	43 (36)

Note: \* Performance is significantly different from chance (50%), at  $\alpha$ -level of .05

‘Unique and salient’ category ( $F(2,65) = 1.6, p = .22$ ), while significant group differences were found both on the ‘Unique and non-salient’ category ( $F(2,63) = 5.1, p = .009$ ) and the ‘Non-unique’ category ( $F(2,66) = 8.1, p = .001$ ). *Post hoc* Sheffé tests

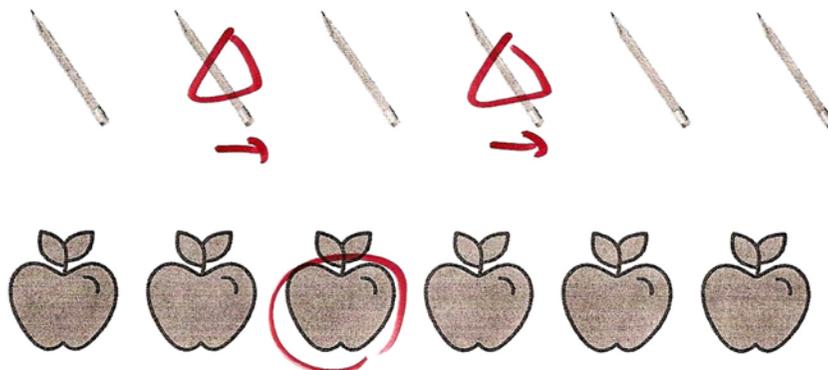
were conducted on the last two categories, comparing pairs of groups (Sheffé tests were used because of unequal group size). The advanced group did not differ from the native group in either category, but the intermediate group differed significantly from the native group ( $p < .05$ ) and marginally from the advanced group ( $p = .06$ ) in both categories: they were less likely than the other groups to choose *the* in the ‘Unique and non-salient’ category, and more likely than the other groups to choose *the* in the ‘Non-unique’ category. Thus, the group comparison shows that advanced learners were quite target-like on all categories, whereas intermediate learners were non-targetlike on two of the three categories.

At the same time, it is possible for learners to differ from native speakers and yet to exhibit target knowledge to some degree, in particular, to treat *the* and *that* differently depending on the context. To look into this possibility, we conducted a third analysis: a repeated-measures ANOVA on each group, comparing the proportion of *the* use in the three categories. For the native speakers, the ANOVA found a significant effect of category ( $F(2,40) = 224, p < .001$ ). *Post hoc* Bonferroni comparisons found significant differences between each pair of categories: use of *the* was highest in the ‘Unique and non-salient’ category, lower in the ‘Unique and salient’ category, and lowest in the ‘Non-unique category’. For the advanced learners, the ANOVA similarly found a significant effect of category ( $F(2,46) = 77, p < .001$ ), and *post hoc* Bonferroni comparisons found significant differences between each pair of categories, with the same directionality of difference as for the native speakers. In the case of the intermediate learners, there was also a significant effect of category ( $F(2,40) = 17, p < .001$ ); *post hoc* Bonferroni comparisons indicated significantly less use of *the* in the ‘Non-unique’ category than in each of the ‘Unique’ categories. However, the two ‘Unique’ categories did not differ significantly from one another in terms of *the* use.

*c Discussion:* To sum up, the advanced learners were fairly target-like in their performance. They did not differ significantly from native speakers on any of the test categories, and they made the same distinctions as the native speakers between categories, preferring *the* for the two ‘Unique’ categories and *that* for the ‘Non-unique’ category. The intermediate learners differed from both native speakers and advanced learners, and furthermore failed to treat the two ‘Unique’ categories differently. Coming back to the predictions in Table 1, we find that the results of the intermediate learners are more compatible with the possibility that *the* is mapped to *ku* than that it is mapped to a bare NP. The learners preferred *the* in the ‘Unique and salient’ category, and also allowed it in the ‘Non-unique’ category; as discussed above, both categories are more compatible with *ku* than with the bare NP in Korean (see Table 1). At the same time, the learners also preferred *the* in the ‘Unique and non-salient’ category, where *ku* is not very good (but note that the intermediate learners often chose *alone* in this category, perhaps reflecting this fact). The intermediate learners did not treat *the* and *that* as completely interchangeable: when uniqueness was established in the discourse, they exhibited a preference for *the* over *that*, like the native speakers. However, their preferences were not as strong as those of the native speakers, and they furthermore failed to distinguish *the* from *that* in the ‘Non-unique’ category: they have not yet acquired the fact that *the* requires uniqueness in the discourse.

Here are six pencils and six apples.

1. Please draw arrows below two pencils.
2. Now, please draw triangles around the pencils.
3. Now, please draw a circle around one apple.



**Figure 3.** Sample 'same' response in the definite plural condition

### 3 Picture-based comprehension task

As discussed above, the production task examined learners' use of *the* vs. *that* when faced with a choice between the two determiners. In contrast, the comprehension task examined how learners interpret definite and demonstrative descriptions when they are not forced to make a choice.

In the picture-based comprehension task (which was very loosely based on an act-out task from Modyanova and Wexler, 2007), the participants viewed pictures of objects (each picture consisted of 12 objects, six of one type and six of another) and were asked to draw geometric shapes on the objects. Each item included four lines of text above the pictures: an introductory line naming the objects and three command lines (line 1, line 2, and line 3) asking participants to draw geometric shapes. Sample items (text only) are given in (15). Actual test items, with pictures and sample responses, are given in Figures 3 through 5.

The test instrument consisted of 40 items, arranged into a 20-page booklet with two items per page (plus a front page with instructions and example items). In 24 of the items, the target command was in line 2 (the other 16 items were distracters, in which the target command was in line 3). The objects and the geometric shapes were randomized across conditions, and the 40 items were arranged into four blocks, and randomized for order of presentation within each block.

*a Test conditions:* Our focus here is on the three plural conditions (four items per condition, 12 items total), which are exemplified in (15). These items all had the following format: line 1 asked participants to act upon 'two Xs', where X stands for a lexical NP. Line 2 then asked participants to act upon 'the Xs', 'those Xs', or 'some Xs', using

the same lexical NP as line 1. Line 3 was a distracter, asking participants to act upon one or more of the other objects in the picture.

- (15) a. Demonstrative plural condition  
 Here are six pens and six balloons.  
 1. Please draw arrows above two balloons.  
 2. Now, please draw triangles around those balloons.  
 3. Now, please draw stars on two pens.
- b. Definite plural condition  
 Here are six cars and six books.  
 1. Please draw arrows above two books.  
 2. Now, please draw circles around the books.  
 3. Now, please draw lines below two cars.
- c. Indefinite plural condition  
 Here are six knives and six cars.  
 1. Please draw arrows below two cars.  
 2. Now, please draw stars on some cars.  
 3. Now, please draw a square around one knife.

Our focus is on possible responses to line 2. For native English speakers, both definite and demonstrative plural NPs must refer maximally, picking out the maximal referent of the relevant type in the situation. As discussed above, for definites, maximality is computed relative to the discourse, but there is some flexibility as to what speakers may take to be the relevant discourse. If the entire discourse in (15b) is taken to be relevant, then the maximal referent of *the books* is all six books in the picture. But if the relevant discourse is taken to begin with line 1, then the maximal referent is the two books acted upon in response to line 1, i.e. the two books with arrows above them. Therefore, native English speakers can provide two different types of responses to line 2 in (15b): they might act upon all six books, or upon the same two books as in response to line 1. In contrast, for plural demonstratives, only the latter option (acting upon the same two objects) is a possibility: the salient entity in (15a) is the two balloons that have arrows above them, after the action in line 1. The demonstrative description *those balloons* implies a contrast between the balloons that should have triangles drawn around them, and those that should not; the balloons that should have triangles drawn around them are the salient ones which have just had arrows drawn above them.

Thus, native English speakers are expected to perform differently in the definite and demonstrative plural conditions.<sup>9</sup> In contrast, L2-English learners are expected to behave identically in the two conditions if they treat *the* as having the same interpretation as *those* and *ku* in anaphoric environments. For *ku*, just like for *those*, the action should be on the salient maximal individual, which in this case is the two objects acted upon in response to line 1. To check that this is a correct prediction, we presented eight Korean informants with Korean translations of two of the test items from the definite plural condition, with *ku* in place of *the*. As expected, the informants overwhelmingly opted for acting upon the same two objects in response to line 2 as in response to line 1, rather than all six objects. If the learners interpret *the* as *those/ku*, they should consistently act upon

the same two objects in response to line 2 as in response to line 1 in the definite plural condition. Note that this would not constitute an error: acting upon the same two objects in the definite plural condition is also a possible alternative for native English speakers, as discussed above. However, while this is one of two possible interpretations for native English speakers, it is the only possible interpretation for learners who transfer the meaning of *ku* onto *the*.

Finally, we briefly consider what may happen in the indefinite condition (15c); since indefinites do not presuppose uniqueness/maximality, there is no reason for native English speakers to act upon the same objects in response to line 2 as to line 1. They may act upon any two to five cars in response to line 2 in (15c) (given that *some* implies *not all*, we do not expect participants to act upon all six cars). The indefinite condition is a control condition: if learners disregard the form of the determiner entirely, they should give similar responses in the indefinite as in the definite and demonstrative conditions (e.g. they might have a preference for always acting upon the same objects, or for acting upon all the objects, or they might behave randomly).

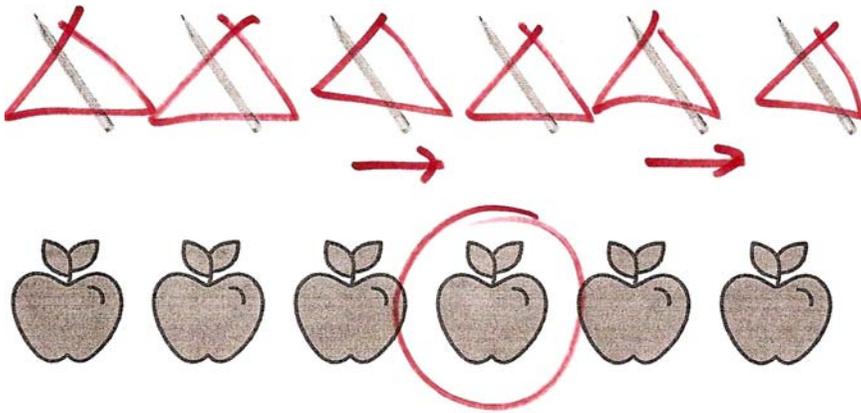
*b Coding and results:* In coding participants' responses, we looked first of all at whether they acted upon the right type of object: e.g. on balloons in response to lines 1 and 2, and pens in response to line 3 in (15a). We also looked at whether participants paid attention to number and acted upon two or more objects in response to line 2, as well as upon the indicated number of objects in response to lines 1 and 3. Object and number errors constituted only 2.3% of the data.<sup>10</sup>

For all responses which did *not* contain object or number errors, we scored each response to line 2 as 'same', 'all' or 'different', depending on which objects were acted upon in response to line 2. A 'same' response (see sample in Figure 3) was one in which the participant acted upon exactly the same objects in response to line 2 as in response to line 1. An 'all' response was one in which the participants acted upon all six objects of the right type in response to line 2 (see sample in Figure 4). A 'different' response was any other kind of response to line 2, such as acting upon two to five objects of the right type in response to line 2, where these objects are non-identical to those acted upon in response to line 1 (but overlap between the objects acted upon in response to line 1 vs. line 2 is possible; see sample in Figure 5). For the definite and demonstrative conditions, such 'different' responses constitute errors from the native speakers' perspective (we will come back to possible reasons behind such errors in footnote 11).

The results, given in Figure 6, show very different performance from learners vs. native speakers in the definite plural condition. Native speakers gave only 'same' responses to demonstratives, but allowed both 'same' and 'all' responses, with some preference for the 'same' response, for definites. In contrast, L2 learners at both proficiency levels treated plural definites and demonstratives identically, opting for the 'same' response in both cases. The fact that learners paid attention to the determiner form is made clear by performance in the indefinite condition, where learners, like native speakers, overwhelmingly opted for a 'different' response. Intermediate learners were more likely than the other groups to give erroneous 'different' responses in both definite and demonstrative plural conditions, but these responses were still in the minority.<sup>11</sup>

Here are six pencils and six apples.

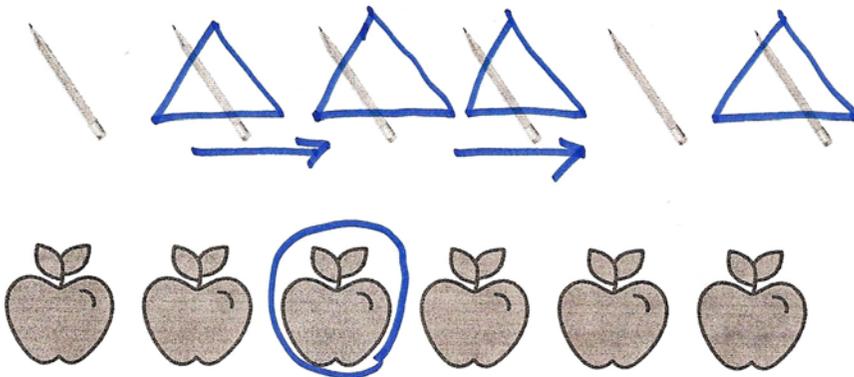
1. Please draw arrows below two pencils.
2. Now, please draw triangles around the pencils.
3. Now, please draw a circle around one apple.



**Figure 4.** Sample 'all' response in the definite plural condition

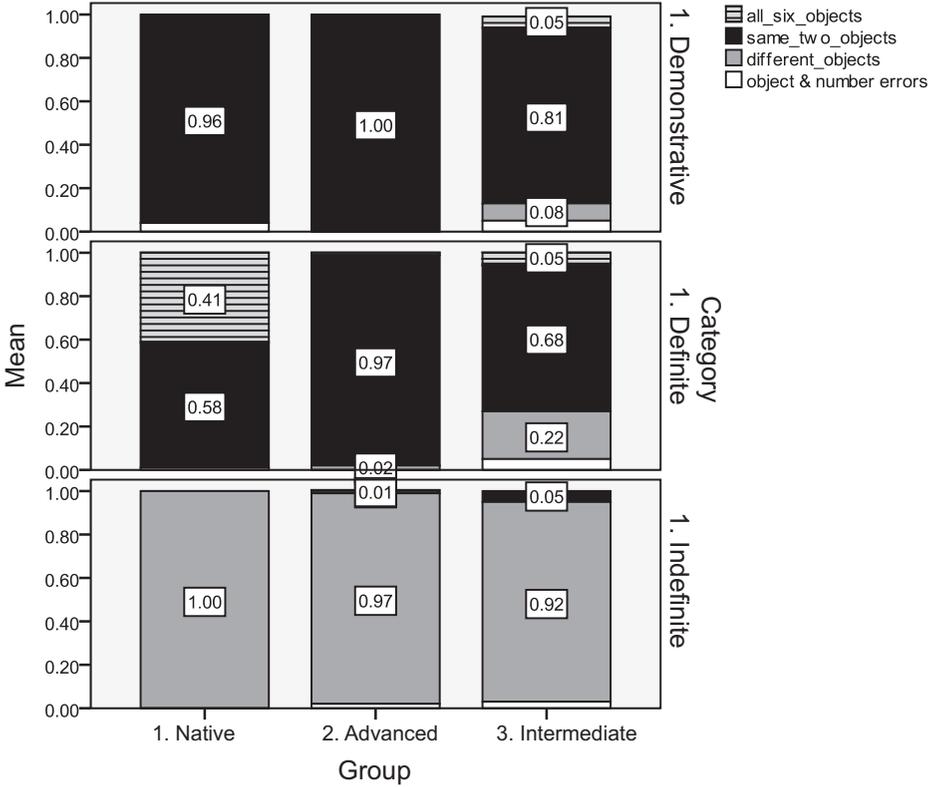
Here are six pencils and six apples.

1. Please draw arrows below two pencils.
2. Now, please draw triangles around the pencils.
3. Now, please draw a circle around one apple.



**Figure 5.** Sample 'different' response in the definite plural condition

In order to address differences between definites and demonstratives, we conducted statistical analysis on results in the definite and demonstrative conditions. We defined the dependent measure as the proportion of 'same' responses out of all 'same' and 'all'



**Figure 6.** Comprehension task results: Proportion of ‘all,’ ‘same’ and ‘different’ responses in the plural conditions

**Table 3.** Comprehension task results submitted for statistical analysis: Percentage of ‘same’ responses out of all ‘same’ + ‘all’ responses, for the definite plural and demonstrative plural conditions: Mean (standard deviation)

Condition	Native speakers	Advanced L2 learners	Intermediate L2 learners
demonstrative plural	100 (0)	100 (0)	93 (22)
definite plural	59 (43)	99 (5)	92 (18)

responses. We discarded responses with object/number errors, as well as the ‘different’ responses from the analysis, since they do not inform us about how participants computed maximality. Table 3 reports the means and standard deviations for the dependent measure, for each condition and group.<sup>12</sup>

We conducted a one-way ANOVA for each condition, comparing the three groups’ performance. The groups did not differ on the demonstrative plural condition ( $F(2,64) = 2.1, p = .13$ ), but there was a significant group difference in the definite plural condition

( $F(2,63) = 14, p < .001$ ). *Post hoc* Sheffé tests found that the native group differed significantly from each learner group ( $p < .05$ ), which did not differ from one another.

*c Discussion:* To sum up, clear effects of L1 transfer were exhibited in the comprehension task, by both advanced and intermediate L2 learners. Unlike the native speakers, the learners overwhelmingly opted for the ‘same’ response in both the definite plural and the demonstrative plural conditions, as would be appropriate for the Korean equivalent with a *ku*-NP.

#### 4 General discussion

We now revisit our research questions in (13). The answer to research question 1 is ‘yes’: the performance of the native English speaker controls was consistent with the claims in the semantic literature. In the production task, the native speakers preferred *the* whenever uniqueness was established in the discourse (the two ‘Unique’ categories), and *that* in the ‘Non-unique’ category, where there was a salient referent, but uniqueness was not established in the discourse. In the comprehension task, the native speakers treated definite and demonstrative plurals differently: only definites were ever interpreted as denoting maximally in the entire discourse, while demonstratives always picked out the salient entities. This said, we note that native English speakers exhibited a lot of variability, as shown by the high standard deviations in Tables 2 and 3. In the production task, the native speakers often allowed *that* even when they preferred *the*, and vice-versa. In the comprehension task, plural definites received ‘same’ and ‘all’ responses in similar proportions. (In contrast, the native speakers were at ceiling in their responses to the demonstrative condition in the comprehension task: here, only one response was possible, and that response was consistently chosen.)

The high variability is fully consistent with proposals such as J Hawkins (1991) and Roberts (2002), which place the difference between definites and demonstratives in pragmatics rather than semantics. In the production task, whether *the* or *that* is preferred depends on what is taken as the relevant discourse, and whether there is any reason to use the marked determiner when the unmarked one is available. In the comprehension task, as well, speakers’ response to plural definites depends on how much of the discourse is taken to be relevant for computing maximality. In interpreting learners’ behavior, therefore, it is important to remember that we are looking at preferences and not at absolute judgments.

Turning to research question 2, we find that learners did distinguish between definite and demonstrative descriptions, as indicated by above-chance performance on both ‘Unique’ categories in the production task, and, in the case of the advanced learners, in the ‘Non-unique’ category as well: in all of these cases, learners’ preferences went in the same direction as those of the native speakers. At the same time, the learners were not fully target-like. In the ‘Non-unique’ category in the production task, intermediate learners considered *the* and *that* to be interchangeable (performing at-chance), while advanced learners as well as native speakers preferred *that*; intermediate learners differed from native speakers and advanced learners in the two ‘Unique’ categories as well. In the comprehension task, learners at both proficiency levels consistently interpreted definite descriptions

as referring to the salient entities (just like demonstrative descriptions); unlike native speakers, learners almost never opted for maximality in the entire discourse situation. These results suggest that learners are influenced by L1 transfer: the non-target behavior occurs precisely where predicted if learners are mapping *ku* to both *the* and *that*.

It looks like the learners are in the process of overcoming L1 transfer. They have come to recognize that *the* is the unmarked option in comparison to *that*, as evidenced by their preference for *the* in the two 'Unique' categories, and – in the case of the advanced learners – for *that* in the 'Non-unique' category. The intermediate learners have not yet fully established the difference between *the* and *that*, but their preferences do go in the same direction as those of natives; while not fully target-like, they also do not treat *the* and *that* as completely interchangeable. The advanced learners do not differ at all from the native speakers, and have clearly established the difference between *the* and *that*.

Interestingly, in the comprehension task, advanced as well as intermediate learners were different from native speakers. We want to stress that the learners' 'same' response for the definite plural condition is not an error: this response was also given by native speakers more than half of the time, so it was clearly a possible response option from the native speakers' perspective. Nevertheless, the fact that the 'all' response was chosen 41% of the time by native speakers, but less than 5% of the time by learners, requires an explanation.<sup>13</sup>

We think that performance in the comprehension task indicates that even the advanced learners have not fully given up an analysis of *the* as equivalent to *ku*. In the production task, where learners have to choose the best determiner for the context, they are forced to address the difference between *the* and *that*. As long as they are aware of the markedness relationship between *the* and *that*, learners will choose the more marked option in the 'Non-unique' category, and the less marked option in the two 'Unique' categories; doing otherwise would result in an infelicitous sentence. But the comprehension task does not ask learners to consider this markedness relationship; rather, it asks them to compute maximality for a definite plural independently of how they compute it for a demonstrative plural. As performance of the native speakers indicates, maximality could be computed in different ways in the definite plural condition depending on what is construed as the relevant discourse. Not surprisingly, in the face of these multiple available options, learners fall back on the option supported by L1 transfer: to compute maximality for *the*, as for *ku*, in the immediate discourse. The fact that learners were more target-like in the production task (where they were selecting among multiple options) than in the comprehension task (where they were not directly comparing definites and demonstratives) is an important methodological point. Successful performance on forced-choice elicited production tasks, which are used quite frequently in studies of L2-English article use, may mask the fact that learners' underlying analysis of articles is subtly different from that of native speakers.

To sum up, we find evidence for L1 transfer in how L2-English learners from an article-less L1 interpret definite and demonstrative descriptions. At lower proficiency levels, learners are more likely than native speakers to treat definite and demonstrative descriptions similarly, in production as well as comprehension; at higher proficiency levels, learners are more target-like, though effects of L1 transfer are still visible in their interpretation of definite descriptions.

## IV Conclusion and further questions

The study reported here provides novel information about how L2-English learners from an article-less L1 use and interpret English determiners in context. Our findings provide evidence for what has previously been noted in the literature but not systematically explored: namely, that L2 learners' interpretation of articles can be influenced by transfer from a closely related category. Specifically, we have shown that learners' analysis of definite descriptions is influenced by the semantics of demonstrative descriptions in their L1. Since the contrast between definites and demonstratives is largely one of pragmatics rather than semantics, L1 transfer plays out in very subtle ways, affecting learners' preferences rather than causing them to make errors. While much prior literature on articles in L2 acquisition is concerned with errors (of article omission as well as article misuse), the focus of our study is on whether the learners have similar preferences to native speakers when it comes to distinguishing definites from demonstratives. We find that the answer is both 'yes' and 'no': the learners are capable of distinguishing between definites and demonstratives, but they do not do so for all test categories, or in all tasks, to the same extent as native speakers. The results of the advanced group in particular suggest that learners can be relatively (if not fully) target-like in their use of *the* and *that* in forced-choice elicited production, but still fall back on the meaning of Korean demonstratives when interpreting definite descriptions in comprehension. We now discuss the implications of our research findings in light of other studies of the L2 acquisition of articles.

### 1 Questions for further study

The present study, by focusing exclusively on anaphoric contexts, considered only a small subset of the uses of definite descriptions. In order to obtain a full picture of how the semantics of demonstratives influences L2 acquisition of definites, a greater variety of definite descriptions needs to be examined, including definites that are unique through world knowledge, through association, through the part-whole relationship, and so on (see the taxonomy of definites in J Hawkins, 1978). While these different types of definites have been explored in prior L2 studies (e.g. García-Mayo, 2008; Liu and Gleason, 2002), the possible effect of transfer from demonstratives to different types of definites has not previously been considered. A detailed analysis of how English definites, English demonstratives and Korean demonstratives behave in these contexts will allow us to formulate and test specific predictions for L1 transfer.

A closely related question is whether transfer from the semantics of demonstratives is at all related to the phenomenon of *the* overuse that has been found for L2-English learners of different article-less L1s, including Korean, as in (1b), repeated below. Ionin et al. (2004) argue that L2-English learners from article-less L1s overuse *the* in place of *a* in contexts like (1b) because they mistakenly associate *the* with specificity rather than definiteness: the ball and the baseball player are specific from the speaker's perspective (who has a specific ball and a specific player in mind), but not known to the hearer. Ionin et al. (2004) argue that definiteness and specificity are semantic universals, and that L2 learners from article-less L1s have access to these universals, but do not know which one of them is appropriate for English.

- (1) b. The most valuable object that I have received is the ball and the signature of the famous baseball player is signed on it.

(Ionin et al., 2004: 4)

Ionin et al. (2004) provide cross-linguistic evidence in support of the hypothesis that specificity is a semantic universal. In the case of English, this evidence comes from the behavior of the demonstrative *this* in indefinite environments such as (16a): contexts where *this* is interchangeable with *a* rather than with *the* (see Maclaran, 1982; Prince, 1981). Ionin et al. (2004) and Ionin (2006) analyse indefinite *this* as a marker of specificity, which indicates that the speaker has a specific referent (in this case, a specific telephone) in mind.

K Kim (2006) shows that the same specific indefinite use is available to *i* ‘this’ in Korean, as in (16b): *i* can be used here to indicate that the speaker has a particular story in mind, which is not known to the hearer. This fact leads K Kim and Lakshmanan (2009), following K Kim (2006), to propose that at lower levels of L2 proficiency, L1-Korean L2-English learners transfer the meaning of *i* ‘this’ onto the meaning of *the*, which leads them to treat *the* as a marker of specificity and to overuse *the* in specific indefinite contexts like (1b). At higher levels of proficiency, these learners fluctuate between definiteness and specificity, as proposed by Ionin et al. (2004).

- (16) a. John has a/*this* weird purple telephone. (Maclaran, 1982: 88)

- b. *i* kimakhin yayki-lul tule-pua.  
 this astonishing story-Acc listen-Imp  
 literally: ‘Let me tell you this astonishing story.’ (K Kim, 2006: 31)

If K Kim and Lakshmanan (2009) are correct, then transfer of the semantics of Korean demonstratives influences article choice with indefinites as well as with definites in L2-English. A counterargument against the hypothesis that transfer from *i* is (at least in part) responsible for overuse of *the* with specific indefinites is that such overuse of *the* has been attested for L2-English learners from very different L1s, regardless of the nature of demonstratives in these L1s. In particular, Ionin et al. (2004) found very similar patterns of *the* overuse with specific indefinites in L1-Russian and L1-Korean L2 learners of English, and in fact greater rates of *the* overuse in the Russian group (which also had lower proficiency than the Korean group). Unlike Korean and English, Russian does not have a specific indefinite use for demonstratives, as shown in (17): the demonstrative *ëtot/ëta* ‘this’ cannot be used to indicate that the speaker has a specific story in mind, and the numeral *odin* ‘one’ must be used instead. Thus, while transfer of demonstrative semantics may be involved in overuse of *the*, it cannot fully explain the similar patterns of performance among different L1 groups.

- (17) Daj ja rasskažu tebe odnu/#ëtu  
 let-imperative I tell you-Acc one/#this-Fem-Acc  
 interesnuju istoriju.  
 interesting story-Acc  
 ‘Let me tell you this interesting story.’

In order to more fully examine the relationship between demonstratives, definites, and specificity in relation to L1 transfer, it would be fruitful to directly compare L2-English learners from different article-less L1s, such as Korean, Russian, Japanese and Chinese. First, we would need to compare the behavior of demonstratives in these languages with respect to such issues as:

- whether they pick out the immediately salient referent in the discourse (as we have shown to be the case for *that* and for *ku*, but not for *the*);
- whether they behave like a definite article rather than a demonstrative in some contexts, being used even without a salient referent, as has been argued for *ku* and for Chinese demonstratives; and
- whether they have a specific indefinite use, as in the case of *this* and *i*, as discussed above.

Such a cross-linguistic comparison would allow us to formulate and test precise predictions for the use and interpretation of *the* by learners from different article-less L1s, in both definite and specific indefinite environments.

At present, we cannot say whether our findings would generalize to learners from any article-less L1 (provided it has demonstratives), or whether they are specific to Korean speakers (or the speakers of any language where demonstratives work similarly to Korean, e.g. Japanese). There is some evidence that L2-English learners whose L1 is Mandarin are not influenced by specificity in their English article choice (e.g. they do not overuse *the* with specific indefinites in contexts like (1b)), unlike learners whose L1 is Korean, Japanese, or Russian (Snape et al., 2006). Snape et al. (2006) explain this finding by appealing to the grammaticization of definiteness via demonstratives in Mandarin (Li and Thompson, 1981): Mandarin speakers may be transferring the semantics of definiteness from Mandarin demonstratives onto English, and hence are not influenced by specificity; however, the findings of Snape et al. are in conflict with the finding of Trenkic (2008) that L1-Mandarin learners of English do make specificity-based errors. An interesting question for further research is how Mandarin demonstratives behave in the contexts tested in the present article (i.e. whether they behave more like *that/ku* or more like *the*) and, consequently, what we can predict for L1-Mandarin L2-English learners' interpretation of definite vs. demonstrative descriptions. It would also be fruitful to administer the same tasks to learners whose L1s do have definite articles (e.g. Spanish); our prediction is that such learners should have no difficulty in distinguishing *the* from *that*, as long as a corresponding distinction exists in their native language.

Finally, we note that the role of contrast in the felicity of demonstratives needs to be examined further. As noted above, a contrastive interpretation appears to make demonstratives particularly felicitous in English. It would be important, in future research, to consider how contrastive interpretations are established for Korean vs. English demonstratives, and what this would mean for L1 transfer. In order to test the role of contrast in the L2 acquisition of definites and demonstratives, it would be necessary to present the test items auditorily, varying the presence or absence of contrastive stress on the determiner.

All of the above issues pose interesting questions for further study. We hope that the present study is the first step in a new direction in the investigation of L2 articles, one that takes subtle pragmatic distinctions between definites and demonstratives into account.

## 2 Methodological contribution

In addition to its contribution on the conceptual level, our study has methodological implications for future research on L2 articles. First, our findings indicate that target-like suppliance of *the* in anaphoric environments is not necessarily a sign of successful acquisition, but may result from L1 transfer of the semantics of demonstratives; in order to fully examine learners' understanding of English definites, it is necessary to test definite contexts where demonstratives are not felicitous.

Second, we found that learners may behave somewhat differently in elicited production and in comprehension; studies that rely exclusively on elicited production (as is often the case in studies of L2 articles) may not give the full picture of learners' interlanguage grammar. Forced-choice elicited production tasks such as the one used in the present study explicitly draw learners' attention to the contrast among different types of determiners; cf. Trenkic (2008) on learners' use of extra-linguistic strategies in such tasks. In contrast, the more implicit picture-based comprehension task places the focus on following instructions and drawing shapes, rather than on contrast among determiner options. The finding that learners' performance was more similar to that of native speakers on the more explicit task is consistent with a general finding that learners are more target-like on explicit than implicit tasks (see, among others, Ellis, 2005). At the same time, we did find evidence for transfer from the semantics of demonstratives in both tasks, which indicates that the effect is not an artifact of the task format. In future research, it would be fruitful to examine learners' interpretation of definites and demonstratives in a more implicit production task (e.g. picture description).

Third, we believe that the picture-based comprehension task is a relatively novel data collection method that can be used to study articles in L2 acquisition. This method is similar to the act-out task, but does not pose the same problems (e.g. adult learners might be uncomfortable acting out commands like 'move the ball' in front of an experimenter, but are perfectly comfortable drawing geometric shapes). This task format provides another tool – in addition to the more standardly used measures like elicited production and acceptability judgments – in learning about the status of articles in interlanguage grammar; the comprehension task format provides a direct window into how articles are interpreted by learners, whereas other task formats require researchers to make inferences about interpretation from the learners' production choice or judgment. Ultimately, it is important to study the same phenomenon using a variety of data collection measures in order to ensure that the results are not due to task effects. Convergent findings from production and comprehension measures in the present study suggest that transfer of demonstrative interpretation is a real phenomenon, and not due to a task effect.

### Acknowledgements

We are grateful to three anonymous *Second Language Research* reviewers for very helpful comments and suggestions. Thanks to the audience of GASLA-11 (March 2011), where an earlier version of this article was presented, for their comments and suggestions; thanks also to the audience of GALANA-4 (September 2010), where the results of a previous study on this topic were presented. All remaining errors are our own.

## Notes

1. Trenkic (2007, 2008) also considers the role of demonstratives in L2 acquisition: Trenkic argues that demonstratives in article-less L1s are adjectival, and that learners coming from these L1s consequently misanalyse *the* as an adjective, with important consequences for both article omission and article (mis)use. However, Trenkic does not consider the semantics of demonstratives vs. definites, focusing exclusively on their syntactic properties.
2. Prior mention in the discourse is of course only one of many ways to establish existence and uniqueness. Other ways of establishing existence and uniqueness in the common ground between speaker and hearer include world knowledge (as in the case of *the sun*), and bridging (as in *John read a book about Schubert and wrote to the author*, from Heim, 1982, where *the author* is understood to be the author of the book about Schubert that John read); for more discussion, see among others J Hawkins (1978); Roberts (2003). In the present article, our focus is exclusively on anaphoric (second-mention) definites.
3. S-J Chang (1984) notes that when a *ku*-NP is used in place of a bare NP, as in (ib) (vs. (ia)), this indicates that the referent must be emphasized or contrasted with other members of the set denoted by the NP (e.g. in (ib), the room that someone entered is being contrasted with the other rooms on the same floor). The fact that the *ku*-NP in (ib) refers to the immediately salient referent with implication of contrast strongly suggests that the semantics of *ku* in anaphoric contexts is analogous to the semantics of *that* in English (see example (8) and surrounding discussion). As we will discuss in later in this article, these judgments are in accordance with intuitions of native Korean informants.

- (i) A: Ichung-ey pang-i ses iss-ess-eyo. Chesccay pang-ey  
 2.floor-At room-Nom 3 exist-Past-Polite. first room-At  
 tuleka-ss-eyo.  
 enter-Past-Polite  
 'There were three rooms in the second floor. (Someone) entered the first room.'
- a. B: pang-ey nwu-ka iss-tay?  
 room-At who-Nom exist-Q  
 'Is there anyone in the room?'
- b. B: ku pang-ey nwu-ka iss-tay?  
 that room-At who-Nom exist-Q  
 'Is there anyone in that room?' (S-J Chang, 1984: 128)

4. All 14 of the learners who were tested in the USA were in the intermediate group; all six learners who were tested in Korea but had spent some time in the USA were in the advanced group; learners who were tested in Korea and had never lived in the USA were represented in both proficiency levels (18 advanced and 10 intermediate). Thus, proficiency was confounded with exposure type. It did not appear that US residence gave learners an advantage in performance, given that learners tested in the USA had the lowest proficiency scores. This was probably due to the fact that these learners' length of residence was fairly short, and their English instruction in Korea had been less intensive than that of the learners tested in Korea (the learners tested in Korea were studying at one of the most prestigious universities in the country). Overall, we did not find any differences in performance that appeared to be due to exposure type rather than proficiency. As discussed in Section III.2, the advanced group outperformed the intermediate group in the production task. Within the advanced group, there was no noticeable difference in performance between those learners who had spent time in the

USA and those who had not. Within the intermediate group, the intermediate learners tested in Korea outperformed the intermediate learners tested in the USA; however, this could be due to that fact that the former had higher proficiency than the latter (mean cloze test score of 29.4 vs. 26.1), rather than to exposure type. In light of these considerations, we report the results by proficiency level rather than by exposure group.

5. The fourth category examined bridging contexts (e.g. uniqueness of *the author* is established by ‘bridging’ from prior mention of *a book*, since books typically have a single author). Both Korean and English disallow demonstratives in bridging contexts. Not surprisingly, both learners and native speakers in our study strongly preferred *the* over *that* in this context. Since our focus is on anaphoric contexts, we leave aside bridging contexts.
6. For reasons of space, we do not report the results for ‘acceptable choice’, but we note that they largely paralleled the ‘best choice’ results. The determiner selected as the ‘best choice’ in a given category was, in most cases, also judged as acceptable more than 90% of the time. In general, acceptance rates of *the* were higher than those of *that* in the two ‘Unique’ categories, for all groups, with the contrast more pronounced in the ‘Unique and non-salient’ category than in the ‘Unique and salient’ category. This is consistent with the ‘best choice’ results in Figure 2.

In the ‘Non-unique’ category, the native speakers and the advanced learners had higher acceptance rates for *that* than for *the*, but the intermediate learners had slightly higher acceptance rates for *the* than for *that* (91% vs. 81%). This is consistent with the ‘best choice’ results, where intermediate learners were split almost evenly between *the* and *that*. Intermediate learners found *a/one* to be more acceptable in all categories than did advanced learners and native speakers, again consistent with the ‘best choice’ results.

7. We excluded from the data analysis any participant who had fewer than two responses left in a category after the *a/one* responses were discarded. The exclusions were done by category: one intermediate learner was excluded from the analysis of the ‘Unique and salient’ category, and three intermediate learners were excluded for the ‘Unique and non-salient’ category. There were no exclusions for the ‘Non-unique’ category, and none for advanced learners or native speakers. Table 2 reports the results after these exclusions. Ultimately, the exclusions did not affect the results: statistical tests run before and after the exclusions yielded the same patterns of (non-)significance.

The percentages in Table 2 are different from those in Figure 2, since Figure 2 reports the relative percentages of each article choice (*the*, *that*, *a/one*), while Table 2 reports the percentage of *the* out of all instances of *the+that* (excluding the *a/one* responses).

8. This interchangeable use of *the* and *that* was attested at the individual as well as the group level: of the 24 participants in the intermediate group, three always selected *the* and six always selected *that*, but the majority (15) selected *the* for some items and *that* for others.
9. The test instrument also included singular conditions (definite, demonstrative, and indefinite), which were analogous to the plural conditions, as shown in (i). The singular conditions, unlike the plural, do not allow us to tease apart learners’ analyses of definites and demonstratives: the only way to establish uniqueness of *the cup* in line 2 of (i) is to act upon the same cup as in response to line 1. Even if *the cup* is misanalysed by learners as *that cup*, the same response pattern – to the previously acted-upon cup – is expected. And indeed, we found that both native speakers and learners overwhelmingly acted upon the same object in both singular definite and singular demonstrative conditions. For space reasons, we do not discuss the singular conditions any further, but see Ionin et al. (2011) for discussion of singular as well as plural conditions in an earlier study with the same task format.

- (i) Definite singular condition  
Here are six cups and six houses.
1. Please draw a circle around one cup.
  2. Now, please draw an arrow above the cup.
  3. Now, please draw a square around one house.
10. We did not classify as errors otherwise appropriate responses in which the participants drew an incorrect geometric shape, or misinterpreted the preposition (e.g. drawing arrows below instead of above the object); such errors are not relevant for our purposes.
11. The erroneous ‘different’ responses in definite and demonstrative conditions are themselves an interesting issue for further study. They could be simply performance errors indicating lack of attention on the participants’ part; but they could also be a reflection of a deeper misanalysis of English determiners. Ko et al. (2010) argue that L1-Korean L2-English learners (sometimes) misanalyse English definite articles as encoding the presupposition of existence without the presupposition of uniqueness/maximality, so that *the cups* means *some of the cups*; this misanalysis would indeed give rise to ‘different’ responses in our study. The fact that we found more ‘different’ responses with definites than demonstratives is consistent with Ko et al.’s proposal, which is specifically about learners’ misanalysis of the definite article. A more in-depth investigation of how Ko et al.’s proposal relates to our findings is beyond the scope of the present article.
12. As with the production data (see footnote 7), we excluded from the data analysis any learner who had fewer than two responses left in a condition after the discarding procedure. The exclusions were done by condition: two intermediate learners were excluded from the analysis of demonstrative plurals, and three (different) intermediate learners from that of definite plurals. Table 3 reports the data after the discarding. Ultimately, the exclusions did not make a difference: statistical tests run before and after the exclusions yielded the same patterns of (non-)significance.
13. It cannot be the case that the learners were simply too lazy to act upon more than two objects. In the indefinite plural condition, where an acceptable response to ‘some Xs’ would be to draw upon a minimum of two objects, learners very frequently – in 61% of cases – drew upon three or four objects, indicating that laziness was not an issue.

## References

- Abbott B (2003) Definiteness and indefiniteness. In: Horn L and Ward G (eds) *Handbook of pragmatics*. Oxford: Blackwell, 122–49.
- Asher N (1993) *Reference to abstract objects in discourse*. Dordrecht: Kluwer.
- Chang C (2003) A study of the determiner phrase of Spanish, English and Korean. Unpublished doctoral thesis, University of Texas at Austin, TX, USA.
- Chang K-H (1980) Semantic analysis of demonstrative *i, ku, ce*. *Ehakyenku* 16: 167–84.
- Chang S-J (1984) Cisiwa coung [Reference and anaphora, written in Korean]. *Hangul* 186: 115–49.
- Cho H-S (1999) Interpretation and function of the Korean demonstrative *ku*. *Studies in Modern Grammar* 18: 71–90.
- Ellis R (2005) Measuring implicit and explicit knowledge of a second language: A psychometric study. *Studies in Second Language Acquisition* 27: 141–72.
- García-Mayo M del P (2008) The acquisition of four nongeneric uses of the article the by Spanish EFL learners. *System* 36: 550–65.

- García-Mayo M del P and Hawkins R (eds) (2009) *Second language acquisition of articles: Empirical findings and theoretical implications*. Amsterdam: John Benjamins.
- Genç B and Bada E (2006) Oral narrative discourse of anaphoric references of Turkish EFL learners. *The Reading Matrix* 6: 2–135.
- Goad H and White L (2004) Ultimate attainment of L2 inflection: Effects of L1 prosodic structure. In: Foster-Cohen S, Sharwood Smith M, Sorace A, and Ota M (eds) *EUROSLA Yearbook 4*. Amsterdam: John Benjamins, 119–45.
- Goad H and White L (2008) Prosodic structure and the representation of L2 functional morphology: A nativist approach. *Lingua* 118: 577–94.
- Grice P (1975) Logic and conversation. In: Cole P and Morgan J (eds) *Speech acts: Syntax and semantics 3*. New York: Academic Press, 41–58.
- Hawkins J (1978) *Definiteness and indefiniteness*. London: Croom Helm.
- Hawkins J (1984) A note on referent identifiability and co-presence. *Journal of Pragmatics* 8: 649–59.
- Hawkins J (1991) On (in)definite articles: Implicatures and (un)grammaticality prediction. *Journal of Linguistics* 27: 405–42.
- Hawkins J (2004) *Efficiency and complexity in grammars*. Oxford: Oxford University Press.
- Hawkins R, Al-Eid S, Almahboob I, Athanasopoulos P, Chaengchenkit R, Hu J, et al. (2006) Accounting for English article interpretation by L2 speakers. In: Foster-Cohen S, Medved Krajnovic M, and Mihaljević Djigunović J (eds) *EUROSLA Yearbook 6*. Amsterdam: John Benjamins, 7–25.
- Heim I (1982) The semantics of definite and indefinite Noun Phrases. Unpublished doctoral thesis, University of Massachusetts, Amherst, MA, USA.
- Heim I (1991) Artikel und definitheit [Articles and definiteness]. In: Stechow A and Wunderlich D (eds) *Semantics: An international handbook of contemporary research*. Berlin: De Gruyter, 487–535.
- Horn L (1972) On the semantic properties of logical operators in English. Unpublished doctoral thesis, University of California at Los Angeles, CA, USA.
- Huang S (1999) The emergence of a grammatical category definite article in spoken Chinese. *Journal of Pragmatics* 31: 77–94.
- Huebner T (1983) *A longitudinal analysis of the acquisition of English*. Ann Arbor, MI: Karoma.
- Ionin T (2006) This is definitely specific: specificity and definiteness in article systems. *Natural Language Semantics* 14: 175–234.
- Ionin T and Montrul S (2010) The role of L1-transfer in the interpretation of articles with definite plurals in L2-English. *Language Learning* 60: 877–925.
- Ionin T, Baek S, Kim E, Ko H, and Wexler K (2011) *That's the meaning: interpretation of definite and demonstrative descriptions in L2-English*. In: Pirvulescu M, Cuervo MC, Pérez-Leroux AT, Steele J, and Strik N (eds) *Selected Proceedings of the 4th Conference on Generative Approaches to Language Acquisition North America (GALANA 2010)*. Somerville, MA: Cascadilla Press, 122–38.
- Ionin T, Ko H, and Wexler K (2004) Article semantics in L2-acquisition: The role of specificity. *Language Acquisition* 12: 3–69.
- Kadmon N (1990) Uniqueness. *Linguistics and Philosophy* 13: 273–324.
- Kang J (2005) Written narratives as an index of L2 competence in Korean EFL learners. *Journal of Second Language Writing* 14: 259–79.
- Kim H (2000) Acquisition of English nominal reference by Korean speakers. Unpublished doctoral thesis, University of Hawai'i, HI, USA.
- Kim K (2006) The interpretation and processing of English articles by native speakers of Korean. Unpublished master's thesis, Southern Illinois University Carbondale, IL, USA.

- Kim K and Lakshmanan U (2009) The processing role of the article choice parameter: Evidence from L2 learners of English. In: Garcia-Mayo M del P, and Hawkins R (eds) *Second language acquisition of articles: Empirical findings and theoretical implications*. Amsterdam: John Benjamins, 87–113.
- King J (2001) *Complex demonstratives*. Cambridge, MA: MIT Press.
- Ko H, Ionin T, and Wexler K (2010) The role of presuppositionality in the second language acquisition of English articles. *Linguistic Inquiry* 41: 213–54.
- Lee S-H and Song J-y (2010) Annotating Korean demonstratives. In: *Proceedings of the Fourth Linguistic Annotation Workshop, ACL 2010*. The Association for Computational Linguistics, 162–65.
- Li C and Thompson S (1981) *Mandarin Chinese: A functional reference grammar*. Berkeley, CA: University of California Press.
- Liu D and Gleason J (2002) Acquisition of the article the by non-native speakers of English: An analysis of four nongeneric uses. *Studies in Second Language Acquisition* 24: 1–26.
- Löbner S (1985) Definites. *Journal of Semantics* 4: 279–326.
- Lyons C (1999) *Definiteness*. Cambridge: Cambridge University Press.
- Maclaran R (1982) The semantics and pragmatics of the English demonstratives. Unpublished doctoral thesis, Cornell University, Ithaca, NY, USA.
- Modyanova N and Wexler K (2007) Semantic and pragmatic language development: children know ‘that’ better. In: Belikova A, Meroni L, and Umeda M (eds) *Proceedings of the 2nd conference on Generative Approaches to Language Acquisition North America (GALANA)*. Somerville, MA: Cascadilla Press, 297–308.
- Murphy S (1997) Knowledge and production of English articles by advanced second language learners. Unpublished doctoral thesis, University of Texas at Austin, TX, USA.
- Prince E (1981) On the inferencing of indefinite-this NPs. In: Joshi A, Webber B, and Sag I (eds) *Elements of discourse understanding*. Cambridge: Cambridge University Press, 231–50.
- Prince E (1992) The ZPG letter: Subjects, definiteness and information status. In: Thompson S and Mann W (eds) *Discourse description: Diverse analyses of a fund raising text*. Philadelphia, PA: John Benjamins, 295–325.
- Roberts C (2002) Demonstratives as definites. In: van Deemter K and Kibble R (eds) *Information sharing*. Stanford, CA: CSLI, 89–136.
- Roberts C (2003) Uniqueness in definite noun phrases. *Linguistics and Philosophy* 26: 287–350.
- Robertson D (2000) Variability in the use of the English article system by Chinese learners of English. *Second Language Research* 16: 135–72.
- Russell B (1905) On denoting. *Mind* 14: 479–93.
- Sharvy, R (1980) A more general theory of definite descriptions. *The Philosophical Review* 89: 607–24.
- Snape N (2008) *The acquisition of the English determiner phrase by L2 learners: Japanese and Spanish*. Saarbrücken: VDM Verlag.
- Snape N, Leung Y-KI, and Ting H-C (2006) Comparing Chinese, Japanese and Spanish speakers in L2 English article acquisition: Evidence against the Fluctuation Hypothesis? In: Grantham O’Brien M, Shea C, and Archibald J (eds) *Proceedings of the 8th Generative Approaches to Second Language Acquisition conference (GASLA 2006)*. Somerville, MA: Cascadilla Proceedings Project, 132–39.
- Sohn H-M (1999) *The Korean language*. Cambridge: Cambridge University Press.
- Swierzbinska B (2004) The role of cognitive status in second language acquisition of English noun phrase referring expressions. Unpublished doctoral dissertation, University of Minnesota, MI, USA.
- Swierzbinska B (2010) Demonstratives’ special place in the English reference system: Why that’s important for English language learners. *Language and Linguistics Compass* 4: 987–1000.

- Thomas M (1989) The acquisition of English articles by first- and second language learners. *Applied Psycholinguistics* 10: 335–55.
- Trademan J (2002) The acquisition of the English article system by native speakers of Spanish and Japanese: A cross-linguistic comparison. Unpublished doctoral thesis, University of New Mexico, Mexico.
- Trenkic D (2007) Variability in L2 article production: Beyond the representational deficits vs. processing constraints debate. *Second Language Research* 23: 289–327.
- Trenkic D (2008) The representation of English articles in second language grammar: Determiners or adjectives? *Bilingualism: Language and Cognition* 11: 1–18.
- Wakabayashi S (1998) Systematicity in the use of the definite article by Japanese learners of English. *Gunma Prefectural Women's University Bulletin* 19: 91–107.
- Wolter L (2006) That's that: The semantics and pragmatics of demonstrative noun phrases. Unpublished doctoral thesis, University of California at Santa Cruz, CA, USA.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.