ACQUISITION OF THE ENGLISH ARTICLE SYSTEM BY FRANCOPHONE
STUDENTS: THE CASE OF BURKINA FASO

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ABSTRACT

ACQUISITION OF THE ENGLISH ARTICLE SYSTEM BY FRANCOPHONE
STUDENTS: THE CASE OF BURKINA FASO

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In the literature on second and foreign language acquisition, few studies have been reported on the acquisition of English as a third language (L3) and almost nothing with speakers of African languages (L1) and French (L2) as the previously acquired languages.

This study discusses the results of a cross-sectional study, undertaken in 1996, which reexamined the phenomenon of transfer in the acquisition of English as a foreign language (L3) by francophone English major college students in Burkina Faso (West Africa). The theoretical framework on which this research is based is the semantic model developed by Huebner (1983), known in the field as the 'semantic wheel for noun phrase reference'. The research focused on the acquisition of the English article system. The study involved 177 volunteer undergraduate and graduate students at the University of Ouagadougou with at least seven years of English instruction. A cloze test of 107 items as well as an error identification and correction tasks with 70 items of which 33 were incorrectly used served as data collection instruments. Demographic information was also collected using a 16-item questionnaire.

The overall rate of accuracy with regard to the correct use of the three articles studied here is above average: cloze test (71%), error identification (75%), and error correction (61%). The results also show that (a) learners had difficulties with the article usage in all the four semantic categories: generic, referential definite, referential indefinite and non-referential contexts; (b) correlation between academic level and performance depended on task type; (c) learners associated the zero article with the [+HK] feature in [-SR +HK] contexts and the indefinite article with the [+SR] feature in [+SR -HK] contexts; (d) learners exhibited interlingual (L1 and L2) as well as intralingual transfer.

The study discusses the implications of these results on the concept of referentiality, and questions the generalizability of Huebner's (1983) model to all languages. The study provides not only data, but also evidence of levels of difficulty, constraints and sources of transfer in L3 acquisition. Suggestions concerning directions for future research are made and especially that of extending the study to cover the determiner system.

This study is dedicated to my parents, my wife and two sons whose support and care gave

me the energy and encouragement to be able to accomplish this task.

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CHAPTER I

INTRODUCTION

Background

Most sub-Saharan African countries use English, French, Spanish, or Portuguese as L2 (language of administration and education) and their native languages as L1. English is learned as L3 in French-speaking Africa and French as L3 in English-speaking Africa, hence the importance of second language acquisition (SLA) theory to African second/foreign language education. Furthermore, SLA research in Africa can make valuable contributions to SLA theory and language acquisition theory as a whole. In Burkina Faso, the language of instruction and administration is French. The government adopted the French only policy after independence in 1960 to maintain the language situation the colonial power had created. The effect of this policy will be discussed later in the study. English is the first foreign language in the Burkinabè secondary and higher education, but there are currently no official objectives for the teaching of foreign languages in Burkina Faso. Given the place of English in the Burkinabè educational system, there is a need for research in the acquisition of English in order to use the findings to improve both teaching and assessing this language, so that there will be a backwash effect.

There are three primary reasons why I chose to examine the acquisition of the English article system. First, a number of francophones tend to have difficulty in using the appropriate article in English as I have observed in the spoken and written English of my students. The article system in English, is complex and its use is crucial in expressing

one's idea about a noun in English just as it is in understanding. For example, if someone says

(1) I have a pen.   (2) The dog is an animal.

(3) A dog is an animal.   (4) Ø Dogs are animals.

does the person mean one pen or something called a pen as opposed to a pencil in (1)?

In (2), (3), and (4), what guides the choice of the or a or Ø in expressing the generic?

From the example in (1) above, we see that the English 'a/an' is ambiguous and can only

be disambiguated in context. Examples (2) and (3) also show that it is not easy to tell why

a speaker chooses the and not a in expressing the generic, although (4) is optional. The

article system in general and the English article system in particular, has been a problem in

descriptive and theoretical linguistics from the era of structuralism (Christophersen, 1939;

Jeans, 1970) to the present era of linguistic/psycholinguistic theories (syntactic, semantic,

and conceptual) as we shall see in the review of the literature. It has also been a point of

interest in pedagogic grammars for native and non-native speakers.

The second motivation for this study is that since traditional Contrastive and Error

Analyses (Lado, 1957; Corder, 1967; DiPietro, 1971; Schachter, 1974) cannot properly

account for both interlingual and intralingual errors it is useful to examine whether a

semantic theory can be used to properly account for them. These factors account for my

interest in studying how French-speaking African students in Burkina Faso acquire the

English article system, that is, whether they know what article goes with what noun and in

what context. I hope that my field data and their analysis will enable me to answer not

only these questions but also to address the issue of transfer and thereby allow me to offer some useful suggestions for the teaching of the English article system in Burkina Faso.

The third reason for choosing this topic is that, to my knowledge, few studies have been reported in the second language acquisition (SLA) literature with English as a third language (L3) and even fewer with native speakers of Mooré, Jula, or Fulfuldé. In addition, although studies using Huebner's (1983) proposed features of referentiality: ([± Specific Referent i.e. ± SR] and [± Assumed Known to the Hearer, i.e. ± HK]), which will be used in this study, have examined the acquisition of the article system in L1 and L2, no study using this framework has examined the acquisition of L3. Furthermore, in one study (Thomas, 1989), the author suggested that there are conflicting results in this framework regarding the feature ([+SR] or [+HK]) with which learners associate the definite article in English. According to her, "however, we lack the critical evidence, namely that which concerns the use of articles in generic contexts" (p. 352). The present study provides data on article usage in the generic context.

Burkina Faso, formerly known as Upper Volta, is a former French colony (1896-1960). It is situated in West Africa, and it is bordered in the south by Benin, Togo, Ghana and The Ivory Coast (Côte d'Ivoire). It is bordered in the North by Mali and Niger (See map in figure 1). The official language of the country is French, but English has been taught in secondary schools since the colonial era as a foreign language, and most secondary school students speak at least one African language and French before learning English.

BURKINA FASO

DIVISIONS ADMINISTRATIVES

MALI

NIGER

BENIN

TOGO

GHANA

COTE D'IVOIRE

OUDALAN — Goram Goram

SOUM — Djiao

SENO — Dori

GNAGNA — Boganda

NAMENTENGA — Boulsa

TAPOA — Diapaga

GOURMA — Fada N'Gourma

YATENGA — Ouahigouya

BAM — Kongoussi

SANMATENGA — Kaya

GANZOURGOU — Zorgho

KOURITENGA — Koupéla

BOULGOU — Tenkodogo

SOUROU — Tougan

PASSORE — Yako

OUBRITENGA — Ziniaré

KADIOGO — OUAGA

ZOUNDWEOGO — Manga

NAHOURI — Pô

KOSSI — Nouna

MOUHOUN — Dédougou

BOULKIEMDE — Koudougou

Réo

BAZEGA — Kombissiri

SISSILI — Léo

HOUET — Bobo Dioulasso

BOUGOURIBA — Diébougou

SANGUIE

PONI — Gaoua

KENEDOUGOU — Orodara

COMOE — Banfora

Capitale

○ Chef-lieu de Province

Limite d'Etat

Limite de Province

Echelle : 1/3 500 000

Cartographie du CNRST   IGB Août 1984

Dessinateur Jean C KI

Source: IGB, 1984

Figure 1: Administrative map of Burkina Faso

Statement of Purpose

In natural languages speakers must express themselves in speaking and/or writing. Speakers of some languages refer to nouns as specific or non-specific and also assume that the referent is known or not known to the hearer. For the hearer to identify the referent, s/he must have the same presuppositions about the context as the speaker. To assure this, the speaker combines the nouns with an article, and the function of the resultant noun phrase (NP) may differ from language to language. In this study, we will examine how students who speak at least two other languages (an African language and French) acquire the English article system. In their L1 there are two forms of the article and in their L2 there are three forms as is the case in English, but the functions and forms are not the same.

English is obligatory for all high school students in Burkina Faso, and most of the English majors who graduate from the university take an entrance exam and a certain number (10-15) of those who pass are retained enter the <u>Institut des Sciences de l'Education</u> (Teacher Training Institute) to be trained as secondary school teachers. As teachers, they have to master the use of English, but what I have observed after four years of teaching at the University of Ouagadougou is that most of the English majors are not able to use the English article system appropriately. They overuse some forms and underuse some others. If the future teachers are not trained to identify and correct these errors, they will graduate and go to teach high school students the wrong article usage they know and this will result in a geometric dissemination (multiplier effect) of incorrect usage, because each one goes on to teach a class of about 55 students. If 15 are trained,

we have to multiply 55 by 15. Some of these students will come to the University not being able to fully understand the texts they read and hence will have not only comprehension, but also production problems which will affect their performance in their study. If the students' difficulty in English in general and with the article system in particular is remedied, the teaching and the understanding of English texts will improve a great deal at the University and in secondary school.

As future teachers of English, the English majors have to know the language well in order to teach it. Most of the other students in the University need good reading and writing skills in English in order to read the vast literature in their various fields written in English. They also need to publish in English journals because most of the scientific literature in all fields is published in English. But they have difficulty in reaching these objectives in spite of studying English for seven years in secondary school and an additional two years of college English at the least. In the written and spoken languages of some of the English majors I have observed the incorrect use of the English articles, especially in the generic context, and that makes their written texts difficult to understand. The results of this study can contribute to the development of a better foreign language program and eventually to the improvement of the training of our English teachers. They can also be used to help improve translation and interpretation skills from French into English and vice versa.

The need for English in Burkina Faso cannot be overemphasized since Burkina Faso is part of the Economic Community of West African States (ECOWAS) whose working languages are English and French. Any official in the near future within

ECOWAS will have to be bilingual in French and English, for several reasons. First, English is an important language in Burkina Faso for international trade because the Festival Pan-Africain du Cinéma de Ouagadougou (FESPACO), held every other year, is an important film and TV market for African and diaspora film makers who are not all francophones. Second, the Salon International de l'Artisanat de Ouagadougou (SIAO) which alternates with FESPACO is an international arts and crafts festival which brings English and French speaking craftsmen and women as well buyers together. Third, the UNESCO sponsored Institut des Peuples Noires (IPN) established in Ouagadougou to conduct research and gather information on black people on the continent and in the diaspora uses mainly English as its working language, and most of the available literature on the diaspora and Africa is in English. It follows from all these reasons that all Burkinabè students need to know the English language well to really be part of this community. Since English is used as the language of commerce and research and given the role in Burkina Faso outlined above, research into the acquisition of English in Burkina Faso is needed to help improve the teaching of English.

Language Situation in Burkina Faso

Most of the languages of Burkina Faso, according to the linguistic atlas, belong to three language families, and the rest are isolated, nonclassified languages (see map in figure 2):

BURKINA FASO
CARTE LINGUISTIQUE

0 20   60 Km

(Conception: Service Cartographique de l'IRSSH/CNRST)

N I G E R

B E N I N

T O G O

G H A N A   LANGUES GUR ou VOLTAIQUES

C O T E — D ' I V O I R E
Dessinateur Jean C. KI — édition Juin 1988   (Rédaction: I.G.B.)

Djibo
Dori
Tenkodogo
Nungu
Dapaga
Sönmtlengo
Kombissri
Waogdga
Yaoka
Woyuya
Kudgo
Lyeu
Gebugu
Gohwa
Toen
Nuna
Gbala

LANGUES GUR ou VOLTAIQUES
Bwamu
Dagas(doghosie)
Jäane (dyan)
Kõasa (gan)
Cermo(goin)
Kar (karaboro)
Ceso(komono)
'Labiri (lobi)
Sämahūne (natiora)
Gbatɔgsɔ(podoro)
Thēe (thouni-tarhon)
Kuso'ol (koussossi)

Nihkõrne (nonkana)
Kosum (kassena)
Nanı (nounouma)
Sısak (sissala)
Pwo(pougouli)
Wanyeno (ko)
Lyele
Pāna
Sömama(kolemse)
Korōnfa (fousē')
Joore (zoore)
Byeri(berba)

Moba
Wak(dagari-dioula)
Moore
Gulmacema
Yaane (yaha)
Dagara
Birfor (birifor)
Curama (turka)
Vyeemo (viguié')
Sēmus
Wɛ-lɛr (toussian)
Bɔmbarge(sénoufo)

LANGUES MANDEN
Sipire (sénoufo)
Senari(sénoufo)
Tagba~tagwo(senoufo)
Julakon (dioula)
Meekokan (marka)
Bõõka (bolon)
Csfɔ-cetɔ (tiefo)
Bɔbɔ-syo (bobo)
Zarada (bobo-dioula)
San~sane (samo)
Btsg (boussasse)
Jolkunon(blé)
Syeekun (tombɔ)

Numukan(noumou)
Jūngoma (somogho)
LANGUE OUEST ATLANTIQUE
Fulfude
LANGUE KRU
Sēme~sēmege (siamou)
DOGON = NILO-SAHARIEN
Dogotega (dogon)
Sõngokunl (sonrhaï)
Kaadkunı (moranse)
Zarmakunı (djerma)
BERBERE, TCHADIQUE, ISOLEES
Tamaoshaq
Hausa
Sininkere(siınkere-silance)
Karabore

Source: CNRST/IGB, 1988

Figure 2: Linguistic atlas of Burkina Faso

1. Niger-Congo

   1.1. Gur/Voltaic languages

   1.2. Manden languages

   1.3. West Atlantic languages

   1.4. Kru languages

   1.5. Dogon languages

2. Nilo-Saharian

3. Chamito-semitic

   3.1. Berber languages

   3.2. Chadic languages

4. Isolated non-classified languages

The above classification of languages of Burkina Faso is taken from the linguistic atlas of Burkina Faso (1988). Mooré, Jula, and Fulfuldé are the three major national languages. Mooré is a Gur language, Jula a Manden language, and Fulfuldé a West Atlantic language. All three languages are members of the Niger-Congo family in Greenberg's (1963a) classification of African languages. The 1980-81 language survey identified 59 languages and it also showed that the western provinces of the country are multilingual, whereas the eastern ones are bilingual.

According to Kedrebéogo (1995), the patterns of language use in Burkina Faso are L1 plus Jula in the western provinces, and L1 plus Mooré in the Eastern provinces. Still

according to Kedrebéogo (1995), all 59 languages are officially recognized as "Langues Nationales" (National Languages). Fifteen of them (listed in Table 1) are used for adult literacy, news, and cultural broadcasts on national radio and/or television, and attempts have been made to publish newspapers in Mooré, Gulmancema, Jula, and Fulfuldé, but the results are not very encouraging (p. 14). This slow progress could be due to the topics treated in the newspapers, the inability of the peasants to purchase the newspapers because of their low revenues and also because there is no special function given to the national languages compared to French so that there is a lack of motivation to be literate in national languages (Kambou, 1995b).

Languages in the Niger-Congo family are widely spoken in West Africa and this is also the case in Burkina Faso. As may be seen in Table 1, Mooré, Jula and Fulfuldé, are spoken by more than 66% of the Burkinabè population, and they constitute three of the 15 major national languages used for news broadcast over the radio and TV. Mooré, Jula, and Fulfuldé are also taught as subjects in the Arts faculty of the University of Ouagadougou; their choice may be motivated by geographical representation rather than number of speakers, because from Table 1 we see that they are from the three major subgroups of the Niger-Congo family covering the North, Central and South-West of the country (See linguistic atlas in figure 2).

Table 1

Languages of Burkina Faso From 1985 Population Census

Languages	Number of speakers	Percentage
National languages	8,409,050	99.42
(i) Manden		
Bisa	315,350	3.73
Bobo	189,550	2.24
Jula	340,850	4.03
(ii) West Atlantic		
Fulfuldé	768,400	9.08
(iii) Gur/Voltaic		
Bwamu	135,150	1.60
Dagara	148,750	1.76
Dafing	157,250	1.86
Gulmancema	430,950	5.09
Lobiri	126,650	1.50
Lyele	206,550	2.44
Mooré	4,515,200	53.38
Nuni	93,500	1.11
San (Samogo. Samo)	174,250	2.06
Senufo	84,150	0.99
(iv) Chamito-Semitic		
Tamashaaq	69,700	0.82
Other national languages	652,800	7.72
Foreign African languages[a]	9,300	0.11
Foreign languages[b]	39,950	0.47
Total	8,458,300	99.99

Note. This table is adapted from Language maintenance and shift in communities of oral tradition: The case of the Sillanko in Burkina Faso by Gerard Kedrebeogo, 1995. Unpublished dissertation, University of Illinois at Urbana-Champaign, pp.8-9. The percentages were recalculated due to errors that were detected in the original. The 1985 census was published in November 1988 by the National Statistics and Demographic Institute (I.N.S.D.)

[a]Non Burkinabe languages.   [b]Non African languages.

Success rate in the educational system is low as shown in Table 2, except for the university. However, all those who pass the exams do not continue to the next stage of the educational ladder because of limited capacities (classrooms and teachers). As can be seen from the Table, only 11.5% students passed the secondary school entrance exam but not all of them will get admissions. In the case of the university, the results are for the different academic levels on the final exams.

Table 2

Success Rate in Education in 1993-94

Level of education	Exam	Passing Rate
Primary	CEPE	47.59%
	Entrée en 6è	11.50%
Secondary	BEPC	34.98%
	BAC	35.76%
University	Finals	55.39%

Note. At this rate, out of 1,000 cohorts who start grade 1, only 34 will graduate from the university without repeating a class.

In Burkina Faso, most students are generally bilingual in African languages before going to school at the age of seven. It is at this age that most of them encounter French for the first time, because it is the language of instruction and is also taught as a subject. After six years of French, those of the students who continue to secondary school have to

learn English as a subject for seven years alongside French. Those students who go on to the university to major in English have four additional years of English, whereas those who major in other subjects have two more years of English. Thus, most of the subjects (80.1%) in this study have at least two African languages as a first and second language, French as a third, and English as a fourth language. The African languages are the languages of group identity, home and the market place. The difference between the subjects' exposure to French and English is six years. Furthermore, since French is the language of administration and education, students have more practice in it than in English, it is also the language of conversation among students who do not speak a common African language. English is used as the language of instruction during English language lessons. There are also some news broadcasts in English over some radio stations (Horizon FM broadcasts Voice of America daily) and on national TV at least once every week. In addition, two English libraries exist in Ouagadougou: one in the English Department of the University and the other at the American Cultural Center where students can go and do research. Currently, two American Language Centers are in operation in Burkina (Ouagadougou and Bobo-Dioulasso) where English is taught. Two English clubs exist whose goal is to promote the use of English in schools and in town. In addition, students also have the opportunity to listen to a weekly news summary on ABC and CBS via satellite at the American Cultural Center on Wednesdays (CBS) and Fridays (ABC). Students' encounter with and use of English is mainly limited to reading and writing.

Research hypothesis

Out of the 177 subjects in the study, only 19.9% spoke one African language, the remaining 80.1% spoke at least two African languages. In addition, they all spoke French and are studying English. Given the linguistic situation of the subjects, the main question that is asked here is how learners of English as a third language (L3) acquire the English article system after having previously acquired two different systems: that of their native language and also that of French. The following four possible hypotheses are considered in an attempt to answer this question:

(1) Subjects transfer only their L1 article usage into L3.

(2) Subjects transfer only their L2 article usage into L3.

(3) Subjects transfer both their L1 and L2 article usage into L3.

(4) Subjects transfer neither their L1 nor their L2 article usage into L3.

It is the third hypothesis that is most plausible, and hence my research hypothesis is that French bilingual students will transfer the article usage from both their L1 and L2 into English. This possible transfer strategy will be due to the differences in expressing noun phrase (NP) functions in the three languages under consideration. Since the languages under consideration in this study have some similarities in their expression of generic and specific functions, it is hypothesized that the subjects will tend to transfer most of the time from the language that is closer to English in terms of function.

The other questions that the study addresses are whether the L3 learners' acquisition strategy is different from that of native speakers, and if so, what conditions the choice of articles for different nouns in certain contexts? Yet another question to be

addressed is whether the distribution of articles within a category by English as L3 learners differs from that of native speakers, for example, in the category of generics where all three articles can be used.

Justification of the Study

This study is motivated by four factors:

(1) Lack of information in the literature about what happens in L3 acquisition. At the present, few studies exist in the SLA literature which examine the different aspects of language acquisition when a person who already speaks at least two languages acquires yet another one (e.g., Klein, 1995; Thomas, 1992; Magiste, 1984; McLaughlin & Nayak, 1989).

(2) Lack of SLA studies involving native speakers of Mooré, Jula, and Fulfuldé. The reported studies concern learners whose L1 is a European or Asian language and those whose L1 is a more widely spoken African language; there is nothing concerning speakers of Mooré, Jula, or Fulfuldé or any other African language. The only acquisition studies I know of concerning speakers of Mooré acquiring English are Kaboré (1983) and Kambou (1992).

(3) Improvement of English language pedagogy. There is much interest in the teaching of English in Burkina Faso and in francophone West Africa, but in most cases teaching materials and methodology are not based on empirical studies conducted in the country. Burkina Faso has recently, August 1985, established a teacher training institute to train secondary school teachers in all subjects, and the results of this study and

subsequent acquisition studies could help English teachers in material development and evaluation. Most of francophone West Africa could use some of the results in training English teachers because Mooré, Jula and Fulfuldé belong to language families widely spoken in West Africa.

(4) Its theoretical contribution. Most of the studies based on the theory of transfer involved L1 and L2 situations, hence this study which deals with an L1, L2, and L3 situation could shed light on what is transferred and from which language--L1 or L2. Also, studies based on Huebner's (1983) semantic wheel for NP reference, according to Thomas (1989), lack the critical evidence--the use of the articles in generic contexts--to determine which feature L2 learners link with the definite article, the. These studies also examined only L1 or L2 acquisition.

Article Forms and Function in the Three Languages (L1, L2, L3)

In this section, the occurence of articles and nouns within the same noun phrase are discussed and a description of the article forms is given. Cases of nouns used with articles in Mooré, Jula Fulfuldé, French, and English are considered, but Mooré is used in most cases to exemplify L1, because all three L1s have two article forms.

The noun phrase (NP) structure in Mooré is Noun + Article, whereas that of French and English is Article + Noun, as shown in the examples below:

	Mooré	French	English
	NP	NP	NP
	/ \	/ \	/ \
	/ \	/ \	/ \
	N Art	Art N	Art N
	| |	| |	| |
(4a)	Báá-gá Ø.	Un chien	A dog.
(4b)	Báá-gá wã.	Le chien	The dog.
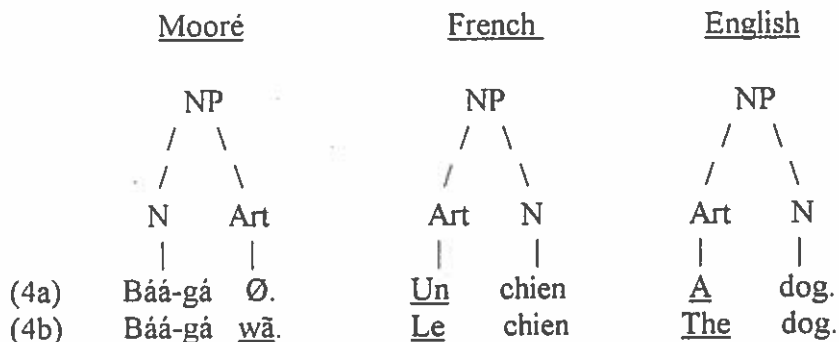
All nouns in the languages under consideration are either countable or uncountable and are generally used with articles to form the noun phrase (NP). When they are countable, there is a singular-plural opposition.

At the morphological level it is easy to distinguish singular count nouns from plural in most cases and this distinction is between the oral and written forms; with the articles, a morphological distinction is possible only in French. In Mooré, it is the nominal suffix which changes, but the article is invariable.

(5a) M tàrà yáá-gá Ø (sg)/ yáá-sé Ø (pl)
     I   have basket-sg/ basket-pl
     'I have a basket/baskets'

In example (5a) ga is the mark for singular and se that for plural nouns and the article is Ø in both cases. In general, the nominal suffix is also the noun class suffix. Most English singular nouns have a zero singular suffix marker and a -S as a plural marker for regular nouns. The indefinite article for singular count nouns has two forms. In French, the principle is the same as in English. For example,

(5b) I have a basket- Ø (sg)/ Ø basket-S (pl).

(5c) J'ai un panier- Ø (sg)/ des panier-S (pl).
     I have a basket   /   basket-s
     "I have a basket/ baskets'

At the semantic level, the morphosyntactic opposition singular-plural corresponds to the semantic opposition unique-multiple in countable nouns and this is the case in the three languages. The same type of opposition exists with the indefinite article in English and French, but it is only French that has this opposition with the definite article. For example,

(6a) I have a dog-Ø / Ø dog-S.

(6b) J'ai un chien- Ø /des chien-S.
'I have a dog/dogs.'

(6c) M tàrà báá-gá Ø/báá-sé Ø.
I have dog-sg/dog-pl.
'I have a dog/dogs'

Here the opposition is one dog versus more than one dog and the indefinite articles in French and English are used in their singular and plural forms to express the opposition. The Burkinabè learners of English should be able to make the correct article and noun combination both in English and French, especially the case of variable articles and nouns since the article and noun combination in these languages is different from that of their L1, as shown in Table 3. Failure to do so will result in incorrect NP in a given context if they rely on their French. If they rely on their L1, the zero article can be of help when they have plural nouns.

Table 3

Article and Noun Combination in English, French and Mooré

	Article used with singular noun	Article used with plural noun
English	A, THE	Ø, THE
French	LE, UN, Ø	LES, DES
Mooré	Ø, WÃ	Ø, WÃ

Articles in Mooré, Jula, and Fulfuldé (L1)

Mooré has two forms: Ø, wã. The article Ø is used to express indefiniteness and wã is used to express definiteness, for example,

(7) a. báá-gá Ø   "A dog".

    b. báá-gá wã   "The dog".

The zero article, Ø, is also used to express the generic and non-specific sense whereas wã is used to express specificity and also refers to things that are countable and non-countable that have already been identified in the preceding utterance or have unique referents. For example,

(8) a. báá-gá wésdàmé. "The/A dog barks" (generic sense).

    b. m ràtà báá-gá Ø. " I want a dog." (non-specific).

    c. báá-gá wã bè? " Where is the dog?" (unique, because it is the only dog of the house).

Jula has two article forms: Ø and ni. The functions of the articles are the same as in Mooré, as shown in the examples below.

(9) Wulu- Ø   bi kule.
   'Dog-indefinite be bark.
   'A dog barks'.

(10) Wulu-ni   bi kulera.
   Dog-definite be bark
   'The dog is barking'.

Fulfuldé also has two forms for the article: Ø and nominal suffix. The functions of these forms are the same as for Mooré and Jula.

(12) Kabaro- Ø yOO daabaa- Ø.
   dog-indefinite   be   animal-indefinite
   'The dog is an animal'
(13) Mina jogi suuδu- Ø,   mina soodii suuδu-ndun.
   I   have house-indefinite, I   buy   house-definite
   'I have a house, I bought the house'

The definite articles in Mooré and Jula are invariable, but that of Fulfuldé is variable in number by class agreement between the noun and the article.

Articles in French (L2)[1]

French has three forms of the article system: un, du, le. The article, un, is used to express indefiniteness and refers to something countable and it identifies unknown things. For example,

(14) Je veux un chien. "I want a dog".

Un can also be used to express generic sense, for example,

(15) Un chien ça aboie. "A dog barks".

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[1] The use of the term 'second language' follows that widely used in the acquisition literature.

The article <u>du</u>, is used to express partitive and refers to an undefined quantity of something non-countable, for example,

(16) Je veux <u>du</u> vin. "I want some wine".

The article <u>le</u>, refers to concepts (something non-countable) and also refers to things that are countable and already identified in the preceding speech, for example:

(17) <u>Le</u> chien est un animal.
   "The dog is an animal".

(18) J'ai vu un homme, <u>l</u>'homme fumait du cigar.
   "I saw a man, the man is smoking a cigar".

Sometimes the zero article is used in French in fixed expressions and proverbs, for example, "je vous déclare mari et femme"--I declare you husband and wife; "Noblesse oblige". It is also used in some equative noun phrases, for example, "Je suis comptable"--I am an accountant. In general, with equative or identification phrases the indefinite article can be used instead of zero, for example, "Je suis un comptable"--I am an accountant. A clear distinction cannot be made for the use of zero or "un/une" in a first person sentence as in the examples above but in the third person, it is the zero article that is used. For example, "Il est comptable/*Il est un comptable"--He is an accountant. The articles agree in number and gender with the nouns with which they occur.

Articles in English (L3)[2]

English has three forms of the article system: <u>Ø, a/an, the</u>. We will not consider <u>some</u> as an article in English, because in most of the studies reviewed, they do not

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[2] The use of the term 'third language' should be understood in the sense of 'foreign language' in the acquisition literature.

consider it as part of the article system although in French <u>du</u> is treated as part of the article system. The first two articles are used in English to express indefiniteness, whereas the third is used to express definiteness. For example, in the sentence

(19a) I bought a book yesterday

the indefinite article <u>a</u> is ambiguous because it can mean (a) <u>one book</u> or (b) <u>a book and not something else</u>; it is also indefinite because we do not know which book I bought. If the indefinite article expresses quantity, the plural form of the sentence will be

(19b) I bought books yesterday

and here again the quantity is indefinite because we do not know the number of books bought. The definite article is used with previous mentioned nouns as in

(20) I saw a policeman chase <u>a man</u> in the street, <u>the man</u> stole a lady's purse.

Here, <u>man</u> is definite in the second mention because we know which man we are talking about. The three articles are also used to express generic sense and this case, whereas <u>a</u> and <u>the</u> can occur with singular count nouns only, <u>Ø</u> is used with both non-count and plural count nouns, for example,

(21) a. Dogs bark

      b. Thieves love one another.

      c. The dog is a lovely pet.

      d. A dog is a lovely pet.

      e. Wine is good for health.

A Comparison of Article use in L1, L2 and L3

The use of the articles for each language in the four semantic categories (generic, referential definite, referential indefinite, and nonreferential) of concern in the present study will be compared below and then predictions about difficulty and source of cross-linguistic error made. Consider in this regard the sentences below:

(a) [-Specific Referent, + Assumed Known to the Hearer]: Generics

    (22) a. The dog is a lovely animal. (English)

          b. Le chien est un bon animal. (French)

          c. Báágá-Ø yáá (rúngá) sòngò. (Mooré)

          d. Ø Dogs are lovely animals. (English)

          e. A dog is a lovely animal. (English)

In generic contexts as shown in example 22, English uses the three article types while French uses the definite article and Mooré the zero article. However, in referential definite contexts, examples 23-26, all three languages use only the definite article.

(b) [+Specific Referent, +Assumed Known to the Hearer]: Referential Definites

(i) Unique or conventionally assumed unique referent;

    (23) a. The moon will be full tomorrow. (English)

          b. La lune sera pleine demain. (French)

          c. Kiúgú wã nã yíi fãã béógó. (Mooré)

(ii) Referent physically present (demonstrative function);

    (24) a. Look at the man over there. (English)

          b. Regarde l'homme là-bas. (French)

          c. Gés ráwá wã [Gés ráwã]. (Mooré)

(iii) Referent previously mentioned in discourse;

    (25) a. Speaker A: So he married a woman from England. (English)

          b. Speaker B: Yes, the woman's from London. (English)

          c. Speaker A: Ainsi il s'est marié à une anglaise. (French)

          d. Speaker B: Oui, la femme/elle est de Londres. (French)

          e. Speaker A: Wòtò à ke káádem nì ángélétèr págá Ø.

          f. Speaker B: nyé págá wã [págã]/à yíí lóndíri.

(iv) Specific referent otherwise assumed known to the hearer.

    (26) a. He went over to the bookstore. (English)

          b. Il est allé à la librairie. (French)

          c. À lóógà líbréri wã. (Mooré)

In the case of referential indefinite contexts, examples 27-28, while English and French use

the indefinite article, Mooré uses the zero article. The same type of usage is seen in non-

referential contexts as shown in examples 29-31.

(c) [+Specific Referent, -Assumed Known to the Hearer]: <u>Referential Indefinites</u>

(i) First mention of NP[+SR] in a discourse and assumed not known to the hearer.

    (27) a. Dad gave me <u>a car</u>. (English)

          b. Papa m'a offert <u>une voiture</u>. (French)

          c. M bàbà kó màm <u>vátír/móbíl Ø</u>. (Mooré)

          d. Dad gave me <u>Ø/some gifts</u>. (English)

          e. Papa m'a offert <u>des cadeaux</u>. (French)

          f. M bàbà kó màm <u>kàdóràmbá Ø</u>. (Mooré)

          g. There was <u>Ø/some wine</u> on sale. (English)

          h. Il y avait <u>du vin</u> en vente. (French)

          i. B kóósá <u>dívé Ø</u>. (Mooré)

(ii) First mention of NP[+SR] in a discourse following existential HAVE and

    assumed not known to the hearer.

    (28) a. Our house has <u>a garage</u>. (English)

          b. Notre maison a <u>un garage</u>. (French)

          c. Tònd záká tárá <u>gáráz Ø</u>. (Mooré)

          d. John has <u>Ø/some cars</u>. (English)

          e. Jean a <u>des voitures</u>. (French)

          f. àZàn tárá <u>vátírràmbà Ø</u>. (Mooré)

          g. I had <u>Ø bread</u> for lunch. (English)

          h. J'ai mangé <u>du pain</u> au déjeuner. (French)

          i. M wábdà <u>búrí Ø</u> midi. (Mooré)

(d) [-Specific Referent, -Assumed Known to the Hearer]: <u>Non-Referentials</u>

(i) Equative noun phrases;

    (29) a. He's <u>a Professor</u>.(English)

        b. They are <u>Ø Professors</u>.(English)

        c. It is <u>Ø wine</u>. (English)

        d. Il est <u>Ø Professeur</u>. (French)

        e. Ils sont <u>Ø Professeurs</u>.(French)

        f. C'est <u>du vin</u>.(French)

        g. A yáá <u>Pórfésèrè Ø</u>. (Mooré)

        h. B yáá <u>Pórfésèrè ràmbà Ø</u>. (Mooré)

        i. Ad yá <u>dívé Ø</u>. (Mooré)

(ii) Noun phrases in the scope of negation;

    (30) a. I don't see <u>a pencil</u>.(English)

        b. I don't see <u>Ø pencils</u>.(English)

        c. I don't have <u>Ø wine</u>.(English)

        d. Je ne vois pas de <u>Ø crayon</u>.

        e. Je ne vois pas de <u>Ø crayons</u>.

        f. Je n'ai pas de <u>Ø vin</u>.(French)

        g. M pá gés <u>kéryón Ø</u> yé.(Mooré)

        h. M pá gés <u>kéryónrámb Ø</u> yé.(Mooré)

        i. M pá tár <u>dívé Ø</u> yé. (Mooré)

(iii) Noun phrases in scope of questions, irrealis mode.

(31) a. Do you see <u>a pencil</u>? (English)

b. Do you see <u>Ø pencils</u>? (English)

c. Do you have <u>Ø wine</u>? (English)

d. Vois-tu <u>un crayon</u>? (French)

e. Vois-tu <u>des crayons</u>? (French)

f. As-tu <u>du vin</u>? (French)

g. F gés <u>kéryón</u> Ø bíí? (Mooré)

h. F gés <u>kéryónrámb</u> Ø bíí?(Mooré)

i. F tárá <u>dívé</u> Ø bíí? (Mooré)

j. If I had a million dollars, I'd buy <u>a big yacht</u>. (English)

k. If I had a million dollars, I'd buy <u>Ø yachts</u>. (English)

l. Si j'avais un million de dollars, j'acheterais <u>un grand yacht</u>. (French)

m. Si j'avais un million de dollars, j'acheterais <u>des grands yachts</u>. (French)

Summary of the Articles in English, French and Mooré

As can be seen from the presentation of the article forms and functions summarized in Table 3, English and French have three forms and the African languages have two. The only form common to the languages is the definite article; the one common to English and French is the indefinite article; the form common to English and Mooré is the zero article. But the usage is different in these languages. For example, in generic sentences, English uses all three types of article, whereas in French it is the definite article

that is used and in Mooré it is the zero article. French is the only language with a form of article (du) whose equivalent is not considered as an article in the other languages, for example, in English some the equivalent of du is not viewed an article and in Mooré it is Ø. The usage and/or expression of the generic NPs in English could be a difficult task for the Burkinabè students since the generic NP in their L1 is different from that of their L2, and they also need to know when to use the, a, or zero in the English generic NP. In Table 3, the contrastive analysis prediction that can be made is that if the students rely on their L1, they should get a high rate of correct article usage in the generic Ø, referential indefinite Ø and nonreferential Ø as well as the referential definite (THE) contexts. If they rely on their L2, they should get a high rate of correct article usage in the generic THE, the referential definite, the referential indefinite A and nonreferential A contexts. It is thus the generic A context that will be the most difficult for the students since its equivalent does not exist in either their L1 nor L2. The study focuses on three languages: Mooré, an African language as an L1 (because it is the majority language of the subjects in this study--54.8%), French as an L2, and English as an L3.

Table 4

Article Usage in the Four Semantic Categories

	Generic [-SR +HK]	Referential Definite [+SR +HK]	Referential Indefinite [+SR -HK]	Nonreferential [-SR -HK]
English	the, a, Ø	the	a, Ø	a, Ø
French	le, un	le, les	un, du, des	un, du, des, Ø
Mooré	Ø	wã	Ø	Ø
Jula	Ø	ni	Ø	Ø
Fulfuldé	Ø	nominal suffix	Ø	Ø

Limitation of the Study

Although three types of methods (cloze test, error identification and error correction) were used to collect the data, only a limited number of items were available to check usage in each context. It was not easy to find a text which exhibited an almost equal distribution of articles in each of the three contexts where the use of one article is possible. Hence, the distribution of items was dictated by the type of text used and the concern for having as natural a text as possible. It is this search for naturalness that favored the use a cloze type-test over isolated sentences although the use of free essay for naturalistic data in this study would have been preferable. However, we all know that this procedure does not always give you what you want and as such I decided to use the tasks mentioned above to get near-natural data. These types of tasks are frequently used for data collection in SLA and as Larsen-Freeman and Long (1991) rightly put it "one of the primary functions, then, of instruments designed to elicit production data is to oblige

learners to produce the item the investigator is interested in studying". Moreover, the study is limited to the article system which is a subset of the determiner system for three reasons: (a) the limited time available to conduct the research; (b) the need to have as many usages of the articles in the different contexts under consideration; (c) the need for comparison with previous research using Huebner's semantic wheel for noun phrases.

Organization of the Study

The study consists of six main chapters. After this introductory chapter, the rest of the dissertation is organized as follows:

Chapter 2 gives a detailed background information to the study. It provides information on the educational system and the success rate in each of the different levels as well as the failure rate; it also discusses the effect of the French language policy vis-à-vis education. It is also in this chapter that English language teaching in the country is discussed. Chapter 3 deals with the review of the literature regarding article systems in the three different languages as well as crosslinguistic influence (transfer). Descriptive studies are reviewed first, followed by studies on L1 acquisition and then L2 acquisition. It is also in this review that the different methodologies are assessed and the theory that is used in the present study is presented. Chapter 4 deals with the methodology used in this study to collect and analyze the data, while chapter 5 presents the results of this study. Chapter 6 summarizes the results of the study and discusses their implications for SLA. This is also where conclusions to the study are drawn, and it is again in this chapter that the theoretical

and practical implications of this study are alluded to and directions for future research suggested.

CHAPTER 2

BACKGROUND INFORMATION TO THE STUDY

Introduction

This chapter describes the educational system in Burkina Faso and then goes on to give details about the success and failure rates, using statistical data published by the Ministry of Primary Education and the Ministry of Secondary and Higher Education in their 1993-94 statistical bulletins. Although our interest in the secondary and higher education information is focused on English language education, knowledge of the general educational outcomes is necessary to enable the reader to better understand the context in which the study was undertaken. This chapter also enables the reader to understand the sociolinguistic and educational environments in which students learn English, how the teachers are trained and what their qualifications are.

As stated in chapter 1, the language of instruction and administration is French, adhering to the French only policy of the colonizers. There was a pilot bilingual education program (French with Mooré, Jula or Fulfuldé) in the 1980s, but this program was abandoned later. Since the mid 1980s, three national languages have been taught at the university as subjects: Mooré, Jula, and Fulfuldé.

The educational system in Burkina Faso is divided into different cycles (see Table 5). Primary education is six years, and children of age seven are officially admitted to the first year. At the end of the sixth year, the students take the graduation examination, and the grade point average (GPA) for those under 15 years is considered for entrance (entrée en sixième) into the first year of general secondary education; those 15 years and above

with the required GPA are considered for technical secondary education. Those pupils who pass the final exam are awarded the primary education certificate (Certificat d'Etudes Primaires et Elémentaires--CEPE). Officially, students in the secondary education, which is divided into two cycles are between the ages of 13 and 19: (a) first cycle (four years); (b) second cycle (three years). At the end of the first cycle, students take a final exam, and those who pass are awarded a certificate (Brevêt d'Etudes du Premier Cycle--BEPC), and again the GPA of those who pass is considered in the admission process for the first year of the second cycle. It is at the end of the second cycle that the students take the Baccalauréat exam which allows those who pass to go on to University if they so wish. The successful candidates are awarded a certificate (Diplôme de Bachelier de l'Enseignement du Second Degré).

University education is divided into three cycles: (a) the first cycle includes the first two years; (b) the second cycle comprises the next two years; (c) the third cycle consists of the fifth, sixth and the seventh year. At the end of the first cycle, students with a GPA of at least 10 out of 20 are awarded the 'Diplôme Universitaire d'Etudes Littéraires/Scientifiques' depending on their specialty. In the second cycle, two types of degrees are awarded: Licence after the first year and Maîtrise at the end of the second year. Graduate students in the third cycle who choose to be professional study for the 'Diplôme d'Etudes Supérieures Spécialisées--DESS', a one year graduate program. But those who choose academia, study for the 'Diplôme d'Etudes Approfondies--DEA' after which they do research for their doctoral dissertation.

Table 5

Educational System in Burkina and the US

Burkina Faso	USA
Primary education	
CP 1	Grade 1
CP 2	Grade 2
CE 1	Grade 3
CE 2	Grade 4
CM 1	Grade 5
CM 2	
Secondary education	
Collège (First cycle)	Middle school
6è	Grade 6
5è	Grade 7
4è	Grade 8
3è	
Lycée (Second cycle)	High school
2de	Grade 9
1ère	Grade 10
Tle	Grade 11
	Grade 12
Higher education	
Premier (First) cycle	Undergraduate
DEUG 1	Freshman
DEUG 2	Sophomore
	Junior
	Senior
Second cycle	Graduate studies
Licence	Master's
Maîtrise	
Troisième (Third) cycle	
DEA/DESS	
Doctorat 3è Cycle	Ph. D
Doctorat Unique	
Doctorat d'État	

Primary Education

Primary school education in Burkina Faso, as in most former French colonies, is six years. Students in primary schools have to take a certificate exam at the end of the six years and those who pass are awarded the primary school certificate, Certificat d'Études Primaire et Élémentaire---CEPE. Universal primary education is a goal of the government, but it has not yet been achieved due to multiple factors that we shall discuss later. Teachers in the primary schools are those who hold at least a first cycle secondary school certificate, BEPC. They are trained for a year in a teacher training institute before they start teaching, but in some cases, teachers are recruited and given training of less than one month before they start. These teachers have to teach all the subjects of their grade in French. This raises two serious concerns: (a) the teacher's mastery of the official language, French; and (b) the teacher's ability to teach all subjects with equal competence. These concerns are genuine given their level of instruction and the length of training. It used to be the case that teacher training lasted two years, but this is no longer holds.

The three reforms in primary education in Burkina Faso have not produced the expected results as discussed in Kambou (1995a), but there has not been any reform regarding qualification of teachers. In terms of qualification, some countries (e.g., Côte d'Ivoire) now recruit teachers with higher qualifications than BEPC, for example, holders of a Baccalauréat certificate, to raise the quality of instruction because it is not uncommon to hear people say that the level of education is dropping. No evaluation has been made of the educational system in Côte d'Ivoire since the change in qualification requirement of primary school teacher trainees. The foundation of education is at this level so if the

students get a bad beginning, it will be difficult for the teachers at the next stage to remedy; this is especially crucial for language education, because everything is based on the students' understanding of the French language.

It is reported by the Ministry of Primary Education that in 1993-94, Burkina Faso had 2,775 public schools (i.e., 93% of the total) and 196 private schools (i.e. 7%) with a total of 10,300 teachers. The percentage of children in full-time education in 1993-94 was about 41% males and 27% females, out of the school-age population in the country. This suggests that about 32% of the age cohort was not in school due to some of the problems to be discussed later. The total student population in school that year (1993-94) was 600,032 of which 366,226 (61%) were male and 233,806 (39%) female. It must be borne in mind that not all children of school-age are admitted to school, because of capacity limitations and the unavailability of schools in some localities of the country. Those who attend private schools are the ones whose parents can afford to pay school fees for less crowded classrooms, because the public schools are generally overcrowded. According to the report, the projected percentage of children in full-time education was 36% in 1993-94 and 40% in 1995-96, but unfortunately the 1993-94 projection was not attained, they obtained a 34% rate (the latest statistics was for 1993-94 and so no information was available for the 1995-96 school year at the time of this study). The report also indicated that there was an increase of more than 6% per annum in the percentage of children in full-time education. The percentage of children in full-time education increased from 6.2% in 1992-93 to 6.6% in 1993-94 for public schools and from -4.9% to 9% for private schools in the same period.

The results for the June 1994 CEPE (primary school certificate) and that of the 1993 entrée en sixième (secondary school entrance exam) were 47.6% and 11.5%, respectively. The results of the entrée en sixième since 1992 were almost the same, between 10 and 11%, but those for the CEPE dropped from 59% in 1992 to 48% in 1993 and 47% in 1994. Out of a total of 72,415 students (29,329 girls and 43,086 boys) who took the certificate exam (CEPE) in 1993-94, 34,461 passed (12,329--42.26%--girls and 22,067--51.22%--boys), representing 47.59% of the total. This means that more than half of the final exam candidates dropped out of the system or repeated the class. With regard to the secondary school entrance exam (entrée en sixième), out of the 69,456 candidates (25,922 girls and 44,506 boys), only 7,998 (2,007 girls and 6,041 boys) that is, about 12% (11.52%) passed. Here again, it is not likely that all these students gained admission to secondary schools. The questions one can ask are whether (a) the system is very selective, or (b) the students do not perform well. Both explanations are plausible, but the performance of the students must be related to other factors such as class size, the language of instruction, and testing as well as the quality of training of the teachers. These issues are discussed at length in Bokamba (1984) and Kambou (1995a, 1995c).

On the whole, the number of class repeaters is increasing in spite of a continuous increase in the annual percentage of children in full-time education as shown in Tables 6-10. Table 6 gives the global repeater rate for the primary education for over five years and Table 7 shows that in 1993-94 the repeater rate per grade is as high as the annual rates for the previous years and that especially in grade six the rate is about twice the annual rate.

Table 6

Total Class Repeaters for 1989-94: Primary Education

Year	School Population	Repeaters
1989-90	472,979	81,853 (17.31%)
1990-91	504,414	89,527 (17.75%)
1991-92	530,011	88,558 (16.71%)
1992-93	562,644	93,606 (16.64%)
1993-94	600,032	95,974 (15.99%)

Table 7

Class Repeaters in 1993-94 by Grade Level

GRADE[a]	PUBLIC		PRIVATE		TOTAL
	Repeaters	Class	Repeaters	Class	
CP1	13,706	109,538	558	7,821	14,264 (12.15%)
CP2	11,638	119,892	650	8,379	12,288 (9.58%)
CE1	13,266	94,963	882	5,952	14,148 (14.02%)
CE2	9,780	82,439	833	7,382	10,613 (11.82%)
CM1	9,111	56,060	727	4,964	9,868 (16.17%)
CM2	32,282	93,403	2,541	9,239	34,823 (33.93%)
TOTAL	89,783	556,295	6,191	43,737	95,974 (15.99%)

[a]CP = cours primaire; CE = cours elementaire; CM = cours moyen.

Table 8

Average Annual Rates of Students Passing, Repeating, and Abandoning School from

1984-1989 by Grade Level

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
Passing	79.9	70.2	73.6	68.7	72.1	
Repeating	11.9	11.2	15	13.6	15.2	38.1
Drop-out	8.2	18.6	11.4	17.7	12.7	

Note. Empty cells indicate missing information.

Table 8 reveals that not only are there high repeater rates in each grade level, the

drop-out rate is also high. There is only one repeater rate in grade six (CM2) in Table 8

and this suggests that the rate is very high in this grade; the availability of repeater rates

for grade six in Table 9 clearly indicates that the rate is very high in grade six, the final

exam class, amounting to about 39% on the average. In addition, Table 7 shows that in

1993-94, the rate was as high as 33.93%. This high rate of repeaters and perhaps drop-

outs in grade six could be due to the language of instruction, French, which is in most

cases the students' third language. It was in 1992 that a Ministerial report on primary

education questioned the teaching of French to Burkinabè primary school students as a

first language and suggested that it should be taught as a second language in order to

avoid the observed psychological conflicts and sociological problems. Compared to their

Anglophone cohorts, the repeater and drop-out rates in primary education are higher in

the French-speaking sub-Saharan Africa than in the English-speaking part (Bokamba

1984, Kambou 1995a). This difference appears to be due to the use of mother tongues in

primary education in most of sub-Saharan Anglophone countries, whereas in most Francophone states this practice is prohibited. Another factor that could explain the observed repeater and drop-out rates is the quality of the teachers. In some Anglophone countries, certified teachers are trained for four years after their primary and middle school education (i.e., 10 years), whereas in the francophone ones it is generally one or two years after the BEPC (i.e., 10 years). Thus, the training period could be a contributing factor to the observed results.

Table 9

Primary Education: Percentage of Repeaters by Grade Level Between 1980 and 1991.

Year	Total #	Total %	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6
1980	34,453	17	14	13	15	13	16	37
1986	60,549	16	12	10	13	12	14	39
1990	89,527	18	12	12	15	14	15	41
1991	139,039	26	21	21	24	23	29	39

Note. Adapted from Statistical yearbook, UNESCO 1994.

Table 9 shows that there was an overall increase in the number of annual repeaters from 1980 to 1991, while Table 10 indicates a steady increase in the number of children in full-time education in the same period. Table 7, on the other hand, compared to Table 6, shows that the annual repeater rate decreased in 1994 compared to the previous years. In spite of this change in the overall annual repeater rate, the table also shows that grade six

in 1994 had a rate of about 34% which is more than twice that of the overall repeater rate of about 16%. With the failure of earlier reforms, it is possible that the language question as well as the quality of teachers should be of primary concern to avoid a spread of mediocrity in our schools and administration.

There have been three major reforms in the program of primary education between 1962 and 1989, but the results are still not encouraging. The teaching of French, especially the reading methods, has been changed three times since 1931, but these changes have not produced the expected results. For example, it is stated in an official report that out of 1,000 children who enter grade one only 205 get to grade six without repeating a class. We should also bear in mind that outside the classroom, most children speak their African languages with their peers and, therfore the practice of French is limited although children are exposed to French through radio, TV, and books as well as in the surroundings for those who live in urban areas. In school, French language lessons are scheduled weekly as follows: 7 hours 40 minutes in grades 1 and 2, 7 hours in grade 3, 9 hours 05 minutes in grade 4, 6 hours 30 minutes in grade 5 and 6 hours 45 minutes in grade 6. Were these children tested through their native languages, it is likely that the success results would be about twice the present success rate, if not more (see report on Yoruba 6 year project in Bamgbose, 1991). These children are tested in the following six subjects through the medium of French: French, Mathematics, History-Geography, Art, Natural Science, Recitation/Singing. In order to pass, a pupil needs to understand the instructions and questions which are given in French. The pupil must also have a good

command of French to express him/herself clearly in the essay type as well as the reading and listening comprehension type questions.

Table 10

Evolution of Primary School Student Population for a Decade by Grade Level: 1984-1994

Year	CP1	CP2	CE1	CE2	CM1	CM2	Total
1983-84	65,106	58,546	43,191	38,411	31,478	37,078	273,810
1984-85	80,360	61,062	55,084	42,535	34,581	39,898	313,520
1985-86	82,015	78,378	58,301	49,601	38,297	45,195	351,787
1986-87	88,366	80,361	74,506	51,886	44,194	51,171	390,484
1987-88	83,681	85,747	76,527	65,582	45,335	55,039	411,911
1988-89	95,719	81,403	82,186	67,782	56,772	59,467	443, 329
1989-90	100,767	90,333	79,629	73,189	58,828	70,233	472,979
1990-91	103,946	98,120	88,257	71,837	64,774	77,480	504,414
1991-92	108,181	100,157	94,918	78,097	65,379	83,279	530,011
1992-93	119,189	106,315	97,724	83,898	56,498	99,020	562,644
1993-94	117,359	128,271	100,915	89,821	61,024	102,642	600,032

Table 10 shows an evolution of the global student population over ten years by grade level. In spite of a steady increase in the total over the years, a grade by grade analysis shows that there were drops in the student population in grade 1 (CP1, 1993-94),

grade 2 (CP2, 1988-89), grade 3 (CE1, 1989-90), grade 4 (CE2, 1990-91), grade 5 (CM1, 1992-93).

Secondary Education

Secondary education is either general or technical, and lasts seven years. As mentioned earlier, there are two cycles at this level of education. Teachers at this level must have at least a university certificate or degree and are of two categories: (a) holders of the certificate after a two-year professional training teach two subjects in the first secondary schools (Collège), and (b) holders of a Licence after a two-year professional training teach only one subject in a second cycle secondary school (Lycée).

The percentage of children in full-time education increased from 8.6% in 1992-93 to 9.12% in 1993-94, resulting in an annual increase of 6.04%, but this figure is lower than that from 1991-92 to 1992-93 which was 7.5%. Examining the rate by cycle revealed that the increase in the first cycle was 12.43% and that of the second cycle was 4.01%. Out of the 205 secondary schools of general curriculum in 1993-94, 87 (42.4%) were private and the rest public. There were at the same period 3,346 teachers for 116,033 students. On the whole, general secondary education students increased by 8.42% between 1992-93 and 1993-94. But this increase is low when it is compared to the 10.1% increase between 1991-92 and 1992-93.

Technical secondary education is on the rise as is the case with general education. In 1993-94, there were 29 private and public technical schools, and the annual increase

between 1992-93 and 1993-94 was 5.12% compared to 4.4% between 1991-92 and 1992-93. There were 639 teachers in 1993-94 compared to 547 in 1992-93 for 8,808 students. The general rate of success for the BEPC at the end of the first cycle is about 35%. The success rate for the baccalauréat is about 35.76%. In the secondary schools, there were in 1993-94 a total of 405 English teachers (236 in public schools and 169 in the private) with two inspectors. There were also 43 English teachers in the technical schools, both public and private combined. In 1993-94, the repeaters in the public secondary schools were 18,075 students in the first cycle and 2,833 students for the second cycle. This gave a total of 20,908 students (i.e., about 26%) repeating out of a total student population of 80,099. However, it should be noted that although the rate per grade was not given, that of academic level was and this showed that 86.45% repeated the firat cycle. The number of students that repeated grades in the private schools was 7,174 in the first cycle and 876 in the second cycle, a total of 8,050 (i.e. about 23%) out of the general student population of 35,052. The repeaters in the technical education programs for this period were 874 students (i.e. about 10%) out of 8,808.

Having presented the educational situation, we can now argue that the high repeater and failure rates are largely affected by the language of education and examinations which are in French. As was discussed above regarding the language question in primary education, those who had difficulty in French in primary school will continue to have difficulty as the subjects increase in number and complexity at the secondary level. The average number of students in a class in the secondary schools in 1993-94 was 62. Given this number, the teachers cannot give individual attention to

students, and the language teaching methods they are trained in are not suitable for such large class sizes. This problem is exacerbated in some schools where most of the students have no textbooks. The low success rate prompts one to question the efficiency of the language of instruction and the educational system as a whole. There has been a recent forum for educational reform which shows that the authorities are aware of the problems and are looking for solutions. At this point, it can be said that the educational system is inefficient, and the language of education is a major contributing factor to this. A comparison of the Burkinabè system to that of some Anglophone countries where mother tongue education is encouraged shows that the language of instruction factor is to be taken seriously.

As stated earlier, teachers in secondary education are of two categories. They must have a certificate of teaching aptitude given (certified) by the teacher training institute (INSE). Holders of a two year university certificate (the equivalent of an associate degree) take the entrance exam and those who are admitted are trained for two years and are awarded the CAP-CEG (Certificat d'Aptitude Pédagogique-Certificat d'Enseignement Général). The other category of teachers are those who hold a three year university diploma, licence (equivalent of a Bachelor's degree). They have to take the entrance examination and have a two year training period at INSE. Upon completion of this training they are awarded the CAPES (Certifcat d'Aptitude Pédagogique à l'Enseignment Secondaire) certificate. In 1993-94, there were two English language inspectors for a total of 405 English teachers. In the Burkinabè system, the inspectors are the supervisors of the teachers, and they have to visit the teachers in their classrooms to

see how they are teaching and then discuss the methodological problems they face. They also participate in teacher training, but given their number and the amount of traveling across the country they have to do, it is obvious that they are not able to do most of their job. Since 1995, there have been attempts to recruit more English inspectors. At this point, it is obvious that in-service training for English teachers is lacking, and this affects their performance.

In the public schools, there were 240 teachers with various qualifications: 5 were holders of DEA (All But Dissertation) and above, 118 were holders of CAPES, 23 had their Maîtrise (Master's degree), 67 had a Bachelor's degree, 12 with a CAP-CEG, and 15 had non-specified qualifications. The secondary schools are not equipped with language laboratories, nor do they have audio-tapes, video-tapes and TV screens. The teachers rely on books and their own training to teach. In the first cycle, students in sixième (grade 7) and cinquième (grade 8) have six hours of English a week; those in quatrième (grade 9) and troisième (grade 10) have four hours of English per week. It is in grade ten that the students take the BEPC exam consisting of a written and an oral English exam. In the second cycle, students in seconde (grade 11) have three hours a week of English, those in première (grade 12) two hours and in terminale (grade 13) one hour a week. The time allotted to English is not sufficient since the students have less practice with the language and also all the four skills are not practiced enough, especially in the second cycle. This is paradoxical, because those students who choose to study English at the university have time to lose their English before they get there. It is really at the university where they have more exposure to English. This system of education develops writing and reading

skills to the detriment of speaking and listening at the secondary school level. It would be preferable to reverse the order of time alloted to English in secondary schools so that as students progress they acquire more English to prepare them for the university where they need English to read most of the literature in their respective fields. Such a view is logical given the fact that English is compulsory in the first two years of university education.

The English exams in high school at the BEPC and Baccalauréat levels have two parts: written and oral. The written test for the BEPC is made up of four parts: (a) a reading comprehension section with multiple choice type answers; (b) two short essays, one of which is from the reading comprehension text; (c) a multiple choice grammar exercice; (d) a short translation from French to English. For the oral exam, there are 20 texts from which the students choose one and then prepares for a 15 to 20 minute exam. As for the BAC, we are interested in the option (série) A, because most of the students who choose the Faculty of Arts take this option. The written exam is in two parts: (a) a reading comprehension text with short written answers; (b) a translation task: the passage to be translated from English to French is taken from the reading comprehension text. In the oral exam, it is the same procedure as in the BEPC, however, the texts at this level are longer. The instructions and questions are in English, and difficult words in the text are explained in English. The questions are chosen by a commission composed of at least one English language Inspectors, a University professor from the Department of English who heads the commission, and three high school English teachers who are teaching the exam classes concerned (Terminale and Troisième---grades 13 and 10). For the Baccalauréat and BEPC, the written comprehension texts and the ones for the oral exam must not have

been used in the curriculum. The subjects in which the students are examined in both the BEPC and the Baccalauréat exams are weighted and the written English test and the oral one are weighted differently in both types of exam. The teachers who write the exams are not specialists in testing. The testing bodies, Ministère de l'Enseignement Secondaire and Office du Bac, do not do research on the validity and reliability of the testing instruments, and specifically what is of interest to this study, the English language exam.

Higher Education

Higher education in Burkina Faso is made up of colleges (facultés) and several institutes which award post-secondary certificates and/or degrees. The university is a public institution made up of colleges and institutes. There are also some private institutes. To enroll in higher education students must have the Diplôme d'Enseignement du Second Degré or pass a special university entry exam. This is not the case in the private institutes. The basic difference therefore between the colleges and the institutes is that the latter train professionals, while the former trains generalists. Another distinction is that the colleges offer degrees up to the doctoral level, while the institutes grant two- to three-year training and award the equivalent of associate degrees only. It must be noted that in the institutes the number of students is generally limited to about 30 in a class and students have to fulfill some requirements and then pass an entrance exam. The colleges, apart from the sciences and medicine, have no intake limitations theoretically and so any person who passes the Baccalauréat exam can register in a college.

There is only one university in Burkina Faso, the University of Ouagadougou with five colleges: (a) La Faculté des Lettres en Sciences Humaines et Sociales (FLASHS); (b) La Faculté en Science de la Santé (FSS); (c) La Faculté de Science et Technique (FAST); (d) La Faculté de Science Economique et Gestion (FASEG); (e) La Faculté de Droit et Science Politique (FDSP), three institutes: (a) l'Institut Universitaire et Technologique (IUT), (b) l'Institut du Développement Rural (IDR), (c) l'Institut de Science de l'Education (INSE), and one école supérieure: l'Ecole Supérieure d'Informatique(ESI). Formerly concentrated in Ouagadougou the capital city, it no longer is as the political authorities decided to decentralize it. As a result, since 1995-96 there is a campus in Bobo-Dioulasso with three institutes: IDR, ESI, and IUT. As of 1996-97, the teacher training institute, INSE has been transferred to Koudougou, a city 100 kilometers south-west of Ouagadougou.

In 1993-94, the university had a total of 8,815 students with 571 faculty members. The student population in 1992-93 was 8,813, and in 1991-92 it was 7,856 of which 6,944 took part in the different exams. The annual growth rate in the student enrollment at the University of Ouagadougou is generally 3.4%; in 1992-93 and 1993-94, however, it dropped by 0.89% and 0.86% respectively. The success rate for the university in 1992-93 and 1993-94 were 56.39% and 55.39% respectively; the repeater rates by college in 1993-94 are given in Table 11.

Table 11

Repeater Rate by College

College	# of Repeaters	Total # of Students	Repeaters Rate
FLASHS	633	2,956	21.4%
FSS	192	803	23.9%
FAST	471	1,392	33.8%
FASEG	375	1,530	27.8%
FDSP	329	838	39.3%
IUT	109	494	22.1%
IDR	2	83	2.4%
INSE	27	623	4.3%
ESI	5	96	5.2%
Total	2,143	8,815	24.3%

On the whole there were 2,143 repeaters from a total of 8,815, a repeater rate of about 24%. The general success rate at the University of Ouagadougou for 1993-94 of 55.39% was a decrease of one percentage point from that of the previous year, 1992-93 (56.39%).

In the English department, the 1995-96 student population was 635, divided as follows: 244 Freshmen, 140 Sophomores, 141 Bachelor's and 100 Master's students. But the 1992-93 and 1993-94 student populations were 493 and 602, respectively (Table 12). Table 12 gives the repeater rates for the department as well as by academic level. The departmental repeater rates for 1992-93 and 1993-94 were 29.2% and 18.8%,

respectively, showing a decrease in repeater rate of over 10 percentage points. Tables 11 and 12 show that the department's repeater rate in 1993-94 was lower than that of the college (FLASHS) to which it belongs.

Table 12

Repeater Rates in 1992-93 and 1993-94: Departement of English.

Level	# of Students	# of Repeaters	Repeaters Rate
1992-93			
Freshmen	224	75	33.5%
Sophomore	156	43	27.6%
Bachelor's	75	18	24.0%
Master's	38	30	21.1%
Total	493	144	29.2%
1993-94			
Freshmen	211	50	23.7%
Sophomore	184	35	19.0%
Bachelor's	123	19	15.4%
Master's	84	9	10.7%
Total	602	113	18.8%

The English Department has 19 permanent and two part-time faculty members. They have had graduate training in different countries, but the majority studied in France,

some in Britain and in the United States of America. The Modern Languages Department (Département de Langues Vivantes), of which the English section is the main component, has a language laboratory with 30 booths, two TV sets, two video cassette recorders. It has recently acquired a parabolic satellite antenna which enables students to listen to English news from across the globe. The main problems with the language laboratory, however, are (a) the increased number of students in department who have to use it, (b) the lack of trained personnel, and (c) the lack of pedagogic materials, for example, audio and video tapes.

Students in the Department of English are required to take eight and twelve obligatory courses, in the first and second year, respectively. The courses (all taught in English) include linguistics (English and applied), Anglophone literature, American and British literature, civilization as well as translation into English and French. The first two years comprise the first cycle and the third and fourth the second cycle. The third year is the level where the students start their specialization leading to a two-part degree program: nine courses for the obligatory certificate and three to four courses in the optional certificate of specialization. The areas of specialization are: English linguistics, applied linguistics, anglophone African literature, British literature and civilization, American literature and civilization. The degree (Licence) is made up of two certificates: a core certificate, CL (Certificat de Licence) and a certificate of specialization (C1). To be awarded the degree (Licence) students must pass the exams in both sections of the program. The areas of specialization in the third year (C1) prepare the students for the follow-up higher level courses in the fourth year (Maîtrise). The degree of Maîtrise is also

made up of two certificates: a core certificate, CM (Thesis) and a certificate of specialization, C2. At this stage, there are three obligatory courses in each area of specialization and a methodology course for all fourth year students in the C2. To obtain the Maîtrise (Master's), a student must first pass the exams for the C2 and then defend a written thesis. The thesis is written and defended in English.

In the department, the students are tested in all the courses at the end of each semester and a GPA of 10 or more out of 20 is required to pass. All the courses are taught in English and all the exams are written except for the defense of the thesis.

The teacher training institute (INSE) has only three permanent teachers or faculty members for the English section and so relies on the Department of English to meet its teaching load. The transfer of this Institute to 100 kilometers from Ouagadougou will add to the problems of finding teachers it already has, because teachers have to agree to commute to teach, and this adds to the cost of running this Institute and can affect the quality of training. The training lasts two years, and generally the training begins with the practicum the first year and then the course work the second year. The normal situation should have been the reverse of this, but I believe it is due to inadequate funding and some organizational problems: finding schools that are prepared to accept the teacher-trainees.

Conclusion

In Burkina Faso, the education system has three levels: primary, secondary and tertiary or higher education. Primary education is six years, secondary education is seven years with two levels, and higher education has three levels with between two and seven

years. The educational system as described above is very selective, for example, the overall success rates are generally below 50% from the primary to secondary education: about 46% in primary education, about 35-36% for secondary education and about 55% at the university. The selection comes from the secondary school entrance exam results or that of high school entrance exam which are very low, for example, between 10-11% for the secondary school entrance exam. It should also be borne in mind that the country has not yet achieved universal primary education which is its goal.

Foreign language education, especially English, can be improved with more teachers, teaching materials and teacher education. Secondary school and university students are mainly exposed to English in the classroom, but those from the urban areas, especially Ouagadougou and Bobo Dioulasso, may be exposed to English through other sources such as radio, TV and library books. Radios and TV sets, however, are expensive, hence they are not readily available to students whose parents cannot afford them, let alone the students themselves.

In the Department of English, the repeater rate is below 20% on the average. The question of the language of education was raised as well as the training of teachers especially for primary education. At the secondary level, it appears that the English schedule is inadequate and also the lack of inspectors does not favor in-service training, and this adversely affects the acquisition of English. The large number of students in classrooms does not favor the practice of the English language through varying activities, and the lack of teaching materials like televisions and audio-cassette players adds to the problems. The students' exposure to English is limited to the classroom, and the

educational environment does not favor foreign language acquisition including that of English. The English exams that the students take in secondary school do not seem to prepare them for a specialization in the language but rather gives them sufficient grammar and vocabulary to read it. As a result of the type of exam they are prepared for, it makes sense to conclude that high school graduates are better prepared in spoken and written English.

Teacher training is a big problem in the educational system. The Institute has not yet hired its permanent teachers or faculty. There is also no collaboration between the Teacher Training Institute and the University in terms of research whereby practice serves to improve theory and vice-versa.

Although the repeater rate in general is low in primary education, it is nonetheless very high when considered by grade level, up to about 34% in grade six. These recent data in this study and the conclusion drawn on the relationship drawn between native language and repeater rate in primary education corroborate the conclusions arrived at in Bokamba (1984). In that study, he discusses why pupils in Francophone countries, especially those not using the native language, have a higher repeater rate when they are compared to their cohorts in some Anglophone African countries where the mother tongue is used in primary education. The conclusion drawn from Bokamba (1984) and Bamgbose (1991) is that the use of French only is a handicap to the students. As was discussed in Kambou (1995a), the question is, how can francophone children learn French as a first language at the age of seven, having acquired a previous language? The education authorities emphasized in a 1992 Ministerial report the damage that French

considered as L1 does to students in Burkina Faso. According to them, it creates all sorts of conflict in the student: psychological, socilogical, and cultural; and they recommend that French should be taught as a second and not as a first language of the students as is currently the case. The data presented in Tables 6-9, give support to the importance of the native language in education in Francophone Africa as suggested in Bokamba (1984) and Bamgbose (1991).

CHAPTER 3

REVIEW OF THE LITERATURE

Introduction

The study of the acquisition of the article system in English by Burkinabè university students can best be understood in the context of the learning of these function words and second language acquisition generally by other learners. Accordingly, this chapter reviews the literature on the article systems of English, French and some west African languages (Mooré, Jula and Fulfuldé). It then considers the literature on first language acquisition of articles and examines that on second language acquisition and also provides a brief review of transfer theory. Since most acquisition studies have pedagogical implications and this study is not an exception, pedagogical studies of article systems have been included in this review. Contrastive analysis studies are also considered in this review because they help in the study of transfer in acquisition studies.

After this brief introduction, different studies in this area of research is reviewed, and then the present study is situated in the literature showing its contribution with regard to what has been done.

Descriptive Studies of the Article System

Descriptive studies devoted solely to article systems of languages are rare, but in most general descriptive studies, there is a chapter or section for the article system of the language concerned. With regard to English, the most studied language, few publications have appeared that deal with only the article system. There are, however, a few general

publications that have given good descriptions of the English article system and that are worth reviewing here.

Apart from Christophersen's (1939) book on the article system of English, most of the work in the descriptive and acquisition literature concerning article systems was undertaken in the 1970s and 1980s. Radford (1990) is one of the latest descriptive studies concerning the English article system of young children. The latest descriptive study of the articles in English is Epstein (1994), which is based on a cognitive grammar approach. In French, Guillaume's (1919, re-edited in 1975) book on the problem of the French article and its solution is the landmark of studies of the article system in general. With the exception of Garton (1982), which deals with the determiner system, all the research reported in this review deal with the article system.

The English article system. Christophersen's (1939) book considers many aspects of the article system. It examines the system in practice and in theory, including the author's familiarity and unity theory. His concern is with the use and meaning of the articles 'a' and 'the'. For him, articles are chiefly used as modifiers of nouns, and occur in three forms: 'a', 'the', 'zero--Ø'. He argues that 'the' originates from a demonstrative and 'a' from a numeral. He goes on to assert that familiarity-unity theory explains the use of the English articles better than previous theories. The article 'the' marks familiarity, 'a' marks unity and is neutral with regard to familiarity and 'zero' marks continuous meaning.

Perlmutter (1970) presents the problems faced by the framework of generative grammar in the analysis of the English articles 'the' and 'a'. He argues that the definite

and indefinite articles have different origins in deep structure: the indefinite article in deep structure is represented by the numeral 'one' whereas the definite article is not represented by this numeral. He supports his argument by using a phonological rule (stress) as the test for the different occurrences of numerals and the indefinite article 'a' in surface structures. From the following examples,

(1) There is only one boy in the room, not five.

(2) * There is only one boy in the room, not any girls.

(3) There is only a boy in the room, not any girls.

he concludes that in surface structures, the numeral 'one' does not occur unstressed before a stressed noun (example 2), while the indefinite article 'a' does occur unstressed before a stressed noun (example 3). Hence, for him, the relevant opposition is not between the definite and indefinite articles, but rather between the presence and absence of the definite article. The origin of the indefinite article was first suggested by Christophersen (1939) in his study of English.

In Stockwell, Schachter, and Partee (1973), the authors discuss the determiners within the framework of transformational generative grammar and after reviewing the sources of the definite and indefinite articles, go on to propose an analysis of determiners using phrase structure rules and feature specifications and only secondary transformations. The article system in their study is considered under the sections on indefinite, definite and generic determiners. It is in this last case where the three forms 'a', 'the', 'zero' (generic articles) are considered and introduced using the feature [+ GENERIC], in the phrase structure (PS) rule where D----> ART----> [+DEF] or [+DEM] or [+GENERIC].

Burton-Roberts' (1976) study of the article focuses on the notion of the 'generic sentence'. The author maintains that noun phrases (NPs) determined by the generic indefinite article represent abstract concepts, whereas indefinite NPs appearing in copulative predicates do not represent abstract concepts. He goes on to formulate a derivation for generic indefinite NP's that reflect this difference to support his argument. Burton-Roberts makes a heuristic distinction among four kinds of indefinite articles:

(i) GEN 'a' which determines whale in

   (4) A whale is a mammal.

(ii) the specific indefinite article, [+SPEC] 'a', which determines subjects of non-generic sentences, as in

   (5) A whale struck the ship

and also determines objects in non-generic, non-copulative sentences, as in

   (6) The whale struck a ship.

(iii) the attributive indefinite article, COP 'a', which determines complement NPs in predicates (i.e., a VP in which the verb is a copula), as in

   (7) John is a scientist.

(iv) the non-specific indefinite article, [-SPEC] 'a', as in

   (8) I'm going to buy a loaf of bread.

The author concludes that COP 'a' and GEN 'a' are identical, that is, they are not inherently different in deep structure. The difference between them being that predicates containing the nouns which these indefinites determine have subjects in the case of COP

'a' and no subject in the case of GEN 'a'; hence, instead of four types of indefinite, there are three types of indefinite to interpret.

Epstein (1994) describes the article usage on the basis of cognitive grammar. His study reviews previous research on the English article system, arguing that some problems still exist with regard to these previous studies. He therefore suggests that a cognitive grammar approach can explain some of the usages that other approaches cannot explain. Cognitive grammar considers language learning as a cognitive task and part of the overall psychological organization just as the other cognitive faculties and not as an autonomous cognitive entity. This analysis draws on Langacker's (1987, 1991) approach which is based on conceptual classification and particularly on imagery (construal). Epstein argues that there are problems with the other theories of the article system when analyzing what he calls the "indéfinis tardifs" (Late indefinites), and "les définis non-uniques" (Non-unique definites). An example of the first type is given in (9), where a noun has been used for the first time and in the following usage one expects the use of the definite article, but the speaker uses an indefinite article instead. For example,

(9) His election would change this, Clinton said, and from Long Island to Los Angeles, suburb after suburb tore up its GOP record and backed <u>a Democratic presidential candidate</u> who spoke like no other they had ever heard. [LAT 1/24/93 p. M3][1].

This usage of the indefinite article in the above example cannot be explained by the other theories on the article, but he claims that the conceptual approach he is advocating can explain this usage. He argues that such a usage implies that the NP is an example of the class of which it is a member, however, he has no empirical evidence to support this claim.

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[1] This example is example #29 in Epstein, 1994:149.

His explanation is based on <u>classification</u>[2], which in Cognitive Grammar refers to conceptual structuring[3] or construal (Langacker, 1987b), where the use of the indefinite article emphasizes the general aspect of the election results: the surprise that suburban Republicans voted for a Democratic candidate (they would have voted for any other Democratic candidate). In the example of the use of the definite article in (10), a proper noun is introduced for the first time in the discourse as shown; he maintains that the notion of uniqueness cannot be used to explain this usage.

(10) "It's always messy", said Bob Squier, the Democratic media consultant. "Democracy's messy. But I'd rather have our mess than Bush's mess right now." [NYT 3/1/92 sec. 4 p.1][4].

He therefore hypothesized that the speaker uses the referent as if it is unique, but in reality it is not (there are many Democratic media consultants). He concludes that this is an "intuition of importance" on the part of the speaker or what is termed <u>prominence</u> in the conceptual structuring notion of Cognitive Grammar.

Epstein concludes that this framework goes a step further to explain the subjective use of the article, because <u>prominence</u> of a referent enables the speaker to use the definite article if he/she so wishes to speak of a referent as if it were unique. This framework also accounts for the speaker's use of the indefinite article instead of the anaphor by presenting a referent already mentioned in the discourse as if this were the first mention of the referent in order to <u>reclassify</u> it.

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[2] This refers to the possibility of being able to consider an item at any time in discourse as if it is being used for the first time or in first mention context in order to reclassify it.

[3] *Structuration conceptuelle* is the conceptual choice that the hearer has to make from the options that the speaker makes available given the context of speaking.

[4] This example is example #35 in Epstein, 1994:153.

The French article system. With regard to French, descriptive studies devoted to the article or determiner system were published by Guillaume (1919), Yvon (1955 & 1956), Mitterand, (1963), Jeanes (1970), Ducrot (1970), Gross (1976), Kupferman (1979), Joly (1980), Kleiber (1983), Wilmet (1983 & 1986), and De Mulder (1994).

Yvon (1955a, 1955b) examines the history and etymology of the article in French grammar. The study shows that the division of the article into three parts: definite, indefinite, and partitive was accepted by most grammarians; although, some favored the division of the article system into two parts, excluding the partitive. But in 1910, a published official grammatical nomenclature adopted the division of the article system into three parts. According to Yvon, it is only Galichet (1953) who rejected the idea of three articles, because for him the distinction definite and indefinite articles is secondary and is also not a grammatical one.

Jeanes (1970) investigates the problems in the French article system focusing on LE 'the' and UN 'a', which he calls nominal predeterminers. The author reviews distributional analyses done by some other researchers and concludes that the distributional approach has difficulty in assigning a functional role to the article UN within a coherent system of oppositions. He examines the use of LE and UN with regard to the expansion (notional or situational) which may follow the noun with which the articles are combined. Examples of articles and notional expansion are:

(11) La voiture de sport 'The sports car' (This could mean a particular sports car or sports car in general).

(12) <u>Une voiture de sport</u> 'A sports car' (This could mean also a general or a particular reference).

Examples of a combination of article and noun with situational expansion are given in (13) and (14):

(13) <u>La voiture</u> du/d'un voisin 'The car of a neighbor/a neighbor's car' (This designates a particular car).

(14) ?<u>Une voiture</u> du/d'un voisin 'A car of a neighbor/ a neighbor's car (This is rare).

He questions what is meant by "definiteness", since it is the basis of the opposition between the two articles, and shows that the term "indefinite article" is a misnomer. He thus suggests that the <u>definite article</u>, LE, be called the <u>denominative article</u>, because it actually contains no element of situational reference, but rather confines itself to the function of naming what is under discussion. The <u>indefinite article</u>, UN, he also calls the <u>descriptive article</u>, because it introduces a definition, describing something which the speaker chooses to assume unknown to the listener. He, therefore, concludes that the main purpose of the demonstrative article LE and the descriptive article UN are to indicate whether a nominal is to be taken synthetically as an unmotivated name or analytically as a motivated definition.

Ducrot (1970) shows that some indefinite expressions (<u>un, des, quelques, certains</u>) cannot be accounted for in enunciation theory. This theory is a conceptual framework in which the speaker is the center of all linguistic activity and s/he carries out a process (a) on a group of classes where s/he constructs a domain from a concept, for example, "man", and then (b) makes calculations on predicated terms (verbs, nouns, complete

predications). The most determined term serves as a point of reference to the less determined term, for example, in the sentence I found a book in the dustbin, the term the dustbin which is most determined, serves as a point of reference for the less determined term a book. Calculations from a class are done by mental processes on a class, for example, the processes of taking or extracting (prélèvement), of going through a set (parcours) or vectoring (fléchage). He goes on to show this by presenting four arguments which consider only the informative values of utterances in the existential descriptions of indefinites. He concludes with two suggestions: the first is that enunciation theory (defined above) alone is limited to simple utterances, but when supplemented by a coordination theory can handle both simple and complex utterances. Coordination theory assumes that there is coordination between two enunciations A and B: if (1) A is the result of an autonomous utterance (speech act) that the speaker assumes all responsibility for, then (2) B takes A as its theme and is presented as a talk (propos) concerning A. For example, in the sentences:

(15) Si on est riche on a des amis.

(16) Pierre est riche ; il a donc des amis.

In example (15), there is no coordination, because the condition (a) is not met: on est riche (A) is not the result of an autonomous utterance (speech act). In sentence (16), however, both conditions are met because il a donc des amis (B) is the result of Pierre est riche (A).

The other suggestion in his conclusion is to distinguish between phenomena related to enunciation and the participation of the speaker in creating meaning.

Gross (1976) presents a descriptive study of the structure of the nominal group (groupe nominal). He maintains that traditional grammars and studies gave lists of determiners and predeterminers which are unconnected but presumably based on parts of speech. Also these classifications are not systematic, because they do not lead to a comprehensive account of the distribution of the syntactic properties of the classes identified. As such, the author classifies determiners and predeterminers on the basis of transformational and distributional criteria, and came up with four unconnected classes (Dadv; Dnom; Dadj; Pred) whose overall behavior, he claims, are relatively regular. In the example sentences below, the determiners 'beaucoup' and 'certains' belong to the adverb and adjective classes, respectively, considering how they combine with nouns, for example:

(17) Luc a <u>beaucoup</u> travaillé.

(18) Luc a vu <u>certaines</u> erreurs.

Most of the examples in the analysis are used with the quantifiers 'beaucoup' and 'certains'. The classification into the four classes was based on three syntactic properties:

(a) Dét can combine directly with N (a common noun without a determiner) and this property is noted as Dét N, where Dét is 'chaque' and 'certains'; but no examples are given. We assume, however, that 'Certains hommes', 'Chaque homme', '*Beaucoup hommes' are appropriate examples.

(b) <u>Dét</u> can combine with $\underline{N_i}$ (Nominal group with a determiner) using the preposition 'de' and this property is noted as <u>Y de N_i</u> where 'Dét' is 'bon nombre', 'beaucoup', 'certains',

but no examples are given. Here again, we assume appropriate examples are: 'Bon nombre d'enfants', 'Beaucoup d'enfants', 'Certains de mes enfants'.

appropriate (c) 'Dét' can function as an adverb. This property allows sentences of the form N_o V Dét; 'beaucoup' has it but not 'certains' as shown in the example

(19) Luc dort beaucoup/*certain.

These properties are used to define the four classes. The class Dadv (e.g., beaucoup) is made up of elements 'Dét' which have the following properties 'Dét de' and 'N_o V Dét' but not 'Dét N'. The class Dnom (e.g., bon nombre) includes 'Dét' having the property 'Dét de N_i' but not 'Dét N' and 'N_o V Dét'. The Dadj (e.g., chaque, certains) class is characterized by the presence of the property 'Dét N' and the absence of 'N_o Dét'; and the class Pred (e.g., à peu près, environ) is made up of predeterminers, that is, elements that do not have the properties 'Dét N, Dét de N_i'. Gross' study is similar to Mitterand (1963), because the classification in both studies is based on combination and commutation techniques.

In 1979, Kupferman published a study that addressed the question of the partitive article in French. The author reviews studies by researchers such as Frei (1960), Damourette and Pinchon (1952), Guillaume (1971), Clédat (1901), Gross (1967), Wagner and Pinchon (1962) regarding their classification of the article system in French where the partitif and the indefinite article are opposed to the definite article. De is sometimes considered a variant of un 'a/an' in some grammatical contexts and sometimes as composed of the preposition de and the definite article. Kupferman goes on to give examples to support his argument that de and le function separately by substitution

method to determine when <u>de</u> + definite article is a constituent and when it is not. For example, in the sentences 20 and 21 below (Adapted from Kupferman, 1979), the author shows that <u>cette, sa, une</u> have the same distribution as <u>la</u> which is habitually considered as part of the partitif. He also argues that although <u>ça, tout, quelque chose</u> are used with <u>de</u>, no one has ever proposed that these are unanalyzable/indivisible; and suggests that if <u>ça, tout, quelque chose</u> function as a noun phrase (NP) in these examples, dominating respectively <u>la, cette, quelque</u> plus a noun, then <u>de</u> must be considered a preposition and is separate from <u>ça, tout, quelque chose</u> in these sentences.

(20)
    a. J'ai bu de <u>la</u> très bonne bière.   'I drank some very good beer.'
    b. J'ai bu de <u>sa</u> très bonne bière.   'I drank some of his/specific her very good beer'
    c. J'ai bu de <u>cette</u> très bonne bière.   'I drank some of this very good beer.'
    d. J'ai bu d'<u>une</u> très bonne bière.   'I drank some of a very good beer.'
    e. J'ai bu de ça.   'I drank some of it.'
    f. J'ai bu de tout.   'I drank all of it.'
    g. J'ai bu de quelque chose.   'I drank some of something.'

(21)
    a. J'ai mangé de <u>la</u> viande.   'I ate some meat.'
    b. J'ai mangé de <u>sa</u> viande.   'I ate some of his/her meat.'
    c. J'ai mangé d'<u>une</u> viande
      (que Marie avait achetée).   'I ate some of a meat.'
    d. J'ai mangé de ça.   'I ate some of it.'
    e. J'ai mangé de tout.   'I ate all of it.'
    f. J'ai mangé de quelque chose.   'I ate some of something.'

He goes on to use pronominalization as a test for determining the constituent status of <u>de</u> + definite article is a constituent and when it is not. When <u>de</u> is a preposition, the use of the pronoun 'en' is possible. For example,

(22) 'Il abuse <u>de la</u> bière/ Il <u>en</u> abuse.'

He also shows that <u>de ça</u> can occur in the subject position in a sentence, but <u>d'un</u>(e) and <u>de quelque chose</u> cannot, as in the examples (23) and (24):

(23) De la/de cette/*d'une corde trainait par terre.

(24) De ça/ *de quelquechose trainait par terre.

He explains the differences between <u>de</u> preposition and <u>de</u> partitif by examining its distribution with other prepositions; if <u>de</u> is a preposition, then a prepositional phrase cannot be formed, but if it is a partitive, a prepositional phrase can be formed. From the examples (25)-(30), Kupferman shows that the partitive article 'de' can combine with the preposition 'avec'(with) to form a prepositional phrase, examples (25) to (28); whereas the preposition 'de' cannot, examples (29) and (30), because it already forms a prepositional phrase:

(25) avec de la /de cette/de ma/ corde,....

(26) avec de ça,....

(28) avec de tout,....

(29)*avec d'une corde,......

(30)* avec de quelque chose,......

Kupferman concludes that it is not an easy task to determine when <u>de</u> is a partitif and when it is a preposition, but the syntactic tests used are promising.

Whereas Kupferman (1979) was a synchronic study of the partitive article, in Joly (1980), however, the focus is on the article usage in the classical era. For Joly, the study of the article is interesting for two reasons: (1) from a history of grammar point of view and (2) from a general epistemology point of view. The study examines the different

definitions of the article in the classical era, XVII-XVIII centuries, by grammarians, compares them and shows that to evaluate and give the state of the art of the article system during the classical era is not an easy task to undertake. He concludes, however, that the study of the article system of the classical era gives some insight into the problem and helps elaborate a coherent theory. All the same, the main point in the conclusion is that the article is still a problem today to be solved by grammarians and as researchers such as Condillac's remarks to his illustrious student in 1775 shows: "The article, Monseigneur, has greatly embarrassed grammarians, and it is the thing they have treated in the most obscure way" (My translation of Joly)[5].

Unlike the previous studies above, Wilmet (1983) examines a number of French grammars (e.g., Grévisse (1980); Goosse (1980)) and shows their weaknesses in their description of the noun phrase (NP). He goes on to define the NP in terms of <u>extensity</u> and <u>extension</u>, because for him determiners (déterminants) express the extensivity or the extension of the head NP. Hence, in the analysis, quantifiers (quantifiants) are indicators of extensity and characterizing (caractérisants) indicators of extension. In this regard, the articles are a part of the indicators of extensity (quantifiants). Formally, the author posits four types of articles:

(31) a. UN   b. LE   c. DE   d. Zero.

'Un/une' can be used in discourse to express a generic or a "individualized" (monérique) meaning as exemplified in his examples, e.g.,

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[5] "L'article, Monseigneur, a fort embarassé les grammariens, et c'est la chose qu'ils ont traitée le plus obscurément." (Joly, 1980:27).

(32) <u>Un</u> enfant est l'ouvrage de sa mère 'A child is the work of his mother' (generic, where 'un enfant' means 'tout enfant'--all children);

(33) <u>Un</u> homme descendit de la torpédo 'A man swam down from the torpedo' (monérique, where 'un homme' means 'un individu'--one individual).

'Le/la' allow the same interpretation as 'un/une' above. For example,

(34) Les moralistes savent que <u>l</u>'homme est un animal peu raisonnable. 'The moralists know that man is not a very reasonable animal.' (generic extensity).

(35) Rouletabille reconnut <u>l</u>'homme à la torpédo. 'Rouletabille recognized the man with the torpedo.' (individualized extensity).

The partitif article is convenient for all the levels of extensity. 'De' means any quantity until the total exhaustion of the extension, for example,

(36) <u>De</u> bons amis sont irremplaçables. 'Good friends cannot be replaced.'

When combined with the definite article, 'du, de la, des' mean a non-null extensity, for example,

(37) Jean boirai <u>de</u> l'eau.   'John will drink water.'

(38) <u>Du</u> vin blanc désaltère mieux que la bière.   White wine quenches thirst better than beer.'

The zero article does not allow a determined noun to have any perspective of an increased or decreased extensity, for example,

(39) <u>Pierre</u> qui roule n'amasse pas mousse (generic extensity in a gnomic context).

   'A rolling stone gathers no moss.'

Wilmet (1983) argues in his conclusion that his redescription of the NP brings two perspectives into play:

(i) The priority of what is at stake in language is its 'referential function'.

(ii) Pedagogically, learning the NP will be easier when presented in successive hierarchies: starting with the overall structure and then followed by the subtle manners according to the age and experience of the learners.

From another research perspective on articles, Kleiber (1983) studies the definite article from a semantic point of view in which he argues in favor of a presuppositional existential hypothesis in the analysis of the definite article in French. The study examines the semantic and pragmatic aspects of the localization theory and shows that they are not adequate in analyzing the French definite article. The localization theory elaborated by Hawkins (1976, 1977a, 1977b, and 1978) gives a referential sense to the definite article by considering it as the element that introduces a referent to the hearer. What Hawkins improved on is the process of identifying the speakers referent. Hence for him global identification and localization of the referent are key to the use of the definite article, le. Kleiber shows with examples of the use of the anaphora that it is not always the case that the speaker uses the definite article after using an indefinite article to introduce a noun. For example,

(40) J'ai vu ce matin une hirondelle. Cette/?L' hirondelle...   'I saw a swallow this morning. This/?The swallow...'

(41) Pierre a vu une hirondelle et un moineau. L'hirondelle/*cette hirondelle ... 'Peter saw a swallow and a sparrow. The swallow/*This swallow...'

Sentences 40 and 41 for him are counter examples of Hawkins' pragmatic hypothesis in the localization theory, because the demonstrative is more acceptable than the definite article in a simple sentence. In coordinated sentences, however, the use of the definite article is acceptable, but not that of the demonstrative. He also gave examples for NPs in referential and attributive positions to make his point. For instance, the definite article will be used to designate the steering wheel of a vehicle when both speaker and hearer are in the vehicle for example,

(42) Voici le volant.　　'Here is the steering wheel.'

But when in a garage, the indefinite article will be used, for example,

(43) Voici un volant.　　'Here is a steering wheel.'

In the garage situation, if the speaker wants to say of the steering wheel that it is bent, it is the use of the definite article alone that is acceptable:

(44) Le/*un volant est tordu.　　'The steering wheel is twisted.'

For the author, localization theory cannot explain example (44), because it is based on shared set of assumptions and localization. But his non-referential semantic definition can explain this example by distinguishing between an NP in a referential and an attributive (non-referential) position. In a referential position, the author argues, an NP can be used with the definite article the first time the NP is mentioned, because the hearer can accept the uniqueness of the NP; however, in an attributive position, the use of the definite article with an NP mentioned for the first time is not acceptable, because the uniqueness of the NP is not justified except if the hearer has in his/her universe of discourse the knowledge necessary to help clarify its use. The study concludes therefore that (p. 103-104):

(a) The referential semantic hypothesis as proposed by Hawkins should be abandoned because the meaning of the definite article in French is not referential.

(b) The localization theory is not a satisfactory pragmatic theory because it is unable to explain all the referential uses of the definite article.

(c) There are two advantages in the total existential presuppositional hypothesis: it takes into consideration all the uses of the definite article (generic/non generic, referential/non-referential) and also explains the pragmatic distribution of the definite article, especially constraints in usage in referential and non referential positions.

In a subsequent and more comprehensive study, Wilmet (1986) reviews the traditional grammatical analysis of determiners and goes on to examine theories and definitions of determiners. In the description of the noun phrase, he considers the 'articles' as 'bipolar quantifiers' whose function is to assign an upper and a lower limit in the extension of a noun. He posits four forms of the bipolar quantifier[6]:

(a) Type UN, 'A'(includes the articles un/une);

(b) Type LE, 'THE' (includes the articles le, la, les);

(c) Type DE, 'SOME' (includes the articles de, du, de la, des, etc);

(d) Type ZERO, 'ABSENCE OF ARTICLE' (includes the zero article).

For him, types UN and LE are mutually incompatible from a distributional point of view. Semantically, the article 'un/une' first expresses numerative and then partitive. The article 'le/la' expresses extensive extensitivity and then when used to present world objects, the article expresses numerative or massive. The article de expresses partitive like the article un(e) and it also expresses numerative or massive as does the article le (la). The zero article does not express extensivity when used with a noun, but rather expresses intension.

A recent study by De Mulder (1994), examines how the definite article fits into the new definition of "evidential" by Klein (1980). For example, in the sentence

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[6] The examples in his 1983 paper are the same as in this study.

(45) <u>L'homme au</u> <u>martini a l'air fatigué</u>.   'The man with a martini in his hand looks

tired.'

uttered at a party, the definite description is used to refer to someone who is in the room,

and according to the speaker, holding a glass of martini. In this sentence, the referent

<u>l'homme au martini</u> is established, because in the room there is only one person holding a

glass of martini. The choice of the definite description on the part of the speaker implies a

particular point of view of the situation and one which assumes a series of inferences that

allows for the classification of the referent as this or that. The hearer's point of view

should be taken into consideration and as such, the act of reference in the sentence above

cannot be considered accomplished or successful unless the hearer is able to identify the

referent as intended by the speaker. The hearer does this by also going through a series of

inferences. De Mulder (1994) argues that the use of a definite description requires some

conceptualization by the speaker who also makes a series of inferences which can affect

the reliability of the information he provides to the hearer who in turn makes a cognitive

effort to understand the speaker. The efforts made by both the speaker and hearer are

summed up in Levinson's (1987b) informative principle. De Muller's study thus examines

the position of different authors regarding the roles of the speaker and the hearer (e.g.,

Donnellan, 1966), the generalized implicature in the use of the definite article plus noun

(e.g., Schegloff, 1977), what is inferred in the use of LE + N (e.g., Kleiber, 1987), <u>le</u> as a

marker of evidential, that is, a referent that is evident to both speaker and hearer (e.g.,

Anderson, 1986; Dendale, 1991). Mulder (1994) concludes that the definite article marks

the evidential in Dendale's (1991) sense, but that the evidential meaning is not the basic

meaning of the definite article in French. De Mulder goes on to argue that this study, in spite of its conclusion, does not constitute enough argument for excluding the definite article from an evidential linguistic theory.

The article system in Mooré, Jula, and Fulfuldé. We know of no descriptive studies devoted to the article system or determiner system of Mooré, Jula, and Fulfuldé which are the three principal languages of most of the subjects of the present study. Nikiema (1980) and Kambou (1992) state that in Mooré the article system has two forms: Ø for expressing the indefinite and w̱ã for the definite. For example,

(46) Báágá- Ø wesdàmé.
Dog-indefinite bark
'A dog barks'.

(47) Báágá-wã wesdàmé.
Dog-definite bark
The dog is barking'

It is only the zero (Ø) article that is used with nouns in generic and non- contexts whereas w̱ã is used with nouns in specific contexts. In the case of Jula, according to Creissels (1983), we can also assert that the article system has two forms: Ø for expressing the indefinite and ṉi for the definite. The zero article is used with nouns in the generic and non-specific contexts and ṉi is used with nouns in specific contexts. For example,

(48) Wulu- Ø bi kule.
'Dog-indefinite be bark.
'A dog barks'.

(49) Wulu-ni bi kulera.
Dog-definite be bark
'The dog is barking'.

With regard to Fulfuldé, Yéro (1982) describes two forms of the Fulfuldé article: Ø for expressing the indefinite and the definite is expressed by using 'the' for the full class index (suffix) of the noun in question. Nothing was said in this study regarding the function of the articles, but from the examples below we can suggest that the function of the articles in Fulfuldé are the same as those of the two African languages above: Ø for the generic and indefinite use and the class marker for the definite which is expressed by 'the' or 'le/la' in French.

(50) Kabaro-Ø   yOO daabaa- Ø.
     dog-indefinite   be   animal-indefinite
     'The dog is an animal'

(51) Mina jogi suuδu- Ø,   mina soodii suuδu-ndun.
     I   have house-indefinite, I   buy   house-definite
     'I have a house, I bought the house'

Acquisition Studies of Article systems

All the studies presented in this section are either observational or experimental in design, some are longitudinal, whereas others are cross-sectional. The analysis of the data was mostly based on the occurrence or not of the article in a specific context.

L1 Acquisition Studies

In the acquisition literature, a few studies have been published on first language acquisition of articles; the review to be undertaken will concern English and French. L1 studies help us understand L2 studies and especially to be able to determine developmental errors which are errors common to L1 and L2 learners. They also enable us to determine

if the stages of acquisition in L2 are similar to that of L1 and therefore to be able to generalize the results beyond L2.

English as L1. With regard to English, Brown (1973) is the pioneering work in morpheme acquisition, and it dealt with the acquisition of the English articles by English speaking children. The conclusion drawn from this observation is that by the age of three or four, children seem to use the articles where adults would.

In an experimental study in 1976, Warden conducted three experiments with English native speakers: children and adults, using picture description and naming tasks in the first two experiments and then story telling using pictures in the third experiment. The children's ages ranged between three years and nine years 11 months and the adults had an average age of 20 years. He compares the children's use of the definite and indefinite articles with that of adults and concludes that children under five years predominantly use the definite article, 'the', in first mention contexts. Children between five and nine years inconsistently introduce referents with indefinite expressions.

Unlike Warden (1976), Maratsos (1976) carried out a cross-sectional study in which data were collected by asking the children questions at the end of each story that was narrated to them. The subjects were native speakers of American English with ages ranging from 32 through 42 months. The data were analyzed by looking at the use of the definite and indefinite articles in their appropriate contexts. The results showed that as early as three years children possess a generalized knowledge of specific and non-specific reference. This study has many series of experimental tasks and the conclusion that can be

drawn from it is similar to Karmiloff-Smith's (1979) statement that children "as early as three years produce indefinite NPs to refer generically or to refer to any member of a class in contrast to producing definite NPs in minimally contrastive situations where a particular referent had been established for them" (p. 39).

Zehler and Brewer (1980) used an oral (for children) and written (for adults) completion task for data collection and compare the use of the definite and indefinite articles of 20 English native speaking children between two and three years to that of 20 adult native speakers of English. The authors concluded that there was a pattern of overuse of the definite article by the children. However, the more complete usage data suggest that the overuse is a selective one that occurs predominantly in the context-nonspecific category only and after a period of essentially correct usage. These findings argue against an explanation based on egocentrism and suggest that the incorrect usage of the more advanced children results from an overextension of a principle of shared knowledge found in adult article use.

Although Zehler and Brewer (1980) and Emslie and Stevenson (1981) both used adults and children, some differences exist, however. The latter conducted three experiments with adult parents with average age 29 years and children with ages ranging from two years two months to four years 10 months, using a story telling technique to collect the data. They compared children's and parents' use of the definite and indefinite articles in first mention and second mention contexts. The results showed that young children predominantly use the indefinite article in first mention contexts and the definite article in the second mention contexts.

Garton (1983), like Emslie and Stevenson (1981), used a production task under two different conditions to collect data in the acquisition of the English articles by native-speaking children. The data were analyzed looking at articles forms and functions in the two conditions, and the author concludes that we should not look at the determiner use as correct or incorrect, but rather look at the form and function of the determiners used and omitted in a study and also consider why they are elicited.

French as L1. Bresson (1974) presents some of the problems in the acquisition of articles in French. His study of the acquisition of the French article system focused on 'un, des, le, les' functioning as absolute-quantifiers and relative-quantifiers. Subjects in this study were children from four to six years; a descriptive and a naming (answering a wh-question) task were used to collect the data and the performance of subjects was compared to that of adults. The results showed that the absolute-quantifier functions were acquired by all subjects, whereas the relative-quantifier functions were not acquired by all subjects in spite of the forms of the articles being identical for the two functions. In the case of relative-quantifier functions, the definite forms 'le/les' were manipulated much better than the indefinite 'un/des'.

Karmiloff-Smith's (1979) cross-sectional study examined the use of the definite and indefinite articles in French by children between ages three and eleven. She used a production (story completion) and a comprehension task to collect the data. The conclusion of this study is that the children consistently used the definite article in referential definite ([+SR], [+HK]) contexts (e.g., previously mentioned) and the indefinite

article in referential indefinite ([+SR], [-HK]) contexts[7] (e.g., first mention). The overgeneralization of the use of the definite article decreases with the increase in age, and there is also an increase in the appropriate use of the indefinite article.

In 1986, Cziko published a study that addressed the question of the acquisition the articles in both French and English. He proposed a four-stage sequence in the acquisition of articles in both languages and used seven studies on L1 acquisition in English and French as independent evidence to support his proposal. The conclusion to this study is that overgeneralization of the definite article is due to the association of 'the' with the specific referent ([+SR]) environments and 'a' with the non-specific referent ([-SR]) environments. It also concludes that there is empirical support for the universality of specific-nonspecific distinction in early language acquisition and a four-stage hypothesis in the acquisition of English and French articles.

Radford (1990) compared child and adult nominals in English using child data from different sources (e.g., Bloom (1970); Hyams (1986); Bowerman (1973)) and concluded that early child nominals lack nonthematic constituents: children use simple noun phrases in contexts where adults require determiner phrases.

From most of the above studies, which were a verification of Warden's claim, there is evidence that children often use the definite article when mentioning a noun for the first time; some researchers questioned Warden's methodology, for example, Emslie & Stevenson questioned the experimental procedure and stimulus materials in Experiment III. For example, in this experiment, Warden attempted to eliminate the 'shared perception' and 'prior knowledge' variables by placing a barrier between the narrator and

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[7] SR means specific referent and HK means assumed known to the hearer.

the listener. These results prompted some researchers to conclude that children are "egocentric" in the Piagetian sense of the word, because they frequently use the definite article in first mention contexts. Hence, egocentricity shapes the child's use of definite and indefinite reference. However, Cziko (1986) proposes that overgeneralization of the definite article is due instead to the association of 'the' with specific referent ([+SR]) environments and 'a' with non-specific referent ([-SR]) environments. Most of the above studies looked at the correct and incorrect uses of the definite and indefinite articles by children compared with adult models. Garton (1982), however, did not compare his children's usage with an adult model and argues that the articles must be included in the study of a total system of determination. In the study, he argues for an approach which considers the form and function of the determiners used and omitted instead of looking at correct and incorrect usage.

L2 Acquisition Studies

There is little research reported on the acquisition studies in L2 and/or foreign language (FL) situations. We can cite some work of the acquisition of English and French. There are some contrastive studies as well as pedagogically oriented studies.

English as L2. Hakuta (1975; 1976) is a longitudinal study of a Japanese child learning English. The data included the child's acquisition of 'a' and 'the'. The emphasis of this study is on the empirical findings rather than on any particular theoretical orientation. Hakuta took into account both errors of omission and errors of commission

in his analysis. The results on the articles showed that his subject, Uguisu, performed better on the use of 'the' than on the use of 'a'; but it was much later in her acquisition that she had full control of the semantics of the articles. Hakuta argues that the late acquisition of full control of the semantic distinction seems to be the result of the non-marking of that distinction in Japanese.

Huebner (1983; 1985) present similar longitudinal studies with a single subject, with a focus on variation in interlanguage syntax, instead of on the acquisition of the definite article. The data on articles in these studies were analyzed using semantic types that rely on Bickerton's semantic wheel for noun phrase reference. The wheel has four contexts for noun phrase (NP) references and these contexts determine the function of the article that is used with the noun. In the 1983 study, Huebner first proposed the categories used in the present project: context one, [-SR], [+HK]--generic nouns; contexts two, [+SR], [+HK]-- referential definite nouns; context three, [+SR], [-HK]--referential indefinite nouns; context four, [-SR], [-HK]--nonreferential nouns. The 1985 data suggest that the indefinite article 'a' is associated with singular count referential noun phrases and not with nonreferential noun phrases.

Although Parrish (1987) is a longitudinal study with a single subject as well (a Japanese), he used a story telling technique to collect data. The analysis of the data was done using a combination of three methods: Huebner's semantic types, an adaptation of Huebner's system of analysis and an analysis based on suppliance of morphemes in obligatory contexts. This study showed that systematicity in the article system is governed

by the semantic function of noun phrases (NP), lexical categories of NPs and attempts to keep internal consistency.

Contrary to the three studies above, Master (1987) is a pseudolongitudinal (cross-sectional) study in which informal interviews were used as the data collection procedure. The analysis was done in two ways: (a) based on the usage in regard to the English target language in one instance, and (b) without regard to the target language in another instance. Subjects in this study have L1s that either have articles or not. The results showed that subjects whose L1s have article systems used articles differently from those whose L1s do not have article systems: the English article usage, especially at the beginners level, is clearly influenced by the L1 due to the high use of 'the' and 'Ø'.

A different cross-sectional study from those already mentioned is Yamada and Matsuura (1982). The methodological difference between this research and those above is that in this research, a cloze-type test was used to collect data. Subjects were seventy Japanese students learning English as a Foreign language. Group I consisted of 35 second year high school students and group II consisted of 35 freshman and sophomore English major students at Hiroshima University. The high school students, group I, were regarded as average intermediate level students, and group II students as advanced level students. A repeated measures research design was used in collecting the data, and the analysis was based on the context of usage, but what this study focused on was whether the learners' system was stable or unstable. The study concludes that 'the' was the easiest for both groups and 'Ø' was the most difficult for the intermediate level students whereas 'a/an' was the most difficult for the advanced level students. The authors argue that the general

difficulty faced by the subjects could largely be explained by the English 'specific/nonspecific' distinction which does not exist in Japanese.

Another cross-sectional study dealing with the acquisition of English articles by Japanese L1 subjects is Mizuno (1986). Unlike Yamada and Matsuura (1982), however, Mizuno (1986) collected data using four kinds of elicitation tests: 3 judgmental and 1 production. The data were analyzed using error analysis and looking at syntactic, semantic and pragmatic domains and use of articles. The overall results showed that semantic and pragmatic constraints were more influential than syntactic constraints in the interlanguage development of the subjects. The results suggest that in presenting the English article to learners whose L1 has no article system, attention should be given to the use of the zero article as well as to pragmatic and semantic domains in which articles are used.

Another multiple subject cross-sectional study published in 1989 by Thomas differs from the others by the data collection method. In this study, data were gathered using an oral picture description task, with the analysis using Huebner's (1983) semantic types. The thirty adult subjects in this research represent nine native languages (Greek, Spanish, Italian, Japanese, Chinese, Korean, Finnish, German, French.), some with article systems and others without article systems. A comparison of L1 and L2 data was done to see if there was similarity or not in L1 and L2 acquisition of articles. The results showed that all subjects use 'the' in referential indefinite contexts at significantly higher rates than in non-referential contexts. The study thus concludes that both L1 and L2 learners may share an initial hypothesis associating 'the' with referential nouns.

Tarone and Parrish (1995), unlike the other studies, is a reanalysis of Tarone's (1985) data. This study focused on the use of the articles in English as a Second Language (ESL). Subjects in this study were 20 ESL students (10 native speakers of Japanese and 10 native speakers of Arabic) at the University of Michigan. Three tasks were used to collect data in the study: (a) written "grammaticality" judgment containing five sentences with missing articles; (b) an interview with a native speaker; (c) an oral narration task. The hypothesis is that learners would supply articles and other grammatical forms most accurately on the grammatical test and least accurately on the narrative, the interview producing intermediate levels of accuracy. The data were analyzed using Huebner's (1983) semantic wheel of NP reference. The results showed that different tasks elicited different types of NPs to different degrees. For example, the greatest difference in learner accuracy in the articles used is with type two NPs ([+SR][+HK], that is, specific referent and assumed known to hearer) which did decrease across the three tasks used. Statistical significance was obtained between the grammar task and the two oral tasks but the difference between the two oral tasks was not statistically significant.

French as L2. Haden (1973) provides a comparative study that examines the acquisition of the French determiners by English-speaking students. The study is based on what he calls "the scale of definiteness". He defines "definiteness" as "the degree of identification of the referent of the noun in question and this is derived from the context". The value of the determiner ranges from minus three (Ø+ N) to plus three (deixis + N).

The author uses syntactic criteria (e.g., The type of NP that is the antecedent of a relative clause type) to show that a superficial comparison of determiner usage in French and English is not enough to conclude that a difference in form marks a difference of function. For example, in French, the generic noun can be the antecedent only of a non-restrictive (appositive) relative clause, but this is not the case in English as shown in the sentences below.

(53) On voit jamais les hommes lesquels/qui sont étrangement faits, dans la juste nature.
"Men, who are strangely made, are not found in the right state of nature."

The study concludes that "the comparison of use or non-use of the determiners in French and English emphasizes once again the fact that languages differ in their internal structures." (p. 41). Hence, the system of determiners in each language must be learned in its own terms but, "at the same time each value in one language can be rendered, at least fairly accurately, in the other language" (p. 41), as shown in the translation equivalent of French and English sentences.

<div align="center">Pedagogic Studies of Articles</div>

Teaching English Articles

Kaluza (1963) is a pedagogically oriented study of the teaching of the English articles to adult Polish speakers (a language without articles) learning to read English literature. The author emphasizes the problems encountered by these students in learning the use of the English articles because their language has no articles. Their difficulty is pointed out with the following examples:

(54) The defeat was not a defeat after all.

(55) The defeats were not defeats after all.

He suggests that nouns should be divided into proper and common nouns and students should be taught how articles combine to them to give specific meanings as in the examples above.

As a pedagogical study, Hok (1970) focuses on the native speakers' use or non-use of 'the' and 'a' as well as their choice between 'some' and 'any'. This study considered the use of determiners with regard to the concept of "general" and "specific" in the teaching of English as a second or foreign language.

Another pedagogically oriented study is Grannis (1972). It differs from the above two in specifically addressing the question of the difficulty encountered by teachers in teaching the use of the English definite article to students of English as a second language. The author suggested an alternative approach based upon the notion of a "conspiracy of uniqueness", because the use of the definite article in English cannot be or at least has not been adequately described in modern theoretical terms.

Having similar concerns like the other researchers, Whitman (1974) presents an analysis of the article and then suggests an organization, in his view, for the presentation of the article in an EFL course. He argues that for a long time linguists and language teachers had a misconception concerning the nature of the article. For him, "a formulation of the English article structure is based on the assumption that it is a sequence of quantification and determination rather than a choice between specified and unspecified". Four types of articles were discussed in this paper: (a) neither quantifier nor determiner,

(b) quantifier only, (c) determiner only, (d) both quantifier and determiner. He suggests six steps in organizing materials for teaching the English article to foreigners: (i) quantity, (ii) generic plural, (iii) non-count nouns, (iv) determiners, (v) quantity and determiner, (vi) generic articles.

In 1977, McEldowney published a pedagogically oriented study that also focused on the teaching of the English article system. She argues that a teaching grammar is necessary for the teacher, especially with regard to the English article system where most of the ESL/EFL students make many mistakes. McEldowney therefore presents 'article usage' with regard to the presence or absence of the article and the meanings attached to the usage.

Teaching French Articles

As a pedagogical study, Mitterand (1963) is a critical review of French pedagogical grammar for native speakers and its effects on teachers of French as a second language. Most of them, according to the author, separate the articles (le; un; du/de) from the determinative adjectives (ce; mon; quel; chaque, aucun, nul, autre, etc; un, deux, etc.). The main point in the study deals with the question of how to develop a grammatical progression suitable for teaching grammar to native speakers. The pedagogical problems in the grammar books is illustrated by using the predeterminers of nouns as an example. The author suggests the techniques of substitution and combination to identify predeterminers, and once this is done, they should be classified using semantic and syntagmatic criteria. In the syntagmatic classification, the author considers the

possibilities of predeterminers to combine with nouns or adjectives plus substantive, and comes up with two types of predeterminers that he calls: extensive (le, ce, mon) and intensive (un, du, quelque, quel, nul, aucun, plusieurs, chaque, tout). Once the syntagmatic analysis is done, then the semantic classification can be obtained. His extensive and intensive predeterminers are what traditional grammar called <u>definite</u> and <u>indefinite</u>, respectively. The analysis proposed in the study resulted in three categories of extensive predeterminers: (a) well-known: le, la, les; (b) presentative: ce/cet, cette, ces; (c) personal: mon, ma, mes and five categories of intensive predeterminers (a) unity/plurality: un, une, quelque, des/de, plusieurs; (b) matter: du, de la, des/de; (c) negatives: nul, nulle; aucun, aucune; (d) interrogatives: quel, quelle, quelles, quels; (e) distributive: chaque, tout, toute. He concludes that his classification is the result of the combination and commutation of the predeterminers in the noun phrase (NP). Also the use of the term <u>definite</u> is more coherent in this analysis than in traditional grammar where it is used only with the article and <u>indefinite</u> is used with certain demonstrative adjectives and articles unlike in his classification.

In contrast to Mitterand (1963), Herschensohn (1988) assesses the linguistic accuracy and presentation of eleven representative texts according to six linguistically based criteria. The determiner system is the aspect of textbook grammar that the author analyzed. For her, the indefinite article asserts the existence of a noun phrase (NP), whereas the definite article presupposes the existence of the NP in the discourse. The study concludes that "linguistic insight can support pedagogical grammar through the

contribution of descriptive accuracy and significant generalization about the target language" (p. 412).

Contrastive and Error Analyses

Kharma (1981) offers a cross-sectional analysis of Arabic native speakers learning English as a second language. The data were collected by using a cloze test and a contrastive analysis and by examining a number of student essays. The data analysis was basically an error analysis approach, looking at the contexts in which the articles are used against where they are supposed to be used. Conclusions to the study are that many of the errors are due to Arabic (L1) interference.

Agnihotri, R.K., Khanna, A.L. and Mukherjee, A. (1984) differ from Kharma (1981) with regard to the native language of subjects and the design of the study. Agnihotri et al. (1984) used an intact group with L1 speakers of Hindi and Punjabi. The data were collected using a written text with the articles omitted, but it is not really a cloze test since the omitted articles were not indicated with a space before the nouns but rather the text was presented to the subjects as a running text. The data were analyzed using three categories with regard to the context of appearance of the definite, indefinite and null articles:

(a) Nouns or noun-phrases preceded by articles, for example, subjects produced incorrect sentences like (57):

(56) *He lay there without <u>movement</u>.

instead of the correct form

(57) He lay there without <u>a movement.</u>

(b) Nouns or noun-phrases preceded by no article, for example, subjects produced

(58) *I had an idea that...

instead of

(59) I had idea that...

(c) Grammatical categories other than nouns or noun-phrases preceded by no article, for example, subjects produced

(60) *Secret to the reveal.

instead of

(61) Secret to reveal.

(62) *Come to an open account.

instead of

(63) Come to open an account.

The study concludes that students' language behavior reflects their learning and teaching strategies (or the absence of teaching strategies) over the years. The authors argue that the habit of dropping articles is an area which has not received enough remedial attention at any stage. They also maintain that the indiscriminate insertion of articles which are sometimes correct and sometimes incorrect showed that the learners' behavior in this regard "is yet not completely fossilized". The data collection procedure, especially the text used, has had some effect on the results in that they raise questions about how students know where they are to put articles in a text that does not indicate where articles

are missing. It is not surprising that subjects inserted articles before verbs, adverbs, or between adjectives and nouns as pointed out by the authors in their conclusion.

From what has been reported in the L2 literature, we can conclude that the definite article, 'the' emerges early and the indefinite article, 'a' later in L2 acquisition of articles. Some researchers link the use of the definite article to the <u>assumed known to the hearer</u> [+HK] context (e.g., Thomas, 1989) and some link it to the <u>specific referent</u> [+SR] context (e.g., Cziko, 1986). Some of the studies did not mention the role of L1 in the acquisition process (Agnihotri et al.; Yamada and Matsuura; Thomas); whereas, some did attribute the difficulty in the acquisition process mainly to L1 (Kharma; Master; Mizuno). We know that L1 transfer in L2 studies is one of the observed phenomena that any theory of SLA must account for, hence any L2 study must examine or consider it.

Transfer Theory

Much has been written on transfer in SLA since the period of structuralism in the 1950s (Contrastive Analysis Hypothesis) to the early 1990s (Principles and Parameters Theory). Its importance was acknowledged in the reported research on transfer as discussed in Gass and Selinker (eds., 1983), White (1988), Odlin (1989), and Ellis (1994).

In his introduction, Odlin (1989) put forth some reasons why language teachers and linguists have to consider the problem of transfer more closely. He discussed the earlier thinking on transfer in chapter two, and in the third chapter discussed some of the fundamental problems in the study of transfer: (a) definition; (b) comparison; (c) prediction; (d) generalization. In this book, the author discusses the out-come of cross-

linguistic similarities and differences (positive and negative transfers as well as differing lengths of acquisition) and nonstructural factors that affect transfer (individual variation, transfer and age of acquisition, as well as transfer, linguistic awareness and social context). He concluds that transfer occurs (a) in all linguistic subsystems; (b) both in informal and formal contexts; (c) among children as well as among adults. The other aspect of the conclusion concerns factors that affect or can transfer are: (a) language distance is a factor that affects transfer; (b) typological factors can affect the likelihood of transfer; (c) transfer sometime involve unusual structures; nonstructural factors can affect the likelihood of transfer. Examples from different languages were used to illustrate each of these points, and showed that at this stage of research, these are the factors of transfer that empirical research support. He also recommended nine areas for further research: (a) social context; (b) subsystem effects; (c) longitudinal comparisons; (d) subsystem interactions; (e) bidirectionality; (f) borrowing and substratum transfer; (g) acquisition of non-European languages; (h) comprehension and production; (i) child biligualism. In his view, more research in these areas will provide a better insight into the phenomenon of transfer.

In 1983, Gass and Selinker (eds.) published a collection of important articles on language transfer that were presented at a conference in March 1981. In addition to the introduction, the anthology focuses on four dimensions: (a) the phenomenon; (b) rethinking the phenomenon; (c) testing the phenomenon; (d) constructing a theory of language transfer. In the preface of this book, the authors gave reasons for this conference, emphasizing the importance of the phenomenon of language transfer in

language learning. The authors conclude that from all the papers presented, the evidence for language transfer is overwhelming and also that "the reader can have a sense of the pervasiveness of the phenomenon underlying language transfer and the centrality of language transfer to the process of second language acquisition" (p. 371). They also present a list of what they deem important issues in language transfer studies: (a) research methodology; (b) definitions of transfer; (c) domains of language transfer; (d) what is transferred?; (e) transfer and developmentally based processes; (f) typological organization; (g) universals and markedness; (h) language loss; (i) fossilization; (j) bidirectionality; (k) prediction of language transfer. Some of these issues are found in Odlin's (1989) areas of further research showing their importance in the study of transfer.

While Odlin (1989) published an entire book on the study of transfer, Ellis (1994) devots one (chapter eight) of his fifteen chapters to language transfer. He discusses the manifestations of transfer in terms of (a) errors (negative transfer); (b) facilitation (positive transfer); (c) avoidance; (d) over-use. He suggests that researchers in transfer should look for conditions that promote and inhibit transfer. He also discusses constraints on transfer with regard to (a) language level; (b) social factors; (c) markedness; (d) prototypicality; (e) language distance and psychotypology; (f) developmental factors. He discusses ideas on a theory of a first language transfer by examining communication transfer, learning transfer and a framework for explaining first language transfer. In the conclusion, he discussed some of the problems in the study of transfer, for example, the problems of how to make the distinction between communication and learning transfers as well as that of comparing two languages. He insists in the conclusion that no theory of SLA is complete

without an account of L1 transfer, because there is clear evidence today that the first language acts as a major factor in SLA.

While much of the discussion of transfer is from structural and cognitive point of view, White (1988) discusses language transfer from a universal grammar (UG) perspective, arguing that UG can account for and predict language transfer in SLA using the notion of parametric variation in Principles and Parameters Theory (PPT). She suggests that taking a parameterized UG into account there are four possible situations: (a) L1 and L2 have the same principle, set the same way; (b) L1 does not have some principle activated which is required in L2; (c) L1 and L2 both instantiate some principle with parameters set in different ways; (d) L1 has some parameter set at the positive (+) value but L2 has the negative (-) value. In (a), PPT claims there should be no transfer problems, while in (b) it claims L2 data will motivate the relevant principle, however, the learner may initially assume L1 and L2 to be the same. The claim in (c) is that there will be transfer of the L1 parameter until the learner becomes aware of the difference in the parameter settings from the L2 data. In (d), it is claimed that the L1 value will be transferred until the learner realizes that this value is incorrect in L2. In conclusion, PPT claims that in transfer, the learner transfers either the L1 principle, parameter or the parameter value and the situation with the greatest learning difficulties is (d).

The research on transfer in recent years discussed in the above-mentioned studies underlie its importance in SLA.

Methodological Approaches

In the L1 literature, most of the studies used context of appearance of articles as a means for classifying the distribution of articles. For example, the question they tried to answer was: does the article appear with a referential or non-referential noun? The other studies that did not use this approach can be reanalyzed using the context of appearance approach. Most of the studies compared child language with that of adults.

With regard to L2, most of the studies are based on Huebner's (1983) semantic wheel for noun phrase reference approach or distributional analysis to data analysis with the exception of those that used the error analysis approach. There are also some studies based on error analysis. Parrish (1987) argues for a combination of methodologies and hence in this study uses a combination of three methodologies. Data were collected either through written or oral production. Some of the studies are often based on data from cloze tests (Yamada and Matsuura, 1982; Kharma, 1981). It is only Mizuno (1986), Tarone and Parrish (1995) who used a judgment task. Some of the studies compared learners' use of articles with the usage in Standard English (Huebner; Parrish).

There is no literature found regarding the acquisition of English as L3 with regard to the article system. But in the acquisition of English as L2, the data collection techniques used are mainly cloze-test and picture description/story telling and one case of judgmental task. Larsen-Freeman and Long (1991) describe and classify some of the data elicitation methods currently used in SLA into four main types: (a) production data elicitation, for example, completion task; (b) intuitional data, for example, error

recognition and correction, grammaticality judgments; (c) use of miniature languages; (d) affective variables, for example, questionnaires.

In the present research, a cloze test and a written judgment task were used in the data collection for different reasons. In referential SLA research, the methodologies used for data elicitation are mainly oral: (a) free speech (Huebner, 1983); (b) picture description task (Thomas, 1989); (c) story-telling and description (Parrish, 1987); (d) narrative and interview (Tarone and Parrish, 1995). It is only the latter study (Tarone and Parrish, 1995) that used a judgment task. The judgment task was used because not only is there lack of data in referential SLA based on written task, but also as argued in Gass (1994), grammaticality judgments are indeed reflective of patterns of second language use and they are reliable. The use of a judgment task is motivated by the fact that second language learners' judgments about sentences have been argued to be reliable and valid (Cowan & Hatasa, 1994). In addition to the judgment task, a cloze-test was used because it is a data collection technique commonly used in SLA research and has been shown to have a high reliability and validity in measuring second language proficiency compared to C-testing (Jafarpur, 1995). Another reason for using cloze test is that not only has it not been used in referential SLA research, it is claimed to measure linguistic competence as argued in Oller (1973) who states: 'if language competence is best characterized by a grammar of expectancy, then memory constraints are clearly an aspect of competence'. For him then, cloze tests measure this type of competence. The role of L1 has not been emphasized enough in the above studies, but in the present one the role of L1 and L2 will be examined, as well as that of developmental and transfer processes in the acquisition of

English as L3. With regard to the method of analysis, the present research is based on Huebner's semantic type analysis, outlined below, and learners' data are compared to those of native speakers of American English.

With regard to language transfer, all the theories rely at least on a comparison of the languages in the study to predict when transfer will occur as well as what will and will not be transferred. Although much has been reported on language transfer to facilitate the understanding of the phenomenon, much is still left to be done because much of the research is based on L1 effect on L2 learning, and also most of the languages concerned are European and Asian. The areas of study should be broadened and African languages as L1 should be used. It would be useful to research into transfer effect in third language acquisition, hence, the usefulness of the present study.

Theoretical Basis of the Study

The theory that underlies this study is Huebner's (1983) semantic wheel for noun phrase reference which he adopted from Bickerton's (1981) proposed universal features of referentiality [± Specific] and [± Presupposed] in his study of Guyanese Creole. In this study, Bickerton proposed a separate semantic space for both the Guyanese and English articles using the above mentioned features of referentiality. He argued, with examples, that whereas the distinction 'definite' versus 'indefinite' is clear cut in English, this is not the case with the 'specific-nonspecific distinction'. In his semantic space, the category 'other' is what Huebner (1983) classified as 'Nonreferential', and the features [± P] and [± S] became [± HK] and [± SR].
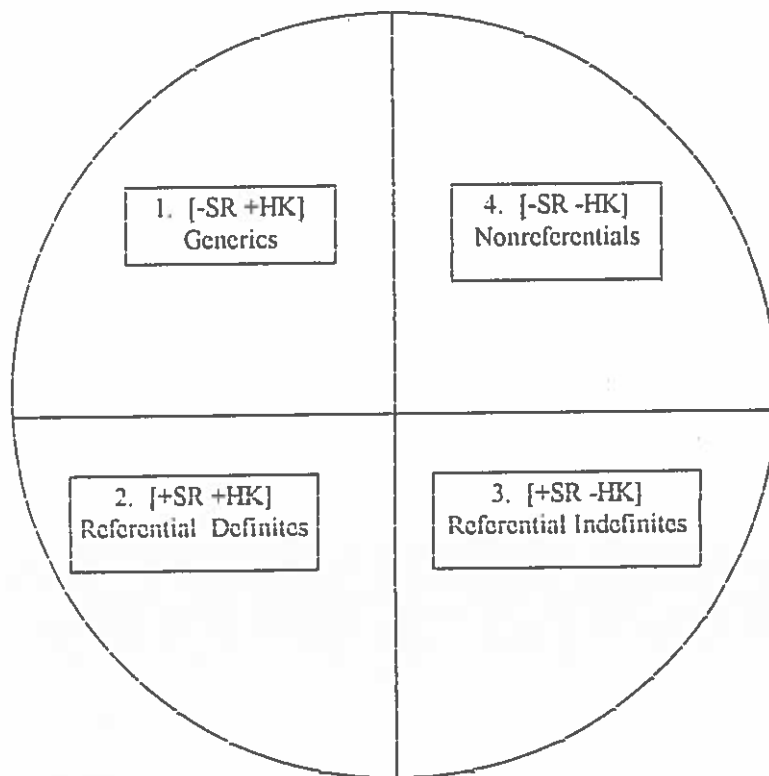
<u>Figure 3.</u> Semantic wheel for noun phrase (NP) reference.

The circle above represents the semantic field of participant reference and is taken from Huebner (1985)[8]. Each semantic category of the wheel is spelled out below with some examples to illustrate the English article usage in a given context.

(i) [-Specific Referent, + Assumed Known to the Hearer]: <u>Generics</u>

    (65) a. <u>The dog</u> is a lovely animal.

       b. <u>Ø Dogs</u> are lovely animals.

       c. <u>A dog</u> is a lovely animal.

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[8] Some of the examples are from Tarone and Parrish (1995) and Thomas (1989).

(ii) [+Specific Referent, +Assumed Known to the Hearer]: <u>Referential Definites</u>

    (a) Unique or conventionally assumed unique referent;

        (67) <u>The moon</u> will be full tomorrow.

    (b) Referent physically present;

        (66) Look at <u>the man</u> over there.

    (c) Referent previously mentioned in discourse;

        (67)   a. Speaker A: So he married <u>a woman</u> from England.

                b. Speaker B: Yes, <u>the woman's</u> from London.

    (d) Specific referent otherwise assumed known to the hearer.

        (68) He went over to <u>the bookstore</u>.

(iii) [+Specific Referent, -Assumed Known to the Hearer]: <u>Referential Indefinites</u>

    (a) First mention of NP[+SR] in a discourse and assumed not known to the hearer.

        (69)   a. Dad gave me <u>a car</u>.

                b. Dad gave me <u>Ø gifts</u>.

                c. There was <u>Ø wine</u> on sale.

    (b) First mention of NP[+SR] in a discourse following existential HAVE and assumed not known to the hearer.

        (70)   a. Our house has <u>a garage</u>.

                b. John has <u>Ø cars</u>.

                c. I had <u>Ø bread</u> for lunch.

(iv) [-Specific Referent, -Assumed Known to the Hearer]: <u>Non-Referentials</u>

(a) Equative noun phrases:

(71)   a. He's <u>a Professor</u>.

          b. They are Ø Professors.

          c. It is <u>Ø wine</u>.

(b) Noun phrases in the scope of negation:

(72)   a. I don't see <u>a pencil</u>.

          b. I don't see <u>Ø pencils</u>.

          c. I don't have <u>Ø wine</u>.

(c) Noun phrases in scope of questions, irrealis mode.

(73)   a. Do you see <u>a pencil</u>?

          b. Do you see <u>Ø pencils</u>?

          c. Do you have <u>Ø wine</u>?

          d. If I had a million dollars, I'd buy <u>a big yatch</u>.

          e. If I had a million dollars, I'd buy <u>Ø yatchs</u>.

In this framework, therefore, the two features with their different values combine to give four cross-classified environments each associated with one or more possible articles. The lexical properties of the noun will determine article choice from among the possibilities available in a given environment. According to Huebner (1983), "the only theoretical claim" in the semantic wheel for NP reference "is that no language would lexicalize semantic categories one [-SR, +HK] and three [+SR, -HK] in one way and

categories two [+SR, +HK] and four [-SR, -HK] another, since these groupings share no common semantic features" ((p. 134)(features included by present author)).

This framework classifies nouns as plus or minus specific referent ([± SR]) and plus or minus assumed known to the hearer ([± HK]). The category of generics are nouns classified as [-SR, +HK] and which in English are marked with the three articles 'a', 'the', 'Ø'. In French, the nouns are marked with 'le/la'; and in Mooré nouns in this category are marked with zero article. The category of non-referentials are nouns classified as [-SR, -HK] and are marked with the articles 'a' and 'Ø' in English, un/une and zero in French and in Mooré with zero article. Nouns classified as [+SR, -HK] are the referential indefinite category which includes first mention nouns as well as those followed by existential 'have'; they are marked with the articles 'a' and 'Ø' in English; 'un/une' and 'du' in French and zero in Mooré. The referential definite category has nouns classified as [+SR, +HK] and are marked with 'the' in English, 'le/la' in French and 'wã' in Mooré.

Below are the environments for the appearance of 'definite', 'indefinite', and 'zero' articles, adapted from Thomas (1989) as a sketch of the major environments of the distribution of the English articles.

Table 13

Environments for the Appearance of 'a', 'the', and 'Ø' Articles in English.

Features	Environment	Articles	Noun type
[-SR +HK]	Generic nouns		
		'a', 'the'	singular count nouns
		'Ø', 'the'	plural count nouns
		'Ø'	non-count nouns
[+SR +HK]	Referential definites -previous mention -specified by entailment -specified by definition -unique in all contexts -unique in a given context		
		'the'	count and non-count nouns
[+SR -HK]	Referential indefinites -first-mention nouns		
		'a'	singular count nouns
		'Ø'	plural and non-count nouns
[-SR -HK]	Nonreferential nouns -attributive indefinites/equative noun phrases -nonspecific indefinites -noun phrases in the scope of negation -noun phrases in scope of questions, irrealis mode		
		'a'	singular count nouns
		'Ø'	plural and non-count nouns

Some of the studies that have assumed this framework have suggested that the use

of 'a' is associated with [-SR] environments and that of 'the' is associated with [+SR]

environments, especially in L1 acquisition studies, for example, Cziko (1986). In L2 studies, Master (1987) suggested that learners whose native language lacks articles may link the with [+HK] environments. Thomas (1989) suggested that L2 learners, like their L1 counterparts, may be associating 'the' with the feature [+SR], which is contrary to Master's suggestion. Hence, the results thus far are contradictory to some degree in the L2 literature regarding the feature that learners link with 'a' and 'the'.

Conclusion

The review of the literature of the different types of studies of the article system shows that there is much more research in descriptive studies, especially for French, than in the acquisition studies. Studies dealing with the acquisition of English as a second or foreign language are few and mostly concern learners with Asian languages as L1, but no study is reported on English as L3. There are also few contrastive studies that involve Asian languages and English; this situation is the same for pedagogical studies. Most of the English as L2 studies are based on oral data and involved few subjects, there is, therefore, the need to add to the literature not only L3 acquisition and contrastive analysis data, but also L2 data involving languages spoken outside the Asian and European areas based on written tasks and involving many subjects. It is in this view that this study is hoped to be a contribution to the SLA literature.

CHAPTER 4

METHODOLOGY

Introduction

The aim of this cross-sectional study was to investigate the acquisition of the English articles 'Ø', 'a/an' and 'the' by Burkinabè college students who are majoring in English. Most of them will pursue their studies in the teacher training institute as future teachers of English in high schools, and others will continue in graduate school and return after obtaining their doctorate to teach at the University. All of the subjects learned French as a second language, and at least one African language as a native language and are learning English as a third or fourth language.

To assess the trainees' acquisition of English articles, that is, their correct usage as found in the speech of the "idealized" native speaker, three measures were used: a cloze-test, an error identification task, and error correction task. The cloze test was used to measure their ability to use the English articles, while the error identification task was used to assess their ability to identify incorrectly used articles and the error correction task measured their ability to correct mistakes after they identify them. The tests were scored by the researcher using the scores of 11 native speakers in a pilot study as the basis for scoring. Both descriptive and inferential statistics were used to analyze the data. The explanatory (independent) variable(s) were measured on a nominal scale and the response (dependent) variables were measured on an interval scale. The dependent variable was the subjects' language proficiency (rate of correct article usage) and this was measured using

the subjects' total correct responses (i.e. number of items correct) to the cloze test, error identification and correction tasks.

The methodological approach used in this study to collect and analyze the data are discussed here. A brief discussion of previous methodologies is presented, followed by a justification of the present methodology. A detailed description of the subjects, the text used and scoring as well as the coding scheme are also presented here.

Research Design

This research project involved Burkinabè English major college students learning English as a third language (L3) in an instructional setting. The design was a cross-sectional study of a sample of students who hope to become teachers of English for either the high school or university level. The study involved volunteer students from the four levels of proficiency (DEUG1, DEUG2, Licence, Maîtrise)[1] in the English Department at the University of Ouagadougou. A group of 11 graduate students, all of them native speakers of American English, was used to pilot the cloze-type text for data collection, three of them also participated in the judgment task. The native speakers were all graduate students at the University of Illinois at Urbana-Champaign at the time of the pilot study.

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[1] DEUG 1 is the first year, equivalent to college Freshman level; DEUG 2 is the second year, and is the equivalent of college Sophomore level; Licence is the third year which corresponds to Bachelor's level; Maîtrise is the fourth year, the equivalent of Master's level.

Subjects

Subjects for this study were 177 college English major students who formed four groups, representing the four levels of proficiency in the English Department. Group one (Freshmen) was composed of 50 students in their first year; group two (Sophomores) was made up of 50 students in their second year; group three (Bachelors) comprised of 50 students in their third year; and group four (Masters) consisted of 27 students in their fourth year. Out of the 177 subjects, 48 (27.12%) reported having repeated at least a class. About 19.9% of the subjects reported speaking only one African language; 43.2% reported speaking two African languages; 26.1% spoke three African languages; 9.7% spoke four African languages. For the majority of the subjects (80.1%), English was a fourth language, because they reported speaking at least two African languages.

Table 14 gives information about the age, gender, and number of students in each of the four academic levels.

Table 14

Demographic Information about the Subjects by Academic Level

	Freshmen	Sophomore	Bachelor's	Master's
# of students	50	50	50	27
Mean age	22	23	23.9	24.4
Age range	19-25	20-30	20-34	21-27
Male	31	36	17	14
Female	19	14	33	13

Forty-one Freshmen reported listening to English broadcasts, while 44 reported that knowing more languages is an advantage in learning a new language; and four reported that it is a disadvantage. In this group 10 reported speaking one language, 23 reported speaking two languages, 13 reported speaking three languages, and four reported speaking four languages. In the Sophomore group, 44 of them reported listening to English broadcasts, and six did not. Forty-nine reported that knowing more languages is an advantage in learning a new language, while one reported the contrary. In this group, eight reported speaking one language, 20 reported speaking two languages, 16 reported speaking three languages and six reported speaking four languages.

In the Bachelor's group, fewer students (35) compared with previous groups, reported listening to English broadcasts. Forty-six reported that knowing more languages is an advantage in learning a new language while four reported the contrary. In this group, eight reported speaking one language, 22 reported speaking two languages, 10 reported speaking three languages, seven reported speaking four languages and one reroported speaking five languages.

In the Master's group, 21 subjects reported listening to English broadcasts, and six did not. Twenty-four reported that knowing more languages is an advantage in learning a new language, while two reported the contrary. In this group, nine reported speaking one language, 11 reported speaking two languages, and seven reported speaking three languages.

The majority of the subjects spoke a Voltaic language (e.g., Mooré), a West Atlantic language (e.g., Fulfuldé) or a Manden language (e.g., Jula) as a native language

(L1) and French as a second language (L2). The total classroom exposure to English[2] was 1,220 hours for the Freshmen, the Sophomores had a total exposure of 1,782.5 hours, while the Bachelor's group had 2,332.5 hours of exposure, and the Master's group a total exposure of 2,470 hours. Apart from classroom exposure to English, subjects also listened to English news broadcast on some radio stations and the national television (TNB) in Ouagadougou, as well as international TV broadcasts such as CBS and ABC. On the questionnaire used to obtain sociolinguistic information, 80.60% reported listening to English news broadcasts.

There are two main reasons for choosing college students for this study: (a) the students can do the judgment (error recognition and correction) task better than secondary schools students; (b) they are the future teachers of English, and (c) they are homogeneous groups with regard to exposure to English (based on the number of credit hours) at the university which is not the case with high school students who may or may not have teachers all year round.

Data Collection

A week before the test was administered, the researcher met with potential subjects in each class for about 10 minutes to explain to them the purpose of the study, and encouraged them to volunteer as participants. All the participants volunteered on their own after the meeting. The data collection was carried out over a two-week period,

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[2] This total is calculated from the number of hours of classroom presence for each academic level assuming no student repeated a class.

the first week for the questionnaire and cloze test, the second for the error identification and correction tasks.

In order to reduce nervousness, the volunteer subjects were told on the day of the test not to be concerned about grades, and that they were participating in a research project and should do the test to the best of their abilities. One week after the cloze-test, they did the error identification and correction tasks.

A cloze-type and a judgment (error identification and correction) task were used to test the subjects' knowledge of English articles. The cloze-type task contained about 728 words and was a blend of texts from four different sources: Kharma (1981), Emecheta (1979), National Geographic (July, 1990), and Culturgram (1996). Kharma (1981) is a published study entitled "Analysis of the errors committed by Arab University students in the use of the English definite/indefinite articles", and the test for this study was replicated in the present research as a cloze-type test. Emecheta (1979) is a novel entitled "The joys of motherhood", written by this African author; and Culturgram (1996) is a cultural publication of Benin (West Africa) by Brigham Young University, USA. The text was divided into five sections corresponding to the text sources: sections I and II from Kharma (1981), section III from Emecheta (1979), section IV from National Geographic (July, 1990), and section V from Culturgram (1996). Initially, cloze test contained 107 items, but the final data analyzed contained 102 items. Four were eliminated, because they were a combination of an article and an adjective instead of a noun; the fifth one was a situation where the native speakers' choice of article was split. The distribution of the 102 articles was follows: 28 zero articles, 25 indefinite articles, and

49 definite articles. The breakdown of the articles by context gives the following distribution:

1. Generics (a = 6; Ø = 14; the = 11), a total of 31 items;

2. Referential definite (the = 38), a total of 38 items;

3. Referential indefinite (a = 16; Ø = 10), a total of 26 items;

4. Nonreferential (a = 3; Ø = 4), a total of 7 items.

The text was piloted with 11 native speakers of American English with at least an undergraduate degree. This piloting allowed the researcher to see which usages most native speakers agree upon and which they do not.

This research was initially designed to include 200 students, consisting of four groups of 50 students each coming from the four academic levels; unfortunately, however, this plan did not work out, because the fourth year students had finished with their exams at the time of the research. Therefore, this group did not have 50 subjects. The other problem encountered was the time for the tasks. It was initially planned that subjects would take each test in two hours, but they ended up filling out the questionnaire and doing the cloze test in one hour; the error identification and correction tasks were also done in an hour instead of two. This change was due to the fact that the period chosen for the research coincided with the time that Professors were busy making up classes they had missed for one reason or another, hence they could only spare one hour but not two. We believe that the shorter period affected the performance of the students, especially on the error identification and correction tasks as will be shown later in the next chapter (results section).

Cloze test. In the cloze-test, the articles a/an, the, Ø were deleted before nouns, and subjects were asked to fill in the slots in the text with the appropriate article. The text was divided into five sections with titles according to the source or theme. Subjects were instructed that if no article was required, they should put a "Ø" mark in the space provided. This was a means for the researcher to control for non-response and zero article. Two written examples were given at the beginning of the text, and the instructions were read to the subjects although they were also written at the beginning of the text for them to read at their own pace. The subjects were given some time to read over the text and to ask any questions they had before starting. They had one hour to take the cloze test and fill in the questionnaire (A copy of the cloze test is provided in appendix A).

Error identification and correction tasks. In the error identification and correction tasks, subjects had to identify and correct errors in article usage. They were given written instructions as well as some written examples on their copies. The subjects had one hour to take the test as was the case in the cloze-test for the same reasons. Two written examples were given at the beginning of the task. The text contained about 600 words and was the exact one used by Agnihotri, R.K., Khanna, A.L. and Mukherjee, A. (1984) in their study of article usage by Hindi/Panjabi University students. In these tasks, articles before nouns were underlined; some were incorrect and others correct, and the subjects were instructed to indicate by writing if the articles used before the nouns were correct or incorrect. If an article was incorrectly used, subjects were told to first cross it out in the

text, then write the correct article above the crossed out one; and lastly, to write on a separate piece of paper that was provided why the article was incorrectly used. The error identification and recgnition tasks were piloted with three native speakers of American English with at least an undergraduate degree and again the frequency of their identification and correction was used as the basis for grading the Burkinabè students' performance. In the error identification and correction tasks, there were 33 incorrectly used articles out of a total of 70 which the students had to identify and correct (A copy of the error identification and correction tasks is provided in appendix B).

Questionnaire. A 16-item questionnaire was also used to gather sociolinguistic information about the subjects. Subjects filled in this questionnaire the day of the cloze-test and were informed that the questionnaire was being used for research purposes (A copy of the questionnaire is provided in appendix C).

Justification for the use of the data collection instruments. There are many data elicitation techniques used in second language acquisition research (Larsen-Freeman and Long, 1991), and we considered three: (a) translation--sentence and discourse level;
(b) cloze test and (c) judgment task for this study but retained the cloze test and judgment task for reasons that are given below. Using written translation from African languages into English was not possible, because most of the students do not read their African languages. The other possibility was listening to sentences in their L1s and then translating them into L3. The problem with the translation method is that it focuses on

many things at the same time and We would need to have a recording of all the native languages of the subjects. This was not feasible for financial and material reasons. Furthermore, sentence translation does not produce natural discourse. We think that translation from L1 encourages transfer from the source language and hence data collected this way will be biased.

The cloze-test was used to force subjects to use the articles in the same context to enable cross-subject comparisons. If they had written essays, the use of the articles might not have been in the same context for all the subjects and the length of the texts might have varied, hence making cross-subject comparisons difficult. It was to control the context of usage and length of text and also to get as natural a context as possible that the written cloze-test was used. The error recognition and correction tasks provided information about the level of the subjects' linguistic awareness (their ability to identify incorrect article usage) and language use (their correct article usage).

Written cloze-test, error identification and correction tasks were used as sources of data collection because the subjects' competence can best be measured through writing, and these techniques have been shown to measure learners' competence (cloze-test) and to reflect usage (grammaticality judgment). They have also been shown to be among the best tests in terms of reliability and validity (For cloze-test see Oller (1973), Jafarpur (1995) and for grammaticality judgment, see Gass (1994)).

The questionnaire provided information on the subjects which we could not obtain otherwise or difficult to obtain in an interview due to time constraint. This data collection

instrument also provided sociolinguistic information that proved useful in the discussion of the results.

Data Analysis

The data were analyzed using descriptive statistical procedures in SPSS. In the cloze-type text, the deleted articles were classified according to the four contexts of occurrence defined by Huebner (1983): Context one (Generic); context two (Referential definite); context three (Referential indefinite); context four (Nonreferential).

The descriptive statistics provided the mean scores of article usage for the four learner groups in the different tests and semantic categories; it also provided information about the distribution of the scores (skewness---the shape and kurtosis---the peakedness) in the three tests, the semantic categories and their subcategories. This allowed the researcher to see if the scores were normally distributed or not. In addition to skewness and kurtosis, reliability estimates were run on the data and effect size of mean differences was calculated. The statistics also provided frequencies of article usage in the four semantic categories as well as in their subcategories. Also, subjects' test results were examined to ascertain if subjects were able to make a distinction between the different functions of the article in English and the contexts in which articles are used correctly and incorrectly.

The number of expected correct article type usage was compared with the number of article type used by subjects in order to determine if they under-used (fewer than expected) or over-used (more than expected) some article types. The response

(dependent) variable was the subjects' overall scores on the three tests, and the explanatory (independent) variable was the level of proficiency or academic level. The total score for each subject in the cloze-type task ranged from 0 to 102; that of the error identification and error correction tasks was 0 to 33 in each task. In the cloze test, items 10, 61, 72, and 84 were eliminated from the analysis for various reasons: Ø article + adjective (# 10, 61, 72) and Ø article + proper noun (# 84), instead of Ø article + noun. The contexts we were interested in for this study were article + noun. Item #100 was eliminated, because there was no majority native speaker article usage for either the indefinite (5 out of 11), definite (5 out of 11), or zero (1 out of 11) article during the pilot study. The possible scores for each article use per subject are given in Table 15:

Table 15

Possible Scores by Article Types in the Three Tasks per Subject

Task	Indefinite article, A	Zero article, Ø	Definite article, The
Cloze	25	28	49
Identification	4	19	10
Correction	15	-	18

Note. The toal expected correct usage for all subjects or for a group is obtained by multiplying the number of items by 177 or by the group size.

<u>Determination of correct response.</u> From the native speakers' performance, the researcher considered the items where the majority of the 11 native speakers agreed as the correct article usage. On the 102 items, the native speakers unanimously agreed on 71 and for the remaining 31, I considered the majority usage (i.e. at least where six agreed) to be the correct one.

<u>Classification of the articles into semantic categories.</u> The classification of the articles into the four semantic categories was done separately by the author and a graduate student in linguistics and the results were compared for reliability. The reliability rating differed depending on the semantic category, but on the whole there was a high agreement (85%) between the two classifications. The disagreements stemmed from the fact that the semantic wheel for noun phrase reference is not a widely known theory, and also the examples given in some of the research based on this theory were not sufficient to help in the classification. This situation led to the present author adding examples where they were lacking in Huebner's (1983) examples of semantic categories.

The data analysis of the articles was based on the categorizations below which show the context, article type and item number:

A. <u>Cloze test: Correct article use expected</u>

<u>1. Generic: [-SR +HK] No specific referents assumed known to the hearer</u>

Ø: 1, 11, 12, 16, 17, 18, 25, 31, 32, 35, 53, 71, 78, 79.   A: 20, 26, 38, 40, 47, 86.

THE: 37, 95, 96, 97, 101, 102, 103, 104, 105, 106, 107.

2. Ref. def: [+SR +HK] Specific referents assumed known to the hearer

THE: 3, 9, , 13, 14, 19, 22, 23, 24, 33, 34, 45, 48, 49, 50, 51, 52, 54, 55, 58, 59, 60, 62, 63, 66, 67, 69, 73, 74, 75, 76, 80, 81, 82, 83, 89, 90, 92, 94.

3. Ref indef: [+SR - HK] Specific referents assumed not known to the hearer

Ø: 2, 4, 629, 30, 42, 56, 70, 87, 98.

A: 7, 8, 15, 41, 43, 44, 46, 57, 64, 65, 77, 85, 88, 91, 93, 99.

4. Non-ref: [-SR -HK] No specific referents assumed not known to the hearer

Ø: 21, 27, 39, 68.   A: 5, 28, 36.

B. Error identification: Items with incorrect article usage in the judgment task text.

Ø: 4, 6, 8, 9, 15, 21, 23, 25, 29, 32, 39, 41, 43, 57, 62, 64, 68, 69, 50.

A: 2, 47, 60, 65.

THE: 3, 20, 28, 33, 37, 46, 48, 53, 54, 70.

C. Error correction: Correct article expected after identification of incorrect usage.

1. Generic: [-SR +HK] No specific referents assumed known to the hearer

A: 3, 6.

2. Ref. def: [+SR +HK] Specific referents assumed known to the hearer

THE: 2, 8, 9, 21, 23, 25, 32, 39, 41, 43, 47, 57, 60, 62, 64, 65, 68, 69.

3. Ref indef: [+SR -HK] Specific referents assumed not known to the hearer

A: 20, 33, 37, 46, 48, 50, 53, 54.

4. Non-ref: [-SR -HK] No specific referents assumed known to the hearer

A: 4, 15, 28, 29, 70.

Conclusion

The review of the literature in chapter two showed that previous methodologies did not consider the distribution of articles within each category or context, for example, the distribution of the articles in the generic category, but rather they examined the distribution of articles in all contexts in general and then classified them into the different contexts. Previous studies, with the exception of single subject studies, also focused on groups instead of individuals and they mostly compared learners' usage with that of norms of standard English (SE) usage. From the foregoing, the present study focused on the distribution of articles within each category especially where more than one article is possible. Learners' usage was compared with that of native speakers and not with SE usage. This approach enabled us to see the distribution of articles as used by L3 learners in the different semantic categories and to also identify the level of difficulty of article type in each context. It also helped us to propose not only the level of difficulty by context type but also that of article type which is generally what is done in most studies. It could

be said that the advantage of this approach over those of previous studies is that we are able to identify the level of difficulty for article types in each semantic category and are able to make useful suggestions for a progression in teaching the English article system.

CHAPTER 5

RESULTS OF THE STUDY

Introduction

This chapter presents the results obtained from the descriptive statistical analyses and describes the general procedures for processing and analyzing the research data. Before presenting the test results, background information on subjects obtained from a questionnaire is discussed. The test scores were coded as right (1), wrong (0) or missing (.). The missing data, coded (.) in the data base were analyzedin three ways: (a) missing data were considered missing where no article was supplied for the item (i.e., the blank was not filled with any of the three articles: a, the, Ø); (b) missing data were considered wrong, coded (0) in the dataset although no article was supplied (i.e. the blank was not filled with any of the three articles: a, the Ø), because it was assumed that if an article were supplied it would be the wrong one; (c) missing data were considered not reached. In this last case, all missing or not supplied article data which were not between responses (i.e., which were at the end of the test) were considered missing and interpreted as not reached. Examples are given using the text below:

Michael Faraday was one of those remarkable men who began ...... life in ...Ø..
                                                      (1)   (2)

very modest circumstances and yet reached ...the.... top of their profession through ......
                                      (3)   (4)

determination and ...a... certain amount of ..... good luck. Although he began his career as
                  (5)   (6)

...a.... poorly educated bookbinder, he became internationally known as ....a....... scientist
(7)   (8)

before he reached .... age of thirty. He devoted .... most of his life to .....Ø...
  (9)   (10)   (11)

experiments with ....Ø.. electricity. He was .... man who invented .... first dynamo as
  (12)   (13)   (14)

well as .... type of transformer.
  (15)

In the above text, 'missing' is any slot without one of the three articles (a, the, Ø) as in 1, 4, 6, 9, 10, 13, 14, 15. These missing data were analyzed in the three ways stated above due to the issue of missing data interpretation in the literature. Since no articles were supplied in these slots, the examples above would have been considered 'missing' in one dataset and 'wrong' in a second dataset. However, in a third dataset where 'missing' was considered 'not reached', only items 13 through 15 above would have been considered 'not reached'. "Not reached" is a different design than "missing".

This way of treating missing data was to see if it was an issue to be dealt with in this study following Hudson's (1993) discussion of missing data in his article "Nothing does not equal zero". He argues that the multidimensional model of developmental sequence was inaccurate due to faulty analyses and especially the interpretation of missing data. In the present study the missing data were analyzed in three ways to determine if time to finish the test was a problem for the students, since it was natural to wonder if one hour was sufficient time for students at this level of proficiency to complete the test. Were time not sufficient for completing the test, one would expect to see students hand in tests with the last part not done as in the sample text above. However, Table 16 shows that this was not the case; we can therefore conclude that the subjects had enough time.

The three different codings for missing data (missing, wrong, and not reached) resulted in different number of cases in the three tests as shown in Table 16.

Table 16

Valid Cases and Reliability Estimates for the Three Tests in Three Separate Datasets

Task type	Number of valid cases		
	Missing	Wrong	Not reached
Cloze	84	177	176
Error identification	176	177	177
Error correction	00	60	177
	Reliability		
Cloze	.84	.86	.84
Error identification	.79	.79	.79
Error correction	.00	.80	.83

As shown in Table 16, using the dataset where 'missing' equals 'missing', no reliability value/coefficient (Cronbach's Alpha) was calculated for the error correction test because of too few cases (number of cases = 00), and this was because no subject out of the 177 answered/corrected all 33 items. However, the databset with missing data equal 'not reached' gave a reliability index in the error correction task with number of cases = 60, which means that 60 subjects answered/corrected all 33 items. The table showed that

the n size for the coding 'missing' equals 'wrong' dataset was 177, that is, 177 students answered/corrected all the 33 items. When 'missing' was coded as 'missing', n for the cloze test reliability was 84 valid cases and that for error identification was 176; but when coded as 'not reached', the n size for reliability was 176 for the cloze test and 177 for the error identification task. It was only when 'missing' was considered 'wrong' that the n size for reliability was 177 in all three tasks. As such, all results presented here were obtained using the coding where missing equals wrong, because this coding takes into account all the subjects. However, reliability was the main consideration used in making a choice between the three datasets although 'missing' as 'not reached' was an issue in the error correction task and not in the other two. Another reason for not using the 'not reached' dataset was that the issue of this concept linked to lack of time was likely to be due to the fact that subjects had to justify in writing why they thought the incorrect article usage was wrong. The analysis was done using SPSS for windows release 6.1.2. The 'not reached' data preparation program was written by Professor Fred Davidson in command language, because the SPSS interactive mode could not be used to run reverse counting.

Sociolinguistic Profile

The sociolinguistic profile of the subjects, with particular reference to age, gender, verbal repertoire, high school training, language choices in communication, linguistic awareness, English language input, perception about knowing more languages is both complex and interesting, as Table 17 shows.

Table 17

Frequency Distribution of Sociolinguistic Information

	Frequency	Percent
Language family for first African languages spoken		
Voltaic/Gur languages	136	77.7
West Atlantic languages	2	1.1
Manden languages	28	16.0
Kwa languages	9	5.1
Gender		
Male	98	55.4
Female	79	44.6
Age		
19	1	.6
20	6	3.4
2	23	13.1
22	38	21.6
23	40	22.7
24	33	18.8
25	19	10.8
26	9	5.1
27	3	1.7
28	1	.6
29	1	.6
30	1	.6
34	1	.6

(table continues)

Table 17 (continued)

	Frequency	Percent
Future English teacher		
Yes	119	68.0
No	56	32.0
Country of last Lycée (High school) attended		
Burkina Faso	137	78.3
Côte d'Ivoire	36	20.6
Other	2	1.1
Number of spoken African languages		
One language	35	19.9
Two languages	76	43.2
Three languages	46	26.1
Four languages	17	9.7
Five languages	1	.6
Six languages	1	.6
First language used for academic issues		
Mooré	1	.6
French	71	40.3
English	104	59.1

Table 17 (continued)

	Frequency	Percent
First language used for personal issues		
Mooré	10	5.7
Dioula	4	2.3
French	141	80.6
English	20	11.4
First language used for life in general		
Mooré	11	6.3
Dioula	10	5.7
French	140	80.5
English	12	6.9
Gourounsi	1	.6
First language spoken in govt. offices		
Mooré	1	.6
French	176	99.4
First language spoken in shops		
Mooré	17	9.6
Dioula	5	2.8
French	155	87.6
First language spoken in the open market place		
Mooré	75	42.4
Dioula	14	7.9
French	88	49.7

Table 17 (continued)

	Frequency	Percent

First language used with a stranger

	Frequency	Percent
Moore	20	11.8
Dioula	1	.6
French	131	77.1
English	5	2.9
It depends	12	7.1
African Language(s)	1	.6

Chose to study English

	Frequency	Percent
Yes	165	94.3
No	10	5.7

First language spoken with siblings

	Frequency	Percent
Moore	41	24.0
Fulfuldé	1	.6
Dioula	17	9.9
Gurmanchema	1	.6
Bobo	1	.6
Bissa	2	1.2
Lyele	2	1.2
Nouni	2	1.2
Dagara	2	1.2
Sénoufo	4	2.3
Bwaba	3	1.8
Bété	1	.6
Winnien	1	.6
Abbey	2	1.2
Sissala	1	.6
French	88	51.5
Gourounsi	2	1.2

Table 17 (continued)

	Frequency	Percent

Reasons for use of language with siblings

	Frequency	Percent
Native language	25	17.9
Only language spoken	14	10.0
They like this language	8	5.7
They are students	17	12.1
Language(s) spoken very well	30	21.4
Most spoken language	22	15.7
For language maintenance	9	6.4
Home language(s)	9	6.4
For language improvement	6	4.3

Structural similarity of L1 to L3

	Frequency	Percent
Yes	80	48.8
No	84	51.2

Reasons for use of language with parents

	Frequency	Percent
Native language	27	17.6
Only language spoken	48	31.4
They like this language	6	3.9
Language(s) spoken very well	8	5.2
Most spoken language	12	7.8
For language maintenance	13	8.5
Home language	35	22.9
For language improvement	4	2.6

Table 17 (continued)

	Frequency	Percent
First languages spoken with parents		
Mooré	69	40.4
Fulfuldé	3	1.8
Dioula	14	8.2
Gurmanchema	1	.6
Bissa	3	1.8
Lyele	2	1.2
Nouni	4	2.3
Lobiré	1	.6
Dagara	7	4.1
Sénoufo	5	2.9
Bwaba	4	2.3
Bété	1	.6
Gouin	1	.6
Dafing	1	.6
Mina	1	.6
Turka	1	.6
Winnien	1	.6
San	1	.6
Abbey	5	2.9
French	42	24.6
Spanish	1	.6
English	1	.6
Gourounsi	2	1.2
Structural similarity of L2 to L3		
Yes	99	60.0
No	66	40.0

Table 17 (continued)

	Frequency	Percent
Listen to English broadcasts		
Yes	141	80.6
No	34	19.4
Listening frequency		
Once a week	49	35.5
Every other day	38	27.5
Everyday	40	29.0
Every other week	11	8.0
In learning English, knowing more languages is a(an)		
advantage	163	93.7
disadvantage	11	6.3

Specifically, Table 17 shows the frequency distribution and percentages of responses given by subjects to some of the questionnaire items during the data collection, and it indicates that subjects' age ranged from 19 to 34 with the majority (23%) aged 23. It also shows that the sample had more males than females with Voltaic languages being the majority language family. The majority of the subjects (43.2%) speak two African languages. There were more students (5%) speaking Kwa languages (non-Voltaic) than Fulfuldé; these languages are probably spoken by students who attended high school in Côte d'Ivoire. With regard to education, the majority (78%) of the participants graduated

from high school in Burkina Faso, and 21% graduated from high school in Côte d'Ivoire. The sample reflects the language families of Burkina Faso to a high degree, because the linguistic atlas in figure 2 shows that 64% (39 of 61) of the languages spoken in Burkina Faso are Voltaic, 2% (1 of 61) are West Atlantic, and 20% (12 of 61) are Manden. While English and French were the main languages used with friends on campus for academic issues (59%) and (40%), respectively, according to the survey, French (80%) was the sole dominant language used with friends to discuss personal issues and life in general on campus. In government offices, shops and with strangers French was still the dominant language (99%, 87% and 77%, respectively), but in the open market French and Mooré were the dominant languages. With siblings, the main language was French (51%); the main reason for this choice was that French was the language spoken very well by siblings (21%) probably because most of them were students. On the other hand, Mooré (40%) was the dominant language used with parents, the main reason being that it was the only language parents speak (31%). The majority of the subjects (68%) wanted to be English teachers in the future, and while 51% did not see a structural similarity between their native language and English, 60% did see one between French and English. Most of them (80%) listen to English broadcasts at least once a week, and they also think that knowing more languages is an advantage in learning English.

The sociolinguistic data show that the subjects were multilingual and their language use depended on contexts and people; that French remains a dominant language in most of the contexts, hence the subjects' use of English is very limited to academic issues and their exposure to English outside school is not greatly taken advantage of (cf

listening frequency). Since most of the students chose to study English and were not sent there by the Orientation Commission, their motivation for learning English is high, because most of them listen to English broadcasts, think that knowing more than one language is an advantage in learning English and want to be future English teachers. In spite of this, the frequent use of French and their L1 at the expense of English among peers and their perception of the distance between their previous languages and English can affect their acquisition of English.

Test Data

A normal distribution is symmetrical in shape with a degree of skewness of zero (γ_1 = 0), but a degree of skewness of between ±1 is accepted as near normal. Hence, in this study normal distribution of scores refers to skewness of between ±1. Skewness is an important characteristic of a distribution of scores and measures the degree of asymmetry. A negatively skewed distribution indicates that the mean of the distribution is lower than that of the normal distribution, while a positively skewed distribution indicates that the mean higher than that of the normal distribution. With the exception of two semantic categories generic A in the cloze test and generic in the error correction task, all the other semantic categories in the three tests are negatively skewed. Kurtosis is also a property of a group of scores which informs us of how peaked or flat a distribution is; a normal distribution has a kurtosis value of zero (γ_2 = 0) and is said to be mesokurtic. A positive kurtosis indicates that there are more extreme scores (outliers) than the normal distribution, and a negative kurtosis indicates fewer extremely high or low scores (outliers)

than the normal distribution. A positive kurtosis also indicates a peaked distribution, and a negative kurtosis a flat distribution.

Table 18 gives descriptive statistics for the population and shows that the distribution of scores in the three tests (a), (b), and (c) is generally normal, because the skewness and kurtosis values are usually small, within ±1. The Table also shows that the three tests have acceptable reliability (Cronbach's alpha) values (given the k, maximum possible points that can be obtained on the test), and, in addition, the mean scores for the three tests were generally just above average. Table 18 further gives descriptive statistics for the four semantic categories: (i) generic, (ii) nonreferential, (iii) referential definite, and (iv) referential indefinite, under consideration in this study. It can be observed that in the cloze test scores in one semantic category (referential definite) and one subcategory (non-referential A) are not normally distributed, but highly skewed (γ_1 = -2.17 and -2.06 respectively) because their skewness coefficients are greater than ±1 which is the limit of normal distribution. These two are the ones that are very peaked (leptokurtic) ((γ_2 = 10.17 and 4.72), supporting the claim that "highly skewed distributions tend to be leptokurtic, because they have more scores that are far from the mean than does the normal distribution" (Glass and Hopkins, 1984).

Table 18 presents the general performance of the subjects in all three methods of data colection: cloze test, error identification, and error correction. It also presents the distribution of scores, means, variability, range, and the rate of accuracy.

Table 18

Total Scores on the Tests for the Whole Group

Test Type	Percent correct	M	SD	Range	k[a]	Skew-ness	Kurt-osis	Relia-bility
(a) Cloze	74.3	75.79	9.49	42-94	102	-.82	.96	.85
i. Generic	65.0	20.14	4.48	4-30	31	-.45	.24	.74
Ø	73.4	10.28	2.50	3-13	14	-1.00	.51	.73
A	55.2	3.31	1.39	0-6	6	.20	-.65	.49
THE	59.5	6.55	2.83	0-11	11	-.12	-.86	.75
ii. Nonreferential	75.3	5.27	.92	3-7	7	-.21	-.24	.09
Ø	63.5	2.54	.83	0-4	4	-.26	-.16	.29
A	91.0	2.73	.53	0-3	3	-2.06	4.72	.17
iii. Ref. Definite	79.9	30.35	4.70	0-38	38	-2.17	10.17	.81
iv. Ref. Indefinite	77.1	20.04	2.46	12-24	26	-.58	-.06	.51
Ø	62.3	6.23	1.57	2-10	10	-.18	-.42	.48
A	86.3	13.81	1.50	10-16	16	-.58	-.13	.29
(b) Error Id.	74.6	24.61	4.52	13-32	33	-.54	-.17	.79
i. Generic	65.0	1.30	.59	0-2	2	-.19	-.58	.08
ii. Nonreferential	77.0	3.85	.86	1-5	5	-.69	.60	.12
iii. Ref. Definite	78.8	14.18	2.41	5-18	18	-.69	.67	.62
iv. Ref. Indefinite	66.1	5.29	1.96	0-8	8	-.65	-.21	.71
(c) Error Cor.	61.3	20.24	5.33	0-30	33	-.71	.54	.80
i. Generic	31.5	.63	.74	0-2	2	.72	-.82	.41
ii. Nonreferential	69.8	3.49	1.10	0-5	5	-.82	.69	.41
iii. Ref. Definite	62.3	11.21	3.15	0-17	18	-.61	.17	.67
iv. Ref. Indefinite	61.5	4.92	2.02	0-8	8	-.66	-.36	.70

Note. Ref. stands for referential, Id. for identificationand Cor. for correction. The number of valid cases in all these analyses was 177 (i.e. N = 177).

[a]Maximum possible points that can be obtained on the test.

The rate of correct article usage presented in Table 18 were calculated using the formula: mean score/number of items x 100. Hence the rate for the different tests are (a) 74% for cloze, (b) 75% for error identification (c) 63% for error correction. The rates by context/semantic category are (a) cloze: 65% for generic, 72% for nonreferential, 80% for referential definite and 77% for referential indefinite; (b) error identification: 65% for generic, 77% for nonreferential, 78% for referential definite and 66% for referential indefinite; (c) error correction: generic 32%, nonreferential 70%, referential definite 62% and referential indefinite 62%.

Descriptive statistics for each group are given in Table 19 where it can be seen that the scores on the three tests were normally distributed in the four academic levels. The mean score for the Freshman group was the lowest of the four groups on the cloze test and error correction task, while the mean scores for the error identification task showed that it was the Master's group that had the lowest mean.

Table 19

Total Scores on the Tests by Academic Level

Academic level	Percent correct	M	SD	Range	k[a]	Skew-ness	Kurt-osis	Relia-bility
Cloze								
Freshman	66.5	67.50	9.97	42-91	102	-.47	.57	.82
Sophomore	77.2	78.78	6.94	63-89	102	-.61	-.21	.75
Bachelor's	76.6	78.10	6.83	64-91	102	-.19	-.66	.74
Master's	79.7	81.33	7.22	64-94	102	-.50	-.30	.78
Error identification								
Freshman	76.3	25.18	4.65	13-32	33	-.48	-.17	.81
Sophomore	77.2	25.48	3.92	15-32	33	-.75	.64	.73
Bachelor's	72.1	23.80	4.85	13-32	33	-.56	-.28	.81
Master's	71.0	23.44	4.43	15-31	33	-.24	-.83	.76
Error correction								
Freshman	57.0	18.80	5.54	7-29	33	-.41	-.56	.83
Sophomore	65.1	21.48	4.34	10-30	33	-.64	.43	.57
Bachelor's	60.9	20.10	6.16	0-29	33	-.90	.97	.88
Master's	63.2	20.85	4.52	10-30	33	-.13	.24	.56

Note. n = 50 for Freshmen, Sophomore, and Bachelor's; n = 27 for Master's.

[a]Maximum possible points that can be obtained on the test.

The rate of correct article usage by academic level in all tests was (a) cloze: Freshmen, 66%; Sophomores, 77%; Bachelors, 77%; Masters, 80%; (b) error identification: Masters, 71%; Bachelors, 72%; Freshmen, 76%; Sophomores, 77%; (c) error correction: Freshmen, 57%; Bachelors, 61%; Masters, 63%; Sophomores 65%. From the rates of correct article usage, it can be inferred that the error correction task was the most difficult

for group and especially so for the Bachelor's group with the lowest rate, 57%. There is a lot of variation in the Freshman and Master's groups on the cloze test, while on the error correction task the group with the highest variability is the Bachelor's group followed by the Freshman group.

As for the distribution of the scores by academic level, the skewness shows a normal and negatively skewed distribution in all four levels; the Freshman group has the highest reliability coefficient in both the cloze test and the error identification task and it is the only group with a coefficient above .80 in all three tasks, followed by the Bachelor's group in two tasks. It can be inferred from Table 3 that the mean scores show there was no correlation between academic level and performance in the error identification and correction tasks, but that in the cloze test there was a correlation between these two variables.

Effect size is a measure of the difference between two means and expresses the magnitude of the difference in standard deviation units. For example, effect size of .50 indicates that the difference in the two means is one half of a standard deviation unit. An effect size of .50 or more is generally considered to be of some practical importance. Tables 20-23 provide information for the effect size of mean differences in (a) all three methods of data collection; (b) by academic level in both the cloze test and the error correction task.

Table 20

Effect Size of Mean Differences for the Three Tests by Academic Level

Group	Freshman	Sophomore	Bachelor's	Master's
		Cloze		
Freshman	-	1.33	1.26	2.30
Sophomore		-	.11	.36
Bachelor's			-	.42
Master's				-
		Error Identification		
Freshman	-	.01	.29	.38
Sophomore		-	.38	.50
Bachelor's			-	.08
Master's				-
		Error Correction		
Freshman	-	.60	.39	.40
Sophomore		-	.26	.14
Bachelor's			-	.13
Master's				-

Note. The effect size is calculated using the formula $X_1-X_2/[(sd+sd)]/2$ if the n size is equal for both groups but the standard deviations are weighted and multiplied by the weight when ns are not equal. n = 50 for Freshmen, Sophomore, and Bachelor's; n = 27 for Master's

In Table 20, the mean difference between the Freshmen and the other three groups on the cloze test was of practical importance, because the effect sizes were more than one standard deviation unit, and in the error identification task it was only the difference between Sophomores and Masters was of practical significance (effect size of .50), a difference of half standard deviation unit, while in the error correction task it was the mean difference between Freshmen and Sophomores that was practically significant (effect

size of .60). Differences between groups are important, because they allow the researcher to search for the causes of these differences or the variables that contribute to them and to focus his/her research in order to find solutions to these differences. If no solutions are possible, the research will inform the public about these differences so that they can be taken into consideration in dealing with the different groups.

Table 21

Effect Size of Mean Differences for Semantic Category of Cloze Test by Academic Level

Group	Freshman	Sophomore	Bachelor's	Master's
		Generic		
Freshman	-	1.02	.98	1.51
Sophomore		-	.04	.48
Bachelor's			-	.51
Master's				-
		Nonreferential		
Freshman	-	.41	.68	.75
Sophomore		-	.31	.37
Bachelor's			-	.04
Master's				-
		Referential Definite		
Freshman	-	1.02	.89	1.00
Sophomore		-	.26	.07
Bachelor's			-	.34
Master's				-
		Referential Indefinite		
Freshman	-	.81	.80	.82
Sophomore		-	.01	.09
Bachelor's			-	.08
Master's				-

Note. n = 50 for Freshmen, Sophomore, and Bachelor's; n = 27 for Master's

In the semantic categories of the cloze test in Table 21, there were mean differences of practical importance based on effect size between Freshmen and the other three groups in the generic, referential definite and referential indefinite contexts. In addition, there were important mean difference between Bachelors and Masters in the generic context and between Freshmen and Bachelors, Freshmen and Masters.

The results of the semantic categories of the error identification task in Table 22 shows that there were fewer mean differences of practical importance compared to the cloze test. The differences concerned Freshmen and Bachelors, Freshmen and Masters in the generic context, while in the referential definite context it was between Freshmen and Masters, Sophomores and Masters. The important mean difference in the referential indefinite context was between the Sophomores and Masters groups.

Table 22

Effect Size of Mean Differences for Semantic Categories of Error Identification Task by Academic Level

Group	Freshman	Sophomore	Bachelor's	Master's
Generic				
Freshman	-	.46	.62	.78
Sophomore		-	.17	.29
Bachelor's			-	.10
Master's				-
Nonreferential				
Freshman	-	.14	.18	.05
Sophomore		-	.04	.20
Bachelor's			-	.23
Master's				-
Referential Definite				
Freshman	-	.01	.38	.56
Sophomore		-	.38	.57
Bachelor's			-	.16
Master's				-
Referential Indefinite				
Freshman	-	.10	.33	.43
Sophomore		-	.46	.61
Bachelor's			-	.09
Master's				-

Note. n = 50 for Freshmen, Sophomore, and Bachelor's; n = 27 for Master's

The effect sizes in Table 23 indicate that there was a significant difference between the means of Freshmen and the other three groups in the generic context, between Freshmen and Bachelors, Freshmen and Masters in the nonreferential context; the only important mean difference in the referential indefinite was between Sophomores and Masters.

Table 23

Effect Size of Mean Differences for the Semantic Categories of the Error Correction Task

by Academic Level

Group	Freshman	Sophomore	Bachelor's	Master's
Generic				
Freshman	-	.81	1.02	1.36
Sophomore		-	.13	.33
Bachelor's			-	.22
Master's				-
Nonreferential				
Freshman	-	.49	.57	.86
Sophomore		-	.09	.34
Bachelor's			-	.23
Master's				-
Referential Definite				
Freshman	-	.22	.02	.11
Sophomore		-	.23	.09
Bachelor's			-	.13
Master's				
Referential Indefinite				
Freshman	-	.41	.06	.02
Sophomore		-	.46	.72
Bachelor's			-	.04
Master's				

Note. n = 50 for Freshmen, Sophomore, and Bachelor's; n = 27 for Master's

The results in Table 24 provide information about the performance of each academic level in the different semantic categories with regard to each data collection method. The results in Table 24 show that in the cloze test the Freshman group had the lowest mean score in all four semantic categories: generic, nonreferential, referential

definite, referential indefinite. The means scores showed that there was a correlation between performance and academic level in three of the four semantic categories (generic, nonreferential and referential indefinite). The rate of correct articles used calculated with the formula: mean score (X) divided by number of items (k), multiplied by 100 (X/k x 100) indicate a rate of between 54% and 85% in the cloze test, between 53% and 81% in the error identification, and between 10% and 78% in the error correction. The lowest rates for all four groups were in the generic context of the error correction task, less than 48%. The distribution of scores were normal and negatively skewed for all the academic levels in all four contexts, except for the in the referential definite context for the Freshmen where scores were not normally distributed (skewness of -2.18). There was correlation between performance (mean score) and academic level in the nonreferential and referential indefinite contexts.

Scores were normally distributed in the error identification task for all four groups in the four contexts except for the Sophomores in the nonreferential and referential indefinite contexts. The observed range of correct articles used suggests that in this task the Bachelor's group had the most difficulty in all four contexts compared to the other three groups. This group was also the one with more variations in scores comparing the standard deviations of the four groups. In this task the mean scores indicate that there was correlation between performance and academic level in only the generic context.

The results in the error correction task shows that comparing the four groups in the four contexts, it can be observed that it was only in the referential definite context where the four groups all had scores normally distributed (i.e. with skewness of less than -1). In the generic context the scores for Freshmen were not normally distributed (skewness of 2.21), they were highly skewed with a flat peak (kurtosis of 4.47), while in the nonreferential context it was the Sophomore and Bachelor's groups whose scores were not normally distributed; and in the referential indefinite context it was the Sophomores. The performance of the groups in this task did correlate with their academic level in the generic and nonreferential semantic categories.

Table 24

Total Scores on the Tests by Context and by Academic Level

Academic level	Percent correct	M	SD	Range	k^a	Skewness	Kurtosis	Reliability

CLOZE

Generic

Academic level	Percent correct	M	SD	Range	k^a	Skewness	Kurtosis	Reliability
Freshman	54.5	16.90	4.24	4-27	31	-.34	1.62	.57
Sophomore	68.0	21.08	3.91	12-28	31	-.52	-.19	.67
Bachelor's	67.5	20.94	4.03	12-29	31	-.36	-.27	.71
Master's	73.8	22.89	3.45	16-30	31	-.27	-.55	.63

Nonreferential

Academic level	Percent correct	M	SD	Range	k^a	Skewness	Kurtosis	Reliability
Freshman	70.0	4.90	.84	3-6	7	-.24	-.67	-.25
Sophomore	74.9	5.24	.82	3-7	7	-.25	.17	-.06
Bachelor's	78.9	5.52	.97	3-7	7	-.54	.34	.25
Master's	79.4	5.56	.93	4-7	7	-.17	.70	.12

Referential definite

Academic level	Percent correct	M	SD	Range	k^a	Skewness	Kurtosis	Reliability
Freshman	71.2	27.06	6.05	0-35	38	-2.18	7.73	.85
Sophomore	84.0	31.92	3.45	22-38	38	-.84	-.49	.71
Bachelor's	81.8	31.08	3.02	23-37	38	-.40	-.03	.56
Master's	84.6	32.15	3.33	23-37	38	-.78	.75	.65

Referential indefinite

Academic level	Percent correct	M	SD	Range	k^a	Skewness	Kurtosis	Reliability
Freshman	71.7	18.64	2.63	12-24	26	-.35	-.35	.49
Sophomore	79.0	20.54	2.09	16-24	26	-.48	-.49	.40
Bachelor's	79.1	20.56	2.14	15-24	26	-.56	.18	.45
Master's	79.8	20.74	2.40	16-24	26	-.56	-.51	.56

Table 24 (continued)

Academic level	Percent correct	M	SD	Range	k^a	Skew-ness	Kurt-osis	Relia-bility
				ERROR IDENTIFICATION				
				Generic				
Freshman	53.0	1.06	.55	0-2	2	.04	.49	.29
Sophomore	66.0	1.32	.59	0-2	2	-.19	-.58	-.09
Bachelor's	71.0	1.42	.61	0-2	2	-.53	-.57	.22
Master's	74.0	1.48	.51	1-2	2	.08	-2.16	-.53
				Nonreferential				
Freshman	78.4	3.92	.83	2-5	5	-.52	-.06	-.01
Sophomore	76.0	3.80	.86	1-5	5	-1.01	1.65	.27
Bachelor's	75.2	3.76	.96	1-5	5	-.65	1.08	.20
Master's	79.2	3.96	.71	3-5	5	.05	-.85	-.20
				Referential definite				
Freshman	81.3	14.64	2.18	8-18	18	-.69	.49	.58
Sophomore	81.2	14.62	2.04	10-18	18	-.26	-.68	.50
Bachelor's	76.3	13.74	2.61	5-18	18	-.65	1.08	.67
Master's	73.9	13.30	2.77	7-18	18	-.60	.03	.67
				Referential indefinite				
Freshman	69.5	5.56	2.13	1-8	8	-.34	-.90	.76
Sophomore	71.8	5.74	1.64	1-8	8	-1.21	1.56	.59
Bachelor's	61.0	4.88	2.05	0-8	8	-.80	-.26	.74
Master's	58.8	4.70	1.84	1-8	8	-.49	-.39	.64

Table 24 (continued)

Academic level	Percent correct	M	SD	Range	k^a	Skewness	Kurtosis	Reliability
ERROR CORRECTION								
Generic								
Freshman	10.0	.20	.45	0-2	2	2.21	4.47	.23
Sophomore	35.0	.70	.79	0-2	2	.60	-1.13	.52
Bachelor's	40.0	.80	.73	0-2	2	.33	-1.02	.20
Master's	48.0	.96	.76	0-2	2	.06	-1.19	.21
Nonreferential								
Freshman	60.4	3.02	1.12	0-5	5	-.50	.08	.52
Sophomore	71.2	3.56	1.07	0-5	5	-1.09	1.54	.34
Bachelor's	73.2	3.66	1.12	0-5	5	-1.01	1.32	.73
Master's	77.8	3.89	.80	2-5	5	-.28	-.29	.26
Referential definite								
Freshman	61.1	11.00	3.30	4-17	18	-.37	-.77	.70
Sophomore	64.6	11.62	2.42	6-16	18	-.37	.01	.45
Bachelor's	60.7	10.92	3.67	0-16	18	-.77	.35	.75
Master's	63.2	11.37	3.07	5-17	18	-.28	-.28	.60
Referentail indefinite								
Freshman	57.3	4.58	2.20	0-8	8	-.27	-.72	.74
Sophomore	70.0	5.60	1.65	1-8	8	-1.21	1.38	.56
Bachelor's	59.0	4.72	2.18	0-8	8	-.69	-.56	.77
Master's	57.9	4.63	1.80	1-8	8	-.42	-.27	.63

Note. n = 50 for Freshmen, Sophomore, and Bachelor's; n = 27 for Master's.

[a]Maximum possible points that can be obtained on the test.

Table 25

Total Scores on the Cloze test by Subcontext and by Academic Level.

Academic level	Percent correct	M	SD	Range	k[a]	Skew-ness	Kurt-osis	Relia-bility
Generic_Ø								
Freshman	59.3	8.30	2.74	3-13	14	-.41	-.62	.68
Sophomore	77.3	10.82	1.95	5-13	14	-.81	.25	.57
Bachelor's	79.7	11.16	1.87	5-13	14	-1.22	1.42	.62
Master's	80.9	11.33	1.92	7-13	14	-1.11	.33	.70
Generic_A								
Freshman	52.0	3.12	1.24	1-6	6	.23	-.15	.25
Sophomore	52.7	3.16	1.52	0-6	6	.27	-.75	.65
Bachelor's	55.0	3.30	1.37	1-6	6	.26	-.89	.51
Master's	65.5	3.93	1.30	1-6	6	.03	-.40	.36
Generic_THE								
Freshman	49.8	5.48	2.91	0-11	11	.13	-.75	.85
Sophomore	64.5	7.10	2.44	1-11	11	-.20	-.67	.71
Bachelor's	58.9	6.48	3.12	1-11	11	.06	-1.18	.56
Master's	69.4	7.63	2.22	4-11	11	-.18	-1.03	.65
Nonreferential_Ø								
Freshman	56.5	2.26	.83	0-4	4	-.30	.12	.29
Sophomore	63.5	2.54	.73	1-4	4	-.31	-.12	.24
Bachelor's	68.5	2.74	.80	1-4	4	.06	-.30	.22
Master's	67.5	2.70	.91	1-4	4	-.33	-.50	.31

Table 25 (continued)

Academic level	Percent correct	M	SD	Range	k^a	Skew-ness	Kurt-osis	Relia-bility
				Nonreferential_A				
Freshman	88.0	2.64	.60	0-3	3	-2.06	6.13	.17
Sophomore	90.0	2.70	.54	1-3	3	-1.66	1.98	.14
Bachelor's	92.7	2.78	.80	1-3	3	-2.01	3.47	.06
Master's	95.0	2.85	.91	1-3	3	-3.29	10.99	.45
				Referential indefinite_Ø				
Freshman	53.6	5.36	1.48	2-9	10	.44	.28	.35
Sophomore	64.0	6.40	1.49	2-9	10	-.54	.40	.46
Bachelor's	66.2	6.62	1.51	3-10	10	-.31	-.20	.49
Master's	67.8	6.78	1.42	4-9	10	-.35	-.21	.47
				Referential indefinite_A				
Freshman	74.1	11.86	1.68	8-14	16	-.61	-.37	.35
Sophomore	78.3	12.52	1.28	9-14	16	-.90	.60	.32
Bachelor's	77.6	12.42	1.05	10-14	16	-.60	-.03	.14
Master's	77.8	12.44	1.34	10-14	16	-.60	-.54	.24

Note. n = 50 for Freshmen, Sophomore, and Bachelor's; n = 27 for Master's.

[a]Maximum possible points that can be obtained on the test.

The distribution of scores in Table 25 above shows that the subcategory nonreferential_A was the only subcategory where the distribution of scores in the four groups was not normally distributed as well as scores in two groups (Bachelor's and Master's) of the generic_Ø. With the exception of these two subcategories, scores for all the generic groups were normally distributed (i.e. having skewness of ±1 at least) in all other subcategories. In five subcategories (generic_Ø, generic_A, nonreferential_Ø,

nonreferential_A, referential indefinite_Ø), the mean scores suggest level of proficiency correlated with performance. The rate of correct article usage for the three articles in the cloze test and error correction task can be obtained from Tables 26 and 28.

Table 26 is a distribution of article usage in the four semantic categories and their subcategories in the cloze test. This Table shows that in the generic_Ø context, 73% of the time the subjects got the right usage, while in the generic_A context the frequency of correct usage was 55% and for the generic_THE context, the rate of correct usage was 60%. From this, it can be concluded that the most difficult usage in this context was the indefinite article and the overall rate of correct article usage was about 63%. The rate of correct usage of the definite article in the referential definite was 80%, while it was 62% in the referential indefinite_Ø and 86% in the referential indefinite_A; the rate of correct article usage in the referential indefinite context was 74%. As for the nonreferential context, the rate of correct usage of zero article was 64% and that of the indefinite article was 91%, giving an overall correct article usage rate of about 78% in this context. Comparing the rate of correct article usage in each of the four contexts, the results suggest that it was the generic context the most difficult and the referential definite the least difficult. The use of the different articles in all the subcategories suggests that there was L1 and L2 transfer or overuse of L3 articles. The type and source of transfer or overuse will be discussed in the next chapter.

Table 26

Summary Statistics: Total Frequency Distribution and Row Percentages of Article Usage

in the Cloze Test

Semantic Category	Subjects' Respose				
	Ø	A	THE	Missing	Total
GENERIC [-SR +HK]	2,548 (46%)	932 (17%)	1,891 (34%)	116 (2%)	5,487
Generic_Ø	1,820 (73%)[a]	133 (5%)	456 (18%)	69 (3%)	2,478
Generic_A	183 (17%)	585 (55%)[a]	276 (26%)	18 (2%)	1,062
Generic_THE	545 (28%)	214 (11%)	1,159 (60%)[a]	29 (1%)	1,947
REF. DEFINITE [+SR +HK]	618 (9%)	669 (10%)	5,371 (80%)	68 (1%)	6,726
Ref. definite_THE	618 (9%)	669 (10%)	5,371 (80%)[a]	68 (1%)	6,726
REF. INDEFINITE [+SR -HK]	1,208 (26%)	2,957 (64%)	374 (8%)	63 (1%)	4,602
Ref. indefinite_Ø	1,102 (62%)[a]	512 (29%)	115 (6%)	41 (2%)	1,770
Ref.indefinite_A	106 (3%)	2,445 (86%)[a]	259 (9%)	22 (1%)	2,832
NONREFERENTIAL [-SR -HK]	488 (39%)	703 (56%)	18 (1%)	30 (2%)	1,239
Nonreferential_Ø	450 (64%)[a]	220 (31%)	14 (2%)	24 (3%)	708
Nonreferential_A	38 (7%)	483 (91%)[a]	4 (1%)	6 (1%)	531
Total	4,862 (27%)	5,261 (29%)	7,654 (42%)	277 (2%)	18,054

Note. The vertical total refers to the number of items in each subcategory multiplied by the number of subjects (N = 177), while the horizontal total is the sum of article types used or omitted by all subjects in each subcategory.

[a]The correct article in that context.

In Table 26 the expected correct article usage for the all the subjects (177) was 1,062 (i.e., 177 x 6 items) indefinite articles; 2,478 (i.e., 177 x 14 items) zero articles; and 1,947 (i.e., 177 x 11 items) definite articles in the generic context. For the referential

definite context, 6,726 (i.e., 177 x 38 items) definite articles were expected; while for the referential context, 2,832 (177 x 16 items) indefinite articles and 1,770 (i.e., 177 x 10 items) zero articles were expected; whereas for the nonreferential we expected 531 (177 x 3 items) indefinites articles and 708 (177 x 4 items) zero articles. On the whole, therefore, 4,425 (177 x 25 items) indefinite articles, 8,673 (177 x 49 items) definite articles and 4,956 (177 x 28 items) zero (Ø) articles were expected; however, the results show that there were fewer zero and definite articles but more indefinite articles used than expected.

Table 27

Sources of Cross-linguistic Influence

| | Articles Usage Due to Transfer | |
	L1 (Mooré)	L2 (French)
Generic		
Ø	Yes	
The		Yes
Referential definite		
The	Yes	Yes
Referential indefinite		
Ø	Yes	
A		Yes
Nonreferential ·		
Ø	Yes	
A		Yes

Table 27 above shows the sources of errors the different subcategories. The use of the zero article was due to L1 influence while the use of the indefinite article was due to L2 influence. However, the use of the definite article in the referential definite context, could be due to the influence of either the L1 or L2.

The results in Table 28 show that in the error correction task the rate of correct article usage was 31% in the generic context, while in the referential definite context this rate was 60%. As for the nonreferential and the referential indefinite contexts, the rates of correct article usage were 44% and 98%, respectively. Here again the use of the different articles in all the contexts suggests transfer of L1 and L2 articles. The expected correct article usage was 2,265 (177 x 15 items) indefinite articles, 3,186 (177 x 8 items) definite articles, and no zero article. However, the results show that there were fewer indefinite and definite articles than expected; it also shows a high proportion of missing data and the unexpected use of zero articles.

Table 28

Summary Statistics: Total Frequency Distribution and Row Percentage of Article Usage in
the Error Correction Task

Semantic Category		Subjects' Response			
	Ø	A	THE	Missing	Total
GENERIC [-SR +HK]	10 (3%)	111 (31%)[a]	108 (31%)	125 (35%)	354
REF. DEFINITE [+SR+HK]	56 (2%)	533 (17%)	1,901 (60%)[a]	696 (22%)	3,186
NONREFERENTIAL [-SR -HK]	44 (3%)	617 (44%)[a]	16 (1%)	208 (15%)	1,416
REF. INDEFINITE [+SR -HK]	55 (6%)	870 (98%)[a]	9 (1%)	482 (54%)	885
Total	165 (3%)	2,131 (36%)	2,034 (36%)	1,511 (26%)	5,841

Note. The vertical total refers to the number of items in each subcategory multiplied by
the number of subjects (N = 177), while the horizontal total is the sum of article types
used or omitted by all subjects in each category.

[a]The correct article in that context.

Table 29 shows the distribution of articles by academic level for the cloze test,
including use of the three articles in the four different categories in each of the four
groups. The Freshmen had the lowest rate of correct article usage when compared with
the three other groups in all subcategories. They had a success rate in the generic context
of about 54%, the average of the three subcategory rates (zero article, 59%; indefinite
article, 52%; definite article, 50%). Their success rate in the use of the definite article in
the referential definite context was 71%, while that of the referential indefinite context was

about 69% (54% for the zero article and 83% for the indefinite article). In the nonreferential context, the success rate in the use of the correct article was about 73% (57% for the zero article and 88% for the indefinite article). The Sophomores had a success rate of correct article usage in the generic context of about 65% (zero article 77%, indefinite article 53% and definite article 65%), and a rate of 84% in the use of the definite article in the referential definite context. In the referential indefinite context the rate of correct article usage was about 76% (64% for zero article and 88% for the indefinite article), and that of the nonreferential context was about 77% (64% zero article and 90% indefinite article). The Bachelor's group had a 65% rate of correct article usage in the generic context (80% zero article, 55% indefinite article and 59% definite article), a 82% rate for the definite article in the referential definite context, a 77% rate in the referential indefinite context (66% zero article and 87% indefinite article), and a 81% rate of correct usage in the nonreferential context (81% for zero article, 65% for indefinite article and 69% for definite article). The Master's group had the highest success rates of correct article usage: 72% in the generic context (81% for zero article, 65% for indefinite article and 69% for definite article), 84% in the referential definite context where only the definite article is appropriate, 78% in the referential indefinite context (68% for zero article and 87% for indefinite article) and 82% in the nonreferential context. The incorrect use of L3 articles in all subcontexts indicate that the subjects may be transferring or overusing the L3 articles. In this table, the results also show that the Bachelor's group had more zero articles than the expected correct usage while all four groups had more indefinite articles than expected.

Table 29

Summary Statistics: Distribution of Articles in the Cloze Test by Academic Level

Semantic Category	Subjects' Response			Missing	Total
	Ø	A	THE		

Freshman

Semantic Category	Ø	A	THE	Missing	Total
Gen_Ø	415 (59%)[a]	65 (9%)	183 (26%)	37 (5%)	700
Gen_A	51 (17%)	156 (52%)[a]	84 (28%)	9 (3%)	300
Gen_THE	172 (31%)	83 (15%)	274 (50%)[a]	21 (4%)	550
Refdef_THE	223 (12%)	289 (15%)	1,353 (71%)[a]	35 (2%)	1,900
Refindef_Ø	268 (54%)[a]	164 (33%)	42 (8%)	26 (5%)	500
Refindef_A	51 (6%)	664 (83%)[a]	71 (9%)	14 (2%)	800
Nonref_Ø	113 (57%)[a]	79 (40%)	2 (1%)	6 (3%)	200
Nonref_A	12 (8%)	132 (88%)[a]	3 (2%)	3 (2%)	150
Total	1,305 (26%)	1,632 (32%)	2,012 (39%)	151 (3%)	5,100

Sophomore

Semantic Category	Ø	A	THE	Missing	Total
Gen_Ø	541 (77%)[a]	22 (3%)	125 (18%)	12 (2%)	700
Gen_A	56 (19%)	158 (53%)[a]	83 (28%)	3 (1%)	300
Gen_THE	144 (26%)	48 (9%)	355 (65%)[a]	3 (1%)	550
Refdef_THE	152 (8%)	136 (7%)	1,596 (84%)[a]	16 (1%)	1,900
Refindef_Ø	320 (64%)[a]	142 (28%)	36 (7%)	2 (0%)	500
Refindef_A	16 (2%)	707 (88%)[a]	76 (10%)	1 (0%)	800
Nonref_Ø	127 (64%)[a]	60 (30%)	7 (4%)	6 (3%)	200
Nonref_A	11 (7%)	135 (90%)[a]	1 (1%)	3 (2%)	150
Total	1,367 (27%)	1,408 (28%)	2,279 (45%)	46 (1%)	5,100

Table 29 (continued)

Semantic Category	Subjects' Response			Missing	Total
	Ø	A	THE		
Bachelor's					
Gen_Ø	558 (80%)[a]	33 (5%)	92 (13%)	17 (2%)	700
Gen_A	58 (19%)	165 (55%)[a]	71 (24%)	6 (4%)	300
Gen_THE	166 (30%)	57 (10%)	324 (59%)[a]	3 (1%)	550
Refdef_THE	166 (9%)	168 (9%)	1,554 (82%)[a]	12 (1%)	1,900
Refindef_Ø	331 (66%)[a]	135 (27%)	26 (5%)	8 (2%)	500
Refindef_A	30 (4%)	697 (87%)[a]	68 (9%)	5 (1%)	800
Nonref_Ø	137 (69%)[a]	55 (28%)	2 (1%)	6 (3%)	200
Nonref_A	11 (7%)	139 (93%)[a]			150
Total	1,457 (29%)	1,449 (28%)	2,137 (42%)	57 (1%)	5,100
Master's					
Gen_Ø	306 (81%)[a]	13 (3%)	56 (5%)	3 (1%)	378
Gen_A	18 (11%)	106 (65%)[a]	38 (23%)		162
Gen_THE	63 (21%)	26 (9%)	206 (69%)[a]	2 (1%)	297
Refdef_THE	77 (8%)	76 (7%)	868 (84%)[a]	5 (0%)	1,026
Refindef_Ø	183 (68%)[a]	71 (26%)	11 (4%)	5 (2%)	270
Refindef_A	9 (2%)	377 (87%)[a]	44 (10%)	2 (0%)	432
Nonref_Ø	73 (68%)[a]	26 (24%)	3 (3%)	6 (6%)	108
Nonref_A	4 (5%)	77 (95%)[a]			81
Total	733 (27%)	772 (28%)	1,226 (45%)	23 (1%)	2,754

Note. The vertical total refers to the number of items in each subcategory multiplied by the number of subjects in each academic level (n = 50 for Freshmen, Sophomore, and Bachelor's and 27 for Master's), while the horizontal total is the sum of article types used or omitted by all subjects of the academic level in each subcategory.

[a]The correct article in that context

In Table 30, the rate of missing data was high for all the groups compared with the cloze test. The rate of correct article usage in the generic context was under 50% in all four groups, the lowest rates compared to those of the other three semantic categories: referential definite, referential indefinite and nonreferential. The Freshmen had a 57% rate of correct article usage in the referential definite and indefinite contexts and a 60% rate in the nonreferential context, while the Sophomores had a 59% and 70% rate in the referential definite and indefinite contexts respectively, and a 71% rate in the nonreferential context. Whereas the Bachelor's group had a 61% correct article usage in the referential definite context, a 59% rate in the referential indefinite and a73% rate in the nonreferential context, the Master's group had a rate of 63% in the referential definite context, a 58% in the referential indefinite context and a 78% rate in the nonreferential context. On the whole, the rate of correct article use on the error correction task was: Freshmen 46%, Sophomores 59%, Bachelors 58% and Masters 62%. The incorrect use of the English articles in all subcategories suggest L1 or L2 transfer or overuse of the L3 articles. In the table, the results also show an unexpected use of the zero article as well as fewer indefinite and definite articles than expected.

Table 30

Summary Statistics: Distribution of Articles in the Error Correction Task by Academic

Level

Semantic Category	Subjects' Response				
	Ø	A	THE	Missing	Total
Freshman					
Gen_A	8 (8%)	10 (10%)[a]	35 (35%)	47 (47%)	100
Refdef_THE	41 (5%)	178 (20%)	513 (57%)[a]	168 (19%)	900
Refindef_A	44 (11%)	229 (57%)[a]	4 (1%)	123 (31%)	400
Nonref_A	32 (13%)	151 (60%)[a]	12 (5%)	55 (22%)	250
Total	125 (8%)	568 (34%)	564 (34%)	393 (24%)	1,650
Sophomore					
Gen_A		35 (35%)[a]	31 (31%)	34 (34%)	100
Refdef_THE	11 (1%)	183 (20%)	535 (59%)[a]	171 (19%)	900
Refindef_A	6 (15%)	280 (70%)[a]	1 (0%)	113 (28%)	400
Nonref_A	8 (3%)	178 (71%)[a]	3 (1%)	61 (24%)	250
Total	25 (2%)	676 (41%)	570 (35%)	379 (23%)	1,650
Bachelor's					
Gen_A	1 (1%)	40 (40%)[a]	29 (29%)	30 (30%)	100
Refdef_THE	2 (0%)	122 (14%)	546 (61%)[a]	230 (26%)	900
Refindef_A	4 (1%)	236 (59%)[a]	3 (1%)	157 (39%)	400
Nonref_A	3 (1%)	183 (73%)[a]	-	64 (26%)	250
Total	10 (1%)	581 (35%)	578 (35%)	481 (29%)	1,650
Master's					
Gen_A	1 (2%)	26 (48%)[a]	13 (24%)	14 (26%)	54
Refdef_THE	2 (0%)	50 (10%)	307 (63%)[a]	127 (26%)	486
Refindef_A	1 (0%)	125 (58%)[a]	1 (0%)	89 (41%)	216
Nonref_A	1 (1%)	105 (78%)[a]	1 (1%)	28 (21%)	135
Total	5 (1%)	306 (34%)	322 (36%)	258 (29%)	891

Note. The vertical total refers to the number of items in each subcategory multiplied by the number of subjects in each academic level (n = 50 for Freshmen, Sophomore, and Bachelor's and 27 for Master's), while the horizontal total is the sum of article types used or omitted by all subjects of the academic level in each subcategory.

[a] The correct article in that context.

Table 31 shows that in the cloze test the learners used the definite article 25% of the time in [+HK] contexts ([-SR +HK]) and 5% of the time in [+SR] ([+SR -HK]) contexts; they also used the indefinite article 18% of the time and the zero article 52% in [+HK] contexts, while in [+SR] contexts ([+SR -HK]) the zero and the indefinite articles were used 25% and 53% of the time, respectively. It can be said from the results that the learners associate the zero article with the [+HK] feature in [+HK] contexts and the indefinite article with the [+SR] feature in [+SR] contexts.

A comparison of the rate of usage of the three articles in the two contexts, [+SR] and [+HK], by academic level showed that all four groups had the highest rate of article for the zero article followed by the definite article and then the indefinite article in [+HK] contexts. However, in [+SR] contexts, the article with the highest rate of usage was the indefinite article, then the zero article and at last the definite article.

Table 31

Distribution of the Articles in [+HK] and [+SR] Contexts in the Cloze Test and by

Academic Level

Context Type	Frequency of articles used[a]		
	Ø	A	THE
Cloze			
(a) [+HK]	2,548 (52.4%)	932 (17.7%)	1,891 (24.7%)
(b) [+SR]	1,208 (24.8%)	2,957 (52.6%)	374 (4.9%)
Academic level			
(a) [+HK]			
Freshman	638 (48.9%)	304 (18.6%)	541 (26.9%)
Sophomore	741 (54.2%)	228 (16.2%)	563 (24.7%)
Bachelor's	782 (53.7%)	255 (17.6%)	487 (22.8%)
Master's	387 (52.8%)	145 (18.8%)	300 (24.5%)
(b) [+SR]			
Freshman	319 (24.4%)	828 (50.7%)	113 (5.6%)
Sophomore	336 (24.6%)	849 (60.3%)	112 (4.9%)
Bachelor's	361 (24.8%)	832 (57.4%)	94 (4.4%)
Master's	192 (26.2%)	448 (58.0%)	55 (4.5%)

Note. n = 50 for Freshmen, Sophomore, and Bachelor's groups and 27 for Master's.

[a] The total articles used by all subjects and groups were obtained from Tables 26, 28, 29 and 30. The percentages in the table were obtained by (a) first dividing the total number of article type used in each context, [-SR +HK] and [-HK +SR], by the overall total used by all subjects or a group (i.e. horizontal total in Tables 26 and 28; for groups Tables 29 and 30), and then (b) multiplied the result obtained in (a) by 100.

Table 32

Distribution of the Articles in [+HK] and [+SR] Contexts in the Error Correction Task

and by Academic Level

Context Type	Articles Used		THE[a]
	Ø	A	
Error correction			
(a) [+HK]	10 (6.1%)	111 (5.2%)	108 (5.3%)
(b) [+SR]	55 (33.3%)	870 (40.8%)	9 (.4%)
Academic level			
(a) [+HK]			
Freshman	8 (6.4%)	10 (3.9%)	35 (6.2%)
Sophomore	-	35 (5.2%)	31 (5.4%)
Bachelor's	1 (10.0%)	40 (6.9%)	29 (5.0%)
Master's	1 (20.0%)	26 (8.5%)	13 (4.0%)
(b) [+SR]			
Freshman	44 (35.2%)	229 (40.3%)	4 (.7%)
Sophomore	6 (24.0%)	280 (41.4%)	1 (.2%)
Bachelor's	4 (40.0%)	236 (40.6%)	3 (.5%)
Master's	1 (20.0%)	125 (40.8%)	1 (.4%)

Note. n = 50 for Freshmen, Sophomore, and Bachelor's groups and 27 for Master's.

[a] The total articles used by all subjects and groups were obtained from Tables 26, 28, 29 and 30. The percentages in the table were obtained by (a) first dividing the total number of article type used in each context, [-SR +HK] and [-HK +SR], by the overall total used by all subjects or a group (i.e. horizontal total in Tables 26 and 28; for groups Tables 29 and 30), and then (b) multiplied the result obtained in (a) by 100.

Table 32 above shows that the learners used the zero article the most, followed by the definite article and the indefinite article in [+HK] contexts ([-SR +HK]). The fact that the zero article had the highest rate in the context, permits the conclusion that the learners associated the zero article to [+HK] feature in the error correction task. They used the indefinite article most of the time, followed by the zero article and then the definite article in [+SR] contexts ([+SR -HK]); and since the indefinite article had the highest frequency in the context, it can be inferred that they associated the indefinite article to the feature [+SR].

Comparing the rate of use of the definite article by academic level (Table 32), it can be observed that for both contexts there is a correlation between rate of use and academic level in the [+HK] contexts but this was not the case in the cloze test.

Conclusion

The generalizations that can be drawn from the findings of this study are that overall there was no consistent relationship between academic level and performance on all the tests; the participants used the three article types in all four semantic categories under consideration leading to some errors although their mastery of article usage was overall good. They used fewer zero and definite articles and more indefinite articles than expected in the cloze test; in the error correction task, they used fewer indefinite and definite articles than expected. They associated the zero article to the [+HK] feature in [+HK] contexts and the indefinite article with the [+SR] feature in [+SR] contexts. The subjects used the articles with an above average rate of accuracy, but they could not

correct them with the same level of accuracy: The rate of correct article use in the cloze test was 74.3% and 61.3% in the error correction task with a high rate of missing data in the latter task. Although the subjects listen to English broadcasts at least once a week, their use of English is limited to academic issues on campus.

From the findings in this study we have learned that proficiency in English (correct article use) was not necessarily related to academic level and also the subjects perception of language distance and some of the errors they made were likely due to L1 and/or L2 transfer as well as the overuse (i.e., more frequently used by learners than native speakers would or expected in the test) of L3 articles. The correct use of articles depended on task type and when the learners thought they did not know the article to use, they supplied none. In the next chapter, the results are discussed with regard to transfer and the role that a multilingual context like Burkina Faso and the educational system play in the acquisition of English as a foreign language.

CHAPTER 6

CONCLUSION

Summary

This dissertation was motivated by the need to assess the acquisition of the English articles by Burkinabè university students majoring in English. The review of the literature (Chapter 3) established, among other things, that while there are numerous studies involving the learning/acquisition of articles in French and English as L2s, there is no published research dealing with the acquisition of English articles as L3 by African students and especially Burkinabè. Our research findings presented in chapter 5 suggest at least four main conclusions:

First, the sociolinguistic data suggest that although the use of English is very limited in Burkina Faso (mainly for academic purposes), the subjects have opportunities to listen to English broadcasts (80.6% reported listening and a majority of 35.5% reported listening once a week), hence they may have better ability in comprehension than in production (Table 17). In addition, they suggest that only 19.9% of the subjects speak one African language and the remaining speak at least two African languages; although the choice of language depends on different factors, French is highly used in most contexts (life in general, government offices, shopping, and with strangers) for communication.

Second, the rate of correct articles used (Table 18), calculated with the mean scores for the cloze test was 74.3%, the rate of correctly identifying incorrect articles used was 74.6%, and that of correcting identified errors was 61.3% implying that the subjects could correctly use and identify incorrect articles to an acceptable degree (above average)

but could not correct the incorrect articles to the same degree. The mean scores for the groups on the different tasks (Table 19) indicate that on the whole there was a higher positive correlation between performance and academic level in the cloze test than in the error correction task while in the error identification task the correlation was negative. Moreover, there was some correlation between academic level and performance in some semantic categories on the cloze test and error correction task (Tables 24 and 25). In addition, the reliabilities of the three tasks were between .79 and .85 (Table 18), suggesting that the data collection instruments were of acceptable reliability. The effect size between the Freshmen mean scores and the others in the cloze test was of practical importance, while in the error identification it was the difference between Sophomores and Masters and in the error correction the important mean difference was between Freshmen and Sophomores. Some important effect sizes were also found between some groups in the four semantic categories (Tables 20, 21, 22 and 23).

Third, the high rates of incorrect use of the definite, indefinite and zero articles in the four semantic categories (Tables 26, 28, 29, 30) suggest L1 and L2 transfer and/or overgeneralization of the English articles and hence support the hypothesis of this study: subjects transfer both their L1 and L2 article usage into L3. Recall that the other three hypotheses claimed that a) only L1 is transferred; b) only L2 is transferred; c) there is no transfer. In addition, the results in those tables also sugggest that the subjects used fewer zero and definite articles but more indefinite articles than expected in the cloze test, and in the error correction task they used fewer indefinite and definite articles than was expected.

Fourth, the learners associated the zero article with [+HK] feature in [+HK] ([-SR +HK]) context in both the cloze test and the error correction task, and they associated the indefinite article with [+SR] feature in [+SR] (+SR -HK] context in both the cloze test and the error correction task (Tables 31 and 32).

Discussion

The discussion of the results will focus on four areas: (a) the overall performance of the learners, (b) the reliability and validity of the data collection instruments, (c) the phenomenon of transfer, (d) the implications of the study, (e) conclusion.

Overall Performance

On the whole, as can be seen from Table 18, mean scores for the four academic levels in all three tasks showed some positive correlation between performance and academic level in the cloze test, some negative correlation in the error identification task and no correlation in the error correction task. Hence, performance did not totally correlate in each task with length of exposure to English as would have been expected after a minimum amount of exposure has been obtained. This partially supports the claim in the SLA literature that the amount of exposure is not a determining factor for acquisition (Oyama, 1976; Pica, 1985; Kambou, 1995c). Since there was no correlation between academic level and performance in all three tasks, it makes sense to suggest that correlation between academic level/length of exposure and performance will depend on task type. Since classroom exposure is not directly related to the level of proficiency of

learners in all task types, this result suggests that other sources of exposure, for example, listening to English broadcasts, could contribute to these results. For example, in Table 17, about 81% of the subjects reported listening to English broadcasts and only 29% of these listen to broadcasts everyday.

With respect to usage, subjects reported using English mainly for academic purposes (59.1%), while French is the most widely used language in almost all contexts. It should therefore not be surprising that the test, based mainly on usage, had results above average. This performance could be due to the fact that the classroom exposure is where the subjects' reading comprehension, writing and speaking skills are mostly developed, whereas the English broadcasts they listen to developed their listening comprehension skill. This supports the view about social factors in SLA and especially Cummins' (1983) position on cognitive/academic language proficiency (CALP), the linguistic knowledge which prepares learners for academic work and in this case mainly for reading and listening (comprehension) and less of production (writing and speaking). The differences in the performance of the students in the various academic levels could also be due to learner differences as can be seen in the standard deviations of the four groups on the three measures of proficiency (Table 19) where there is a lot of variation in the Freshmen group, especially in the cloze test where this group's mean score was significantly different from that of the other three groups.

Most of the students started learning English at the age of 12-13 years, and as such the important effect size observed in the mean score difference (Table 20) between Freshmen and the rest in the cloze test seems to suggests that it is what the students learn

in secondary schools that makes the difference and not what they learn at the university. Evidence for this is that the effect size for the other groups was not singnificant. Another factor that could explain the difference between Freshmen and the rest is that there is a weekly difference of nine hours between classroom exposure in secondary school (3 hours/week) compared to university (12 hours/week). The results also suggest, due to the performance of the Freshmen on the three tasks, that secondary school does not seem to prepare students for article usage as seen in the cloze and article correction results (Table 19), but rather prepares them for error identification. The difference in performance between the Freshmen and the others can also be justified by the fact that in the French educational system, which we inherited, it is a widely known and accepted fact that the Freshman year is the period of adjustment to university academic life, hence the academic performance of students at this level is low compared to the other academic levels. The evidence for this is in effect size for the cloze test in Table 20 where there is a significant difference of at least one standard deviation between the Freshmen and the three other groups. This malpreparation of students can be linked to the educational system as a whole and lack of materials and teachers as discussed in chapter two in addition to the fact that they learn less grammar in Freshman year. On the contrary, the Sophomores had the best performance on the three tasks and this could be because this group is at the level where a prescriptive grammar and an English syntax course are taught. Since all students who have passed the sophomore year learned English grammar and syntax only at that academic level, the cloze test result is an indication of the effect of instruction of grammar on performance. Their good performance could be due to grammatical sensitivity, an

aptitude that Carroll ((1981) (cited in Freeman-Larsen and Long, 1991)) defined as "an ability to recognize the grammatical functions of words (or other linguistic entities) in sentence structures". On the whole, the subjects were above average, with a rate of accuracy of 74% in the cloze test, 75% in the error identification task and 61% in the error correction task; the cloze rate of accuracy is similar to that of Yamada and Matsuura's (1982) study with their Japanese students (74% accuracy). Would this rate of accuracy be the best performance for foreign language learners since both studies (Yamada & Matsuura and the present study) involved university students who are advanced learners as subjects, and in the present study with at least seven years of English?

In Burkina Faso, some of the College and Lycées do not have English teachers regularly all year round, and this situation could lead to the reduction of the hours of English that students are supposed to have in the week; this researcher experienced this situation in 1987-88 when he was doing his national service at Lycée Provincial de Kaya. In addition to the lack of teachers all year round, class size can also be a variable that affects the acquisition of English.

In terms of learner differences as pointed out in Brown (1977), the results of this study suggest that there is a difference in learning/cognitive style as proposed in the literature: since the test required learners to read whole texts and find details, the field independent learners were at an advantage, while the field dependent learners were at a disadvantage. In this study the groups that performed well had more learners who could identify details (articles) in the text, while those who did poorly had subjects who could

not identify details (articles) in the text. However, I did not include this measure/variable in the questionnaire, but in my future studies I hope to do so.

With regard to motivation as a social-psychological factor, we know that English in Burkina Faso is basically instrumental, because most of the students who study it at the university need it to get better-paying jobs with international organizations, in teaching and translation/interpretation. Although we expect students in the final year (masters) to be very motivated, the results show that it is rather those in their second year (sophomores) who are. Given our knowledge of the context, experience and the results of the study, it can be argued that a lack of motivation in the Bachelor's and Master's years is because students are always excited in their first two years, but towards the third year the fact of knowing that there are many unemployed English graduates discourages or unmotivates most of them. We could then ask why the first year students are not doing well with article usage, especially with a lower rate of missing data on the error correction task than the others. The cause of this observation, as explained earlier, may be due to the lack of English teachers regularly, as well as to the big class size during their seven years of secondary school.

An examination of Tables 24 and 25 suggests that there is some degree of a developmental pattern in the acquisition of the English article system with regard to some semantic categories and subcategories although the overall rates of accuracy (Table 18) mask this information. Table 25 shows that the rate of accurate use of the zero article increases from the Freshman year to the Master's year in all subcontexts, and the same trend is true for the accurate use of the indefinite article as well as the definite article.

There is also a clear decrease in the incorrect usage of the definite article as proficiency level increases, and at Bachelor and Master's year the definite article is not used in nonreferential A contexts.

Reliability and Validity of Tests

The question of reliability and validity of data collection methods are still an issue in SLA. The reliability estimates on the three tests in Table 18 suggest that they are good measuring instruments especially those of the cloze and error correction tasks which both measure performance. In addition, the performance of the groups on the cloze test and error correction task were similar in rate of accuracy in spite of the low number of items in the error correction task (33 items) although the tests were taken at different times. The fact that the tests were taken at different times and had similar rates of accuracy suggested an acceptable degree of reliability in Hughe's (1989) view. The reliability coefficients of the two tests (.85 and .80) reflect this acceptable reliability. The tests can be said to have acceptable content validity, because items tested were many and are to some extent representative of the four semantic categories which were tested: (a) generic; (b) referential definite; (c) referential indefinite; and (d) nonreferential. This supports the points of view argued for by some SLA researchers concerning the use of cloze test (Oller,1973 and Jafarpur, 1995) and judgment task (Gass, 1994 and Cowan & Hatasa, 1994) in data collection.

The error identification as a judgment task which measures intuition (competence) suggests that the students had a certain competence (about 75% rate of identifyng

incorrect article use) and the test could be said to measure the learners' competence as Gass (1994) claimed, although there are issues in SLA regarding what measures competence and performance (Birdsong, 1989; Eckman, 1994; Brown et al. (Eds.) 1996). The error correction and the cloze tasks on the other hand, can be said to measure the learners' performance and since performance does not necessarily reflect competence; this point of view is supported by this study because the mean scores on the three tasks were different for each group (see Table 19). Table 28 also supports this view because it can be inferred from the high rate of missing data that the students did not resort to guessing in the error correction task where the propability of guessing right was 50%, they were relying on what they knew: they correctly identified incorrect articles but could not correct them. In addition, the error correction reliability estimate suggests that this is also a good instrument for data collection although it has not been emphasized and used as often in the literature as the other two instruments. The error correction procedure could be considered a supplement to cloze tests in examining learners usage of a grammatical item, considering that in spite of the great difference in number of items, the reliability estimate (.80) for this procedure is not very different from that of the cloze test (.85). In the literature, some researchers have suggested that error identification is not enough and should be followed by error correction. This study supports this view, because the use of error identification and error correction enables us to better understand what the learners know and what they can do. Without the error correction task, we would only know what they can perceive.

Comparing the Burkinabè learners to the native speakers, the observed range of the learners (Tables 18 and 19), we observe that in the cloze test the learners' performance was far from that of the native speakers which served as basis for grading the learners' performance. But in the error identification, some of the learners identified almost all the wrong article usage (a range of 13-32 items correct in Table 18) and this is similar in the case of the error correction (a range of 0-30 items correct in Table 18). In view of these results, we can conclude that some of the students have near native competence in regard to the use of article if we assume that the error identification task measured competence. Under the assumption that the cloze test and error correction task measured the performance of the learners, we can also conclude that their performance is far from near native. We can therefore conclude from the above discussions that the tests/measures of proficiency are valid and reliable, because they measured the learners' knowledge and use of the English articles have enough representative items and mean scores were not similar across tests (Table 19). The cloze test in this study with a reliability estimate of .85 supports the claim made by Oller (1973) regarding the reliability and validity of the cloze test, because in most of the studies he used to support his arguments, the reliability estimates ranged between .80 and .98.

Reliability and indeterminacy. Gass (1994) examines the reliability of L2 grammaticality judgments and concludes from her results that, "the issue of reliability cannot be separated from issues of indeterminacy" (p. 319). For her, "indeterminacy refers to the learner's incomplete knowledge or absence of knowledge of parts of the

second-language grammar" (p. 305). In her conclusion, therefore, the items with low reliability are indeterminate. Assuming her point of view, and for our study a reliability of less than .60, we can state from Table 18 that in the cloze test, it is the non-referential and the referential indefinite contexts that had lower reliability estimates, .09 and .51, respectively, while in the error identification and correction tasks it was the generic and non-referential contexts. Hence the use of the English articles was indeterminate in different contexts depending on task type. When we examine the different contexts by academic level (Tables 24 and 25), we see that the non-referential and referential indefinite contexts in the cloze test are indeterminate, while in the error identification and correction it is the generic and nonreferential contexts that are indeterminate. Some of the contexts have negative reliability estimates (Table 24). It should also be noted that with fewer items the reliability is low and also the standard deviation and means are affected, a widely observed phenomenon in behavioral measurement (Hughes, 1989). We would, therefore, not rely so much on reliability estimates where there are less than 10 items to argue indeterminacy since it implies difficulty. However, using reliability estimates to determine a hierarchy of difficulty for this study resulted in a different hierarchy compared to the one obtained from using the rate of correct article usage (based on mean score).

Issues of Transfer

The phenomenon of transfer is an important issue in SLA (Odlin, 1989; Gass & Selinker, 1983) and as Ellis (1994) rightly put it "No theory of L2 acquisition is complete without an account of L1 transfer" (p. 341). We will examine this phenomenon which is

the central research issue of this study. The study of transfer as summarized in Ellis (1994) can be analyzed or studied in two ways: (a) manifestations of transfer, and (b) constraints on transfer. The discussion of the issue of transfer will be undertaken considering the two factors (a) and (b) mentioned above.

Manifestations of transfer. Manifestation of transfer occurs in any of the following ways: (a) interference or negative transfer or errors, (b) positive transfer or facilitation, (c) avoidance or underuse, (d) overuse or overgeneralization. In chapter 1, Table 3 can be used to compare and predict difficulty of article usage in L3 as well as sources of transfer, and the discussion that follows will be based on it.

To determine whether transfer has taken place or not, we should first determine if the errors are developmental (i.e., if both L1 and L2 learners make the same errors) or not. If they are not developmental, then we can conclude that the data suggest a transfer error and in our case we have to further determine if the source is L1 or L2. In the L1 literature on the acquisition of the English articles, Cziko (1986) proposed four stages of acquisition where in the first three stages the definite article is used only in referential definite and referential indefinite contexts. And it is in stage four that they attain adult competency. In an L2, Thomas (1989) suggested, from the different studies she examined, that the definite article emerges early and the indefinite article later.

The subjects of this study are not beginners, but examining the distribution of articles in Tables 26 and 28 we see that the three articles are used in the four different contexts. These learners, we assume, possess the adult usage in their L1 and L2 or

previously learned languages. In their L1, it is the zero article that is used for generic nouns, while in L2 it is the definite article. If we assume that these learners are beyond Cziko's (1986) stage three, then they should use the articles as the L1 learner in stage four but this is not the case. The high rate of wrong usage of the zero (28%) article in the generic_THE context and in the generic_A context (17%) suggests that the learners are transferring their L1 article usage in this context into English. This finding is supported by Thomas' (1989) study in which students whose L1 has no article produced a considerable high rate of zero article in contexts of the definite and indefinite articles resulting in wrong usage. The high rate of wrong usage of the definite article (26%) in generic_A context and (18%) in generic_Ø suggests that the learners are transferring their L2 article usage or are overgeneralizing the definite article in English. If there was transfer, it would be from L2, because in L1 the definite article is not used for generic expression but in French (L2) it is. However, if it is overgeneralization of the English article, it may be due to avoidance of the zero or indefinite articles, but then the question is why would they want to avoid them?

Due to the difficulty teasing out avoidance and overgeneralization because one can lead to the other and vice-versa, it makes sense to conclude that it is L2 interference or negative transfer. This is also the case in generic_Ø contexts where the main source of errors is the definite article (18%). Again, L1 does not use the definite article in generic contexts, hence it is likely to be a negative transfer from French. However, in the L2 literature as suggested by Thomas (1989), learners overgeneralize the use of the definite article. The learners she referred to students were lower level learners compared to the

subjects in the present study, so it makes no sense to suggest that this is a developmental transfer even if it has support from the literature. In the generic context therefore, both L1 and L2 article usages were transferred into L3, but in examining the results in Table 28, we see that the common source of error in generic_A context was the definite article (31%) as was the case in the cloze test (Table 26). A comparison of the generic contexts results in Tables 26 and 28, suggests that the main source of transfer for generic_A is the definite article; and as has been argued above, this fact is due to French (L2).

In the referential definite context, examining Tables 26 and 28 shows that the main source of errors in this context is from neither of the students' previous languages because, only the definite article is used in this contexts in all three languages; while in the referential indefinite_A contexts it is the definite article (9%) which is the main source of error, in the referential indefinite_Ø contexts it is the indefinite article (29%). The L1 of the learners has no article in this context, but French (L2) uses the indefinite article, hence L2 transfer is more plausible. But then what about the incorrect use of the definite article in this context which is not due to L1 or L2? Maybe this is due to guessing or overuse of the definite article. In the non-referential contexts, the main source of error is the indefinite article in the Ø context. Here again, French uses the indefinite article, while the L1 uses the Ø article, as a result, it must be a negative transfer due to French. On the whole, therefore, L1 transfer is more frequent in the generic context than L2; while in the nonreferential and referential indefinite contexts L2 transfer is more frequent than L1 (see rate of article usage in Table 26).

From the discussion above, we can argue that the subjects' previous languages served as facilitators given the high accuracy rates. Also, these results suggest that some students in transferring the articles of their L1 and L2 focussed more on form than meaning. Had they focussed on meaning, the use of the indefinite and zero articles in the referential definite contexts should be much lower since in general we use the definite article in this contexts to refer to a previously mentioned noun (Table 26). In the generic context, the rate of errors should also have been lower since the use of articles here refer to general concepts and not to specific nouns. In addition, the fact that the generic context had the lowest rate of accuracy in all three measures of proficiency (Table 18) suggest that they focussed more on form than meaning. Another cue for the students' focus on form rather than meaning is that their rate of accuracy is higher for the indefinite article in referential indefinite and nonreferential contexts requiring the indefinite and zero articles. It can therefore be argued from the above observations that article forms in L3 similar to L1 and L2 were the elements on which the learners focussed. It also raises the question of some of the students' knowledge of article and noun combination discussed briefly in chapter one. This view is supported by the fact that the students would not have used any zero and indefinite articles in the referential definite context for example, but this was not the case; they used them in this context. In the generic, the wrong use of the indefinite article is likely to be an intralingual error since none of the previously learned languages of the subjects uses an indefinite article in the generic context. Although French has an indefinite article, it is not frequently used in the generic context and when used, it is used with a sort of resumptive pronoun, for example,

(1) Un chien ça aboie.
    A dog it barks
    'A dog barks'

It could be argued that the students are transferring the French indefinite, but the question then is what about the resumptive pronoun ça? It would be interesting to compare the Burkinabè students with French students learning English as a second language to see if the resumptive pronoun shows up. At this point, therefore, it is argued that the students are transferring their knowledge of English, because the literature on first and second language acquisition shows that this wrong use of the indefinite article in the generic context is evidenced (Tarone & Parrish, 1995).

With regard to the zero article, it could be argued that it was the transfer of the native language (L1), although it could reasonably be maintained that it was from English. However, the frequency of usage suggests that it is not English but the L1 given that that is the only way to express a generic noun in the L1.

If the analysis proposed here is correct, then there is a positive transfer in the case of the zero article in the generic context, because about 73% of it is correct. The use of the definite article in the generic context could also be argued to be a transfer from French since that is the unmarked article for this context, and again we see that about 60% of the articles resulted in positive transfer. For the generic context, therefore, the previously learned languages have been facilitators for the learners.

Concerning the referential definite context, if we assume that they are transferring from both L1 and French (L2) as is the case in the generic context, we see that about 80%

of the articles resulted in correct usage, therefore, the previously learned languages acted as facilitators.

In the referential indefinite context, it is the indefinite article that is the most frequently used, about 64% of the total in the context. Since the L1 of the learners has no overt indefinite article but French does, it could be argued that the learners are transferring from French. On the other hand, the high use of the zero article could also be argued to be from the L1. Here again, the results show that both the L1 and L2 act as facilitators in this context.

Nouns in the nonreferential context in both the L1 and L2 are marked with zero article, but in some cases French uses the indefinite article. The use of the zero article which accounts for about 39% of the total articles occurring in that context is due to the previously learned languages, the L1 and L2, but the use of the indefinite article is from English since the indefinite article in both the L1 and L2 does not occur in this context. The previously learned languages again act as facilitators, because about 92% of the usage of the zero article was correct usage.

In the case of article token types documented, Table 26 shows that the total number of zero (4,862) and definite (7,654) articles used was lower than was expected (4,956 zero articles i.e., 177 x 28 items and 8,673 definite articles, i.e., 177 x 49 items) in contrast, more indefinite articles (5,261) were used than was expected (4,425 indefinite articles, i.e., 177 x 25 items). Table 28 also shows that the occurrence of the zero article was not expected and there are less indefinite (2,131) and definite (2,034) articles used than was expected (2,655 indefinite articles, i.e., 177 x 15items and 3,186 definite articles,

i.e., 177 x 18 items). Why did the learners under-use some forms and over-use only the indefinite article in the cloze test? The present data do not allow us to fully answer this question: in future studies, however, an interview with some subjects could help answer the question. All the same, the arguments on L1 and L2 transfer and the overgeneralization of L3 forms could be used to attempt to answer the question.

This study shows, with regard to transfer, that the learners transfer their L1 article and L2 usage in all four contexts; however, L1 results in higher rates of positive transfer in the generic, referential indefinite and nonreferential contexts; while L2 results in positive transfer in the generic context only. The use of the definite article in the referential definite context could be due to L1 or L2. Hence, in the acquisition of the English article system, L3 learners transfer the article usage of both L1 and L2, but the former is used in more contexts than the latter. Although transfer results in correct article usage in L3, L1 is the main source of error in nonreferential contexts; L2 is the main source of error in the generic and referential indefinite contexts as shown in Table 26.

Constraints on transfer. In the literature there have been some constraints that researchers have identified and suggested to affect transfer. Ellis (1994) grouped them under six areas of which we present five: a) language level; b) social factors; c) markedness; d) language distance and psychotypology; e) developmental factors.

(a) Language level: Since we are considering article usage in discourse, it is likely that some of the learners made lexical errors by using translation equivalents. In the generic context as can be seem in Table 26, the transfer is more likely to be from the L1

rather than from the L2, although transfer from both languages is attested. This occurs in the cloze test where the learners are free to use an article, but in the error correction task where they have to decide what to use to correct the wrong one, they seem to monitor their usage and rely more on French than on the L1 as evidenced in Table 28. These results (Tables 26 and 28) show that the source of transfer depends on task type. In the case of the referential definite, the high use of the zero and the indefinite articles shows that the learners are relying on their L1 and L2. As for the referential indefinite context, the high use of the indefinite article (17%) which led to errors compared to that of the zero article (8%) suggests that the learners are transferring from French. In the nonreferential where there is a similar case to the referential indefinite context, the use of the indefinite article cannot be from either the L1 or L2 since both languages do not use the indefinite article here.

(b) Sociolinguistic factors: Considering sociolinguistic factors as constraints for transfer, we can argue from the results and the sociolinguistic information (Table 17) gathered from the questionnaire that the use of English exclusively for academic purposes and French and L1 for all other contexts is likely to make French, and not the L1, the most likely language the learners resort to when they are having difficulties in English for a translation equivalent. This strategy of communication makes sense since most of them did learn L1 orally and French is the dominant language, except when speaking with parents. Although the majority of the parents are farmers (28.2%) and civil servants (35%), only 42% of the subjects reported using French with parents, and the rest speak African languages with the parents because 48% reported that it was the only language the

parents speak. In general, the mothers are homekeepers and illiterate in French and this makes the use of L1 with parents the main language (Table 17). Some of the subjects' incorrect article usage could be due to transfer of training because as the results show, if the teachers do not have a very high accuracy rate and cannot correct students mistakes with a high accuracy rate, these students will continue to use incorrect forms and then pass them on to their students if they become teachers.

(c) Markedness as a constraint to transfer: According to the language typology view of markedness hypothesis, it is predicted that learners will transfer L1 unmarked forms where target language form is marked and will not transfer L1 marked forms when they are unmarked in the target language. It can be argued that considering the articles in the three languages, they all have the definite article as unmarked for the referential definite context. In the generic context, the unmarked article in French is the definite article and the one in Mooré is the zero article, and as such, the use of the indefinite article in English is a marked article for the learners. It would be natural, according to this view, that the learners would transfer the unmarked articles of their L1 and L2 into the English generic context. According to Eckman (1977), it is the use of the indefinite article in the generic context that will be difficult for the learners and this seems to be the case in this study. The notion of 'markedness' claims that crosslinguistically a more marked item 'X' implies the presence of a less marked item 'Y', but the presence of a less marked item ('Y') does not imply that of a more marked one ('Y'). This claim does not seem to be supported by the L1, because the more marked article (the definite article used in referential definite contexts only) does not imply the less marked one (indefinite article).

In addition, as stated in Ellis (1994), this framework claims that (a) "learners will transfer unmarked forms when the corresponding target language form is marked"; (b) learners will resist transferring marked forms, especially when corresponding target language form is unmarked" (p. 320). The cloze test result seems to corroborate this second claim, especially in the generic context where the unmarked article in the L1 (zero article) and in L2 (the definite article) have high rates of usage compared with the L3 indefinite article (The marked form).

(d) Language distance and psychotypology: This factor implies that learners are more likely to transfer from one language to another when they perceive that the two languages have similar structures or meanings (i.e. they think that they are not very different). The presence of L1 and L2 transfer in the data is consistent with the perception of the language distance by the subjects between L1 and L3 on the one hand, and between L2 and L3 on the other. As shown in Table 17, 60% of the subjects think L2 and L3 are structurally similar, compared with 48.8% who think L1 and L3 are structurally similar. This view is supported by the overall rate of article types used in both the cloze test and error correction task, Tables 26 and 28, where the definite and indefinite articles were used more often than the zero article.

(e) Developmental factors: Considering developmental factors that affect transfer, Klein (1986) argues that 'the possibilities of transfer increase as knowledge of L2 increases' (p. 27). The results of this study support this claim in the generic context when we examine the frequency of usage of the zero article: the rate of usage increases progressively from Freshmen to Master's groups. Although there are many missing data

in the error correction task, they could be considered to be a form of avoidance, because the learners did not want to guess but rather avoided the use of an article when they were not sure.

The Semantic Wheel for NP Reference

The literature using this framework has been summarized in Thomas (1989) and it suggests that L1 learners first associate the definite article with the specific referent ([+SR]) context, because they are sensitive specificity of nouns while the L2 learners first associate it with the assumed known to the hearer ([+HK]) context.

Speakers in the L1 and L2 associate the articles to features. We see that a summary of article usage in chapter one shows that in the L1, there are only two categories, while the L2 has four as in English. The L1 associates the definite article with [+SR +HK] and zero elsewhere whereas the L2 associates the definite article with [+HK] context and the indefinite and partitive [-HK] context.

For [+HK] ([SR +HK])and [+SR] ([+SR -HK]) contexts, the results in Table 31 shows that the definite article is not highly associated with [+HK] context (25%), but rather it is the zero article (52%). In the [+SR] context, it is the indefinite article (56%) that the subjects associated with the feature [+SR]. This result is inconsistent with Master (1987) and Huebner (1983), also inconsistent with Thomas' (1989) suggestion that learners initially associate the definite article with [+SR]. Table 32 shows that the learners associate the definite article (6.1%) with the feature [+HK]; however, the number of items in the error correction was few (33 items). Since Thomas (1989) suggested that data from

the generic context were needed to verify the association of the definite article context, we can conclude that this study offers the missing information in both the cloze test and the error correction task. However, the generic context in the latter measure of proficiency had two items compared to the former which had 31 items. We would, therefore, use the cloze test results for arguing the learners' association of a specific article with the feature [+HK] or [+SR]. The result of the cloze test (Table 26) can be interpreted in two ways: (a) by considering the total number of article types used in [+SR] and [+HK] contexts; (b) considering only the incorrect articles used in these contexts. However, the analyses in previous studies using this framework were based on (a); our analysis will also depend on this same condition in order to make a fair comparison of all the results obtained using this approach. In this case, the result as presented in Table 31, therefore, shows that L3 learners do not associate the definite article but rather the zero article with [+HK] context. However, if we considered the incorrect articles used, the rate is the same for the zero and definite articles in [+HK] or generic contexts, although in absolute numbers there is a four point difference in favor of the definite article. It makes sense to present the results of the two possibilities and if both point in the same direction, there can be support for a strong evidence for that analysis. For example, if in this study the rate of incorrect usage was higher for the zero article than the other two, then we could conclude there is additional support showing L3 learners associate the zero article with the generic ([+HK]) contexts. Using the two conditions (a) and (b) mentioned above, we see from Table 26 that they both show L3 learners associate the indefinite article with the referential indefinite ([+SR]) context. This result could be generalized to L2 and L3 learners, but it must be borne in

mind that there are differences in terms of the level of proficiency of learners in all the studies that used this approach. However, this conclusion is warranted, because all the studies in this framework were based on total number of article types used in the two contexts, referential indefinite([+SR]) and generic ([+HK]) although the others used oral data, and this research used written data. Again, the results in this study are consistent with Huebner (1983) and Master (1987) with regard to learners' overgeneralization of the definite article in all four contexts (Tables 26 and 28) which they called 'the' "flooding". Thomas (1989) reported that "the flood gradually receded, with the definite article disappearing first from [-SR -HK] contexts but persevering longer in [+SR -HK] contexts" (p. 340). Our research is consistent with this conclusion as evidenced in Tables 29 and 30 where the lowest rate of usage for the article is under 5% in the nonreferential [-SR -HK] and a bit higher in the referential indefinite [+SR -HK] contexts. This phenomenon seems to decrease as the level of proficiency increased, hence the learners could be said to have started to be aware of the [+HK] and [-HK] distinction in English.

Conclusion

It is clear from this study that cloze test, error identification and error correction tasks are reliable and valid as data collection instruments in SLA, because they provide us with information about possible and impossible article usage in the learners' interlanguage in different contexts. The study also gives evidence of transfer (positive and negative) of both L1 and L2 in the acquisition of L3, but only as they are used in specific contexts. Learners of English as L3 at the college level in Burkina Faso have not yet mastered the

distinction between [+HK] and [-HK] contexts, but their accurate pooled usage is 70% for the Ø article, 67% for the indefinite article and 85% for the definite article. The results in the cloze test show that L3 learners of English, unlike L2 learners, associate the zero article with [+HK] contexts in more than 52% of the time and not with [+SR] as was suggested by Thomas (1989). In addition, they associate the indefinite article with [+SR] contexts in over 52% of the time. A developmental pattern of acquisition emerges. The general pattern of difficulty observed in the three tasks (Table 18) from the most difficult to the least difficult context, based on rate of correct article usage are: (a) cloze: generic--->nonreferential---> referential indefinite--->referential definite; (b) error identification: generic--->nonreferential--->referential definite--->referential indefinite; (c) error correction: generic--->referential indefinite--->nonreferential--->referential definite. The hierarchy of difficulty in article usage where more than one is possible in the context is (a) generic: A--->Ø--->THE; (b) referential indefinite and nonreferential: Ø--->A. By academic level (Table 29), the hierarchy of difficulty in article usage by context from the most difficult to the least difficult is (a) generic: THE--->A--->Ø for Freshmen and A--->THE--->Ø for the others; (b) referential indefinite and referential definite: Ø--->A. From the results presented above, it reasonable to conclude that the most difficult context was the generic in all three tasks.

This study shows that there is a need to research L2 and L3 acquisition in the context of multilingualism like Burkina Faso and elsewhere in Sub-Saharan Africa as a whole as suggested in chapter one, because results of such studies can inform SLA researchers about SLA/FLA (foreign language acquisition) and this context is a permanent

field for this type of research. If the phenomenon of transfer is well understood and well documented in Burkina Faso, then curriculum development and teacher training could be based on results of research and as suggested in chapter 2, theory and practice could be supplementary to each other instead of uncomplementary as is the case today.

Implications of the Study

A number of theoretical and practical implications entailed by this study have been broached throughout this study, especially in chapters 3, 4, and 5. We highlight these implications below and discuss their relevance to the on-going debates on SLA.

Theoretical implications. The theoretical claim made in Huebner (1983) that no language will lexicalize the semantic categories 'generic' and 'referential indefinite' one way and then 'referential definite' and 'nonreferential' another is supported by this study. This support comes from the African languages and French in this study. For example, in Moore the 'generic' and 'referential indefinite' are lexicalized with the zero article, whereas the 'referential definite' is lexicalized with the definite article and the 'nonreferential' with the zero article. The semantic wheel for NP reference thus implies that when learners acquire the English article system they also acquire the semantic features of the four semantic categories. Considering the semantic wheel, the learner whose L1 is Moore with only two semantic categories ([+SR +HK] and the rest) will have to acquire four distinct semantic categories in learning English. A learner whose L1 is French with four semantic categories will have nothing to acquire in English, except the

distribution of the articles where the two languages differ. This framework can be used to study transfer in the acquisition of the article systems, and it sheds light on the theory of transfer because we know what is transferred and why it is. For example, the learners transfer their L1 or L2 article usage into L3 because they associate the articles with specific features. In the generic context, the learners main source of error in generic_THE contexts was their L1 (28%) and in generic_A contexts, it was their L2 (26%) (Table 26).

This study also shows that the semantic wheel for NP reference framework can be used to analyze the acquisition of articles in L3. At this stage of research into L2/L3 acquisition of the English article system using Huebner's (1983) framework, the plausible hypothesis is that the learners associate the definite article with [+HK] context. From the above discussions on transfer, predictions about article usage or transfer can better be made using this framework compared with the constraints on transfer from SLA literature discussed earlier: language level, social factors, markedness, language distance and typology, developmental factors. This theory will also be of importance in SLA if it goes beyond the scope of the article system, because in the reported studies it seems that considering the features [± SR] and [± HK] to examine the use of articles is only appropriate for L2 and L3 acquisition and not for L1 where the distinction for article usage is not made on the basis of [SR] and [HK] distinctions. Hence, either the name 'semantic wheel for NP reference' is a misnomer or the framework is for the referential system as a whole. The theory could be considered one of the referential systems as a whole where a distinction in the referential system is between specific and nonspecific nouns and the assumption regarding the hearer's knowledge may or may not be required.

If this feature is required, then the language makes a distinction between definite and indefinite as in English and French. Most of the theories of transfer have been used in L1-L2 situations but not in L1-L2-L3 situations and this type of study can help enhance our understanding of certain issues of transfer in SLA.

Pedagogical implications. In the case of teaching, there are different views as to how to teach the English article system to non-native speakers, and some researchers advocate the use of specific/general concepts (Hok,1970). This study shows that the Burkinabè learners of the English articles system acquire the features of the semantic categories in which the different articles are used by relying on the previously learned language usage and then distinguishing [+HK] and [-HK] contexts later. Hence, the teacher-trainees should be taught the semantic categories and the features that determine the choice of an article where more than one is possible. This approach or way of teaching will let them understand the assumptions made by the student and predict possible errors.

The result of this study shows that the generic context is the most difficult for learners and the indefinite article is the most difficult in this context; teaching of the genric use of articles should start with the least difficult and progress to the most difficlt. In the case of acquisition of the article system, it is clear from this study that not only is transfer from L1 and L2 useful, but also L1 transfer is the main source of error in generic_THE and L2 transfer in generic_A (Table 26). Teacher-trainees should be made aware of these and therefore encouraged to teach the use of the articles in context (discourse), but not in

isolated sentences. The developmental pattern of acquisition must be researched and used in material and test development as well as in teacher training. Curriculum development based on this framework might be useful in teaching the English article systems. Since most of the students in this study will end up as teachers of English, the fact that the results showed that they could identify errors better than they could correct them needs serious attention, because we would not want to have a multiplier effect of incorrect article uage from them. What mut be done to encourage and improve their error correction? Maybe one way is to raise their linguistic awareness, and also teach them some learning strategies like positive transfer.

Directions for Future Research

There is not enough research based on Huebner's (1983) framework to be able to answer some of the crucial questions about prediction and constraints of transfer in L3 acquisition, future research should focus on the following areas among others: (1) The acquisition of the English determiner system as a whole by similar subjects as those in this study would enable researchers to understand the role of L1 and L2 in the study of transfer. At this point, the items (articles) are similar, but with the determiner system where there are more differences in usage in the three languages, we could test the hypothesis that L2 and L3 learners of English associate the definite article to the feature [+HK] by asking if they would associate any definite noun with the feature [+HK]. It must also be remembered that in English and Mooré, the French equivalent of the partitive 'du' is not considered an article and this is a serious issue, because there are cases where

in English 'some' would be the appropriate equivalent of French 'du'. For example, "John has (some) cars" is the equivalent of "Jean a des voitures". This poses a problem to the syntactic limitations of noun reference which I beieve is beyond the article system.

(2) The acquisition of the article system in English by L1 French students would enable researchers to understand the role of French as L2 in the Burkinabè context. In this study, the role of L2 in the generic context cannot be claimed without reservation.

(3) Speakers of Voltaic languages acquiring English as L2 should be involved to help researchers understand the role of L1 since in the present study the role of L1 cannot be ascertained with absolute certainty.

(4) The subjects should include learners in all levels of Burkina Faso high schools to enable researchers to clearly see what the pattern of acquisition is from secondary school to university. (5) The cloze test could be given to native speakers and non-native speakers to take without restriction in the type of determiner to use in order to see what the referential system would be for them.

(6) Individuals versus groups in epistemology should be taken into account since our societies consider groups and not individuals in the classifications of their members. The concept of group is so important that even when single subject studies are conducted, the results are generalized to a group or groups (Hakuta, 1976; Huebner, 1983). In our view of error correction, when an error is common to a group it is important, and needs focus and when it is common to an individual it should not merit attention. This was the principle we used in Kambou (1992) for the error analysis.

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APPENDIX A

CLOZE PASSAGE

In the five unrelated passages below, write the missing article (a, an, the) which you think is correct in the space (......) provided. If no article is needed, put a "Ø". DO NOT INSERT ANY OTHER WORDS. An example is given below.

Example: When he was (1)......boy, he wanted to become (2).........doctor, but he didn't have(3)...... necessary intelligence.

(4)....... fruit flourishes in the valley.

Answers: 1. a   2. a   3. the   4. Ø

****

I. Michael Faraday

Michael Faraday was one of those remarkable men who began 1.... life in 2... very modest circumstances and yet reached 3...... top of their profession through 4... determination and 5.... certain amount of 6... good luck. Although he began his career as .7... poorly educated bookbinder, he became internationally known as 8..... scientist before he reached 9..... age of thirty. He devoted 10.... most of his life to 11.... experiments with 12.... electricity. He was 13... man who invented 14... first dynamo as well as 15... type of transformer.

II. Money

Before 16... money was thought of 17.... men exchanged 18.. goods. This was not 19... best system as 20.... person might of not easily find 21..... somebody who wanted what he had and could offer something acceptable in exchange. It is thought that 22.. first

money consisted of cowrie shells, which are found in many parts of 23... world. It was in China that 24..... idea of using 25... coins first arose. In ancient Greece 26... coin was worth, for 27....example, 28.. certain number of 29... oxen or 30... olives and could not be used to buy anything else. In time, 31.. gold and, 32... silver were used since these are among 33...most rare metals, but 34... money which we use nowadays is mostly 35.... paper notes. For 36... long time now 37... actual value of 38.... coin has borne 39.... little relation to what one can get for it, and 40.. paper note is practically worthless in itself.

III. The blind man

Her strength was unflagging. One or two early risers saw her, tried to stop her and ask where she was going. For they saw 41... young woman of twenty-five, with 42...long hair not too tidily plaited and with no head-tie to cover it, wearing 43.... loose house buba and 44.... faded lappa to match tied tightly around her thin waist, and they guessed that all was far from well. Apart from 45..... fact that her outfit was too shabby to be worn outside her home and her hair too untidy to be left uncovered, there was 46.... unearthly kind wildness in her eyes that betrayed 47.... troubled spirit. But so agile and so swift were her movements that she dodged 48... many who tried to help her.

By 49.... time she reached Oyingbo market, 50... sun was peeping out from behind 51... morning clouds. She was nearing 52..... busy part of 53....·town and there were already people about. 54..... early market sellers were making their way to 55.... stalls in 56.... single file, their various bundles tied and balanced unwaveringly on their heads. She collided with 57..... angry Hausa beggar who, vacating one of 58..... open stalls where he had spent 59.... night, was heading for 60.... tarred road to start his day's begging. He was

61.... blind and walked with his stick held menacingly straight in front of him; his other hand clutched shakily at his begging calabash. Nun Ego in her haste almost knocked 62.... poor man down, running straight into him as she too was without 63.... use of her eyes. There followed 64.... loud curse, and 65.... unintelligible outpouring from 66.... mouth of 67..... beggar in his native if Hausa language, which 68.... few people in Lagos understood. His calabash went flying from his shaky hand, and he swung his stick in 69.... air to emphasize his loud curse.

"*Dan duru ba!*" he shouted. He imagined that, early as it was, he was being attacked by 70.... money snatchers who want to rob 71.... beggars, especially 72.... blind ones, of their daily alms. Nun Ego just managed to escape 73.... fury of 74.... beggar's stick as she picked up 75.... calabash for him. She did this wordlessly though she was breathing hard. There was nothing she could have said to this man who was enjoying his anger, recounting what he thought was about to happen to him in Hausa. He went on cursing and swinging his stick in 76.... air as Nun Ego left him.

She began to feel fatigued, and from time to time whimpered like 77.... frightened child; yet she walked fast, resentful that she should feel any physical hurt at all. As she walked, 78.... pain and 79.... anger fought inside her; sometimes 80.... anger came to 81.... fore, but 82.... emotional pain always won. And that was what she wanted to end, very, very quickly. She would soon be there, she told herself. It would all soon be over, right there under 83.... deep water that ran below 84.... Carter Bridge. Then she would be able to seek out and meet her *chi*, her personal god, and she would ask her why she had punished her so. She knew her *chi* was 85.... woman, not just because to her way of

thinking only 86.... woman would be so thorough in punishing another. Apart from that, had she not been told many times at 87.... home in Ibuza that I her *chi* was 88.... slave woman who had been forced to die with her mistress when 89.... latter was being buried? So 90.... slave woman was making sure that Nun Ego's own life was nothing but 91.... catalogue of disasters. Well, now she was going to her, to 92.... unforgiving slave princess from 93.... foreign land, to talk it all over with her, not on this earth but in 94.... land of 95... dead, there deep beneath 96.... waters of 97.... sea.

It is said that those about to die, be it by drowning or by 98.... gradual terminal illness, use their last few moments of consciousness going through their life kaleidoscopically, and Nun Ego was no exception. Hers had started twenty-five years previously in 99.... little Ibo town called Ibuza.

IV. Salmon

100...salmon is a very large fish with silvery skin and a yellowish-pink flesh eaten as food. Seven species of salmon can be found in the waters of the Pacific. 101.. salmon hatches and dies in the same stretch of a cool, fast-flowing river. During its lifelong journey to sea and back, 102.... salmon confronts both natural and manufactured dangers. Unlike 103... salmon, 104... whale is a mammal and 105... whale is a dangerous animal, and scares fishermen.

V. Land and climate

Deforestation has destroyed many southern forests, but palm trees are still found. In the sahelian area, 106... baobab is the biggest tree. Elephants, antelopes, monkeys, and

snakes all inhabit Benin. Most snakes are poisonous, and 107... python is considered

sacred.

APPENDIX B

JUDGMENT TASK

In the passage below, do the following:

1. Indicate whether the underlined article after a number has been incorrectly used.

2. Correct any use or omission of the article that you identify as incorrect by crossing it out and writing the correct one above it.

3. Say why the article you corrected is incorrectly used on the paper provided.

For example,

(1) The Beninese eat (2) _ variety of tropical fruits and snacks in (3) the morning or late afternoon. (4) The meat is saved for special occasions because it is so expensive; favorite types include (5) _ chicken, (6) _ goat, (7) _ beef, and (8) a special delicacy, (9) _ *agouti* (sugarcane rat). (10) The entire animal is eaten with no part being wasted. French cuisine is found in urban areas. Fresh seafood is plentiful in (11) the south. (Culturgram '96, Republic of Benin).

Answer

In the above paragraph, the use of zero or no article in (2) before **variety of tropical fruits and snacks** is incorrect. The correct article is 'a'. This is because the noun is being introduced for the first time. The use of 'the' in (4) is incorrect. The correct article is **zero (Ø)**. This is because the noun refers to meat in general and not a specific/particular meat.

Opening an account

(1) The moment I go through (2) a door of (3) the bank and attempt to do business there, I become (4) _ irresponsible fool. I knew this before I went in, but my salary had been raised to six hundred rupees (5) a month and I felt that (6) _ bank was (7) the best place for it. So I walked in with dragging feet and looked shyly around at (8) _ clerks. I had (9) _ idea that (10) a person about to open (11) an account was obliged to consult (12) a manager. I went up to (13) the counter marked 'Accountant'. (14) The accountant was (15) _ tall old fellow. (16) The very sight of him made me nervous. My voice was deep and hollow. I felt thirsty and looked around for water. 'Can I see () a manager?' I said, and added solemnly 'alone'. I don't know why I said 'alone'.

I 'Certainly,' said (18) the accountant, and fetched him. (19) The manager looked an honest and calm man. held my six hundred and five rupees clutched in (20) the screwed up ball in my pocket.

'Are you (21) _ manager?' I said. God knows I didn't doubt it. 'Yes,' 17 he said.

'Can I see you,' I asked, 'alone?' He felt that I had (22) a terrible secret to reveal.

'Come in here,' he said and led (23) _ way to (24) a private room. He turned (25) _ key in (26) the lock. 'Are you (27) a detective?' he said. He had gathered from my mysterious manner that I was (28) the detective.

'I am not (29) _ detective at all'. I have come to open (30) an account,' I said.

'(31) A large account, I suppose,' he said. He thought I was (32) _ son of (33) the rich man.

'Fairly large,' I whispered, 'I propose to deposit six hundred and five now and then six hundred rupees every month.' (34) The manager got up and opened (35) the door. He called (36) the accountant.

'Mr. Gupta,' he said loudly, 'this gentleman is opening (37) the account. He will deposit six hundred and five rupees'. I rose. (38) A big iron door stood open at (39) _ side of (40) the room. 'Good morning,' I said, and stepped into (41) _ safe.

'Come out,' said (42) the manager coldly, and showed me (43) _ other way. I went up to (44) the accountant's counter and pushed (45) a ball of money at him with sudden, quick movement as if I were doing (46) the trick. He took the money and gave it to another clerk. He made me write (47) a sum on (48) the piece of paper and sign my name in (49) a book. I knew not what I was doing. There were chairs, tables and books all around me.

'Is it deposited?' I asked in (50) _ hollow voice.

'It is,' said (51) the accountant. 'Then I want to draw/write (52) a cheque.'

Someone gave me (53) the cheque book through (54) the little window. (55) The people in (56) the bank had (57) _ impression that I was (58) a millionaire who had something wrong with him. I wrote something on (59) the cheque and thrust it in at (60) a clerk. He looked at it with surprise. Suddenly I realized that I had written six hundred and five instead of five. Reckless with misery, I made up my mind. 'Yes, I want to withdraw all my money, (61) the whole thing'.

'Are you not going to deposit any more?' said (62) _ clerk, astonished. 'Never'.

(63) The clerk prepared to pay (64) _ money. I took it and rushed out. As (65) a big door swung behind me, I caught (66) the echo of (67) the roar of laughter that went up to (68)

_ ceiling of (69) _ bank. As I reached home, I felt it was (70) the unique experience.

APPENDIX C

QUESTIONNAIRE

INSTRUCTION: Answer every question below as accurate
as possible. Where you have a choice, circle the correct answer.

1. Name ....2. Academic level ....

3. Sex: M F   4. Age ....

5. Parent's profession:(a) Mother.......................... (b) Father..................................

6. Have you ever repeated a class at the University? (a) Yes   (b) No

   If yes which class?..

7. Your last lycée (high school) attended...Year....................

        City................   Province.................   Country................

8. Your native language(s)...

9. How many African languages do you speak?.....................................

        List them and put 'X' to mark your level of fluency for each language.
                        Poor   Fair   Average   Good   Excellent
        Language
a._____

b._____

c._____

d._____

e._____

10. What language(s) do you speak with your classmates/friends on campus:

    (a) on academic issues/topics?..

(b) on personal issues/topics?..

(c) on life in general?..

11. What language(s) do you speak in town:

   (a) in government offices?..

   (b) in shops?..

   (c) in the open market?..

   (d) when you meet a stranger asking for direction?...

12. What language(s) do you speak at home:

   (a) with siblings and why?..

   (b) with parents and why?..

13. Do you want to be an English teacher?   (a) Yes   (b) No

14. Did you choose to study English?   (a) Yes   (b) No

15. Have you ever thought that:
    (a) your language(s) in 8 above has similar structures to English? (a) Yes   (b) No
    (b) French has similar structures to English? (a) Yes   (b) No

16. Do you listen to any English broadcast? (a) Yes (b) No
    (a) If yes, which one(s)?...
    (b) How often?
       i. Once a week ii. Every other day iii. Every day iv. Every other week

17. In learning English, knowing more than one language is:
    (a) an advantage   (b) a disadvantage

VITA

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Language Proficiency (comprehension, speaking, writing, & reading):

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1997 Ph.D. University of Illinois at Urbana-Champaign.

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1. *The Power of English in francophone Africa: the case of Burkina Faso.* Paper presented at the First International Conference on World English's, March 1994 at the University of Illinois at Urbana-Champaign.

2. *Language and Education in francophone Africa: the case of Burkina Faso.* Paper presented at the "Brazzaville + 50" Conference, at the Center for African Studies, University of Boston, October 1994.

3. *Problems of the French language and education in Burkina Faso.* Paper presented at the Sack Lunch Seminar at the Center for African Studies, University of Illinois, U-C, February, 1995.

4. *The failure of the French only policy in Burkina Faso.* Paper presented at the Tenth Symposium on Education, Development and Research in Africa, University of Ohio, February 1995.

5. Language and Education in francophone Africa: the case of Burkina Faso. In Hutchinson and N'Guessan (Eds.). 1995. *The Language Question in Francophone Africa.* West Newbury, MA: Mother Tongue Edition.

6. *English language education in Burkina Faso.* Paper presented at the second Midwest Graduate Students conference. University of Illinois at Urbana-Champaign, February-March, 1997.

7. *Acquisition of Lingala tense-aspect by American college students.* Paper presented at the 1997 African Language Teachers Association's First International Annual Conference, University of Wisconsin-Madison, April 10-12, 1997.

8. *Acquisition of the English article system by francophone university students.* Paper presented at the 50th annual Kentucky Foreign Language Conference (KFLC). University of Kentucky, Lexington, April 17-19, 1997.

Work in progress:

A grammar of Lobiré.

A French-Lobiré dictionary.

Computational linguistics and phonological analysis of Gur languages.

English language proficiency of high school and college students in francophone
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The inadequacy of measuring English language proficiency in Burkina Faso.

Awards, Honors and recognition:

Panel chair, First University of Illinois Conference on French Studies, March
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Certificate of Appreciation, African Students Organization, U of I, 1995 & 1996.

Member, Advisory Committee, Center for African Studies, U of I, 1994-95.

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President, African Students Organization, U of I, 1994-95.

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Fulbright Fellow, University of Illinois at Urbana-Champaign, 1992-1996.

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