6.0 Introduction

In this chapter I shall address the question of whether current theories of grammar are adequate to account for CM (e.g., Singh 1986). It was pointed out in the preceding chapter that investigators such as Singh (1986) have downplayed the role of contextual variables in the formulation of constraints on CM. According to such investigators, it was observed, constraints on CM can be better accounted for using current grammatical theories such as "Government and Binding" (e.g., Chomsky 1981). This is because in these investigators' view CM involves central aspects of universal grammar. Singh's view of CM within current grammatical theories such as "Government and Binding" is discussed briefly in the preceding chapter, section 5.4.3, and therefore I shall not go into it again at this juncture.

Unlike investigators such as Singh, I shall argue that current theories of grammar are too limited in scope to provide an explanation for code-mixed speech, let alone to explain why such speech must be syntactically constrained. This argument is based on the fact that current grammatical theories are constructed on the basis of performance data drawn from idealized homogeneous speech communities, while multilingual data and contexts have been excluded from consideration in the construction of these theories.

The discussion to be presented in this chapter draws partly from Bokamba and Kamwangamalu (1987) and partly from a manuscript of my own (e.g.,

This chapter consists of three main sections. In the first section I shall examine the goals of linguistic theory to provide a background against which the points that constitute the remainder of this chapter can be addressed. Following Bokamba and Kamwangamalu (1987), in the second section I shall examine a few facts from code-mixed speech involving Bantu and European languages in order to ascertain syntactic characteristics of such speech on the one hand, and the organization of the bilingual's grammatical systems in the production of code-mixed speech, on the other hand. In the third section I shall discuss the significance of CM to linguistic theory, focusing on the creative aspects of language as evidenced in CM. I shall point out that explaining the creative aspects of language constitutes one of the goals that linguistic theory originally purported to achieve (e.g., Chomsky 1965). I shall argue that CM is a product of bilingual's creativity and that as such, it constitutes a challenge to linguistic theory. This is because the theory must explain the underlying knowledge that enables the bilingual to reconcile rather than change the differences between his/her languages to produce a mode of communication which he/she perceives as not different from monolingual speech (e.g., Poplack 1979, Sankoff & Poplack 1980, Sridhar & Sridhar 1980, Woolford 1983, Muysken et al., 1985, Kachru 1986). It is therefore suggested that the use of multilingual and multi-dialectal data is a necessary extension of the domain of linguistic analysis if generative theory is to become a true model of the speaker's knowledge of language (Bokamba & Kamwangamalu 1987:23).
6.1 The goals of linguistic theory

6.1.1 An overview

In order to understand the significance of CM to linguistic theory, it is necessary to review the objectives of generative grammar and its basic assumptions and principles. In this section I shall be concerned with Government and Binding (GB) theory and its immediate predecessors (Standard and Extended Standard Theory) under which most code-mixing studies have been conducted.

Since its advent in 1957, generative transformational theory purported to be the study of "what one knows when one knows a language: that is, what has been learned, as supplemented by innate principles (Chomsky 1986: 24)." This study of the language faculty, whose ultimate objective is to formulate a theory of linguistic knowledge, has focused attention on four basic questions (e.g., Chomsky 1965, 1980, 1982, 1986, 1987, Labov 1978, Radford 1981, Riemsdijk & Williams 1986):

(80) a. What are the universal properties of human language?
   b. What constitutes knowledge of language?
   c. How is knowledge of language acquired?
   d. How is knowledge of language put to use?

While questions such as these have been the focus of most theories of grammar, each theory has developed its own architecture in addressing them.

For instance, in the Aspects of the Theory of Syntax (1965) model (i.e., Standard Theory, ST) and its extended versions (Extended Standard Theory, EST) of the 1970s, the theory attempted to answer the questions in (80) by assuming the construction of sentences to be based on the interaction of three major
components: syntactic, phonological, and semantic, with the first being basic and the last two interpretational. Two levels of linguistic representation, deep and surface structure, were postulated. The deep structure was related to the surface structure by a series of transformational rules (both in syntax and phonology). Transformational rules operated on specific base-rules (in the deep structure) to construct the phonetic surface structure (Chomsky 1965, 1975). Thus in the construction of a language-specific monolingual sentence such as the KiSwahili (81),

(81) .. na sasa watu ya kusaidia taabu yangu ni watu kama weve, tu.
(Now the people who can help (me) in my troubles are people such as you) (Scotton 1983: 124)

the relevant syntactic, lexical, and phonological representations upon which the transformational rules and rules of semantic interpretation would operate would be extracted from the grammar of KiSwahili. Such a grammar, it was assumed in the ST, was free of errors and diversity: it was the grammar of the idealized speaker who lived in a homogeneous speech community. This model underwent a number of changes in the 1970s to become the Extended Standard Theory (EST) (Radford 1981).

With the advent of Government and Binding (GB) theory in 1980s, the overall conception of linguistic theory has changed radically: it has moved from a theory of transformation rules that was developed in the 1950s and assumed in the Standard Theory stage of Aspects, to a theory of principles (Sells 1984, Riemsdijk & Williams 1986, Chomsky 1986). Regarding the theory of transformations, Riemsdijk and Williams (1986:91) observe that this theory
provides a general formalism for transformations, which allows the writer to specify complex descriptions, the kind of adjunction the rule carries out, whether the rule is obligatory or optional, and where the rule is ordered with respect to others. This implies that there are significant differences between Chomsky’s classical generative transformational grammar and his new theory, the Government and Binding Theory.

Unlike transformational grammar (TG), in the new theory structural descriptions for transformations are eliminated altogether (Riemsdijk and Williams 1986:92). Also, the transformations assumed under the previous model, TG, are now handled by a small set of principles based on the principles of the core grammar (i.e., universal grammar). Only one general movement rule, move alpha, has been retained under the new theory. The movement rule does not describe the details of particular constructions. Its role is not to relate (deep) D-structure to (surface) S-structure, but rather to move any element anywhere in a sentence in accordance with the sub-theories of GB: binding, θ-criterion, control, etc. (e.g., Chomsky 1982, 1986, Sells 1984). The differences described here between the classical TG and current theory of Government and Binding are primarily operational. That is, in spite of these differences the goals of linguistic theory have remained the same.

Linguistic theory aims at discovering the universal principles that underlie the core grammar in order to provide a "psychologically plausible" or "explanatorily adequate" theory of language acquisition (e.g., Chomsky 1965, 1981, 1986, Radford 1981, Riemsdijk & Williams 1986). One of the principles that underlie core
grammar is that language is creative. According to Chomsky (1965:6), both traditional linguistics and modern linguistics recognized this principle but they fell short in their attempt to account for it. But as will be shown below, this principle does not seem to be fully accounted for in Chomskyan linguistics either. This is because the intuitive data upon which linguistic theory is constructed are drawn solely from monolingual speech. Multilingual data such as code-mixed data, which are a concrete case of creativity in language use, have been excluded from participation in the construction of the theory. The language of a multilingual speech community, it is claimed,

would not be "pure" in the relevant sense [of this word], because it would not represent a single set of choices among the options permitted by universal grammar but rather would include "contradictory" choices for certain of these options (Chomsky 1986:17).

Therefore, Chomsky continues, [in an attempt to answer the questions in (80)],

we consider only the case of a person presented with uniform experience in an ideal speech community with no dialect diversity, and no variations among speakers. That is we exclude, for example, a speech community of uniform speakers, each of whom speaks a mixture of, say, Russian and French (e.g., an idealized version of the nineteenth century Russian aristocracy) (Chomsky 1986: 17)

6.1.2. Creativity in language use

One of the creative aspects of language use in monolingual speech is that monolingual speakers can produce an infinite set of sentences, even those they had never heard before. In connection with this, Chomsky writes that

the normal use of language is innovative in the sense that much of what we say in the course of normal language use is entirely new, not a repetition of anything that we have heard before, and not even
similar in pattern...to sentence or discourse that we have heard in the past (Chomsky 1972:12)

Chomsky goes on to say that this creative use of language is

incompatible with the idea that language is a habit-structure,...it is clear that you cannot innovate by habit, and the characteristic use of language is innovative. You are constantly producing new sentences in your lifetime--that is the normal use of language. (Chomsky 1967, quoted in Radford 1981:15)

These statements, which seem to have been made with respect to language use in monolingual communities, are equally true for language use in bi-/multilingual communities as well. The bilingual speaker has the ability to not only produce novel utterances in either of his/her languages, but he/she also has the ability to mix linguistic units from these languages as well. Thus CM provides a strong evidence for Chomsky's claim that language is innovative. In his/her innovative use of language, the bilingual speaker can contribute to the creation of new codes and new registers of language use in his/her speech community, as several studies of CM around the world have shown (e.g., Gumperz 1982, Nartey 1982, Scotton 1983, Kachru 1986).

In light of the foregoing observations it can be concluded that as a product of creativity in language use, CM falls within the scope of linguistic theory and of some of the goals that the theory was purported to achieve. This is not only because CM is one of the manifestations of the underlying knowledge that the bilingual has of his/her languages, but also because explaining this knowledge has always been the main object of inquiry of linguistic theory.
However, as I have mentioned earlier, no attention has been given to code-mixed data in particular, and multilingual data in general in the construction of the theory itself. Similarly, although Chomsky (1986: 3ff) and his followers (e.g., Riemdijk & Williams 1986) claim that performance/language use is one of the key issues to which current theory seeks answers, very little attention has been paid to it in the syntactic literature (e.g., Bokamba and Kamwangamalu 1987: 27). In this regard, Chomsky writes that

> there has been fair amount of criticism of work in generative grammar on the grounds that such work slights study of performance in favor of underlying competence (Chomsky 1965: 15).

Whether or not Chomsky agrees with this criticism is not relevant to our discussion here. The point is that while sociolinguistics has attempted to address the questions in (80) by examining data from both the performance and competence aspects of language (e.g., Labov 1970, 1972, Ervin-Tripp 1970, Hudson 1980, Trudgill 1983) or what Chomsky (1986:31) terms "Internalized" (I-) and "Externalized" (E-) language, research in phonological and syntactic theories has focused primarily on competence or I-language. In connection with this, Labov (1978: 348-349) notes that

> it has been asserted that nothing is to be learned from a "data flux:" that the speech of everyday life is degenerate data, and that we are not ready to study actual speech (performance) until we have laid a better foundation in the study of competence.
6.2 Code mixing, linguistic theory and linguistic description

6.2.1 Code-mixing and linguistic theory

The exclusion of dialectal and multilingual data as possible object of linguistic analysis raises serious questions about the adequacy of current theories in accounting for linguistic knowledge, viz., in answering the questions in (80). Consider, for example, the code-mixed examples in (82) and (83) from Bantu languages. These examples show an intricate interaction between the morphosyntactic rules of the language-pair involved in the discourse (e.g. Bokamba and Kamwangamalu 1987:23).

(82) Ciluba-French

a. Ndi n-ku-téléphoner bwa ku-ku-informer ne I Agr-OM-téléphoner to IM-OM-inform that

je n'ai pas oublié ton problème.
I have not forgotten your problem

'I am calling to inform you that I haven't forgotten about your problem.'

b. Ba-vwa ba-rendr-angana visite plusieurs fois Pl-be Agr-pay- recipr. visite many times

'They visited each several times.'

(83) Lingala-French

Boni Beya, osili kozonga! Tu rentres comme-ça sans me prevenir? (Bokamba 1985)

'Well, Beya, you are already back! You return (just like that) without warning me?'

The relevant question here is whether code-mixed sentences such as these can be accounted for in Government and Binding theory, for example. Unless this theory extends its scope of linguistic investigation so as to include multilingual data, it cannot possibly account for the code-mixed facts presented in (82)-(83).
This is because the facts under consideration come from two rather than one language, which implies that these facts are beyond the scope of current linguistic theories, including Government and Binding.

6.2.2 Code-mixing and linguistic description

Earlier in this study I raised some of the issues that have dominated CM literature during the past ten years or so. One such issue concerns the nature of the underlying knowledge that allows the bilingual speaker to produce code-mixed speech. Specifically, the questions that are often associated with this issue include the following, among others:

(a) How is code-mixed speech processed?
(b) How many grammars does the bilingual speaker have which allow him/her to engage in CM?
(c) How do these grammars interact in the production of code mixed speech?
(d) How can the knowledge that underlies code-mixed verbal behavior be described syntactically under current syntactic theories, say, GB theory?

These questions, some of which (e.g., (a) and (b)) were discussed briefly in Chapter Two, constitute a research program and cannot be accounted for fully in a study of this scope. Also, it is beyond everyone’s knowledge to determine exactly what it is that goes on in the bilingual’s brain when he/she produces code-mixed speech. Nonetheless, this has not prevented some investigators from speculating on how code-mixed speech is produced (e.g., Bautista 1975, Sridhar and Sridhar 1980, Lipski 1982, Joshi 1983, Bokamba 1988).

Bearing these observations in mind, what I would like to do in the remainder of this section is to present a few facts from code-mixed speech involving Bantu and European languages in order to ascertain their syntactic
characteristics. The facts, which are similar to those discussed in Bokamba and Kamwangamalu (1987: 30-33), are intended to allow certain inferences to be made concerning the nature and organization of the bilingual’s grammatical systems in the production of code-mixed speech.

I will consider, first, the Ciluba-French code-mixed sentences of (82), which I alluded to earlier.

(82) a. Ndi n-ku-téléphoner bwa ku-ku-informer ne
I Agr-OM-téléphoner to IM-OM-inform that
je n'ai pas oublié ton problème.
I have not forgotten your problem
'I am calling to inform you that I haven't forgotten about your problem.'

b. Ba-vwa ba-rendr-angana visite plusieurs fois
Pl-be Agr-pay-recipr. visit many times
'They visited each other several times.'

The sentence in (82a) consists of the code-mixed elements n-ku-téléphoner and ku-ku-informer. Apart from the Ciluba subject pronoun n̄di 'I' and the conjunction bwa ‘in order to,’ the remainder of the sentence, viz. the clause je n'ai pas oublié ton problème, is French and therefore is drawn from the French lexicon alone. The code-mixed phrase n-ku-téléphoner consists of the Ciluba pronoun n̄-, a SVA marker used for agreement between the subject n̄di and the verb téléphoner, the object marker -ku- referring to the addressee, and the French verb téléphoner.

Although phonetically and lexically the phrase nkutéléphoner is drawn from both French and Ciluba, the speaker uses it as if it comes from one language, Ciluba, the language of the discourse. The same analysis applies to the phrase ku-
ku-informer, except that in this case the first occurrence of ku- is an infinitive marker, while the second is an object marker coreferential with the incorporated object -ku- of n-ku-téléphoner. Note here that the verb informer in ku-ku-informer is in the infinitive form. Nevertheless, this verb is prefixed with the Ciluba infinitive marker ku- since Ciluba morphology requires that every infinitive verb be marked as such. This situation has contributed to the use of a double infinitive in Ciluba and related languages, a point to which I shall return in a subsequent chapter.

Sentence (82b) consists of the Ciluba auxiliary verb ba-vwa ‘they were,’ the Ciluba-French code-mixed clause ba-rendr-angana visite, and the French adverb plusieurs fois. Of interest here is the clause ba-rendr-angana visite, because of the interaction it shows between the two grammatical systems involved, French and Ciluba. Morphosyntactically, this clause is a combination of the Ciluba prefix ba-, a third person plural agreement prefix used for agreement between the subject prefix ba- and the verb rendr-angana; the French verb rendre, and the Ciluba reciprocal suffix -angana followed by the French lexical item visite, the object of the clause. Apart from the word visite, morphosyntactically all the elements that constitute the code-mixed clause ba-rendr-angana are integrated such that this clause looks as if it were drawn from the grammar of Ciluba alone.

Phonetically, however, Ciluba-French speakers can tell which element in that clause is French and which one is Ciluba. It seems to be the case that when producing code-mixed speech the Ciluba-French bilingual reconciles rather than changes the differences between the language-pair involved such that the resulting
mode of communication is similar to Ciluba monolingual speech. The resulting speech is similar to Ciluba rather than French monolingual speech because of the dichotomy between host language and guest language, whereby the host language is always the language of the discourse.

Finally, let me consider the discourse in (83), which I also alluded to earlier. Unlike (82), the discourse in (83) shows that there is no interaction between the grammatical systems of the languages involved, given that each sentence unit is produced in one language only. The sentence underlined is French. The remainder of this discourse is Lingala.

(83) Lingala-French

Boni Beya, osili kozonga! Tu rentres comme-ca sans me prevenir? (Bokamba 1988) '(Well, Beya, you are already back! You return (just like that) without warning me?)'

The discussion of the discourse in (83) is drawn from Bokamba and Kamwangamalu (1987: 32-33). The first sentence in this discourse, which consists entirely of Lingala lexical elements, would presumably be processed in the usual fashion by applying the rule of subject-verb-agreement (SVA) to the base in a GB framework. This application will produce the third person human subject prefix a- on the verb ko-sil-a. Similarly, the French sentence in the discourse would be processed in the same fashion by the application of SVA to produce the second person agreement marker -s on the verb rentrer. Again, unlike the construction of the sentences of (82), the processing of each of the sentences in (83) does not involve the interaction of the grammatical rules of the language-pair at any level: each grammar operates independently. This type of relation is characteristic of
code-switched, rather than code-mixed, speech.

To summarize: the facts presented here show that code-switched sentences are produced from monolingual grammar, while code-mixed sentences are produced from a combination of grammars. In the latter case, the grammatical rules of the language-pair concerned can interact at different levels ranging generally from the mere sharing of lexicons to complex morphosyntactic operations (e.g., SVA, suffixation, object incorporation, etc.). In each code-mixed sentence the speaker seems to treat morphosyntactically all elements as if they belonged to the same language; but in some cases phonetically and phonologically each lexical item retains the properties of the language of origin. Bearing these facts in mind, code-mixed speech seems much more integrative of the grammatical systems of the languages involved in the discourse than has hitherto generally been acknowledged in the literature (Bokamba and Kamwangamalu 1987: 33).

Cross-linguistic facts similar to those cited in (82), and (83) exist and can be cited from many other language-pairs throughout the world: French-Arabic (Bentahila & Davies 1983), Spanish-English (Lederberg & Morales 1985), Spanish-Hebrew (Berk-Saligson 1986), English-German (Clyne 1987). However, those facts will not materially alter the conclusions reached in this chapter. What is important at this juncture is the significance of the facts discussed here for linguistic theory. I shall take up this issue in the following section.

6.3 Significance of code-mixing to linguistic theory

Earlier in this chapter I observed that one of the principles that underlie core grammar is that language is creative. In the context of this study one piece
of evidence which supports this principle is the code-mixing phenomenon. Further evidence that language is creative comes from the multiplicity of new codes and new registers of languages that result from the bilingual’s use of CM. As observed earlier, some such registers of language use include, for example, Tex-Mex (Jacobson 1978), Singlish (Fernando 1977), Mix-Mix (Marasigan 1983), and Mix (Pandit 1985, Gibbon 1987), to list a few. Again, Tex-Mex is a code-mixed variety which has developed from the mixing of English and Spanish in the United States. Singlish has developed from the mixing of Sinhalese and English in Sri Lanka. Mix-Mix is the name given to the code-mixed variety that has developed from the mixing of Tagalog and English in the Philippines. And finally, Mix is the name given to the code-mixed variety that has developed from the mixing of Cantonese and English in Hong Kong, or from the mixing of Hindi and English in India.

In light of facts such as these CM can be considered as one of the concrete cases of externalization of the internalized knowledge/competence that the bilingual has of his/her languages. If this is accepted, then CM and other variant multilingual data present a challenge for current grammatical theories. This is because these theories are constructed on the basis of performance data drawn from idealized homogeneous speech communities, whereas contexts and multilingual data such as code-mixed speech has been excluded from theoretical consideration.

Interestingly, however, Chomsky (1986:16-17) recognizes that homogenous speech communities do not exist in the real world, and that each individual has acquired a language in the course of complex social interactions with people who
vary in the ways in which they speak and interpret what they hear and in internal representations that underlie their use of language. In addition, two people may share exactly the same knowledge of language but differ markedly in their ability to put this knowledge to use (Chomsky 1986: 9). Therefore, by abstracting from facts such as these in the construction of linguistic theory (e.g. Chomsky 1986: 18) and by maintaining the primacy of I-language over E-language, current linguistic theory fails to provide a proper account for human knowledge. The question, then, is whether the principle that language is creative, which is one of the principles that underlie core grammar, has a place within linguistic theory. And if so, how does this principle relate to language use in multilingual communities in general, and to CM in particular?

Current linguistic theory cannot provide satisfactory answers to these questions, given the narrowness of its scope of inquiry. It seems that if the main objective of linguistic theory is to provide a characterization of I-language, how it is constituted, how it is acquired, and how it is used (Riemsdijk & Williams 1986:3), then there is no better indicator of this knowledge than multilingual data in general, and code-mixed data in particular. This is because code-mixed data exemplify one of the most creative aspects of language knowledge not only by integrating lexicons and grammatical rules from different languages in the construction of sentences (Bokamba & Kamwangamalu 1987:39), but also by expanding the linguistic repertoire of the multilingual speaker with new codes and new registers of language use not available to monolingual speaker.
Furthermore, and as Bokamba and Kamwangamalu (1987:39) observe, to process sentences from one language requires one type of skill or level of knowledge, but to process sentences from two or more languages simultaneously requires special knowledge because of the complexity involved. This special knowledge, call it ability 2, can be understood by extending the domain of linguistic investigation to code-mixed and other multilingual data. The acceptance of these facts as legitimate objects of linguistic inquiry will not only lead to better insights in accounting for language knowledge, but will also force the theory to accommodate the code-mixed facts presented here and elsewhere in the literature (e.g., Poplack 1979, Kachru 1982, Gumperz 1982, Grosjean 1982, Joshi 1983, Clyne 1987, Bokamba & Kamwangamalu 1987).

6.4 Conclusion

The main objective of this chapter has been to argue for the inclusion of code-mixed and other multilingual data in the formulation of linguistic theory. The argument was motivated by, among other things, the fact that there is a correlation between code-mixed speech and the principle that language is creative, one of the principles which underlie core grammar. I have argued that CM is a product of bilingual's creativity in language use and that as such, it is an indirect reflection of part of the underlying knowledge that the bilingual has of his/her languages. This knowledge, it was argued, cannot be explained adequately in current theories of grammar, e.g. Government and Binding Theory. This is because such theories are constructed on the basis of the intuitive data drawn solely from monolingual speech. To account for such knowledge linguistic theory must extend
its domain of linguistic investigation to code-mixed and other multilingual data.

The question of how the bilingual uses the knowledge he/she has of his/her languages in the production of code-mixed speech requires extensive empirical work. In addition, as I observed earlier, it is currently beyond everyone's knowledge to determine exactly how code-mixed speech is generated or to explain what goes on in the bilingual's brain when such speech is produced. However, following Bokamba and Kamwangamalu (1987) it was observed that code-mixed speech exhibits extensive integration of the components of the language-pair involved in the discourse. I have contended that the bilingual speaker seems to reconcile rather than change the differences between these components such that the code-mixed speech he/she produces is perceived as being not different from monolingual speech. This is because, although phonologically, lexically and morphosyntactically the bilingual draws from two distinct languages in the production of code-mixed speech, such speech is perceived as though it belonged to one language only, the language of the discourse.
NOTES

1 Some of the facts presented in this chapter are drawn from a paper that Professor Bokamba and I presented at the 17th Conference on African Linguistics, Indiana University, Bloomington, Indiana, April 1987. The modified version of this paper was later published in Studies in the Linguistics Sciences, Vol. 17, no. 2, pp. 21-43 (1987).

2 The discussion of the creative aspects of language is based on my manuscript titled "The bilingual's creativity: Evidence from code-mixing," which was presented at a SLATE's informal meeting held in the home of Braj and Yamuna Kachru, December 1985.