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LANGUAGE CONTACT IN TWO BORDER COMMUNITIES IN BURKINA FASO AND GHANA. LEXICAL BORROWINGS FROM FRENCH, ENGLISH AND AFRICAN LANGUAGES

BY

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DISSERTATION

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ABSTRACT

In this study, I investigate motivations for, and patterns of, lexical borrowing among Dagara-French and Dagara-English bilingual speakers as a function of age, sex, mobility, and degree of education in a multilingual border community where English and French are official state languages and Dagara is the shared local language. Dagara is a language spoken by about 1,400,000 people in the Northwestern corner of Ghana, the Southwestern part of Burkina Faso and the Northeastern part of Côte d'Ivoire. This partitioning is a well-known consequence of European colonization that created, in the early 19th century, an artificial political boundary and an ensuing official linguistic separation between two Dagara-speaking communities: the Anglophone Dagara on the northwest banks of the Volta River in Ghana and the Francophone Dagara on the southwest banks of the Volta River in Burkina Faso. This linguistic separation led to different language contact situations on each side of the political border. As in most African countries where the colonial language remains the official language of the nation, borrowings from multiple local and supra-local languages are a common phenomenon. Using fieldwork recordings from the two Ghana-Burkina border communities from a total of 100 participants analyzed using both quantitative and qualitative methodologies, I show that the Dagara of Burkina Faso borrow predominantly from their official French language and, to a lesser extent, from English. The influence of French on the Dagara of Ghana is, on the other hand, minimal, as Dagara speakers in Ghana tend to borrow only from one ex-colonial language: their own official language, English. In addition to their respective official languages, speakers in both border communities borrow from local African languages that possess the greatest instrumental value by providing access to local economic ressources. The majority of borrowings attested in the corpus undergoes phonological and morphological adaptation and includes complex patterns of hybridization and native creations from multiple languages. Adaptations follow the Dagara internal word structure rather than the structure of the lending languages, although the preference of bilinguals for various adaptation strategies depends on the donor languages and the particular dialect of the Dagara language that they speak on a daily basis. The frequency of loanwords in both communities varies significantly with age, gender, and level of education. The results on attitudes indicate that a large majority of the participants are in favor of enhancing the status of the local Dagara language, even though status planning for the language does not seem to extend to education that remains exclusively dominated by ex-colonial languages. This study represents the first empirical study of borrowings in a lesser-known West-African language spoken in a local community divided by a major political boundary and, thus, subjected to different official language regimes. This study's main theoretical contribution to the study of lexical borrowings lies in its proposal to extend existing paradigms of analysis to multilingual sub-Saharan African communities that share several local African languages while remaining divided by national political borders and different ex-colonial official languages.

To my father and mother

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CHAPTER ONE

INTRODUCTION: THE SOCIOLINGUISTICS OF LEXICAL BORROWING IN WEST AFRICA

1.1 Lexical Borrowing

Lexical borrowing is a widespread language contact phenomenon that has been extensively analyzed in the sociolinguistic literature. Although, together with code-switching, borrowing is a well-known outcome of contact between one or more languages, researchers are often uncertain about the separation between the two phenomena. This study will provide insight into lexical borrowings from the point of view of some key research findings from West Africa.

In this study, I will follow definitions of borrowings and code-switching proposed by Poplack, Meechan, and Winford. In Poplack & Meechan (1995), and Poplack 1980/2000), code-switching is defined as "the juxtaposition of sentences or sentence fragments, each of which is internally consistent with the morphological and syntactic (optionally, phonological) rules of its lexifier language", whereas lexical borrowing is the "adaptation of lexical material to the morphological and syntactic (and usually, phonological) patterns of the recipient language", (p 200). In this regard, following Poplack & Meechan (1995) definition, code-switching excludes all single word switches, where such occurences may be treated as borrowing. Moreover, according to Myers-Scotton, "juxtaposition of elements from the two codes is a prerequisite for code-switching".

In an early study, Poplack & Sankoff (1984) differentiate borrowing from code-switching manily in reference to number of words (one vs. more), morphological and syntactic adapatation (adapted vs. not adapted), phonological adaptation (almost always vs. seldom), and frequency use (frequent vs. non-frequent). While Poplack & Meechan (1995), Poplack (1980/2000), and

Poplack & Sankoff (1984) draw a clear line between borrowing and code-switching, Winford (2003:95) writes that "there is no consensus on the boundary between the two". He argues that the only criteria separating the two language contact phenomena are, 1) "degree of use by monolingual speakers" and, 2) "degree of morphophonemic integration". Since code-switching is 'the juxtaposition of sentences or sentence fragments', these may not easily lend themselves to borrowing by monolingual speakers of the recipient language. However, frequently-used single morpheme insertions referred to as borrowings can easily be acquired and used by monolingual speakers, as well, due to their frequency of use in the community. From Winford's perspective, the frequent use of lexical materials borrowed from donor languages are eventually assimilated into the recipient language due to, first, their frequency of use by bilingual speakers, and then via the adoption of these lexical items by the monolingual speakers. This perspective is supported by Mesthrie et al.'s (2009) as they note that in such a situation, the assimilated loanwords are commonly used even by monolingual speakers of the recipient language without speakers' awareness of the origin of the donor words. This is evidenced, for instance, in the use of the word 'Donga' in South African English where many South Africans are not aware that it is a borrowed word from Zulu, meaning an 'opening in mountain'.

Poplack's early work (1980/2000) also defined intra-sentential code-switching as only found in highly competent bilinguals. As for this criterion, some researchers such as Hamers and Blanc (1989:149) argue that there can also be "incompetent code-switching". To clarify, Bhatt and Bolonyai (2011) argue that competent bilingual code-switching is shown by those bilingual speakers who possess the "optimal grammar" in both languages. The 'incompetent code-switching", they further, may refer to some immigrants who have acquired a "limited functional" ability in a second language (L2), but who often resort to sentence fragments in their native

language to fill gaps when speaking the L2 (see also Hamers an Blanc, 1989). Sankoff et al. (1986) also argue that any lexical item that is not native to the speaker's language must be treated as borrowing as long as the lexical item has the syntax and morphology of the donor language. Following their own argument, Sankoff et al. treat all single-word switches as "nonce borrowings". Based on Sankoff et al's view of borrowing and code-switching, Poplack and Meechan (1995) conducted a study using French-Fongbe and French-Wolof bilingual speakers' discourse. They found that the "single nouns were fully integrated into the morphosyntatic structure of the recipient languages, and were indistinguishable from other well-established borrowings" (p. 200). They concluded that since the single borrowed French nouns showed the internal structure of French noun phrases, those single nouns represent true instances of borrowing. Myers-Scotton (1993b) further argues that code-switching leads to borrowing due mainly to the fact that "single switches can become borrowed forms through repeated use and eventual adoption by monolingual speakers" (p.177 – 191).

This dissertation focusses on lexical borrowing defined as single switches with well-defined lexical meaning in discourse. Longer switches, qualified as instances of code-switching between two or more languages, are not discussed. I will use the terms 'borrowings' and 'loans' or 'loanwords' interchangeably, as several other authors in the contact literature do, since thre three terms are closely related in the way they refer to single item switches used regularly in discourse and showing definitive signs of donor language origin. In Nurse's (1982) study on the relationship among present-day Bantu languages of East Africa, he defines a loanword in terms of frequency of use as "a word taken from a source language into one or more languages and thereafter used regularly in the latter" (204). Knappert (1970:78), in his classic work on the contribution from the study of loanwords to the cultural history of Africa referred to a

‘borrowing’ as “[o]bviously a word that people have ‘borrowed’ cannot be returned after use”. This supports the idea that borrowings are words that native speakers of the recipient language accept as part of their own language. Knappert supported his argument by questioning further if the English words, such as *chair* and *school,* should still be regarded as Latin words (from *cathedra, schola*) despite their obvious integration and frequent use in English. Similarly, in my study, data will show that assimilated loanwords in particular borrowed from English, French, and the other African languages, are now fully assimilated and used as original Dagara words.

The analysis in this dissertation follows Winford's (2003:45) borrowing typology that distinguishes four major types of borrowing which can further be subdivided depending on the treatment of the borrowed word by the recipient language. The four categories are: pure loanwords, loan blends, loanshifts (loan meaning), hybrid creations and, native creations. Pure loanwords are usually single words borrowed into the recipient language without making any change or at times the word might undergo a minimal change. For example, in my corpus, Dagara-English or Dagara-French bilingual speakers insert pure loans in their speeche as in *omi in a November puo* (it is always in November) *or Hamile daa daar n vendredi* (Hamile market day was last Friday). Loanblends on the other hand are the combination of native and imported morphemes as in *nursiri* (nursery) or *l’abberi* (abbey). Loanshifts involve shift in meaning as opposed to their original meaning in the donor language. Hybridization refers to new words that are created from a blend of native and foreign morphemes in order to express foreign concepts. Finally, native creations are those lexical materials that are formed through innovative use of native words to express foreign concepts (Winford 2003:45). A more detailed discussion of borrowing typology will be proposed in chapter two.

Following the distinctions presented by Winford's (2003), I will analyze the influence of two former colonial languages, French and English, on the local language of a West African people, the Dagara, in a border region of Ghana and Burkina Faso. In particular, I will focus on the motivations for the emergence, and types and patterns of borrowings from French, English, and other West African languages recorded from Dagara-French and Dagara-English bilingual speakers' discourse on both sides of the Ghana-Burkina border. This political border separating the same ethnic group, the Dagara, into two official states can be called an "intense inter-community contact" area (Winford 2003:23) characterized by extensive trade and everyday contact. Elizaincin (1976:123) argued that "the study of border communities provides the linguist with the opportunity to obtain important data with respect to the existence of mixed systems in the fields of phonology, syntax, and vocabulary". Elizaincin (1976) was among the first to study the Spanish-Portuguese 'Fronteriço' variety spoken on the Uruguayan-Brazilian border. Since the first border community studies in the 1970es, sociolinguists interested in linguistic hybridity in high contact areas had studied other areas of Latin America and the Western world, but it seems that they had done so to the neglect of a similar geo-linguistic situation in sub-Saharan Africa.

My interest in border community languages served as a motivating factor because many Dagara communities live along the Ghana-Burkina and the Ghana-Côte d'Ivoire borders. It led me to discover the extensive work that has already been undertaken by researchers who worked on general topics including Dagara linguistics, anthropology, ethnography, history, and culture, just to mention a few. It is interesting to note that very little research has been conducted on lexical borrowings in Dagara despite the fact that the Dagara language has been in contact with many other African and ex-colonial European languages for nearly one and half centuries. This

dissertation, currently the first of its kind, can inform other researchers of the linguistic consequences of these contact influences.

Studies on the Dagara language, culture, history, and ethnography have been published since the beginning of the 1960s. Many of these studies were aware of the historical significance of the region inhabited by the Dagara that has always been a high contact area in West Africa. The most important historical factor worth mentioning is the early trade movements between North, South, and West Africa beginning from the 8th through to the 12 and 13th centuries and the ancient Ghana Empire that facilitated and guaranteed the stability of trade in the region (Levtzion, 1973:22 -23). As we will see later in chapter 2.1.3 regarding population movements in the 20th and 21st century across regions of West Africa, population movements of this nature have existed before in what Fisher (1970) refers to as “Trans-Saharan Trade”. Trading activities at the time involved the sale of gold, salt, cola nuts and ivory. These economic activities brought together people who spoke different African languages. The ancient Ghana Empire which was both economically and politically powerful at the time played a central role in the trading activities, as traders had to go through Ghana, and so Ghana became like a middleman in the world of the salt-gold trade. Other goods were brought from the north as well, like dried fruit, leather, cotton cloth, and copper. The Empire was based in what is now southeastern Mauritania and western Mali.

According to Levtzion (1973), from the seventh to the eleventh century, trans-Saharan trade linked the Mediterranean economies that demanded gold—and could supply salt—to the sub-Saharan economies where gold was abundant. Although local supply of salt was sufficient in sub-Saharan Africa, the consumption of Saharan salt was promoted for trade purposes. In the eighth and ninth centuries, Arab merchants operating in southern Moroccan towns bought gold

from the Berbers and financed more caravans transporting other valuable goods across the Sahara desert. Increased demand for gold in the North Islamic states, which sought the raw metal for mining, prompted scholarly attention to the ancient Ghana Empire, referred to as the "Land of Gold" very early. Lectzion asserted that the Soninke, controllers of gold trade routes in the Empire, managed to keep the source of their gold (the Bambuk mines, most notably) secret from Muslim traders. Gold production and trade were important activities that undoubtedly mobilized hundreds of thousands of African people. Leaders of the ancient Ghana Empire accumulated wealth by keeping the core of pure metal, leaving the unworked native gold to be marketed by their people. The kings collected taxes from all traders who traveled through Ghana, thus adding to Ghana's wealth. This tax or tariff provided funds that were needed to take care of Ghana's army and support its government. The kings taxed all goods that entered and left Ghana. Merchants had to pay with a gold coin called a dinar when they came to conduct trade in Ghana and they had to pay another two dinars when they left Ghana.

Similarly, within the early years of the 20th century, that is as early as 1900, Lenz (2006:140) explains that there were population movements which were motivated by the economic activities in present day southern Ghana. The south of Ghana rich in gold, diamond, bauxide and cocao plantations attracted people from the northern territories which included natives from the then Upper Volta (Burkina Faso). For example, Lenz (2006) recorded that with the opening of gold mines and the cultivation of cocao as a cash crop in southern Ghana, the number of migrant workers from northwest rose up to 444 by July 1907. These included 135 Dagara, 104 Wala, 164 Isala and 41 Grunhi. Another set of 382 migrant workers from the northwest of modern Ghana followed by December 1909 increasing the number to a total of 826. As we can see from these two socio-economic and socio-historical activities, even before the 21st

century (21st) the patterns of seasonal labor migrations and population movements in sub-Saharan Africa were controlled by powerful economic interests in southern Ghana. These migratory patterns influenced language use in the region, facilitating contact, and thus borrowings, between the various local and vehicular languages. This has an important implication in sociolinguistic studies in general and particularly for my study of lexical borrowing at the Ghana-Burkina bilingual-speaking border communities, as the Dagara, settled right along the main ancient migratory routes on both sides of the Volta, benefitted greatly from trade and experienced language contact between local and supra-local language for many centuries.

Jack Goody, Carola Lenz & Richard Kuba and Somé Bernard Bozi are some of the precursors of the study of Dagara history, ethnography and culture. However, more recently, Bodomo, Nakuma and Somé have also shown interest in studying Dagara language structure and as well as loanwords in Dagara language that contribute to the study of Dagara cultural history. Generally, for a more detailed reference to Dagara studies' bibliographies see Bodomo (2000) at http://www.khu.hk/linguist/staff_ab.DagaareBibliog.html. Bodomo compiled over 180 bibliographies and Kuba and Lenz's (2001) "Electronic journal of Africana bibliography" also compiled over 800 bibliographies on Dagara studies alone. Many native and non-native Dagara speakers have done some work on the language, but lack of space will not permit me to mention all here. Furthermore, I deem it appropriate mentioning only some of the Dagara studies that are relevant to my current study.

Bodomo's (1989) study looks at the dialectal variation in Dagaare (Dagara in my study), and in his 1995 work he analyses the contribution of loanwords to the study of the cultural history of the Dagaaba of northwestern Ghana (the southern and central Dagara dialects use

Dagaare for the language and Dagaaba for the people, whereas the northern dialect has Dagara for both people and language). His 1997 paper on the structure of Dagaare focuses on the morpho-syntactic and morpho-phonological structure of the language. Delphanque's (1982) extensive study on Dagara delves into the "structural semantics of Dagara lexicon" (*Structure sémantique du vocabulaire dagara*). Finally, Nakuma (2002) and Somé (2004) both published on Dagara orthography. It is interesting to note that Nakuma's orthography has English influence and is based on the southern Dagaare dialect whilst that of Somé (2004) shows French influence and is based on the northern Dagara dialect. Note that the former is a Ghanaian Dagara and the latter, a Burkinabè Dagara. Somé and Nakuma's work, which focus on word formation in Dagara, have important bearing on the use of Winford's (2003) borrowing typology in my study since these authors discuss, among other things, types of word formation in Dagara.

Discussing the contribution of loanwords to the study of cultural history, Bodomo (1995) identified a number of words that are not indigenous to the Dagara language, but are used as if they were native words. Selected examples are *pito* (guinea corn beer) from Hausa, *gyil* (xylophone) from Dioula, *bɔduwa* (towel) from Twi, and *sikiri* (sugar) from English. He suggested that it would be very important to conduct further studies of such loanwords in order to help one understand some of the cultural and historical past of the Dagara-speaking world. Bodomo's book *Structure of Dagaare* (1997) is also relevant to my study. Apart from tracing the types, history, origin, and the different varieties of the Dagara language in his book, Bodomo's work also covers basic aspects of phonology, morphology, syntax, orthography, and semantics of the Dagara language, as among them vowel harmony, tone, the noun class system, serial verbs and other complex constructions. These analyses will provide a crucial framework for my won interpretation of borrowings in this dissertation. Explaining one of the reasons for undertaking a

study in Dagara orthography, Somé (2004) emphatically stressed the importance of furthering inter-dialectal comprehension as an important goal of his study: "I attempt to inform the Dagaare speakers of Ghana, our brothers and sisters across the frontier, about the characteristics of the orthography in use in Burkina Faso" (Somé J. D. (2004:16). In his work, he also emphasized that since Dagara is a tonal language, accents are used to indicate tones over the vowels. He draws a comparison between the old Dagara orthography and the new one. The old spelling system had been adopted by the missionaries (so-called "White Fathers") during the colonial period and created some confusion for learners. For example, Somé (2004) explained that the old Dagara orthography had the following six spelling options for the word "light": "*tchian, tchan, kyian, kyan, tyian, tyan",* while the new Dagara orthography has only one form of spelling: "*cã"* (p. 19). He concluded the discussion by showing the 38 letters of the Dagara alphabet and made a comparative study between the French and Dagara alphabets to help non-Dagara speakers better understand the structure of the language. Nakuma and Bodomo also worked on the Dagara orthography, but their system is based on the southern or central Dagara, which is the Ghanaian Dagara variety spoken in and around the towns and villages of Jirapa, Daffiema, Nadowli, Ulo and Wa. These towns and villages are located further south (about 30 – 80 miles) of the Ghana/Burkina border. Bodomo's (1997) work stayed very close to the Dagara Language Committee's so-called "new" orthography, adding only two letters to the old orthography and coming up with a total of 35 letters instead of the committee's 33 letters. Bodomo went further (p. 37) to explain the differences between the Dagara Language Committee's alphabet and his proposed additional letters to the alphabet. The difference is based on the addition of two graphemes <ŋ> and <l>. The first grapheme has <ŋm> for the committee's proposal, whereas Bodomo's has both. The second grapheme is introduced, he explained, to take care of the

northern Northern Dagara implosive /'l/ which is not common among the southern and central Dagara varieties.

Having taken a thorough look at previous studies conducted by both native and non-native Dagara speakers on the Dagara language in general, I can assert that very little or no extensive study on borrowings in Dagara has been carried out to date. No research seems to have targeted border communities in this region, either. Thus to the best of my knowledge, my work is the first to examine the lexical and morpho-phonological properties of a mixed, presumably trilingual, dialect system used by Dagara-French and Dagara-English bilinguals on both sides of the Ghana-Burkina border. The present thesis also appears to be the first of such study in West Africa.

1.2 Bilingualism and borrowings on the Ghana-Burkina Faso border

In this work I start from the assumption that in order to facilitate trade and communication across the Ghana-Burkina border, a great deal of ex-colonial linguistic heritage will be shared between the two ethnically homogenous but politically separated border communities. Previous observations indicate that borrowing is a common phenomenon in bi/multilingual communities in West Africa. As we will see later, bilingual Dagara-French and Dagara-English speakers borrow extensively from their official languages of foreign origin (or 'exogeneous', following Auer's 2005 terminology) even though they have the equivalent Dagara expressions that they could conveniently use in their discourse. This seems to confirm previous observations by sociolinguists such as Poplack, Myers-Scotton, and Eliasson, just to mention a few, that borrowing is fundamental in bilingual communities. According to these researchers borrowings are not 'dysfunctional', but rather the 'norm' or the 'unmarked choice' in unmonitored bilingual discourse (Myers-Scotton 1983). Borrowing is a common phenomenon particularly among

bilingual speakers living in urban cities or towns (Poplack 1990), which I predict that it will also be the case on the Ghana-Burkina border.

More specifically, I will ask the general question of how multilingualism on the border is articulated linguistically through the use of various types of borrowings from both ex-colonial languages, English and French, and to a lesser extent also from some of the African languages. Thus, the aim of this study is, multidimensional. Firstly, I seek to establish the extent of lexical influence of French and English on Dagara in each of the two border communities' everyday speech. Secondly, instances of single-word borrowings in Dagara will be analyzed according to age, gender, and social class. It is hypothesized that differences will display orderly heterogeneity: Dagara spoken by speakers of different age, gender, and social classes will display more or less mixing with French and/or English. Finally, I will ask the question about the vitality of the Dagara language. Although I do not expect that Dagara will lose their language to English and French anytime soon, I wish to find out to what extent the vitality of Dagara, as it has been argued for other African languages (Mufwene and Vigouroux 2008), is affected or not by extensive contact with the two ex-colonial languages in this border region. One key observation I wish to make is whether Dagara youth have also started investing themselves in English or French more than they do in their indigenous African language.

This study is divided into six chapters. Chapter two, following this introduction, focuses on the sociolinguistic background of the Dagara-speaking communities in Burkina Faso and Ghana. It presents the history of contact of the Dagara people with speakers of West African and European languages while showing the general educational systems in Ghana and Burkina Faso, the two countries in which Dagara homelands are found. Dagara kinship and family structure are also discussed in this chapter. This discussion is important as it provides some background to the

cross-border and national population movements which influence Dagara linguistic repertoires and thus borrowings at the lowest levels of social organization in the community. The next sub-topic will discuss language policy and language attitudes relevant to possible motivations behind lexical borrowings analyzed in the study. Language vitality and attitudes towards both the indigenous and official languages, I suggest, contribute to the reasons why speakers tend to borrow from other languages. The presentation ends with a brief discussion on how the Dagara of Ghana and Burkina Faso came into contact with the British and the French respectively.

Chapter three focuses on Dagara language structure and discusses the following topics: Dagara language family, language structure, the theoretical framework of the study, the research questions as well as the hypotheses underlying this study. Chapter four discusses the methodology, such as data collection, transcription and coding. The linguistic variables, social factors for borrowing, and the statistical tools are also discussed in his chapter.

Chapter five focusses on the results of the quantitative analysis. It discusses lexical borrowings across registers, such as economic, religion/cultural and linguistic, borrowing across social groups such as a function of education, profession, age and gender. The linguistic analyses of borrowings are discussed in chapter six. Sub-chapters include pure loans, phonological adaptations, loan blends, loan shifts, questions of semantic loans and loan translations (calques), pure native creations, and hybrid creations.

Chapter seven brings the study to a conclusion. In this chapter I highlight the major findings while proposing revisions to Winford's borrowing typology, motivated by the result of the data analysis. The limitations of the study and suggestions for future study will close the dissertation.

CHAPTER TWO

SOCIOLINGUISTIC BACKGROUND OF THE DAGARA-SPEAKING COMMUNITIES

2.1 The Dagara people: History and current Dagara homelands

As mentioned earlier, Dagara is a language spoken in the northwestern corner of Ghana, the southwestern part of Burkina Faso and the northeastern part of Côte d'Ivoire (Bodomo 1989, 1994 and 1997, see Figure 1). Kyoore (2009) and, Somé (1994) assert that colonization is responsible for the arbitrary partitioning of the Dagara people into three neighboring West African countries. The arbitrary demarcation created aartificial Anglophone and Francophone Dagara linguistic boundaries due to the different foreign languages that came into contact with Dagara language. However, in regards to the relationship that existed between the two Dagara communities before they were renamed Burkina Dagara and Ghana Dagara, Métuolé-Somda (1991) argued that the river Volta (also called Black Volta), that divides the northern Dagara into the two geographically separate parts, was the main natural boundary, but not a linguistic boundary. Métuolé-Somda further argued that the Dagara did not see the river between them as a political border, because each side used to cross to the other side of the river to marry, cultivate farm lands, buy and sell at the markets, participate in Dagara traditional religious festivals, and perform Dagara funeral rites together without considering each other as from different nations or speaking differently. Métuolé-Somda (1991) concluded his argument as follows ;

> Les Dagara habitaient les deux rives de rivière Volta Noire. A la fin du siècle dernier, la colonisation décida que les uns seraient sujets britanniques de Gold Coast, les autres sujets français de Haute Volta […] mais l'ethnie dagara est restée unie quant à sa langue, à ses lois et organisations sociales, en un mot, quant à sa culture (p 3).[1]

[1] The Dagara were living at both sides of the Black Volta and at the end of the last century the British and French partitioned them into Gold Coast and Upper Volta, but as far as their language, social organizations and culture are concerned the Dagara remained united (my translation).

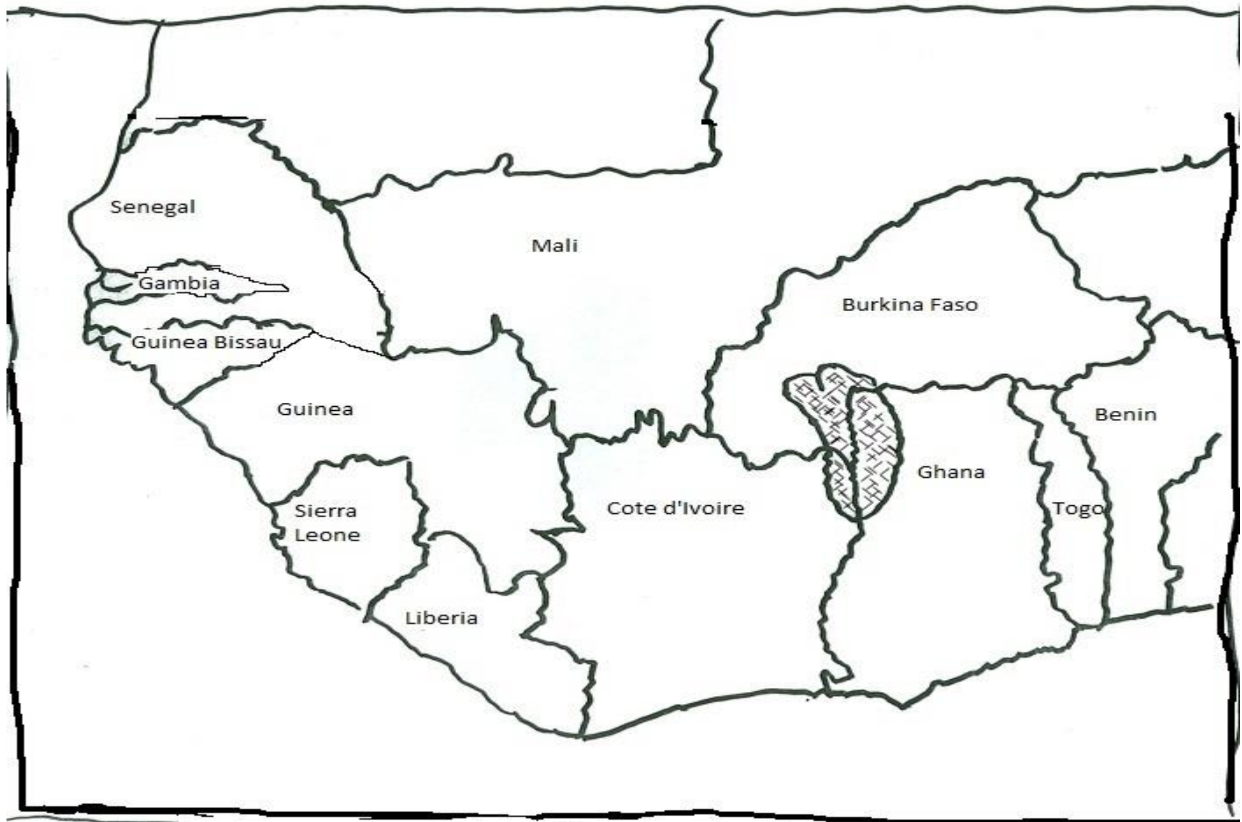

Figure 1**.** Map of West Africa showing Dagara in the three countries

Thus the Dagara people were living on both sides of the Black Volta as one community before the British and French partitioned them into Gold Coast and Upper Volta in the early twentieth century. However, colonial partitioning couldn't take away from the Dagara their culture and their social interactions, such as mutual visits during funeral celebrations or attending markets across both sides of the Volta River. Another researcher, Mahama (2009), discussing the scramble for Africa by European colonialists, explains how the scramble for territories in Africa often partitioned one people into two or more different countries. According to Mahama (2009), European powers wanted to acquire as much territorial land as possible. As a result, their desire had no regard for the interest of the indigenous people. Following the logic of scramble,

one did not care whether an indigenous nation was slashed into two parts or not. Mahama (2009:1) concluded metaphorically that "one European power could lay claim to the son while the other laid claim to the father". The guiding principle at the time was not whether, as a result of that arbitrary division of a town or village, an African family was divided into two or not. As far as the northern territories of the Gold Coast (now Ghana) and the southern parts of Upper Volta (now Burkina Faso) were concerned, the perpetrators were France and Britain (Mahama 2009: 2). By 1896, according to Mahama (2009), Britain and France formerly laid their foundation stones in the following ethnic communities: Sissala, Wala, Dagarti (Dagara) in northern Ghana and Mossi, Lobi, Basari in Southern Burkina Faso. As for the way the territories were divided, Mahama (2009) further stressed that since the colonial authorities had the power and the right to do whatever they wanted they could turn one Dagara community into French and the other into English.

It was in this manner that colonial powers reshaped the map of the northern territory of the Dagara homeland without the knowledge of the inhabitants of the land. Many ethnic groups, such as Dagomba, Mamprusi, Gonja, Dagarti (Dagara), and Mossi, just to mention a few, according to the author, suddenly discovered that international boundaries had been made through not only their own state territories, but sometimes through their villages and houses. Adekunle (2009:13) reported that the Dagara people "could no longer move freely across areas which they and their forefathers had for centuries regarded as their virtual backyards". However, as far as western form of education is concerned, it was later in the 1930s that both colonial powers started elementary education in the northern territories. This will be discussed later in detail in the next sub-section, but a brief history of how the Dagara got to inhabit the land they now occupy will be of importance to this study. The area covered by the Dagara homelands on

the world map delineating West Africa is found between “latitudes 9 and 11 degrees north and longitudes 2.0 and 3.30 degree west” (Bodomo 1997:1), as we can see in figure 2.

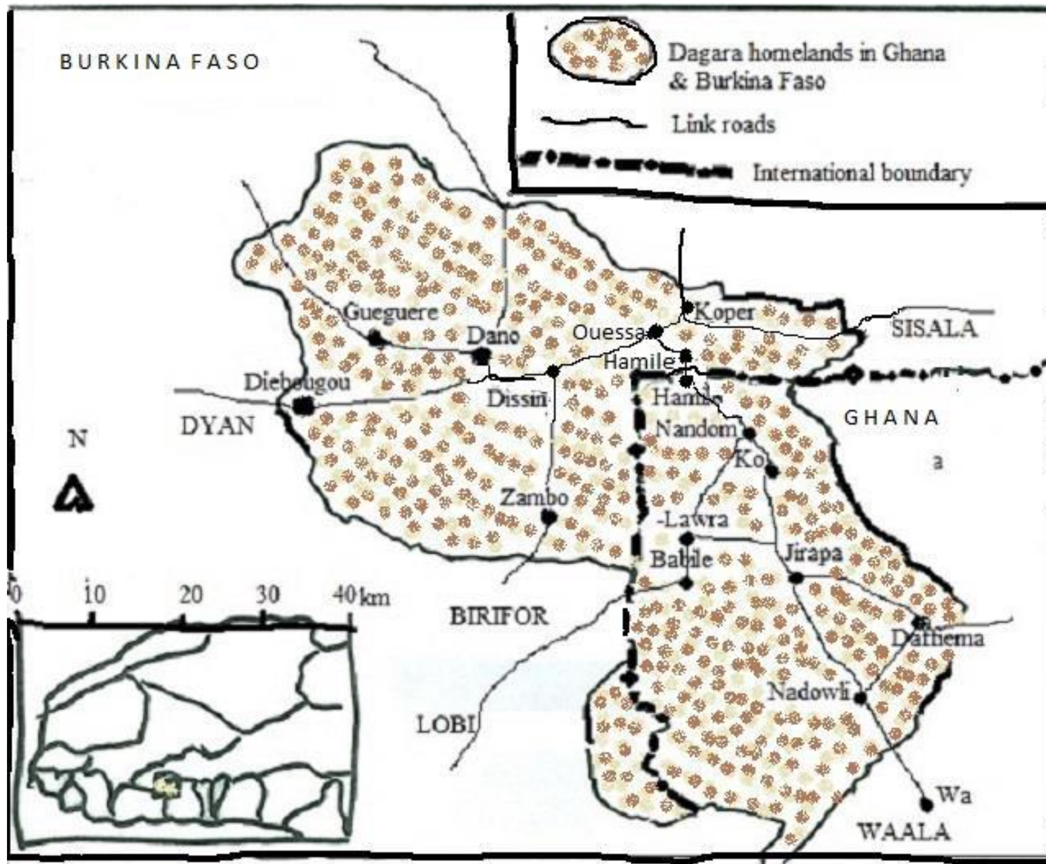

Figure 2**.** Geographic location/Dagara homelands of Dagara in Burkina Faso and Ghana.

Until recent times, the history of Dagara was very difficult to access in black and white, not because Dagara has no history nor there is no one to write the history of Dagara. Two reasons account for these historical and intellectual gaps. One reason is the fact that western education, a topic that will be discussed in detail in the next sub-section, arrived in the Dagara homelands as late as the 1930s (Mahama 2009:110). As a result, as Lentz (1994) rightly puts it, Dagara intellectuals started looking at their own history as late as the 1960s due to the late start of a western form of education in the area. Before then, very little historical research was carried

out either in Ghana or Burkina Faso, whereas "pre-colonial states such as Dagomba, Gonja, Wa and Mossi, all in the northern territory and the Fantis, Ashantis, Gas, Ewes, etc. in the southern territories attracted some scholarly attention" (p 477). Due to this, the history of Dagara has remained in the form of oral narratives for decades because Ghanaian writers of the history of West Africa, for example, would always only gloss over it or not even mention it at all in their publications. The only significant record on Dagara by historiographers was to refer to the Dagara as "stateless societies" or "acephalous societies".

The second reason is attributed to the Dagara intellectuals themselves. When the Dagara eventually received their share of western education thanks to missionary activities in the region, these intellectuals joined various local factions for language (dialect) dominance to determine which variety of the language (northern Dagara, central and southern Dagaare) should be used for the publication of educational materials for use at least in the elementary schools. As both Burkina and Ghana Dagara intellectuals began to write about their origin, which is either through academic theses or professional historian articles and often published by the Wa and Diébougou Dioceses Press, there remained one stumbling block: there are different hypotheses, of which none of the two sides of the border was aware of, and this made it more difficult to treat the facts as a single "discourse and body of texts" (Lentz 1994). This problem can be traced partly to language problems and probably also to inter-personal networks. However, in tracing the origin and migration of Dagara to their current locations, Lentz (2006: 264) asserted that the "first concerted history projects took shape in the mid-1960s" when two young Dagara priests from Upper Volta, under the guidance of a French missionary, collected some migration stories from elderly people from fifty different villages on both sides of the Ghanaian-Burkina border. It was this project that aimed at helping the Dagara people to know a bit better their past that "served as

a basis for a broader knowledge of the Dagara, and that contributed to the development of an authentic Dagara future" (p 264).

With regard to the argument concerning the origin of Dagara, Hébert (1976) and Tuurey (1982) both mentioned that the Dagara "seceded from the Dagomba Kingdom" and moved northwest conquering and displacing other ethnic groups along their path of migration. However, Hébert also alleged in his findings that according to some of the oral traditions he gathered from some of the villages, not all the Dagara seceded from the Dagomba Kingdom; some of them migrated from Accra, the present capital of Ghana. Lentz's (1994) interviews with the first Dagara intellectuals also confirmed the Dagara secession story from the Dagomba Kingdom. The historian Peter Dery, who later became a Cardinal in the Catholic Church, was among the first lucky Dagara converts who benefitted from the missionaries' teachings in catechist schools in the early 1930s. He was also the first Dagara to be ordained a catholic priest. It commanded a lot of respect to being ordained and seen as the custodian of Dagara history, culture, and tradition. Lenz (1994) recorded the following from Peter Dery's narration as below. In an effort to come out with a common hypothesis on the history of Dagara, a conference was organized in April 1988 in Wa, the capital city of Upper West Region of Ghana. According to Lentz (1994), for the first time the conference brought together almost all the Ghanaian and Burkina Dagara historians and intellectuals. This forum was to serve as a platform to put all the different ideas and theses together towards ethnic unification as well as one body of a text on the history and origin of Dagara. At the forum, the two great native Dagara historians, Professors Der from Ghana and Somda from Burkina put forward their Dagomba or Accra hypotheses origin of the Dagara.

> The Dagara once belonged to the Dagomba people, but felt that there was too much 'dictatorship' and too little 'autonomy' and 'dignity', and therefore decided to break away from the Dagomba Kingdom […] While in exodus and dispersal, the long history of moving around to find new places to farm,

> accounts for the present heterogeneity of dialects and cultural practices among the Dagara, it is their common origin from Dagbon that affirms their tribal unity.(Lentz 1994: 458)

According to Lentz the two presentations ended on a "conciliatory albeit somewhat indecisive note, namely that the two theses could perhaps coexist" (p. 489). The follow-up conference, which was supposed to debate further the opposed versions in order to reconcile the so much desired ethnic history acceptable to all the Dagara factions, had never been organized till this date.

Despite such disagreements, many Ghanaian intellectuals still hold on to the Dagomba rebellion stories. In fact the assertion that the Dagara originated from the Dagomba holds some truth in it. From a linguistic point of view, one will notice the closeness of the two languages particularly from a lexical point of view. Apart from that, a closer look at the Ghanaian school and university textbooks has similar versions of Dagara-Dagomba origin as far as the history of West Africa is concerned. In the next sub-chapter while talking about the Dagara-French-English contact situation, I will also discuss in detail the educational systems of Ghana and Burkina Faso in comparison with the American system.

2.1.1 Language contact, multilingualism, and educational systems

Ghana and Burkina Faso, as other African countries, have had multilingual or bilingual societies even before they came into contact with western colonial languages. Ghana has as many as 67 local languages whereas Burkina also counts up to 59 indigenous languages, (Lewis 2009), as you will see in Figures 4 and 5 (cf. section 1.2.1). Interestingly, because of the concentration of developmental activities in the southern cities in Ghana by the colonial administration, the Ghana Dagara men first got into contact with native Twi speakers, as most of them who were seasonal labor migrants traveled there in search of greener pastures. Twi was widely spoken, and it is

today, in southern Ghana where it has always been the language of daily economic activity. It was in this manner that many seasonal Ghana Dagara migrants returned home speaking fluent Twi. The Burkina Dagara were also already in contact with the two main trade languages of the region: Moré and Dioula. Similarly, the Dagara migrants across the Black Volta River at the time also used to travel to Abidjan in Côte d'Ivoire and Bobo-Dioulasso in Burkina Faso where Dioula is widely spoken. Others traveled to Ouagadougou, the capital city of Burkina where they learned Moré and again some of them traveled to Kumasi, a vibrant commercial city in southern Ghana where they also came into contact with native Twi speakers. The Burkina Dagara migrants in particular returned speaking fluent Twi, Moré, and Dioula depending on wherever they traveled during the off-farming season. The native speakers of Twi, Moré, Dioula were also known merchants who traded in cola nuts, salt, fabrics, and many other petty products. These traders traveled the length and breadth of Burkina and Ghana to sell and buy products, acting as agents of language contact and diffusion.

This has been the nature of the contact situation in both Ghana and Burkina that transformed most of the migrant Dagara into bi/multilingual speakers even before the colonial authorities discovered and annexed the Dagara homelands under their colonial political jurisdiction. Consequently, after post-independence years, this multilinguistic situation continued to be a matter of concern and an inevitable challenge for language educators and language policy planners when it came to choosing one language as the medium of instruction, not only in the Dagara homelands but in the two nations as well. Ghana and Burkina Faso gained independence in 1957 and 1960 respectively, and for more than fifty years now, they have been grappling with the selection of the national language.

The situation is not different when it comes to the choice of a common language for the nation-state as the medium of instruction in schools. In multilingual societies like Ghana and Burkina Faso, the interlocutors operating within multilingual contexts have to consciously decide the appropriateness of certain languages within specific contexts, spaces, and times. Furthermore, language and cultural identity make the situation more complex and delicate for language policy planners as well as the nation-state to handle effectively. This often results in making choices that seemingly satisfy everyone in the nation. In fact, this led to the reasons why many African countries comfortably resorted to the colonial languages such as English, French, and Portuguese in order to avoid conflicts connected with local language choices. For the specific language contact scenario under study, I begin with the situation in Burkina Faso.

Burkina Faso

Mahama (2009) recorded that contact between France and Upper Volta started around the 1880s when Captain Binger traveled through the Northern Territories from 1887-1888. According to him, the trip had more of an exploratory purpose to colonize than a mere expedition to the north. By 1894, France had already established her colony in the north of Upper Volta particularly in Ouagadougou. Later between 1888 and 1903, primary school education was established in Ouagadougou, Gaoua, and Tenkodo (Leclerc 2005:3). According to Leclerc these “embryons d’écoles” (p. 3) were created with the intention of training very few autochthonous people as interpreters; the teaching of the French language was targeted only to a few selected ones. Leclerc (2005:4) concluded, however, that some kind of formal education for everyone was introduced by the missionaries whose aim was also to train converts and their children to be able to read and interpret the Bible in African languages.

The contact between French and local languages in Burkina Faso seems to have a consequential impact on literacy even after independence. For example, it might be surprising to learn that after the French-West African states gained their independence starting from the 1960s, in Burkina Faso, for example, French was spoken by only about 10% to 15% of the total population at the time. And yet "French was the only language of instruction in all public schools from the first day of elementary school through the last day of college" (Bado 2009). Though the French had later adopted the assimilation policy for all the French colonies in West Africa, the policy did not create the expected westerner out of the indigene, as it had hoped to.

The French were stricter on the use of French only in the classrooms than the British. One of the most common consequences is that the use of French-only medium of instruction brought about poor academic performance and a high rate of school dropout, as the majority of the children who go to the classroom on the first day of school experience the shock of their lives when they are addressed in a foreign language. Consequently, right from the first day of school, the children are culturally alienated by the use of French.

The other common consequence of the impact of French-language education on Dagara people is that French created an elitist group; as only a few Burkinabe were proficient in French. These few indigenous-French bilinguals (literates) came to represent the local social elite. However, it was also common to hear the Dagara-Twi, Dagara-Moré or Dagara-Dioula bilingual speakers attempt to prove their city dweller status by resorting to borrowings or mixing Dagara with whatever sub-Saharan African language they have come into contact within the cities.

Ghana

With the introduction of formal education by the colonial powers and the subsequent use of English in schools as the medium of instruction and communication, the local languages were

seen as impossible to use in teaching in Ghana (Bamgbose, 2000). I have experienced personally in my primary and middle school days the prohibition to speak an African vernacular language (e.g. Dagara) on the school compound. The prohibition which reads like: “No vernacular on the school compound” was boldly written on the walls of classrooms or posted on walls outside the classrooms and on trees all over the school compound. Violators were severely punished if caught using a vernacular word in their English discourse. This attitude of school teachers remained since when colonial teachers were mostly Europeans. This colonial legacy was passed on to the African school teachers and the prohibition of the use of vernacular continued in schools for many years after, until recently. However, with the introduction of mission schools, local languages were allowed as media of instruction for the first three years of primary education. After that the local language would compete with other subjects for space in the school curriculum, but of course not with English. This situation has not changed in most African countries even after gaining independence. In a nutshell, the imposition of colonial languages on the people of Ghana and Burkina Faso led to the establishment and strong enforcement of English-only and French-only educations. Invariably both systems led to the exclusion of a large majority of Ghanaians and Burkinabe from formal education, making the knowledge of French and English the prerogative of the educated few. This will have lasting influence on the educational systems of both countries even after independence and can be expected to be an important social factor in language use. Below is a table that summarizes the educational systems of Ghana and Burkina Faso. To enable a clearer understanding of the Ghana and Burkina pre-university educational systems have compared the two systems with that of the United States (see Table I). I will now discuss the various educational systems in the two West African countries starting with Ghana. The literature for this section is brought toghether from

documentary analyses of governmental committee reports on education policies and system of education in Ghana and Burkina Faso, and from my personal experience as a former junior high school teacher from 1988 to 1996, and a senior high school teacher, from 2000 to 2006. The history of education in Ghana dates back to the Danish, Dutch and the English merchants' period somewhere around the year 1592. Over the centuries each period had a different educational system with different goals. For instance, the earliest merchants set up schools in their forts and castles just to educate the mulatto kids they had with their native Ghanaian girlfriends. The educational system of the time was to teach their kids reading, writing and some arithmetic. In the course of time the educational systems changed with varied goals, from spreading the word of God to the creation of an elite group to help enforce colonial laws in order to run the colony. Today however, educational reforms in post-independent Ghana aim at reorienting the existing content of the educational system to meet the developmental goals of the nation. It is in pursuite of this goal that in 2002 the Government of Ghana tasked the Ministry of Education to come up with reform policies to meet the set goals of the nation. The National Education Implementation Committee was formed (NERIC) to first study the reforms of the 1980s, and then to make recommendations to change or improve upon some of the existing policies. The following recommendations were presented to the government which were later ratified and implemented in 2007, referred to as the *2007 Ghana Education Reform*.

Pre-school in Ghana, which comprises nursery and kindergarten, lasts for 2 – 3 years. The medium of instruction is in a Ghanaian dialect of the area and in English where necessary. In most cases, children at this level are taught simple English rhymes, poems, numbers, and alphabets. The next stage is the Primary school system, an equivalence of Elementary school in North America.

	USA		Ghana		Burkina Faso
Age	***Elementary School***	***Age***	***Primary School***	***Age***	***Elementary school (école élémentaire)***
5	Kindergarten	6	Primary 1	5	CP1
6	1st Grade	7	Primary 2	6	CP2
7	2nd Grade	8	Primary 3	7	CE1
8	3rd Grade	9	Primary 4	8	CE2
9	4th Grade	10	Primary 5	9	CM1
10	5th Grade	11	Primary 6	10	CM2
	Junior high school/ Middle school		***Junior high school***		***Collège***
11	6th Grade	12	JHS 1	11	Sixième (6eme)
12	7th Grade	13	JHS 2	12	Cinquième (5eme)
13	8th Grade	14	JHS 3	13	Quatrième (4eme)
	----		----	14	Troisième (3eme)
	High school		***Senior high school***		***Lycée***
14	9th Grade		---		---
15	10th Grade	15	SHS 1	15	Seconde (2eme)
16	11th Grade	16	SHS 2	16	Première (1ere)
17	12th Grade	17	SHS3	17	Terminale (final)
	13 years of pre-university		***13 years of pre-university***		***13 years of pre-university***

Table 1**.** USA, Ghana and Burkina pre-university educational systems.

This consists of six years with emphasis on literacy, numeracy, creative art and some problem solving skills. From the Primary school, the child moves on to the Junior High School level. This level, which also consists of three years of rigorous training, is the equivalence of 6th – 8th grade in the United States. Senior High School starts right after the junior high school, but transition to senior high school is not automatic. The pupils write a competitive national examination called "Basic Education Certificate Examination" (henceforth - BECE) for selection into the senior high school system. According to 2007 Reports from the Ghana Ministry of Education Science

and Sports, there are 12,630 primary schools, 5,450 junior high schools and only 503 senior high schools in the country. Obviously, the selection from junior high to senior high schools is based on very good performance at the BECE, because thousands of successful candidates compete for insufficient vacancies at the senior high schools. The ten compulsory examinable subjects, except for French as a foreign language, for all junior high school pupils are; Mathematics, English, Social Studies, Integrated Science, Basic Design and Technology, Home Economics and Visual Arts, Information Communication and Technology, Religious and Moral Education, Ghanaian Language (of the area) and Culture.

Pupils who passed the BECE are accepted into the senior high schools where they continue their studies in subjects similar to those at the junior high level, but some of those subjects are electives: English, Mathematics, Integrated Science, and Social Studies are mandatory. The senior high school level is equivalent to 9th – 12th grades in the United States. At the end of their three year studies, students write a final examination referred to as the West African Senior Secondary School Certificate Examination (WASSCE), which is used both for awarding the high school diploma as well as an entry requirement into the public and private universities and other tertiary institutions in the country. I will now end the discussion of this section with the educational system in Burkina Faso that is also based on analysis and reports from government's texts regarding education in Burkina Faso from basic to pre-tertiary level of education

After independence from France in the 1960s, Burkina Faso inherited their educational system from their former colonial authorities' model and very little has been changed from the old one, except for the minor revision of teaching materials and the syllabi. The minor revision includes adding some subjects to the old curriculum to reflect the current developmental goals as

well as the current political, cultural, and socio-economic life style of Burkinabe. For example, though Burkina's current educational system follows the French model, the modifications to it are "geared towards meeting the millennium development goals, particularly equitable quality education for all", (Kouraogo and Dianda 2008:24). Also another major attempt was the 1979-1884 experimental projects that tried, among other things, to introduce the use three national languages, Moré, Fufulde, Gurmance, as mediums of instruction.

As far as the structural organization of Burkina's educational system is concerned, primary school education lasts for six years. At the end of the sixth year the pupils earn a primary school leaving certificate; Certificat d'Etudes Primaires (CEP) after passing the prescribed examination. Secondary school starts right after the CEP, but this stage is divided into two cycles: collège and lycée. Collège is the equivalent of middle or junior high school whereas lycée is the equivalent of high school in the United States. At the end of a four year collège studies, students take another examination to obtain the Brevet d'Etudes du Premier Cycle (BEPC). Finally, the last pre-university educational system is the *lycée*. This one lasts for three years and ends with the secondary school leaving examination called Baccalauréat (BAC). The BAC is also used as entry requirement into all tertiary institutions in Burkina Faso unless otherwise specified.

2.1.2 Social networks: Kinship and family structure

In some or most parts of the western world when one talks about a family or family members, the constitution of a family is often: father, mother and children, i.e., a nuclear family ideology. However, this is entirely different in the Dagara culture. All the following are referred to as close family members, that is, both the nuclear and the extended family members: grand-father, grand-mother, parents, wife/husband, cousins, uncles, aunts, nieces and nephews, et cetera. Milroy's

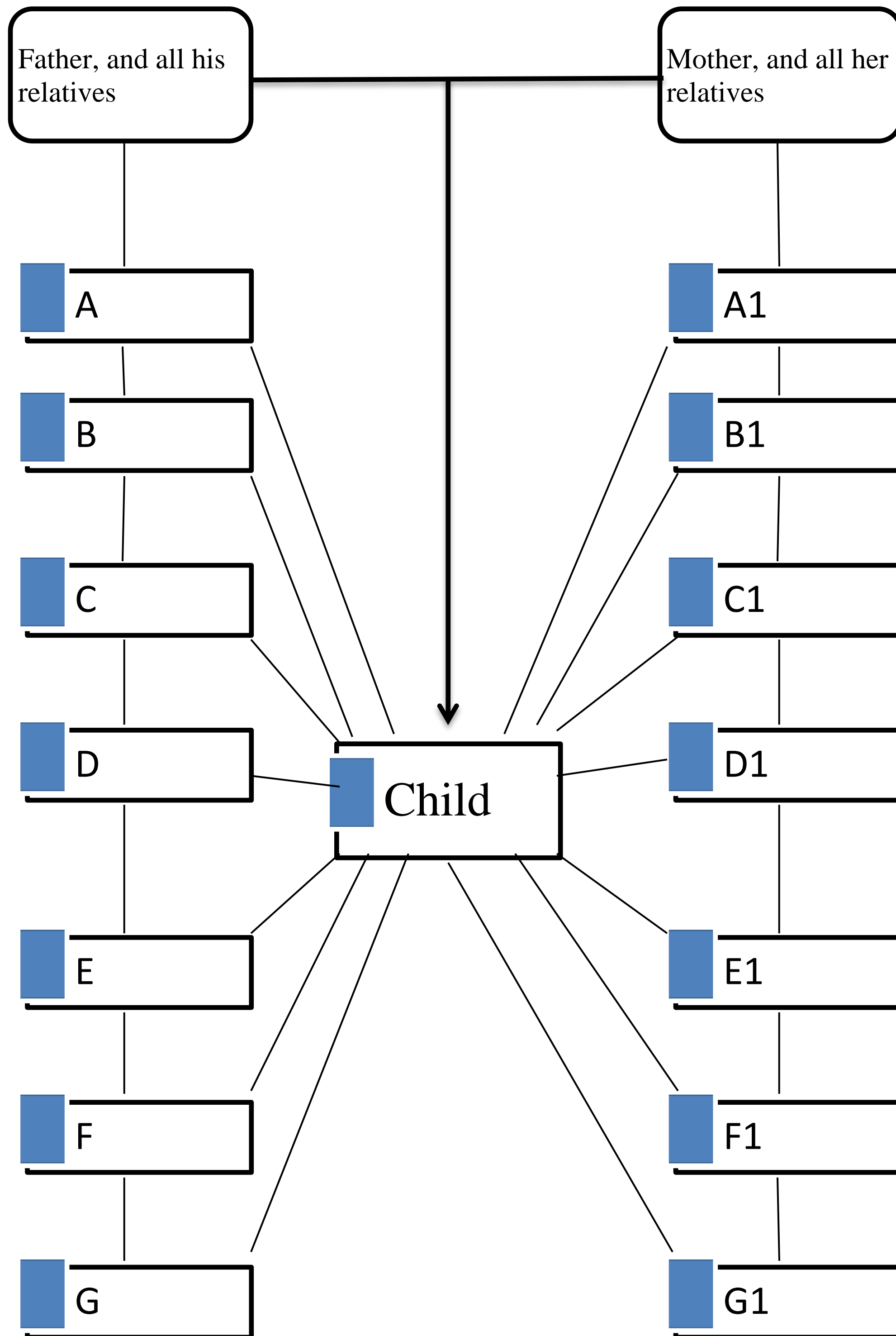

Figure 3. Dagara family structure configuration

(1980:142) and Widmer's (2000) argument about kinship ties is a significant import in this regard. Commenting on the relevance of kinship and social network integration, Widmer (2010)

asserts that current waves of sociological research are conceptualized in social integration which is viewed as a ‘social capital’. In view of this Widner intimated that:

> The more interdependencies individuals have to other individuals, the more likely they are to be able to mobilize resources, instrumental (money, domestic support), informational or emotional. This mobilization has various positive consequences, such as promoting their physical and psychological health, and increasing their resilience in key transitions of life. (2010:2)

By extension, the interdependence of the Dagara provides different kinds of resources to the individuals, such as financial and material support in times of need, emotional care as well as companionship. In this regard, members of the Dagara extended family system are as highly considered and well-connected as the nuclear family members in the western family system. Within the Dagara extended family system, members exhibit equal and close family ties just like the ties among the nuclear family members This is one of the reasons why family relation terms such as *cousin* or *step- brother* and or *step-sister*, for example, do not really exist in Dagara language. One’s cousins are referred to as the person’s brothers and sisters. However, the terms maternal or paternal brother, for example, can be used to show the difference when referring to your mother’s sister’s son (maternal brother-*mayɛb*) and your father’s brother’s son (paternal brother- *saayɛb*), respectively.

Father’s family members		**Mother’s family members**
A: father’s brothers (saakpɛɛ/saabile)		A1: mother’s brothers (madɛb)
B: father’s sisters (pure)		B1: mother’s sisters(mabile)
C: father’s uncles (saakum)		C1: mother’s uncles (saakum)
D: father’s aunts (makum)		D1: mother’s aunts (makum)
E: father’s cousins (saa yɛb)	Child	E1: mother’s cousins (mayɛb)
F: father’s nieces (yɛpuuli)		F1: mother’s nieces (yɛpuuli)
G: father’s nephews (yɛbr)		G1: mother’s nephews (yɛbr)

Table 2**.** Dagara family members of a child

These are different from uterine brother or sister in the western parlance. Figure 3 and Table 2, above, explain the relationship/kinship as far as Dagara family configuration is concerned. In fact, Table 2 sheds more light on Figure 3 and thus explains the family and kinship network system among all Dagara.

Tengan's (2000:146 -148) work throws more light on the family structure of Dagara. According to Tengan (2000), Dagara family membership or alliance from the Dagara perspective is different and a bit more complex than what pertains to the western world. Close family ties do not only concern the nuclear family system as understood in the Western world, but they transcend them. I will reinterpret Tengan's (2000:148) diagrammatic representation of village settlement and houses of daily reference of the Dagara family structure as in Figure 3 and Table 2 above.

For example, using the "child" in table 2, the father's brother will be referred to as his/her father. If younger than his/her biological father, the term *saabilé* 'younger father' and if older *saakpɛɛ* 'senior father' are used. On the other hand one's mother's sister will be referred to as *mabilé* 'younger mother' if younger and *makpɛɛ* 'senior mother' or 'elder mother' if she is older than one's biological mother. The western equivalent terms such as uncle and aunt, *madɛb* and *puré,* respectively, are only used to refer to one's mother's brother and one's father's sister, respectively. These terms are still in use today and they define Dagara family structure.

Furthermore, if for example a child is born to a Burkina mother and a Ghanaian father he/she will normally refer to people in group A1 – G1 as family members. Then, if for some reason, the father later decides to relocate and settle in the city of Ouessa in Burkina, for instance, his children will continue to look back and refer to all the people in group A – G

staying, for instance, in the city of Hamile in Ghana as family members. Thus, despite official language divisions, families across the political borders can be tightly connected.

In the event of funerals, marriage ceremonies, and other Dagara cultural festivals, prior to these occasions, all these groups of people sit together in a meeting as one family to take decisions on how to organize the ceremony. Also, when a child needs help, be it financial, material, emotional or of any kind, and when his/her uterine (or maternal) family or the category A – G family members cannot offer that help, then the child has the moral right to contact any of the members from category A1 – G1 and ask for help. On the other hand, it would be morally wrong for the family members in category A1 – G1 to refuse to support him/her at a time of distress. There is a Dagara proverb which says: *Saayir bɛwa tɛr kpɛba, mayir na tɛri kpɛb*, 'if you cannot get support from one category of family members (usually paternal) in times of need, consult the other category (usually maternal)'. It is in this way that there is a complex but interdependent family configuration among the Dagara.

The above facts indicate that the integrative function of Dagara family members transcends that of the western-style nuclear family. However, one needs to be in regular contact with members of the extended family in order to construct the necessary close ties and. Thus. to be able to acquire the benefits thereof when the need arises. The extended family members need to know and frequent another family member and relate to him or her to accept to provide for this person on a day of need. Of course, the frequency of interactions that one has with his/her relatives depends on the number of kinsmen across the other side of the border. In my fieldwork, it was common to see respondents indicate that they have more than twenty family members in either Ouessa (across Burkina border) or Hamile (across Ghana border) for which reason they frequently cross the border several times a week. This means that, apart from the business

activities that serve as motivating factors for crossing the border, all these persons mentioned above are considered close family members or kinsmen for which reason one will always feel obliged to cross the border in the case of family reunions, funerals, marriages, visiting the sick or the elderly and disabled, or even just stopping by to say hello.

2.1.3 Border and population movements

In today's global world the economic and socio-cultural interdependencies among nations have greatly influenced mass movement of people either intra or inter border and even continental. This universal phenomenon is on the ascendancy and it was a common experience in the West African sub-region even before the scramble for Africa in the precolonial era. Despite some contemporary trends in migrations, population movements still reflect some, if not most, of the factors that used to influence migration before the present era. In this section, I will discuss border and population movements in West Africa in relation to the Economic Community of West African States' (henceforth ECOWAS) protocol on free movement of persons, goods and services. This discussion is considered important because it has an impact on Dagara movement across borders as far as language contact situation is involved. In order to make this discussion more meaningful, we need to understand what influences or triggers off border and population movements. I submit that border and population movements affect the speakers' management of their language repertoires in the sense that the migrants have to readjust their language resources in the host nation by learning the host's language or acquiring some of their local expressions. This section will, thus, shed some light on factors influencing current population movements in sub-Saharan Africa.

Discussing population movement in West Africa, Adjei and Clottey (2007:3) argued that cross-border migration among West Africans dates back to the pre-colonial era because people

have migrated over the generations in responses to demographic, political and economic factors. This is true for the Dagara in today's Ghana and Burkina Faso as we will see later. Thus there existed a huge "mass intra or inter border" movement to the southern parts of Ghana and Côte d'Ivoire for economic reasons.

Contrary to the neoclassical theory whereby the decision to migrate is made by the individual or the whole group decides to move in mass, the economics of migration theory holds that decision to migrate is family-based in response to labor market demands and capital, and insurance market needs. The family, in order to avoid the risk of market failure and diversify the allocation of the family's resources, takes a unilateral decision on who should migrate. Household members are sent to work in foreign labor markets for better wages and remit the larger families back home regularly or when the need arises. With the discovery of diamond, gold, cocoa, and coffee in southern Ghana and Côte d'Ivoire, many Dagara families from northern Ghana and southern Burkina sent their younger male adults to work in the diamond and gold mines in the cities, and the coffee and cocoa plantations in Southern Ghana. Some of them would usually return after a long period of stay in the city with their accumulated wages to support their families, while others choose to remain permanently in the south and continue to remit their dependent families who sent them there. It is in this regard even during the pre-colonial era that these migrants returned to their native regions speaking fluently the southern languages that they had to learn to be able to keep up with the communicative demands of their jobs.

Apart from theories that explain what influences border and population movements, another important consideration is the scramble for, and control of, people and resources of Africa (Adjei and Clottey 2007). European powers created artificial borders without any regard

for the socio-cultural realities of the indigenous communities. The outcome of this situation is that the affected ethnic group, as in the case of Dagara, regards movement across the border as part of their internal daily movement that had been the routine before they were divided into different political boundaries. The reason for this continuous daily movement is not far-fetched; it is simply the fact that they still keep their kinship ties regardless of the creation of a mere political boundary between them.

Finally, modern intra-regional and inter-regional political activities also created favorable opportunities for border and population movements particularly in the mid-1970s in West Africa. Following the independence of all West African countries in the 1960s a sub-regional grouping was formed to promote peace and development, economic stability, and cultural integration among the member states. On May 28, 1975, a treaty establishing the Economic Community of West African States (ECOWAS), and in French, *La Communauté d'Economique de l'Afrique de l'Ouest* (CEDEAO) was signed in Lagos, Nigeria by sixteen West African states (Adepoju et al. 2010). According to Adepoju et al. (2010), the ECOWAS treaty was aimed at strengthening economic integration in the sub-region through free "movements of goods, capital and people". The ECOWAS protocol which was adopted four years after the promulgation of the treaty, the sixteen member states adopted a protocol relating to *Free Movement of Persons, Residence and Establishment.* It further stipulated among other things "the right of community citizens to enter, reside and establish economic activities in the territory of member states" (p.1).

To conclude this discussion on borders and population movements, one can say that there are different 'ecological zones', particularly within the three neighboring countries of Ghana, Burkina Faso, and Côte d'Ivoire, where the Dagara homelands are found. The Dagara homelands situated around the northern and southern corridors of Ghana and Burkina Faso experience a

longer dry seasons than the rainier south Ghana and Côte d'Ivoire. This provides an opportunity for the male Dagara youth to migrate perennially to the south to embark on farming activities or any other temporary job that they can lay their hands on during dry season in the north. Secondly, the south of Ghana and Côte d'Ivoire are more endowed with natural resources such as gold, diamond, bauxite, cocoa and coffee plantations. Of course, this makes southern Ghana and Côte d'Ivoire more developed than the northern regions. As such it is not surprising that Twi and Dioula, which are the languages of economic struggle in southern Ghana and Côte d'Ivoire, respectively, also become the languages of status and the symbols of a 'city-been-to' among Dagara male seasonal migrants. As we shall see, this will have important repercussions on borrowings in everyday speech.

2.1.4 Summary

The sociolinguistic background reviewed in this chapter has thrown some light on the history and movement of the Dagara people and their divided Dagara homeland in West Africa. There is an agreement that the Dagara once belonged to the Dagomba people, but decided to break away and subsequently became an independent ethnic group. Their long history of moving around to find new places to farm was shown to account for the present heterogeneity of dialects and cultural practices among the Dagara. After colonization by the French and the British in the 1930s, a narrow segment of the French- and English-speaking Dagara in the two countries acquired French and English via formal education, which has *de facto* made these colonial languages an important source of loan words and various adaptations. Since the participants of this study need to have a minimum of secondary school level of education to be able to speak the official languages fluently, and thus participate in the survey, discussions of multilingualism showed that apart from being Dagara-French or Dagara-English bilinguals, a good number of

Dagara youth were also bilingual in Dagara and at least another African language due to extensive social network integration and kinship ties that are based on the extended, rather than the nuclear family. Dagara structure of kinship and solidarity must be taken into consideration in this study in order to explain the border crossing patterns that help maintain family ties, but cross bilingual and political borders. This also explains why people living within the border communities make several trips across the border within a week just to visit or to maintain close family ties. Cross-border family ties are, therefore, relevant to explain the acquisition and use of local norms in lexical borrowing. I showed that migration is all-pervasive in the Dagara community not only for the maintenance of kinship ties, but also for seasonal economic reasons. The Dagara migrants end up being influenced by the language of the daily economic struggle of the recipient state, country or foreign land, which eventually broadens their linguistic abilities and can be expected to lead to larger number and more diversified sources of lexical borrowing among speakers.

2.2 Language policy and language attitudes:

2.2.1 Local languages and their status in Burkina and Ghana

In order to understand my participants' attitudes behind their linguisitc practices, I suggest taking an analytical look at the trajectories of language policies, planning, and implementation within the two border communities. In this regard, I start from the assumption that the way and manner in which language policies are planned and implemented affect people's attitudes towards their use of the official and African languages. In sub-Saharan multilingual Africa, as elsewhere around the world, language policy makers depended largely on the historical, cultural, and socioeconomic use of languages. Much as other researchers (Adegbija, 1994; Owu-Ewie, 2006) argue that there is an imposition of European languages on sub-Saharan

African countries through colonial activities, at the same time in most sub-Saharan African countries the language policy planning and implementation (usually top-down) often relied on the socioeconomic pattern of language use in order to determine the choice of language for education and for other official purposes.

Alidou (2004) asserted that even though African countries gained their political independence, political autonomy did not necessarily lead them to educational independence. That is, after four decades of independence, most countries of sub-Saharan Africa are still grappling with the issue of how to formulate and implement "an effective language policy for education" (Alidou 2004:195). Therefore the linguistic influence that I will highlight in this section is a general phenomenon in Africa, and for that matter, in Ghana and Burkina Faso, and thus not pertaining to the Dagara homelands alone.

The languages that are used in the educational institutions have become a major concern for language policy planners or makers. With the introduction of formal education by the colonial powers and the subsequent use of English and French only in schools as the mediums of instruction and communication in Ghana and Burkina, the local languages were not considered to be good enough for teaching in the schools (Bamgbose, 2000). This situation had become the norm in every part of Ghana until recently when awareness of the benefits for education of mother tongue use in the first three years of primary education has finally gained more ground. I want to stress here that even with the introduction of Dagara as medium of instruction; Twi continues to dominate in trading or commercial activities in Ghana and for that matter in the Dagara homelands. Similarly, Dioula is used in Burkina Faso as one of the major commercial or vehicular languages.

As far as Francophone colonial administrators are concerned, they were less interested in the promotion of mass literacy and education in Africa. The main concern of the colonial regimes was to educate few civil servants who could work as interpreters or serve as liaison officers between the administration and the indigenous people. During the colonial period it was rather the missionaries who were involved in a kind of literacy promotion. That is, the missionaries encouraged literacy through the use of African indigenous languages. Yet many researchers viewed the missionary involvement as a way of converting the African into Christianity rather than directly educating him or her (Machinsi 2004 and Chiatoh 2005). In the view of Machinsi (2004), if the missionaries were very instrumental in the development of indigenous orthography, it was meant to transcribe African languages for evangelization purposes. His argument is summarized in the following words:

> [T]he drive for evangelisation proved extremely successful because the missionaries used local languages. The Bible and other Christian literature were translated into the local languages. People chanted hymns in the language they understood best, i.e. their own local languages, and even in the schools the medium of instruction was in their own local language at least up to the 4th grade. Because of this, there was a wealth of literature in the local languages (p.11).

Apart from the missionaries who tried to educate their new converts, the colonial authorities also established some schools in order to educate the people in the territories that they governed. But in Machini's view, the colonial administrators' approach and direct involvement in the promotion of literacy was more discouraging than encouraging because they were not at all tolerant of the use of indigenous African languages in the classrooms. Consequently in francophone countries such as Togo, Côte d'Ivoire, and of course Burkina Faso, the use of the vernacular in teaching was forbidden or if any pupil was heard using vernacular in the school environment for whatever purpose he or she received corporal punishment. Machinsi (2004)

recorded that in Burkina Faso, though the teaching of the Koran was tolerated by the colonial administration in the Muslim communities, literacy in Arabic (Ajami) was not allowed. Apart from that, any attempt to use Ajami script to write African languages was also prohibited; such was the colonial language policy of education in Burkina Faso or in most of Francophone Africa. The only language policy of education or literacy validated during the colonial era was the one acquired through Western education, that is, French for the francophone colonies. Therefore, the only tool for upward mobility and economic advantage during the colonial era was literacy through French (Kwesi Prah 1995): Kwesi Prah therefore asserts that the ability to read, write and speak one's official language fluently will enable him/her to move up the social ladder and as such be able to overcome the socio-economic limitations associated with illiteracy.

In view of this type of language policy of education that marked the colonial period of administration, it is argued that such policies had "negative social and cultural consequences", even today, as many post independent governments policy makers continue to perpetuate the colonial legacy (Alidou 2004). Such education policies brought about social and economic inequalities, thus creating social divisions for the once unified communities, resulting in negative attitudes and lower social status assigned to African languages. Right from the beginning of colonialism, people understood that the only tool for upward social mobility was through the acquisition of English and French, but not through an African language.

2.2.2. Status of French in Burkina

According to UNESCO (2002), fifteen of Burkina Faso's 59 ethnic languages spoken by a population of about 15 million people are used to broadcast social, political, economic, as well as educational and cultural newson the national "Radio Rurale". Out of these fifteen languages, only Mooré, Jula, and Fufuldé are used on the national television broadcasts (see Figure 4 and

Table 3 below); although in 1978, the government drew new education reforms which raised all the languages to the status of national languages. It is a well-known fact that the majority of African countries have not drastically changed the language policies that they inherited from the colonial era, and Burkina Faso is not an exception. Consequently, some European languages such as French, English, and Portuguese which were used during the colonial period, continue to enjoy a dominant status in the post-independent era, as official languages of administration and education to the detriment of African national languages.

Language	**Population estimates**
Mooré	53.12 %
Fufuldé	9.04 %
Gulmancena	5.07
Jula (Dioula)	4.01
Bobo	3.23%
Bisa	2.71%
Lyele	2.43%
San	2.05%
Dafing	1.85%
Dagara	1.75%
Bwamu	1.59%
Lobiri	1.49%
Nuni	1.19%
Senufo	0.99%
Tamasheq	0.82%

Table 3. Demographic size of some of major languages in Burkina (Source: UNESCO 2002)

Nonetheless, Burkina Faso recently took some positive strides towards changing and or improving some of the language policies that they inherited from the colonial era. Since Burkina's independence in 1960, the policy makers of the country have adopted a number of laws with the sole aim of promoting legally the use of national languages for literacy and education. Napon (2001) recorded that in 1969, the government "enacted the first post-independence law that led to the creation of the national commission of voltaic languages" (p 15).

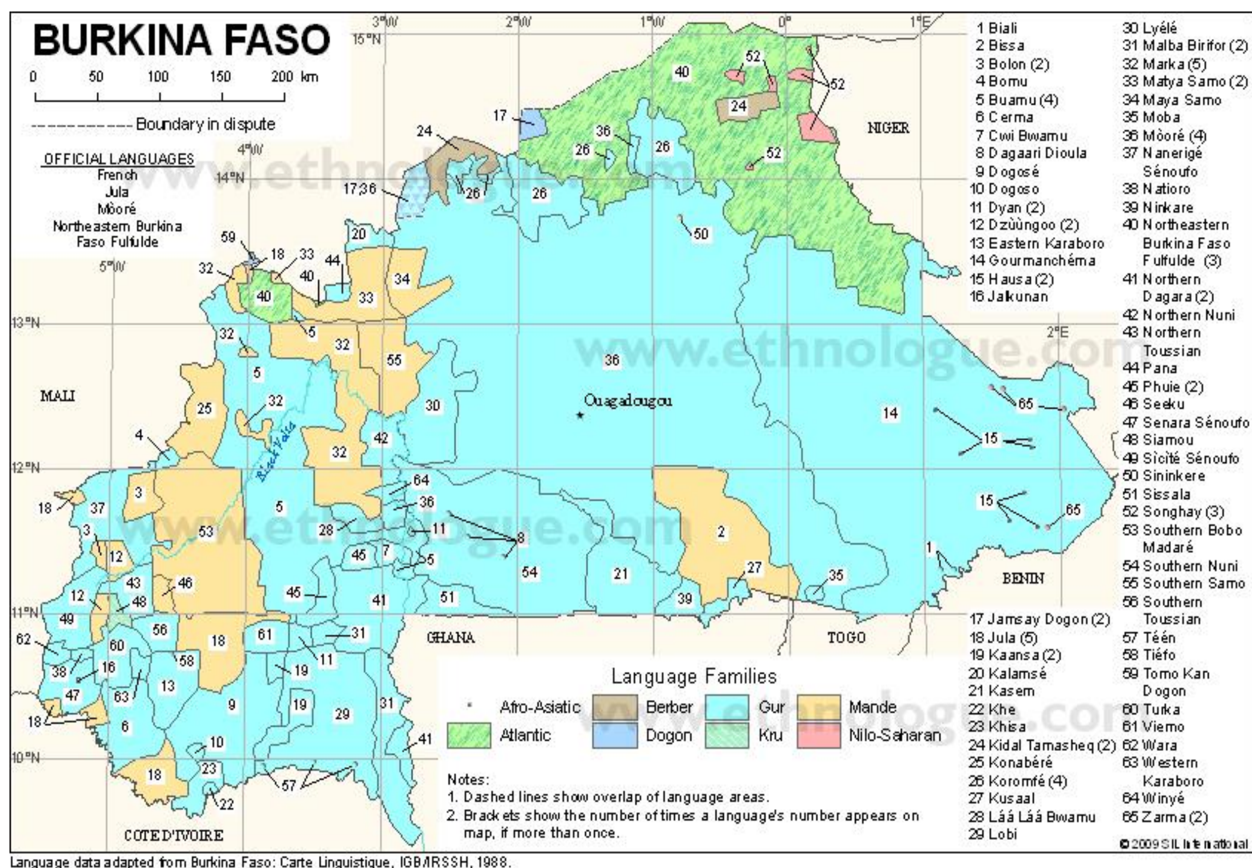

Figure 4**.** Ethnological map of Burkina Faso (Source: Lewis 2009)

One of the purposes of this commission was to conduct corpus planning work in order to promote local languages to the status of national languages. According to Napon (2001), a few years later, the government of Burkina Faso, in conjunction with UNESCO, launched the first literacy campaign. After a successful launch of the campaign, the government went a step further in 1974 by creating a department within the Ministry of Education purposely for the promotion of literacy. Following the creation of this department, local languages were given the status of national languages. The language policy laws stipulated that all the languages spoken in Burkina Faso by the different ethnic groups are now national languages. The government did not delay the implementation process. The first experimental schools were established in 1978 and the

national languages were elevated to the status of languages of instruction for both the formal and non-formal education sectors.

One achievement that apparently yielded some good results vis-à-vis the educational policy reforms in Burkina Faso is the implementation of the experimental bilingual schools. Commenting on the achievement of the new reform policy, Kouraogo and Dianda (2008) claimed that pupils who had their first five years of literacy entirely in their mother tongue performed better when they switched to French. Kouraogo and Dianda (2008) stressed on this point in the following words:

> It has shown that pupils who are taught in their mother tongues in the early years of schooling before switching later to French performed better than those of the classical system where French is used from the first day of school, even in rural areas where most people don't understand the language. After just five years of schooling, the pupils of bilingual schools reach better results than those who spent six years in the classical system. (p. 27)

It has also been argued that the implementation of bilingual education, though in pilot institutions, creates an appropriate atmosphere for school community relations. A case in point is that, the use of a national language as medium of instruction facilitated communication in the classroom. It also allowed "local craftsmen and other parents to intervene in the classrooms and share their knowledge and expertise" (Kouraogo and Dianda 2008:32). Though this pilot project, the same as the general language policy reforms, claims to be promising, the issue at stake is whether it is well accepted by everyone and whether these policies will be wholly implemented in every part of the country without constraints, impediments, and resistance by colonial conservatives. In order to shape our vision on Burkina's language policy and educational system, language attitudes and vitality in Burkina Faso is also discusses, following.

The aforementioned 2002 UNESCO reports on language policies in Africa stated that out of the 59 national languages only about twenty of them have been given some fair linguistic

description and are currently used only for adult literacy programs. The report also stated that none of those languages had been standardized for use in writing. As a consequence, French remains the official language, the language of instruction and administration in most formerly francophone West-Africa.

With regards to language attitudes in Africa in general, Safuna (2001) comments on the failure of Africans to ‘cut off the umbilical cord’ from former colonial language policy model and the elitist life style. Commenting on the attitude of Burkinabe toward the use of national languages for instruction in the classrooms, Kouraogo and Dianda’s (2008:34) study reported that “the major reforms attempted so far always came under fire from those who were supposed to understand their usefulness best, namely teachers and intellectuals”. Some intellectuals actually resisted the 1979 – 1984 major reforms which brought the use of national languages in education. Some argued that the reform would “create an unfair system of two parallel schools”, while others totally rejected the use of national languages as media of instruction. In fact, according to Kouraogo and Dianda (2008), the educated Burkinabe’s rejection or criticism of the reforms was justified when the minister of education at the time had withdrawn his child from one the satellite schools in which the new reform was being introduced. The negative attitude toward African languages by Africans was not farfetched, which led to the minister's action and seen as an example to follow. Some concerned Burkinabe citizens called on the then minister to resign his position after his action, but he remained at the post as long as he wanted, the report alleged. This example and many others speak volumes of the sober reflections about the vitality of African languages in the face of French, English, and Portuguese in their former colonies. Furthermore, this was a negative message sent to the youth who, at the same time, are supposed to be the beneficiaries and direct participants of the reforms.

These negative attitudes toward the use of indigenous languages in the classroom, and toward bilingual education stalled the full implementation of the new program. Since 1979, the extension of the bilingual education program to every corner of the country is based on demand by the community. The government has not been able to show enough courage to enforce the new policy as a compulsory program in all public schools. Even today no local language in Burkina Faso is yet a subject on any public school curriculum, except at the non-formal education level. French remained the official language at all important ceremonies at the state level, and the language of the courts, while English is studied as a compulsory subject in all public high schools in Burkina (Bukari, 2009).

Like many other sub-Saharan African countries, Burkina Faso at its independence in 1960 adopted its ex-colonial language, French, as official language as well as medium of instruction at all levels of education. It has been argued for many African countries that due to their multilinguistic nature, the majority of them chose to adopt their former colonial languages at their independence alleging that the policy is the best way to foster national integration and governance, or that it would facilitate modern trade and international diplomacy. This, I believe was the driving force behind the adoption and maintenance of European languages for education and national integration of African countries at independence. However, I argue that if African countries in the 21st century continue to hold in high esteem ex-colonial languages, it might not be for the purpose of fostering national integration, but for a series of major attractions that may be summed up as: for upward social mobility, status raising, and prestige. In fact, as Adegbija (1994:52) pointed out, they hinge largely on "potential instrumental value". However, although individual citizens of a nation may vest their personal interest in one language or the other, they unfortunately don't have the power to make language choices for the nation state. In this context,

the ordinary citizens and the rulers (politicians) are pulled into language battles in the domain of state building. The process of state building embodies everything including language choice for everyone.

Burkina Faso, like all other sub-Saharan African countries that were once colonized, had to 'rebuild' its nation state as soon as it gained its independence from France. The process of rebuilding the state is referred to as 'state rationalization' which includes among others 'language rationalization' (Laitin 1992). As I mentioned earlier, elitist attitudes create the right avenue for European languages to rise far above all African indigenous languages in most of West-Africa. In Burkina Faso, French is recognized by the government as the official language and is taught in schools at all levels and it is seen as language of power, prestige and requirement for employment in all public sectors whereas the local languages are reduced to only informal use such as in shops, markets, religious purposes, and ethnic identity.

2.2.3 Status of English in Ghana

Choosing a national language or a language for education in a multilingual state is a controversial issue in most African countries in general, and in Ghana in particular (see Figure 5, Ethnological map of Ghana). Literature on multilingual societies have also highlighted similar problems. For example, Da Gupta (1978) reveals that "In India and Pakistan, given the high degree of competition between several major languages, a policy of imposition will create more problems than it will solve" (p. 23). Armstrong (1968) expressed similar general sentiments when he studied languages and language conflict in Africa. He reported that in some parts of West Africa, people living in the same community often went into fighting over whose language is more important or superior when it comes to choice of a national language. A related scenario is Ghana's languages and language policy of education. Since the colonial period, language

policy of education has become a delicate issue in Ghana that previous rulers did very little to address. For Ghana, like many other sub-Saharan African multilingual countries, it has always been argued that the best way to handle language issues is to go *neutral* by adopting and using the colonial language in order to avoid conflicts between the native languages. In the early part of the 15th century, Gold Coast (now Ghana) is one of the countries in West Africa that received many European settlers who were mostly merchants. The first merchants were the Dutch, Portuguese, and Danes. Each time, each settler tried to establish a school with the aim of educating the native coastal residents in order to use them as interpreters or middle-men between the settlers and the native traders. Actually one important purpose of educating the coastal natives was to help facilitate an efficient and effective trade with the natives. Gbedema (1971) pointed out that at one time in the history of Ghana, all the European settlers or colonizers used the language of their home countries in any part of Ghana that fell within their sphere of influence. This type of "mercantile influence on schools continued" (Gbedema 1971) for a long period of time until the early part of the 20th century when the British took full control of the education system. When Britain was at the helm of affairs, teaching in the colonial schools was entirely in English at the Cape Coast cattle (the seat of the then colonial government). Again this system of literacy was consistent with the aims and objectives of the school. It was to turn out "middle-level administrators, interpreters, and merchants for the British establishment" (Ghedema 1971: 52). It was later, in the middle of the 20th century that the British moved beyond the coasts and extended their influence to the Ashanti Kingdom, and much later to the hinterlands. However, between 1529 and 1925 there were two concurrent educational systems; the castle schools and the missionary schools, as seen in Table 4 (taken from Owu-Ewie, 2006). The table below (Table 4) is a summary of all the educational language policies that have been

implemented in Ghana since the British colonial period from 1825 to the present. In the Castle schools, the language of instruction was entirely in English, from class one (grade 1) to class six (grade 6). The use of local languages in the classrooms was not tolerated at all, at any level of education in their system.

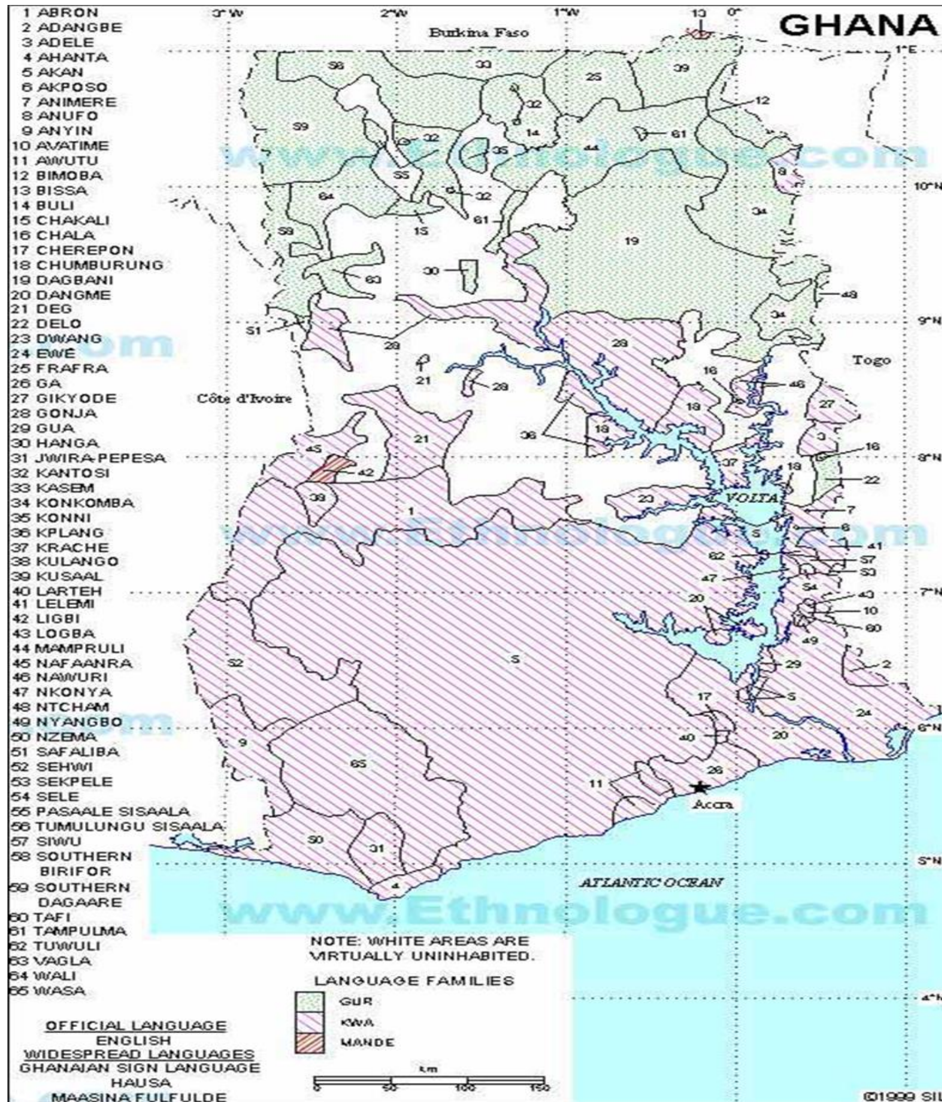

Figure 5. Ethnological map of Ghana (Source: Lewis 2009)

It is worthy of note here that the colonial government of the time left education and literacy in the rest of the colony to the missionaries But contrary to the Castle schools, the Mission schools

encouraged the use of local languages for the first three years of the child's education. This form of literacy and language use in the classroom continued until 1925 when the British took over the administration of schools in the entire colony from the missionaries.

Period 1529 – 1925	1st year	2nd year	3rd year	4th year +
a. Castle schools b. Mission schools	– +	– +	– +	– –
1925 – 1951	+	+	+	–
1951 – 1955	+	–	–	–
1956 – 1966	–	–	–	–
1967 – 1969	+	–	–	–
1970 – 1973	+	+	+	+
1973 – 2002	+	+	+	–
2002 – present	–	–	–	–

Table 4. (Non-) use of the Native language as medium of instruction
Key (+): Some Ghanaian languages used as media of instruction
(–): No Ghanaian language used as medium, of instruction
(Source: Owu-Ewie, 2006)

At that time the use of local languages as media of instruction by the missionaries had taken strong root such that it was difficult for them to reverse the system.This method of instruction continued until 1950. Again, from 1951 to 1956 the colonial government managed to enforce a change in the language of instruction. The local language remained only at grade 1, and the rest of the levels changed to English only.

The period following the post independent Ghana can be referred to as the most surprising language policy period in the history of western education in Ghana. Surprisingly,

according to Owu-Ewie (2006), when Ghana became independent in 1957 the language education policy was completely overhauled. From independence until today, Ghanaians have seen several language policy changes which left one wondering if there would ever be stable language policy in the country. Starting from independence (1957), the use of Ghanaian languages as media of instruction was not allowed from 1st grade to middle school. In 1966, there was a coup d'état, and the years that followed the coup -makers' administration, that is, from 1967 to 1969, a Ghanaian language was used only for the first year. Owu-Ewie (2006) further stated that the years between 1970 and 1974 saw another military takeover of administration through a second coup d'état. This administration also implemented some new language policies: a Ghanaian language was used for the first three years and, where possible, this could go even until fifth grade if deemed appropriate or necessary. Another language policy change was enacted from 1974 to 2002 at which time a Ghanaian language was used for the first three years only. Out of about 67 languages in Ghana (see Figure 5, ethnological map of Ghana), the following languages were selected, and have been used since as the media of instruction in the localities: Akan (Fante and Twi), Nzema, Ga, Ga-Adangbe, Ewe, Gonja, Kasem, Dagbani, and Dagaare (Owu-Ewie, 2006). They are also referred to as the government-sponsored languages for all public schools. The table below (Table 5) shows the distribution of native speakers of these government-sponsored languages that feature on the entire public schools curriculum. These languages are taught as compulsory subjects in all primary and junior high schools. Students who wish to major in these languages at the high school level can continue to pursue a bachelor's degree in them in some of the public universities, such as at the University of Education in Winneba and at the University of Science and Technology in Kumasi. Ewe, Akan, and Ga have graduate programs at the university of Cape Coast in the Central Region of Ghana

and at University of Ghana, in Accra, Ghana's capital city. Unlike the francophone countries where the 1944 Brazaville conference had imposed the use of French only at all levels of education, in Ghana, the British laid a solid foundation for the use of native languages at the basic education levels. Although this opportunity has been undermined or abused by the successive Ghanaian rulers themselves, as we will see, it still plays a role in language attitudes today.

Language	Percentage estimates
1. Akan	36.8
2. Fante	10.8
3. Ewe	9.7
4. Dagara	4.7
5. Adangbe	3.6
6. Dagbani	3.5
7. Ga	2.7
8. Nzema	1.2
9. Gonja	1.0
10. Kasem	0.6

Table 5. Government sponsored languages and number of native speakers
(Source: UNESCO 2002)

It has been argued that the kind of language policies put in place by both the ex-colonial administrations and the post-independent African policy makers continue to influence attitudes of Africans toward their own local languages. Thus, language vitality and attitudes research in Africa needs to take into consideration why speakers tend to show certain attitudes, negative or positive, toward some languages. Some of the frequently asked questions regarding language attitudes are: why do speakers show positive attitudes toward language A, but assign negative attitudes toward language B, and vice versa? In other words, why do certain speakers value some languages higher than others? I follow Baker's (1992:32-33) model on language attitude research in an attempt to explain language attitudes situation in Burkina Faso and Ghana.

The two components of language attitudes that are vital to language attitude research are: the instrumental orientation and the integrative orientation. According to Baker, when attitudes toward a language reflect "pragmatic and utilitarian motives", an instrumental motive has been expressed. These are usually characterized by the desire to "gain social recognition or economic advantage through knowledge of a foreign language", (p. 33). On the other hand "integrative attitudes" toward a language include 'social and interpersonal orientation'. In this component, the desire for the language learner is to establish affiliation with another speaker or community. In other words, one may express the desire of wanting to be identified with a particular group of people of other languages or create friendship. These theories, I believe, are important to understand attitudes that inform language policy planning and implementation in sub-Saharan African countries, as well.

Guerini's (2007) language attitudes survey in Ghana provides us with other interesting points of view toward indigenous languages. Guerini found that in those Ghanaian universities where Ghanaian languages are taught, lecturers and professors teaching indigenous languages are looked down on by their own faculty members who may even refer to them as "second-rate" colleagues. Guerini's (2009) findings also indicate that students adding the study of a Ghanaian language to their university curriculum tend to be dismissed as under-achievers who turn to easier options. Interestingly, if students are found by their peers going to a class with Ghanaian language textbooks in their school bags, they may be teased in the following sarcastic words: "Weeds will grow into your mouth, if you go on like that!" (Guerini, 2009). Guerini's study was conducted on the campus of Ghana's premier university, University of Ghana, to examine said university students' attitude towards the use of Twi as medium of instruction in schools.

Just like in Burkina Faso, in Ghana, the ex-colonial language, English, also continues to dominate in the social and economic spheres. This is clear in the Constitution of Ghana's second republic of 1969, twelve years after Ghana's independence. According to Article 71d of the 1969 (Laitin 1992:131) Constitution, a member of parliament (a Senator in US) is required to be

> Able to speak and, unless incapacitated by blindness or other physical cause, to read the English language with a degree of proficiency sufficient to enable him to take an active in the proceedings of the Assembly.

However, it is important to note that English was not explicitly documented as the official language of the nation, but one can easily infer from the constitution that the status of English is very high in Ghana, and proficiency in it gives the speaker an advantage over others during parliamentary and presidential elections, that is, political power. Nevertheless, there have been several attempts during parliamentary debates to adopt Akan (Twi) and use it as a substitute to English in parliament (Laitin (1992). Those attempts never yielded any fruitful results even though Akan at that time was spoken by an estimated 44% of Ghanaians as first language and another 20% more, as second or third language. Today, according to the 2000 national census of Ghana, both native and non-native Akan speakers constitute about 83% of the total population (Guerini 2009). In fact, Akan is a second language or the lingua franca to about 92% Ghanaians, and therefore a vehicular language, and the language of daily economic struggle in almost all major cities in Ghana. And yet many Ghanaians prefer the use of English at public places, as well as the medium of instruction from basic to tertiary education level.

Making allusions to the general status of European languages, Adegbija (1994) asserted that references such as Francophone, Anglophone, and Lusophone Africa are often made to differentiate one African country from the other from a colonial viewpoint, even though literacy in the said European languages is only acquired through formal education which unfortunately is

not accessible to everyone. For example, in Ghana, the literacy rate in English for people aged 15 years and above is only 71.8% (https://www.cia.gov/library/publications/the-world-factbook/fields/2103.html), which means that not everybody in the country can be referred to as Anglophone. And yet English has a higher status than all other Ghanaian languages.

It is understood that English is a world language and proficiency in it opens windows to many opportunities because the world has become a global village. However the multilingual situation in Ghana can be an important factor with regards to the use and status of English. Grosjean (1982:24) argued that bilingualism is often the consequence of language contact between "two linguistic groups that do not have the same numerical, political, and economic importance". When situations like this arise, the members of the minority group usually must learn the majority language in order to interact with the majority language group. Furthermore Grosjean explains that the dominance of a language in a contact situation is often determined by who learns whose language. Very often the majority or dominant language is learned by the minority group, but the minority language is learned by only members of the minority. In the case of the border communities studied here, the majority language does not refer to number of speakers, but rather to which language use controls the economic power or which language wills upward social mobility.

In Ghana the indigenous languages are used only in traditional contexts, such as during traditional marriage ceremonies, festivals, contests, at markets, and other forms of interpersonal interactions. With regards to attitude towards English, many Ghanaian parents are now eager for their children, as Okere 1995:182 rightly puts it, to have a "head start on European languages, which they believed to be the window on the world". A case in point that clearly indicates Ghanaians positive attitude toward English is that in serious, formal official functions such as a

president's broadcast at a national-day's celebration, like independence, or Republic day, none of the ten government sponsored languages are considered suitable; English has always been the preferred choice because of its perceived higher status.

Finally, the 2002 Ghana education reform pushed further down the status of Ghanaian languages while raising that of English. This was made clear in the education Minister's report presented to the government. The Minister of education at the time, Ameyaw-Ekumfi (2002) outlined some reasons in his report regarding the use of English-only policy in the classrooms right from the first day of grade 1. He listed among others the following reasons for the English only policy:

1. The previous policy of using a Ghanaian language as medium of instruction in the lower primary level was abused, especially in rural schools. Teachers never spoke English in class even in primary six.
2. Students are unable to speak and write 'good' English sentences even by the time they complete the senior secondary school (High School).
3. The multilingual situation in the country especially in urban schools has made instruction in a Ghanaian language very difficult.

A study conducted by the Ministry of Education in 2002 showed that 50 to 60 percent of children in each class in the urban area speak a different language. "It is therefore problematic if we insist that all the children be instructed in Ga, Twi, or Dagbani depending on whether it is Accra, Kumasi or Tamale", (Ameyaw-Akumfi, 2002). Taking his reasoning into consideration, one is tempted to argue that, the Education Minister is being influenced by Ghanaians' general perceived higher status placed on English, against the lower status assigned to the local languages.

2.2.4 Summary

The implantation of European languages in the colonies during the colonial period and their subsequent maintenance as official languages after independence in Burkina Faso and

Ghana have led to their higher social value in the region. The use of French and English as official languages was a result mainly of the implantation or 'imposition' of these languages on the people in colonies through the introduction of formal education. The use of English and French in these countries is seen as a means to upward economic and social mobility, contrasting with negative social value assigned to African languages.

In addition, English and French are considered as languages of power in all sub-Saharan Africa. After independence, language policies inherited from the colonial era in all sub-Saharan African countries were perpetuated with simple modifications. In Burkina Faso, the post-independent government raised all local languages to national status and then introduced bilingual education at experimental stages, which was heavily criticized because of the negative attitude assigned to the policy by those who have the power to see to its full implementation. Hence, French continues to enjoy its current prestigious position among the local languages. This situation explains why currently in Burkina Faso no local language is studied in schools not even as a subject, except at the adult education level, whereas English as a foreign language has been introduced as a compulsory subject at the high school level. This policy further compounded the already low status and negative attitudes assigned to all local languages. The only encouraging and commendable language policy in Burkina Faso is the use of local languages as mediums of instruction at the elementary school level, as well as raising all the local languages to the status of national languages.

As for Ghana, the situation is a bit different. English enjoys official status and also acts as medium of instruction at all levels of education, while the ten selected local languages (see Table 5 above) are also studied in the high schools and at the tertiary level as majors. Four languages (Twi, Ga, Fante and Ewe) are studied up to the graduate level in about three universities in

Ghana. The linguistic problem that Ghana is still grappling with is the issue of selecting one of the nine government sponsored languages as a national language, especially for the case of Akan, which is spoken by 92 percent of the population as a native or second language.. With regard to French, much as its status is comparatively lower than English in Ghana, it has been introduced as a compulsory subject at the junior high school level, but an elective subject at the high school level. Those who take French as an elective subject at the high school could continue to take it at the university as a major or minor subject. Local languages in sub-Saharan Africa are, hence, not yet considered worthy in the domain of education, which warrants expectations that they will not enjoy positive attitudes among participants of my investigations. As we will see later in the data some of the participants I interviewed expressed both attitudes; instrumental and integrative motives. In fact, instrumental attitudes were expressed toward the two foreign languages (French and English) and for Dagara most participants expressed integrative attitude. Many of them want Dagara to be raised to the same level as French and English. Others also showed their pride in speaking Dagara at home with family members and the rest indicated that Dagara indexes ethnic identity. However, when it comes to the use of Dagara as a medium of instruction, majority of them protested the idea because they felt that French and English would open better doors to the world or provide them better jobs than Dagara can do.

2.3 Language contact scenario: The Dagara case

Ghana and Burkina Faso had both experienced similar contact situations as far as the use and adoption of their official languages are concerned. Ghana and Burkina Faso fell under the British and French colonial rule, respectively, in the era of scramble for Africa, around the early part of the 19th century. However, contact with the hinterlands, often referred to as the northern territories of Ghana and their adjacent southern counterpart of Burkina Faso took place around

the beginning of the 20th century. It took several years for the various colonial governments, as well as the missionaries, to explore the current Dagara homelands even though some Dagara younger adults had already taken some trips to southern Ghana. Lentz (2006) and Mahama (2009) both recorded that the contact between the British and the Dagara in the northern territories of Gold Coast (Ghana), and between the Dagara and the French in the southern parts of Upper Volta (Burkina) was around 1900. As Mahama (2009:2) noted, West Africa was colonized in a gradual manner: "the territories along the coast were first colonized before the territories inland".

The British colonial authority was fully aware that the only way to perpetuate their rule over the ruled was through the education of few native children. The intention was to first open native authority schools for the education of only the chiefs' children who would serve as clerks and interpreters of colonial authority representatives. Therefore, as soon as they opened the first primary school in Lawra (a Dagara homeland 30 miles south of Ghana/Burkina border) in 1919, the first batch of pupils was made up of children of chiefs and the headsmen. Lenz (2006: 134) reported that in 1938 "of the 86 boys and 4 girls" who were enrolled, more than two-thirds were children of chiefs, sub-chiefs and headsmen from all over the Dagara homelands such as Jirapa, Nandom, Lawra, and from the rest of the neighboring villages. Many of those who were able to complete their primary education eventually became interpreters of the British district commissioners, clerks at the native courts, and even teachers in the schools from where they graduated.

In contrast, the Catholic Missionaries created a difference as they did not only intend to convert the Dagara to Catholicism, but also to give formal education to everyone. However, some colonial governors had some reservations about the good intentions of the missionaries.

Since the British, had adopted an indirect rule system in Ghana, through the use of native chiefs, they felt that the activities of the missionaries might create rivalry between their followers and the chiefs who were seen as custodians of colonial authority. In other words the colonial authority at that time feared that the educated Dagara Christians would undermine the authority of the native chiefs, as in the case of the Ashanti people in southern Ghana.

For example, the director of education at that time, Power (Lentz 2006: 171), did everything within his power to block the opening of Catholic schools until the native authority schools for the children of chiefs and headsmen were firmly established. It was therefore not a surprise when in the early 1930s the British colonial government rejected a petition from the missionaries to open a primary school in Nandom, a Dagara town 11 miles south to the Burkina/Ghana border. Nevertheless, another petition was sent in 1937 by the missionaries to the colonial authority, and the first boys' boarding primary school was opened in Nandom, followed by a girls' boarding primary school in Jirapa in 1940. Jirapa is another Dagara town about 25 miles south of Burkina-Ghana border.

Even though formal education started late in the northern territories, as compared to those in the coastal belts (southern Ghana) and other places of early colonization, the influence of English on Dagara, in particular, is extensive. As has been mentioned earlier the selective form of making the indigenous Dagara literate created an unbalanced society. Those who could sustain any discussion in English used their power of language to gain an upward social mobility and some of them used it to gain access to limited social/public facilities much to the disadvantage of the illetrate person, to the extent that everyone craved for this power of language which unfortunately was not accessible to all the inhabitants of Dagara homelands. Despite these short falls with regard to mass education, mixing Dagara with English, even by monolingual Dagara

speakers, is a common phenomenon because everyone wants to belong to this small elitist group created by this social disparity as a result of lack of access to formal educational by everyone.

In Burkina Faso contact between Dagara and French occurred from two different angles: the contact with colonial administrators and contact with the Catholic missionaries. The colonial authorities had two reasons for penetrating into the southwestern parts, including the Dagara homelands of Burkina Faso. First they aimed at creating a reservoir of man power for the plantations in southern Ivory Coast (Côte d'Ivoire), or recruiting by force (*travaux forcés*) for the construction of roads and railroads linking Ivory Coast, Burkina, and Niger. Second, they also intended to educate a few of the local people who would help enforce the laws of French authority. By the latter part of the 19th century, that is 1896, the French colonial authorities had already annexed Ouagadougou (Leclerc, 2005), and signed a protectorate treaty with the Mossi chief (Roi Mossi). From Ouagadougou they made several incursions into the southwestern parts of the colony where they discovered settlements of tribes such as Dagara, Phuo, Dyan, Sisala, et cetera. These tribes who inhabited the following villages or towns; Diebougou, Guéguéré, Dano, Dissin, Ouessa, Djanlé, and Boso, were mostly farmers, livestock keepers, and hunters. According to Leclerc (2005), between 1898 and 1903 they established embryonic schools in Ouagadougou and Tenkodogo, while the southwestern parts remained without schools until the 1930s. However, by 1897 Baux (2006) recorded that the first colonial post was established in Diebougou, not far from the main Dagara homelands. Baux (2006) recorded that the first contact between French and Dagara in Diebougou was a very tense one because of the forced labor system that was practiced by the French colonial authority representatives. This forced labor system made the Dagara mistrust any colonial plans and intentions for the Dagara community in Diebougou (if even it is for a good purpose), including education. However, when the Catholic

missionaries established their churches around the 1930s, they preached peace, equality, and respect for human dignity. This had a long term influence on the Dagara as they seemed to trust the missionaries more than the colonial authorities. As a result, there was a mass conversion of the Dagara people to Catholicism, and the resultant effect was the establishment of Catholic primary schools in Dano and Dissin by 1933, about 30 miles north from the Ghana/Burkina border. As far as formal education for the Dagara in Burkina Faso is concerned, Akpable et al. (1994) and Lentz (2006:159) also recorded in their studies that the Catholic missionaries were the first to have opened schools in Dissin and Dano in the Dagara homelands in the 1930s. Although the doors of this kind of education were opened to everyone, only the new converts to Catholicism took advantage of this opportunity. It is on record, however, that before 1930 (Lenz 2006), the Burkina Dagara people were already in contact with the Ghanaian missionaries in Jiripa, about 30 miles away from the Volta River, which served as the natural border between Ghana and Burkina, as mentioned earlier. Dagara conversion to Christianity played an important role in acquiring formal education during the colonial era and even today. As we have already learned from the missionary activities in Ghana, the Catholics did not only Christianize the Dagara, but they also gave them basic education. Hagberg's (2002) study in southern Burkina reflects upon how basic capabilities relate to education and identity and more importantly the different roles played by the major religions in colonial Africa – Islam and Christianity. His fieldwork covered the areas of southeast Burkina mainly occupied by the Fulbé ethnic group, and the southwest, by the Dagara ethnic group. Hagberg's (2002) study documented a retrospective role of Catholicism among the Dagara. The Fulbé who were first converted to Islam due to their contact with Franco-Arabic movements from North Africa refused to send their children to school to have western styled education, whereas the Dagara responded positively to western

form of education. Hagberg (2002) observed that owing to Catholic activities in the Dagara homelands around 1930, “the Dagara have many intellectuals occupying important posts in state administration” (p. 35) in Burkina Faso today. Hagberg (2002) further observed that,

> The examples of Fulbé and Dagara showed the different roles played by religion. Christianity has been instrumental in bringing these Dagara children to school. But Islam seems to have contributed to preventing the Fulbé children from going to school [...] Koranic schools are defined as religious and traditional, but Catholic schools are intimately linked with modernity and progress (p 35).

The above literature sheds more lights on the context of the Dagara – French contact as far as French language acquisition is concerned. The Burkina Dagara, unlike their Ghanaian counterpart, received formal education mainly through Catholic missionaries in the early 1930s. The French colonial government’s style of administration (direct rule) did not offer them the right operational environment to “impose” their language on the Dagara homelands at that time or, in other words, they did very little regarding formal education in the Dagara homelands until in the 1950s. In contrast, the British first established the indirect rule system where they dealt with the chiefs and headsmen and, as such, local authority schools were opened purposely for the education of children of all chiefs and headsmen in the British protectorate.

CHAPTER THREE

LANGUAGE STRUCTURE AND LANGUAGE CONTACT

3.1 Dagara language family

As far as African language groups are concerned, it is important to bring to light the kind of genetic relationship that existed and continue to exist today between the Burkina and Ghana Dagara, and other African languages. According to Swadesh et al. (1966), Bendor (1971), Kropp-Dakubu (1988, 2000), and Naden (1989), Dagara belongs to the Niger-Congo language family of Africa, in general terms. It is sub-classified under the Oti-Volta group in West Africa that belongs to the Gur genetic family in Ghana. The Gur family is further divided into the following four subgroups:

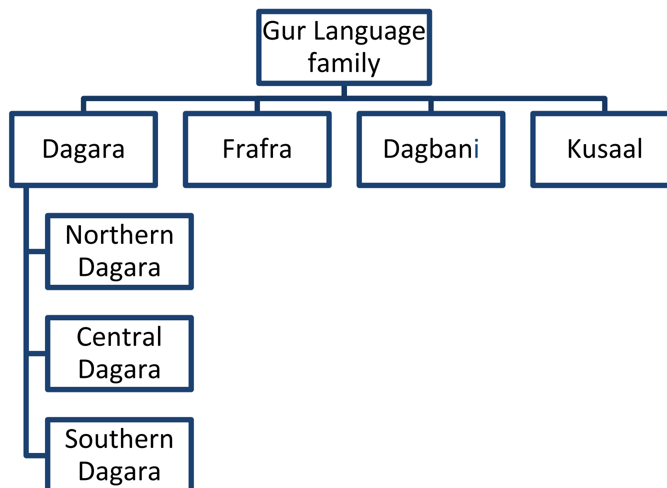

Figure 6. Principal Gur language family

In terms of the Dagara population, most of the census figures are not accurate or up-to date. Due to heavy migration of Dagara people to the southern cities of Ghana and Abidjan, in

Côte d'Ivoire, in search of better opportunities, census estimates of the end of the last century for both Burkina and Ghana Dagara calculate more than one million speakers (Bodomo 1997:2). In 2012, the population of Dagara native speakers in the three countries is estimated at more than two million (Bodomo 1997:2).

Goody (1967), a non-native Dagara anthropologist, gave the following partitioning of seven dialectal varieties in the late sixties: White LoDagaa (Lopiel), Black LoDagaa or Black Dagaare, Nura, Loberu, Lobiri, Lowiile, and Dagaa Wiile. Bodomo (1997:2), a native Dagara linguist, argued in the late 20th century that these terms are not based on linguistic criteria, but are rather "ethnographic designations". In his study, Bodomo further provides different various labels to refer to the Dagara people and their language. Bodomo (1997:2) recommends the following terminology:

Dagaare – the language
Dagao – a person speaking Dagaare
Dagaaba – people who speak native Dagaare
Dagao (or Dagawie, Dagapaalong) – the homeland of the Dagaaba.

Bodomo goes further to add that in Burkina Faso and the northern border areas the term Dagara stands for both the language and the person who speaks it, and that *Dagarateng* is the term used for the homeland of the Dagara speakers.

Other languages spoken in the same Dagara region that are closely related to Dagara/Dagaare are Waale and Birifor. In fact, most of the lexical items in these two languages are mutually intelligible with Dagara. Nevertheless with regards to the semanticity, native speakers of these languages can easily understand the lexical differences between the Dagara/Dagaare, on the one hand, and the Waale and Birifor languages, on the other hand. Speakers do not have to learn these other languages in order to understand them. However, since my fieldwork covers only the northern Dagara dialect, my samples come from the northern

Dagara communities in the northwestern corner of Ghana and the adjacent southwestern corner of Burkina Faso, namely from the cities of Hamile and Ouessa, on each side of the border, respectively.

3.2 Dagara language structure

3.2.1 Writing system and spelling

Literature on the structure of Dagara has so far examined many aspects of the language, including Dagara orthography (Somé, 2004, Nakuma, 2002, and Bodomo 1997). Nakuma and Bodomo, who are both native Ghanaian Dagara, took inspiration from the 1976 Dagaare Language Committee's attempt to reform the writing system of the Dagara language. It is important to note that Nakuma and Bodomo write in line with the spelling system of the central and southern Dagaare varieties. The central and southern Dagara varieties are spoken only in Ghana, while the northern variety is spoken in Burkina Faso, and in the Ghanaian Dagara communities living along the Ghana-Burkina Faso borders. Thus, the northern variety is common to the two towns from where the participants of my study come.

In 1982 (Bodomo 1997) the Dagaare Langage Committee was formed to standardize the language. But it was until 1990 that the first report (proposal) of the committee came up with a range of letters of the alphabet. That proposal has been in use till date even though individual Dagara linguists such as Bemile (1990) and (Bodomo 1994) made some further proposals to the committee's first reports. On the part of Burkina Dagara several attempts to standardize Dagara language started around the 1970s. However, according to Somé (2004) it was until March 10, 1975 that the *Sous-commission du Dagara* (the National Sub-Committee of Dagara language) was officially created by a decree under the Ministry of Eduction of Burkina to develop a standard Dagara orthography.

Burkina Dagara Alphabet				Ghana Dagara Alphabet			
alphabet	phoneme	Example	English	Alphabet	Phoneme	Example	English
a	/a/	àr	Stand	A	/a/	Àr	stand
b	/b/	bɛ̀r	Stop	B	/b/	bɛ̀r	stop
ɓ	/ɓ/	ɓa	Slap	–	–	–	–
c	/tʃ/	cɛ̀	Cut	Ky	/tʃ/	kyɛ̀	cut
d	/d/	di	Eat	D	/d/	Di	eat
e	/e/	pele	Basket	E	/e/	Pele	basket
ɛ	/ɛ/	dɛr	Ladder	E	/ɛ/	Dɛr	ladder
f	/f/	fo	You	F	/f/	Fo –SG	you
g	/g/	gol	Skip	G	/g/	Gol	skip
gb	/gb/	gbɛ́r	Leg	Gb	/gb/	Gbɛ́r	leg
h	/h/	haa	Open	H	/h/	Haa	open
‘h	/’h/	‘har	tear off	ɦ	/ɦ/	ɦar	tear off
i	/i/	ir	get up	I	/i/	Ir	get up
ɪ	/ɪ/	ib	Behavior	E	/ɪ/	Ib	behavior
j	/ʤ/	jirmɛ	Respect	Gy	/ʤ/	Jirmɛ	respect
k	/k/	káá	Oil	K	/k/	Káá	oil
kp	/kp/	kpɛ	Enter	Kp	/kp/	Kpɛ	enter
l	/l/	lo	Fall	L	/l/	Lo	fall
‘l	/’l/	‘lɔr	Soak	–	–	–	–
–	–	–	–	Mh	/mh/	Mha	slap
m	/m/	ma	Mother	M	/m/	Ma	mother
n	/n/	náá	King	N	/n/	Náá	king
ny	/ɲ/	nyɛ	See	Ny	/ɲ/	Nyɛ	see
ŋ	/ŋ/	ŋá	This	–	–	–	–
ŋm	/ŋ/	ŋm	Ŋmaam	Ngm	/ŋ/	ngmaam	monkey
o	/o/	og	Separate	O	/o/	og	separate
ɔ	/ɔ/	vɔl	Swallow	ɔ	/ɔ/	vɔl	swallow
p	/p/	pie	Ten	P	/p/	pie	ten
r	/r/	nár	Prepare	R	/r/	nár	prepare
s	/s/	sɔr	Road	S	/s/	sɔr	road
t	/t/	tome	Work	T	/t/	tome	work
u	/u/	ùr	Surprise	U	/u/	ùr	surprise
ʊ	/ʊ/	ʊr	Abound	O	/ʊ/	ʊr	abound
v	/v/	vùù	Fire	V	/v/	vùù	fire
w	/w/	wɔb	Elephant	W	/w/	wɔb	elephant
‘w	/’w/	‘wuba	Cripple	–	–	–	–
y	/y/	yir	House	Y	/y/	yir	house
ƴ	/ ƴ/	ƴɛ́r	Grind	–	–	–	–
z	/z/	zɛ̀l	Tongue	Z	/z/	zɛ̀l	tongue
(N= 38)				**(N=34)**			

Table 6. An alphabet for Dagara: (Burkina and Ghana)
Adapted from Bodomo (1997:36) and Somé (2004:21)

But before then they had been using the orthography that was created by the developed by the missionaries. In 1998, the general secretary of the committee published the report that was adopted by the committee, in a booklet form, called "Dagara sɛbru mira" (Somé 2004). However, the writing system that had been adopted for Dagara by the committee is that of the 'alphabetic writing system'; one used by European languages such as English and French (Bodomo 1997). The writing rule follows English and French rule whereby both consonats and vowels are combined to form a word. In Table 6 above is the proposed Dagara alphabet indication the two varieties of Dagara othogrpahy (Burkina and Ghana Dagara). The graphemes and the phonemes with some English glosses are also indicated. But phonologically, Ouessa and Hamile Dagara are similar, but differ phonetically as you will often hear for example **/ʤɛ/,** but written **[jɛ]** in Ouessa and **[gyɛ]** in Hamile.

Another importhing rule to note about Dagara phonological system is that, the language is tonal regardless the dialectal variations (Northern, central and southern Dagara dialects). Generally, there are two main levels – high and low tones. All vowels have tones (eg à or á) and these have lexical significance. The meaning of the word changes with the change of the tone. The change of tones that affects the meaning of the word is illustrated below (1) in minmal pairs with their meaning in brackets.

(1)

High vowel	**Low vowel**
Sáá (rain)	Sàà (father)
Báá (dog)	Bàà (river)
Tú (dig)	Tù (follow)
Kyɛ́ (but)	Kyɛ̀ (cut)

Somé (2004), a native Dagara from Burkina Faso, adopts the spelling of the northern Dagara variety following the 'standardized orthography' of *Sous-Commission Nationale du Dagara*

1998 of Burkina Faso. A closer examination of the three studies (Bodomo, Nakuma, and Somé) will help shed light on the French and English loanwords that are analyzed in this study.

Bodomo's (1997) work covers almost all main linguistic elements of Dagaare: phonology/phonetics, morphology, syntax and semantics. Basic features covered are: vowel harmony, tone, the noun class system, serial verbs, and other complex constructions. The work also provides some sociolinguistic information on the northern Ghanaian languages that my work discusses.

3.2.2 Elements of morphology

According to Bodomo (1997:52), there is no overt case marking in Dagara, and gender in Dagara has a few masculine (-daa) and feminine (-sira) suffixes, usually referring to animals. These suffixes are added to the stem to form the masculine as in example 1 below taken from Bodomo (1997:52).

(1) Bu-o 'an unknown goat'
goat-NOT KNOWN[2]

Bu-daa 'a male goat'
goat-3.SING.MASC

bu-sira 'a female (or young) goat'
goat-3.SING.FEM

As for number, nouns are marked for singular and plural. The plural formation of Dagara nouns is best understood in terms of noun classes. Bodomo posits that "two out of every African languages have a system of noun classes", but with different ways of grouping these classes. For Dagara, Bodomo (1997:53-60) established nine noun classes based on singular and eleven noun classes based on plural affixes. In Table 5 above are Bodomo's noun class classification:

[2] Symbols and abbreviations: 1-1st person, 2= 2nd person, 3= 3rd person, SG = singular, PL= plural, MASC = masculine, FEM = feminine, pron = pronoun, adj = adjective

Singular classification	Plural classification
1.The zero affix	1. The -ri suffix
2a. The -ɛ/-e suffix, 2b. the suffix -ɔ	2. The -ri suffix (with vowel lengthening)
3.The -i suffix	3. The -ba suffix
4. The –ri suffix	4. The -mmi suffix
5. The -ri suffix (with vowel lengthening)	5. The -bɔ suffix
6. The -a suffix, 6b. -a replacement suffix	6. The -ɛ suffix
7. The -ba suffix	7. The -mɛ suffix
8. The -u- infix	8. The -a suffix
9. The -mɔ suffix	9. The -ni suffix
	10. The -nɛ/ -ne suffix
	11. The -o suffix

Table 7. Noun class system of Dagaare

My data analysis will focus only on three classes (class 1 and 2 and 6) shown in Table 5 above. Since Bodomo's (1997) and Nakuma's (2004) examples follow the central Dagara and southern Dagara varieties, whereas my study targets speakers of the northern Dagara variety, I will adapt their analytical approaches to my discussion of the properties of the French and English loanwords in the northern Dagara variety. This is due to the dialectal variations of some syntactic items. For example, whereas the southern and central Dagara plural morphem ends with [ba], northern Dagara plural morphem ends with [bɛ], as in **baal-SG** (sick person) and **baalba-PL** (sick persons). Then we have **baal-SG** (sick person) and **baalbɛ-PL** (sick persons). Based on this I have adapted from Bodomo's Dagaare noun class system as seen in Table 8 below to best classify northern Dagara nouns in order to show how hybrids and compounds in particular are formed with foreign morphems found in my data. Nakuma (2004) examines Dagara morphology and concludes that a Dagara word may be "simple, complex, or compound". In his analysis a Dagara simple word is either a minimal free form such as **N-pron 1SG** (I), **Fo-pron 2SG** (you) or a complex word such as **bié** (child) **kpong-adj.** (big). However, minimal forms that are not free are for example; **bi** as in **bi** + **kpong = bikpong** (big child).Usually, the final vowel of the

Noun class (SG)	Noun stem	Plural form
pɔg (woman)	pɔg -	pɔgbɛ (women)
dɛb (man)	dɛ-	dɛbɛ (men)
nir (person)	ni-	nibɛ (people)
kuɔra (farmer)	kuɔ-	kuɔbɛ (farmers)
baal (sick person)	baal-	baalbɛ (sick people)
yuɔra (rover)	yuɔr-	yuɔrbɛ (rovers)
Class Singular	**Noun stem**	**Plural form**
bié (child)	bi- or bibi-	biir or bibiir (children)
zié (place)	zi-	ziir (places
tiɛ (tree)	ti-	tiru (trees)
piɛ (basket)	pɛ-	pɛru (baskets)
dié (room)	di-	diru (rooms)
wiɛ (farmer)	wɛ-	wɛru (farmers)
gbé (forehead)	gbé-	gberu (foreheads)
wɛg (log)	wɛg-	wɛgr (logs)
kuré (pant)	kur-	kuri (pants)
kparu(shirt)	kpar-	kpari (shirts)
tira (spoon)	tir-	tiri (spoon)
kpékpé (motorbike)	kpékpé-	kpékpéri (motor bikes)

Table 8**.** Dagara noun class system (plural formation).
(adapted from Bodomo 1997:53-60)

noun is dropped when forming a compound as in the *noun + adjective* type, in the case of **bikpong**.

Furthermore, Nakuma explained that complex words are simple if they are made up of one stem as in (**bi**) from (**bié)** and an affix as in **kpong**. Following this, with two or more stems, a complex word becomes a compound word (Nakuma 2004:23). Based on this analysis, Dagara words can be written separately and others together. For example, words that have the smallest 'free form' in meaning and in grammatical function may be written as separate. In addition, the following rules should be adhered to (with some exceptions) in compounding, i.e., when words are written as single words.

(2) Rules for compounding (Nakuma 20014)[3]

i. Actor nouns:

- didire [di + dire]
  eat-INF + eater (of food) = foodian (lit. eater of food)

- zozoro [zo+ zoro – running/runner]
  run-INF+ run-PROG = runner (lit.one who runs)

ii. Noun + noun:

- kanodie [kano + die] = classroom (lit. learning room)
  learn-PROG + room = classroom (lit.learning room)

- Ngmendaare [Ngmen+ dare]
  God + day = Sunday (lit.God's day)

iii. Noun + adjective:

- Nempelaa [Nem + pelaa]
  Nem + white-ADJ = European/whiteman (lit.white person)

- Pofaa [po + faa = Malice]
  Stomack + bad-ADJ = malice (lit.bad stomack person)

[3] Symbols and abbreviations: INF= infinitive, ADJ = adjective, PROG = progressive, lit = literally

iv. Noun + verb:

- Vizoro [vi + zoro]
  shyness + run-PROG = shy person

- Daanyuuro [daa + nyuuro]
  Alcohol + drink-INF = drunkard (lit. drinker of alcohol)

Nakuma (2004) emphasizes that with the exception of some words, mostly proper nouns indicating personal names or names of places, and plural markers (eg *mine* = lit. 'some'), form compounds in the same manner as in the above examples. As my data suggest, Dagara-French and Dagara-English bilingual speakers follow these rules when borrowing from French, English, and other African languages, as we will see in chapter 6.

3.2.3 Syllable structure

Somé's (2004) *Dagara language structure* study, based on the French system, does not contrast so much with Bodomo's and Nakuma's, except for a few rules which I will try to exemplify here. The only contrast between the two varieties is based on a group of consonants formed by a stop with liquids such as /br/, /bl/, /pr/, /pl/…etc. Somé (2004) asserted that the dropping of a vowel between the two consonants in each cluster, which is not permitted in conservative varieties, is now becoming more and more frequent among Burkina Dagara speakers' oral discourse due to the "rapid speed of [their] elocution". Comparative examples between Bodomo (1997) and Nakuma (2002), on one hand, and Somé (2004), on the other, will be of great importance to understanding differences in the data in terms of the vowel elision in consonant clusters mentioned above. In the above examples, while in Nakuma's and Bodomo's data there is an insertion of the vowel /u/, the /u/ vowel is missing in Somé's examples. This dialectal difference can be expected to appear in some of the loanwords from French and English of the two Dagara border communities under study.

(3) Variations in STOP + (V) + LIQUID clusters

Nakuma / Bodomo	**Somé**	**English glosses**
Teng*vul*a	Teng*vl*a	heaven
Yel*vu*la	Yel*vl*a	good news
*Bu*rale	*Br*ale	male goat
*Pu*rale	*Pr*ale	ram

As I will show later, one of the clear examples is the word “sacrament” which has been frequently used in my data. It often comes either as /sakarmanti/ or /sakramanti/ in the Burkina’s speakers’ discourse.

As we will see later in the results, Bodomo’s analysis of Dagara language structure also informs the analysis of plural marking of loanwords from French and English among Dagara-French and Dagara-English bilingual speakers. In words with morphological adaptation, hybridization takes place with bound Dagara morphemes: for instance, the French or English stems are affixed with a Dagara plural suffix when the loanword requires a plural form. Furthermore Nakuma’s critical examination of Dagara words as “simple, complex and compound” (CF) also helps to understand how French and English loanwords form compounds and hybrids with Dagara affixes or with Dagara free morphemes. A cursory look at Dagara phonological structure, with particular focus on Dagara syllable types and internal syllable structure reveals how syllable structure influences the way French and English loanwords are adapted to Dagara. According to Bodomo (1997), Dagara phonological words are made up of two “obligatory primary syllables” and then an “optional secondary syllable”. Furthermore, whether it is a primary or a secondary syllable, each type has both segmental and suprasegmental functions as in the example below, using the word “dòbàléé” (small pig). Not all words have

optional secondary syllables. The secondary syllables are typically suffixes; bound morphemes denoting plurality or the progressive form of verbs or in general a morpheme that changes the

(4)

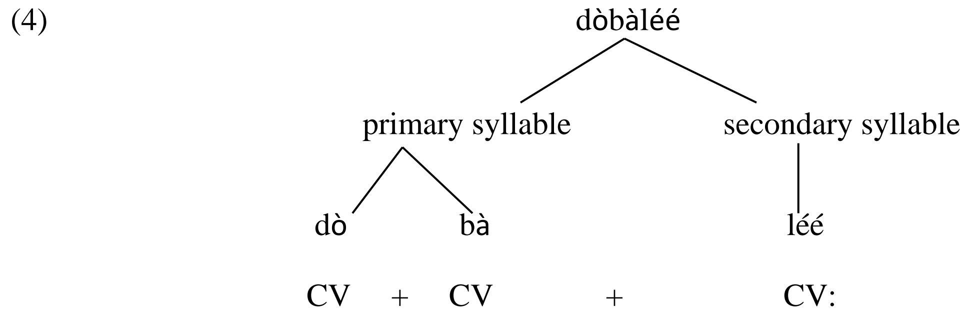

Figure 7. Open syllable structure of the word ***dòbàléé***

grammatical category of the word. Some bound morphemes in Dagara are adjectival suffixes by function as in the case of *–léé* ('léé' is dimunitive or adjectival morpheme which means young or little), A good example of the morpheme (lé) is my last name 'Beyoglé'. 'Beyog' is the actual name given to someone – a boy (a girl is named Ayog) in the family. If the family has to name another child 'Beyog', then he gets the (lé) added to it, hence Beyoglé, meaning younger or little Beyog. For example, for the word *dòbàléé* 'small/young pig', the structure is: {CV+CV+CV}, consonant + vowel +consonant + vowel, etc. The Dagara word has two primary syllables: DO (CV) and BA (CV), then, one secondary syllable LEE (CV), while French and English syllable structure can contain complex codas as in the case of the words "vest" and "print". If we were to analyze this word's syllable structure in comparison with the structure of complex words like *print* in English and *vest* 'jacket' in French we might arrive at the following representations (see Figure 8). According to Bodomo's (1997) analysis, complex consonant clusters, as we have seen in the second syllable of the word *print* and *veste* in Figure 8 are not permissible in Dagara phonology, whether at the word initial, middle or final syllables of words.

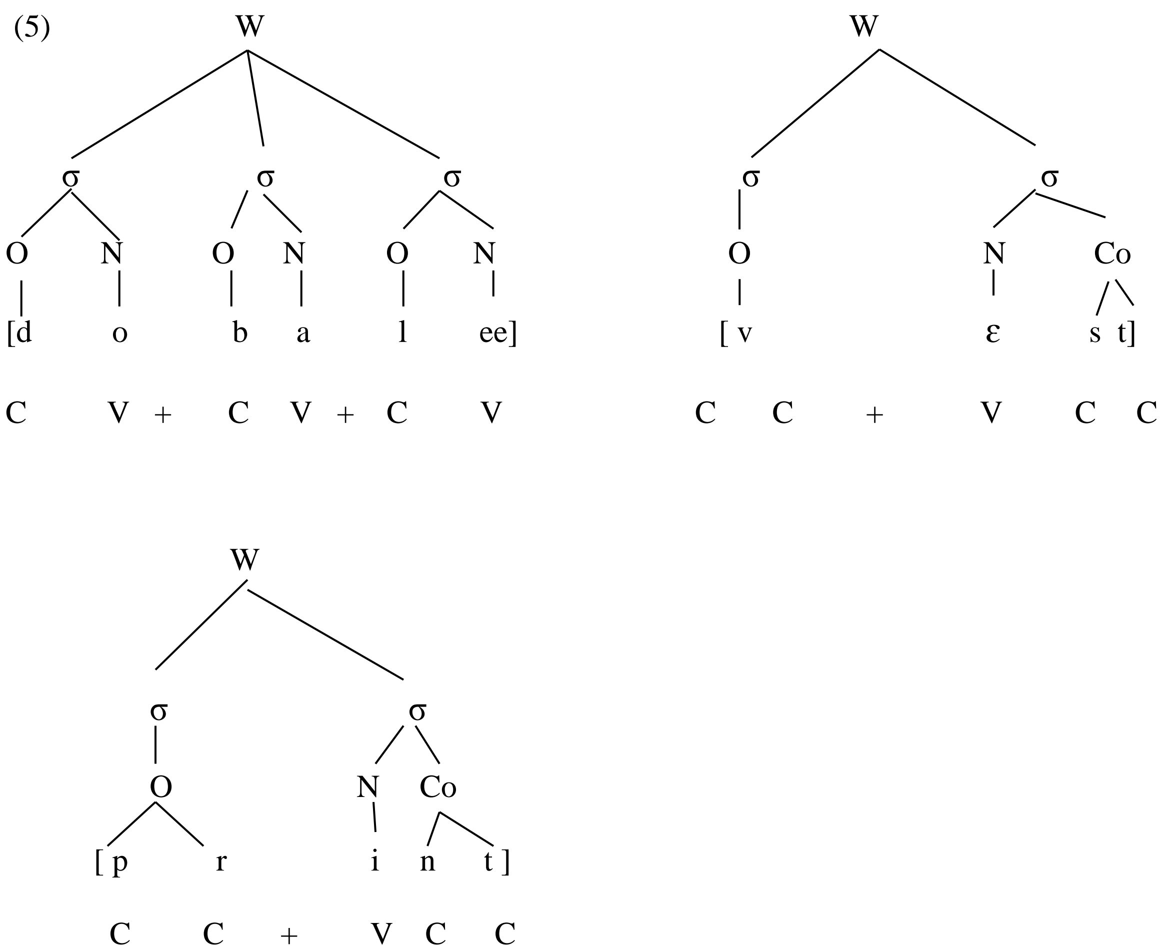

Figure 8. Open syllable structure of the Dagara word ***dòbàléé*** ‘small/young pig’ and complex CCVCC structure of the word ***print*** (English) and ***veste*** (jacket) in French. Complex codas, such is *print*, as are not allowed in Dagara.

In most cases Dagara secondary syllables followed by a final nucleus are bound morphemes that mostly have onsets, referred to as prenuclear margin in Bodomo’s analysis, followed by vowels. Bodomo also noted however that this kind of phonological separation (segmental and suprasegmental) is for pedagogical reasons only; the two levels of analysis are closely related in the language. Following the discussion above, this study will focus only on the segmental function which is performed by consonants (C) and vowels (V).

3.3 Borrowing strategies

Interest in the study of lexical borrowings in bilingual communities has led to finding various types of borrowing strategies. In this section I describe some that shed light on types of loanwords that might be used by Dagara-French and Dagara-English bilingual speakers (Winford 2003); Thomason 2001); Mesthrie et al. 2000).

For Mesthrie et al. (2000) the focus is on 'assimilated' loans. They argued that the term 'borrowing' might not necessarily give the sense of words in transition through a given language, or a sense of single ownership, but rather once the word is borrowed, it eventually becomes part of the recipient's language repertoire. Mesthrie et al. further argue that many speakers might not actually be aware of the borrowed status of the word, particularly if the word has been phonologically assimilated into the recipient language system. A case in point is the situation in South Africa where many English-speaking monolinguals are surprised to learn that *donga* and *dagha* (an opening in a mountain) are not originally English, but borrowed from Zulu and Xhosa languages respectively.

Similarly, some Dagara participants laughed and even made fun of me in showing their surprise when I wanted to know whether *Kosiera*, a borrowed word from Twi (*Kwasiada*, 'Sunday'), or *Faara*, borrowed from English ('Rev. Father'), and *buokyi*, borrowed from English ('bucket') were native Dagara words. These lexical items are extensively found in both the francophone and anglophone Dagara data, and are used particularly by the younger speakers as if they were fully integrated loans. These integrated loans will be discussed in detail in chapter 6.

On the other hand, it is equally important to be mindful of the fact that borrowed words do not disappear from the repertoire of the donor language; they remain in the source language and continue to be used as such, or might undergo change as well (Mesthrie et al., 2000:243).

Advancing the argument on word assimilation in the recipient languages, Mesthrie et al. assert that the ‘cultural aspects’ of loanwords should be also considered under loanword typology “since the process of borrowing is also a process of learning and acculturation”. For example, since the introduction of Christianity in Africa, many African languages have assimilated numerous religious terms and use them as they are, without recourse to native translations. These are indeed exemplified in the discourse of Dagara as one will often hear *masoeur* or *monpère* (Rev. Sister or Father) from Burkina Dagara, and *Sister* or *faara* (Rev. Sister or Father) from Ghana Dagara.

Thomason (2001) also argues that all we need for a loanword to emerge is a “contact-influenced innovation”. For Thomason the loanword may depart from the source language’s derivational processes, and, instead, be partially replace by the inflections of the recipient language. Following Antoine Meillet, she argues that “grammatical interference is confined to features that fit well typologically with the structure of the receiving language” (Thomason 2001:63). Thomason cites the case of partial replacement of Greek inherited flexional noun morphology on the Turkish model. For example, the Greek suffixes that express both case and number were not entirely adopted, but separate suffixes were developed to indicate a different way of plural and case marking.

Winford (2003) presents a much more comprehensive discussion on borrowings, in his book on Contact Linguistics, since he offers a typology of types of borrowing strategies that languages of the world seem to present. According to Winford (2003:45) there are four major types of borrowing that can further be subdivided depending on the treatment of the donor word by the recipient language. These types are: pure loanwords, loan blends, loanshifts (loan meaning), and native creations.

Pure loanwords are usually single words borrowed into the recipient language without making any change, although at times the word might undergo a minimal change, mainly phonological. Examples of pure loanwords such as *rendez-vous* and *tête-à-tête* found their way into English from French.

Loanblends are those loanwords that involve a a combination of both foreign and native morphemes. In this case, the foreign word has at least two morphemes, where a foreign morpheme is maintained and the other is substituted with a native morpheme. An example of such a hybrid can be the German and English morphemes to form: *esix-jug* 'vinegar-jug', as Winford (2003) explains. Other cases can involve a foreign stem with a native affix, which is also described as a loanword with morphological adaptation.

For *loanshifts or semantic shifts*, Winford (2003) proposes that in some instances the loanword may undergo a literal translation based on the donor model, and with the donor language meaning. A well-known example is French *gratte-ciel*, German *wolkenkratzer*, and Spanish *rascacielo*, all literal translations from the English model of 'skyscraper'. Some authors (cf. Beeching 2010), has also found cases of what is also called false cognates. In these cases, both languages have similar phonological form, but different meanings in each language. However, in borrowing situations, the meaning in the donor language is added to the phological form of the recipient language. An example from Beeching (2010) are English *effectively* and French *effectivement,* where the French word does not have the same hedging function as it does in English. Another example is English *embarrased* and Spanish *embarazada* which means 'to be pregnant' outside of the United States.

Finally, Winford also argued that loan creations or specifically, *native creations* are based on creations from native elements to express new concepts and ideas. In these cases where the

imported items do not have a native semantic or lexical equivalent, there is the tendency to create compounds or expression to express such foreign concepts. For example, '*wrinkled buttocks'* in Pima for English ‘elephant’. An extensive discussion on Dagara loanwords in general will be presented later in this dissertation.

Beyond these borrowing strategies, the most crucial motivation for borrowing is that of prestige borrowing among Dagara-English and Dgara-French bilingual speakers. Rajend et al. (2000) agree that ‘prestige’ is an important issue in sociolinguistic studies, but think however, that it is at the same time a complicated issue. In general, there are two forms of prestige: ‘overt’ and ‘covert’ prestige defined as follows:

> The **overt prestige** refers to positive or negative assessments of variants (of speech variety) in accordance with the dominat norms of the public media, educational institutions and upper middle class speech. On the other hand **covert prestige** refers to this set of opposing values implicit in lower-and working-class lifestyles, which do not appear in conventio-nal subjective- reaction test (p.89).

Prestige is evident especially in the so-called pure loanwords (not adapted or only phonologically adapted). Many people in West Africa, especially the African elite, borrow English or French words into their native language not because the equivalent of such words do not exist in their native language repertoire, but merely for the status or prestige that come with using (or sending the message that one knows) English or French. Many researchers who investigate African-European language contact phenomena tend to assume that borrowing often occurs for the purposes of filling a gap, i.e., to provide a lexical item for a word that does not exist in the African language. However, borrowing in some cases also has a particular social dimension. Simply put, such practice indexes the degree of modernity of the speaker, it accords the speaker a higher status in society, and above all, it can be an indicator of an educated person.

My study uses the four borrowing types proposed by Winford (2003), as well as their extended forms to examine types of borrowing among Dagara youth in the two border communities at the Ghana-Burkina border. The Dagara-French or Dagara-English borrowing strategies, I will argue, that French and English loanwords, nouns in particular, take Dagara inflections in their plural formation. For instance ***l'abbé*** and ***sister*** take the Dagara plural suffix (**-ri**), therefore becoming ***l'abbéri*** and ***sisterri*** instead of ***les abbés*** and ***sisters*** that would be pure loanwords, if they were used in these forms by my informants. In the conclusion of my study, I will propose modifications to Winford's typology to better account for some of my own observations of Dagara-French and Dagara-English borrowings.

3.4 Research questions

Early anthropologists, sociologists, ethnographers, historians, and linguists who worked on Dagara treated general topics on Dagara that include, but are not limited to, phonetics and phonology, syntax, the history and culture of Dagara. However, little attention has been given to the study of language contact phenomena, lexical borrowings in particular, and especially to border communities in Sub-Saharan Africa, where the border communities share the same native language, but also speak different ex-colonial official languages.

This phenomenon is common in Africa merely because France, Britain, Spain and Portugal partitioned Africa paying no attention to the complex linguistic situation of the continent. As artificial boundaries were drawn between homogenous communities, while implanting the colonizers' languages in the colonies, it created further variations and multiple contact situations. It is in this dimension that Dagara has, for many years, been in contact with several other sub-Saharan African languages and particularly with ex-colonial European languages such as French and English. However, no empirical study, to the best of my

knowledge, has documented the language contact phenomena of the Dagara-speaking communities both in Ghana and Burkina Faso. Poplack et al. (1988), Thomason (2001), Winford (2003), and Shijulal et al. (2010) have all postulated theories referring to loanwords adoption into another language. These include factors, inter alia, connected to "intensity of contact" between the speakers of the respective languages in the community, through imposition of the colonial languages on the colonies, and to social motivations for borrowing. Other theories also relevant to explaining the emergence and diffusion of loanwords adoptions are Milroy's (1980) and Evans (2004) diffusion theories. These theories postulate that there is a correlation between people's geographical mobility and the amount and type of borrowings that they use. All these models will serve as the basis of this dissertation to investigate Dagara-French and Dagara-English contact phenomena in an attempt to contribute to these theories and also inform other researchers of Dagara social motivations for borrowing from French, English, and other sub-Saharan languages.

As this study focuses on the current sociolinguistic situations of the early 21st century bilingual Dagara-French and Dagaara-English speaking communities, the research is guided by the following research questions:

1) What are the types of borrowings found in Dagara among Dagara-French and Dagara-English bilingual speakers?
2) What are the sociolinguistic motivations for borrowing from English and French?
3) What social groups of the speech community are involved in the phenomenon of borrowing?
4) How does the Dagara-English or Dagara-French bilingual speaker's attitudes towards

French, English and other sub-Saharan languages inform us about the status, power, and prestige of these same languages? Do these attitudes correlation with the degree of borrowing?

5) Will level of education, age, gender, and ocupation affect (or correlate with) the amount and type of loans from English, French and the other major Ghanaian/Burkina languages?

While I try to find answers to these questions, I also hope that this work will attempt to provide a tangible contribution to previous theoretical and methodological assumptions and approaches to the various functions of borrowing.

3.5 Hypotheses

First, I predict that everyone will borrow from his/her own ex-colonial official language because, from a theoretical perspective, lexical borrowing is paramount in communities where an ex-colonial European language is used as official language, the language of instruction, and of all governmental transactions.

Second, I predict that borrowing will vary with age, level of education, and gender. Apart from that, it is also predicted that borrowings will vary with different registers. For example, younger people, highly educated speakers, and women will borrow more. Given that the youth are more motivated to explore the outside world as an influence of globalization than the older generation and that Dagara culture used to affect female education, and now that female education awareness is on ascendancy today, the latter group of speakers might be more exposed or motivated to use the official languages than the former. Religious registers will show the most English, French, and Twi borrowings than the other registers, considering the role that religion has in the region.

Third, I hypothesize ’symmetrical diffusion’. I predict that both sides will also use borrowings from other languages (than English and French), because there have been other language contact situations among the Dagara people, with Twi, Dioula, Moré, and Sissala, before and after the colonial period.

Fourth, geographical mobility and/or social network integration will play a role in the amount and types of borrowings used in general due to the fact that this study focuses on a border community where border and population movement is never restricted. Milroy’s (1980) and Evans’s (2004) diffusion theories assert that geographical mobility and social network integration correlate with the amount and type of borrowings that speakers use, and that “personal network structure in linguistic communities predicts relative closeness to local norms or loanwords usage” (p.154). The ease of movement across the Ghana-Burkina border is facilitated by the ECOWAS protocol on free movement of persons, goods and services (see Chapter 1).

Finally, I predict that loanwords from French, English and the other Sub-Saharan African languages will take the form of pure loans (with phonological and morpho-phonological adaptations); loan blends (derivational or compound blends); loan shifts: semantic loans and loan translations (calques); and pure native and hybrid creations (native words to express foreignness).

3.6 Summary

As has been noted in Bodomo (1997), the majority of African languages have noun class systems, just as we have seen for the case of Dagara. A careful analysis of such noun class systems in Dagara will provide learners and researchers insight into the adaptation of loanwords

into the recipient languages' morphology. Following Thomason (2001) and Winford (2003), who argue that in language contact situation foreign morphemes are often imported and some are substituted with native ones, I have shown how given the noun class system of Dagara in which plural formation takes the form of suffixation, Dagara-French and Dagara-English bilingual speakers might create hybrids (expressions with morphological adaptation) with loanwords from the donor languages. We have also seen from Nakuma's analysis of Dagara word division that it is possible to combine, for example, two separate nouns, a noun and an adjective, or a noun and a verb, into single units of words. Knowledge of these structures of the language offers a good ground to analyzing the types of borrowings in Dagara bilingual discourse.

CHAPTER FOUR

METHODOLOGY

4.1 Sociolinguistic interview

The collection of data is done through the method of semi-structured sociolinguistic interviews. Labov (1984, p. 32) defines the sociolinguistic interview as "a well-developed strategy" that is characterized by a number of goals. The methodology involves recording speech and a full range of demographic data for each speaker within one's sample design. Labov adds that the interviewer should remember that for each sociolinguistic interview the underlying aim is to progress from "general, impersonal, non-specific topic/questions to more specific, personal ones".

In support of Labov's sociolinguistic interview method, Tagliamonte (2006) added that ways of eliciting useful data on the vernacular depend on the age of the speaker and on the type of community. She also posited that the "ideal sociolinguistic interview is to begin with questions relating to demography, community, neighborhood, etc., and progress into more personal modules" (p. 39). She further suggested that if the interview includes a module on language, this should be put at the very end of the interview when the informant has exhausted all the more personal questions. Following Labov's sociolinguistic interview model, Trudgill (1988:124) argues that the sociolinguistic interview aimed at language variation and change needs to take into consideration the way in which language changes as time changes.

In view of these arguments, I used the Labovian (1984:32) sociolinguistic interview method to elicit data from my participants. My questionnaires begin with general questions on five topics, targeting lexical items on health, followed by religious and cultural, then

participants' economic activities, and, finally, questions targeting language issues that are placed at the end.

The main method of recruitment was through acquaintances who introduced me to their local friends and families. I spelled out the minimum requirements for participants to participate in the interview, such high school education or above and native residency in one of the Dagara-speaking border towns of Hamile and Ouessa. . I made it clear to the recruiters that even if one is a native of Hamile and Ouessa but resides in Ouagadougou, for example, that person will not qualify to participate.

4.2 Participants

As my study attempts to unveil instances of single-word borrowings in Dagara and the argument that speakers of different age, gender, and of educational background appear to display more or less mixing with French and/or English, the choice of participants is crucial to achieving this goal.

Ouessa		**Hamile**	
Age	**N**	**Age**	**N**
18 – 26	12	18 – 26	10
27 – 38	11	27 – 38	18
40 – 52	15	40 – 50	10
54 – 64	12	54 – 65	12
Total	**50**	**Total**	**50**

Table 9. Age groups

Ouessa		**Hamile**	
Level of education	**N**	**Level of education**	**N**
High school	18	High sch/Diploma	10
High school diploma	18	'A' Level & equivalent	16
BAC+/University	14	University degree +	24
Total	**50**	**Total**	**50**

Table 10. Levels of education and number of participants

Therefore I ensured that data were collected from the following target social groups: younger and older participants, participants of different levels of education and male and female participants. The age groups are presented in Table 7 and levels of education in Table 8 above. The data collection was carried out in a fieldwork setting, following Labov's (1984) sociolinguistic interviews method, in the border towns of Ouessa and Hamile on both sides of the Ghana-Burkina border. In all, 100 participants were interviewed comprising 25 males and 25 females from each side of the border. The subjects were sampled randomly with the help of acquaintances from each side of the border. Each participant was interviewed by me ('the researcher'), a native Ghanaian-Dagara who conscientiously spoke only Dagara throughout the interview. Each interview lasted between 25 – 35 minutes depending on the manner in which each participant responded or reacted to the questions.

To conclude this section, I find that the inclusion of younger participants in my study in particular is very relevant to Trudgill's (1988) argument that sociolinguistic interviews that investigate language variation and change need to take into consideration the way in which language changes as time progresses. As far as patterns of borrowing are concerned, younger speakers in most cases are the agents of change regarding language variation, which I also predict to be the case in my study.

4.3 Linguistic variable: Borrowing types

As Samuels (1972) asserted, an approach to studying variation is not just the mere enumeration of the variants, their frequency and proportion of occurrence, but it is also important to study and discuss the factors ("both internal and external") which affect their choices. Hatch and Lazaraton (1991:51) give a rather general definition of a variable, such as "an attribute of a person, a piece of text, or an object which 'varies' from person to person or from time to time". For Weiner and

Labov (1983:33) linguistic variables is the "task of separating out the functionally equivalent from the inferentially possible", in other words anything that tends to deviate from the established form. Extending this argument, Preston et al. (1993:200) note that linguistic variables may include the social variables such as level of education, age, gender, occupation, because some variable use may pertain to 'varying social attributes' of the speaker. A case in point is variance ranging from "geographical region, age, sex, socioeconomic status, ethnic consciousness", and more importantly "social relationship". This argument sounds relevant to this study in the sense that Milroy's (1980) geographical mobility and social network integration analysis seems to isolate social variables as the study focuses on 'social relations and interaction variables'. From a sociolinguistic point of view, since my work contributes to social network theories among other things, both linguistic and social variables offer an essential construct for the study of lexical borrowing in a multilingual community where the choice of lexical items is in competition.

Following Hatch and Lazaraton's (1991), my analysis will have 'dependent' and 'independent' variables. I hypothesize that female, young, and highly educated speakers (BAC or 'A' level and above) will borrow more from English and French, and Twi and Dioula than male, older, and less educated speakers (high school and or before BAC/'A' level). The variables of gender, age, and level of education will be my independent variables, whereas the amount of borrowings from English, French, Twi, and Dioula are the dependent variables. The ability to borrow more from the above-mentioned languages depends on one's age, gender, and level of education.

4.4 Social factors

Social factors are considered very important in the study of lexical borrowings in any bilingual speech community because they seem to be the determining forces for embedding foreign lexical items into one's native language. Based on this fact, Winford (2003) argued that what motivates a speaker to borrow from another language depends on a 'range of social factors' that may vary from one contact situation to the other. The salient ones are 'need' and 'prestige', and 'status'. The 'need' factor may account for the borrowing of some expressions, ideas, and thoughts that are not available in the native language. For example, the need for Dagara to keep up with globalization, use modern equipment, in fact, the need to modernize lead many of them to borrow from French and English. Lexical borrowing for 'prestige' and/or 'status' arises as a result of the social values associated with the donor language. As we are aware that not all languages are seen as 'economically equal' and, as such, possess different power dynamics, bilingual speakers resort to the unbalanced power dynamics of languages in order to show power, prestige, social status or take advantage of limited social services over the monolingual speakers or the one who possesses the language of a lower social status. Under these two basic factors (need and prestige) are other inherent ones that determine the intensity, rate, and amount of lexical borrowing in a bilingual speech community like the Dagara in Ouessa and Hamile. They are; social network construct, migration, gender, age and level of education.

Worthy to mention here is Poplack et al. (1988) studies that exemplify how social factors influence patterns and degree of lexical borrowing in a border community of Ontario, Canada. The frequency of English loanwords in the French of monolingual and bilingual speakers correlates with social class – "upper class-speakers use fewer loans than members of the other classes". Unlike the Ontario border community, the Dagara border community in Hamile and

Ouessa, as we said earlier, is ethno-linguistically homogenous only separated by a political border. They continue to maintain their social ties with their kinsmen or family members across each political border due to their complex family structure system. The frequency of interaction among them promotes local norm usage of loanwords in their linguistic repertoire.

Related to this social network factor are labor and rural-to-urban migration. Der Geest's (2010) survey on Dagara migration to southern Ghana by both Burkina and Ghana Dagara relied on what he called 'the theory of environmental pull and push'. The favorable southern environment seems to be 'pulling', while the unfavorable northern environment seems to be 'pushing' the Dagara youth at certain times of the year to migrate towards the south. Owing to shorter rain falls and less fertile farm lands in northwestern Ghana, as well as in the adjacent southwestern parts of Burkina, the youth are under pressure to travel during the off-farming season to southern Ghana for manual jobs where they get into contact with southern languages; Twi in particular. As we will see in chapters 5 and 6 in my data analysis, there are numerous borrowings from Twi in the speech of the Ouessa (Burkina) Dagara, particularly of those who have been traveling perennially to southern Ghana for off-farming season as migrant laborers. As I mentioned above, this pattern of movement is motivated by Ghana's stronger economic power compared to Burkina Faso. As explained in chapter 1, the south of Ghana is endowed with natural resources such as gold mines and rain forest where cocoa and other cash crops are produced. Labor for these perennial migrants is usually assured throughout the four to five months that they stay there as migrant workers. For example, some participants during the interview indicated that they have been traveling to southern Ghana (Kumasi in particular) seasonally as migrant workers while others said that they used to go to Kumasi to do business.

For instance, these two participants, a 22 year and 25 year old high school drop outs reported to me as follows:

(1)

Ti	mi	kye	ni	Ghana	ti	**di**	**paa**
We	HAB	go	EMPH	Ghana	to	**do** (Twi)	**job** (Twi)

We always go to Ghana (Kumasi) to do some manual labor

It is telling that these two young migrant workers use Twi words (ti paa) in their discours to prove their ability to speak Twi. Though the expression exists in Dagara, the use of Twi is an indication of a Ghana-been-to Ouessa youth attitude. Here again we begin to understand and appreciate the need and reasons for the use of borrowings from Twi. In fact, the use of Twi is a practical imperative for economic gains, but upon return to Dagara homelands, the use of the language becomes a distinction: it becomes prestigious as it is a sign of a distinc social identity that the Dagara call "city-been-to".

Consequently, age is another important social factor with respect to lexical borrowings. The younger generation in particular tends to be more globally oriented than the older generation. The desire to travel to experience life in other parts of the world and within the sub-region gives them the urge to acquire a foreign language that can open the doors to the outside world for them.

Gender is another important social factor, as far as language mixing is concerned. Gardner-Chloros and Finnis (2004) explored the link between language and gender to find out whether certain specific functions of code-switching are more common to men or women in the Greek Cypriot immigrant community in London, UK. Thirty interviews were carried out in informal meetings in coffee shops, community centers, and the participants' homes. The participants were five males and five females between the ages of twenty-three and twenty-nine,

each one having already completed higher education. Three of the functions that were noticeably associated with code-switching were humor, bonding, and damping directness. The results show that women use these code-switching strategies to get around some of the traditional constraints on female discourse. However, Gardner-Chloros and Finnis (2004) cautioned that whereas one may think of gender as a broad sociolinguistic marker, there may be some other factors that require close examination of the community under study. My study on Dagara-French an Dagara-English bilingual-speakers' loanwords usage will also attempt to establish whether there is a sharp gender contrast in borrowings in Ghana and Burkina Faso.

Finally, level of education as a social factor cannot be glossed over when we want to examine loanwords usage among bilingual speakers. Level of education has also been considered as a differentiating factor, even in sociolinguistic studies of monolingual and bilingual communities where variation in speech shows differences according to socioeconomic levels. There may be multiple reasons why people tend to borrow from languages of higher vitality, other than the ones that have lower socioeconomic value. Some reasons have been captured in the principles proposed by Bhatt and Bolonyai (2011). They proposed five models of "sociolinguistic grammar" as general principles for code-switching (CS) that are FAITH, POWER, SOLIDARITY, FACE, and PERSPECTIVE. Bhatt and Bolonyai (2011) argued that "CS takes place when actors perceive the monolingual alternative as insufficient or inefficient to faithfully capture the intended meaning – whether in terms of its lexico-conceptual content, semantic-pragmatic entailments, or social". Among these factors, 'Power' and 'Solidarity' will be important in the bilingual Dagara-French and Dagara-English communities. I will also argue that Dagara bilingual speakers often borrow to exercise power over others, but resort to some other types of loanwords to show solidarity in ethnic identity.

4.5 Transcription of the corpus and coding of data

All the 100 recorded speakers' discourse were transcribed and coded manually. The transcription and coding are done separately, according to their respective Hamile and Ouessa speech communities. All loanwords found in the various speeches were then transcribed and coded according to participants' age, sex and level of education. Mobility index coding was also carried out in order to show the number of times each individual crosses the border per day or per week, whilst the loanwords coding shows types and number of loans produced by each participant. However, the loanwords and mobility index are put in two separate spread sheets for easier interpretation (see Appendix I).

Mobility Index coding includes: Number of friends in Ouessa/Hamile (non-local town), number of times one crosses the border per day/week, number of family members in Ouessa/Hamile (non-local town), and number of men/women working with speaker from Ouessa/Hamile (non-local town).

Loanwords coding: Following Winford's (2003) loanword typology I coded loanwords in the following format:

Type A is regrouped into two sub-types (type I and II).

I. Pure loanwords without phonological adaptation, loanwords with phonological adaptation, and loanwords with morpho-phonological adaptation. For example, when a participant uses *doctor* five times and *karakyisi* ('catechist') three times in his/her speech, the two words will be coded as follows: *doctor* (5x), coded as a pure loan, and *karakyisi* (3x), coded as a phonological adaptation.

II. Loan blends: Derivational blends and compounding. An example of a word coded under compounding is *schoolbie* for 'student' (literally 'school child').

Type B. Loan shifts: This type includes semantic change and loan translations (or calques). Examples of words coded as loan shifts are the following. ***Fona locki na***, literally 'you will be locked', and which means 'you will have a problem', from the English word 'locked'. Here the participant was trying to explain that without education one will have problems in the future: 'you will be locked up for life'. From the Ouessa data, for example, the use of the loan ***centure,*** a French word, meaning 'belt' but which refers to 'shingles' in this speech community. Since shingles, a skin disease which forms a circle on the skin or spreads round the body in the same manner as a ***centure*** ('belt'), is tied around one's waist, some speakers prefer to use this lexical item in place of the Dagara term /dɛpɛlɛrɛ/, a name of an insect from the spider family.

Type C. Loan creations: This type refers to pure native and hybrid creation. A word coded as pure native creation is ***kpekperi*** for motor bikes, an onomatopoeia with a velar nasal sound imitating the engine of a motor bike. ***Nakolsaamine*** for 'teachers' is coded as a hybrid creation from ***nakoli*** 'école', meaning (school) and ***saamine*** 'meaning (fathers), so literally 'school fathers'.

4.6 Instruments: Questionnaires, interviews and modules

The data solicitation took place through face-to-face interviews with one participant at a time. First, I made participants fill out a form concerning their biographic data (module 1), which included name (but only code numbers were used during the data analysis), gender, date of birth (age), level of education, occupation, number of languages spoken other than Dagara, French (Ouessa) and English (Hamile). Then, for the rest of the five modules, the participants were administered the sociolinguistics questionnaires (see Appendix II for all modules) orally and entirely in Dagara. These modules asked questions covering six registers such as, 1) Participants' biographic data, requesting particularly for their age, level of education and gender, 2) health,

this targets information health care system, and where health facilities are accessible to them, 3) religion/culture, here participants answer questions pertaining to days of worship and special religious and cultural activities and where they usually go to on such occasions, 4) economy, the economy register focusses on economic activities between the two border communities and how often or by what means of transport the usually use when commuting between the two comunties, 5) education register deals with questions regarding whether one needs education to succeed in life and which language they feel should be used as medium of instructions at school, and 6) finally, language register targets information on why they mix Dagara with words from other languages and above all, how important those foreign languages are to the community. All the interviews lasted between 25 and 30 minutes per participant and were audio-recorded.

Module two questions target loanwords in the health register from both Dagara traditional and Western health delivery systems. A common question asked in this module across both communities is “have you heard about the any health insurance system in this area?” In module three, target loanwords were based on religious and cultural issues. The interview questionnaires focused on Christianity, Islamic and Dagara traditional religious activities within and outside the two communities. Module four has to do with the economy register. Since the major economic activities in Hamile and Ouessa are based on open market activities during the week, and daily shopping across the border, it targets linguistic borrowings on means of transportation, type of groceries and merchandise they go to buy, and days of the week that the market days are in the two communities. In module five the education register asks questions concerning participants' view on language choice for education, the status of Dagara vis-à-vis English and French, and the importance of education regarding success in life. Finally, module six, the language register, consisted of questions targeting why Dagara tend to mix foreign words, particularly from English

and French, despite the existence of equivalent expressions. In addition, this register also aims at eliciting data on the difference, if any at all, between Ghana and Burkina Dagara and the language use with family members at home and when one crosses to the other side of the border.

In conclusion, the above method and coding afforded me the opportunity to guide participants towards some topics and possibly target words, allowing the direct observation of linguistic behaviors. In the end, the interview provided a very large volume of speech data from all the 100 participants interviewed in the two border communities of Ghana and Burkina Faso.

4.7 Fieldwork and data collection

The fieldwork was undertaken in the following border towns: Ouessa in Burkina Faso and Hamile in Ghana, (see figure 2, chap 1). Participants were more than ready to talk to the researcher after they learned that the researcher is a native Dagara studying in America, and is interested in the development and promotion of the Dagara language, culture, and the values of the Dagara language in general. Some participants, however, were a bit skeptical when they realized that they had to sign a consent form before their voices were tape recorded. Even after reading through the motivations for the research in the consent form, they were still a bit hesitant to sign. Fortunately, however, two explanations made the data collection very successful.

First, my acquaintances were able to convince or assure them that the data obtained from them will be treated with absolute confidentiality. I also assured them that the random code numbers (e.g. P001, P002, etc.) they see on the biographic data form will be assigned to each of them in place of their names in order to conceal their actual identity. I further promised to them that no information will be released that could reveal anyone's identity beyond his/her voice on the audio recording, if permission is granted to allow audio clips to be played back during educational presentation or classroom teaching and learning activities. However, no information

that they gave would be held against any of them in the future.

Second, I took the time to explain the benefits of the research. I made them understand that the research will help Dagara native speakers to evaluate the importance of their own language and how it can be developed and used to explain some of the new and foreign scientific terms that they meet in their daily lives. It will also help them to improve on their cultural relationship as well as enhancing the economic activities between the two communities (Hamile and Ouessa). But the real purpose of the research (eliciting lexical borrowings) was was not disclosed to participants. Notwithstanding a few recruits, specifically females, refused to participate, either out of skepticism or the mere fear of not being able to answer some of my questions satisfactorily. This is despite the fact that I assured each of them that the questions were not based on facts or a good knowledge of Dagara culture or the language structure.

No public announcement or advertisement was made for the data collection procedure. The main way of recruiting was through acquaintances of the investigator who introduced him to local friends and families (participants) whose level of education and age met the criteria of selection to participate in the data collection. This method of recruitment has been chosen because it offers the possibility to access participants through people who already know them or know a bit about their linguistic and social backgrounds. This method is especially helpful in communities with fairly closed social networks. Through acquaintances that live on the research sites, participants were reassured of their protection. Data solicitation then took place through face-to-face interviews between the investigator and the prospective participants. The interview was conducted entirely in Dagara by the investigator; this allowed participants to produce spontaneous speeches in their own vernacular.

4.8 Statistical tools

In language contact research, quantitative analysis of data is an important approach to explain the linguistic phenomena characterizing a speech community. This is usually the case where the study performs a random sampling of a population. In this study, the following statistical test application will be used: cross tabulations (M. Triola 2010:598), chi-square (Chi² or χ^2) test (Hatch and Lazaraton 1991), involving the use of probability value, and finally a descriptive statistical analysis of the data. Two important concepts are used in Chi square test statistics calculation. They are, the degree of freedom (df) and probability value (p-value). The degree of freedom is usually the sample size, that is, the number of quantities that can vary (dependent or independent variables). Degree of freedom is found by subtracting 1 from the total number of variables. The degree of freedom for 5 dependent variables (English, French, Twi, Moré and Dioula) for example will be equal to 4. As such, the probability value is found by finding the df value from the vertical figures and read across from the horizontal value under 0.05 significance value. For the significance level, it is set at $\alpha = 0.05$ (cf. Hatch and Lazaraton 1991: 603), so where the probability value is less than $\alpha = 0.05$, it means we are 95% confident that the outcome is not by chance, but is deemed significant. For detailed Chi square calculations see appendices 6 and 7.

Cross tabulation is a statistical process that summarizes categorical data to create a contingency table. The contingency table shows frequencies corresponding to two or more variables where some of the variables are used to categorize rows and others categorize columns. These tables provide a basic picture of the interrelation between two variables and can help find interactions between them. Following Guy's (1993:235) approach to variables interpretation, I present here only one of the variables as an example to explain further how the contingency table

works. In my study, we have the following independent variables: gender (male and female), age, and level of education, and the dependent variables are the amount of English, French, Twi, Moré and Dioula borrowings. A contingency table can be created to display for example, the number of individuals who are males and females and the amount of borrowings from each of the donor languages that each individual by gender has used.

The table allows us to see at a glance the proportions of males and females borrowings we intend to interpret. The significance of the difference between the two proportions can be assessed with a statistical test such as Pearson's chi-squared test and the critical/probaility value method, provided that the entries in the table represent individuals randomly sampled from the population about which we want to draw a conclusion. If the borrowing proportions of males and females in the different columns vary significantly between rows, we say that there is a *contingency* between the two variables, i.e., the two variables are *not* independent. If there is no contingency, we say that the two variables are *independent*.

Guy (1993) further states that the "null set hypothesis always states that there is no relationship between the independent and the dependent variables, and the observed distribution of the data is due merely to random fluctuation and sampling error". In this wise significance, values of the contingency table are derived from a chi-squared test. The chi-square test for two-way designs, according to Hatch and Lazaraton (1991), is a test that compares the relation of frequencies for two variables both of which have two levels. In my study, since the data samples are from individuals of different social groups (age, gender, level of education), the question is whether their different social backgrounds might have any relation regarding the amount of borrowings they use in speech. Furthermore, the chi-square test will also help finding out if there is any relation between the registers, age, sex and level of education and the major languages

from Burkina and Ghana that tend to provide loans to Dagara language. In other words, I will analyze how speakers' age, sex, and level of education vary with respect to the amount of borrowing from French, English, Twi, Dioula, and Moré.

4.9 Summary

In order to study and understand language use patterns and style in any given community, whether monolingual or bilingual, the interview method should be carefully considered. In my study, I adopt the Labovian sociolinguistic interview approach to elicit data on single loanword adaptations by Dagara-French and Dagara-English bilingual speakers. The Labovian interview method allows the researcher to begin with general questions, leading to specific questions on four different semantic fields and, finally, targeting language issues. I also took into consideration the social groups involved. In this regard, I ensured that data were collected from individuals that were sampled randomly based on age, gender, and level of education. Other social factors included Dagara social network integration and migration which are all factors influencing language contact and loan words adaptations. The participants were therefore carefully selected through acquaintances who helped with the recruitment.

Data were transcribed and coded following Winford's (2003) borrowing typology, including 'pure' loanwords and loanblends, loanshifts, and native creations. This enabled me to propose hypotheses about borrowing. The interview was guided by a questionnaire that included six modules or topics of conversation: 1) health, 2) religion/culture, 3) economic, 4) education, and 5) language.

The data collection was not devoid of problems, as I explained the difficulties of getting participants to talk to me during the farming season, and in reaching females participants. Nonetheless, in general terms, the fieldwork was very successful as I was able to collect data

from the target number of 100 participants within two and a half months thanks to the help of acquaintances of mine, as I acknowledged earlier.

CHAPTER FIVE

QUANTITATIVE ANALYSES OF PATTERNS OF BORROWINGS

5.1 Introduction

This chapter shows and discusses the quantitative analyses of data collected from interviews with French-Dagara and English-Dagara bilingual speakers at the Burkina-Ghana border communities of Ouessa and Hamile, respectively. As we will see, not only do these bilingual speakers' recordings contain French and English loanwords, they also show mixing with other sub-Saharan African languages spoken alongside Dagara in West Africa. Following Winford's (2003:45) borrowing typology summarized in chapter 3.3, I will classify lexical borrowings in the following categories: (1) "pure loanwords" defined as borrowings showing "total morphemic importation of single or compound words [with] varying degrees of phonemic substitution", (2) "loan blends" in which foreign and native morphemes are combined to form new words and can be further sub-divided into derivational blends and compound blends, (3) "loan shifts" composed of "semantic loans" and "calques", and finally (4) "purely native creations" and "hybridizations" that are collectively referred to as "native creations".

Several languages provide borrowed linguistic material to loanwords in this corpus. These languages will be referred to as 'donor' or 'source' languages. The two most widely spoken donor languages, French and English, are the ex-colonial official languages in Ouessa (Burkina Faso) and Hamile (Ghana), respectively, and as such are used as the media of instruction in schools. They are also languages that index prestige, power, and one's social status. Dioula and Moré are Burkina Faso's widely spoken African languages and also used for the daily economic activities in the big cities, among them the target Dagara-speaking city:

Ouessa. Twi is a widely spoken African language in both the northern and southern regions of Ghana, whereas Hausa is widely spoken mainly in northern Ghana. However, Hausa is not used as a main vehicular language for economic activities as compared to Twi.

In this chapter, I will first analyze the pure loanwords and loanwords across all the donor languages in Ouessa and Hamile in section 5.2 in order to establish bilingual speakers' borrowing technics in the two communities. Next, in section 5.3 I will highlight native creations and calques which are very significant to this study. In section 5.4 I analyze lexical borrowings across the four registers (health, religion/culture, economics, and education) starting first with the Ouessa (Burkina) community followed by the Hamile (Ghana) community. The social factor, level of education, which is claimed to be an important factor in lexical borrowings, follows in section 5.5. Gender and age factors will be analyzed in sections 5.6 and 5.7 respectively. Then, I conclude this chapter with a summary of the main points in section 5.8.

5.2 Pure loanwords and loan blends in Ouessa and Hamile

One type of lexical borrowing frequently used by bilingual speakers in both communities are the so-called pure loanwords that, following Winford (2003:45), are forms that show full morphological importation, but can have some phonemic substitution. Sample examples of pure loanwords (shown in bold) from the three main donor languages in the corpus are as follows:

From French:

1) **Sérieusement**, a sɛgkɛ Dagara zaa kpɛ a zanu puo, **sinon…**
   Sérieusement, it right Dagara all enter the learning inside **if not…**
   Seriously, it is important that every Dagara goes to school**, if not…**

From English:

2) Fo mi bɔbr kɛ fo **show,** bɛ bang kɛ fo kyenni **school.**
   You always want that you **show**, they know that you go **school**
   You always want to **show** that you have been to **school.**

From Twi:

3) Fo wa yi yeng, a **borfo** bɛ na **hia** ei?
You when go outside the **English** not that **needed** Emph,?
When you travel, is it not **English** that is **important**?

Based on recordings from 50 participants from Ouessa (Burkina), results show that Dagara-French bilingual speakers in this city produced a total number of 2354 pure loanwords. As shown in Table 11 the highest percentage of pure loanwords come from the official language, French, representing 1942 pure loanwords (82.5%). They are followed by English with 290 loanwords (12.32%), Twi with 118 loanwords (5.02%), and finally Dioula and Moré with 2 loanwords, each (0.08%). As expected, the ex-colonial official language is the main source of pure loanwords in this community, due to its prestige and importance in education and official communication. Second to French is English, that is the ex-colonial language from the other side of the border that is also taught as a second-language in Burkina. Following the hierarchy of languages on the local linguistic market place outlined in chapter 2.2, the importance of English as a source language (12.32%) for pure loanwords outranks Twi (5.02%) on this side of the border, the most widely spoken African language in the region, by an almost 1 to 2.5 ratio. As expected, Dioula and Moré, the least widely spoken African languages are negligible sources of borrowings in this community, and pure loanwords from Hausa and Arabic were not found in the data. Comparing this with Twi loanword use for exemple, we find that the Chi^2 test statistic is $Chi^2 = 78.02 > 9.488$, showing a higher value than Moré and Dioula combined. This means the test statistics is significant and we can hypothesize that the frequency of pure loanwords will also vary according to the languages of importance in the Ouessa community across registers.

	Pure loan words per community			
	Ouessa (Burkina-Dagara)		Hamile (Ghana-Dagara)	
Donor language	**N**	**Percent**	**N**	**Percent**
English	290	12.32	**3253**	**88.30**
French	**1942**	**82.5**	83	2.25
Twi	118	5.02	329	8.93
Dioula	2	0.08	-	-
Moré	2	0.08	-	-
Hausa	-	-	11	0.30
Arabic	-	-	8	0.22
Total	**2354**	**100**	**3684**	**100**

Table 11: Summary of pure loanwords in Ouessa and Hamile

The situation is somewhat similar for the Ghana-Dagara. From the English-Dagara bilingual speakers' data recorded in Hamile, a total number of 3684 pure loans were extracted. As shown again in Table 11, English contributed with an appreciable percentage of pure loanwords over the other local languages, with 3684 loanwords representing 88.30% of all pure loanwords, Twi as a donor language contributed with 329 pure loans (8.93%), French with 83 loanwords (2.25%), Hausa with 11 loanwords (0.30%), and Arabic with 8 loanwords (0.22%). Again, similar to the situation in Burkina and in accordance with my initial hypothesis, English, the ex-colonial official language of the Ghana-Dagara is the most important source for borrowings. Contrary to the situation in Burkina, however, the other ex-colonial official language of the Dagara, French, does not outrank the use of Twi in this community when it comes to pure loanwords. Such words borrowed from Twi were four times more frequent than pure loanwords borrowed from French in the speech of the Ghana-Dagara. This indicates that, in line with the growing importance of African languages in Ghana outlined in section (2.2.1), there is evidence that at least one local language in Ghana is a more widely used source of linguistic influence than an ex-colonial language (French) in this community. For example, when the Chi^2 test statistics for Twi and French in the Hamile community is performed, the result is shown as

follows: Twi (Chi^2 = 132.73> 9.488), and French (Chi^2 = 117>9.488. This also suggests that the frequency of pure loanwords that varies with the linguistic market place value of the major donor languages will also be mirrored with regards to the registers, as it is hypothesized.

As far as loan blends in Ouessa are concerned, it is interesting to note that even though English is not the official language, English-Dagara blends show the highest percentage with 44.85% of all loan blends, followed closely by French-Dagara loan blends (40.72%), and further by Twi-Dagara loan blends (13.4%), and just two Moré-Dagara loan blends (1.03%). This mixing strategy is interesting in the sense that in Ouessa the expected bilingualism is French-Dagara and yet these bilingual speakers' loans show examples with English-Dagara. For example hybrids such as **school-bie: school+child** (student), **doctor-yir: doctor+house** (hospital) are commonly used instead of the expected French-Dagara hybrid equivalence of **école-bie** and **docteur/médecin-yir** respectively.

	Hybrid loan words per community			
	Ouessa (Burkina-Dagara)		**Hamile (Ghana-Dagara)**	
Donor languages per hybrid	**N**	**Percentage**	**N**	**Percentage**
English-Dagara	87	44.85	255	94.45
French-Dagara	79	40.72	5	1.85
Twi-Dagara	26	13.4	6	2.22
Moré-Dagara	2	1.03		
Hausa-Dagara			1	0.37
Dagara-Twi-Hausa			1	0.37
English-Dagara-Twi			1	0.37
Hausa-Twi			**1**	0.37
Total	**194**	**100**	**270**	**100**

Table 12: Summary of hybrid loanwords in Ouessa and Hamile

As for hybrid loans recorded in Hamile, English-Dagara blends maintain the lead with 255 loan blends which represents 94.5% of all loan blends. They are followed by Twi-Dagara with 6 loan blends (2.22%), French-Dagara with 5 loan blends (1.5%), and Hausa-Dagara, Hausa-Twi, Dagara-Twi-Hausa, and English-Dagara-Twi loan blends that recorded 1 word each, representing each just 0.37% of all occurrences. Some examples of such complex loan blends are follows (literal meaning is in italics in the brackets): Dagara-Twi-Dagara word **yangmaaru-susu-gan** (*health contribution book*: 'health insurance card'), the French-Dagara loan blend **bon-kɔkɔr** (*good language*: 'French language'), the Hausa-Dagara **lafia-kyiɛro** (*health contribution*: 'health insurance'), the Hausa-Twi **lafia-susu** (*health contribution*: 'health insurance'), the English-Dagara-Twi **school-bi-papa** (*school child good*: 'good student'), and the Dagara-Hausa-Twi **yangmaaru-lafia-susu** (health insurance) loan blends. The use of these loan blends depends on the multilingual status of the speaker, that is how many languages one speaks or understands or who the speaker is speaking with. These and similar examples will be analyzed in detail in chapter 6.

A comparative analysis of the two tables brings out both expected results and striking disparities on the two sides of the border. As expected, each community predominantly uses pure and hybrid loans from their own official languages as well as from each community's widely spoken African languages. English, however, is more widely used in loan blends by speakers in Ouessa speakers than French is by speakers in Hamile, which indicates that English is very likely the most widely used of the two ex-colonial official languages among the Dagara. The use of hybrids with the widely spoken African languages found in the data may be due to the economic value that are attached to these languages by the Dagara people. Twi is the language of daily economic survival in most Ghanaian cities whereas Moré and Dioula are also the favored

languages in the informal economic sector in the cities of Ouagadougou and Bobo, respectively, in Burkina.

One striking difference between the African majority and ex-colonial official languages is that the pure loans from African languages are in the minority on both sides of the border. Although the Burkinabe borrow from their own African languages (Dioula and Moré) and so do the Ghanaians (Twi and Hausa), which is expected, there is one exception: Twi! As shown in Table 12 above, Ouessa participants used as many as 118 Twi pure loanwords as against only 2 pure loanwords each from Dioula and Moré. With regards to the hybrid loans, Ouessa bilingual speakers used more Dagara-Twi (26 hybrids) than Moré-Dagara (only 2 hybrids). My interpretation of this pattern is that Twi, as a Ghanaian language, has more economic advantages than the two Burkina languages (Moré and Dioula) in the Ouessa community. Furthermore, there is also more prestige associated with the ability to speak Twi among the more mobile Burkina and Ghana Dagara who migrate to Southern Ghana to work during off-farming season in Twi-speaking territories. As one of my acquaintances explained to me, some Burkina Dagara might even return home with Twi names (e.g. Ama for a female or Kwame for a male) as a mark of southern Ghana been-to.

As mentioned previously in chapter 1.1.4, Massey et al.'s (1993), neoclassical micro migration theory can best explain the prevalence of Twi in these data. It has been argued that international migration is based on an individual's decision to change his/her place of residence in order to maximize income, or people mainly relocate across borders for differences in wages and employment. Participants' responses during the interview reveal international migration patterns to cities in southern Ghana not only from northern Ghana, but also from southern Burkina. In fact, most of the Burkina Dagara youth reported having travelled frequently to

southern Ghana to look for off-farming season jobs. Hence, this seems to explain the higher rate of borrowing among Burkina-Dagara from both English, the official language in Ghana, and Twi a prestigious language of daily economic struggle in all Ghanaian cities.

The use of Arabic loans are mostly from the cultural and religious register which appeared in answers to questions about festivals and religious activities in the two border communities. The following reasons explain the absence or presence of Arabic loans in the two communities. In the first place, the Hamile community has a sizeable Moslem community whose religious activities are also well attended by the Catholic-dominant population that frequently comes into contact with Moslem religious terms and expressions. Loan words such as **Ramadhan** (a period of fasting for Moslems), **Idir Fitir** (an Islamic feast marking the end of 29/30 days fasting period), and **Eid Adh** (an Islamic feast where a ram is slaughtered to mark the 40 days after fasting) were found in Hamile participants' speech. The above examples substantiate the use of Arabic loans mainly from questions from the religion/culture register.

In addition, there are also established Islamic elementary schools in Hamile that are attended by both Catholic teachers and students. Interestingly one of my participants, a Catholic by faith, is the principal of one of the Islamic schools in Hamile. However, the absence of Arabic loans in recordings from the Ouessa community is due to the fact that in Ouessa the Moslem communities are separated from the Catholic communities; the two live far apart from each other. Secondly, based on my field work experience and to the best of my knowledge, there are very few Dagara Moslems in Ouessa, which is a Catholic-dominated community with no Islamic established schools in the city.

5.3. Native creations and calques in Ouessa and Hamile

As shown in Table 13 below, all loan translations and creations come from the two major donor languages from the two communities, which are French and English. On the Ouessa side of the border, the calques and creations are derived only from French and on the Hamile side they are derived from only English. However, pure native creations common to both sides of the community are **kurwur** (literally kur = 'iron' and wur 'horse') for *bicycle* or *vélo*, **bengvaar tigr** (bengvaar 'cowpea leaves') for *Corpus Cristi* in the economy and religion/culture registers respectively. Historically, Corpus Cristi used to be celebrated at the time they cooked cowpea leaves mixed with corn meal for the occuasion. Then, **wulwule** which literally means (one who teaches) for *teacher* is used in the education register. Table 13 also indicates that the economic register for both sides recorded the highest number of native creations with 40.9% on the Ouessa side and 46.8% on the Hamile side of the border. Calques and others will be analysed linguistically in chapter 6.

Ouessa			Hamile		
Registers	**Calque**	**Creation**	**Registers**	**Calque**	**Creation**
Health	1(0.7%)	10 (6.7%)	Health	0	4 (4.3%)
Rel/Cult	3(2.01%)	11(7.4%)	Rel/Cult	4 (4.3%)	30 (31.9%)
Economic	0	61(40.9%)	Economic	0	44 (46.8%)
Education	0	39 (26.2)	Education	0	6 (6.4%)
Language	0	28 (18.8)	Language	0	10 (10.6%)
Total	**4**	**149**	**Total**	**4**	**94**

Table 13. Native creation and calques

5.4 Registers

The registers, as shown in Table 13 above are used to elicit lexical borrowings from other languages by the participants. In this section, I analyze lexical borrowings across registers starting first with the Ouessa (Burkina) community followed by the Hamile (Ghana) community. As I have argued previously (chapter 1.2.2) ex-colonial languages continue to be held in high

esteem in both communities not as much for the purpose of fostering national integration, as for the power that the language conveys for upward social mobility, status, prestige, and in fact, for its "potential instrumental value" (Adegbija 1994). As we shall see in Tables 14 and 15 (below), this phenomenon will be reflected in the use and frequency of loanwords borrowed into Dagara across registers among the Dagara bilingual speaking community in Ouessa and Hamile. Listed below are the number and percentage of words borrowed from English, French, Twi, Dioula and Moré recorded from my 50 participants from Ouessa according to register.

Ouessa

However, I will first report the Chi square test statistics results before I continue to discuss the rest of the data. The Chi² test statistics[4] for the loanwords from the major languages across the five registers are as follows: With respect to amount of loanword usage across registers among bilingual speakers in the Ouessa community, there is a statistically significance difference between borrowings and registers. For example, our significance level is set at $\alpha = 0.05$, $Chi^2 = 395.72$, df =16, and the p-value = 2.87164E -74, $p < 0.0005$. This means we can feel confident in rejecting the null hypothesis at 0.05 significance level and assume that words borrowed vary significantly with registers in this community. The descriptive data below also show the varying pattern across registers. For example, French loans are more frequent in the religion/culture register (41.28%) than in the education, health, economic, and language registers. One important observation of the results is that English and Twi loans in Ouessa are also significantly different across all five registers, but significantly higher in the economy register than in the others because of the daily inter-community trade activites between them.

As Figure 14 clearly indicates, French loanwords are used more than all other languages across

[4] For details on the choice of this tests and its application to the data, see Appendix.

Donor Lgs	Registers					Total	Mean	SD
	Health (N (%))	Religion/cult (N (%))	Economy (N (%))	Education (N (%))	Lang (N (%))			
English	76 (3.03)	60 (2.15)	92 (3.91)	42 (1.79)	20 (0.85)	**290**	58	28.2
French	242 (10.3)	971 (41.28)	146 (5.21)	485 (20.12)	98 (4.10)	**1942**	388.4	358
Twi	10 (0.43)	28 (1.90)	59 (2.51)	15 (0.62)	6 (0.3)	**118**	23.6	21.4
Dioula	0	0	2(0.85)	0	0	**2**	0.4	0.89
Moré	0	0	2(0.85)	0	0	**2**	0.4	0.89
Total	328	1059	301	542	124	**2354**		

Table 14. Pure loanwords across registers (Ouessa)

all the registers in Ouessa, but they are especially frequent in the religion/culture register (41.28%), as compared to the education (20.62%), health (10.42%), economy (6.21%), and language (4.17%) registers. The religion/culture register shows much frequent use of French loanwords than the rest owing this to the fact that Catholicism is the main religion among the Dagara in Ouessa. Even though it is also the main religion in Hamile, the celebration of religious activities in Ouessa is more famous than in Hamile. For example, whereas Assumption and First Communion are well celebrated occasions in Ouessa, these occasions come to past in silence in Hamile. Catholicism is well embraced and almost all the religious Catholic feasts are celebrated by the Dagara of the Ouessa community. These religious events were introduced by the French Catholic missionaries in the Dagara homelands in Burkina Faso starting from 1934. As I have already mentioned in previous chapters, formal education in the Dagara homelands, both in Ghana and Burkina Faso, was first introduced also by Catholic missionaries who spoke French. These religious celebrations, and thus the use of French in this context, are the remnant of the colonial tradition.

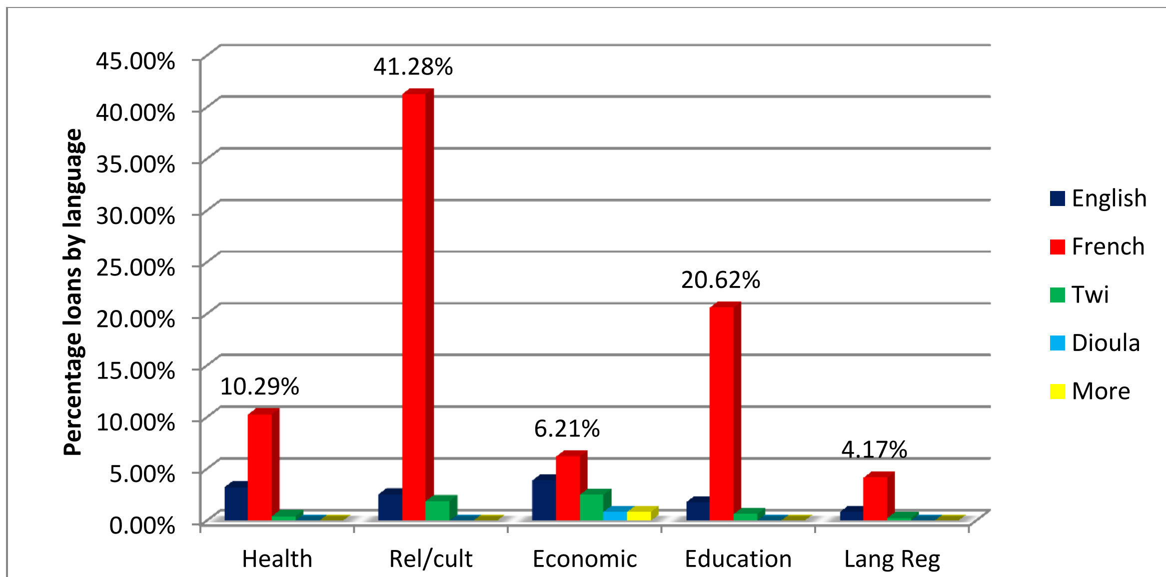

Figure 9. Pure loanwords by major languages across registers in Ouessa (Burkina)

If the education register recorded more loanwords than the economic and language registers, it is due to the fact that French is the *de facto* donor language, as it is expected in the education register. After French, two languages, English and Twi, spoken across the border in the adjacent Ghanaian border community, are the next languages of prestige and economic power in the Ouessa-Dagara community.

Interestingly and even surprisingly, Twi loanwords are featured in all registers (a total of 118 loans) as opposed to Dioula (only 2 loans) and Moré (2 loans). This might seem counter-intuitive because the two local languages of daily economic struggle that one would expect to be widely spoken by speakers in Burkina are Dioula, particularly in the city of Bobo-Dioulasso in the southwest of Burkina Faso, and Moré in Ouagadougou, the capital city of Burkina Faso. In principle, Twi is not expected to be wide-spread in Ouessa participants' speech. This phenomenon, I posit, is arising not out of social recognition only, but is also motivated by "utilitarian motives" (Baker 1992:32-33): the preference for Twi instead of Dioula or Moré is a

mark of the Ghanaian city dweller and conveys a been-to status for the younger Burkinabe who travel seasonally more often to Twi-speaking cities in southern Ghana for economic reasons than to the two cities in Burkina Faso. From Figure 8 (above) the percentages of loanwords in Ouessa across registers show that besides French, English and Twi are the next most favored languages in conversations about the economic domain in the Ouessa community because these are also languages directly related to the labor migrants' economic survival. As we shall see in more detail below, English for the Burkina youth is considered a language of economic power, progress and perhaps modernity, and the gateway to the outside world. Twi on the other hand is also statistically significant across all registers because of the highly mobile Ouessa youth who rather prefer to travel to cities in southern Ghana than traveling to cities in Burkina during off-farming seasons for manual jobs. Apart from that, the constant contact between family members in Ghana across the border where Twi is vehicular language also accounts for the statistical significance of Twi over Dioula and Moré across all registers.

Hamile

In the paragraphs that follow I will discuss lexical borrowings across registers found in the Hamile data. We recall Winford's (2003) argument that speakers are often motivated to borrow from other languages depending on social factors that may vary from one contact situation to the other, but the salient ones are 'need' and 'prestige'. The 'need' may be in the form of expressions, ideas and thoughts that are not available in the lexical repertoire of the native language, for instance, due to cultural differences. As we have seen in the Ouessa data, the need for the Dagara to keep up with globalization, or the need to modernize, lead many of them to borrow from French and English. Lexical borrowing for 'prestige' arises as a result of the

social values associated with the donor language. As we shall see, these facts account for the use of loanwords in Dagara across registers among the Hamile Dagara bilingual speakers as well.

The fact that some donor languages are associated with more prestige and power than others is also reflected in the differences in the number of loans from the major languages across registers in the Hamile speakers' speech. The notion of "linguistic capital" as Bourdieu (1991) understands it[5] allows us to interpret the importance that the Dagara elite attach to the use of English loans in their daily exchanges to show power, status, and "maximize symbolic dominance" over others. In Hamile, English is, expectedly, the official language and the medium of instruction at school and thus the overwhelmingly dominant donor language in borrowings. Results shown in Table 15 show the predominance of English in all pure loans across all registers. English lends the highest number of loanwords with a total of 3253 (88.30%) loans across all registers, with a mean ($\bar{x}$) value of 650.6 and standard deviation SD = 594.4. It is in the health register that English loans were used the most (43.76%) followed by education (22.99%), then religion/culture (11.40%), economy (5.83%) and language-related (5.02%) registers in that order. In the health register for example, apart from few participants who used (yangmaaru-susu – health insurance) majority of them used pure loans such as *insurance, card, pharmacy*, among others. For education register common pure loanwords found are *school, teacher, class, certificate* et cetera.

It is important to also perform the Chi^2 test statistics for the Hamile data to be sure of the numerical relationship between the various languages and registers. Just like for the test statistics for the Ouessa data, the significance level for the Hamile data is set at α=0.05. The test results

[5] According to Bourdieu (1991) the "sense of value of one's own linguistic products" or "linguistic capital" contributes to the speaker's social worth.

indicate the following: $chi^2 = 762$, df = 16 and p-value = 5.6823E -152, $p < 0.0005$. In light of this result, we can reject the null hypothesis, which means that we can conclude that there is enough evidence that the amount of words borrowed from donor languages vary significantly with different registers.

Donor Lgs	Registers					Total	Mean	SD
	Health (N (%))	Religion/ culture (N (%))	Economy (N (%))	Education (N (%))	Lang (N (%))			
English	1612 (43.73)	420(11.4)	215(5.83)	821(22.2)	185(5.02)	**3253**	650.6	594.4
French	4 (0.1)	2(0.05)	54(1.44)	3(0.08)	20(0.53)	**83**	66.6	22.2
Twi	100 (3)	131(3.46)	3(0.97)	32(0.86)	30(0.81)	**296**	59.2	53.8
Hausa	11(0.3)	0	0	0	0	**11**	2.2	4.9
Arabic	0	8 (0.22)	0	0	0	**8**	1.6	3.6
Total						**3651**	650.6	594.4

Table 15. Total pure loans across registers in Hamile (Ghana).

The prevalence of English in the health register might be due to the recent introduction of the western health insurance system in Ghana. Many people now visit these modern health service facilities than resort to traditional Dagara (Ghanaian) health delivery methods. For example, module 2, interview question 2.5 asks participants about the type of sicknesses that usually require Dagara local medical treatments. The majority of the respondents reported that they have never been to Dagara local doctors for treatment whenever they felt sick. Thus the large number of English loans in Hamile participants' health register can be attributed to participants' need to acquire terminology related to western style health services that are verbalized in English, not much for lack of lexical items, but as some reported, for the sake of ease of expression. The predominant use of English in the education register is due, I assume, to the importance the Dagara attribute to Western forms of education for social and economic

advancement. As such, many participants resorted to English loans to emphasize the importance of education regarding the upward social mobility of the individual.

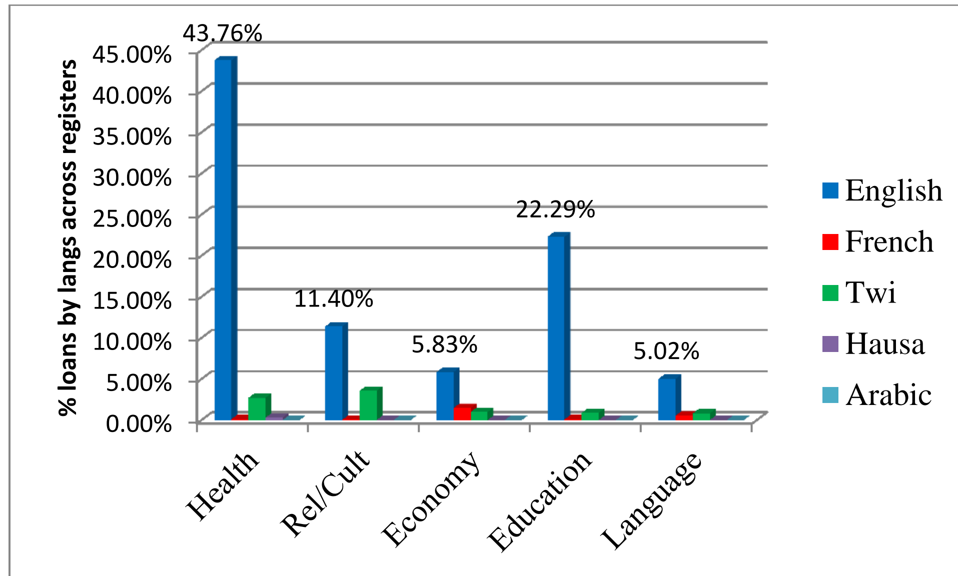

Figure 10. Pure loanwords by major languages across registers in Hamile (Ghana)

Another important observation I want to make here is regarding the difference between French and Twi loans in the economy register in the Hamile results presented above. It is clear from Table 15 and Figure 9, above, that the Hamile-Dagara speakers don't borrow massively from French across all registers. One explanation is that French is only studied starting from high school in Ghana, provided there is a French teacher in the school. Twi, on the other hand, is prevalent in the local communities on both sides of the border. It is the language of daily economic struggle and the most widely spoken local language in Ghana. And yet, quite unexpectedly, the results indicate that French loans (54 loanwords representing 1.47%) are still more frequent in the economy register in Hamile than loans from Twi (3 loanwords representing 0.08%). In the Hamile corpus, French loanwords such as ***choux*** 'carbage', and ***zandam*** (gendarme) 'police' among others were found. These are loanwords that were elicited from questions asking for reasons why they often cross the border to the Ouessa side. This discrepancy

needs to be interpreted. Why should Ghanaians use more loans from French, a language in principle only learned in school, when they talk about the economics of their daily lives than Twi, that is, the language of their daily lives? Again, I argue that Bourdieu's notion of linguistic capital helps us understand this situation that arises out of the more mobile Ghanaian youth's habit of crossing the border many times a week to buy made-in-Burkina fabrics and goods in general which, according to some of the participants, are cheaper than what they can buy in Ghana. For example, in response to an interview question (module 4.2: how many times one crosses the border per week/day and what s/he goes to do there), a 27 year old, male Dagara language teacher has this to say:

(4) "Maa wa gangne a **border** […] mɛ **material**, a be daaru in molɛ yaga"

Me when cross the border […] like **material,** the there cost is cheap lot

Whenever I cross the border […] it is to buy some **fabrics,** it is cheaper over there.

'Material' is an expression from Ghanaian English and a case of semantic change. It refers generally to fabric used for sewing pants and dresses. Interestingly, while loans from the health, education, and economy registers are indicative of modern life style choices and needs for instrumental purposes, such as economic gains and status, loans in the religion/culture registers index historical patterns of language dominance associated with the spread of religious practices. We have seen the close association of French to wide-spread Catholicism in the Ouessa community and the same can be argued, although to a lesser extent, for Arabic. Arabic loans all featured in the religion register of Hamile participants based on their responses to questions about religious festivities held in the two communities. Although there are only 0.22% of Arabic loans featured in the religion and culture register, their presence is noteworthy for reasons similar to the use of French in this register on the other side of the border.

5.5 Level of education

In both Ghana and Burkina Faso, western style education seems to be the only trump card for economic and social advancement. This ideology is due mainly to the type of colonial legacy that most sub-Saharan African countries inherited even after they gained their independence in the 1960s. In light of this, level of education has been considered as a differentiating factor in sociolinguistic studies of monolingual and bilingual communities in the two communities across the border where variation in the use of loanwords in speech is expected to correlate with differences according to levels of education. As we have seen from the results, it can be established that Dagara bilingual speakers preferably use English and French loans to signal symbolic domination or demonstrate their competence and intelligence. It is often assumed that Dagara, the local language of the community, lacks status in comparison with English and French, level of education can be expected to influence the number of loanwords borrowed from these two languages because of the assertion that the higher the speaker's level of education, the better s/he is in the position to produce more loans than the one whose level of education is lower. Generally in Ghana and Burkina Faso literacy is equated with one's ability to read, write and speak the official language, fluently. Apart from that, transition from elementary school to high school is carried out through a competitive national examination that requires a good command of the official language. For this reason, the data are taken from participants whose minimum education level is high school or its equivalent. I will use the following abbreviations to indicate different levels of education: 'A' Level/BAC/Univ (Advanced Level/Baccalaureat/University); HSD (High school diploma holders); HSS (high school students). In Hamile (Ghana) the following are the different levels: HSD/HSS level 1, 'A' Level+ is level 2 and UNIV is Level 3. In Burkina Faso these are as follows; HSS is Level 1,

HSD is Level 2 and BAC/UNIV is Level 3. From myparticipants' biographic data, it shows that there are more Hamile participants with higher level of education than those on the Ouessa side.

	Ouessa (Burkina) (N (%))			**Hamile (Ghana) (N (%))**		
Donor Languages	HSS – Level 1	HSD – Level 2	BAC/UNIV – Level 3	HSD/HSS – Level 1	'A' Level+ – Level 2	UNIV – Level 3
English	114(6.3)	94(4.1)	97(4.2)	701(19.02)	1011(27.4)	1541(41.8)
French	511(21.7)	711(30.2)	802(34.1)	24(0.7)	35(0.95)	24(0.7)
Twi	45(1.96)	35(1.53)	35(1.53)	65(1.8)	115(3.1)	149(4.04)
Dioula	0	0	2(0.1)			
Moré	0	2 (0.1)	0			
Hausa				1(0.03)	8(0.2)	2(0.1)
Arabic				2(0.1)	1(0.03)	5(0.13)
Total	**670**	**748**	**936**	**793**	**1170**	**1721**

Table 16. Number and percent of loans by level of education in Ouessa and Hamile.

Note: Ouessa: Total loanwords by levels of education across all languages = 2354
Hamile: Total loanwords by levels of education across all languages = 3684

Secondly, at the time I was collecting data in Ghana (in June 2012) high school students were still in school making it difficult to get them to participate since ost high schools in Ghana operate the boarding system. Also, by the time I got to Ouessa in the latter part of July and early August, high schools were already on summer holidays, giving me easy access to recruit them.

We recall that one of my research questions asks whether level of education, age, and gender will affect (or vary with) the amount of loans from English, French and the other major Ghanaian/Burkina (African) languages. Based on this research question, I hypothesized that borrowing will vary with the three social factors: level of education, age, and gender.

Considering the total scores of each group (each level of education) as seen in Table 16 and Figure 9, one can easily draw a quick conclusion that the amount of borrowings from

French, the official language of Burkina, increases with level of education. For example, holders of a university degree or its equivalent record a total of 802 loanwords (34.1%) followed by those with a high school diploma with 711 loans (30.2%) and, finally, high school students who are the least educated, recording 511 loans, representing 21.7% of all loanwords. However, in order to establish their statistical significance, we need to compute the Chi^2 test before drawing a conclusion about the descriptive analysis. The test results for level of education for the Ouessa community are statistically significant and confirm our hypothesis that younger bilingual speakers will borrow more from donor languages than older speakers ($Chi^2 = 35.48$, $df = 8$, p-value = 2.18574E -05, so $p < 0.0005$). Similarly, the Chi2 test for level of education at the Hamile border shows the following: $Chi^2 = 22.95$, $df = 8$, p-value = 0.003429037, $p< 0.0005$. For the two communities, the Chi^2 tests indicate that we have enough evidence to conclude that amount of borrowing from donor languages increases with increased level of education.

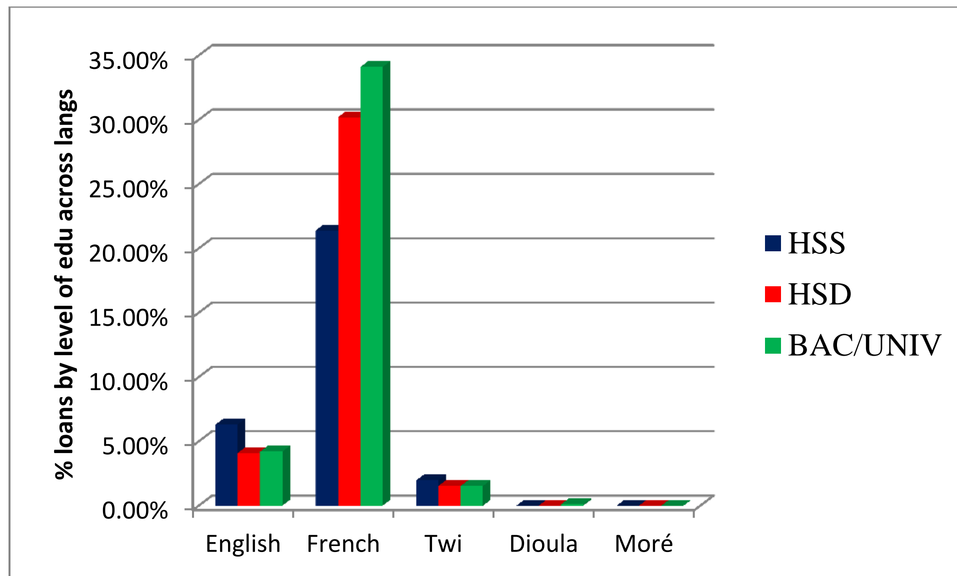

Figure 11. Percent of pure loans by level of education (Ouessa)

The results for the Hamile (Ghana) border community do not seem to be that different from what we observed with the Ouessa border community. As shown in Figure 11 below, English, the official language as well as the medium of instruction in all schools, is the most frequently used loanwords over the other languages. Again, the raw scores indicate an increase in amount of loan words with every unit increase of level of education. University degree level of education shows a total of 1541 loanwords (41.8%) followed by 'A' level/equivalent with 1011 loanwords (27.4%) and lastly high school students/diploma holders borrowed the lowest total amount of 701 loanwords, representing 19.02%.

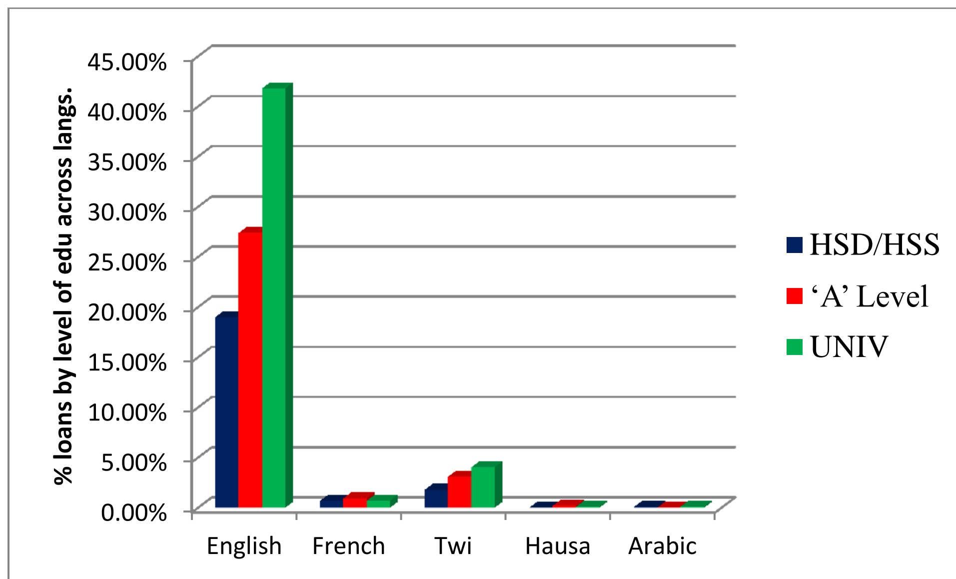

Figure 12. Percent of pure loans by level of education (Hamile)

5.6 Gender

The next analysis looks into the influence of gender on amount of borrowings from the four languages from which Dagara speakers tend to borrow. As we can see from the Table 19 and Figure 12, the total scores of loanwords borrowed from the various donor languages found among the Ouessa bilingual speakers are as follows: For the women, they borrowed as many as 1059 loanwords from French (44.9%), 64 loanwords from English (2.72%), 48 loanwords from

Twi (2.04%), and 1 loanword each from Dioula and Moré (0.04%). Then, on the other hand, their male counterparts also borrowed as many as 885 (37.6%) French loanwords, followed by 226 (9.6%) English loanwords, Twi 70 (2.97%) loanwords, and Dioula and Moré 1 (0.04%) loanword each. But as we can see from the scores across gender, the women borrowed more French loanwords (1059) representing 44.9%, than the men who borrowed 885 loanwords also representing 37.6%.

	Ouessa (Burkina)		**Hamile (Ghana)**	
Donor Languages	Men (N(%))	Women (N(%))	Men (N(%))	Women (N(%))
English	226(9.6)	64(2.72)	1735(47.1)	1532(41.6)
French	885(37.6)	1059(44.9)	29(0.8)	47(1.3)
Twi	70(2.97)	48(2.04)	161(4.4)	161(4.4)
Dioula	1(0.04)	1(0.04)		
Moré	1 (0.04)	1(0.04)		
Hausa			2(0.05)	9(0.3)
Arabic			8(0.22)	0
Total	**1182**	**1172**	**1935**	**1749**

Table 17. Number and percent of loans by gender in Ouessa and Hamile.

Note: Ouessa: Total pure loanwords by both genders across all languages = 2354
Hamile: Total pure loanwords by both genders across all languages = 3684

I noted somewhere in chapter 1 (1.2) women in the Dagara homelands were denied formal education for a long time until recently when the awareness of female education is on the rise. As such, it is common among the educated women to mix French with Dagara in their daily discourse since French is associated with prestige, or it is a mark of one's social status. This may also be due to the current effort to bring women up socially and economically to the same level of men in the Dagara homelands.

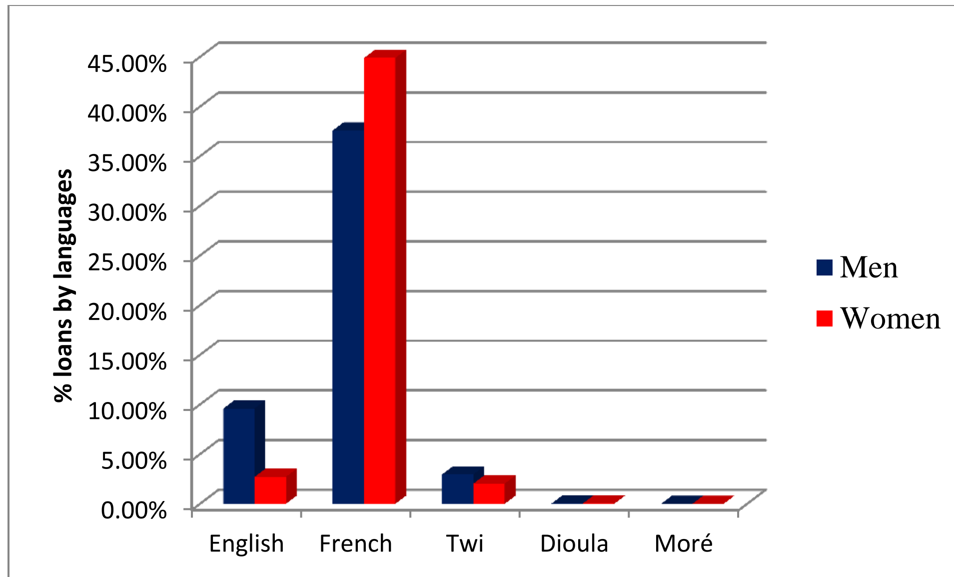

Figure 13. Percent of loans by gender across languages in Ouessa

Then, as the men are the more traveled than their women counterparts in Ouessa, the men borrowed more English (226 loans) and Twi (70 loans) than the women who borrowed less; (64 English loans) and (48 Twi loans).

Lexical borrowings from Hamile border community shows a slightly different descriptive statistical result than what we observed from the Ouessa side of the border. First, it is observed that the men are borrowing more from English than the women do in the same language. For example, as seen in Table 15 and Figure 13, 1735 loanwords (47.1%) are borrowed from English by the men than the women who borrowed 1532 (41.6%). This may be due to one reason; English is associated with power, apart from its prestige and socioeconomic attributes. For example, for interview question 6.7 (see appendix V) “What language do you speak with your children at home?” A male participant (a teacher by profession) reports that he speaks Dagara with his wife and kids, but when he is angry, he speaks English to them.

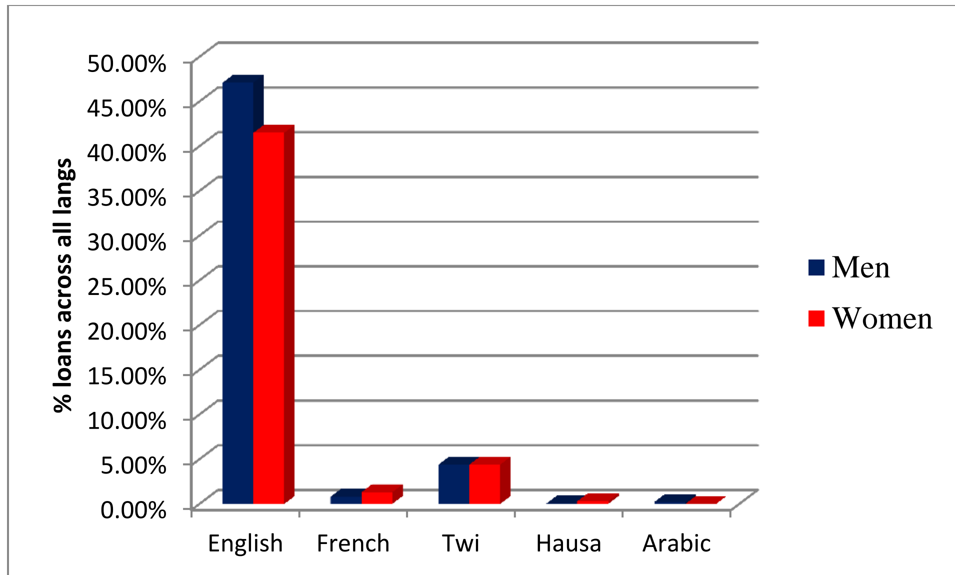

Figure 14. Percent of loans by gender across all languages in Hamile

(1)

N	sugr	wa	ira,	**borfo**	na	imi	yɛrɛ	abɛ	zie.
My	anger	come	up,	**English**	that	I HAB	speak PROG	to	them

When I'm angry I speak **English** to them

For this reason the men might be more inclined to using more English loanwords in their Dagara than women. But French loanwords are numerically less (29 loans = 08%) in the men's speech than in the women's who have 47 French loans (1.3%). Though the French loans are not very significant numerically, the presence alone is noteworthy and deserves some sociolinguistic comments. The slightly more frequent French loans in the women's speech might be due to the fact that, in Dagara homelands women mostly do the grocery and for that matter they are the ones who cross the border to Ouessa on every market day to buy fresh vegetables. One of my female participants reported that they usually cross the border on market days to buy 'French' **choux** (cabbages), when answering interview question 4.2: "How often do you cross to the other

side of the border and why?" Apart from that, another reason may best explain the statistical difference: In sub-Saharan Africa, women are more involved in the informal economic activities than men. For example, activities such as buying and retailing of food stuff, selling cooked food at open markets and locally made bear from sorghum are commonly done by women. The International Labor Organization reports (ILO 2009) show that the informal economic sector in sub-Saharan Africa engages more females (84%) than males (63%). This further supports the argument as to why women in Hamile use more French loans than men since they are more involved in the cross border daily open market shopping than the men. As for the other two donor languages (Twi and Hausa), the results show that gender is not a significant determining factor with regards to amount of loanwords. Twi for example shows equal amount of loans (N=161, 4.4%) for both men and women.

Arabic loans (N= 8, 0.22%) are also not very numerically significant, but for the fact that it indicates no Arabic loanword in the women's speech, shows that gender is a powerful differentiating factor in the use of Arabic loans in Hamile. From the religious point of view this might not be surprising because the men in the community play the role of Islamic religious teachers and they have easier access to learning Arabic than the women. If it comes to religious leadership, Moslem men again are found in more responsible positions than their women counterparts. All these give the men an advantage over the women in terms of access to Arabic literacy.

As for the Arabic loans, men dominate women in the religious roles and activities and that gives credence to the exclusive use of Arabic loans by men only in the Hamile community. However, the Chi^2 test for both communities confirms our hypothesis that women will borrow more words than men from each community's official language as the probability value is again

less $\alpha = 0.05$. For the Ouessa bilingual community the result is stantistically significant: $chi^2 = 110.13$, df= 4, p-value = 6.82757E -23, $p < 0.0001$. The Chi^2 test for Hamile is also significant ($Chi^2 = 19.99$, df = 4, p-value = 0.000502, $p < 0.0001$).

In conclusion it has been noted that women in Africa in general and in the Dagara homelands in particular have been denied formal education for a long time, even dating back to the period of colonial method of educating native Africans (Mlama, 2005). But this trend has since been changed and women are now front liners in most West African societies currently. For example, at the Forum for African Women Educationists (FAWE), Mlama (2005) recorded that since the year 2000, gender and education is now given prominence in most African countries, and many initiatives have been undertaken towards achieving the education and gender goals. These include the "United Nations Girls Education Initiative (UNGEI), and the Africa Girls' Initiative (AGEI)." Fortunately most governments in Africa have now incorporated gender in their national education plans where deliberate effort is directed at eliminating the gender gap in access to education. FAWE in particular, was established to deal specifically with the promotion of girls' education in sub-Sahara Africa and has undertaken various programs related to influencing "education policy, advocacy, and demonstrative interventions on what works in girls' education and influencing the replication and mainstreaming of best practices" (p 4). In view of this change women now compete with their male counterparts in many areas including education and language use which used to be the preserve of men.

5.7 Age

In chapter two (cf. ch.2.4 and 2.5), I mentioned that I will attempt to provide answers to establish correlations between age and the amount of loan words used from each of the major donor languages in the two communities. I predicted that the amount of borrowings will vary with the speakers' age. My age groups in the Ouessa community are divided into four categories as follows: For a total of 50 participants 12 belong to the 18 – 26, 11 to the 27 – 38, 15 to the 40 – 50 and 12 to the 54 – 64 year groups. I will first report on descriptive statistics to show general patterns of variation and then comment on Chi-square test results.

Starting with French the official language in Ouessa, it is found that apart from the 26 – 38 year group all the other age groups borrow almost equal amounts of loanwords from French. The differences between the amounts of loan words are very insignificant as seen in Table 22 and Figure 18 below. Table 22 indicates the total raw scores whereas Figure 18 shows a graphical representation of the percentage scores. The differential scores for the age groups are as follows: The 40-52 year group leads minimally with 654 loans (27.7%), followed by the rest in this order: 18 -25 year group (N= 507, 21.6%), 54-64 year group (N= 479, 20.4%), and lastly, 26 – 38 year group (N=305, 13%). The competing amount of loanwords by all age groups may be due to the power, economic and social roles that French plays in Burkina in general and in Ouessa in particular. We recall that a participant supported the social and power role of French among Ouessa Dagara with the famous "servez Jérome" adage (CF ch 6) where the use of French at social gathering indexes power and status. From the total scores which show no significant differences regarding the amount of loanwords and age, the Chi-square test results, however, show that, statistically speaking, the amount of loanwords from donor languages vary

significantly with age in the Ouessa bilingual-speaking community (Chi^2= 1445.52, df = 12, p-value = 7.3091E -25, $p < 0.0001$).

	Age groups in Ouessa (Burkina)				Age groups in Hamile (Ghana)			
Donor Languages	**18-25 N(12)**	**26-38 N(11)**	**40-52 N(15)**	**54-60 N(12)**	**18-26 N(10)**	**27-38 N(18)**	**40-50 N(10)**	**54-64 N(12)**
English	23 (1.0%)	112 (4.8%)	65 (2.8%)	90 (3.8%)	684 (18.6%)	1241 (33.7%)	671 (18.3%)	671 (18.3%)
French	507 (21.6%)	305 (13.0%)	654 (27.7%)	479 (20.4%)	6 (0.2%)	21 (0.6%)	19 (0.5%)	30 (0.8%)
Twi	25 (1.06%)	43 (1.8%)	27 (1.2%)	23 (1.0%)	57 (1.6%)	99 (2.7%)	73 (2.0%)	93 (2.5%)
Dioula	0	0	1 (0.04%)	1 (0.04%)				
Moré	1 (0.04%)	1 (0.04%)	0	0				
Hausa					0	1 (0.1%)	4 (0.11%)	6 (0.2%)
Arabic					3 (0.1%)	4 (0.11%)	0	1 (0.1%)
Total	**556**	**461**	**744**	**593**	**750**	**1366**	**767**	**801**

Table 18. Number and percent of loans by age groups in Ouessa and Hamile.

Note: Ouessa: Total pure loanwords by age groups across all languages = 2354
Hamile: Total pure loanwords by age groups across all languages = 3684

Similarly, for the age group variable among the Hamile bilingual community, the total raw scores of loan words show that there is no correlation with amount of borrowing and age. As every age group borrows almost in equal amounts of English loan words, except for the 27 -38 year group which has as many as 1241 loan words representing 33.7%. The rest follow with the 18 – 26 year group recording 684 loans word (18.6%) and the 40 – 50 and 54 – 64 year groups indicating equal amounts of loan words (671 each) representing 18.3% apiece as seen in Table 23.

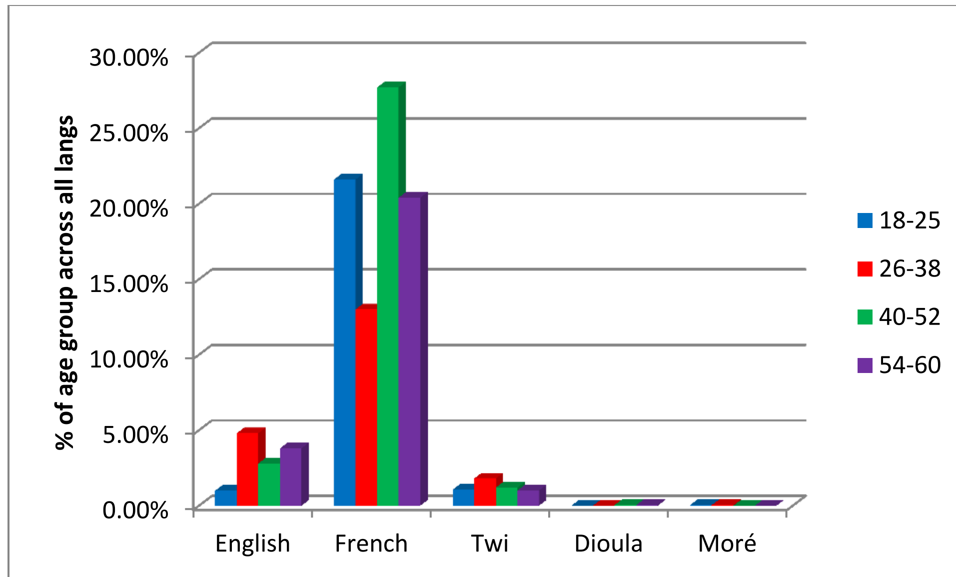

Figure 15. Percent of loanwords by age across languages groups in Ouessa

Figure 14 also shows the graphical representation of loans words from English. Except for the 27 – 38 year group, the slightly equal distribution of English loan words across all age groups might be due to the fact that English is the official language in Ghana as well as being a mark of prestige, social status and more importantly, the language that is considered to be the one that opens the window to the rest of the world.

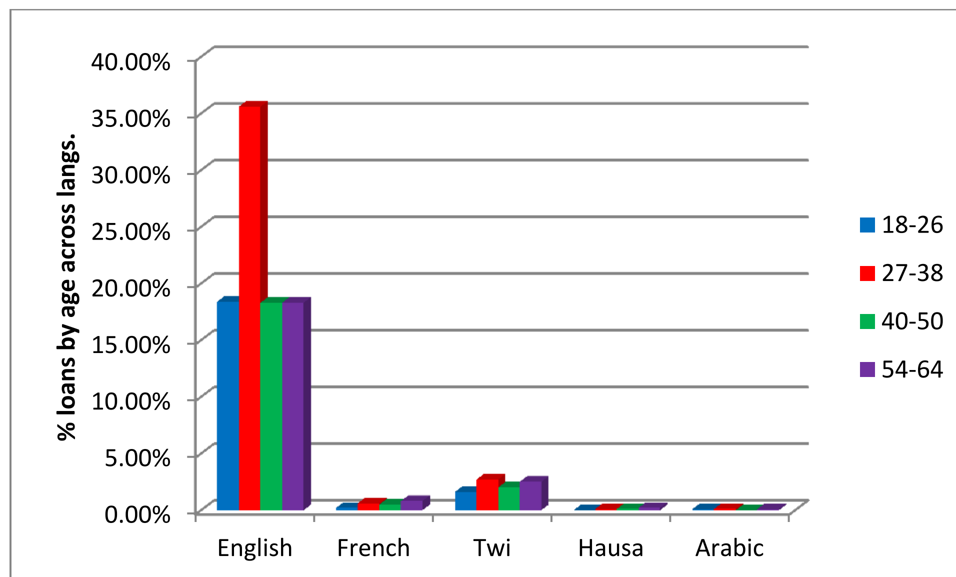

Figure 16. Percent of loans by age groups in Hamile

However, even though figure 16 descriptively shows no real relationship between most age groups and amounts of borrowing, the Chi^2 test results show that the relationship is significant at $\alpha = 0.05$ for all the major donor languages ($Chi^2 = 50.28$, $df = 12$, p-value = 1.2474E -06, $p < 0.0001$).

5.8 Summary

Two major statistical tools are used in this chapter to analyze the data. Borrowings according to registers, that include pure and hybrid loans are analyzed using descriptive statistical analysis and the chi-square methodology. For the pure and hybrid loans speakers from both language communities confirmed the claim that each one will borrow more from his own ex-colonial official language than the most widely spoken African languages in each country; Twi, Dioula and Moré for example. However, the borrowing patterns in most cases were not symmetrical. First of all, for the local languages for example, whereas Ouessa Dagara showed 118 loan words (5.02%) from Twi, not even a single loanword has been used by any of the (Ghana) Hamile Dagara throughout the data. This confirms the different levels of value placed on the local languages in the communities. Secondly, with regards to English borrowings a similar trend is portrayed by the speakers. For instance, English loanwords reached an appreciable percentage level of 12.32% (290 loan words) among the Ouessa Dagara bilingual speakers. But their Hamile counterparts only show a lesser amount of borrowings (N= 83 , 2.25%) from French. This again is attributed to the higher instrumental value of English over French among the two communities. In other words, this phenomenon is as a result of the economic mobility and prestige associated with the ability to speak English and Twi among the more mobile Burkina Dagara younger generation. The statistical results support one of my

hypotheses that Ouessa Dagara bilingual speakers will borrow more English words whereas their Hamile counterparts will borrow less French words. Apart from that, the results answer the research question which asks whether Dagara-French bilinguals' discourse will show borrowings from only French in view of the fact that English as a global lingua franca, exerts a lot of influence on almost every language in the world.

Analyzing lexical borrowings across all registers in the Ouessa community, French loanwords are more frequent (82.5%), than all the other languages, but show more significance in the religion and culture register (41.28%) as compared to the other registers. The religion and culture register is significantly higher than the rest due to the fact that Catholicism is the main religion among the Dagara in Ouessa and the celebration of Catholic Church events is common among them. As for loanwords usage among the Hamile Dagara, English also lends the highest number of loanwords across all registers (88.30%). However, it is in the health register that English recorded the highest lending (43.76%) comparatively. Apparently, many Ghanaians now resort to modern (Western) health service facilities than traditional Dagara (Ghanaian) health delivery methods since the introduction of western health insurance scheme in Ghana since 2002. For example, when asked to mention types of sickness that usually require Dagara local medical treatment, majority of the respondents reported that they have never been to Dagara local doctors for treatment whenever they fall sick. They also reported that Dagara traditional medical doctors are not registered under the national health insurance refund scheme and as such; do not have access to the national health insurance refund program. Finally, using the Chi-square test statistical analysis we found out that except for Dioula and Moré, borrowing is not equally distributed across registers for English, French, Twi, Hausa and Arabic. It means there is a

relationship between the dependent variables (registers) and the independent variables (donor languages).

For the level of education, gender and age variables the analyses are done by means of comparing their total raw scores and the use of descriptive and chi-square test to determine their significance levels. For the Ouessa Dagara bilingual-speaking community, the tests show that level of education is a determining factor in terms of number of loan borrowed from French. The higher one's level of education the more s/he borrows from the official language. The analysis of variance also indicates that amount French loanwords vary with one's level of education. Based on these results we fail to reject the claim that French loanwords does not vary with speakers' level of education. The results from the Hamile community also show that English, the official language of the community varies with level of education. It also shows that with every increase in unit of level of education there is a corresponding increase in amount of loans borrowed from the official language. The Chi-square test results also indicate that we do not have enough evidence to reject the claim that loanwords from English vary with one's level of education. Given that in both communities level of education is a significant differentiating factor with regards to amount of borrowings, this supports our hypothesis that highly educated Dagara-French and Dagara-English bilingual speakers will borrow more than the less educated ones.

Gender as a variable produces interesting results from the Ouessa community. Amount of French loans varies significantly with gender. The results here also indicate that female speakers borrow more from French than male speakers, but less from English and Twi. For French, it supports my hypothesis that women will borrow more from French than their men counterparts. Considering the results from Hamile community, we also found out that, loanwords from English varies with gender as the men borrowed more English words the women. This however fails to

support our hypothesis that women will borrow more from English than men. But the results for French and Twi support our hypothesis. Women tend to borrow more from French than men but borrow as many loans from Twi as the men.

The last but not the least social variable tested in this study is the age of speakers. As it is often assumed that younger speakers are more inclined to using new language varieties than older speakers, where the new varieties index modernity for example, our statistical test for the Ouessa community confirms the claim. For instance the p-values for all the languages, even including the official language (French) is usually less than the significance level of 0.05. Our results therefore support the hypothesis that younger speakers will use more loanwords than older speakers, for both Ouessa and Hamile bilingual-speaking communities. In conclusion, the official donor languages; English and French for Hamile and Ouessa respectively, vary with the speakers' age as they both recorded p-values less than the significance level of $\alpha = 0.05$. What we can deduce from these results is that, since English is the official language as well as indexing higher social status and economic mobility, everyone strives to move up the social ladder. Twi on the other hand is the language of daily economic struggle in Ghana, that is, the language that is used in the informal economic sector in particular. This also confirms that amount of loanwords from Twi may not be tied down to age factor.

CHAPTER SIX

LINGUISTIC ANALYSES OF BORROWINGS

6.1 Introduction

In this chapter I analyze the types of borrowings collected in the Dagara-speaking border communities of Hamile (Ghana) and Ouessa (Burkina Faso) from a linguistic point of view. As highlighted in chapter two, the analysis follows Winford's (2003) "borrowing typology", while also connecting to models used in other relevant literature on borrowings, such as: Gysel's (1992) model for analyzing loanblends among French-Swahili bilingual speakers in Lumubashi, DR Congo, Mesthrie et al.'s (2000) work on assimilated loans in South Africa, Thomason's (2001) study of 'contact influence innovation", Nakuma (2002) and Somé's (2004) compounding in Dagara, and Ngom's (2006) thesis on hybrid and cultural borrowings in Saint Louis, Senegal.

According to Winford (2003), there are structural constraints which regulate the type of lexical borrowings in bilingual discourse. The first constraint is the well-known "hierarchy of borrowability" which is a ranking of parts of speech depending on the ease and frequency with which they tend to be borrowed by speakers. The hierarchy begins with some of the lexical morphemes such as nouns, verbs, and adjectives referred to as "open-class" content items and ends with the grammatical morphemes or function items, that is, the "closed-class" such as pronouns and conjunctions. Whereas open-class items can easily be restructured by other forms (affixes) of the recipient language to either form new words or give borrowed or existing words a different grammatical category, closed-class items are by nature tightly knit and do not easily lend themselves to borrowing.

To analyze lexical borrowings in my corpus, I will follow Winford's typology presented in chapter two. The first category of loanwords, that is type A borrowings (2003:45), is comprised of "pure" loanwords that are defined as "total morphemic importation of single or compound words" that have "varying degrees of phonemic substitution". Therefore this section is the best suited to contain a general discussion of phonological and morphological adaptation. I will show the most important processes in the adaptations of loanwords in my corpus that follow target (Dagara) language structure closely. Under Type A loans, I maintained Winford's sub-category referred to as loan blends in which foreign and native morphemes are combined to form new words. There are numerous examples of this type in the corpus. As in Winford's model, loan blends will be subdivided into derivational blends and compound blends. Loanshifts are put under Type B which is further divided into two groups: semantic loans and calques. Under the semantic loans category, loans from the donor languages will take on different meaning when used in Dagara or pure loans are translated directly in the recipient language in a way to nativize their foreignness. Finally, purely native creations and hybridizationa are treated under Type C, referred to as native creations. We will now begin to discuss in detail the different ways in which Dagara bilingual speakers adapt and use loanwords in their daily communication and social interactions in Dagara.

6.2 Pure loanwords

Winford (2003:29) relies on Thomason and Kaufman's (1988) borrowing scale when stating that lexical borrowing can occur both in "casual contact" with the source language and in "close interaction" between recipient and source languages. The "casual" or "marginal" contact situations, Winford (2003:30-31) argues, include "conquest" and/or "colonization" in which case the source language becomes the language of instruction at schools and in the mass media which

then leads to established, elite bilingualism in the recipient language community. Though I strongly agree with Winford who classifies the African colonial situation as a type of "casual" or "marginal" contact situation, I argue that in many African situations the influence of former colonial languages can be much more intense than suggested by Winford's description. While not everyone achieves complete or balanced bilingualism in French or English due to the fact that these languages are only acquired through formal education to which access is limited, due to their social prestige motivations for borrowing can be very intense. In fact, one reason for the use of most of the pure loans in Dagara is not gaps in the lexicon that is not because native Dagara speakers do not have the equivalent words, but rather the social and economic gains that one can derive from the use of such borrowings. These are social advancement, competence, job and educational opportunities and in some cases individual wealth and power attributed to speakers of such donor languages. For example, with regards to a question as to why Dagara bilingual speakers mix Dagara with French or English, a 24 year old male university student from Ouessa explained that, at Dagara festive occasions if you begin to speak only Dagara (pure Dagara) you will not be given any seat. This means speaking only Dagara will rank the speaker lower on the social ladder.

To substantiate the argument of borrowing for prestige, Winford (2003) argued that lexical items such as *beef, pork, etc.* from French were borrowed into Middle English and acquired their own specific semantic meanings in official registers, even though these words already had their equivalents, *cow, pig, etc,* in English. The status of French, "the language of the court and nobility" in the Middle English period in England outranked that of English, "relegated to that of a less prestigious vernacular", much in the same way as borrowings from French or English can give their "sophisticated air" and greater suitability to elevated registers to Dagara.

The examples below confirm the useof pure loans from English and French from Hamile and Ouessa respectively. Though all or some of these words exist in Dagara,speakers prefer to use the pure form in their discourse:

(1) From a 30 year old male teacher in Hamile

Bɛ	mi	**take**	ni	a	fo	**history**	fo	**temperature**
They	HAB	**take**	your	DEF	your	**history**	your	**temperature**

They usually take the history of your illness and then your temperature

(2) From a 19 year old female student in Ouessa

Zongo	daa	mi	lon	**par**	**exemple**	mɛ	**lundi**	bii	**Mardi**
Zongo	market	HAB	fall	**for**	**example**	like	**Monday**	or	**Tuesday**

For example, Zongo’s market day can either fall on a Monday or on a Tuesday

6.3 Phonological adaptations

Phonological adaptations of loanwords in Dagara imply, first and foremost, adaptation to the prosodic structure of the borrowed word to Dagara prosodic structure. Bodomo (1997: 26 – 32) used 10 types of phonological word to illustrate the various syllabic structures common to Dagara (see chapter 3). With regards to vowel harmony, Bodomo (1997:20) argues that a specific type called “cross-height vowel harmony” (CHVH) is unique to Dagara. In CHVH, vowels produced with normal tongue root are referred to as [+ATR] and those produced with a retracted tongue root are called the [-ATR], Following these two types, Bodomo regrouped Dagara vowels into two natural classes such as in the example below:

(1) [+ATR]	i	e	o	u
[-ATR]	ɪ	ɛ	ɔ	ʊ

From this chart, vowel harmony can operate across different vowel heights as in [+ATR] **puo**’farmland’ or as in [-ATR] **pʊɔ** ‘stomach’, (Bodomo 1997:22). However the status of /a/ according to Bodomo (1997) is such that even though it is “realized phonetically as [-ATR], it

can occur both with with a set of [+ATR] and the set of [-ATR] vowels", as in ***anuu*** 'five' [+ATR] and ***awaɪ*** [-ATR] 'nine', p 23.

From the 10 types 5 were sufficient to explain the phonological structures of loanwords found in my corpus since my work dwells on the northern Dagara dialect, whereas Bodomo's work relies mostly on the central Dagara dialect. Table 25 shows the five word types that serve as prosodic templates to loanword adaptation in the corpus. It is not uncommon to find common English and Twi loanword adaptations in both communities' (Ouessa and Hamile) corpus. There are several of them but two adaptations from each language suffice at this point for illustration. From English we have ***biriki*** (brake) and ***Kirsimiir*** (Christmas). From Twi, we have ***Kɔsiɛra*** (*Kwasiada* - Twi word for Sunday) and ***kuri*** (*Nkurasi* - Twi word for village)

As Table 25 indicates, Dagara loanword adaptations tend to conform to bisyllabic or trisyllabic prosodic word templates, such as in *farsi* 'French', borrowed from *français* 'French' or *biriki* 'brake', borrowed from the corresponding English word. In both word types, syllables tend to be CV or CVC. Following Bodomo's analysis, the so-called secondary syllables in trisyllabic words can—but don't necessarily have to be bound morphemes, such as in *tokori* (in Dagara) 'holes' ('ntokuro' in Twi), a trisyllabic word adapted from Twi.

Following Bodomo's (1997) syllabic structure common to Dagara, the French loanword "Français" is adapted as follows. Since obstruent+liquid clusters are not allowed in onset position in Dagara, the CC cluster /fra/ undergoes metathesis to /far/, which results in the much more common CVC structure word-initially. As for the second syllable /sɛ/, given the lack of front midvowels in Dagara, /ɛ/ is adapted as /i/. In an attempt to follow the Type 1 CVCV structure, an obligatory primary syllable and an optional secondary syllable are created out of the

Type of word	Original form	Dagara word	Type of phonological processes
Type 1 CV+CV(+CV)			
French			
	messe 'mass'	[misa]	PS
	Pape 'Pope'	[paapaa]	PS, H
English			
	brake	biriki	CS, H
	class	kilasi	CS, H
Twi			
	ntokuro (holes)	[tokori]	CS, H, MP
	nkurasi (villages)	[kuri]	CL, CS, MP
Type 2 (CV:+CV)	*unattested in this corpus*		
Type 3 (CV:+CV:)	*unattested in this corpus*		
Type 4 CVC+CV			
French			
	Français 'French'	[farsi]	M, PS
	Vierge Marie 'Virgin Marie'	[Vɛrgo Marya]	CL, H
Twi			
	Abrofo 'White/ English'	[bɔrfɔ]	CL, CS
Type 5 CV+CVV+CV			
Twi			
	Kwasiada (Sunday)	[kɔsiɛra]	CS, PS, H
Type 6 CVC+CV+CVC			
English			
	Christmas	[kirsimir]	CS, M, H
Type 10 CVV+CVV			
English			
	Bucket	[boutʃi] (boukyi)	CS, PS
	Reverend father	[faara]	CS, H

Table 19. Prosodic word and syllable structures of plurisyllabic loanwords adapted from the major donor languages in Ouessa and Hamile.

Abbreviations of phonological processes: CL – clipping, CS - cluster simplification, E – epenthesis, H(vowel) harmony, M - metathesis, PS-phoneme substitution, MP - suffixing

loanword “messe” [mɛs] that has a CVC structure in French. The midvowel /ɛ/ is adapted as a high vowel (/i) and the vowel /a/ is inserted to serve as the nucleus of the second syllable that, using Bodomo’s (1997) words has /s/ as “a prenuclear margin”. Types 2 and 3 are unattested in this corpus because, **nyuuro** ‘drinking’, which CV: + CV for example in Bodomo’s (1997: 27) corpus will be **nyuur**: CVC in northern Dagara dialect.

In the French loan *pape* ‘pope’, the first nucleus is adapted as /a/ while the second nucleus undergoes what one might call either vowel assimilation. According to O’Grady et al. (2010) “assimilation” in general is the “influence of one segment on another, resulting in a sound becoming more like a nearby sound in terms of one or more of its phonetic characteristics”. Following this definition, I would posit that the underlying schwa sound at the end of the French word *pape* is unpacked and is realized, following a preferred bisyllabic template in Dagara, as the vowel /a/ resulting in [paapaa] in Dagara.

A sample of English loanwords in Table 25 that have undergone phonological adaptations or simple vowel insertions like their French counterparts are the following: brake [biriki], Christmas [kirsimir]; and (Rev) Father [faara]. The majority of English words captured in the data follow this type of adaptation in prosodic words with more than one primary syllable and and some cases an additional secondary syllable, in order to respond to Dagara internal syllabic rule such as CV+ CV for example. As I have already explained, since Dagara language structure does not permit obstruent-liquid consonant clusters such as /br/ and /kr/ and the words ‘brake’ and ‘Christmas’ have such consonant clusters, the adaptation has to go through metathesis or vowel insertion to produce syllable structures that conform to Dagara. As such, the following consonant clusters /br/ and /kr/ produce /bir/ and /kir/, respectively. It is also important to understand that < c > is not part of Dagara alphabet, and is always represented by [k] as in the

/k/ consonantal sound. Then again, the rest of the segments undergo vowel harmony as the /i/ sound is seen in all the segments of the words. But, since [kirsimir] falls under type 6 syllabic structure, that is (CVC+ CV+CVC), the last syllable shows the addition of a coda /r/ as in /mir/ in [kirsimir]. A for [faara] in 'father', the structure appears to be CVV+CV, which falls under type 10 in Bodomo's (1997) analysis. However, it appears that the loan adaptation occurs in the form of consonantal substitution in a bisyllabic word template: the inter-dental /ð/ is realized as a rhotic (/r/) at the onset of the second primary syllable of the word. Finally, there is again vowel assimilation in that the vowel in the first segment influences the second, producing [faara].

Apart from French and English, Dagara spoken by the two border communities also includes Twi loanwords, most of which are also phonologically adapted. It is therefore an important finding of this study that language mixing in West Africa does not only happen between local African languages and their ex-colonial official languages, but also between African languages that possess more instrumental values for the Dagara than others (see chapter 2.1.2 on the importance of Twi). In both the Ouessa and Hamile data, samples of phonologically adapted words from Twi into Dagara that need further examination are as follows (cf. table 25).

With regard to the Twi word *Abrofo* 'Whiteman/English', what takes place in the borrowing process into Dagara is 1) phonological adaptation through initial vowel deletion and 2) vowel insertion into /br/ consonant cluster. Lastly, 3) the vowel of the second syllable is harmonized with the first, producing the form [bɔrfɔ]. These phonological processes take place in order to make the loanword agree with the type 4 (CVC+ CV) of the Dagara word structure.

Similarly, the word *Kwasiada*, which is the Twi word for 'Sunday', has also found its way into Dagara by means of borrowing through phonological adaptation. This loanword has been so well assimilated that, most young Dagara speakers do not know its origin because it has

been 'perfectly' adapted into Dagara as [kɔsiɛra], a word internal structure that falls under Type 5: CV+CVV+CV. Again, the process can be reconstructed as follows. 1) The initial C+ glide in the primary syllable of the Twi word (Kwasiada) does not agree with Dagara, phonologically. This explains why the consonant+ glide [kw] in the onset of the first syllable is simplified to [ɔ], middle vowel between [w] and [a]. 2) The final consonant [d] in [da] in the Twi word, what Bodomo would call "the prenuclear margin", is substituted by the rhotic [r]. 3) The middle vowel sequence [ia] changes to [iɛ] or [i] harmonises with with [ɛ]. It appears that adaptations of stops in onset position in final syllables are quite frequent in Dagara, as also indicated by the phonological adaptation of [fɑːðər] from 'Reverend Father' that became [fɑːrɑ].

It is important to mention that from Table 6 (cf 3.2.1) there are basically 6 Dagara phonemes that look like consonant clusters – (ky, gy, ny, gb, kp, ngm or mw or ŋm), but they are not. The internal structure of *kpékpé* for example could be a CV+CV. Similarly, the voiceless alveo-palatal affricate /ky/, as in *kyén* 'go', and the voiced alveo-palatal affricate, /gy/, as in *gyir* 'look' are also part of northern Dagara consonantal inventories. However, apart from *kpékpé* which is a native creation, the other five Dagara phonemes are not attested in loanword adaptations in my corpus that appear to abound with simple segments, matching loanwords to preferred phonological structures in the target, Dagara, language.

Finally, due to the prevalence of vowel harmony in Dagara a structural constraint, one would genuinely expect that vowel harmony is imposed on the various borrowings from donor languages. And yet, there have been unexpected outcomes in the borrowing patterns from the two Dagara communities under study. I have mentioned earlier in this chapter that phonological adaptations of loanwords comply with Dagara prosodic structure since vowel harmony in Dagara operates across different vowel heights; those vowels produced with advanced tongue root

(+ATR) and with a retracted tongue root (–ATR). However, it has been observed that loanwords such as *changer* (to change), *former* (to form) *développer* (to develop) et cetera, borrowed by both francophone and Anglophone Dagara, have to undergo different phonological adaptations, particularly from the francophone side due to the influence an [e] vowel sound on the infinitive form of each borrowed word. We recall that Dagara form the progressive form of verbs by adding a morpheme to the root that corresponds to the phoneme /ɛ/ (see Table 25). So, as expected, this rule has been applied for all borrowed verbs for the Anglophone Dagara community. But due to the nature of Dagara vowel harmony system, for the Burkina Dagara on the other hand, loanwords from French ending in *-er* are conveniently adapted phonologically to [e] to be able to form a progressive in Dagara. For example, whereas the Anglophone Dagara would say [tʃeindʒirɛ], the progressive of 'to change', the Francophone would say [tʃãʒere]. The [-re] versus [-rɛ] phonological patterns cue dialectal distinctions and represent outcomes that were not expected before undertaking this study. As we have seen it, I argue that it is the structural constraint of the donor languages (French in particular) as well as the vowel harmony system in Dagara that bring about these unexpected borrowing patterns among bilingual speakers of the two border communities.

In conclusion, one can state that the types of loanwords listed in Table 25 are not only common in one linguistic community, but they are found in both communities; that is, in Ouessa (among the francophone Dagara) and in Hamile (among anglophone Dagara). This means that even though "Français" [farsi], "messe" [misa] are loans from French, they are also common among anglophone Dagara due to common evangelization activities around the 1930s in the Dagara homelands, and are always used as if they were pure Dagara words Furthermore, "Christmas" [Kirsimiir], "(Rev) "father" [faara], and "Kwasiada" [kɔsiɛra] which are apparently

referred to as or deemed anglophone loans; they are surprisingly used by the francophone Dagara community as assimilated loans. This phenomenon, I argue, is the result of the frequency of contact between members of the two border communities resulting in many shared, integrated or assimilated loanwords. In addition, many Dagara bilingual speakers do not realize that these words have been borrowed from other languages. However, following the cross-height vowel harmony system in Dagara, a structural constraint is bound to be imposed by the various borrowing and donor languages. Apart from the presence of common phonological adaptations across each border community, these structural constraints have also resulted in unexpectedly different outcomes in the borrowing patterns from the two Dagara communities under study.

6.4 Morphological adaptations

I will discuss in this section in detail how morphemic units such as affixes, parts of speech and roots of words are formed in Dagara and which of them are transferred into the production of loanwords found in my data. As mentioned in chapter 3, in the Dagara noun class system nouns take their plural form by adding the bound morphemes [-ri] or just [-i] to the noun base. In some cases, depending on the orthography of the word and or the class of the noun, the morpheme [-ɛ] is added. Other singular nouns such as those expressing professions or human attributes also take the free morpheme [minɛ]. It is therefore not strange in this community of French-Dagara and English-Dagara bilingual speakers who have been in long-term contact with the two official languages and the main African languages begin to nativize borrowed words, as Winford (2003) rightly puts it, by adding a native morpheme (suffix) to many frequently borrowed stems. The nativization of borrowed words does not occur in a vacuum. The following examples go a long way to shed light on how Dagara ends up combining imported stems with native morphemes: pluralization with -ri, -i, -minɛ, and –ɛ as shown in Table 26.

Among Type I A borrowings identified by Winford (2003:45), we find that Dagara-English and Dagara-French bilingual speakers resort to morphological adaptation of English, and French loans to form new words in Dagara. These are done by way of affixation. We will see that in my corpus we have borrowings of a verb stem or a noun base that is affixed by a native – recipient or target – morpheme.

Plural suffix	**Singular**	**Plural**
(-ri)		
	pɔgsira (young woman)	pɔgsiri (young women)
	nura (cock)	nuri (cocks)
(-i)		
	vaar (leaf)	vai (leaves)
	kpaar (occiput)	kpai (occiputs)
(-minɛ)		
	ba (friend-masc)	baminɛ (friends - masc)
	kyɛnɛ (friend-fem)	kyɛnminɛ (friend-fem)
(-ɛ)		
	tam (bow)	tamɛ (bows)
	san (debt)	samɛ (debts)

Table 20. Plural formation in Dagara (adapted from Bodomo 1997)

We have already discussed in chapter two, the different ways in which Dagara nouns are grouped or classified and have relied on this classification throughout the previous analyses. Following Bodomo's (1997) noun class system it is established that there are ten classes of Dagara nouns based on their singular and plural affixes. However, only the first two classes (class I and II) shown in Table 7 above are important to analyzing some type of loans found in the data. In my study, as expected, the loan bases and stems are mainly from the major lending languages such as French, English and Twi. The loans are mostly lexical morphemes such as nouns and verbs which easily submit themselves to borrowing. The majority of the loans are nouns which are found in the corpus in their plural form. As we will see from the examples that

follow, the inflectional processes follow Dagara affixation rather than that of English and French or Twi.

Following the Dagara morphemic system as exemplified above, English French and Twi loans take the following plural forms; doctor – *doctori*; infirmière – *infirmièreminɛ*; machine – *machinɛ*; cars – *kai*, and so on (cf tables 27 and 28). These examples are derived from the relevant important noun classes that other nouns follow in their plural forms.

Plural suffix	**Derivation by affixation:** **Imported stem + native affix (plural marker)**	**Source language (plural):** **English**
(-ri)	Nurs*iri* [nɛsiri]	Nurses
	Doct*ari* [dɔktɑri]	Doctors*
	Polis*iri* [polisiri]	Police*
	Moto*ri* [motori]	Motors*
	Sist*ari* [sistɑri]	Sisters
	Teach*ari* [titʃɑri]	Teachers*
	Photo*ri* [fotori]	Photos
	TV*iri* [tiviri]	TV (television)*
	Colleg*iri* [kɔlɛʤiri]	Colleges
	Thousan*ɛ* [tɑuzinɛ]	Thousand
	Comput*ari* [kɔpiutɑri]	Computers
	Broth*ari* [burɑdɑri]	Brothers
	Class**iri** [kilɑsiri]	Classes
(-i)	Ca*i* [kɑi]	Cars*
(-n**ɛ)**	Machi*nɛ* [mɑʃimɛ]	Machines
		TWI
(-ri)	Kosie*ri* [kɔsiɛri]	Kwasiada* (Twi-Sundays)
	Kania**siri** [kɑniɑsiri]	Kania (Twi- lanterns) *

Table 21**:** Hamile. Nouns (imported stem + native inflectional affix)

However, there are a few irregular nouns to which one has to pay particular attention when forming plurals in Dagara. We can argue at this point that based on the above examples all Dagara plural morphemes are inflectional suffixes.

The Dagara equivalents of words marked by an asterisk are commonly used in both communities as assimilated loans. As we will see in the analysis, the examples show how phonologically and morphologically assimilated loans end up being part of the bilingual Dagara language repertoire. At this point, our next discussion begins with the analysis of the integration of French and English verbs into Dagara (cf. Tables 23 and 24). I will show that the root of English and French verbs are inflected with Dagara suffix to show tense and mood.

Plural affix	**Derivation by affixation: Imported stem + native affix (plural marker**	**Source language (plural): French**
(-ri)	Classe***ri*** [kilasiri]	Classes (classes)
	Français mot***iri*** [frãsɛ motiri]	Mots Français (French words)
	L'abbé***ri*** [lɑberi]	Abbés (catholic priests)
	Gobelet***iri*** [gobilɛtiri]	Gobelets (cups)
	Valise***ri*** [vɑlisiri]	Valises (bags)
	Seau***ri*** [sori]	Seaux (buckets)
	Bus***iri*** [bysiri]	Buses (buses)
(-mine)	Docteur***mine*** [dɔktœʀminɛ]	Docteurs (doctors)
	Médecin***mine*** [medsɛ̃minɛ]	Médecins (doctors)
	Gardien***mine*** [gaʀdjɛ̃minɛ]	Gardiens (security men)
	Douanier***mine*** [dwɑnjeminɛ]	Douaniers (custom officers)
	Monsieu***ri***/monsieur***mine*** [məsjøri/məsjøminɛ]	Messieurs (sirs/teachers)
	Monpere***mine*** [mɔpɛʀminɛ]	Mon pere (rev father)
	Masoeur***mine*** [mɑsœʀminɛ]	Ma soeur (Rev sister)
	Infirmière***mine*** [ɛ̃fiʀmjɛʀminɛ]	Infirmières (nurses)

Table 22. Ouessa: Nouns (imported stem + native affix)

Loanwords from the data indicate that when verbs are borrowed into Dagara, they are used as base verb forms and added affixes of aspect or tense, as they either take the progressive or the future affixes. However, there seems to be an interesting phonological influence on the part of verbs borrowed from French and these typologies are used only by the francophone (Ouessa) Dagara. From tables 29 and 30, I will base my argument on some cognates in order to show from a phonological point of view how different are the progressive form of the verbs between francophone and anglophone Dagara borrowings. This analogy tries to provide an answer to one

of my research questions that asks how the anglophone and francophone Dagara are able to interact without creating communication challenges, since the Dagara-French routinely borrow from French and the Dagara-English behave similarly with respect to English.

Progressive affix (Dagara)	**Derivation by affixation: Imported stem + native affix (prog. morpheme)**	**Source Language: English**
(-irɛ)	Reverse***rɛ*** [rivɛsirɛ]	Reversing
	Mix***irɛ*** [miksirɛ]	Mixing
	Rotate***rɛ*** [roteitirɛ]	Rotating
	Change***rɛ*** [tʃeindʒirɛ]	Changing
	Record***irɛ*** [rikɔdirɛ]	Recording
	Teach***irɛ*** [titʃirɛ]	Teaching*
	Taki***rɛ*** [teikirɛ]	Taking
	Usi***rɛ*** [ju:sirɛ]	Using
	Retard***irɛ*** [ritɑ:dirɛ]	Retarding
	Choosi***rɛ*** [tʃu:sirɛ]	Choosing
	Circulati***rɛ*** [sɛkuleitirɛ]	Circulating
	Deviati***rɛ*** [divietirɛ]	Deviating
Future affix (Dagara)	**Native auxiliary + imported stem + native affix**	**Source language: English**
(na + verb + i)	Na check***i*** [tʃɛki]	Will check
	Na teach***i*** [titʃi]	Will teach
	Na lock***i*** [lɔki]	Will lock
	Na cross***i*** [kurɔsi]	Will cross
	Na challeng***i*** [tʃɑlindʒi]	Will challenge

Table 23. Hamile: Verbs (imported stem + native affix)

The cognates corresponding to English verbs ‘change’, ‘balance’, ‘form’, ‘pomp’, and ‘develop’ were extensively found in the data across both communities, but the phoneme of the French infinitive morpheme indicates the difference with regards to the general northern Dagara progressive affix. For example, the progressive form of the English verb ‘to change’ is “changing” which, when borrowed, becomes *changirɛ* [tʃeindʒirɛ] following the general progressive rule among the English-speaking Hamile Dagara in Ghana. The French version, “changer” (infinitive), when borrowed and adapted to Dagara, becomes *changere* [tʃãʒere] in the progressive form of the loan among the French-speaking Ouessa Dagara in Burkina.

Progressive affix (Dagara)	Derivation by affixation: Imported stem + native affix (prog. morpheme)	Verbs (infinitive form) Source language: French
(-re/ré)	Balance***re*** [balãsere]	Balancer (to swing/alternate)
	Varie***re*** [varjere]	Varier (to vary)
	Pompe***re*** [pɔmpere]	Pomper (to pomp)
	Change***re*** [ʃãʒere]	Changer (to change)
	Double***re*** [dubilere]	Doubler (to repeat a class)
	Deplace***re*** [depilasere]	Deplacer (to shift/ move)
	Utilise***re*** [ytilizere]	Utiliser (to use)
	Sensibilise***re*** [sãsibilisere]	Sensibiliser (to sensitize)
	Forme***re*** [fɔʀmere]	Former (to train)

Table 24. Ouessa: Verbs (imported stems + native affix)

The form [tʃãʒere] violates the general Dagara progressive morphemic rule that is [tʃeinʤirɛ], but the verb form in Ouessa is realized as such due to the influence of the vowel in the final syllable of the French infinitive ending [-ʒe] in *changer* 'to change'.

Below are other loans (verbs) selected from the data to illustrate the Burkina Dagara language community's preferred progressive verb forms that, I argue, are not in conformity with the expected northern Dagara process of progressive formation, but that are in accordance with source language preferences for the vowel /e/ in the French infinitive. This evidence for source-language preference of the Burkina-Dagara in progressive tense formation is quite unique and is very likely part of on-going dialect differentiation between the two border communities. I will go a bit further to try to throw more light on this process after a study of the list of verbs shown in Table 31: As we can see from Table 31, the /e/ as in -er] or [-é] sound influences the preceding vowel sound of the progressive [ɛ] known in the northern Dagara dialect. In the northern Dagara the progressive form of a verb is formed by adding [-rɛ] to the stem/root of the word as in the examples in Table 32. As I mentioned earlier, (cf Table 23 and 26) these progressive morphemes are not only known among the Hamile Dagara, but they are also known and used by the Ouessa

Dagara when using Dagara stems, even though verbal loans from French are processed differently due to the French influence.

Cognate (infinitive)	Ouessa-Dagara (progressive)	Hamile-Dagara (progressive)
Balancer/ to balance	Balance→ [balãsere]	Balancing → [balãsire]
Former/to form	Forme→[fɔrmere]	Forming →[fɔmirɛ]
Pomper/to form	Pompe→[pɔpere]	Pomping →[pɔmpirɛ]
Développer/to develop	Développe→[develɔpere]	Developing→[divɛlɔpirɛ]

Table 25. Progressive varieties in Ouessa and Hamile

Verb	Progressive	Verb	Progressive
di (to eat/eat)	dirɛ (eating)	ku (to kill/kill)	kurɛ (killing)
lo (to fall/fall	lorɛ (falling	da (to push/push)	darɛ (pushing)

Table 26. Northern Dagara progressive rule

In the opinion of Dagara elders, mixing Dagara with foreign words; particularly with Twi or other African langages shows loss of ethnic identity or failure to recognize the importance of one's language.

Finally another type of loan to be analyzed here are future forms whose meaning is similar to the English periphrastic future forms *will check, will teach* (cf. Table 32). Future is expressed in Dagara by the prefix *na* that is affixed to the verb stem. However, words borrowed from the lending languages undergo another morphological process before taking the future (free) morpheme [na]. If a word ends with a consonant or a closed vowel such as /k/ and /e/, an [i] is added when processing the future of the loanword. So, 'will check' is expressed as *na checki* or *na chaki*, and the verb 'teach' in future ('will teach') is affixed as *na teachi*. For loans expressing future tense, data show that the francophone Dagara also use the same forms as their

Anglophone counterparts. Even most of the Ouessa Dagara participants' discourses indicate only Anglophone loans such as *teachi*, *checki*, *feeli* and so on, in their linguistic repertoire.

Other interesting borrowings from Twi, Hausa and French are discussed here to show further morphological adaptation processes. In Twi, the word-initial prefix [n] as in the word *nkurasi* 'villages' marks plurality. The stem of the word is adapted into Dagara as an abbreviated noun base and takes the suffix [-ri] which is a plural marker in Dagara, thus resulting in *kuri* for 'villages'. As the [nk] consonant cluster is not allowed in Dagara, the Twi plural marker [n-] is dropped and the word undergoes clipping, which finally produces a bisyllabic plural noun *kuri* instead of *kurasi**ri**,* which would be the form without clipping the noun stem to confirm to the bisyllabic template. As mentioned earlier, this bisyllabic CVCV word form conforms to Dagara phonological structure, as some Dagara word structures have optional secondary syllables that are bound morphemes, as [-ri] in *kuri 'villages'*. Moreover, the stem-suffix word structure of Dagara is also maintained.

Loanwords are created due to the more general process of integrating loanwords into the morphology of the recipient language. In this situation, the loanwords undergo various morpho-phonological processes. One such process, clipping, has been discussed in the previous section under phonological adaptations, but according to Bodomo (1997), in Dagara word formation processes, the "morphological component supplies the various affixed and compound forms" that are taken as input to the next process, which is the application of a lexical rule that modifes the forms "in accordance with the phonological requirements" (p 61). Bodomo's analysis therefore suggests that the morphological analysis of Dagara words cannot be treated in isolation, that is, without linking it to syntactic and phonological processes. Below (sample 6.1) are excerpts of

morphologically assimilated loans from French, English, Twi, and Hausa that have undergone some form of clipping and are now assimilated into Dagara.

O'Grady et al. (2010: 152) defines clipping as "a word formation process that shortens a polysyllabic word by deleting one or more syllables". Clipping is also referred to as "truncation" and it can take two forms. If the end of the word is dropped, the process is known as "apocope" as in *laboratoire* becoming *labo* in French. If the first part of a word is deleted, the term that describes this type of formation is called "apheresis" as in the French word *autocar* that became *car*. Dagara is not an exception to this type of word formation. In both the Ouessa and Hamile language communities, the data is replete with various types of clipping. Once these words find their way into the language, they tend to be quickly assimilated and only a few monolingual Dagara speakers might have any intuitions about the etymology of such assimilated words. As a result they are assumed to be fully assimilated Dagara words.

At this point one needs to go back into Bodomo (1997) Dagara noun class system to be able to understand and describe the morpho-phonological adaptation of some of the following loans into Dagara.

(2)

A	Ghana	**nakoli**	be	Mi	kyena	fo	ti	yiiri.
Def	Ghana	**school**	they	Hab	go	you	until	forget

Ghana's educational system is too long

In utterance 6.1 recorded in Ouessa from an 18 year old female High School student the word *nakoli* corresponds to a loanword adapted from the French noun phrase 'une école' composed of an indefinite article and a noun. According to the most likely analysis, also attested in many varieties of French-lexified Creole (Hold 1989), the noun phrase is first reanalyzed as a single noun /ynekɔl/ that undergoes apheresis, which means that during the morpho-phonological

adaptation processes it loses the unstressed syllable [y] at the beginning of the word, resulting in [nekɔl], since syllables formed by a single vowel are not allowed in Dagara word structures. The resulting syllable undergoes vowel harmony, thus producing [na]. The second syllable [kɔ] is conforming to the Dagara segmental inventory and therefore it does not undergo any substitution. Then finally, in Dagara, all [e] are oral whether they are at the word intial or final position. As such, the nucleus of the final syllable from 'ecole' is also undergoes vowel substitution as [e] is replaced by [i], the only high front vowel that is part of the Dagara vowel inventory. Other interesting examples of morphological adaptation of loans are from Twi and Hausa, some of the major donor languages found in the data across both language communities.

(3)

Ti	mi	Kyen	na	Tida	**fos**
We	hab	Go	fact	buy-inf	used clothes (Twi)

We always go there to buy used clothes

Example 6.3 is from a female high school student fro Ouessa community who said said she usually crosses the border to Hamile to buy used clothes. In the corpus we have the following loan from Twi below: (fos: used clothes). This is from the Twi expression *fofoofo* (cheap): It is an expression from street vendors who usually try to attract passers-by to buy from them at cheap prices. 'Fofoofo' seems to undergo clipping and an affixation by the plural marker (s) from the word 'clothes' in order to maintain the plural form of the shortened word. The last two syllables of 'fofoofo' are dropped creating (fo-) and the English plural marker (s) from 'clothes' is added which finally becomes 'fos'. That is, instead of saying for example 'fofoofo clothes', it is shortened to 'fos' as in (3) above. Lastly, in example (4) we can see an adaptation from Hausa by a 65 year old male who is a University graduate and a retired high school teacher. The original word from Hausa is *baayan-jeeda* where *baayan* means 'behind' and *jeeda* means 'house'.

(4)
Me n kyeni **bangyira** (Hausa)
Like I go **behind the house**
I went to the restroom (toilet)

Before we begin to use modern toilet facilities in West Africa, toilet rooms were built separately and usually positioned behind the main house. However, in order to avoid the use of the unpleasant word for toilet in Hausa "saakyi", a euphemism is found to be more appropriate, that is, reference to the location of the facility rather than the facility itself. Even though Dagara also has a euphemistic way of referring to the word 'toilet' or 'to go toilet', as in example (5) below.

(5)
N koli **da** **puori** ti faa n menga
I go **house** **behind** to free my self
I went to the restroom

The Hausa word might have been borrowed for stylistic reasons or for convenience as the Dagara version is long. Now, as we can see, unlike the French expression in example 6.2, the first part *baayan* 'behind' of the Hausa expression *baayan-jeeda* 'behind the house' is not reanalyzed as a single noun but rather it is kept as a prepositional phrase where the first part is goes through morphological process such as clipping shortening the word to a single syllable: *ban.* This syllable is, in principle, conform the Dagara prosodic word templates. Then from *jeeda*, a CVVCV structure, the onset [j] is adapted to this phoneme /gy/ as in /ʤ/ in English. The sound [j] does not actually exist in the Dagara phonemic inventory. The rest of the word finally goes through the last process in which the two vowels /ee/ is raised to [i], as in many previous examples. Some speakers maintain the final syllable [da], while others make an obstruent to rhotic ([r] to [d]) substitution, although one often hears a flap more than an actual trill /r/. Having gone through all these morphological processes, the Hausa loan *baayan-jeeda* is then assimilated into Dagara and pronounced as *bangyida* or *bangyira* 'restroom'. As mentioned earlier, the

Dagara youth as well as some adults who particularly are not Dagara-English-Hausa bilingual speakers do not realize that *bangyida* is borrowed from Hausa. The next chapter discusses *compounding* as another borrowing strategy among Dagara bilingual speakers' repertoire.

6.5 Compounding

Literature (Fagyal et al. 2006) on new word formation confirms that compounding is one of the common sources of new nouns today. From a syntactic point of view, the following common combinations can be highlighted with examples taken from French (Fagyal et al. (2006): Noun+Noun (*bateau mouche* 'passenger boat on a river'), Adjective-Noun (*rouge-gorge* 'robin'), and Verb-Noun (*ouvre-boîte* 'can-opener'), In contact settings, it appears that any of the two elements of a compound can come from the donor language. For instance, Winford (2003) cites work on Pennsylvania German which attests examples, such as "blaumepie" (from plum + pie), a Noun + Noun compound where *blaume* is a German word and *pie* is an English word.

Nakuma (2002), a native Dagara linguist, posits that Dagara word division in a sentence may be "simple, complex, or compound". His study shows how some Dagara words are written separately and others are written together, with the latter indicating their compound status. Among his examples of words written separately are those that are a noun plus a predicative adjective such as *bieh* (child) and *kpong* (big) are written *bieh kpong* 'the child is big' since in Dagara the BE verb is dropped between the noun and the predicative adjective, thus the two words are written separately as in the example above. The commonest compounds in Dagara are the Noun + Nouns type as in *kano* 'studies' and *die* 'room', giving *kanodie* 'classroom'. Data from the two border communities also exhibit combinations of English and Dagara words, such as the English and Dagara Noun + Noun combinations *doctor* + *yir* 'doctor' + 'house' = 'hospital' and *school* + *bie* 'school' + 'child' = 'pupil' as well as the Dagara and. Most of the

compounding come from participants' response to questions related to health register (module 2, question 2.3) and education register (module 5). In the health register the frequency of *doctoryir* is the highest: this noun compound appeared more than 50 times among both Ouessa and Hamile Dagara speakers. Everyone mentioned that he/she usually goes to the *doctoryir* for medical treatment when answering this question; *Nyinɛ na fo mi kyen bɛti kaa a fo baalo?* 'Where do you usually go for medical treatment whenever you fall sick?' in module 2.3. As for *schoolyir* or *schoolbie,* these compounds were also produced in an attempt to answer questions relating to whether one needs education to succeed in life and which side of the border community has a better education system. These compounds are well assimilated into Dagara to the extent that particularly the more youthful Dagara-English and Dagara-French bilingual speakers use them as if they were pure Dagara words. Table 27 shows a list showing English-Dagara compounding used in both communities. As far as compounding is concerned, it is surprising to note that there were no French Dagara-Dagara examples of compounding from the French-Dagara bilingual speakers in the data. Both communities share the same lexical items showing English-Dagara compounding as exemplified in Table 27. This further underlines the importance of the social influence of English on the Francophone Dagara at the border. In the next section I will continue to discuss how new words are borrowed through loan translations.

Form	**Compound word**	Source language
Noun + noun	Schoolbie (school child)	Student/pupil
	Schoolbiir (school children)	Studens/pupils
	SSSbiir (senior secondary school children)	Senior high school students
	Schoolyir (school house)	School
	Schoolyie (school houses)	Schools
	Doctoryir (doctor's house)	Hospital
	Doctoryie (doctor's houses)	Hospitals

Table 27. English-Dagara compounds

6.6 Calques

In Winford's (2003) model calques are classified under Type I B borrowings**.** They are described within a type of loanshift that can take two forms: (1) "extension" or semantic loan representing a shift in the semantics of the native word under the influence of a corresponding foreign word, and (2) "loan translation or calque" that are "a combination of native morphemes in imitation of a foreign pattern" (p. 45). In this section, I will focus on calques, as semantic extensions were unattested in the corpus. Winford's (2003) study reported loan translation of the The English word 'skyscraper', *wolkenkratzer* in German and *gratte-ciel* in French, is one of the most common examples of calquing borrowed by many languages from English. Morpho-syntactically speaking, calques can include compounding, derivation, or prepositional phrases in the receipient language. The latter is a particularly frequent way of 'translating' semantic loans into French, such as in *jardin d'enfant* 'kindergarten' in Canadian French and *lune de miel* 'honeymoon' in all dialects of French (Fagyal et al. 2006).

Data collected from the two Dagara-speaking border communities show that loan translations are an important Dagara strategy of incorporating foreign meaning into the language either to enrich its lexical stock or for the purpose of signaling ethnic identity. This may also be a strategy of nativizing foreign elements in order to keep up with the need for modern expressions, trends, objects, and events. In this regard, due to centuries of the cultural and religious contact between the Dagara and the French and the British, several new discoveries were made and the need to use those new items in life required a translation. Religious and cultural terms are common in both French and English (*All Saints* is *Tous Saints* in French), but for the sake of convenience I will give only their English versions in the following analyses. Though loans such as 'Christmas', 'Easter', and 'Priest' have their Dagara phonological adaptations such *kirsimiir,*

itur, and *pirisi,* respectively in Dagara, other bilingual speakers alternate between loan translation and the pure or the adapted loans. For example, a question in module 3.3 triggers the altenate use **kirsimiir/Christmas/ Yezu dɔgfo/ Noël tigr** on one hand and **toussaints/nirsonzaa tigr/New year** on the other hand.

In module 3, question 3.3: "Puoru bagr kpɛɛ kang benbe fu mi kyenii? (what special religious festivals do you often celebrate in this area?), these speakers produced the following in their discourse: From Ouessa, a 35 year old female participant prefers **Noël** for 'Christmas', but uses the loan translation **Nirsonzaa tigr** for 'All Saints day'. On the other hand a 27 year old male participant chooses **Yuon paala** for 'New Year' at the beginning and **Toussaints** (All Saints) instead of the translation toward the end of the sentence**.** From Hamile, some participants alternate between both the 'pure' loans and the translation in the same discourse. Then this 48 year old female teacher alternates between English, Dagara and Twi as follows: **Christmas** at the beginning, **Bornyɛ** (Twi word for Christmas) later in her sentence and back **Yezu kuu** (death of Jesus) for Easter at the end.

Table 28. Calques used in Hamile and Ouessa

Calque with literal translation	**English translation**
1) *Nirson zaa tigr* Saints all day	All Saints day
2) Yezu dɔgfo tigr Jesus' birth day	Christmas
3) Yezu kuu tigr Jesus' death day	Easter
4) *Vergo Marya tengvula tigr* Virgin Mary ascension	Assumption
5) Youn paala Year new	New year
6) Bagr maalɛ	Priest/ Rev. Father

Mass celebrant	
7) Kanodie teaching room	Classroom
8) Dagol literally: walking cane	Correct mark symbol
9) Dakyara literally: crossed stick	Wrong mark symbol

Table 28. Calques used in Hamile and Ouessa

6.7 Semantic change

Semantic change, according to Blank (1999), is the "evolution of word usage usually to the point that the modern meaning is radically different from the original usage" (p 62). He argues further that semantic change has to be studied in relation to the etymology of the word or the circumstance that led to its change. I find in Dagara-French and Dagara-English bilingual speakers' discourses, new meanings given to loanwords that have historical, cultural and social connotations; circumstances that promoted the semantic change in the first place, and create a new expression in Dagara, as well.

Blondé et al's (1983) and much later on Lafage's (2002) studies on lexical variation of French in West Africa with particular focus on Côte d'Ivoire shed considerable light on semantic change of words in time and space. Both authors studied syntactic and lexical change in French spoken by working-class speakers in Abidjan, referred to as Français Populaire d'Abidjan, in order to ascertain its influence and expansion in the country. They found that some French words portray Ivorian context rather than referring to French spoken in the Hexagon. In other words, the French words as they are used in Africa do not carry the same type of broad range of meanings that the French language prescribes for them in their original contexts. It stands to reason that words listed in any standard dictionary can have different meanings depending on the contexts in which they are used. However, as we will see, the examples below are not the common synonyms as

one may attempt to conclude; rather the words have specific meanings in the target language community which could not be understood by a native speaker of French hearing it for the first time. For example, the expression *deuxième bureau* ‘second office’ means a *mistresss* in Burkina Faso and Cote d’Ivoire (Lafage 2002). This same expression, when used in France, may refer to someone who really holds two offices or jobs. The word *deuxième bureau* has been coined for married men who are cheating on their wives. Similarly, Dagara bilingual speakers can alter the meaning of loanwords that they add to their linguistic repertoire. Examples of loanwords found in the data in the two communities which have their meaning altered compared to their meaning in the donor language are as shown in Table 29. As we have indicated in Table 29, these are but an incomplete list of words just to illustrate how loanwords change meaning in the Dagara context. ‘Feel’ and ‘check’ are used in the health register and which are understood by members of both border communities.

However, a visitor (a native speaker of English) who does not live there may have trouble understading the contextual meaning of these words. The use of ‘gas’ in this context also refers to accelerate or reve a car. It might have a connection with the ‘real gas’ that runs into the engine when you step on the accelerator pedal. ‘Vote-vote’ has to do with the end results of political campaigns. After all politicians ask for is to vote for them. The use of ‘chew-and-pour’ referring to rote learning is also common in Ghana in general. The ability to reproduce a text or a lesson verbatim is synanimous to literally chewing and spitting out. Finally, ‘Centure’ for example has its Dagara equivalent *dɛrpɛrlɛrɛ* ‘spider’, but some bilingual speakers choose use it to denote ‘shingles’ due to the fact that this skin disease can spread on the body just as a belt can be wrapped round one’s waists or abdomen. In other words, what we have here is a metaphor that

also undergoes metonymic extension from the denotational meaning of an object (skin rash) to that of a location of that object (body part).

Loanword	English equivalent	Context and literal translation
Feel*	To examine medically	Bɛ ***feel*** a fo zii They **feel** EMPH your blood They examine you medically
Check*	To examine medically	Doctor na ***check*** fo Doctor FUT-**check** you The doctor will examine you
Gas (to gas)*	To reve a motor cycle	Fo mi ***gas*** ni a motor You HAB-**gas** DEF motor You reve the motor cycle
Vote-vote*	Political parties	A ***vote-vote*** dem ti wana ka DEF **vote-vote** those PERFcome here The political parties came here
Material (Hamile)	Fabrics	N mi ganga ti da ***materials*** I HAB-go INF-buy **materials** I usually cross there to buy fabrics
Chew-and-pour (Hamile)	To reproduce verbatim (rote learning)	Yɛrɛna schoolbiir mi in ***chew-and-pour*** Now school children HAB-do **chew-and-pour** These days the student learn by rote
One-two-three (Hamile)	Literate/educated person	A bɛl na bang a ***one-two-three*** Those who are literates/educated
Centure (belt in French) (Ouessa)	Shingles	***Centure*** nu ti nyɔg mɛ **Centure** EMPH PERF-catch me I had shingles

Table 29. Loanwords undergoing semantic change in Ouessa (O), Hamile (H) or both communities (*).

6.8 Native creations

We started out this chapter by using Winford's (2003) typology of lexical borrowing in order to organize the types of loanwords found among Dagara bilingual speakers in the two-border communities of Ghana and Burkina. The last type of borrowing found in my data is "purely native creation". This category is defined as borrowings exhibiting "innovative use of

native words to express foreign concepts" (Winford 2003:45). A good number of my subjects creatively used words that express concepts that were not known by the Dagara before contact with the donor language. One of the aims of using Winford's (2003) model here is to determine whether this classification meaningfully adds to our understanding of the processes of lexical borrowing through contact phenomenon in light of my data.

Table 30. Purely native creations used by speakers in Ouessa (O), Hamile (H) or both communities (*).

Purely native creation and community	English equivalent	Context, literal (morphemeic) and English translations
Nasaal-kɔkɔr	English language	***Nasaal-kɔkɔr*** *nu be zieza* **Whiteman's language** that is every where English language is a universal language
Gan-bangbɛ (H)	Literates	*A* ***gan-bangbɛ*** *mi wuleni bɛmenga* DEF **book knower** hab show themselves The literates always show off their status
Nasaalu(H)	Western life style	*O bobr k'o wula u* ***nasaalu*** He wants that he show his **whiteness** He wants to show off his western life style
Kyɔgl (H)	Brake	*Fo nyɔg a* ***kyɔgl*** You hold DEF **brake** Step on the barke pedal
Demdem (H)	Stereo system	*A* ***demdem*** *nu be mi ngmiɛr* DEF **stereo system** that they HAB PROG-play They are always playing loud music
Bɛngvaar tigr (O/H)	Corpus Christi	*A* ***bengvaar tigr*** *nia kang* DEF **blackeye pea leaves** feast is one One of the feasts is Corpus Christi
Yangmaaru kyiɛru (H)	Health insurance	*Uu be buɔlɛ kɛ* ***yangmaaru kyiɛru*** Yes, they call that **bodilypeace contribution** Yes it is call health insurance
Tiitirɛ(O/H)	Pharmacist	***Tiitirɛ*** *nu mi kum a tii* **Giver medicine** who HAB-give DEF medicine It is the pharmacist who gives me the medication
Nirpula kɔkɔr (O)	French language	*A* ***nirpula kɔkɔr*** *do gang a Dagara* DEF **whiteman's language** climb higher than

		Dagara French has a higher status than Dagara
Nasaal tome (O)	White color job	*Fo na nyɛni **nasaal tome** mɔlɛ lɛ* You FUT-get **whiteman's job** easy so You can easily get a white color job
Yangmaaru sɛbɛ (O)	Health insurance card	*N tɛri a **yangmaaru sɛbɛ*** 1SG have DEF **bodilypeace writing** I have the healt insurance card
Muɔlu sɛbɛ (O)	News papers	*A Dagara tɛr a **muɔlu sɛbɛ*** DEF Dagara have DEF **announcement writing** There can be a newspaper written in Dagara
Kpékpé (O/H)	Motor cycle	**Kpékpé** nu n mi kyen ni **Motor cycle** that 1SG HAB-go FACT I usually go on a motor cycle
Kurwur (O/H)	Bicycle	*Bɛminɛ mi zɔmni **kurwur** kyeni* Some HAB-ride **bicycle** go Some of them go by a bicycle
Pɔg dɔgbɛ (O/H)	Midwife	***Pɔg dɔgbɛ** mi benbe* **Woman birthgiver** also there There is also a midwife there
Gbɛmiilɛ (O/H)	HIVAIDS	***Gbɛmiilɛ** baalu wa nyɔg foa* **Tinylegs** sickness come catch you When one gets HIVAIDS
Wulwulbe (O/H)	Teachers	*Ti koroza **wulwulbe** ti moɔra yaga* Our years ago **teachers of things** PERF-do lot Our teachers used to do a better job.
Halaakubaru (O/H)	Moslem/Islam	***Halaakubaro** puoru mi benbe* (**Onomatopoeia) sound** prayer also there Moslems are also in this town

Table 30. Purely native creations used by speakers in Ouessa (O), Hamile (H) or both communities (*).

Though it has been argued that purely native creation is due to an unknown concept in the recipient language, other reasons may account for the nativization of foreign concepts among which are 'social solidarity' (Bhatt and Bolonya 2010) and 'accommodation' (Hudson 1996). In his model, Hudson argues that "speakers balance two languages or more against each other as a 'linguistic cocktail' to understand and accommodate each other in any linguistic interaction".

In this regard, Dagara bilingual speakers are no exception. Above in Table 30 is an incomplete purely native creations from English and French.

The Dagara *kyɔgl* 'break', *tiitirɛ* 'pharmacist', *muɔlu* 'news', *kur* 'iron', *wur* 'horse', and *pɔgdɔgrɛ* 'midwife' were part of Dagara lexical repertoire before French and Dagara and English and Dagara entered in contact. However, their context of use was associated with different items related to Dagara cultural environment only whereas in the current circumstances they express foreign concepts. For example, Dagara horse riders used to pull the *kyɔgl* 'leash' to stop the horse, hence the use of *kyɔgl* in place of 'brake' in general. Similarly, horses and donkeys were used to transport people and goods from one place to another before the introduction of bicycles into the Dagara transportation system. Thus *kur* 'iron' and *wur* 'horse' existed as separate lexemes in Dagara and they had no semantic relationship to each other at all. Since a bicycle is made of metal (hence the association to iron) and it performs some of the same functions as a horse, it was appropriate to extend its use to create a compound out of the two words, thus producing *kurwur* 'ironhorse/bicycle'. Furthermore, *muɔlu* 'announcements' in Dagara were transmitted from house to house by means of mouth (orally) only through the chief's messengers or village headmen. As modern means of communication and dissemination include print media, referred to as *sɛbɛ* 'written' come into existence, it becomes more convenient for some bilingual speakers to use the latter as the a more appropriate Dagara lexeme for this foreign concept. This led to the creation of *muɔlu sɛbɛ*, that is 'written announcement/news', on the model of English.

The rest (eg; *gbɛmiilɛ, kyɔgl, tiitirɛ, gan,)* were also in existence as Dagara words, but their pragmatic meaning was entirely different from what they stand for today. *Gbɛmiilɛ* (tiny legs) for example was only used to describe someone who has tiny legs but not a person suffering from HIVAIDS disease. Today, throughout the Dagara homeland, *gbɛmiilɛ* has lost its

original meaning and now applied only to an HIVAIDS patient. As for *kpekpe,* it is onomatopoeia referring to the sound a moving motor bike. Finally, the creation of *bɛngvaar tigr* for 'Corpus Christi' has seasonal pragmatic relevance. Briefly, the feast of *Corpus Christi*, Latin for *Body of Christ*, is a liturgical solemnity celebrating the tradition and belief of the Catholic Church in the body and blood of Jesus Christ and his real presence in the Eucharist. It emphasizes the joy of the institution of the Eucharist, which was observed on Holy Thursday in the somber atmosphere close to Good Friday. The celebration of this religious feast used to coincide with the season when the Dagara would begin to harvest the leaves of the blackeye pea to make vegetable soup or use the leaves to prepare other local meals. This creation has since remained the only terminology for the occasion even though the religious feast no longer coincides with the harvesting of the leaves due to ecological changes which has affected the rainfall pattern within the Dagara homelands. Another form of native creations that are worth examining are 'hybrid creations'. They are discussed in the next section.

6.9 Hybridization

Even though Dagara-French and Dagara-English contact has been described as relatively short, that is, since the beginning of the twentieth century, the coexistence between Dagara and the various donor languages has produced a lot of interesting hybrid creations that deserve further examination. Hybrid creations, according to Winford (2003:45), are a type of "blend of native and foreign morphemes to express foreign concepts". Studies on Dagara have paid less attention to hybridity even though Dagara has been in contact with other languages. In my opinion this has created an intellectual gap. It is in the light of this vacuum that this section of my study seeks to establish some categories of hybrid creations that bilingual speakers freely use in their daily interactions with one another.

In both francophone and anglophone Dagara border communities there are an appreciable level, although not statistically significant, number of hybrid creations with one's own and each one's official languages. However, the presence of hybrids in the data, and their frequent or repeated use by participants point to the relevance of this borrowing typology. For example,

Hybrid form with translation	**Donor language elements** (nativized)					Community
	English	French	Dagara	Twi	Hausa	
photo-*zu-ngmaa* 'Photo ID'	photo		*zu-ngmaa* 'head half/passport size'			Hamile
*Nuu*tangara 'Cell phone'	tangara 'telegram' (integrated loan)		Nuu 'hand'			Hamile
Borfo-*kokor*	Borfo Whiteman		Kokor 'language'			Hamile
Lafie-susu				Susu'contr ibution' 'premium'	Lafie Peace 'Health insurance'	Hamile
Yangmaaru -susu			Yangmaaru	susu		Hamile
Chrisa*bie*	Chrisa		Bie			Hamile/Ouessa
Nakol*saa*		Nakol 'school'				Ouessa
Nakol*biir*		Nakol 'school'				Ouessa
Nakol*yir*		Nakol 'school'				Ouessa
Bon*kokor*		Bon 'Good'/ 'okay'				
Schoolbi- papa'good student'	school		Bie 'child'	papa 'good'		Hamile
*Manɛ*seau*ri* 'plastic buckets'		Seau 'bucket'	manɛ..ri 'plastic' '-ri' plural marker			Ouessa

Table 31. Examples of hybridization

in the frequency table of pure and hybrid loans (cf. 5.1) it is indicated that French-Dagara bilingual speakers produced a total of 87 hybrids representing 3.74% of all purely native creations, whilstEnglish-Dagara bilingual speakers produced 255 hybrids which also represent 6.43% of total purely native creations. Interestingly, from the Ouessa-Dagara (Burkina) community, speakers produced a little bit more English-Dagara hybrids, that is, a total of 87 loans which represent 4.1%, compared to only 5 French-Dagara hybrid loans (0.13%) produced by the Hamile-Dagara (Ghana) community. It is also interesting to mention that hybrids were not only created with the two official languages, but with local African languages of wider communication or West African languages which command a certain level of prestige among speakers. Examples of such languages found in the two border communities are Twi and Hausa, both spoken in Ghana but not in Burkina Faso. The examples in Table 36 illustrate some of the hybrids found in the data. Most of these hybrids have been repeated several times by different speakers during the interview, hence their listing in the table. Dagara morphemes are in italics. The types appear to be: (6)

[English+Dagara]

[French +Dagara}

[Twi+Dagara]

[Dagara+English]

[Dagara+Twi]Instances when these hybrids were used by participants in full sentences will also go a long way to illustrate how they are inserted. Below are a few examples: The interview was conducted entirely in Dagara, but for the sake of space and time I have only the English versions of the interview questions. Module 2.1: Health issues: Have you heard about any health

insurance system in this area? A 59 year old female participant number 007 from Hamile side of the border produced the following response: (7)

Uu,	**Englisi**	buɔlɛ	kɛ	**‘health insurance’**	ɛkyɛ	a	Dagara	buɔlɛ	kɛ	**photo-zu-ngmaa**
Yes,	**English**	call	that	**‘health insurance’**	but	the	Dagara	Call	that	**photo head-half**

(Yes, in English it is referred to as ‘health insurance’, but in Dagara it is called a photo ID)

The focus of the analysis in the above is on “photo-zu-ngmaa”. In Nakuma”s (2002) analysis of Dagara word formation, free morphemes can be combined to form a new word. Following his analysis a hybrid is formed by blending English and Dagara free morphemes (‘photo’, *zu* ‘head’ and *ngmaa* ‘half’). The result of this blend produces the word *photozungmaa* ‘health insurance ID’. Another example similar to the typology just noted includes the construction below from Ouessa data. This construction further illustrates the commonality of hybrids across both communities. The response below is taken from a 31 year old female who works as a waitress in a restaurant in Ouessa.

Module 4.2. Economic activities. How often do you go to the other side of the border? For what purposes ?

(8)

N	mi	gangna	ti	Da	***manɛ*seau*ri*,**	ni	A	**gobelet*iri***
I	always	cross	to	buy	**plastic buckets**	and	the	**cups**

(I always cross the border to buy plastic buckets and cups)

The above utterance shows two interesting hybrids: *manɛseauri* and *gobeletiri*. As pointed out by Nakuma’s (2002), it is possible to blend adjectives and nouns to form a new word in Dagara. As a result we have *manɛ* ‘plastic’, an adjective from Dagara, which blends with *seau* ‘bucket’ that is a French noun. Finally, the Dagara plural marker *-ri* completes the blend to mark the plurality of the hybrid. This blend can be analyzed syntactically as follows: adjective+nouns+plural marker. Then as for gobelet (cup), we recall that consonant clusters are not permitted in Dagara

word structure, as such instead of adding the plural marker (-ri) to the ‘gobelet’ rightaway, the vowel /i/ is added before affixing it with (-ri). To conclude, the morphologically complex structures attested in the French-Dagara, French-English, and French-English-African language hybridizations go far beyond the types of hybrid creations that Winford (2003) predicted as bi-products of of intense cultural contact. Winford (2003) argues that hybrid creations are about the “blend of native and foreign morphemes to express foreign concepts”. A lot of blends in my corpus support this assertion. However, it can be observed from the Table 31 that some of the foreign morphemes undergo phonological adaptations before they are blended with the native morphem, which is not predicted by the model. Other hybrids which I consider more complex are borrowed and blended from two or more different languages. For example, “school-bi-papa”: ‘good student’ (English + Dagara+ Twi) and “maneseauri”: ‘plastic buckets’ (Dagara+ French+ Dagara plural morphem) are good examples of such complex hybridizations. The other complex hybrid creations are those foreign morphems that undergo phonological adaptation before they are blended to express foreign concepts. For example, ‘tangara’ in Dagara refers to ‘telegram’. As such, “nuutangara”: ‘cell phone’ (hand + phonological adaptation of ‘telegram’). Last but not the least, ‘nakolbie’ or ‘nakolsaa’ is another good example from the Francophone side of the border. ‘Nakoli’ as we have already seen is an adaptation from the French word ’école’. Before a blend is created the foreign morphem first undergoes an adaptation and added to the native morphem as in ‘nakolbie’ (student) or ‘nakolsaa’ (teacher). These examples and many others represent what is usually overtly shown in bilingual speakers’ discourse as part of their incorporated lexical hybrid stock in most communities in sub-Saharan Africa in general and at the Ghana-Burkina border in particular. Such complex hybridizations suggest sustained societal multilingualism where language contact is all-pervasive, as it is typical this and other West

African border communities. Morphological adaptations in such circumstances have not yet been sufficiently theorized. My dissertation provides a first attempt at providing examples for possible extensions of existing theoretical models that could take these examples into account.

6.10 Attitudes towards pure loans: qualitative evidence from both sides of the border

Although the views of the respondents cannot be indicative of the opinion of all Dagara, their responses illustrate the high level of prestige and the assumed economic advantages associated with pure loan borrowings from ex-colonial official languages by most Dagara literates. For example, when prompted in module 6.1 to explain when and why respondents tend to use English or French words in Dagara, upward social mobility associated with the image of a well-bred, English-Dagara bilingual emerges quite clearly, as shown by the following comment from a 30 year old male high school teacher in the Hamile community:

(9)

Fo	wa	I	**educated**	fo	Mi	Bobr	ke
You	come	Be	**educated**	you	HAB	Want	that

nibe	bang	Kɛ	fo	in	**different**
people	know	That	you	are	**different**

The educated ones always want others to know that they are different from them.

Here the insertions seem vague as to whether they refer to borrowing or code-switching. Then, the speaker argues further that the only way to show that you are educated or show your one's social status is to add some English or French words when speaking Dagara. The example (#10) below confirms the assertion: It must be pointed out that most Dagara-French and Dagara-English bilingual speakers view the joint use of the two languages as more rewarding than the use of Dagara only in public places. (10):

fo	mi	deni	A	**English**	yang	a	Dagara	Puo
You	HAB	take	DEF	**English**	put	DEF	Dagara	inside

ka	bɛ	bang	Kɛ	**you**	**are**	**Better**	**Than**	**them**
so	they	know	that	**you**	**are**	**Better**	**Than**	**them**

As such we mix Dagara with English just to show our superiority over others.

A 54 year old female trader from Ouessa (Burkina) substantiated her argument for the use of French loanwords in Dagara with the popular proverbial "Servez Jérome" episode in Burkina. She recounted that at a party the host chanced upon Jerome, an illiterate, who was apparently not served yet. The host told the servers in French:*Servez Jérome, s'il vous plaît* 'Please, serve Jérome'. Contrary to his expectation, the participant recalled, Jérome was accordingly served with a calabash of the local beer, popularly called dolo, made from sorghum instead of 'real' beer. Jérome subsequently challenged the servers arguing that the command *Servez Jérome* issued in French does not imply serving the local beer, dolo, but rather calls for the more sophisticaled real bottled beer. In Jérome's argument, the woman went on, the fact that the order was given in French placed a value not only on the type of beer that he should have been served, but also on Jérome himself. She argued further that had the host given the order in Moré, one of Burkina's most widely spoken local languages, Jérome would have been guaranteed to be served with local beer.

The truth of the matter is that, at important Dagara occasions—and at most West African important occasions—only important people are served with beer and so-called exotic, foreign, cuisine, while the rest, 'the common people', are served with local beer and African cuisine. This means that when it comes to the power dynamics and the social value of the two ex-colonial official languages among the Dagara, these two languages become inherent trait of speakers that are able to use words borrowed from them correctly. Words from English and French appear to

be attributes of someone's power and social mobility and the interlocutors are expected to recognize this and act accordingly.

Another Ouessa respondent, a 24 year old male university student answering the same question (6.1) about appropriateness and contexts of mixing Dagara with other languages explained-fully in Dagara—that the act of being served by someone else at a social gathering is tied to high social prestige that is, in turn, tied to the use of the prestige language:

(11)

Foo	kyen	kpaaru	Zie	ti	piili	Yɛrɛ	Dagara
You	go	meeting	Place	to	begin	INF-speak	Dagara

fo	kon	nyɛ	Zima	zie	i
you	NEG	see	Sitting	place	EMPH

At any Dagara social gathering, you will not be served if you start interacting with people in Dagara.

The unconditional utility of bilingualism with the official language in the local context is clearly evident. Unsurprizingly, another female respondent from Ouessa asserts:

(12)

Bɛl	na	Saa	bɛ	maali	**Nakoli**	A	mimi
Those	that	Even	NEG	make	**School**	FACT	HAB

yɛrɛ	nia	**Nirpɛlɛ**	kɛ	bɛ	Wul	Bɛmenga
speak	DEF	**Whitemen**	That	they	Also	themselves

Even the illiterate Dagara try to mix French with Dagara in order to also show off their social status.

When it comes to borrowing from English, however, utilitarian considerations are predominant in the Ouessa community. Most borrowings from English are strongly tied to consumption and, as it were, frequent border crossings. In relation to local norms of using of loanwords, many participants reported crossing the border almost every day from Ouessa to

Hamile to buy gas, drink beer, buy Ghana's lottery tickets, among others. Border crossings not only expose speakers to the local norms of loan word usage from the other community, they also automatically increase the speakers' linguistic repertoire, as certain words have to be used in English to gain access to certain products. A case in point is a 34 year old male jurist from Ouessa participant who gave the following reasons for crossing to the Ghana side several times a week:

(13)

Ghana	**Club**	na	imi	ngme	**fort** […]	bii	n	zo	gang	ti	da	**petrol**.
Ghana	**beer**	that	I HAB	hit	strong[…]	or	I	run	across	to	buy	**petrol**

I love the *Club beer* in Ghana. Or I usually cross there to buy *gas*.

'Club' is a brand of beer in Ghana, also known by its full name 'Club beer' and 'gas' is commonly called 'petrol' in Ghana. I argue here that, these local norms of usage are due to the speakers' frequent crossing of the border per week as well as his/her networks and family ties. We recall that many of them reported having friends and family members who they usually cross to hang out with or visit.For example in module 4 (economy register), I asked this 34 year old Ouessa participant, a farmer why he crosses the border several times in a week and he has this to support: Module 4.1 – 4.2: (in example 14 below).

4.1 "Uuu. N saayir dem na bea Gaamuo yir a Nandom*. Ti kyere ni tigr ni koei abe"

- (Yes, my family members are those who still live in Gaamuo's house in Nandom (Ghana). We always go there for weddings and funerals)

4.2 "N ma mea a Nandom (Ghana) na oyi. I teri bari abe mi kyen a be zie"

- (My mother for example is from Nandom (Ghana). I also have friends there, I usually visit them).

You will notice that in question 4.4 (On what day does Hamile market fall?) he begins to mix his Dagara with French and English. Also note how he uses **Saraday** for 'Saturday', to index his close family ties with those family members in Ghana.

4.4 “Zongo daa wa waara ona lon **samedi**, ani gang dem mi yelke **Saraday”**

- The next Hamile market day will be **samedi,** and across the border (Hamile) they say **Saraday**

Then he goes on to use only English days of the wee as in the sentence below:

- “Meana ule wa loni **Thursday**, a puori ona loni **Wednesday”**
- When it falls on **Thursday,** the next one will be **Wednesday**

*Nandom is a town 11 miles south of Hamile/Ouessa border.

6.11 Summary

This chapter attempts to provide an inside into borrowing typologies following Winford’s (2003) language contact phenomena model. The findings have revealed the processes and products of lexical borrowing in a multilingual set up as seen in the data sample of Hamile and Ouessa border communities of Ghana and Burkina Faso.

With regards to pure loanwords usage, both communities demonstrated a strong penchant for English and French loans as these two languages are associated with power, prestige, economic and social advancement, apart from being the official languages in their respective countries. Apart from these two official languages, Twi a widely spoken language in Ghana was also found to have given much more credence among bilingual speakers in the two communities. This is also due to the economic gains that it gives to the young migrants in particular. The results also reveal another form of borrowing among Dagara bilingual speakers at the border. Phonological and morphological adaptations of loanwords are frequently resorted to in their daily interactions as another by-product of lexical borrowing phenomenon. These adaptations however follow the Dagara internal word structure rather than the structure of the lending languages. For example whereas English and French can produce a CCA syllabic structure, these are not permitted in Dagara. As such, loanwords of such structures are reproduced with vowel insertions while others undergo vowel harmony as in /o/ and /a/ harmony in the word “float’ or

as in the progressive form of Dagara-French loan blends where Ouessa bilingual speakers use [–e] to form progressive verbs instead of Dagara [–ɛ] rule. As for morphological adaptations, truncations, among others are employed in order to assimilate such words into Dagara lexical system. A case in point is the morphological transformation of the French loan “une école” (school) to “nakoli” in Dagara. This word is usually used as an unmarked choice among the Ouessa bilingual speakers.

Another important aspect of borrowing that this chapter has examined is how Dagara bilingual speakers have the ability to import foreign stems and add a native affix to create a particular grammatical category from the loanword. If French for example can derive a verb from ‘rougir’ from the noun ‘rouge’ by adding [-ir] to the stem after dropping the final [e], Dagara bilingual speakers equally have the sense of adding a plural marker [-ri] to English or French words to make the word sound like Dagara. Even though some of the derivations do not change the grammatical category, it is important to note that such words have been assimilated into the lexical repertoire of the language. As compounding has also been viewed by many researchers as another way of making new words, this does not exclude Dagara bilingual speakers’ words formation when it comes to lexical borrowing from donor languages. The most common ones found among languages are the Noun+Noun. This model is strongly supported by our data from the Hamile and Ouessa border communities. From such compounding model, we have (cf.6.5) English+Dagara compound such as *schoolbie* (noun+noun), and French +Dagara compound: *nakolbie* (noun+noun).

Loan translation according to Winford (2003) is also an important aspect to consider when examining language contact and loanword processing. I must admit that the frequency of calques in the data was relatively on the lower side. However, the presence of such occurrence is

a manifestation of bilingual speakers' linguistic skills. This may happen for the purpose of showing ethnic identity or just to imitate the foreign pattern. In this regard some foreign concepts that have been introduced into the local culture have had to be translated. This brought about the introduction of words such as *kanodie* for 'classroom' and *Nirson zaa tigr* for 'All Saints' into Dagara. These foreign concepts were not known among Dagara hitherto the cultural contact. Semantic change has also become another focus in language contact situation for researchers interested in lexical variation. It is particularly interesting when we begin to look at the extent of lexical change or even from pragmatic view point. Among bilingual Dagara speakers, the use of such loans is very common. It is interesting to hear even the highly educated ones use such expressions freely; as Myers-Scotton (1993B) rightly puts it the "unmarked choice". For example, a very common semantic change among every Dagara, regardless of his or her social status, is the use of the term *feel* for 'medical examination' of the body by a doctor.

Finally, the last, but not the least language contact phenomena among the Dagara at the Ghana/Burkina border community are native and hybrid creations. Bilingual speakers usually resort to innovation of loans in order to nativize a foreign concept or to accommodate each other in an interaction. This can be done through many processes by means of onomatopoeia or likening the loan to a cultural event. It is in this regard that words such *kpékpé* for 'motor bike' and *bɛngvaar tigr* for 'Corpus Christi' were created (cf.5.9). Hybridization has also been found to be an important aspect of borrowing typology among Dagara bilingual speakers' discourse. This chapter has therefore demonstrated that lexical borrowings and the various linguistics processes such as phonological, morphological, compounding, derivation, loan translation, nativization among others, describe the kind of linguistic incorporation of foreign words into Dagara at the Ghana-Burkina border.

CHAPTER SEVEN

GENERAL CONCLUSIONS

7.1 Language contact of Dagara

This study employs both quantitative and qualitative method to analyze the data collected and by means of this methodology I demonstrate that majority of native Dagara speakers are bi/multilingual and that the phenomenon is mainly through diverse language contact situations; the bi-product of the contact as we have discussed is lexical borrowing. I also demonstrate that language contact among Dagara is a two-dimentional scenario and the impact brings about several social and economic connotations. One contact scenario is with western languages through colonization by the British and the French who introduced English and French into the educational system of Ghana and Burkina Faso respectively. However, the study has also shown that other African languages also have an important role in the contact situation.

As noted in chapter 2.1.1, the selective form of education ended up creating an unbalanced society in the Dagara homeland. The few lucky ones who have access to the linguistic capital – English or French, took advantage of the opportunity to gain upward social mobility or exhibit power over others by means of their linguistic capital to the extent that everyone begins to crave for the two ex-colonial official languages with the sole aim of also having access to this power. In fact, it is the contact between the French and English on one hand and the Dagara on the other hand that brought about the establishment of formal education to the Dagara homelands. Much as formal education even until today is not accessible to everyone in the Dagara homelands, mixing one's vernacular with English or French is very intense as everyone strives to belong to the elite group created by the educational disparity.

The other contact scenario is between Dagara and other sub-Saharan African languages such as Twi, Hausa, Moré, and Dioula through trade and migratory adventures. This contact scenario is particularly interesting in the sense that most sociolinguistic research that focuses on lexical borrowing in Africa often ignores the phenomenon of borrowing between local languages. However, in this study there is enough evidence to claim that there has been an intense contact between Dagara and other linguistics groups within the sub-region. This also brought about varied amount of borrowings from these African languages depending on the social and economic status of the given local language. We recall that incorporated loans into Dagara such as “negeso” (iron horse: bicycle) “kosiera” (Sunday) and “laafie” et cetera (peace or health) are borrowings from Dioula, Twi and Hausa respectively. Finally, this study tests some of the theories that claim that multilingual communities in sub-Saharan Africa begin to demonstrate significant changing attitudes toward local languages particularly in urban communities where a local language is used as the lingua franca for their daily economic activities. We demonstrate in chapter six that, among the Hamile and Ouessa Dagara border communities, apart from French and English, there has been extensive borrowing from Twi, a vehicular language in Ghana. This phenomenon, I claim is due to the frequent contacts between Dagara younger adults in both Ouessa and Hamile who migrate perennially to southern Ghana, where Twi is spoken as a native language.

7.1.1 Social networks and language

In section 2.1.2, I extensively discussed the Dagara social networks, kinship and family structure in order to show who is referred to as a family member in the Dagara context vis-à-vis what pertains in the western world. This discussion is relevant to lexical borrowing as it is often argued that close family ties and social network integration promote the use of local norm usage of loanwords in the speakers’ linguistic repertoire. That is also to say that the frequency of

interaction may correlate with the amount and borrowing typology. This is confirmed in this study when most of the participants reported having various types of family members across each border community. Participants also reported crossing the border several times a week to either visit a family member or attend a family meeting, and at times just to buy goods from the other side of the border. The close family ties and social networks reflected in the speeches of most participants interviewed. This was evidenced in the way and manner in which some loans are used as unmarked choices. In the health register for example many Ouessa participants used loans such as “doctoryir” for ‘hospital’ and “feel” when referring to ‘medical examination’. ‘Feel’ for example is a semantic change in Ghanaian English which has been assimilated and used in the context of being examined medically by a doctor. Further, if “nakoli” for ‘school’ is extensively used among Hamile Dagara, whereas “kirsimiir” for ‘Christmas’ is also used among Ouessa Dagara, this is interpreted to be a strong evidence of Milroy’s social network and local norm usage model. Furthermore, borrowing typology with regard to border communities’ setup needs to be explained in the context of social network integration and kinship ties. This necessitated the discussion on Dagara family structure to show the extent to which the Dagara family structure is closely knitted contrary to what is understood by western ideals and biases. Dagara family structure as explained by Tengan (2000) is recast in 2.1.2 to show that both the nuclear and the extended family members play equal and responsible roles in the lives of every family member. This further confirms the reasons for which people living within the border communities make several trips across the border in a week just to visit or for the maintenance of closed family ties. Cross border family ties is therefore used to explain the acquisition and use of local norms in lexical borrowing as seen above.

7.1.2 Border and population movement

The discussion on border and population movement in this study offers us the opportunity to appreciate the fact that while a population is in motion the migrant may need to adjust his/her language resource in space and time for the purpose of linguistic accommodation and needs. It has been analyzed and argued here that though the aims of population movements are based on economic reasons in most cases, this creates avenues for the sojourners to come into contact with speakers of other languages. Usually, the migrants end up being influenced by the language of the daily economic struggle of the recipient state, country or foreign land. This eventually broadens the linguistic abilities of most Dagara migrants. It is therefore apparently clear that intra or inter migration and population movements, whether it is temporary or permanent creates multilingual societies in the West African sub-region which leads to lexical borrowing among many bilingual speakers. I intimated further that since this study focusses on lexical borrowings in Dagara, it is important to show how the Dagara came into contact with other African languages of wider communication. In fact, the multilingual nature of Dagara is tied to the ease of border and population movement phenomenon. It has been shown earlier that a good number of Dagara youth were already proficient in Dagara and in at least one other sub-Saharan Africa language. This proves further that monolingualism is not a common feature among West Africans and for that matter among the Dagara in particular.

Borrowings across registers, by age, level of education and gender are analyzed using cross tabulation, chi-square test of statistics and descriptive analysis model. For the pure and hybrid loans speakers from both language communities confirmed the claim that each one will borrow more from his own ex-colonial official language than the most widely spoken African languages in each country. This confirms the different levels of value placed on the local languages in the

communities. Secondly, with regards to English borrowings a similar trend is portrayed by the speakers. For instance, English loanwords among the Ouessa Dagara bilingual speakers show higher percentages than their Hamile counterparts who borrows few words from French. This phenomenon is as a result of the economic mobility and prestige associated with the ability to speak English among the more mobile Burkina Dagara younger generation.

Borrowings across all registers in the Ouessa community indicate that pure French loanwords are more frequent than all the other languages as it seen as the language for upward apart from being Burkina's official language (cf 5.2). However, it is noted that the religion and culture register is significantly higher than the rest due to the fact that Catholicism is the main religion among the Dagara in Ouessa. Though adherence to Catholicsm is also the main religioun among the Hamile Dagara, the celebration of Catholic festive occasions in Ouessa is done with more propensity. Aside French, English also lends the highest number of loanwords across all registers. Using Chi-square test statistical analysis I found out that except for Dioula and Moré, borrowings are not equally distributed across registers for the donor languages. It means there is a relationship between the dependent variables (registers) and the independent variables (donor languages).

Chi-square test and a descriptive statistical analysis are used to analyze the data for the registers, level of education, gender and age variables to determine their significance levels. For the Ouessa corpus, the raw score tabulation show that level of education is a determining factor in terms of number of loan borrowed from French. The higher one's level of education the more the speaker borrows from the official language, as indicated in section 5.3. From Hamile community the results also show that English, the official language of the community varies with level of education. It also shows that with every increase in unit of level of education there is a

corresponding increase in amount of loans borrowed from the official language. The results also indicate gender as an important factor. Female speakers borrow more from French than male speakers, but less from English and Twi. But the Hamile bilingual community produces different results with regards to gender. The descriptive analyses of data indicate that men in Hamile borrowed more English words the women.

As it is often assumed, younger speakers are more inclined to use innovations in language than older speakers do, as innovations tend to index progress and modernity, In my results, younger bilingual speakers tend to borrow more then older speakersin certain contexts. What we can deduce from these results is that, since English and French are the official languages as well as indexing higher social status and economic mobility in their respective communities, everyone in general and the youth in particular borrow from their own respective official language because they (youth) strive to move up the social ladder. Finally, Twi on the other hand is the language of daily economic struggle in Ghana, but the chi-square test results confirm that amount of loanwords from Twi are not be tied down to age and gender factors.

7.1.3 Language contact in the border

The issues relating to language contact have been largely investigated in an attempt to describe the linguistic practices resulting from the interaction between speech communities who speak different official languages. The case of Dagara at the Ghana-Burkina border is an "intense inter-community contact" area, only separated by a political border of the same ethnic group. The situation at the border is characterized by extensive trade and everyday contact, as such, this study explores language mixing not only with the inherited official languages (English or French), but also with widely spoken languages at the border such as Twi, Hausa, Moré and Dioula.

The social factors that influence patterns and degree of lexical borrowing at the Ghana-Burkina border community have also been examined. Some of them are strong family ties, unrestricted cross border inter-community trade (weekly open market centers), shared cultural and religious activities, unbalanced health facilities in the two communities, just to mention but a few. The people in the two communties continue to maintain their social ties with their kinsmen or family members across each political border due to their complex but important family structure system. The frequency of interaction among them promotes local norm usage of loanwords in their linguistic repertoire. It has been demonstrated that the contact between Anglophone and Francophone Dagara in the border has originated new linguistic formations. The use of lexical items such "boukyi" (bucket), "feel" or "chacki" (to examine medically), "faara" (Rev. Father), and "doctoryir" (hospital) in Ouessa as unmarked choices supports border language contact models.

7.2 Borrowings in Dagara-English-French contact

As it has not been explicitly indicated whether Winford's borrowing models can be applied in every language contact situation, particularly in sub-Saharan Africa, this study attempts to expand the borrowing models, referred to as borrowing typologies or borrowing strategies, to include new areas that have not been examined. The new area(s) in my study include but not limited to border language contact phenomenon. As we have already seen, the study focuses on a homogenous linguistic community that has been separated by a political border and further by different ex-colonial official languages – French and English. The results reveal different processes and products of lexical borrowing in a multilingual set up as seen in the data sample of the two border communities. With regards to pure loanwords usage, each community demonstrated a strong mixing with English or French as these two languages are associated with

power, prestige, economic and social advancement, apart from being the official languages in their respective countries. The results also reveal another form of language mixing among Dagara bilingual speakers at the border. Phonological and morphological adaptations of loan words, another by-product of lexical borrowing phenomenon are frequently used in their daily interactions. These adaptations however follow the Dagara internal word structure rather than the structure of the lending languages. A case in point is whereas English and French can produce a Consonant + Consonant + Vowel syllabic structure; these are not permitted in Dagara. In our data we found out that loanwords with CCV structures are reproduced with epenthetic vowel insertions and vowel harmonization. Assimilation of loanwords into the Dagara lexical system is found to be in the form of morphological adaptations, truncations among others. An example is the morphological transformation of the French loan “une école” (school) to “nakoli” in Dagara; in fact, many bilingual Dagara speakers across the Ouessa side of the border use “nakoli” as an ‘unmarked’ choice. Similarly, bilingual Hamile Dagara speakers use the loan “faara” from ‘Rev Father’ without the least thought of its origin. This is attested when a younger participant argued that “faara” is Dagara and ‘Priest’ is English.

Another important aspect of borrowing captured in this study is morphological adaptation of foreign words by affixation, that is, imported foreign stems are combined with native morphemes. For example, Dagara bilingual speakers are able to add a plural marker [-ri] to English or French words to make the word sound like Dagara. New lexical items created in Dagara such as “l’abbéri” for ‘Catholic priests’ and “nursiri” for ‘nurses’ confirm these types of lexicalization. Such words have been assimilated into the lexical repertoire of the language. The formation of new words through compounding is also common among bilingual Dagara speakers. The most common one found among languages is the Noun+Noun. This typology is

strongly supported by our data from the Hamile and Ouessa border communities. From such compounding model, we have (cf. 6.6) English+Dagara compound such as *schoolbie* ‘student’ (noun+noun), and Dagara+French compound: *manɛseau* (adjective+noun) ‘plastic bucket’, the only adjective-noun formation found in the data.

Much as the frequency of calques in the data was relatively on the lower side, however, the presence of such loans in Dagara presents the probability of finding a significant if more data are collected or by changing the research method. Examples found are the translation of the following foreign concepts: ‘classroom’ as “**kanodie**” and ‘All Saints’ as “**Nirsonzaa tigr**”. These foreign concepts were not known among Dagara hitherto the cultural contact. Semantic change has also been found to be part of Dagara borrowing strategy. This was common among most Dagara-English and Dagara-French bilingual speakers’ discourse. For example, a very common semantic change among every Dagara, regardless of his or her social status or educational level, is the use of the term ***feel*** for ‘to be examined by medical doctor’. Interestingly it is common to hear even the medical doctor him/herself use such expressions freely as ‘unmarked choice’.

Finally, native and hybrid creations as language contact phenomena are widespread among the Dagara at the Ghana/Burkina border community. Most of the speakers interviewed usually resort to innovation of loans in order to nativize the foreign concepts or as a means of speech accommodation during interaction. These are done through the process of onomatopoeia or likening the loan to a cultural event. It is in this regard that words such *kpékpé* for ‘motor bike’ and *halaakobaaro* for ‘a Moslem’ (cf.6.9) are used. Hybridization has also been found to be an important aspect of borrowing typology among Dagara bilingual speakers’ discourse. This study has therefore demonstrated that lexical borrowings and the various linguistics processes

such as phonological and morphological adaptations, compounding, derivation, loan translation, nativization among others, describe the kind of linguistic incorporation of foreign words from English and French and other African languages into Dagara at the Ghana-Burkina border. To conclude, it has been observed from the results that borrowing from each community's official language is not symmetrical. While the 'francophone Dagara' bilingual speakers demonstrate significant amount of borrowing from English in their daily interactions, the opposite is recorded for the 'anglophone Dagara'. Apart from local norm usage of phonologically adapted words such as "nakoli", et cetera; the 'anglophone Dagara' bilingual speakers sparingly use pure loanwords from their francophone counterparts.

7.2.1 Proposal: Need for a new borrowing typology

As mentioned somewhere at the earlier stages of this study, I stressed that one of the aims of this study is to contribute to theories of borrowing as discussed in Winford's (2003) borrowing typologies, Gysel's (1992) loanblend among French-Swahili bilingual speakers's discourse in DR Congo, Mesthrie et al's (2000) assimilated loans in South Africa, and Thomason's (2001) contact innovation phenomenon. I will like to reiterate at this point that, apart from its contribution to theories of borrowing this study also attempts to expand as well as inform us of some new borrowing typologies from African border speech communities' perspective.

Based on Winford's (2003) borrowing models, I have re-categorized my study under the following new borrowing typological headings which reflect the type of data I have as well as reflect borrowings at a homogeneous linguistic community that is divided by a political border: Loanwords are put under Type AI, or group I. This is sub-divided into "pure" loanwords with no phonological adaptation, loanwords with phonological adaptations, and loanwords with morphological adaptations. Another category of loans is put under Type A II or simply group II.

In Winford (2003) they are referred to as loan blends. For this group, I have subdivided them into compounding in which foreign and native morphemes are combined to form new words. The next typology; loanshifts are put under Type B which is further divided into two groups; semantic change and loan translations (calques). Under the semantic change category, loans from the donor languages take different meaning when used in dagara context or the pure loan is translated literally into the recipient language in a way to nativize its foreignness. Finally, pure native and hybridization are treated under Type C, referred to as pure creations and hybrid creations.

For the pure loans with no phonological adaptations, I found out that one reason for their use in Dagara occurs not because native Dagara speakers do not have the equivalent words, but this may be due to the social and economic gains the speakers derive. Among them are social advancement, job and educational opportunities, and in some cases the relative prestige and power associated with such donor languages. When speakers use loans such as "parce que" or "because" may be indicative of prestige or social status because these exist in Dagara. In the case of loans with phonological adaptation, most of the loans follow Dagara language phonological (internal word) structure. This has been discussed in detail following Bodomo's (1997), analysis of Dagara word structure, which is made up of an "obligatory primary syllable" and then an "optional secondary syllable". We recall that Winford's (2003) borrowing models are based on the donor language, however, the list of words in Table 19 (chapter 6.3) illustrates how loanwords from French, English and Twi are phonologically adapted into Dagara, that isfollowing the recipient's language word structure. I demonstrated that loanwords undergoe adaptations whereby uncommon syllable structures in Dagara are reduced to simple CV-type structures. The French loanword *Français* 'French', for example, undergoes an adaptation in

which an epenthetic /a/ is inserted into the first syllable, reducing the complex CCV cluster in the onset to a single obstruent /f/ in word-initial position.

Furthemore, one important finding in my study is the imposition of open-syllabicity on borrowed words, particularly from the English-Dagara bilingual speakers compared to the French Dagara bilingual speakers. It is observed that French favors open syllables whilst English does not. As English words are borrowed into Dagara by English-Dagara bilingual speakers, these speakers impose open syllable structure on such loanwords. For example, loanwords from English which have closed syllables are adapted phonologically with Dagara open syllabicity: 'government' produces [govenati], 'pass' [paasi], 'feel' [feeli] and 'catechist' [karakyisi]. These are good examples of open syllable imposition on loanwords and further our understanding of loanword adaptations in multilingual contact situations. Then the morphological adaptations models are discussed in O'Grady et al.'s (2010) "word formation process that shortens a polysyllabic word deleting of one or more syllables" or by affixation and inflections. But, we found that, in Dagara word formation model, the morphological component supplies the various affixed and compound forms. The next process is the application of the lexical rule in order to modify the "forms in accordance with the phonological requirements" (Bodomo 1977: 61). This therefore suggests that morphological analysis of Dagara words cannot be treated without linking it to the syntactic and phonological forms. As we have seen in the word *une école*, it undergoes clipping or truncation in the sense that *une* the French indefinite article for "a" undergoes an apheresis in the first place, as well as vowel deletion and vowel substitution, thus producing "na". Second, *école* undergoes another vowel deletion and consonant substitutions. That is, /e/ is dropped and then, /k/ and /c/ are substituted in the morpheme *cole* as Dagara language alphabet does not have the letter (c), but (k) among its 33 letters. Then finally, the final nucleus also

undergoes another vowel substitution as /i/ replaces the final nucleus /e/ of the word, producing the word nakoli which is now part of Dagara lexical repertoire.

In type A II, we discovered new types of loanblends for Dagara. The derivational blends are made up of French, English and Twi nouns and verbs which take Dagara affixes. In this borrowing typology, the grammatical categories of the words are not changed as seen in some examples in Fagyal et al. (2006). Whereas *rouge* (adjective) takes a suffix to become *rougir* (a verb) Dagara loanblends do no change in like manner. Loanwords in Dagara combine imported stems with native morphemes to pluralize the foreign word as in Docto***ri*** /dɔktɑri/ or Valise***ri*** /vɑlisiri/ for bags. Apart from that, loanwords from the data indicate that when French or English verbs are borrowed into Dagara, they either take the progressive or the future simple forms. For example, Reverse***rɛ*** /rivɛsirɛ/ for reversing or Varie***re*** /varjere/ for varying.

Compoundings in Dagara on the other hand are made up of nouns and predicative adjectives or noun and nouns (Nakuma 2002). Specifically, Dagara compoundings however show a combination of foreign morphemes and native affixes. Data from the two border communities' language clearly exhibit such combinations of English and Dagara such as Noun + Noun: doctor + yir, (doctor + house = hospital), and Dagara and French such as Adjective + Noun: manɛ + seau (plastic + bucket = plastic bucket), Noun + Noun: school + bie (school + child) = student or pupil among others.

Loanshift, which I categorized under Type B, is one of the new strategies adopted by Dagara bilingual speakers to incorporate foreign elements into the language. Speakers resort to this borrowing typology as a strategy of nativizing foreign elements in order to show ethnic identity or to enrich the vocabulary stock. This process takes place by means of loan translation or calquing. For instance, through religious and cultural contact with English and French, the use

of the word "All Saints" in Hamile, also found in Ouessa as "Tous Saints", is translated in Dagara as *Nirson zaa tig* (see other examples in cha. 5.7). Apart from calques, another form of loanshift found among Dagara is semantic change. As Blank (1999) argues, this is a process that involves current meaning change from the original, also through language contact. This may be due to the historical, cultural and social connotations of the loanword; a circumstance that promoted the semantic change in Dagara-English and Dagara-French contact. Common examples among others are the following borrowing types in Dagara which speakers use as if they were 'pure' words: First, "centure" a French word for belt in English is used by Ouessa Dagara as an unmarked choice for "shingles. Second, "feel" commonly used among both Ouessa and Hamile Dagara is another form of semantic change. This word is used even among medical professionals when referring to 'medical examination' of a patient.

Finally, the last borrowing typology among Dagara-French and Dagara-English bilingual speaking border community is native creation referred to as Type C in my study. This according to Winford (2003) is the "innovative use of native words to express foreign concepts". The first type termed "pure native creation" involves the use of onomatopoeia, a creation through the imitation of the sound of a foreign object unknown to the language community. Another form is aluding the meaning or function of the foreign object to an existing concept in Dagara. An example of onomatopoeia is *kpékpé*, a "motor bike". However, *kpékpé* is the sound made by the engine of a motor bike. Similarly *kurwur* is a creation from the bicycle used by both Ouessa and Hamile Dagara. Whereas *kur* means 'iron', *wur* means 'horse'. The fact that a bicycle is made of metal (iron) and it now performs the function of horses which were Dagara means of transportation before today, gives evidence of Dagara creative ability. The last but not the least is hybrid creation. This borrowing typology seems more interesting as it presents the most exciting

language mixing. In the data one can find numerous French-Dagara, English-Dagara, Twi-Dagara, Hausa-Dagara hybrids in the form of single loanwords. The statistical representation of the hybrids is highlighted in chapter 4.1. However, it suffices to give few examples here to demonstrate the relevance of this borrowing typology. “Photo ID” as *photo-zu-ngmaa,* [English+Dagara], “health insurance” as *lafie-susu* [Hausa+Twi], or *yangmaaru-susu* [Dagara+Twi] are examples from Hamile bilingual Dagara data, and from Ouessa data, we have “French language” as *Bonkokor* [French+Dagara], and “plastic buckets” as *manɛ-seau-ri* (manɛseauri) [Dagara+French+ Dagara plural marker].

To sum up, we reiterate that this study gives evidence of lexical borrowing as a by-product of language contact in sub-Saharan Africa in general and at the Ghana/Burkina Faso border community in particular where the two communities have a shared local language, Dagara and two different ex-colonial official languages, English and French. The study also contributes significantly to theories of borrowing with focuses on border communities. Border communities' studies, as pointed out in Elizaincín, (1976) describe the linguistic practices that result from the interaction between speech communities who speak different official languages. Consequently whiles contributing to theories of borrowing, this study provides one of the windows through which other new theoretical perspectives relating to border language issues could be properly addressed. That is, the borrowing patterns in some cases may not be symmetrical simply because the official and local languages used across each border community may not be of the same instrumental value. We are tempted to conclude that amount and pattern of borrowing as far as this border community is concerned, depend more on the instrumental value of the languages much less on the social stratification of the speech community such as age, level of education, and sex. However, from the descriptive analysis section of my results, the pattern of loanwords

adaptations, compounding, native creations and hybrid creations inform us of new dimensions of lexical borrowing typology that have not yet been studied nor theorized in this part of the sub-Saharan Africa in general. To the best of my knowledge, this is the first study to have used a descriptive analytical model to provide an understanding of how existing borrowing typologies in this region can be operationalized to the study of borrowings in multilingual contexts. Consequently, sociolinguistic research that is interested in border language phenomena needs to conduct further inqueries into the applicability of some of the existing theoretical models and update them as necessary.

7.3 Limitations of the study

This study has a number of limitations, assumably being the first, to study lexical borrowings in border communities in sub-Saharan Africa. First, a study of language contact in a border community that focuses on lexical borrowings from English, French and African languages cannot arguably cover all the possible socio-cultural and sociolinguistics factors and activities that induce lexical borrowing. This fact definitely goes a long way to impacting on the final results of the study. The first limitation is found in the statistical significance of loans such as frequency and types of loanwords use across registers in light of the social variables (age, level of education, and gender). Second, the status or the instrumental value differentiation of the donor languages also influences the results of the study.

It has been argued that statistical (quantitative) analysis of loans words is difficult to study because of the existence of equivalent variants from the lending language(s) (Armstrong 2001). Following this argument, to investigate lexical borrowing in a multilingual community within the quantitative sociolinguistic framework may even be more difficult since there are several competing borrowing sources within the same community: As in the case of

Ghana/Burkina border communities not only does English compete with French among the Ouessa bilingual speakers, but also the African languages also compete among themselves. This fact affects the statistical significance of amount of borrowings vis-à-vis the social variables. Furthermore, the use of registers to measure loanword usage or frequencies is also problematic in the sense that, not all registers have the equal sociolingusitics values within the two border communities. Participation in social activities is not evenly distributed among the people in the two communities. For example, whereas in Burkina Faso the celebration of Assumption is held in high esteem (Virgin Mary's physical ascension to heaven), it is not the same just across the Ghana border. For these apparent reasons, it will be difficult to generalize the results based on the use of the registers.

Apart from that, in one of my hypotheses (cf 2.4), I predicted a symmetrical diffusion of major languages (French and English) across borders following Milroy's (1980) and Evans' (2004) geographical mobility and social network integration theory. With the ease of movement across the Ghana-Burkina border, it was expected that the amount of French loanwords produced by the anglophone Dagara will significantly match the amount of English loanwords produced by the francophone Daagara. However, to the contrary, the amount of French loanwords usage among the Ghana-Dagara fell below expectation. I attribute this to the status and or the instrumental value differentiation of the donor languages. As Winford (2003) rightly argued, what motivates a speaker to borrow from another language depends on a 'range of social factors'. These are summarized as 'need', 'prestige' and for 'status raising' as well. For this reason too, I cannot also over generalise my findings based on this theoretical model alone. Following these limitations among others, I believe there is the need to replicate the study or conduct further studies to be able to make a stronger case for lexical borrowings' strategies and

typologies at border communities in sub-Saharan Africa in general and at the Ghana/Burkina border in particular.

7.4 Future research work

To the best of my knowledge this research is the first to investigate lexical borrowings in a multilingual Ghana-Burkina border community commonly referred to as anglophone and francophone Dagara bilingual respectively. First, the method used to elicit data from the 100 participants is by the use of regsiters. This methodological approach also produced results at different significant levels or show less significance as predicted. Furthermore, the social network model which has always been used as one of the sociolinguistic models in examining language contact situations within border communities produced assymatric results in this study. Much as the findings from this study are arguably impirical as far as the researcher is concerned, however, the results of this research cannot be over generalized. As such, further studies are highly recommended using different methodological approaches of sociolinguistic interview, as well as including other social factors that induce lexical borrowings in a multilingual language community such as at the Hamile/Ouessa, where several factors as well as lexical variants from many other languages co-exist and compete.

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Appendices

Appendix A. Hamile: Sample loanwords coding from Participant # 001.

Types	Category	Coding
Type A: "Pure" loanwords	No phonological adaptation	national health insurance, sɛɛ(2x), treatment, okay, saa(3x), so(4x), expire, take, time, Pope, Roman Catholic(2x), bishop(2x), nti, (so-Twi), okay, church, Christians(2x), moslems, Deeper Life, Pentecost, yeah(2x), Easter, mira (rule:Twi), last year, program(2x), school, border, Wednesday(2x), Tuesday, Monday, motor, seize, school(2x), computer, teacher, topic, university, training college, nursing training, English(2x), catechist, so though,
	Phonological adaptation	Paapaa (pope), asipti, bornye(2x) (Christmas - 'bronya': Twi), borfo(8x), gaasi (gas),
	Morphological adaptation	farsi(4x), sani(2x), di kombo (di 'nkomo': to chat: Twi), Englisi, biriki(brake), farsiile(les francais), zandam (gendarme)
Type A loanblends	Derivational	checki(3x), doctorri, nursiri, faari, sisterri, movire(moving), changire(changing), teachire(4x) (teaching)
	Compounding	aspiti-yir (3x)doctor-yir, kirsa-biir (2x) : (Christ's children-Christians)
Type B: Loan shifts	Semantic	material(fabric for making pants), gaasi(2x) (to gas: to step on the acelerator/ to reve)
	Calques	
Type C: Loan creations	Pure native	kyogr-pie-ni-been (November), bonzora(2x) (vehicle), nasaalu(2x) (English), nasaal tome (Whiteman's job - white collar job), kurwur
	Hybrids	faaramine (rev fathers) yangmaaru-susu

Appendix B. Ouessa: Sample loanwords coding from Participant # 078.

Types	**Category**	**Coding**
Type A: "Pure" loanwords	No phonological adaptation	okay, assomption, pentecote, aout, radio freeds, bon,pharmacie, bon, samedi, frein, lundi, cale, pɛtɛɛsi (hard liquoi; apɛtɛsi-Twi, also borrowed from Ga language (akpeteshi)
	Phonological adaptation	Kosiera (2x)
	Morphological adaptation	fiili (feel; Ghanaian local English= test blood), essensi, patoro (petrol), kyoki (to chock- to wedge, farsi(7x), nakoli, jongni (to join)
Type A: loanblends	Derivational	Doctorri (3x)
	Compounding	doctor-yir (2x)
Type B: Loan shifts	Semantic	centure (shingles: this virus infection sometimes starts from one spot and spreads round the body
	Calques	
Type C: Loan creations	Pure native	kurwur, nirpele (french),nasaal nuru puo (public office holder- in the hands of the whiteman
	Hybrids	school-bie (school-child), school-biir (school-children) (2x)

Appendix C. Socio-demographic questionnaire

Module 1. Biography

1. Name ____/number (________)
2. Sex: M _______ F _______
3. Date of birth (age): ____
4. Level of Education: ____
5. Occupation: _________________________
6. List all languages that you speak and where you learned them (Dagara/French/English/Twi):
   ____
7. Which languages do you use more often and in which contexts? And the least often?
   ____
8. If you had only 10 friends, how many would live in Ouessa/Hamile [non-local town]?
   ____
9. How many times a week do you go to Ouessa/Hamile [non-local town]?
   ____
10. How many of your family members live in Ouessa/Hamile [non-local town]? Who are they?
    ____
11. How many local women/men (same sex as the speaker) from Ouessa/Hamile [non-local town] work with you?
    ____

Appendix D. Sociolinguistic questionnaire (English/French/Dagara)

Module 2. Health issues

2.1. Have you heard about any health insurance system in this area?

2.2. How helpful is the health insurance system to you?

2.3. Where do you usually go for medical treatment whenever you fall sick?

2.4. Who are the medical staffs who usually take care of you at the medical center?

2.5. What kind of traditional medicine do you use and for what purposes?

2.6. In your opinion, which town has the best medical care: Ouessa or Hamile? Why do you think it is?

Module 3. Religious and cultural issues

3.1. On what days do you usually go to worship?

3.2. What churches do you visit?

3.3. What special religious celebrations do you attend? What do they consist of?

3.4. What other cultural festivals do you often celebrate in this town/area?

3.5. How often to you attend celebrations in other towns? Which towns?

Module 4. Economic activities

4.1. Have you ever interacted with a Burkina/Ghana Dagara? In what circumstance?

4.2. How often do you go to the other side of the border? For what purposes?

4.3. Which of the following markets have you ever been to eg (Zongo, Dano, Hamile)?

4.4. On what day does it or do they fall?

4.5. How do you usually get to the market centers?

Module 5. Education issues

5.1. Do you need education to succeed in life?

5.2. Do you think Dagara should be given the same official status as French/English in the school curriculum?

5.3. Which language do you think should be used as medium of instruction in the schools in the Dagara homelands and why?

5.4. How was your education similar and different from those of your children, brothers or sisters?

5.5. Is the education on the other side of the border?

Module 6. Linguistics issues

6.1. We all mix Dagara with words from other languages. What words from other languages do you use when speaking Dagara?

6.2. Have you ever interacted with a Ghanaian/Burkina Dagara? How is his/her Dagara language similar to yours? How is it different?

6.3. Do you have trouble understanding a Ghanaian/Burkina Dagara when speaking Dagara?

6.4. Who speaks the best Dagara?

6.5. How important is French or English to you?

6.6. How important is it to speak Dagara in Burkina/ Ghana?

6.7. What language do you speak with your parents/children/siblings at home and why?

Appendix E. French translation

Module 1. Biographie

1. Nom____(numéro) ________________
2. Sexe: M____ F____
3. Date de naissance:____
4. Education:____
5. Occupation:____
6. Liste de toutes langues que vous parlez:____________________________________
7. Quelles langues utilisez-vous très souvent et dans quel contexte ? Et le moins souvent ?
   ____
8. Si vous aviez 10 amis/amies, combien d'entre eux/elles habiteraient à Ouessa/Hamile?
   ____
9. Combien de foix par semaine allez-vous à Ouessa/Hamile? ________________________
10. Combien de personnes dans votre famille habitent à Ouessa/Hamile?________________
11. Combien de femmes/hommes (même sexe que vous) d'Ouessa/Hamile travaillent avec vous ?____

Module 2. La santé

2.1. Est-ce que vous connaissez le système de l'assurance médicale dans cette ville ?
2.2. Est-ce que le système de l'assurance médicale est important pour vous ?
2.3. D'habitude où allez-vous pour les soins médicaux quand vous tombez malade ?
2.4. Qui sont les personnels médicaux qui prennent charge de vous quand vous allez au centre médical ?
2.5. Quel sorte de soin médical traditionnel utilisez-vous et pour quelle maladie?
2.6. Selon vous, quelle ville a le meilleur soin médical : Ouessa ou Hamile ? Pourquoi ?

Module 3. La religion et la culture

3.1. Quel jour allez-vous au culte ?
3.2. Quelles églises visitez-vous ?
3.3. Quelles fêtes religieuses particulières assistez-vous ? Elles consistent de quoi ?
3.4. Est-ce qu'il y a d'autres fêtes culturelles que vous fêtez dans cette ville ?
3.5. Allez-vous très souvent aux fêtes dans d'autres villes ? Lesquelles ?

Module 4. Activités économiques

4.1. Avez-vous déjà communiqué avec un Dagara du Burkina/Ghana ? Dans quelle situation ?

4.2. Franchissez-vous très souvent la frontière ? Pour quelles raisons franchissez-vous la frontière ?

4.3. Lesquels de ces marchés avez-vous déjà visité ? (par exemple Zongo, Dano, Dissin) ?

4.4. Quels jours tombent ces marchés ?

4.5. Par quel moyen de transport allez-vous aux marchés ?

Module 5. L'éducation

5.1. Est-ce que l'éducation formelle est nécessaire, pour réussir dans la vie?

5.2. Pensez-vous que le Dagara devrait avoir le même statut officiel que le Français ou l'Anglais dans votre pays?

5.3. Quelle langue pensez-vous qu'il faut utiliser comme langue d'enseignement dans les écoles au pays Dagara et pourquoi ?

5.4. Remarquez-vous une différence entre votre système de formation à celle de vos enfants, frères et sœurs ?

5.5. Estimez-vous que l'éducation à l'autre côté de la frontière est plus meilleure ?

Module 6. Le choix linguistique**.**

6.1 Nous mélangeons le Dagara avec des mots étrangers? Quels mots des autres langues étrangères utilisez-vous dans votre discours ?

6.2 Quand vous communiquez avec un Dagara de Burkina/Ghana, est-ce que son Dagara est similaire au vôtre ? Est-ce que c'est différent ?

6.3 Est-ce que vous avez des problèmes de compréhension quand vous communiquez avec un Dagara de Burkina/Ghana ?

6.4 A votre avis, qui parle le meilleure Dagara? Pourquoi ?

6.5 Quelle est l'importance du Français ou de l'Anglais pour vous?

6.6 A votre avis, combien est-il important de parler Dagara au Burkina/Ghana?

6.7 Quelle langue parlez-vous avec vos parents/frères/sœurs/enfants à la maison ? Et pourquoi ?

Appendix F. Dagara translation

Module 1. Fo yele

1. Yuor ____ (bangfo)____________________
2. Deb_______________ Pog _______________
3. Dogfo bibir (yome) ____
4. Zano tab zie____
5. Ton nuor____
6. Kokoe fo na banga nuor ani zie ne fo na zani a (Dagara, French, English, Twi)

   ____
7. Kokoe a bobe sob na fomi yere yaga a bibir za? Bii yere bulang? ____________________
8. Me fuu ter bari/kyenmine pie a, a ngmin lebe kpier Ouessa bii Hamile ?______________
9. Gbee agmin na fu mi kyen a Ouessa/Hamile daa za puo ?__________________________
10. A fu nibe a ngmin lebe kpier Ouessa/Hamile ? ___________________________________
11. Deebe bii pogbe a ngmin lebe na yi Ouessa/Hamile lang tone ni fo? _________________

Module 2. Yang mhaaro yele

2.1. Fu won a ya libir ke de gan ti sani a fo baalu yele a kaa?

2.2. A yel paala na song ne fu naa?

2.3. Nyine na fo mi kyen ti sani a fo baalu ?

2.4. A mine lebe mi be a baalbe yir a sane a fo baalu ?

2.5. A fu tieru puo, teng buor sob puo na be sae a baalu vela?

Module 3. Puoru ani saakumu yele

3.1. Bibir buor na fu mi kyen a pouru ?

3.2. Nyine na fu mi kyen a pouru ?

3.3. Pouru bagr kpee kang benbe fu mi kyenii/ buu na be mi irea be ?

3.4. Saakum yele a bobe sob na ni mi maale a paalu na puo?

3.5. Gbee a ngmin na fu mi kyen saakum yel mhaal zie?

Module 4. Yeru yele

4.1. Fuu ni Burkina bii Ghana Dagara dangna lang zi yer yeruu ? Me ngmin ngmin na ?

4.2. Gbee a ngmin puo na fu mi gang a man gangn ? Buu na fu m kyen ti i ?

4.3. A daru aana bour sob na fu mi Kyen, me (Zongo, Dano, Dissin)?

4.4. Bibir buor puo na a daru aana lore?

4.5. Ngmi ngmina fu mi i ta a daru aana zie?

Module 5. Zano yele

5.1. A segni taa ke fu zane zanu nye fu minga?

5.2. Fu tierke ti zeg a Dagara ko do saa me a Nasakokor bii a Bonkokor bii ?

5.3. Kokor buor sob nu fu tier ke be naa ti de na wule ni a bibiir a zanu zie?

5.4. A fu zanu ani a fu bibiir, a fu yebr, bii a fu yepuule zanu segni taar bii a zuo ni taar?

5.5. A zanu a man gangn viele yaga gang a ka bii?

Module 6. Kokor peepee zanu yele?

6.1. Timi miile ni a Dagara ni kokoi a mine. Yelbie a bobe sob na fu mi miile ni a fu Dagara yeru puo ?

6.2. Fuu ni Ghana/Burkina Dagara dang na lang zi yer yeruu ? A o Dagara ni a fu Dagara ngmen taar bii ? A teri teetee ?

6.3. Fuu wa kyaare Ghana/Burkina Dagara fu mi wone ni a o yeru zaa ? Buunu so?

6.4. Aa Dagara yeru na kpe yaga/

6.5. A Bonkokor ni a Nasakokor teri tone ko fu bii?

6.6. A Dagara kokor yeru a Ghana ni a Burkina paalu puo teri tone bii?

6.7. Kokor buor sob nu fuu ni a fo dogbe, a fo bibiir, ani a fo yebr me yere a yir puo? Buunu so?

Appendix G: Chi-sqaure tests (Ouessa and Hamile samples)

Age groups (Ouessa – Burkina Faso)

Younger people will borrow more words from (English, French, Twi, etc.) than older
generation, given that the youth are more motivated to explore the outside world
(influence of globalization).

Age groups in Ouessa (Burkina). Observed frequencies (in which the variables are not independent)

Donor Languages	Age group 1	Age group 2	Age group 3	Age group 4	Total
	18-25	**26-38**	**40-52**	**54-60**	
English	23	112	65	90	290
French	507	305	654	479	1945
Twi	25	43	27	23	118
Dioula	0	0	1	1	2
More	1	1	0	0	2
Total	556	461	747	593	2357

Frequency distribution Age groups in Ouessa (Burkina)

Donor Languages					Total
	18-25	**26-38**	**40-52**	**54-60**	
English	68.41	56.72	91.91	72.96	290
French	458.81	380.42	616.43	489.34	1945
Twi	27.84	23.08	37.40	29.69	118
Dioula	0.47	0.39	0.63	0.50	2
More	0.47	0.39	0.63	0.50	2
Total	556	461	747	593	2357

Chi-square computation(Burkina)

Raw	Column	Observed(O)	Expected(E)	(O-E)^2	[(O-E)^2]/E
1	1	23	68.41	2061.98	30.14
2	1	507	458.81	2322.08	5.06
3	1	25	27.84	8.04	0.29
4	1	0	0.47	0.22	0.47
5	1	1	0.47	0.28	0.59
1	2	112	56.72	3055.83	53.88
2	2	305	380.42	5687.86	14.95
3	2	43	23.08	396.83	17.19
4	2	0	0.39	0.15	0.39
5	2	1	0.39	0.37	0.95
1	3	65	91.91	724.11	7.88
2	3	654	616.43	1411.84	2.29
3	3	27	37.40	108.11	2.89
4	3	1	0.63	0.13	0.21
5	3	0	0.63	0.40	0.63
1	4	90	72.96	290.31	3.98
2	4	479	489.34	107.01	0.22
3	4	23	29.69	44.73	1.51
4	4	1	0.50	0.25	0.49
5	4	0	0.50	0.25	0.50
				Chi-sq =144.52	

Age groups (Hamile – Ghana)

Observed frequencies (in which the variables are not independent)					
Donor Languages	Age group 1	Age group 2	Age group 3	Age group 4	Total
	18-25	**26-38**	**40-52**	**54-60**	
English	684	1241	671	671	3267
French	6	21	19	30	76
Twi	57	99	73	93	322
Hausa	0	1	4	6	11
Arabic	3	4	0	1	8
Total	750	1366	767	801	3684

Expected Frequencies					
Donor Languages					Total
	18-25	**26-38**	**40-52**	**54-60**	
English	665.11	1211.38	680.18	710.33	3267
French	15.47	28.18	15.82	16.52	76
Twi	65.55	119.40	67.04	70.01	322
Hausa	2.24	4.08	2.29	2.39	11
Arabic	1.63	2.97	1.67	1.74	8
Total	750	1366	767	801	3684

Chi-square computation(Ghana)					
Raw (langs)	Column (age grps)	Observed(O)	Expected(E)	(O-E)^2	[(O-E)^2]/E
1	1	684	665.11	356.99	0.54
2	1	6	15.47	89.72	5.80
3	1	57	65.55	73.17	1.12
4	1	0	2.24	5.01	2.24
5	1	3	1.63	1.88	1.15
1	2	1241	1211.38	877.38	0.72
2	2	21	28.18	51.56	1.83
3	2	99	119.40	415.97	3.48
4	2	1	4.08	9.48	2.32
5	2	4	2.97	1.07	0.36
1	3	671	680.18	84.30	0.12
2	3	19	15.82	10.09	0.64
3	3	73	67.04	35.53	0.53
4	3	4	2.29	2.92	1.28
5	3	0	1.67	2.77	1.67
1	4	671	710.33	1547.09	2.18
2	4	30	16.52	181.59	10.99
3	4	93	70.01	528.48	7.55
4	4	6	2.39	13.02	5.44
5	4	1	1.74	0.55	0.31
				Chi-sq =	**50.28**

Gender Ouessa (Burkina)

Observed frequencies (in which the variables are not independent)			
Donor Languages	Gender		
	Men	Women	Total
English	226	64	290
French	885	1059	1944
Twi	70	48	118
Hausa	1	1	2
Arabic	1	1	2
Total	1183	1173	2356

Expected Frequency distribution			
Donor Languages	Gender		
	Men	Women	Total
English	145.62	144.38	290.00
French	976.13	967.87	1944.00
Twi	59.25	58.75	118.00
Hausa	1.00	1.00	2.00
Arabic	1.00	1.00	2.00
Total	1183.00	1173.00	2356.00

Chi-square computation(Burkina)					
Raw	Column	Observed(O)	Expected(E)	(O-E)^2	[(O-E)^2]/E
1	1	226	145.62	6461.68	44.37
2	1	885	976.13	8303.88	8.51
3	1	70	59.25	115.55	1.95
4	1	1	1.00	0.00	0.00
5	1	1	1.00	0.00	0.00
1	2	64	144.38	6461.68	44.75
2	2	1059	967.87	8303.88	8.58
3	2	48	58.75	115.55	1.97
4	2	1	1.00	0.00	0.00
5	2	1	1.00	0.00	0.00
					Chi-sq =110.13

Gender Hamile (Ghana)

Observed frequencies (in which the variables are not independent)			
Donor Languages	Gender		
	Men	Women	Total
English	1735	1532	3267
French	29	47	76
Twi	161	161	322
Hausa	2	9	11
Arabic	8	0	8
Total	1935	1749	3684

Expected Frequency distribution			
Donor Languages	Gender		
	Men	Women	Total
English	1715.97	1551.03	3267.00
French	39.92	36.08	76.00
Twi	169.13	152.87	322.00
Hausa	5.78	5.22	11.00
Arabic	4.20	3.80	8.00
Total	1935.00	1749.00	3684.00

Chi-squre computation(Burkina)					
Raw	Column	Observed(O)	Expected(E)	(O-E)^2	[(O-E)^2]/E
1	1	1735	1715.97	362.02	0.21
2	1	29	39.92	119.22	2.99
3	1	161	169.13	66.08	0.39
4	1	2	5.78	14.27	2.47
5	1	8	4.20	14.43	3.43
1	2	1532	1551.03	362.02	0.23
2	2	47	36.08	119.22	3.30
3	2	161	152.87	66.08	0.43
4	2	9	5.22	14.27	2.73
5	2	0	3.80	14.43	3.80
					Chi-sq = 19.99

Level of education (Ouessa – Burkina)

Observed frequencies (in which the variables are not independent)				
Donor Languages				
	Level 1	**Level 2**	**Level 3**	**Total**
English	114	94	97	305
French	511	711	802	2024
Twi	45	35	35	115
Dioula	0	0	2	2
More	0	2	0	2
Total	**670**	**842**	**936**	**2448**

Expected Frequency distribution				
Donor Languages				
	Level 1	**Level 2**	**Level 3**	**Total**
English	83.48	104.91	116.62	305.00
French	553.95	696.16	773.88	2024.00
Twi	31.47	39.55	43.97	115.00
Dioula	0.55	0.69	0.76	2.00
More	0.55	0.69	0.76	2.00
Total	**670.00**	**842.00**	**936.00**	**2448.00**

Chi-square computation: Level of education in Ouessa (Burkina)					
Raw	Column	Observed(O)	Expected(E)	(O-E)^2	[(O-E)^2]/E
English 1	1	114	83.48	931.70	11.16
French 2	1	511	553.95	1845.07	3.33
Twi 3	1	45	31.47	182.93	5.81
Dioula 4	1	0	0.55	0.30	0.55
More 5	1	0	0.55	0.30	0.55
English 1	2	94	104.91	118.94	1.13
French 2	2	711	696.16	220.12	0.32
Twi 3	2	35	39.55	20.75	0.52
Dioula 4	2	0	0.69	0.47	0.69
More 5	2	2	0.69	1.72	2.50
English 1	3	97	116.62	384.85	3.30
French 2	3	802	773.88	790.60	1.02
Twi 3	3	35	43.97	80.47	1.83
Dioula 4	3	2	0.76	1.53	2.00
More 5	3	0	0.76	0.58	0.76
				Chi-sq = 35.48	

Level of education (Hamile – Ghana)

Observed frequencies (in which the variables are not independent)				
Donor Languages				
	Level 1	Level 2	Level 3	Total
English	701	1011	1541	3253
French	24	35	24	83
Twi	65	115	149	329
Hausa	1	8	2	11
Arabic	2	1	5	8
Total	793	1170	1721	3684

Expected Frequency distribution				
Donor Languages				
	Level 1	Level 2	Level 3	Total
English	700.23	1033.12	1519.66	3253.00
French	17.87	26.36	38.77	83.00
Twi	70.82	104.49	153.69	329.00
Hausa	2.37	3.49	5.14	11.00
Arabic	1.72	2.54	3.74	8.00
Total	793.00	1170.00	1721.00	3684.00

Chi-square computation Hamile (GH)					
Raw	Column	Observed(O)	Expected(E)	(O-E)^2	[(O-E)^2]/E
1	1	701	700.23	0.60	0.00
2	1	24	17.87	37.62	2.11
3	1	65	70.82	33.86	0.48
4	1	1	2.37	1.87	0.79
5	1	2	1.72	0.08	0.04
1	2	1011	1033.12	489.25	0.47
2	2	35	26.36	74.65	2.83
3	2	115	104.49	110.52	1.06
4	2	8	3.49	20.31	5.81
5	2	1	2.54	2.37	0.93
1	3	1541	1519.66	455.56	0.30
2	3	24	38.77	218.27	5.63
3	3	149	153.69	22.03	0.14
4	3	2	5.14	9.85	1.92
5	3	5	3.74	1.59	0.43
				Chi-sq =22.95	

Observed frequencies (in which the variables ate not independent)						
	Registers in Hamile (Ghana)					
Donor Languages	**Health**	**Rel/culture**	**Economy**	**Education**	**Lang**	**Total**
English	1612	420	215	821	185	**3253**
French	4	2	54	3	20	**83**
Twi	100	131	3	32	30	**296**
Hausa	11	0	0	0	0	**11**
Arabic	0	8	0	0	0	**8**
Total	**1727**	**561**	**272**	**856**	**235**	**3651**

Expected frequencies						
	Registers in Hamile (Ghana)					
Donor Languages	**Health**	**Rel/culture**	**Economy**	**Education**	**Lang**	**Total**
English	1538.74	499.84	242.35	762.69	209.38	**3253**
French	39.26	12.75	6.18	19.46	5.34	**83**
Twi	140.01	45.48	22.05	69.40	19.05	**296**
Hausa	5.20	1.69	0.82	2.58	0.71	**11**
Arabic	3.78	1.23	0.60	1.88	0.51	**8**
Total	**1727**	**561**	**272**	**856**	**235**	**3651**

Chi-square computation					
Language	**Register**	**Observed (O)**	**Expected (E)**	**(O-E)^2**	**([O-E)^2]/E**
English	Health	1612	1538.74	5367.38	3.49
French	Health	4	39.26	1243.32	31.67
Twi	Health	100	140.01	1601.14	11.44
Hausa	Health	11	5.20	33.60	6.46
Arabic	Health	0	3.78	14.32	3.78
English	Rel/culture	420	499.84	6375.18	12.75
French	Rel/culture	2	12.75	115.64	9.07
Twi	Rel/culture	131	45.48	7313.27	160.79
Hausa	Rel/culture	0	1.69	2.86	1.69
Arabic	Rel/culture	8	1.23	45.84	37.29
English	Economy	215	242.35	747.96	3.09
French	Economy	54	6.18	2286.42	369.76
Twi	Economy	3	22.05	362.98	16.46
Hausa	Economy	0	0.82	0.67	0.82
Arabic	Economy	0	0.60	0.36	0.60
English	Education	821	762.69	3400.48	4.46
French	Education	3	19.46	270.93	13.92
Twi	Education	32	69.40	1398.69	20.15
Hausa	Education	0	2.58	6.65	2.58
Arabic	Education	0	1.88	3.52	1.88
English	Lang	185	209.38	594.50	2.84
French	Lang	20	5.34	214.85	40.22
Twi	Lang	30	19.05	119.85	6.29
Hausa	Lang	0	0.71	0.50	0.71
Arabic	Lang	0	0.51	0.27	0.51
					Chi sq = 762.71

P-VALUE = 5.6823E-152

$X^2 = 762$, df = 16	
p-value = 5.6823E -152	
p-value < 0.0005	
reject null hypothesis	

Observed frequencies (in which the variables ate not independent)						
	Registers in Ouessa (Burkina)					
Donor Languages	**Health**	**Rel/culture**	**Economy**	**Education**	**Lang**	**Total**
English	76	60	92	42	20	**290**
French	242	971	146	485	98	**1942**
Twi	10	28	59	15	6	**118**
Hausa	0	0	2	0	0	**2**
Arabic	0	0	2	0	0	**2**
Total	**328**	**1059**	**301**	**542**	**124**	**2354**

Expected frequencies						
	Registers in Ouessa (Burkina)					
Donor Languages	**Health**	**Rel/culture**	**Economy**	**Education**	**Lang**	**Total**
English	40.41	130.46	37.08	66.77	15.28	**290**
French	270.59	873.65	248.32	447.14	102.30	**1942**
Twi	16.44	53.08	15.09	27.17	6.22	**118**
Hausa	0.28	0.90	0.26	0.46	0.11	**2**
Arabic	0.28	0.90	0.26	0.46	0.11	**2**
Total	**328**	**1059**	**301**	**542**	**124**	**2354**

Chi-square computation					
Language	**Register**	**Observed (O)**	**Expected (E)**	**(O-E)^2**	**([O-E)^2]/E**
English	Health	76	40.41	1266.80	31.35
French	Health	242	270.59	817.56	3.02
Twi	Health	10	16.44	41.50	2.52
Hausa	Health	0	0.28	0.08	0.28
Arabic	Health	0	0.28	0.08	0.28
English	Rel/culture	60	130.46	4965.04	38.06
French	Rel/culture	971	873.65	9476.53	10.85
Twi	Rel/culture	28	53.08	629.26	11.85
Hausa	Rel/culture	0	0.90	0.81	0.90
Arabic	Rel/culture	0	0.90	0.81	0.90
English	Economy	92	37.08	3016.03	81.34
French	Economy	146	248.32	10469.10	42.16
Twi	Economy	59	15.09	1928.23	127.80
Hausa	Economy	2	0.26	3.04	11.90
Arabic	Economy	2	0.26	3.04	11.90
English	Education	42	66.77	613.62	9.19
French	Education	485	447.14	1433.49	3.21
Twi	Education	15	27.17	148.09	5.45
Hausa	Education	0	0.46	0.21	0.46
Arabic	Education	0	0.46	0.21	0.46
English	Lang	20	15.28	22.31	1.46
French	Lang	98	102.30	18.47	0.18
Twi	Lang	6	6.22	0.05	0.01
Hausa	Lang	0	0.11	0.01	0.11
Arabic	Lang	0	0.11	0.01	0.11
					Chi sq = 395.72
Df = (Row -1) * (Column - 1) = (4 * 4) = 16					

P-VALUE= 2.87164E-74

$X^2 = 395$, df = 16	
p-value = 2.87164E -74	
$p\text{-value} < 0.0005$	
reject null hypothesis	