The Acquisition of Grammatical Marking of Indefiniteness with the Indefinite Article *a* in L2 English

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ABSTRACT

The article system is a notorious source of difficulty for second language (L2) learners of English, largely because it is based on a complex set of abstract distinctions which are, to some extent, arbitrarily mapped onto surface forms (*a*, *the*, and *zero*). This difficulty is only compounded when learners' first languages (L1s) do not share the same surface features and/or the same semantic conceptualizations with the target language (TL). This study is about the acquisition of grammatical marking of indefiniteness in L2 English as exemplified by a learner's use of the indefinite article *a*. The ways in which L2 acquirers manage to make sense of English articles and even the cases when they do not offer fascinating insights into learners' cognition (Young, 1996). The specific focus of this study is on whether differences in the grammatical treatment of indefiniteness in L1 and L2 correspond with detectable and systematic differences in interlanguage (Selinker, 1972).

INTRODUCTION

The development of research on the acquisition of English articles reflects the development of research in second language acquisition (SLA) in general: from early inquiry investigating acquisition and accuracy orders across grammatical subsystems to recent, domain-specific inquiries developed largely independently of research in other areas of interlanguage grammar (Bardovi-Harlig, 2000). Early investigations (see Butler, 2002) adopted a target-centric perspective attributing article errors exclusively to inadequate acquisition of certain grammatical norms of the target language. They also assumed that interlanguage (IL) develops through a series of discrete stages. Since the 1980s, an interest has arisen in the semantics of interlanguage that motivated the general shift in focus in article research from the acquisition of morphology as form to a focus on morphology as the surface realization of an underlying semantic and conceptual system (e.g., Huebner, 1979, 1983).

The intricate workings of L2 acquisition, "the waxing and waning of patterns" (Larsen-Freeman, 2006, p. 590), are best observed when the L1 semantic and conceptual systems that the learners possess are different from those underlying the target structures. The article system is a

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notorious source of difficulty to L2 learners of English, largely because it is based on a complex set of abstract distinctions which are, to some extent, arbitrarily mapped onto the surface forms (*a, the,* and *zero*). This difficulty is only compounded when learners' L1s do not share the same surface features and/or the same semantic conceptualizations with the TL. Teachers of English as a second or foreign language may find it difficult to understand how and why their students choose to use articles in the ways they do. A teacher was quoted as saying that her students' use of articles "bears little or no resemblance to established English practice; the students seem to use articles almost randomly" (Yamada & Matsuura, 1982, p. 50).

This investigation is about the acquisition of grammatical marking of indefiniteness in L2 English as exemplified by the learner's use of the indefinite article *a*. The ways in which L2 acquirers manage to make sense of English articles and even the cases when they do not offer fascinating insights into learners' cognition (Young, 1996). Thus, the goal of this study is to document an ESL learner's attempt to make sense of English articles. The specific focus of this investigation is on whether differences in the grammatical treatment of indefiniteness in L1 and L2 correspond with detectable and systematic differences in interlanguage. All of these are in line with an overarching goal of explaining the nature of interlanguage rules and determining their origins.

Pursuant to this goal, the paper will be structured as follows: it first considers the theoretical basis of a concept-oriented approach to SLA. Research on language and cognition as well as linguistic relativity in SLA will be reviewed. An explication and linguistic analysis of the grammatical patterns of the English article system will be presented and contrasted with the L1 of the participant, Polish. A review of research on the L1 and L2 acquisition of English articles will follow. Finally, the design, execution, and results of the study will be reported.

THEORETICAL CONTEXT OF THE STUDY

According to the current understanding of L2 acquisition as a cognitive process of establishing form-meaning connections, a wide range of behavioral and cognitive subprocesses, from the initial link between a lexical or grammatical form and its meaning(s) to the use of the form by the L2 learner, are of interest to SLA researchers. A deeper understanding of how form-meaning connections are made and maintained would shed light on how learners work their way toward the creation of a linguistic system that bears resemblance to the TL. By and large, it is accepted that L2 acquisition is facilitated when there is a clear and unique correspondence between form and meaning; that is, that learners generally look for a *one-form-one-function* match in navigating the language until they reach advanced stages of acquisition. The question then arises as to what happens in a situation in which one form encodes multiple meanings as is the case of the indefinite article *a* in English.

Form-meaning connections have not always been a central focus of SLA research despite the fact that continued investigation of the what, why, and how of form-meaning mappings is of paramount importance to our understanding of how interlanguages change (VanPatten, Williams, & Rott, 2004). Frequently, investigations of form-meaning acquisition have only identified the connections between TL forms and TL meanings. However, as often witnessed by L2 teachers and researchers, "L2 forms can also be connected to meanings that are not L2-like" (VanPatten et al., 2004, p. 4). It has been argued that L2 learners' morphosyntactic errors have often been attributed to inadequate acquisition of TL forms only. As pointed out by Han (in press), such an interpretation "conceals the fact that acquisition may equally – and possibly to a greater extent – be hindered by the lack of a targetlike semantic and/or conceptual system." Undeservedly, meaning has not been granted as much consideration as form has in current research on form-meaning connections.

Differences among languages in the grammatical encoding of meaning are believed to affect L2 learners' classification of the experienced world (cf. Slobin, 1987). If language exerts some form of power over our minds, this kind of hold cannot be ignored. Accordingly, research on form-meaning connections would be incomplete without attention to the aspects of meaning related to processes that occur at a deeper level where cognition and language meet (Han & Larsen-Freeman, 2005). The examination of the relationship of language and thought is therefore a worthy starting point for an inquiry on form-meaning connections in the acquisition of the grammatical marking of indefiniteness with the article *a*.

The Relation between Language and Thought

On the relation between language and thought, three logical possibilities have been considered: (1) that thought depends on language; (2) that language depends on thought; and (3) that language and thought are two independent systems.

The traditional behaviorist proposal equated thought with language (Watson, 1920) reducing thinking to subvocal speech. Evidence was brought to counter that early idea (cf. Anderson, 2005). Research on memory for meaning allowed scientists to conclude that thought is not to be equated with language. As a result, thought was conceptualized, at least in part, as an abstract, nonverbal prepositional code which consists of rich internal perceptual representations. Subsequently, a strong claim on the relationship of language and thought was made by proponents of linguistic determinism (Whorf, 1956). According to this position, language and thought are not identical; however, language determines or strongly influences the way in which a person thinks or perceives the world. The deterministic proposition was based on the observation that different languages emphasize different aspects of the world encoding those differences in language structures. This early claim was offset by a series of experiments (see Anderson, 2005) which resulted in the weaker, neo-Whorfian interpretation of the language-thought relationship which can be summarized as follows: although language clearly influences thought, it does not seem to determine the types of concepts that language users can entertain.

An alternative possibility is that the structure of language is determined by the structure of thought. No one questions that humans' ability to think occurs developmentally sooner than the ability to use language. It seems reasonable then to suppose that language has been shaped to fit the thoughts it must communicate. Evidence was brought to bear that, in many ways, the structure of language corresponds to the structure of how our minds process the world (cf. evidence on word order in human languages²).

Finally, a modular position (Chomsky, 1986; Fodor, 1983; Pinker, 1989) suggests that language is a separate cognitive component that functions independently from the rest of cognition. The modular position does not deny that the linguistic module may have been shaped

² Only four out of the six possible orders of S, V, and O are used in natural languages, and one of these four (VOS) is rare. In the remaining three, accounting for 98% of natural languages, the subject always precedes the object (SOV, SVO, VSO). This order makes good sense when cognition is considered: an action starts with the agent and then affects the object. It is natural therefore that the subject of a sentence, when it reflects its agency, comes first (Anderson, 2005).

to communicate thought, but it argues that the language module operates according to its own principles.

Linguistic Cognition

Research in cognitive science shows that linguistic processes are pervasive in most fundamental domains of thought. The notion that thinking affects language and that, in return, language can affect thinking has become relevant to the study of the cognitive processes that are exerted in the course of using language. It appears that what we normally call *thinking* is in fact a complex set of collaborations between linguistic and nonlinguistic representations and processes. Several accounts have been proposed to elucidate the differences in the way languages predispose their speakers to conceptualize experience. These accounts can be characterized as weak relativist and neo-Whorfian. Pinker (1989) aptly captures the evolution in thinking about language and cognition when he writes "Whorf was surely wrong when he said that one's language determines how one conceptualizes reality in general. But he was probably correct in a much weaker sense: one's language does determine how one must conceptualize reality when one has to talk about it" (p. 360).

Based on his research on expression of motion across languages, Slobin (1987, 1996, 2003) has put forward a neo-Whorfian reformulation of linguistic relativity. Slobin's L1 and L2 data, including elicited narratives, natural discourse, creative fiction, and translation work, confirmed the researcher's proposition that "the expression of experience in linguistic terms constitutes *thinking for speaking* [italics added] – a special form of thought that is mobilized for communication" (1996, p. 76). Slobin's research illustrates how speakers of different languages are predisposed to attend to certain aspects of experience due to obligatory categories in grammar, but it does not address the question of the cognitive implications resulting from the use of particular languages. His intention was the examination of linguistic cognition, that is, the process of thinking for speaking in which cognition plays a dynamic role within the framework of linguistic expression:

The activity of thinking takes on a particular quality when it is employed in the activity of speaking. In the evanescent time frame of constructing utterances in discourse, one fits one's thoughts into *available linguistic forms* [italics added]. A particular utterance is never a direct reflection of "objective" or perceived reality or of an inevitable and universal mental representation of a situation. This is evident within any given language, because the same situation can be described in different ways; and it is evident across languages, because each language provides a limited set of options for the grammatical encodings of characteristics of objects and events. "Thinking for speaking" involves picking those characteristics that (a) fit some conceptualization of the event, and (b) are readily encodable in the language. (Slobin, 1987, p. 435)

Overall, Slobin has demonstrated that speakers have to think about language itself in order to speak. This thinking becomes systematized to a certain degree in the process of language acquisition and use, and varies crosslinguistically according to specific grammars.

It is worth noting that no cognitive data are considered at any point by Slobin. In his view, the observation of linguistic behavior merely helps document linguistic diversity, not cognitive diversity. In Slobin's (1993) words: "distinctions of aspect, [in]*definiteness* [italics

4

added], voice, and the like are ... distinctions that can only be learned through language, and have no other use except to be expressed in language. They are not categories of thought in general, but categories of 'thinking for speaking'" (p. 247). In other words, thinking-for-speaking effects are weak, not dramatic, and have no further implications for perception or conceptualization of objects or events (Slobin, 2003). An opposite approach to language and cognition was taken by Lucy (1992), who in his study of pluralization in Yucatec Maya and American English provided a theoretical and methodological framework for research of possible influences of language diversity on cognition. Lucy's idea that language patterns do affect cognitive performance is, however, extremely controversial.

A model of how thinking while speaking is an encapsulated process, with no consequences beyond speech time, is best exemplified by Levelt's (1989) production model in which formulation processes are primarily lexically driven. The speaker initially conceives of a preverbal message (*the Conceptualizer*), conceptualizing the notions that will be expressed in the actual verbal message (*the Formulator*). The preverbal plan must then be converted into actual words (and ultimately speech). Levelt notes that languages differ in their requirements about what must be specified by the Conceptualizer. In some instances, English codes information that other languages do not, for example, specificity, shared background knowledge, and definiteness. In such cases, the Conceptualizer must present different information to be coded in different languages. In Levelt's terms, L2 learners must realize that they have to acquire a new Conceptualizer. Whether or not the learners are consciously aware that they have to plan differently for producing sentences in an L2, the natural tendency, according to Levelt, is for the learners to rely on the Formulator developed in their L1. For instance, if Polish learners of English do not consider the features of specificity and shared knowledge in constructing conceptual plans, there is little reason to believe that correct article use will be formulated.

Thinking for Speaking and SLA

The potential of Slobin's (2003) thinking for speaking has been utilized by SLA researchers who study conceptual transfer (see Odlin, 2003).³ As recent empirical work indicates, there are some clear effects of language-specific structures on cognition as expressed through language (Jarvis & Odlin, 2000; Pavlenko, 2002). Analyzing factors of crosslinguistic influence, Kellerman (1995) noticed that the differences in the way languages predispose their speakers to conceptualize experience quite often lead to the so-called *transfer to nowhere* (or blind transfer), "where the way the L2 works may very largely go unheeded" (p. 137). According to Kellerman, L2 learners faced with the task of verbalizing events in their L2 may not look for the perspectives peculiar to the target language. To the contrary, the learners may employ linguistic tools which allow them to maintain their L1 perspective. Although crosslinguistic influence at the conceptual level has been well-documented, "it remains unclear how many conceptual levels are relevant and how 'deep' transfer may run through those levels" (Odlin, 2003, p. 466).

The concept of thinking for speaking has attracted some attention from researchers working on the acquisition of form-meaning connections (cf. Bardovi-Harlig, 2000; VanPatten et al., 2004) as well as researchers advocating, in addition to form-oriented, a meaning-oriented

³ In a summary of research finding of that strand of SLA research, Odlin (2005) differentiates between conceptual transfer and meaning transfer, purporting that the former is a subset of the latter. Han (in press) clarifies that the two are connected, one (conceptual) being abstract and global, whereas the other (semantic) being concrete and local.

intervention in focus on form instruction (Han, in press; Han & Larsen-Freeman, 2005). L1shaped cognition and conceptualizations that learners bring to the task of L2 learning are likely suspects in learners' difficulty with certain structures. Kellerman (1995) uses a "settler" analogy when describing the problem of acquiring the appropriate thinking for speaking by an L2 learner:

...a second language learner is like a pioneer settler trying to build a house in a new country – the fundamental design of the house is provided by the pioneer's homeland tradition, but major adaptations may have to be made to take account of local conditions and the available local building materials. While it is possible to talk of "universals of shelter-building" that link the English cottage to the Canadian log cabin, each building type remains distinct. Just as we may take the basic design features of a house for granted, so we may remain unaware that speakers of different languages "talk" about the same events as we do in different ways. (p. 141)

The categories of thinking for speaking that have attracted research attention have been described as *interlingual conceptual contrasts* (Rivers, 1983). These interlingual contrasts (e.g., the subjunctive for Anglophone learners of French, the determiner system for Japanese learners of English, grammatical gender for English speakers, or plurality for Korean learners of English) have no direct reflection in one's perceptual relationship with the outside world, but are noted to be exceptionally resistant to restructuring. As observed by Han (in press), they present a learnability problem on multiple levels and in multiple dimensions, and, as a result, may eventually remain unlearnable for some learners due to L1 semantic and conceptual interference. Thus, the attempt to find thinking for speaking effects of particular linguistic forms should be seriously taken on board by SLA research in order to document the processes that unfold in time and are shaped in use (Slobin, 2003).

Interlingual conceptual contrasts may pose difficulty due to complexity of form, and/or complexity of meaning, and/or complexity of form-meaning connections (DeKeyser, 2005; VanPatten et al., 2004). All three factors appear to be involved in determining grammatical difficulty of the article system, the linguistic focus of the present investigation. However, the proportional share of each factor in determining difficulty appears to be unequal, with the meaning dimension presumed to be the biggest challenge for L2 learners. As far as meaning is concerned, articles meet several criteria for *semantically light* forms proposed by Han and Larsen-Freeman (2005). Articles appear to be the kind of structures that: (a) are particularly unnoticeable (often reduced to schwas in speaking), (b) have no, or consistently little, communicative value and contribute minimally to the principal meaning in focus, and (c) are likely to be interpreted by the learners as redundant. Functionally, however, articles carry multiple linguistic meanings such as (in)definiteness, countability, and number, making the creation of form-meaning mappings a difficult task for L2 learners.

A fundamental understanding of English articles as a pervasive and persistent L2 acquisition problem must derive from an analysis of (1) the TL forms and meanings, and, (2) their L1 equivalents. Without the contrastive dimension, nothing can be established about the impact of language differences, in this case American English and Polish, on the semantics of interlanguage. A crosslinguistic explication and analytic contrast of grammatical patterns in expressing indefiniteness are presented in the next section of this paper. As the focus of this study is on the acquisition of indefiniteness, definiteness will only be mentioned in passing. Indefiniteness should be recognized as a broader conceptual phenomenon, but its investigation is

outside of the scope of this paper. The present study set out to examine the dimension of indefiniteness that is expressed in English by the indefinite article a.

INDEFINITENESS AND ARTICLES

The English Article System

As stated above, the article system in English is notoriously difficult for L2 learners. The system, which is limited to two morphemes, *a/an* and *the*, has been a subject of inquiry for philosophers, linguists, and psychologists, its appeal easily ascribed to the fact that articles are important in a wide variety of discourse processes and in the interactions of linguistic and nonlinguistic knowledge.

The difference an *a* makes was demonstrated by a 2006 Yahoo News dispatch on an Australian computer programmer's discovery of the missing *a* from Neil Armstrong's famous first words from the moon in 1969, when the world heard the phrase, "That's one small step *for man*, one giant leap *for mankind*." As reported by Yahoo News, some historians have criticized Armstrong for not saying the more dramatic and grammatically correct, "One small step *for a man* ..." in the version he transmitted to NASA's Mission Control. With the missing *a*, grammarians say, Armstrong essentially said, "One small step for mankind, one giant leap for mankind." The famous astronaut has maintained he intended to say it properly and believes he did. Thanks to some high-tech sound-editing software, the Australian computer programmer found evidence that the missing *a* was spoken.

Frequency analyses of the English language place *the* in the first position among the most-frequently occurring words and *a* in fifth (Master, 2002). It must be noticed, however, that quite often authentic L2 input lacks obligatory articles for reasons that are explained by British journalist and writer Helen Fielding (1999): "Writing a book, you wouldn't normally play so much with the words, but I wrote all the *Bridget Jones* columns to word counts. ... I'd write it, and it would always be over the word limit, then I'd condense it and condense it until it came out exactly the right number of words. ... That had something to do with the truncated style. To get it shorter I'd cut out words - like *I* or *the*." The *truncated style* may be obvious to a native speaker of the language, but could pose a problem for a learner outside of the classroom environment.

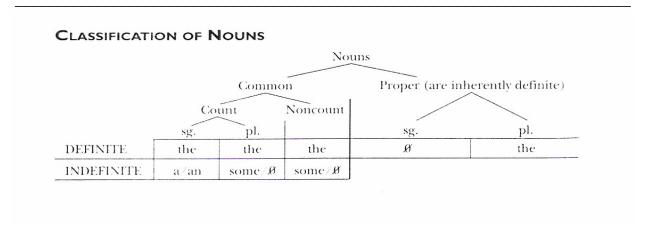
Noun Phrase Environments in English

The concept of indefiniteness and its corresponding marking by articles needs to be positioned within a broader context of structural facts about articles. Most of the strictly formbased information about English articles derives from the English noun classification system. All English nouns are classified as either common nouns (e.g., *a boy, a country, a planet*) or proper nouns (e.g., *John Smith, Denmark, Saturn*). In addition, all common nouns can be further classified as noncount nouns (e.g., *water, clothing, luggage*) or count nouns (e.g., *a beverage, a shirt, a suitcase*). Figure 1 depicts the English noun classification system graphically.

The count-noncount classification of common nouns is an important preliminary to the correct use of articles. It is a conceptual distinction that may be problematic for L2 learners, as what is countable and what is uncountable is somewhat arbitrary and varies to some extent from language to language (Han, in press; Larsen-Freeman & Celce-Murcia, 1999). In addition, most

7

FIGURE 1 Classification of Nouns in English



Adapted from Celce-Murcia and Larsen-Freeman (1999)

English nouns can be used in either countable or uncountable ways depending on the context. On that account, Wierzbicka (1988) noted that "the fact that many words can be used as either countable or uncountable, depending on the meaning intended, shows that the grammatical characteristics in question are sensitive to changes in the conceptualization" (p. 507). Butler's (2002) and Master's (1987) empirical findings confirm that countability is the most persistent problem for accurate article use by L2 learners whose L1s do not contain article systems.

The Notion of (In)definiteness in English

Article acquisition research traditionally begins by identifying meaning contexts for the appearance of articles. Celce-Murcia and Larsen-Freeman (1999) offer a convenient start for this study by distinguishing between generic and nongeneric meanings of articles. Generic articles are said to convey meaning in which all or most members of a set are referred to as in (1):

(1) *The tiger* is a dangerous animal. *A tiger* is a dangerous animal. *OTigers* are dangerous animals.

Generic uses are outside of the scope of this investigation and they will be referred to throughout this paper only in passing. Generics are generally rare in the input available to learners and they are infrequent in spontaneous language production (cf. Thomas, 1989).

Far more common is the nongeneric meaning of articles, in which one or more individual members of a set are being referred to as in (2):

(2) *The lion* escaped from the zoo. *A lion* escaped from the zoo. *OLions* escaped from the zoo. To distinguish among the nongeneric uses of articles, one needs to make the distinction between specific and nonspecific noun phrases. Generally, the use of the definite article *the* signals the reference to a very particular member of the class which is often called specific reference. Indefinite articles *a/an* signal nonspecific reference, as they refer to no particular member of the class or to no member at all. In some instances, the speaker intends specific reference to an existent member of the class, but a member not marked out by any properties aside from its being a member of the class as in *I want a cookie*. In other cases, the reference may be to no member of the class at all, but only to the notion of one as in *Draw a horse* (Maratsos, 1976).

In formulating the proper use of articles, the language user must conceptualize the abstract distinction between specific and nonspecific reference to members of a class. There is, however, yet another central aspect of the definite/indefinite contrast. This aspect is the shared knowledge from the speaker/writer's point of view within the speaker/writer's and the listener/reader's knowledge base. Brown (as cited in Celce-Murcia & Larsen-Freeman, 1999) offers a good way of visualizing the interaction of the speaker/writer and the listener/reader with regard to article usage of nongeneric common nouns in English (see Figure 2).

FIGURE 2
Article Usage with Nongeneric Nouns

	Specific Referent	Nonspecific Referent
Specific Referent	Definite	Indefinite
-	Can I have the car?	There is a spy hiding in you cellar.
		I heard you once wrote an article on X.
Nonspecific Referent	Indefinite	Indefinite
•	I saw a funny looking dog	I don't have a car.
	today.	I need a new belt.

Speaker/Writer

Adapted from Celce-Murcia and Larsen-Freeman (1999)

A different way of looking at English articles was proposed by Fodor and Sag (1982). They argued that English indefinites are ambiguous between referential (specific) and quantificational (nonspecific) interpretations. This is illustrated in (3) and (4):

(3)	<i>A man</i> just proposed to me in the orangery. (though I'm much too embarrassed to tell you who it was)
(4)	<i>A man</i> is in the women's bathroom. (but I haven't dared to go in there to see who it is)

9

Fodor and Sag argue that *a man* receives different interpretations, the crucial distinction being that in (3) the speaker has a particular individual in mind when she utters *a man*, and intends to refer to this individual, whereas this is not the case in (4). For Fodor and Sag, *a man* in (3) is a specific indefinite (a referring expression), *a man* in (4) is a quantificational expression (like *every man* and *no man*). Fodor and Sag's analysis of specific indefiniteness as referring expressions has been challenged by a number of researchers, but it is used in some of the studies referred to in this paper (e.g., Ionin, 2003b; White, 2003).

In his seminal work on the use of indefinite and definite reference in young children learning English as their L1, Maratsos (1976) describes the conceptual basis for that in the following way:

[Articles'] meanings are abstruse. They refer to no particular object, class of objects, or class of actions, as do, for example, *mommy*, *dog*, or *push*, or even a consistent internal feeling such as is nominated by *want*. Their meaning inheres in the semantically abstract notions of specificity of reference and the specificity of a reference for their listener. Each of these presents what abstractly seem like severe problems of conceptualization. (pp. 7-8)

Discourse-Based Classification of English Articles

Early studies on the acquisition of articles (e.g., L1 and L2 morpheme studies) did not differentiate among different types of articles. Instead, morphemes with different meanings were grouped together as a single grammatical structure referred to as *Article*, with no distinction made between definite and indefinite morphemes (Bailey, Madden, & Krashen, 1974; Brown, 1973; Dulay & Burt, 1973; Hakuta, 1976). Later, a nominal division was made between the indefinite *a*, the definite *the*, and the *zero* (or "null"⁴) article (Huebner, 1979, 1983).

More recently, Huebner's (1983) classification (which itself was based on Bickerton, 1981) has become one of the most widely used models for the analysis of English noun phrase (NP) environments. In Huebner's model, the use of English articles is determined by two discourse features of referentiality—namely, whether a noun is a specific referent [+/-SR], and whether it is assumed as known to the hearer [+/- HK]. These two aspects of referentiality thus give rise to four basic NP contexts that determine article use. Nouns classified as Type 1, [-SR, +HK], are generics, and are marked with *a*, *the*, or *zero*. Nouns classified as Type 2, [+SR, +HK], are referential definites and are marked with *the*. Type 3, [+SR, -HK], includes first mention nouns, whose referent is identifiable to the speaker, but not the listener, for example, nouns that the speaker is entering into the discourse for the first time. These are marked with *a* or *zero*. Type 4 nouns, classified as [-SK, -HK], are nonreferentials. This type includes nouns that are nonspecific for both the speaker and the hearer; *a* and *zero* are the relevant articles. In addition to these four types, idiomatic expressions and conventional uses are frequently

⁴ For the purpose of this research I have adopted a traditional approach in which the term *zero article* refers to any instance in which a noun requires no article. Nonetheless, I do recognize that recent research (Celce-Murcia & Larsen-Freeman, 1999; Chesterman, 1991; Master, 1997) divides the zero article into two types: zero and null. The zero article occurs with nonspecific or generic noncount and plural nouns, such as *water* and *cats*. The null article occurs with certain singular count and proper nouns, such as *Chicago* and *lunch*.

classified as Type 5 (Butler, 2002; Thomas, 1989). Huebner's classification is summarized in Table 1.⁵

Features	Environment	Articles	Examples
Type 1 [-SR, +HK]	Generic nouns	a, the, 0	<i>OFruit</i> flourishes in the valley. <i>The Grenomian</i> is an excitable person. <i>A paper clip</i> comes in handy.
Type 2 [+SR, +HK]	Referential definites Previous mention Specified by entailment Specified by definition Unique in all contexts Unique in a given context	the	Pass me <i>the pen</i> . <i>The idea</i> of coming to the US was I found a book. <i>The book</i> was <i>The first person</i> to walk on <i>the moon</i>
Type 3 [+SR, -HK]	Referential indefinites First-mention nouns	a, 0	Chris approached me carrying <i>a dog</i> . I keep sending <i>Omessages</i> to him.
Type 4 [-SR, -HK]	Nonreferential indefinites attributive indefinites	а, 0	Alice is <i>an accountant</i> . I guess I should buy <i>a new car</i> . <i>0Foreigners</i> would come up with a solution.
Type 5	Idioms Other conventional uses	a, the, 0	All of a sudden, he woke up. In the 1950s, there weren't many cars. His family is now living 0hand to mouth.

TABLE 1 Environments for the Appearance of *a*, *the*, and 0

Adapted from Butler (2002), Huebner (1983), and Thomas (1989)

Huebner's conceptualization has been used to investigate whether at different stages of interlanguage development learners distinguish among the four (or sometimes five) NP contexts. The value of the classification cannot be overestimated – it is by far the only framework that remains constant in the vast body of article research in the field of SLA. A slightly modified version of Huebner's model is used in this study to allow for comparisons with previous research findings and provide epistemological continuity.

In addition, I have adopted Ionin's (2003a) basic definitions of definiteness and indefiniteness as well as specificity and nonspecificity:

 (In)definiteness: an NP is definite if its referent is known to both speaker and hearer, and is unique in the contextually relevant domain. Otherwise, the NP is indefinite. definite: I read a book. *The book* was interesting.

⁵ As pointed out by Thomas (1989), Huebner's model is not a comprehensive guide to the distribution of English articles, but rather a sketch of the major environments relevant to acquisition studies. In addition to idiomatic uses, there are other productive contexts for articles (e.g., geographic names, proper names). There also may be some overlap among the environments listed in Huebner's model.

indefinite: I read *a book* yesterday.
2. Specificity: an indefinite NP is specific if the speaker has its referent in mind and intends to refer to it. Otherwise, the NP is nonspecific. specific indefinite: I read *an interesting book*, which my cousin gave me. nonspecific indefinite: Mary read *a book* (but I don't know which one). (p. 347)

Discourse Contexts and English Articles

In English, articles signal definiteness and indefiniteness, but also, on a discourse level, they allow for the identification of new and given information: given information tends to take the definite article, while new information, somewhat independently of word order (Celce-Murcia & Larsen-Freeman, 1999), tends to take the indefinite article. The following example of each type exemplifies the difference:

(5)	new referent as topic	There are a mother and a boy in a grocery store.
	known referent as topic	The mother is reaching for a box of cookies.

Word order, which most commonly signals definiteness and indefiniteness in languages that do not employ articles, has a different function in English - it determines grammatical relations of *subject* and *object* of a sentence. Hence, articles are the necessary means of distinguishing between new and given information on a discourse level.

According to research on discourse markedness (Chaudron & Parker, 1990), information that is newly introduced into discourse (new referent) is by definition the least continuous, hardest to identify, and therefore the most marked, and information that is the current topic (known referent) is by definition the most continuous and therefore the least marked. In SLA, production is expected to develop from structurally less-marked forms to more marked forms.⁶ Chaudron and Parker hold that the scale of discourse markedness influences L2 acquisition in two ways: greater ease in producing more continuous NPs and earlier encoding of definiteness.

The Notion of (In)definiteness in Polish

English articles are understandably problematic from a crosslinguistic perspective. Learners' difficulties appear to be exacerbated when their native languages do not employ articles or article-like morphemes. Since Polish has no articles, Kaluza (1963) observes that to a speaker of Polish, the idea of the existence of articles may seem entirely strange. Kaluza may be correct in implying that Polish speakers are indeed insensitive to the syntactic aspect of English determiners. However, the concept of marking definiteness or indefiniteness, or, in other words, the use of some grammatical agent to mark the difference, is not foreign to speakers of Polish.

Definiteness and indefiniteness are a universal property of human languages that require speakers to distinguish specific from nonspecific referents, and shared from unshared background knowledge. These meanings are accomplished in Polish without an article system. Instead, word order, verbal aspects, and demonstratives are found to signal definiteness and

⁶ In SLA, L1 and L2 markedness differences appear to dictate universal sequences of development (Eckman, 1977; Zobl, 1982)

indefiniteness in certain contexts. For example, the Polish and English sentences in (6) are translation equivalents:

(6) Do sklepu wszedł mężczyzna.
 to store entered man
 A man entered the store.

In English "man" is [+SR, -HK] by virtue of the indefinite article. In Polish, however, it is required that new information be positioned toward the end of the sentence, and the clause-final position of *mężczyzna* implies that it is nonspecific. This example is contrasted with sentence (7), in which *man* is marked as specific by the definite article in English:

Mężczyzna wszedł do sklepu.
 man entered to store
 The man entered the store.

In Polish, the first element in a sentence carries little new information. Instead, it functions to signal given information, and thus *mężczyzna* is specific. Since Polish nouns are fully inflected for case, word order is not necessary for case assignment. In consequence, word order in Polish can take on some pragmatic functions for which articles are used in English, but is not employed consistently to signal or preserve the indefinite/definite contrast.

Moreover, verbal aspect also allows Polish speakers to distinguish specific from nonspecific referents. This is exemplified in (8) and (9), in which the perfective prefix, *na*- on the verb implies that the noun, *list*, is [+SR], while the imperfective verb implies [-SR]:

- (8) Napisałem list. $Perfective-wrote-1^{st}$ letter I wrote the letter.
- (9) Pisałem list. Imperfective-wrote- 1^{st} letter I wrote a letter.

Alternatively, specificity and definiteness in Polish are also achieved through the use of demonstratives and the patterns are similar to those in English, for example, *ten* (*this*), *tamten* (*that*), *te* (*those*), and *tamte* (*these*). On the other hand, as in English, nonspecificity and indefiniteness may be accomplished with the help of the numeral *one* (*jeden*), where it is possible to use *one* as a stressed emphatic variant of *a/an*. Yet another way of lexical marking of indefiniteness in Polish includes two lexical items, *jakiś* (sing.) and *niektórzy* (pl.) that roughly correspond to *some* in English.

In sum, languages have a number of means for sorting out reference and achieving topic continuity in connected discourse (Jarvis, 2002). Thus, in a sense, even beginning adult L2 learners of English and native speakers of [-ART] languages are sensitive to the semantic aspects of definiteness and indefiniteness in language. However, languages may differ in, at least, the following aspects: (a) how to encode indefinite contrasts, (b) when to mark indefiniteness, and

(c) which nouns are allowed to take indefinite marking. As pointed out by Han (in press), the choices provided by each language constitute a language-specific conceptual system.

There has been a considerable amount of research conducted pertaining to the English article system that, roughly, falls into two areas: pedagogy and its effectiveness on the one hand, and the process of acquisition on the other. The next section summarizes research findings on L1 and L2 acquisition of articles.

ACQUISITION OF THE INDEFINITE ARTICLE

The Acquisition of the Indefinite Article a/an in L1 English

In first language acquisition (FLA), the definite article seems to be mastered fairly early and is overgeneralized to certain indefinite contexts. With regard to the indefinite *a*, it has been reported that although L1 child acquirers overuse the definite article *the* on occasions in which listeners do not have any knowledge of the reference (i.e., the [+SR,-HR] case), they do not make errors when the referents are nonspecific for both speakers and hearers (i.e., the [-SR,-HK] case; Brown, 1973; Maratsos, 1976). Brown (1973) cites real instances of communication failure between children and their parents with respect to specificity:

(10)	Sarah: Mother:	The cat's dead What cat?
(11)	Adam: Mother:	Put it up, the man says. Who's the man?

Grounding his work on Bickerton/Huebner's classification of articles, Cziko (1986) proposed a four-stage sequence in the L1 acquisition of articles synthesizing evidence from studies of child language acquisition. According to Cziko, in Stage 1, children mark all referential nouns, both [+HK] and [-HK], with either *a* or *the*, but do not use articles with nonreferential nouns. At Stage 2, children employ *the* in [+SR] contexts and *a* in [-SR] contexts. It is not until Stage 3 that the child begins to acquire sensitivity to the feature [+/-HK], possibly resulting in the reintroduction of *a* into both [+SR] environments. At Stage 4, the child possesses the adult system of classification of nouns, which assigns articles according to both features [+/- SR] and [+/- HK].

The Acquisition of the Indefinite Article a/an in L2 English

Findings related to the mastery of the article system from SLA are not as straightforward as the conclusions from L1 study of articles. Early research (Hakuta, 1976; Huebner, 1979, 1983; Tarone, 1985) yielded important findings on article acquisition, but looked at articles within the broader context of morpheme acquisition in L2 English. The comparisons among morphemes were often unwarranted due to differences in the semantic weight of the morphemes. The research interpretation was additionally obscured by the lingering questions of what the findings meant for the task of explaining L2 acquisition (for discussion, see, e.g., Goldschneider & DeKeyser, 2001).

Master (1987), Parrish (1987), Tarone and Parrish (1988), and Thomas (1989) studied the L2 acquisition of articles exclusively. Their findings, although inconclusive, have greatly informed the research on the acquisition of the English article system. Early studies' results mirror some of the FLA findings in that they suggest the integration of the definite article into the learner's interlanguage before the integration of the indefinite article (Huebner, 1983; Master 1987; Parrish, 1987; Thomas 1989). *The* is often reported as overgeneralized. Both Huebner and Master call this phenomenon *the-flooding*, although neither of them defines the term, except loosely as a dramatic rise in usage. From a semantic point of view, it has been concluded that L2 learners of English tend to equate the definite article with [+specific] (or referential) and the indefinite article with [-specific] (or quantificational), hence overusing the definite article in specific indefinite contexts.

One of the controversies that early research generated relates to the interpretation of *zero* article overproduction. For those learners whose L1s lack articles, [-ART], researchers (Master, 1997; Parrish, 1987) reported that *zero* dominates in all semantic environments in the early stages of L2 acquisition. Parrish (1987) proposed that the *zero* article is acquired first, followed by the definite article, and finally the indefinite article. Thomas described a very similar phenomenon occurring in her data in a less categorical tone as "the *zero* article overgeneralization, or equivalently, failure to use any article" (p. 349).

Master's (1997) and Parrish's (1987) *acquisition by default* position with regard to *zero* article overuse fails to account for possible L1 transfer effects which are especially severe for [-ART] speakers. Early studies focusing on crosslinguistic differences in the acquisition of articles revealed that learners whose first languages contained an article system differed markedly in English article acquisition from those whose first languages did not contain such a system, showing that English article usage, especially at the beginning levels, is clearly influenced by the first language. Therefore, *zero* in early interlanguages can hardly be considered a *use*.

Recent research on the L2 acquisition of articles has been rather extensive (Butler, 2002; Chaudron & Parker, 1990; Ionin, 2003a; Jarvis, 2002; Lardiere, 2004; Leung, 2001; Liu & Gleason, 2002; Robertson, 2000; White, 2003; Young, 1996). Although different methodologies employed by the researchers often make comparisons difficult, the depth and breath of recent article investigations allow for a more systematic analysis of developmental patterns for the acquisition of indefiniteness in L2 English.

Recent studies confirm early findings of omission as the main problem in article use across L2 learners from different L1 backgrounds. Definiteness is reported to be encoded before indefiniteness. Among problems causing misuse of articles, misdetection of countability and shared background knowledge were cited most frequently. In their use of articles, Slavic learners were influenced by discourse context not shared with a speaker. An interesting observation of the near-native use of the indefinite *a* by low-level learners was made by several researchers (see Table 2 for a detailed summary of current research findings).

TABLE 2Recent L2 Article Research

Study	Summary of Findings Pertinent to the Acquisition of the Indefinite Article a/an in L2 English
Chaudron and Parker (1990)	Japanese participants encoded definiteness before indefiniteness; the early use of definite forms occurred simultaneously with the use of bare nouns, which decreased as the use of indefinite articles increased with proficiency. It was concluded that it is easier for a lower level learner to use a bare noun for indefinite reference, while using a definite NP for definite reference. As proficiency increases, indefiniteness is then encoded formally. Two unexpected findings were noticed: (1) there appeared to be an exception in the lowest proficiency learners, who were unexpectedly native-like in the use of indefinite articles; (2) a trend of greater use of the indefinite article <i>a</i> in known contexts was observed in the highest proficiency participants.
Young (1996)	In using indefinite articles, Czech and Slovak learners were influenced by discourse context not shared with a speaker. Learners were found to rarely use indefinite articles, but once they did they used them to mark [-HK] contexts. The tendency to use indefinite articles in the [-HK] context increased with proficiency. It was concluded that the interlanguage indefinite article functions just like the target indefinite article, except when learners fail to use it.
Robertson (2000)	Systematic and nonsystematic variability in the use of articles by advanced Chinese ESL learners was found in this study. Suppliance of determiners was high: 83% for <i>the</i> and 78% for <i>a</i> . The highest accuracy in indefinite contexts was noted for existential sentences (95%) – the NP in such contexts is, by definition, a new entity in discourse. Inaccurate responses consisted of omission of articles, rather than misuse of definite for indefinite or vice versa. Optionality in the use of articles in the corpus was explained by the difficulty in acquiring the correct mapping from the surface features (<i>the</i> , <i>a</i> , and <i>zero</i>) onto the abstract features of the DP ([+/-number], [+/-definite]).
Leung (2001)	L1 Chinese speakers who had acquired English as their L2 and were acquiring French as their L3 were fairly accurate in using the indefinite article in both specific and nonspecific indefinite contexts. Very high accuracy on <i>the</i> (85%) and <i>a</i> (99.5%) on singular count nouns was demonstrated. Indefinite articles were also supplied in contexts where definite articles were expected.
Butler (2002)	Misdetection of referentiality or failure to consider referentiality [HK] accounted for nearly half of the mistakes made by Japanese learners in this study. Misdetection of noun countability constituted the second cause of mistakes. L1 and L2 differences were implicated in learners' difficulty in teasing out associations between the notions of HK and definiteness.

Liu and Gleason (2002)	The only study that did not include any measures of participants' knowledge of indefiniteness. Analyses of four nongeneric uses of <i>the</i> by ESL learners revealed that those uses pose different levels of difficulty suggesting that the acquisition of <i>the</i> is use-dependent and follows a natural order. The number of missed obligatory uses of <i>the</i> in all four types decreased as the participants' proficiency level increased, whereas their unnecessary use of <i>the</i> appeared to follow a different course: it increased significantly as the ESL students' English proficiency increased as their English improved from intermediate to advanced level.
Jarvis (2002)	Discourse marking patterns found in ESL writing of Finns and Swedes demonstrated participants' sensitivity to the distinction between new and not-new NP referents, but the degree to which they marked this distinction depended heavily on their L1 background. Finns avoided marking the distinction, which resulted in their overuse of the <i>zero</i> article.
Ionin (2003a)	Russian ESL learners were found to use the target articles <i>a</i> and <i>the</i> in nonspecific indefinite and definite contexts respectively, while fluctuating between <i>the</i> and <i>a</i> with specific indefinites. Overall proficiency had little effect on article usage, especially on the pattern of <i>the</i> overuse with specific indefinites.
White (2003)	A Turkish learner appeared to have greater problems with suppliance of determiners, particularly the indefinite article, than with verbal morphology or plural marking. The main problem with determiners was omission, particularly in the case of indefinite articles. The learner supplied <i>the</i> in 72% of obligatory contexts, while indefinite <i>a</i> was only supplied about 60% of the time. The learner never used definites in place of indefinites (or vice versa). She occasionally overused determiners with bare NP contexts, but this overuse was not restricted to the definite article in specific indefinite contexts. In fact, the learner oversupplied the definite article in nonspecific indefinite contexts. Indefinites were also overused.
Lardiere (2004)	A Chinese learner's overall suppliance of articles was quite high. Definite articles were supplied at about a rate of 84% and indefinite at about 75.5%. The learner's production of articles was higher than the rate of verbal inflectional marking. No tendency to substitute demonstratives for definite determiners nor <i>one</i> for indefinite determiners was found. Definite articles were categorized as featurally less complex than indefinites as they do not need to take number and the count/mass distinction into account. The learner was successful at delinking definiteness from plural number as exemplified by her use of quantified plural indefinite nouns in existential constructions. It was concluded that the learner showed quite sophisticated knowledge of the abstract feature of definiteness in English, but not of the properties and distribution of definiteness in articles.

RESEARCH QUESTIONS

In the section that follows, I report on a case study that examined patterns of the indefinite article use in the interlanguage of an ESL learner, speaker of Polish, a [-ART] language, over time. The research questions investigated in this study were the following:

- 1. How does a speaker of a [-ART] L1 and a learner of English as an L2 mark indefiniteness at a given stage of his acquisitional process?
- 2. How does grammatical marking of indefinite reference change over time? In other words, what developmental patterns emerge?
- 3. What factors might account for the development from one stage to another, including target-like usage?

METHOD

The present investigation was designed as an exploratory case study, the advantage being that such an approach offers a description of learner language collected over time. It is believed that this type of data is highly useful in determining developmental trends being uniquely suited to questions of individual consistency or individual change (Miller, 1987). For practical reasons, crosssectional designs have been employed more frequently than longitudinal designs in research on article acquisition. In fact, only a handful of article investigations have been longitudinal in nature (Hakuta, 1976; Huebner, 1979, 1983; Lang, 1998; Parrish, 1987; Trademan, 2002), despite Master's (1987) recommendation that "a true picture of article acquisition should be based on longitudinal studies" (p. 26). This study was undertaken partially to address this need for longitudinal analyses.

Participant

One adult male enrolled in an English as a Second Language program in the United States participated in the study. Karol was a native speaker of Polish,⁷ a Slavic language that does not employ articles or article-like morphemes. His English ability at the onset of the study was determined by the language program's placement test as intermediate, guaranteeing that proficiency would not get in the way of the participant's understanding of the language presented in the study's tasks. By the first data collection for the present study, Karol had lived in the U.S. for two years. For personal and professional reasons, he was highly motivated to improve his English. In addition, five adult native speakers of American English served to provide the baseline data.

Data Collection

Elicited data in the form of free compositions and limited responses as well as introspective data were collected over a period of 15 months. Data collection frequency was

18

⁷ The participant's name is a pseudonym.

determined by the language program's timeline for the administration of placement, midterm, and final examinations. Table 3 shows a summary of the study's timetable.

Timeline	Time	Language Samples	
1 st quarter of 2005	T1	compare & contrast essay	
2 nd quarter of 2005	T2	information report	
3 rd quarter of 2005	T3	picture-based narrative	
4 th quarter of 2005	T4	compare & contrast essay	limited context fill-in-the-blanks
5 th quarter of 2005	T5	movie-based narrative	
6 th quarter of 2005	T6	opinion essay	extended context fill-in-the-blanks
			interview

TABLE 3Timetable

Note. T1=Time 1; T2=Time 2; T3=Time 3; T4=Time 4; T5=Time 5; T6=Time 6

One of the primary concerns in choosing elicitation instruments for this study was the presence of a discursive context that would prompt the participant to produce diverse semantic environments in which different types of articles appear. It was believed that semantic, and in particular, conceptual characteristics would be evident only at the discourse level (Han, in press). Free written compositions and contextualized fill-in-the-blanks guaranteed the presence of discursive context. In addition, their written format assured little ambiguity at the analysis stage. Previous studies have reported difficulties in discerning indefinite articles in oral language samples, due to the lack of perceptual salience of English articles, especially of a, leaving the researcher second-guessing participants' intentions. On that account, Huebner (1979) writes: "When there were questionable sentences, I always gave Ge, the informant, the benefit of the doubt. If, for example, I was not sure whether a schwa was an indefinite article or merely an epenthetic vowel, in contexts where an indefinite article was required, I counted it as indefinite article If, on the other hand, the reading had of necessity to be plural, I assumed the schwa was an epenthetic vowel" (p. 23). The written format has an additional advantage for the study of acquisition in literate learners. According to Bardovi-Harlig (2000), literate learners are able to write connected texts much earlier than they are able to produce them orally, permitting access to their early development.⁸

Free Compositions

From January 2005 to May 2006, the participant wrote essays, reports, picture-based narratives, and film-based narratives responding to prompts given during the placement exam or in class. As revealed by Tarone and Parrish's (1988) investigation of interlanguage variation, article use varies over experimental conditions. In their study, the oral interview condition elicited a few examples of generic NPs while the narrative condition elicited almost none. Both conditions elicited a fair number of specific indefinites; however, definite NPs were almost twice as common in the narrative condition as in the interview condition suggesting that the narrative is a more cohesive discourse than the interview. The present study followed Tarone and Parrish's

⁸ Out of several longitudinal article investigations (Hakuta, 1976; Huebner, 1979, 1983; Lang, 1998; Parrish, 1987; Trademan, 2002), only the study by Trademan (2002) used written data. Only two of the studies had adult literate participants – Parrish (1987) and Trademan (2002).

findings and Loschky and Bley-Vroman's (1993) recommendation that "in creating tasks for developing knowledge of articles, the task designer ... consider using narrative tasks for the definite/indefinite distinction" (p. 133). Given the unknown status of nonspecific indefinites in relation to text genre, it was decided that essays and other text types should be employed in addition to narratives. Only uncorrected first drafts were collected and comprise the free composition corpus.

Two types of elicitation tasks, limited- and extended-context, were used to supplement free compositions. The limited-context task was a part of a different investigation, but the availability of additional article data prompted me to include it in the present study.

Limited Context Elicitation Task

In November of 2005, the learner, independently of the present study, participated in a cross-sectional investigation conducted in his class. Judgment data were obtained with the help of a limited-context elicitation task. The instrument consisted of 42 sentences adapted from Butler (2002), Liu and Gleason (2002), and Master (1994; see Appendix A). There were a total of 37 deleted obligatory uses of *a* and *the* articles across three semantic article types: definites, specific (referential) indefinites, and nonspecific (nonreferential) indefinites. Generic and idiomatic uses of *a*, *the*, and *zero* served as distractors. As for the test format, I did not leave blanks for the missing obligatory uses of the articles. I simply asked the participant to read the sentences and insert *a*, *the*, or *zero* article wherever he deemed it necessary. My rationale was based on Liu and Gleason's (2002) argument that if the blanks were included, learners might fill every blank with *a* or *the*, making the data very unreliable. Moreover, elimination of the blanks could lead to elicitation of unexpected data, as the participant could have placed morphemes in places the researcher did not anticipate. The participant was given 20 minutes to complete the task, and he was not allowed to use a dictionary.

Extended Context Elicitation Task

In May of 2006, the participant took an extended context elicitation test that consisted of 27 short dialogues, each of which contained a context exchange between two interlocutors and a target sentence (see Appendix B for test items arranged by category). The instrument was a revised version of the test used by Ionin (2003b) and could be categorized as a forced choice elicitation task with an element of judgment. Each dialogue was contextualized by a heading situating the conversation that was about to take place, for instance "At a bookstore." The context was always given as a dialogue between two people:

- (12) "At a bookstore"
- A: Well, I've bought everything that I wanted. Are you ready to go?
 B: Almost. Can you please wait a few minutes? <u>I want to talk to (a, the, --) owner of this bookstore she is my old friend.</u>

Three context types, definites, specific indefinites, and nonspecific indefinites, were represented by 19 items in the elicitation test. The remaining 8 items were fillers such as generic and idiomatic uses. The participant was instructed to read through each context carefully, to read

the stimulus sentence, and to choose one out of the three options: *a, the,* or no article. He was given 30 minutes to complete the task, and was allowed to ask for the meaning of unknown words (if any) in the dialogues.⁹

Interview

Immediately after completing the extended-context elicitation task, the participant was asked to provide the researcher with the reason(s) for his article choice on each task item. The interview followed Butler's (2002) methodology for eliciting metalinguistic knowledge and was conducted in Polish with the researcher taking notes in Polish (the participant knew the researcher's L1 was Polish and he only communicated with her in Polish on all previous occasions). The interview took approximately 20 minutes.

Data Analysis

Both quantitative and qualitative analyses were performed on the data. The use, misuse, and omissions of English articles were examined through a discourse analysis which considered the notion of indefiniteness as expressed via the semantic features of shared knowledge and specific reference. Following Han (in press), it was decided that assessment of article accuracy should not be confined to morpheme accuracy; "rather, it should be carried out within a larger linguistic and discourse context, including constructions that might not specifically involve the morphemes."

Free Compositions

The original hand-written compositions were retyped by the researcher. Two native speaking judges were asked to mark any unnecessary uses of articles in the data and to insert any obligatory articles that were missing in the learner's production. In cases where the judges' coding did not coincide, a third native speaker was asked to resolve the issue.

In the next stage of analyses, every article in the corpus was coded for its type independently by two experienced coders (the researcher and her colleague) using Huebner's taxonomy. Interrater agreement on the written texts was 92% (agreement on 93/101 coding decisions). Disagreements were resolved by discussion. After this, percentage scores of correct responses were calculated for the use of a and the as the ratio of the number of article forms supplied to the number of obligatory environments. The uses were then plotted on a time grid. Next, the contexts for missing articles were identified and analyzed. Finally, the overused tokens of a and the were tallied.

Limited- and Extended-Context Elicitation Tasks

Both elicitation tasks called for obligatory uses of certain articles. Rates of appropriate use of *a* and *the* were calculated as the ratio of the number of articles supplied to the number of

⁹ Ionin (2003b) presented context dialogues to her participants in their native languages (Russian and Korean), but the target sentence remained in English in her study. I did not follow her format as I was concerned that the results would have been affected by code-switching (a concern expressed by Ionin herself).

obligatory environments, for each semantic type and for each task. All rates are given as percentages. Percentage scores of the overuse of *a*, *the*, and *zero* were calculated.

With some modification, I followed Bickerton/ Huebner's approach to distinguishing indefiniteness. The universal semantic and discourse features of NPs proposed by Bickerton appear to be an effective way of explaining learners' use of articles in English interlanguage. In addition, I chose the productive uses of *a* and *the* as the locus of analyses with the intention to focus on what was observable in the data. Following Thomas' (1989) clarification on the *zero* article overgeneralization in IL production of [-ART] L1 speakers, which was termed "failure to use any article" (p. 349), the present study excluded obligatory *zero* article uses from further analyses. My decision was motivated by two reasons: (a) the goal of the study was to trace the development of grammatical marking of indefiniteness through the presence of the morpheme *a* in the participant's interlanguage (the *zero* article could hardly be considered a morpheme); (b) I hoped to avoid a typical shortcoming of previous research in which the so-called high accuracy scores on the *zero* article use served as a basis for a conclusion that *zero* was acquired early.

Interview

Following Butler's (2002) coding scheme, reasons for article use provided by the learner were first classified as particular (i.e., the participant was able to identify rules of grammar or other reasons for selecting the articles he chose), or nonparticular (i.e., the learner could not identify any specific reasons for his article choice). These reasons were then analyzed qualitatively.

RESULTS AND DISCUSSION

Suppliance of Articles in the Corpus

Table 4 presents the distribution of the indefinite article *a* and the definite article *the* in free compositions. A number of facts emerged from the data.

As shown in Table 4, the participant's use of articles was variable and, on average, less than 50% accurate. There was no significant change across time. High levels of accuracy were observed for idiomatic uses of articles in the participant's free compositions across time, but the total number of tokens in the corpus was very small.

Referential and nonreferential indefinites that required the application of *a* appeared interchangeably in the data, depending on the text genre. Picture- and movie-based narratives collected at Time 3 and Time 5 resulted in the highest ratio of specific indefinites (i.e., "There is *a story* about *a little girl* and her mom" or "...he has *a friend* – *a little dog*"). The participant's use of *a* in the specific indefinite contexts was moderately accurate at 75% and 55% at Time 3 and Time 5, respectively. The learner's accuracy on definites at Times 3 and 5 was lower (60% and 37% respectively). Nonreferential indefinites (i.e., "When you decide to start to study... in *a big city* it gives you many opportunities. First of all you can meet many people who can help you to start *a job*") appeared in the corpus at Time 4 and Time 6 in the compare/contrast and opinion essays. The participant's control over the nonspecific uses of *a* in compositions was very low.

Article Type			,	Time		
	T1	T2	T3	T4	T5	T6
Generics the/a	0/1	0/0	0/0	0/0	0/0	0/0
Definites <i>the</i>	0/1	2/8	9/15	0/4	6/16	0/1
Specific Indefinites <i>a</i> Nonspecific	0/0	0/1	3/4	0/0	6/11	0/0
Indefinites a	0/0	0/0	0/0	4/17	0/1	0/5
Idioms the/a	1/1	2/3	1/1	4/6	3/3	1/2

TABLE 4 Proportions of Accurate Use of *a*/an and *the* by Time and Article Type

In order to see how the learner used indefinite *a* at a given stage of his acquisitional process, rates of appropriate uses of nominal types *a* and *the* are presented as the ratio of the number of *a* and *the* forms supplied to the number of obligatory environments. In this case, the semantic differences were dropped and *a* and *the* were grouped according to their nominal categories. All rates are given as percentages. As can be seen in Figure 3, the participant's accuracy of the two article types varied over time, peaking at Times 3 and 5, but falling at Times 4 and 6. Of particular interest, however, is that despite these highs and lows, the relation between the two article types remained similar at each data collection time, with accuracy for the definite article invariably lower than accuracy for the indefinite article.

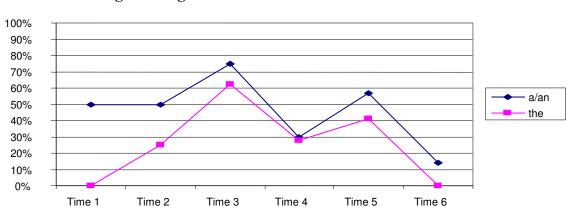


FIGURE 3 Percentage of Target-like Occurrence of *a/an* and *the* across Time

Reporting the learner's accuracy scores across time, however, would not give a thorough picture of his linguistic behavior. Therefore, I reanalyzed the same free compositions for instances of article misuse. Given in Tables 5 and 6 are all instances of article misuse by nominal

types: *a* and *the*. A close scrutiny of the number of tokens shows that the indefinite article *a* was overused four times as often as the definite *the*. Moreover, in 8 out of 10 instances, the article (either *a* or *the*) was overused where *zero* or no article was expected.

The analysis of *a* use in free compositions revealed that the participant's treatment of noun countability (**a great stuff*), of plurality (**a victims*), and of specificity (**a name of college*) as well as misapplication of the referentiality rule over a stretch of discourse (second mention of **a little girl*) were probably responsible for the indefinite article overuse. This interpretation is admittedly speculative.

On the other hand, the definite article *the* was overused sparingly, and only in cases where, it appears, potential idiomatic uses were attempted as in **the most schools* and **by the train*.

Time	Number of Tokens	Analysis
Time 1	*a great stuff	Attempted: nonreferential indefinite Possible problem: treatment of noun countability Obligatory article: <i>zero</i>
Time 2	*a victims	Attempted: referential indefinite Possible problem: treatment of plurality Obligatory article: <i>zero</i>
Time 3	in store with *a toys	Attempted: referential indefinite Possible problem: treatment of plurality Obligatory article: <i>zero</i>
	* <i>a little girl</i> (second mention)	Attempted: referential indefinite Possible problem: treatment of referentiality and discourse continuity Obligatory article: <i>the</i>
Time 4	*a name of college	Attempted: nonreferential indefinite Possible problem: treatment of specificity (cataphora) Obligatory article: <i>the</i>
	*a many employees	Attempted: nonreferential indefinites
	*a more opportunities	Possible problem: treatment of plurality
	*a many ways	Obligatory article: zero
Time 5	None	None
Time 6	None	None

TABLE 5Overuse and Misuse of *a/an* by Time

Attempted: idiomatic use Possible problem: application of the rule for superlatives Obligatory article: <i>zero</i> None
Possible problem: application of the rule for superlatives Obligatory article: <i>zero</i>
superlatives Obligatory article: <i>zero</i>
Obligatory article: zero
e .
None
Attempted: idiomatic use
Possible problem: application of the rule for
specificity
Obligatory article: <i>zero</i>
None
None

TABLE 6Overuse and Misuse of *the* by Time

Given in Tables 7 and 8 are percentages of target-like use of the indefinite article a in specific and nonspecific indefinite contexts contrasted with the use of the definite article *the* in referential definite contexts in the limited context elicitation task (Time 4) and the extended context elicitation task (Time 6). Table 7 shows high accuracy percentages on grammatical marking of indefiniteness (specific and nonspecific) at Time 4. The highest observed accuracy was noted for nonspecific indefinites as shown in the third row. Judgment data elicited at Time 4 confirms a modest overuse of *the* in contexts calling for the use of an indefinite article (18% as shown in the second row) and a noticeably higher and persistent overuse of *a* in definite contexts (31% as shown in the first row). The participant omitted the definite article *the* most at the rate of 38% of the time.

		Limited C	ontext Tas	k (Time 4)	
Category	Target	% the	% a	% omission	Total
Definites	the	31%	31%	38%	100%
Specific Indefinites	а	18%	72%	10%	100%
Nonspecific Indefinites	а	0%	84%	16%	100%

TABLE 7Article Use and Omission at Time 4

As shown in Table 8, the participant's use of *the* at Time 6 was consistently more targetlike than at Time 4 reaching a 58% accuracy rate (compared to only 31% in Table 7). Moreover, *the* was no longer overused by the participant in the indefinite contexts (0% on both types). It was omitted only 14% of the time, suggesting that some change as to the use of referential definiteness may have occurred between Time 4 and Time 6. The table also shows that in specific indefinite contexts the learner used *a* accurately half of the time, whereas in nonspecific indefinite contexts the accuracy rate was 75%. These numbers are lower than the accuracy rates recorded at Time 4 indicating lack of progress. In addition, the participant omitted the indefinite *a* more often at Time 6 than at Time 4.

		Extended	Context T	ask (Time 6)	
Category	Target	% the	% a	% omission	Total
Definites	the	58%	28%	14%	100%
Specific Indefinites	а	0%	50%	50%	100%
Nonspecific Indefinites	а	0%	75%	25%	100%

TABLE 8Article Use and Omission at Time 6

Overall, in comparison with free compositions, elicitation tasks yielded higher accuracy rates in the learner's article use. In both elicitation tasks, the learner appeared to be more successful in discerning and marking indefiniteness than definiteness. This confirms the pattern found in free compositions. Unlike in the compositions, the patterns found in the elicitation tasks reveal higher accuracy rates on nonspecific indefinites than specific indefinites (possible due to the limited essay corpus and knowledge control factors). At the same time, one could anticipate potentially several possible factors that could have affected the marking of indefiniteness by the participant, and I have consequently chosen this issue as the focus of the qualitative analyses in the following section.

Qualitative Examination of the *a/an* and *the* Uses

The method of assessing acquisition via the examination of obligatory contexts yields an incomplete picture of the developing interlanguage system or of the learner's grasp of the indefinite/definite contrast. Moreover, it assumes the view of interlanguage development as the gradual increase in the suppliance of a form in contexts where it would be expected in native adult speech, downplaying the role of native language and equating L2 acquisition with L1 acquisition. The instability of adult interlanguages, the warnings against the *comparative fallacy* (Bley-Vroman, 1983), that is, relying on theoretical constructs which are defined relative to the target language norm, and the lack of a sufficient theoretical base for the attempts to equate acquisition and accuracy, prompted me to examine how an interlanguage structure that appears

to be nonstandard is being used meaningfully by the learner. In other words, when talking about the acquisition of a new linguistic feature, it may be necessary to look beyond the interlanguage, focusing instead on the interplay of form and meaning as well as the semantic properties of the L1 (Han, in press).

In order to develop some understanding of the participant's semantic and conceptual system, I examined the local environments where *a* and *the* were used and misused. The following picture emerged with regard to the participant's intended meanings.

Specificity versus Nonspecificity

As mentioned previously, Ionin (2003a) found that learners of different L1 backgrounds seem to maintain a distinction between specific and nonspecific referents through their use of *a* and *the*. In the present study, introspective data (interview) collected at Time 6 confirm that noun specificity was indeed the criterion used by the learner in determining indefiniteness and definiteness as marked by articles. Patterns in the learner's responses (summarized in Table 9) suggest that *a* was his choice when the referents were identified, correctly or not, as nonspecific. In contrast, the learner applied *the* to specific referents only.

Article Use	Explanations
Targetlike	
specific definite the	specific referent, intuition
specific indefinite a	nonspecific referent, intuition
nonspecific indefinite a	nonspecific referent
Nontargetlike	
A	nonspecific referent
Zero	intuition, no clue

TABLE 9 Reasons for Article Choices

The insertions of a in (13) and of *the* in (14) below, made by the participant in response to the dialogues in the elicitation task collected at Time 6, are the clearest examples of the described interlanguage-particular rule (Han & Selinker, 1999):

(13) "Conversation between a police officer and a reporter"

Reporte		Several days ago, Mr. James Patterson, a famous politician, was murdered! Are you investigating his murder?
Police o	officer:	Yes. We're trying to find $\underline{*a \ murder \ of \ Mr. \ Patterson}$ – but we still don't know who he is. (Time 6)
(14) '	"At a b	ookstore"

Chris:	Well, I've bought everything that I wanted. Are you ready to go?
Mike:	Almost. Can you please wait a few minutes? I want to talk to <i>the owner of this</i>
	<u>bookstore</u> – she is my old friend. (Time 6)

In the interview, the learner classified **a murderer* in (13) as a nonspecific referent (in Polish: *jakiś tam*, one of many) and *the bookstore owner* in (14) as a specific referent. The observed tendency suggests that, at least in the above cases, *the* and *a* were employed by the learner to maintain a distinction between specific and nonspecific referents, respectively. It is possible that the learner may have been influenced by contextual clues in the dialogues ("we don't know who he is" vs. "she is my old friend"). Alternative – but interrelated – explanations are also possible. One possible explanation is that it is really the feature of assumed hearer/speaker knowledge that matters here.

Hearer's Knowledge

The use of English articles, as discussed earlier, is determined by the interaction of two features in discourse: specificity of the referent and hearer's knowledge. In the discussed dialogues, (13) and (14), both referents were specific and assumed hearer's knowledge, requiring the use of *the*. The learner's interview responses and variable article use in (13) and (14) seem to suggest that specificity was the only dimension he considered when employing articles of choice. The fluid and dynamic dimension of shared background knowledge appeared lacking in the learner's use of articles. In fact, in addition to (13) and (14), there are examples in the data suggesting just that. The narrative in (15), written at Time 3, is a case in point:

(15) There is a story about *a little girl* and her mom in *store with *a toys. First, $\underline{*a}$ <u>little girl</u> and her mom were to the shop with toys. (Time 3)

In (15), the learner failed to mark the reintroduced referent that encodes hearer's knowledge (*the little girl*) with the definite *the*, opting instead for a repetition of *a*. The indefinite article *a* also occurred in the known contexts, [+HK], at Time 4 and Time 6 [(16)-(18)]:

- (16) Jane bought *a ring and necklace* for her mother's birthday. Her mother loved **a ring* but hated <u>**a necklace*</u>. (Time 4)
- (17) Fred bought *a car* on Monday. On Wednesday, he crashed <u>*a car</u>. (Time 4)
- (18) "Conversation between two work colleagues"

Alice:	What did you do last night?
Robin:	I watched TV.
Alice:	What did you watch?
Robin:	Well, on one channel, I found an interesting German film. On another channel, I
	found an exciting news program. Finally, I watched <u>*a film</u> . (Time 6)

The introspective data revealed that when applying a in (18), the learner perceived the referent, **a film*, as nonspecific (in Polish: *jakiś tam*, one of many). Interestingly, at Time 6, the learner correctly marked the reintroduced referent with *the*, explaining in the interview that the referent in the dialogue below was specific:

(19) "Office Conversation"

Liz:	Mary had a visit from her neighbor yesterday. The neighbor brought <i>her dog</i> with her which was a big mistake.
Jane:	Why?
Liz:	Because this dog saw Mary's cat right away.
Jane:	And what happened?
Liz	The dog started barking and woke up Mary's baby. (Time 6)

The analyses of the above cases based on the obligatory contexts reveal no more than that the usage in (13), (15), (16), (17), and (18) was nontarget-like, whereas the usage in (14) and (19) was target-like. In contrast, the analysis based on the examination of discourse properties contrasted with L1 semantics reveals that on the semantic level, the described uses were systematic in that they consistently preserved the indefinite/definite contrast, as described earlier, and repeatedly lacked a discernable marking of shared/unshared knowledge. Two forces appear to have been working in tandem here. On the one hand, the TL discourse contexts suggest referent-related effects on article use. When the referents were introduced into discourse as indefinite and interpreted by the learner as nonspecific (as in *an interesting German film*, 18), the subsequent-mention uses were incorrectly marked with *a*. When the referents were introduced in the dialogues as definite and interpreted by the learner as specific (as in *her dog, this dog*, 19), the subsequent-mention uses were correctly marked with *the*.

On the other hand, the interlanguage semantics corresponds to the L1 pattern that utilizes the [+/-SR] feature, but not the [+/-HK] feature. Specifically, Polish has the lexical and grammatical means of encoding specificity and nonspecificity (e.g., word order, verbal aspect, demonstratives), but lacks the encoding of hearer's knowledge. More importantly, in the absence of the [-/+HK] dimension in the learner's L1, the status of the referent in a stretch of discourse may not necessarily change from the point of the speaker/hearer. As a result, the reported interlanguage consistency mirrors an L1-driven conception which, somehow, preserves the specificity or nonspecificity of a referent over a stretch of discourse. Clearly, both the interlanguage semantics and the conception of (non)specificity preservation are accountable in terms of the workings of the participant's L1. In Polish, the only feature that distinguishes indefinite and definite referents is the feature of (non)specificity. The L1 then gives the cognitive impetus for the correct and incorrect use of *a* and *the* in this case.

Nonspecificity Revisited

The above interpretation of the learner's *a* and *the* uses does not succeed, however, in explaining the participant's apparent misclassification of referential indefinites (first-mention nouns) bearing *a* as nonspecific indefinites [excerpts (15)-(18)]. From the TL perspective, those referents (e.g., *a little girl, a ring and a necklace, a car,* and *an interesting German film*) are specific indefinites and they were coded as [+SR,-HK]. As it turns out, the Polish participant was sensitive to the indefinite referent marking. However, it appears that the TL meanings of indefiniteness as denoted by *a* did not match the learner's understanding of indefiniteness shaped by the L1. For one thing, English differentiates between specific indefiniteness [+SR,-HK] and nonspecific indefiniteness [-SR,-HK]. In contrast, Polish conflates the [-SR] and [-HK] features giving rise to a hybrid concept of *unspecified* referent. The closest counterpart of the Polish

unspecified referent is the English nonreferential indefinite, [-SR,-HK]. Looking back at the accuracy rates on elicitation tasks, it becomes apparent that L1 semantics was helping the participant in discerning and correctly marking nonreferential indefinites on the elicitation tasks collected at Times 4 and 6. His accuracy was the highest on nonspecific indefinites, at the levels of 84% and 75%, respectively. The learner's performance on specific indefinites was significantly less accurate. It must be concluded then that the nontarget-like usage appeared to "stem from a lack of acquisition of semantically constrained distributional rules of the TL – owing...to the underlying L1-influenced conceptual system" (Han, in press).

L2-influenced Patterns

As mentioned earlier, the TL and the L1 at times seemed to work in tandem shaping the interlanguage semantics. The next set of data illustrates the need for both perspectives in the description of L2 development. The above analyses revealed that the participant used and overused the indefinite marker a four times as often as the definite marker *the*. Certain patterns in the use of a did not seem to reflect the TL norms, but they did not appear to reflect the L1 norms either, suggesting additional factors at play (e.g., L2 instruction). For example, the learner overused a with plural referents quite consistently across time as illustrated in (21)-(24):

- (21) If you are in technical school you can know more because <u>there is *a great stuff</u>. (Time 1)
- (22) Unfortunately, <u>there are</u> **a victims*, too. (Time 2)
- (23) There is, of course, not a rule of small town, but, one more time, <u>there are *a</u> <u>more opportunities</u>. (Time 4)
- (24) I think that you can have more friends, you can meet interesting people, and also there are **a many ways* to get a good job. (Time 4)

From the crosslinguistic perspective, one would predict that a Polish learner of English would recognize plural marking on nouns (the only possible area of difficulty concerning distributional properties of countability). The lack of article instantiations in the L1, however, might suggest that the learner was not predisposed to marking of the singular/plural distinction in the TL with articles.¹⁰ This interpretation of the learner's apparent misuse of *a* with plural referents is admittedly very speculative.

From the TL language perspective, however, the above uses are highly regular in that they appeared in constructions containing nonreferential (existential) *there*. When augmented with other samples from the corpus containing existential *there*, the connection between *there* and *a* becomes transparent:

(25)	There is a story about a little girl and her mom (). (Time 3)
(26)	Big city has many advantages, but also there are some disadvantages. (Time 4)
(27)	Unfortunately, there was some thread. (Time 5)
(28)	<u>There was a fire.</u> (Time 5)
(29)	There is also one more point of it. (Time 6)
(30)	() Because there is a big frog in the bathtub. (Time 6)

¹⁰ Polish plural marking consists of a morpheme -y/-i attached to the base form of the noun. Additionally, adjectives and demonstratives carry plurality marking.

It appears that the learner associated the existential construction *there* with indefiniteness and nonspecificity consistently employing the indefinite article *a* or its plural counterpart *some* throughout the period of data collection. When asked about excerpt (30) in the interview, the learner explained that he employed *a* with the *big frog* referent because the *frog* in the dialogue was nonspecific (in Polish, he used lexical expression *jakaś tam żaba*, literally "unspecified frog").

Indeed, in English, the nonreferential *there* indicates that the noun following the verb is nonspecific. According to Celce-Murcia and Larsen-Freeman (1999), "some reference grammars state that only logical subjects with indefinite determiners occur with nonreferential *there*" (p. 449).¹¹ In terms of its meaning, a *there* clause brings an element into awareness serving as a signal of new information. As a result, the referents following the verb can be accorded new information status. It appears then that the TL meaning of existential *there* might have driven the participant's usage, both target- and nontarget-like. The nontarget-like uses most likely stemmed from the L1-influenced lack of propensity to mark singularity and plurality of noun phrases with articles. The lack of *the* overuse in the learner's construction with existential *there* may be interpreted as additional evidence of his knowledge of the abstract feature of definiteness in English. On that account, Lardiere (2004) contends that if a learner "observes the requirement that the DP in an existential *there* construction must be indefinite, we have even more support for concluding that [the learner] does have knowledge of the feature [+definite]" (p. 333).

Summary of Findings

The primary issue addressed in this study centered on the questions of functioning and change of indefinite reference as marked by the indefinite article *a* in a developing L2 system. The study pointed to the importance of interactions of different types of L1 and L2 knowledge. It provided evidence of systematicity, despite persistent instability, seen not only in rule-governed behavior, but also in dynamic and contextualized patterns (Ellis & Larsen-Freeman, 2006). Those patterns when connected to the crosslinguistic semantic and conceptual differences evidenced strong *thinking for writing* (Slobin, 2003) effects in the learner's interlanguage.

This study found some evidence of the learner's increasing accuracy on the different article uses throughout the period of data collection. Overall, the learner appeared to be more successful with the marking of indefiniteness than definiteness. As far as indefiniteness marking is concerned, his performance appeared to be closer to the TL norms on nonspecific than specific indefinites. The target-centered perspective aside, there was very little evidence of conceptual change in the learner's treatment of indefiniteness. The learner approached the task of learning English articles with L1-shaped semantic and conceptual understanding of indefiniteness. As predicted by Han (in press), the acquisition of distributional restrictions presented an insurmountable challenge "for it require[d] the restructuring of a primarily L1-based conceptual system."

The abstract notion of indefiniteness and its corresponding marking with *a* presented a learnability problem on multiple levels and in multiple dimensions. The learner faced several types of difficulty in his attempts to acquire the TL distributional restrictions on the use of the indefinite *a*:

¹¹ In fact, definite determiners can also occur with existential *there* as in: "What about you? Is there someone else? No, but there is <u>the dream of someone else</u>."

- 1. The difficulty of a new form entirely absent from the L1, that is, the morpheme a.
- 2. The difficulty of a new meaning, that is, the dynamic discourse feature of shared background knowledge, [HK].
- 3. The difficulty of semantic reconceptualization of the notion of indefiniteness.
- 4. The difficulty of split form-function mapping of indefiniteness, that is, conceptualization of the abstract distinction between specific and nonspecific reference to members of a class
- 5. The difficulty of a "new form-old meaning" connection, that is, the marking of number via articles.
- 6. The difficulty of distributional restrictions on the use of *a* vis-à-vis countability and regular noun forms.

The overall premise of this investigation, that is, that article errors should not be exclusively attributed to inadequate acquisition of grammatical norms of the TL, was shown to be correct. L2 acquisition appears to be hindered by both a limited set of options for the grammatical encodings of characteristics of objects and events, but also by the lack of an equivalent conceptual and semantic system. It appears then that a thorough understanding of the acquisition of the article system must be based on a crosslinguistic analysis of the semantics of the target language, the interlanguage, and the native language. Only then can an understanding of how nontarget-like functions are mapped onto target-like forms be obtained.

CONCLUSION

The present investigation of the L2 acquisition of articles was motivated by the desire to describe the learner language, in its own right, as a system of rules that the learner constructed and repeatedly revised. As pointed out by Selinker (2006), "since interlanguage data [are] often ambiguous, one must find out systematically what the intended interlanguage semantics is" (p. 204). Inasmuch as acquisition consists of form-meaning associations, meaning was established as a great source of difficulty in the present study. However, there is strong motivation for further research, which reflects the limitations of this investigation. First, the advantage of the longitudinal design in the present study was not fully utilized due to the genre disparities found in free compositions. Depending on the writing genre, different semantic patterns of article usage were obtained resulting in the presence of referential (specific) indefinites in narratives and nonreferential (nonspecific) indefinites in essays. As a consequence, although collected over the span of 15 months, the free production corpus of referential and nonreferential indefinites was very limited. In future investigations, two compositions, a narrative and an essay, should be collected at each data collection point. A second limitation is that the two tasks employed in addition to compositions differed in terms of the contextual support they provided. Qualitative analyses conducted on the data in this study demonstrated the pressing need for the presence of discursive context, and future investigations should include more tasks with extended contextual support. Third, regular elicitation of retrospective data, that is, interviews, or "think aloud" protocols, is recommended for future studies as they provide an internal perspective visibly absent from the present investigation. Fourth, adding more participants at different stages of

development, especially advanced, would allow for a better understanding of conceptual changes that accompany L2 acquisition.

In sum, the findings from the present study can be interpreted as preliminary evidence of an L1 conceptual system influencing a learner's cognitive capacity to catalogue reference in discourse, specifically indefiniteness. With more investigations of a similar nature, the SLA field would be able to expand on "the range and types of domains that are susceptible to [conceptual] online linguistic shaping" (Slobin, 2003, p. 16) and respond to Odlin's (2005) call for more contributions to the study of conceptual transfer and linguistic relativity in SLA.

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APPENDIX A Limited Context Elicitation Task

Instructions

In some of the following sentences, articles (a, an, the, 0) are missing. Please read the following sentences carefully and insert the correct article "a", "an", "the", or "0" wherever you believe **necessary**. You will have 20 minutes.

- Fred bought <u>a car</u> on Monday. On Wednesday, he crashed <u>the car</u>. [Specific Indefinite] [Definite]
- 2. What is <u>the sex</u> of your baby? It's <u>a boy</u>! [Definite] [Nonspecific Indefinite]
- 3. Language is <u>a great invention</u> of humankind. [Nonspecific Indefinite]
- 4. There are nine planets traveling around the sun.
- 5. The **f**avorite food of the jaguar is wild pig.
- 6. In the 1960s, there were lots of protests against the Vietnam War.

[Definite]

- 7. The cat likes mice.
- 8. I'm going to buy <u>a new bicycle</u>. [Nonspecific Indefinite]
- 9. He has been thrown out of work, and his family is now living hand to mouth.
- 10. We rented <u>a boat last summer at the lake. Unfortunately, <u>the boat hit another boat and sank.</u> [Specific Indefinite] [Definite]</u>
- 11. I saw <u>a strange man</u> standing at <u>the gate</u>. [Specific Indefinite] [Definite]
- 12. I keep sending messages to him.
- 13. All of a sudden, he woke up from his coma.
- 14. I like to read books about philosophy.
- 15. Love and hate are two extremes.
- 16. Your claim flies in the face of all evidence.
- 17. The Tiger is <u>a fierce animal</u>. [Nonspecific Indefinite]
 18. My computer has <u>a new sound card</u>. [Specific Indefinite]
 19. I don't have <u>a car</u>. [Nonspecific Indefinite]
 20. <u>The French</u> are against <u>the war</u> in Iraq. [Definite] [Definite]
 21. Last month we went to <u>a wedding</u>. <u>The bride</u> was beautiful. [Specific Indefinite] [Definite]
 22. I look after <u>a little girl</u> and <u>a little boy</u> on Saturdays.
 - [Specific Indefinite] [Specific Indefinite]
- 23. <u>The horse I bet on is still in front.</u>

[Definite]

- 24. John said that Mary was playing another game of cat and mouse.
- 25. Jane bought <u>a ring</u> and <u>a necklace</u> for her mother's birthday.
 [Specific Indefinite] [Specific Indefinite]
 Her mother loved <u>the ring</u> but hated <u>the necklace</u>.
 [Definite] [Definite]
- 26. Steve's wedding is in two weeks and he is getting cold feet.
- 27. There is <u>an orange</u> in that bowl. [Specific Indefinite]
- 28. This room has <u>a length</u> of 12 meters. [Nonspecific Indefinite]
- 29. Sally Ride was the first American woman in space.
- 30. Writing letters is a pain in the neck for me.
- 31. I would like <u>a cup of coffee</u>, please. [Nonspecific Indefinite]
- 32. <u>The shade on this lamp is really ugly.</u> [Definite]
- 33. The paper clip comes in handy.
- 34. Is it true that the owl cannot see well in the daylight?
- 35. I ordered <u>a bottle of wine</u> for us. [Specific Indefinite]
- 36. The telephone is <u>a very useful invention</u>. [Nonspecific Indefinite]
- 37. We don't know who invented the wheel.
- 38. He used to be <u>a lawyer</u>. [Nonspecific Indefinite]
 39. I'm in the mood to eat <u>a hamburger</u>. [Nonspecific Indefinite]
- 40. He is as poor as a mouse.

41. Do you have <u>a pen</u>? [Nonspecific Indefinite]
42. I saw a man in the car across <u>the street</u>. [Definites]
43. Death is one of life's great sorrows.

44. Tom was reading <u>a book</u> in the bathtub. [Specific Indefinite]45. I'm looking for a job.

[Nonspecific Indefinite] 46. Today is <u>a beautiful day</u>. [Nonspecific Indefinite]

APPENDIX B Extended Context Elicitation Task Items by Category

Instructions

This test consists of a number of short dialogues between two people. Please read each dialogue very carefully and decide whether the last sentence in each dialogue requires the use of "the", "a", or "zero article" (--).

Circle your choice.

Please complete the items in the order given. Please do not go back to or change your earlier answers.

Definites

1. Conversation between a police officer and a reporter

- Reporter: Several days ago, Mr. James Patterson, a famous politician, was murdered! Are you investigating his murder?
- Police officer: Yes. We're trying to find (a, the, --) murder of Mr. Patterson but we still don't know who he is.

2. Conversation between two friends

- Rose: Let's go out dinner with your brother Samuel tonight.
 Alex: No, he's busy. He's having dinner with (a, the, --) manager of his office I don't know who that is, but I'm sure that Samuel can't cancel this dinner.
- 3. At a bookstore

Chris:	Well, I've bought everything that I wanted. Are you ready to go?
Mike:	Almost. Can you please wait a few minutes? I want to talk to (a, the,) owner of
	this bookstore – she is my old friend.

4. Conversation between two work colleagues

Alice:	What did you do last night?
Robin:	I watched TV.
Alice:	What did you watch?
Robin:	Well, on one channel, I found and interesting German film. On another channel, I
	found an exciting news program. Finally, I watched (a, the,) film.

5. Meeting in a park

Andrew: Hi, Nora. What are you doing here in Chicago? Are you here for work?
Nora: No, for family reasons. I'm visiting (a, the,--) father of my fiancé – he's really nice, and he's paying for our wedding!

6. Conversation between two friends

Mary:	Dorothy decided to buy a house last year. She looked at a lot of houses, and she
	really liked two: a small house in Queens and a bigger house in Brooklyn.
Rob:	So which house did she buy?
Mary:	She bought (a, the,) house which was small and in Queens.

7. Office conversation

Liz:	Mary had a visit from her neighbor yesterday. The neighbor brought her dog with
	her which was a big mistake.
Jane:	Why?
Liz:	Because this dog saw Mary's cat right away.
Jane:	And what happened?
Liz:	(A, The,) dog started barking and woke up Mary's baby.

Specific Indefinites

1. In class

Marian:	I came to school very early yesterday.
Jim:	So were you the first person there?
Marian:	No. I saw five other students and two teachers at the school. I didn't have
	anything to do. So I talked to (a, the,) student.

2. Phone conversation

Sam's mother: Hi, Sam. How are you doing?
Sam: Hi, mom. I'm good. I have a new roommate – his name is George.
Sam's mother: Do you like him? Do you see him a lot?
Sam: He's nice. I don't see him very much. I know that I won't see him tonight. He said that he's planning to have dinner with (a, the, --) girl from work tonight. I don't know who she is, but George was very excited about seeing her!

3. In a library

Librarian:	May I help you, miss?
Client:	Yes, please. I'm looking for (a, the,) certain book. It's by John Wyndham, and
	it's called "The Wall."

I heard that you just started college. How do you like it? Gary: Melissa: It's great! My classes are very interesting. Gary: That's wonderful. And do you have fun outside of class? Melissa: Yes. In fact, today I'm having dinner with (a, the, --) girl from my class – her name's Angela, and she's really nice! 5. In a restaurant Waiter: Are you ready to order, sir? Or are you waiting for someone? Client: Can you please come back in about twenty minutes? You see, I'm waiting. I'm planning to eat with (a, the, --) colleague from work. She'll be here soon. 6. At a party Barbara: John's planning to get married next month. I don't approve of his choice of bride. Trudy: Why not? Barbara: He wants to marry (a, the, --) woman who has been divorced seven times and has five children. 7. At home Rebecca: Tell me, have you bought any exotic pets lately? Gabi: No. Why? Look out the window. Rebecca: Gabi: What for? Rebecca: (A, The, --) large tiger is standing in your garden. 8. At home Terry: I think I'm going to go take a bath Anne: That might not be such a good idea. I was just in the bathroom. I don't think you should take a bath right now. Why not? Terry: Because there is (a, the, --) big frog in our bathtub. Anne: **Nonspecific Indefinites**

1. In a clothing store

Clerk: May I help you? Customer: Yes, please! I've rummaged through every stall, without any success. I'm looking for (a, the, --) warm hat. It's getting rather cold outside.

2. Conversation between two friends

4. Conversation between two friends

Chris:	I need to find your roommate Jonathan right away.
Clara:	He's not here – he went to New York.
Chris:	Really? In what part of New York is he staying?
Clara:	I don't really know. He's staying with (a, the,) friend – but he didn't tell me
	who that is. He didn't leave me any phone number or address.

3. Conversation between two friends

Judy:	Last Saturday, I didn't have anywhere to go, and it was raining.
Samantha:	So what did you do?
Judy:	First, I cleaned my apartment. Then I ate lunch. And then I read (a, the,) book.

4. At a party

Mary:	Tom's just been promoted. He has a new office, and a lot of responsibilities. I
	wonder how he'll handle it all.
Rob:	He's planning to hire (a, the,) secretary who will help him organize the work.

Fillers

1. In class

Teacher:	Tell me about London.
Student:	London is in (a, the,) United Kingdom. It's a very big city.

2. Conversation between two friends

Laura: I'd like to go for a walk. Is it nice outside? I think so - I can see (a, the, --) sun! Jenny:

3. Conversation between two friends

- Louise: I just saw a movie about a ship that was hit by an iceberg, a long time ago. But I can't remember what this ship was called! I was called (a, the, --) Titanic. It was very famous!
- Betsy:

4. Phone conversation

- Louise: I tried to call you yesterday, but the line was busy.
- My husband was talking to (a, the, --) his mother. Angela:

5. Conversation between two friends

Betsy: What are you going to study when you go to college?

- Kendra: I will study Italian and Spanish films. I especially want to study (a, the, --) most wonderful director in Italy Frederico Fellini.
- 6. Conversation between two friends

Jerry:	What are you going to do this weekend?
Lucy:	I'm going to read! I plan to read (a, the,) third book about Harry Potter – ""Harry Potter and the Prisoner of Azbakan."
7. Conver	sation between two friends

- Bob:Is it true that there are a lot of tulips in Holland?Jim:Yes. I read a book about Holland recently. Here's what is said: (A, The, --) tulip is
very popular in many Dutch gardens.
- 8. Conversation between two work colleagues

George:	My mother needs to have an operation.	
0	2	

- Anne: Are you worried?
- George: A little. But I'm doing something about that! I'm trying to find (a, the, --) best doctor in Boston I don't know who that is, but I'll find out