

GRAMMATICAL CONSTRAINTS ON VERB PHRASES IN TWI/ENGLISH CODE SWITCHING

Millicent Quarcoo

Abstract

Studies have shown that items from the languages that participate in code switching (henceforth CS) do not occur at random. Rather they are guided by the grammatical rules of the languages involved. Verbs that participate in Twi/English CS also do not occur at random. They are constrained by the grammatical rules of both Twi and English. Twi is a dialect of Akan, the most widely spoken language in Ghana. Using the Matrix Language Frame (MLF) model of Myers-Scotton (1993a), this work shows that Twi is the matrix language (ML) and English, the embedded language (EL) in Twi/English CS. Based on this, the work discusses the morphological and phonological constraints on English verbs in Twi/English CS. It also shows how English verbs are only allowed in syntactic structures that already exist in Twi. The discussion covers the constraints of Twi tense and aspect on English verbs, and serial verb construction (SVC). Finally, the work looks at English verbs that may not participate in Twi/English CS. All these are discussed to show how the MLF model is applicable to Twi/English CS.

1.0. Introduction

Code switching is defined variously as the use of two or more languages in the same speech context. This study defines code switching as the use of two different grammars in a single clause. The work aims at describing and explaining the grammatical constraints on Verb Phrases (VPs) in Twi/English intra-sentential CS. This means that discussions of CS constituents will focus on describing both the surface CS instances on VPs and also the principles and constraints that govern the co-occurrences of morphemes from the two languages involved. Twi is a dialect of Akan, the biggest language in Ghana. It is the first language of close to 50% of the

population (2000 population census). It is also estimated that about 70%-80% of the population speak Twi as a second language.

Myers-Scotton's (1993a) Matrix Language Frame (MLF) model is used to analyze the data.¹ The work will be in five parts. The first part will discuss the constraints on the morphology and phonology on English verbs and the constraints of Twi tense and aspect on English verbs. The second part will discuss the constraints on English verbs in Twi structures. The third part will be on English multi-word verbs, verbs with an obligatory *se* 'that' clause and serial verb construction (SVC). Part four will discuss some verbs that may not participate in CS and the final part will be the conclusion.

Many linguists have advanced theories on the structural aspect of inter-sentential code switching that tries to explain the reasons why some morpheme combinations are allowed and others are not. For instance, Timm (1975), one of the pioneers to start a syntactic investigation into Spanish-English CS, explains that there are syntactic rules governing the switching process and that some segments of speech cannot be switched. She suggests that within the Spanish-English CS corpus switching may not be possible between a pronoun and a finite verb and between auxiliary and verb "unless the principal verbal element is a phonologically adapted English loan word" (Timm 1975, from Forson (1979:17)). Example (1a) from Timm (1975) illustrates how a switch between a pronoun and a verb is not possible. Example (1b), also from Timm (1975), shows how it is impossible to switch between an auxiliary and a verb.

(1a) *yo went
'I went' (Spanish/ English; Timm 1975 from Forson 1979)

(1b) *I must esperar
'I must wait' (Spanish/English; Timm (1975) from Forson (1979))

¹ The MLF model was chosen for this work because unlike most models, it adequately explains some of the switch patterns that occur in Twi/English CS. This however does not mean it is comprehensive. Two models are discussed here to justify why the MLF model was selected. Other possible models are the *Functional Head Constraint Model* (Belazi, Rubin and Toribo 1991, 1994) and *Government Constraint* (Halmari 1997).

However, Bentahila and Davies (1983) find examples in their Arabic-French CS data to contradict the assertion in (1b). In example (1c) Arabic² auxiliaries precede French main verbs.

- (1c) tajbqa j-confronter ces idées
 ‘He keeps imperfect-oppose these ideas (he keeps opposing these ideas)’
 (Bentahila and Davies (1983: 315))

The Twi-English CS data show similar counter-examples, where Twi auxiliaries are followed by English main verbs. In example (1d) **bear** takes the Twi future marker **be**:

- (1d) Costo³ no hwaen na ɔ-bε-bear sa costo no?
 cost DET⁴who FOC 3G-FUT-bear that cost DET
 ‘The cost, who will bear it?’ (Ada: no 15)⁵

Poplack (1980, 1981) argues that two constraints govern CS: *the Free Morpheme Constraint* and the *EquivalenceConstraint*. The Free Morpheme Constraint (FMC) stipulates that switching is not possible between a lexeme and a bound morpheme. In the light of this FMC, (2a) is unacceptable because the Spanish bound morpheme *iendo* cannot be bound to the English free morpheme **eat**.

- (2a) * eat-iendo
 (eating) (Poplack (1980) from Myers-Scotton (1993))

Bentahila and Davies (1983) support this claim by saying that “the only boundaries which seem to block switching are those morpheme boundaries internal to words.” In example (2b) the French bound morpheme ‘**ment**’ cannot be bound to the Arabic free morpheme **yza:l**.

² Arabic is in normal font and French is in italics. In all examples the unit of analysis is underlined.

³ An extra vowel is attached to a closed syllable to open it. It must agree in harmony with the vowel in the stem. See explanation in 5.1.1.

⁴ Abbreviations- 1:First Person, 2:Second Person, 3:Third Person, CON: Consecutive, DET: Determiner, EMP: Emphasis, FOC: Focus marker, FUT: Future, INDIC: Indicative, MO: Motional, NEG: Negative, PAT: Particle, PAST, PERF: Perfective Aspect, PL: Plural, PROG: Progressive Aspect, SG: Singular.

⁵ Data IDs- Ada: no1-33 (Adakabre- Hot fm), Eme: 34-86 (conversation), Darl: 87-99 (conversation), Tess: 100-128 (conversation), Delay (Tv 3): 129-174, DC: 175-193 (Double Critical- Asempafm), Aku:194-225 (Akumaa-metro tv), Kokro: 226-300 (Kokrokoo-Peace fm),

- (2b) * **yza:lment**
'pretty-ly (prettily)' (Bentahila and Davies (1983:317))

The FMC was met with counter-examples from different languages. For example, Halmari (1997: 77) finds in her Finnish/English CS data numerous counter-examples such as **lunchin** (2c) where the Finnish bound morpheme **in** is attached to the English free morpheme **lunch** in (2c).

- (2c) Meiän opettaja meinaan aina **lunchin** alla kysyy että...
our teacher mean+1SG always +GEN under ask+3SG that...
'Our teacher, you know, always asks before lunch that...' (Halmari 1997:77)

In Swahili-English, Myers-Scotton (1993a) also shows how the English verb stem **spoil** is inflected with Swahili system morphemes in example (2d).

- (2d) Mmathe wa hiyo hao alikuwa akilia joo vile vitu zi- -me- -spoil- i- w- a.
they PERF spoil-θ-PASS-INDIC.
'The mother of that house was crying oh how things were spoiled [for her]'
(Myers-Scotton Swahili/English 1993: 103)

Twi-English CS also shows counter-examples to these claims. In Twi/English CS Twi tense and aspect markers are bound to the English verbs they accompany. In example (2e) two distinct **ɪ** forms are bound to the verbs **suggest** and **reject**. The first **ɪ** is the extra vowel that creates an extra syllable and thus changes the word from a disyllabic to a three syllable word and the second is the past tense morpheme.

- (2e) Sɛ wo suggestɪ-ɪ wo **cabinet** na ɔmo rejectɪ-ɪ a
If 2SG suggest-PAST in cabinet and 3PL reject-PAST PAT
san suggestɪ bio ɛ
return suggest again PAT
'If you suggested (it) in cabinet and they reject (it) go ahead and suggest (it) again'.
(Ada: no 8)

2.0. Methodology

The methodology employed was to tape-record Twi discussions on various radio and television stations and conversations of friends and relatives. Some of the radio and TV discussions recorded were Hot FM (Adakabrɛ's programme), Peace FM (*Kokrokoo*), Asempa FM (Double Critical), TV3 (*Onie*), TV Africa (*Me dadwen*) and

Metro TV (*Mama zimbi* show and *Abrabo mu nsem*), all in Accra, Ghana. The conversations were made up of recordings in a friend's home with her family and friends who had come to visit, my next door neighbour with her friends in the office and my daughter with her friends.

2.1. Transcription and Translation of Data

The utterances transcribed for this work have been given identification numbers (see note 4). For instance, *Ada: no1* means Adakabre number one. Similarly *Eme: no50* means Emelia number fifty. The numbering is continuous so that as Adakabre's data ends at thirty-three, Emelia's data starts from thirty-four, Darl's from eighty-seven, Double Critical's from hundred and seventy-five, etc.

Even though phonological integrations are discussed, orthographic transcriptions are used. Tone markings are used where they are needed for clarification. The following transcription and translation convention were followed:

- English items are in **bold**
- An inter-linear gloss (i.e. morpheme by morpheme translation) appears on the line below each of the transcribed sentences
- The full English paraphrase is given in single quotation marks.
- The portion of utterance relevant to current discussion is italicized and underlined for easy identification. Example (3) illustrates the format.

- (3) *Saa mo farms no* mo **correspondents** a ε- wɔ hɔ no n- kãã
 those your farms DET your correspondents who 3PL-be there FOC NEG- say
 hõ asem n- kyerɛɛ mo?
 it message NEG-tell you

'Those farms of yours, haven't your correspondents there told you anything about them?'

(Ada: no 24)

3.0. The Matrix Language Frame Model (MLF)

A major premise of the model is that in bilingual speech production, a frame is built just like that for monolingual speech. This frame is built by one of the languages and items from the other language(s) may be inserted into it. The language that builds the frame is called the Matrix Language (ML). It is the ML that sets the grammatical frame of the mixed constituents e.g. phrases and clauses. It also directs the morpheme

order of the mixed constituent. The other language(s) called the Embedded Language (EL) may provide some content morphemes and system morphemes. In example (4), Twi as the ML, builds the frame of the mixed constituents and creates a slot in which the English content morphemes **bacteria** and **cause** are inserted indicating that English is the EL.

- (4) ϵ no ϵ - y ϵ bacteria na ϵ -causo saa
 that it-be bacteria that it-cause that
 ‘It is a bacteria that causes it’ (Aku: no. 212)

The morphemes that participate are grouped into two, namely system morphemes and content morphemes. ‘Content morphemes are the main elements conveying semantic and pragmatic aspects of message and system morphemes largely indicate relations between the content morphemes’ (Myers-Scotton 2002:15).

System morphemes are the grammatical morphemes that build the structure of the constituents. Jake and Myers-Scotton (1992) distinguish between system and content morphemes with the features [+/- Quantification], [+/-Thematic Role-Assigner], and [+/- Thematic Role-Receiver]. They argue that [+Quantification] features are syntactic categories which specify items and that any item that has this feature is a system morpheme, for example quantifiers, determiners and possessive adjectives or any other item which can occupy the specifier position in an NP. [+Q] are also inflectional items that indicate person, case or gender as well as tense and aspect. The model specifies that it is the ML which supplies all the system morphemes in an ML+EL (or mixed) constituent. In example (5) below Twi supplies all the system morphemes needed to indicate the relationship between the content morphemes. It has contributed the determiner **no** ‘the’, the future marker **be-** ‘will’ as well as the progressive marker ϵ -. In addition, Twi has added an extra vowel –**o** to change the morphology and phonology of the verb. Twi has again provided the conjunction **na** ‘and’ and the emphatic **de** which is a special feature in Twi.

- (5) **Problems** no de ϵ - be -ba na y ϵ be-solvo, na y ϵ -
 problems DET EMP it-FUT -come and 1PL FUT-solve and 1PL-
 ϵ -solvo
 PROG-solve
 ‘As for the problems they will come and we will solve (them) and we are solving (them)’. (Ada: no 31)

A morpheme is considered a content morpheme if it can be a thematic role assigner or receiver (Jake and Myers-Scotton 1992). Verbs assign thematic roles and

so have the feature [+ thematic role assigner]. This refers to the semantic relation that a verb has with its argument. For example the verb **bought** has three arguments to which it assigns thematic roles. It assigns the thematic role of *agent* to the subject, *beneficiary* to the indirect object and *patient* to the direct object. Nouns are thematic role receivers and so have the features [+ thematic role receiver]. For example in a sentence like **Kofi bought Ama a ring**, **Kofi** as the subject receives the thematic role of *agent* assigned to it by the verb **bought**, **Ama** is the *beneficiary* and **ring** receives the thematic role of *patient*.

Content morphemes, according to the model, can be supplied by both the ML and the EL so that in example (6) both Twi and English contribute them. Twi contributes **ɛnɛ** ‘today’ and **adwuma** ‘work’. English has supplied **economy**, **stabilize** and **NPP**.

- (6) *ɛnɛ* **economy** yi a a- *stabilizɪ* yi nyinaa yɛ **NPP** adwuma
 today economy DET which PERF- stabilize EMP all be NPP work
 ‘This economy that has stabilized today is all the work of NPP’
 (Kokro: no 234)

The hypothesis is that during CS, the ML plays a more dominant role in a mixed constituent. That is, the grammatical procedures that build the surface structure of an ML+EL constituent will be those consistent with the ML (Myers-Scotton 2002: 239). There are two principles governing this hypothesis: (1) The Morpheme Order Principle and (2) The System Morpheme Principle.

The Morpheme-Order Principle states that ‘In ML+EL constituents consisting of singly-occurring EL lexemes and any number of ML morphemes, surface morpheme order...will be that of the ML’ (Myers-Scotton 1993: 83). This means that when a frame is being built for an ML+EL constituent made up of single EL lexemes and a number of ML morphemes, the surface syntactic relations shall come from the ML. In example (7a), all the surface syntactic relations that build the frame of the constituent come from Twi and the head first word order of Twi is observed.

- (7a) *Asem* **serious** sei na wo o- kã no wo **air**
 issue serious such and 2SG PROG- say it on air
 ‘How can you say such serious issue on air?’
 (Kokro: no 262)

The System Morpheme Principle states that ‘In ML+EL constituents, all system morphemes which have grammatical relations external to their head constituent...will come from the ML’ (Myers-Scotton 1993: 83). This means that when ML +EL

constituents are built, all system morphemes that will have grammatical relations with the content morphemes shall come from the ML and assumes that the EL does not have equal rights with the ML. This prerogative is for the ML. The utterance in (7b) shows how Twi system morphemes inflect the English verb **call**.

- (7b) Obi a o- o- tie me wɔ Asakragua bia n- call
 anyone who 3SG-PROG listen me atAsankragua all should- call
 ‘Anyone listening to me from Asankragua should call’
 (Kokro: no 243)

3.2. EL Island Trigger Hypothesis

An EL island within the MLF model is a constituent that is made up of only EL morphemes and is well-formed in the EL. In example (8) from Twi/English **the idea** and **all the delegates** as well as **one place** are noun phrases which are well formed according to the English word order where the determiner precedes the head.

- (8) The idea ne sɛ ye - bɛ-moveo all the delegates no a- kɔ -gu
 the idea be that 3SG- FUT move all the delegates DET CON-MO-put
one place
 ‘The idea is to move all the delegates to one place’
 (DC: no 187)

The hypothesis is of the form ‘if **x** is accessed, then **y** must be accessed’ (Myers-Scotton 1993:139). That is, when an EL morpheme is accessed as the initial element in a constituent that shows a morpheme order which does not conform to that of the ML order (e.g. **the, all**), a process is triggered that enables the whole constituent to be completed as an EL island. Secondly, if an EL system morpheme or content morpheme is accessed which does not correspond to an ML content morpheme, the ML procedures are blocked and the constituent of which the EL morpheme is a part is produced as an EL island.

4.0. The Mixed Verb Phrase

Forson (1979) notes that in CS only one of the two languages involved builds the structure and the other language provides the lexical and less frequently grammatical items. In Akan/English CS, Akan builds the structure because ‘speakers are speaking Akan’ (Forson 1979). He further explains that ‘the English items used... are those more accessible than their Akan equivalents’ (Forson 1979: 160). That is, speakers

will choose the less difficult lexical or grammatical items over difficult ones in CS. He goes on to say that because Akan tense/aspect markers are simpler than their English counterparts, they are more likely to be used in CS than English ones. He argues that:

... in a situation where two systems are available to him, as in code-switching, the speaker is likely to prefer the structurally simpler of the two. For example, the Akan tense/aspect markers are preferred... because the Akan tense/aspect marking is generally simpler than the English system. (Forson1979:160).

He illustrates this assertion with some examples like (9a), where **invite** is marked for the past with the Twi past marker **-I** which is in harmony with both the syllabic vowel and the vowel in the stem. He explains further that an English tense/aspect marker cannot be used with a Twi verb and so (9b) is unacceptable.

- (9a) **KN invite- I- I** won
KN invite-V-PA them
'KN invited them' (Forson 1979:158)
- *(9b) **KN hyia-ed**
KN invited (Forson 1979:158)

The MLF model, through its detailed analysis, has however made it possible for us to realize that the choice is not based on simplicity but on the fact that Twi, as the ML, must provide the system morphemes that build the grammatical structure of the constituents. Tense and aspect markers, under the MLF model, are system morphemes

In the mixed VP, English verbs have more than Twi tense and aspect constraints. They are constrained phonologically and morphologically by Twi. They are also constrained by tone marking, vowel length and Twi structures. These constraints are explained in the following section.

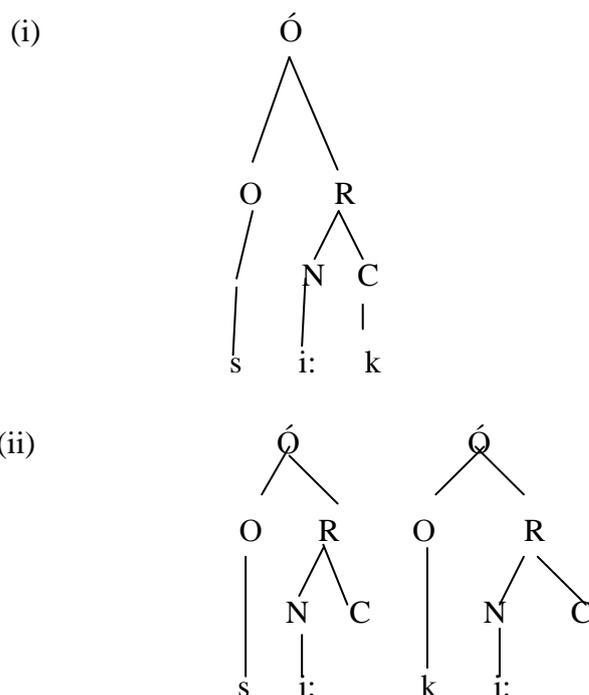
4.1. Constraints on the morphology and phonology of English verbs

4.1.1. Syllable structure

The constraint on the morphology and phonology occurs in the syllable structure of the English verbs. In general, Twi has open syllables. That is, Twi does not have closed syllables other than those that end in nasals. Twi words, whether monosyllabic, disyllabic or multi-syllabic are always open, and the selected vowel at the final

position comes from the same ATR group as the vowel in the stem. For example **ténà** ‘sit’, **sɔré** ‘stand’, **àduànè** ‘food’.

This opening is automatically transferred unto almost all the English closed syllable verbs involved in CS, so that English closed syllable verbs take extra vowels at final position to make them open. This transfer turns all English closed monosyllabic verbs into disyllabic verbs, disyllabic ones into multisyllabic verbs, etc. because each word now acquires an additional nucleus. For example, an English closed monosyllabic verb like **seek** /si:k/ in diagram (i) below will become /si:ki:/ as in diagram (ii)



The final vowel is in harmony with the one in the stem in accordance with the Twi vowel harmony system. This additional vowel changes the morphology of the word because it adds a syllable to the existing one. Forson (1979) calls this additional vowel the ‘epenthetic vowel’ (ibid: 142). This work, however, calls it a syllabic vowel (SYV) because its presence forms the nucleus of the next syllable that is created. Surprisingly, this transfer does not often occur with English nouns, adjectives, adverbs, etc. that participate in Twi/English CS.

4.1.2. *Constraints on tone*

Tone plays both lexical and grammatical functions in Twi. Twi has two tones i.e. high and low. Thus in Twi, tone is a phoneme that can mark the difference in meaning in minimal pairs. For example **pám** ‘sew’, **pàm** ‘chase/sack’. The only difference is in the high tone of the first word and the low tone of the second. When pronouns, tense, aspect and negation elements attached to verbs are marked with tone they affect the tone pattern of the stems of the verbs and these perform grammatical functions. For example, when **pam** is marked for the past, both the stem and past marker will be marked for tone as in **ɔ-pám-è** ‘he sewed’. This same statement can be a question if the tone on the past marker is a high one, as in **ɔ-pám-é** ‘did he sew?’ In CS tone can be used to mark grammatical functions. In example (10a) the sentence is a declarative where all the vowels in **depend** are pronounced on low tones, and in (10b) the final vowel in **procrastinate** is pronounced on a high tone to indicate a question.

- (10a) e-**dèpèndi**
3SG- depend
‘It depends’ (Eme: no 58).
- (10b) **Phoebe** wɔ hɔ yi **/pròcràstìnátí/**
Phoebe is there FOCprocrastinate
‘Does Phoebe procrastinate?’ (Eme: no 38)

4.1.3. *Vowel lengthening*

Vowels are lengthened when they are marked for tense and aspect, for example **tena** ‘sit’, **tenaa-e** ‘sat’. In CS however, English verbs that are given syllabic vowels are lengthened automatically. In example (11) **move** is pronounced /mu:vu/

- (11) w- **a-moveo forward**
2SG- PERF-
‘S/he has moved forward’ (Kokro: no 239).

4.2. **Tense and aspect constraints on English verbs**

Dolphyne (1988) explains that Twi verbs come with affixes and these affixes, except in a few cases, agree in vowel harmony with the vowel(s) of the stem. She gives three types of affixes:

- A. Subject-concord prefixes
- B. Tense/Aspect affixes

C. The Negative prefix (Dolphyne 1988: 87)

4.2.1. *Subject-concord prefixes*

Dolphyne says that the subject-concord prefixes are Twi personal pronouns which accompany the verbs. They agree in number with the verbs they accompany e.g. **ɔ-da** ‘he sleeps’, **ye-da** ‘we sleep’. Since the MLF model shows that it is the ML that will provide the system morphemes in the building of a CS frame and prefixes are system morphemes, during CS English verbs may be accompanied by Twi subject concord pronouns. In example (12a) ‘cause’ is prefixed with the pronoun **ɛ** ‘it’. Most often, these prefixes are empty ‘it’ and are antecedents of their subjects.

- (12a) ϵ no ϵ - y ϵ **bacteria** na ϵ -**causo** saa
 that it-be that it-that
 ‘It is a bacteria that causes it’ (Aku: no 212)

4.2.2. *Tense and aspect affixes*

With regard to tense, the past is marked by the suffix **-e /-ɪ** in accordance with Twi vowel harmony and the future by the prefix **b ϵ -**. In the case of aspect, the perfective is marked by the prefix **a-**, the consecutive by **a-**, and the motional prefixes by **b ϵ -/kɔ**. The progressive is marked by an elongation of the final vowel in the preceding item. These markers are illustrated in examples (13a), (13b), (13c) (13d) and (13f). In example (13a) **win** is inflected by the perfective marker **a-** and in (13b) **pilot** is inflected by the progressive prefix **ɛ-**.

- (13a) w- a- **wini** soul baako abeka ho
 3SG-PERF- soul one add it
 ‘He has won one soul in addition’. (Data id Eme: no 80)

- (13b) enti na y ϵ - ɛ- **piloto** school feeding programme
 why FOC 1PL- PROG- pilot school feeding programme
 ‘That is why we are piloting the school feeding programme...’
 (Ada: no 30)

In (13c) **solve** is inflected in the first instance by the future prefix **b ϵ -** and in the second instance by the progressive **ɛ-**.

- (13c) **Problems no deε ε- bε - ba na yε bε -solvo, na yε-ε - solvo**
 problems DET EMP it-FUT-come and 1PL FUT- solve and 1PL- PROG-solve
 ‘As for the problems they will come and we will solve (them) and we are
 solving (them)’.
 (Ada: no 31)

In (13d) the first **suggest** and **reject** are inflected by the past suffix **-ɪ**. All the verbs, have added extra vowels to make them multi-syllabic because they end on closed syllables.

- (13d) sε wo suggestɪ-ɪ wɔ **cabinet** na ɔmo rejectɪ-ɪ a
 if 2SG suggest -PAST in cabinet and 3PL reject-PAST PAT
 san suggestɪ bio ε
 return suggest again PAT
 ‘If you suggested (it) in cabinet and they rejected (it) then suggest (it) again’.
 (Ada: no8).

Osam (2004) also identifies the motional prefixes **bε** ‘come’ and **kɔ** ‘go’ which are attached to verbs to indicate motion. In example (13f) the motional prefix **kɔ** is prefixed to **check**.

- (13f) Na afie yε bε- kɔ a-kɔ-checkɪ sε ε-yε **clean** anaa
 and then 1PL FUT-go MO-check that it-be clean or
 ‘And then we will go and check to see if it is clean or not.’
 (Ada: no 4)

4.2.3. Negative prefixes

The negative prefixes are **n-/m-**. In some situations there is a homorganic nasal assimilation during negation. In example (14) **vote** is inflected by the negative marker **n-**. The verb has the syllabic vowels attached. Note also that the vowel in the stem is lengthened. For example vote will be pronounced /vo:ti/.

- (14) Mee me **independent investigation** kyεre sε ye be – nya **a new crop of people** a ɔmo n-voti da
 1SG DET independent investigation show that 1PL PROG get a new crop of
 people who 3PL NEG-vote before
 ‘My independent investigation shows that we will get a new crop of people
 who have never voted before.’
 (Ada: no 11)

The mixed VP therefore can be made up of a Twi subject pronoun+ an English verb stem or a tense/aspect/negative marker + an English verb stem. The selection of only Twi pronoun/tense/aspect/negative morphemes to co-occur with English verbs goes to prove what Forson (1979) said:

...when we say a person is using language x, what we are actually saying is that he is using the grammatical system and grammatical items of the language, and not necessarily the lexical item. (Forson 1979: 160).

Based on this assertion it can be argued that it is Twi (the ML) that provides the grammatical systems and items for building the structure of the mixed constituents as the MLF model has predicted. It is also Twi that provides the morpheme order (MOP) of the mixed constituents.

4.3. Clause Structure

4.3.1 *Verb phrases and their complements*

All types of English verbs (transitive, di-transitive, intransitive and copula) and their complements occur in the mixed VP. This section looks at the distribution of these English verbs in mixed VPs.

4.3.2. *English transitive verbs*

Twi has an SVO clause structure that can project a slot for an English transitive verb. In the mixed transitive verb construction, the subject can precede the English verb and the object follows it in accordance with Twi word order as predicted by the Morpheme Order Principle (MOP). The English verb can assign thematic roles to Twi subjects and objects. These English verbs must, however, be inflected by Twi tense/aspect markers in accordance with the System Morpheme Principle (SMP) of the MLF. In example (15a) **question** is inflected by the Twi progressive marker **i-**. **Question** also assigns the thematic role of patient to the Twi object **ɔmo** 'them' and agent to the Twi subject **obi** 'someone'.

(15a) **The EC is an institution of its own**, ɔmo a wɔ ɔmo **PR section** enti sɛ
the EC is an institution of its own, 3PL PAT have DET PR section and so if

biibi ba na se obi _____ i- question ɔmo a
 something come and someone PROG- question them PAT
 ɔmo a nyi ano
 3PL PAT remove mouth

‘The EC is an institution of its own; they have their own PR section and so if something occurs and they are being questioned they themselves should answer’.

(Ada: no 10)

English verbs can also take English nouns as objects in the mixed VP. These verbs are still marked by Twi tense/aspect in accordance with the SMP. In such cases they look like EL islands but because the verbs still have to be marked by Twi tense/aspect, they do not have the well-formedness of an EL island. An EL island according to the MLF must be well-formed in the EL. In (15b) **read** is inflected by Twi progressive marker **o-** and also lengthened though it takes the English object **tribute**.

(15b) ɛbra ɔmo o- readi tribute no na wo hu **signs** se ne were aho
 when 3PL PROG-read tribute DET then 2SG see signs that DET soul sad
 ‘(It was) when they were reading the tribute that you could notice signs of sadness’

(Eme: no 54)

4.3.3. *Intransitive verbs*

In the mixed intransitive verb construction, English intransitive verbs can be inserted into Twi intransitive verb slots. Twi intransitive verbs can occur with or without adjuncts and this applies to the English intransitive verbs. The English verbs that are allowed must all be inflected by Twi tense/aspect markers even if they take English adjuncts. In (17a) **rise** is inflected by the consecutive marker **a-** and is followed by the Twi adverbial **akɔ soro yie** ‘gone very high’, and in (17b) **move** is inflected by the perfective **a-** even though it takes the English adverb **forward**.

(17a) **Because** ɔye ɔbaa a w- a- tumi a - rise akɔ soro yie
 Because 3SG be woman who 3SG PERF-be able CON-rise MO high very
 ‘Because she is a woman who has been able to rise very high’

(Kokro: no 247)

- (17b) w-a- moveo forward
 2SG- PERF-move forward
 ‘S/he has moved forward’
 (Kokro: no 239)

4.3.4. Di-transitive verbs

Twi has a di-transitive construction of the SVOO constituent order. In Twi, however, the recipient NP must always follow the verb so that the argument structure is [A+V+REC+TH]. A theme NP cannot follow the verb when there is a recipient NP. Twi therefore, does not have the [A+V+TH+REC] structure where the recipient NP is linked to the theme NP by a dative preposition. So, while example (18a), where the recipient NP **maame no** follows the verb **ma** ‘give’ is acceptable, example (18b) where **sika** ‘money’ the theme NP follows the verb is not. A theme NP that follows the verb can only occur with a **de** ‘take’ construction as in (18c).

- (18a) Papa no ma -a maame no sika
 man DET give-PAST woman DET money
 ‘The man gave the woman some money’
- *(18b) Papa no ma- a sika maame no
 man DET give-PAST money woman DET
 ‘The man gave some money to the woman’
- (18c) Papa no de sika no ma-a maame no
 man DET take money DET give- PAST woman DET
 ‘The man gave the money to the woman’

What is observed is that because Twi does not have the structural type of (18b), English ditransitive verbs which can occur in both structures are blocked from participating in CS. This is because one of the structures cannot be projected in Twi. There is therefore no record of ditransitive verbs in the data. Verbs like **write**, **buy**, **bring**, **cook**, **give**, etc were rejected when an attempt was made to use them in sentences. The only ditransitive verb that is found to occur is **send**, as in example (18d). This did not occur in the data. An example like (18e) where **write** is used will not be accepted.

- (18d) Me sende-e no **text**
 1SG send-PAST him/her text
 ‘I sent him/her a text message.’

- (18d) *Me writɪ-ɪ no letter
 1SG write-PAST him/her
 ‘I wrote him/her a letter’

This shows that English verbs are only allowed in structures that are consistent with Twi. If Twi does not have the structure that can project a slot for the English verb, it will be rejected. The MOP says that the surface word order in CS is that of the ML, it does not say that English verbs can only occur in slots that do not violate the syntactic rules of the ML and so it fails to account for this situation.

4.3.5. Linking verbs

The data show that English linking verbs in the mixed VP take only English complements. In (19a) **live** takes **good** as its complement.

- (19a) **Afrika** na sɛ wo yɛ kɛsɛ a yɛ -sɛ it’s a sign sɛ wo livo good.
 Africa FOC that 2SG become obese PAT 3PL-say that 2SG
 ‘It’s only in Africa that when one becomes obese we say it’s a sign that you are living well’.
 (Aku: no 207)

When a Twi complement is accessed in this context it will not be accepted. At the same time, if a Twi linking verb is used, the English complement cannot be accessed as the examples below show in (19b) and (19c).

- (19b) ***Afrika** na sɛ wo yɛ kɛsɛ a yɛ-sɛ **it’s a sign** sɛ wo livo yie
 (19c) ***Africa** na sɛ wo yɛ kɛsɛ a yɛ-sɛ *it’s a sign* sɛ wo te good

Though there are no records of English linking verbs taking Twi complements in the data, it does not mean that the morpheme order and system morphemes are those of English. On the contrary, the linking – complement order is consistent with the Twi morphosyntax. The slot for (19a) for example can be reproduced in (19d) where **te** links the adjective **yie** to the subject **wo**.

- (19d) **Afrika** na sɛ wo yɛ kɛsɛ a yɛ -sɛ it’s a sign sɛ wo te yie.
 Africa FOC that 2SG become obese PAT 3PL-say that 2SG live well
 ‘It’s only in Africa that when one becomes obese we say it’s a sign that you are living well’.

The Morpheme-Order Principle says that ‘In ML+EL constituents consisting of singly-occurring EL lexemes and any number of ML morphemes, surface morpheme order...will be that of the ML’ (Myers-Scotton 1993: 83). This means that singly-occurring EL lexemes can occur with any number of ML morphemes but it fails to account for why singly-occurring English linking verbs cannot occur with Twi (ML) complements whether the complement is an adjective (above) or noun in (19e).

- (19e) Ɔkɔɔaa a ɔmo a-turɔe eighteen no na yɛ- ɛ-**disenfranchise** ɔmo
 children who 3PL PERF- DETthat 1PL- PROG- them
 ‘Children who have turned eighteen are those being disenfranchised’
 (Ada: no 2)

4.3.6. Serial Verb Construction (SVC)

The serial verb construction (SVC) is a common verb pattern in Twi (Akrofi 1965, Dolphyne 1988, Boadi 2005, Osam 2004). Foley and Olson (1985: 18) define SVCs as ‘constructions in which verbs sharing a common actor or object are merely juxtaposed, with no intervening conjunctions ...’ they are regularly used in Twi-English CS. In CS English verbs are juxtaposed with no intervening conjunctions in accordance with Twi word order. Both English and Twi verbs can be juxtaposed in a sentence as in example (20a). For the purpose of identification the verbs in the SVC have been numbered.

- (20a) **Some of us** na yɛ crusadi-i₁ ma₂ - a aban
 some of us FOC 1PL crusade-PAST give -PAST government
 ‘Some of us crusaded for the government.’
 (DC: no 177)

In Twi SVCs all the verbs are marked similarly for TAM (Osam 2004: 39), so **crusade** and **ma** ‘give’ in (20a) have been marked similarly for the past **-i/-a**. Dolphyne (1988) however says that in certain situations different aspectual forms can co-occur in verb serialization. The verbs in (20b) are marked differently for TAM i.e. **ko** ‘go’ has been marked for the perfective **a-**, while **check** has not been marked at all and **validate** has been marked by the consecutive **a-**.

- (20b) Yɛn nso y- a-ko₁ check₂ a-validat₃ sɛ ye din
 1PL also 1PL- PERF- go check CON-validate that our name
 no yɛ **correct** anaa?
 DET be correct or

‘Have we also gone to check and validate that our names are correct?’
 (Ada: no 12)

5.0. Verbs that Do Not Occur in CS.

The data shows that many English verbs participate successfully in Twi-English CS where these verbs are integrated into Twi morphosyntactic structures. However, not all English verbs may occur in CS. The affected English verbs include the following: **stand, walk, laugh, sit, and sleep**. Others are **dance, bath, watch, play, beat, wait, have, take and do**. Their occurrences in (21a-f) below are considered unacceptable.

- (21a) me *stande ha daa
 1SG stand here always
 ‘I always stand here’
- (21b) Kofi *walk_{I-I} ba-a ha
 Kofi walk-PAST MO-PAST here
 ‘Kofi walked here/ Kofi walked to this place’
- (21c) Ama *laughe-e
 Ama laugh-PAST
 ‘Ama laughed’
- (21d) me *haveo red car
 1SG have red car
 ‘I have a red car’
- (21e) me e - *do work no
 1SG PROG-do work DET
 ‘I am doing the work’
- (22f) ye be- *siti ha
 3PL FUT-sit here
 ‘We will sit here’

Forson (1979) noted earlier that the English equivalents of some Twi verbs cannot participate in CS. He says that verbs such as **come, go, like, want, know** and

see do not occur in CS and argues that such verbs may only be quoted in English as parts of some idiomatic expressions, as **go** is used in example (22).

- (22) ε -ye **1965** na o **-go into business**
 3SG-be 1965 that 3SG- go into business
 ‘It was in 1965 that he went into business
 (Forson 1979:183)

He argues that in CS more commonly-used Akan verbs such as the equivalents of those above are ‘preferred’ because they are more frequently used. On the other hand, the English equivalents of complex Akan words may be used instead of the Akan ones for e.g. ‘believe’. This is not always so because **gyedi**, its equivalent, is also frequently used. Like **believe** the English equivalents of some frequently-used Twi verbs also occur in CS, for example **call** (phone call) for **frɛ**, as in (23). **Call** in the ordinary sense is however not allowed. Others are **sra/ visit**, **hyia / meet**, **we / chew**, **she / burn** and **see / destroy**.

- (23) Obia - a o- o- tie me wɔ Asakragua bia n- **callè**
 anyone-who 3SG-PROG listen me at Asankragua all should-call
 ‘Anyone listening to me from Asankragua should call’
 (Kokro: no. 243)

Forson did not use any criteria to explain why these verbs cannot be switched, except for the fact that they are frequently used. This frequency hypothesis of Forson’s was tested by Amuzu (1998, 2005 and forthcoming). Like Forson, Amuzu notices that the English equivalents of some Ewe verbs cannot occur in CS. Amuzu uses native- speaker intuition to access the frequency hypothesis in Ewe-English CS and concludes that they partially corroborate Forson’s frequency hypothesis. He notes however that the frequency hypothesis fails to explain why other English verbs whose Ewe counterparts are also frequently used also appear in CS. Some such verbs are **take**, **give**, **use**, **mean**, **love**, **like** and **meet**.

He does not, however, totally discard Forson’s frequency hypothesis but realizes that most of the English equivalents of the Ewe verbs ‘that may not occur singly as CS verbs encode the generic sense of the Ewe verb in question whereas those that may (underlined in original) do so encode more specific or specialized shades of the meanings of that Ewe verb’ (Amuzu forthcoming). He therefore modifies the frequency hypothesis as follows:

In general, many Ewe verbs cover a wide range of meaning which are specifiable in one of two or more related English equivalents. For example **ɖu** (nu) ‘eat thing’ may be translated as any of the following, depending on the intended meaning: eat, chew, consume (Amuzu 1998: 63).

He explains that while **eat** (the generic equivalent of **ɖu**) may not occur singly as a CS verb, the other shades of meanings of **ɖu** like **chew**, **consume**, **deplete**, **spend**, **squander**, etc. may occur singly as CS verbs because they encode specific/specialized shades of meanings.

A careful study of Twi high frequency verbs also shows a similar pattern like those found in Ewe. That is, these verbs do not represent a single action or state of being in Twi. **Di** ‘eat’ for example seems to convey different meanings depending on the context. They include **di aduane** ‘eat food’, **di nkɔmɔ** ‘converse / chat’, **di awerɔhoɔ** ‘be sad’, **di nna** ‘stay for some time’, **di nkra** ‘bid farewell’, **di nse** ‘take an oath’ etc. Other examples are **bu** ‘break’ as in **bu nsuo** ‘fetch water’ **bu dua** ‘cut tree’, **bu adeɛ** ‘respect’ and **tu** ‘dig’, as in **tu fɔm** ‘dig hole’, **tu ano** ‘uncork’ and **tu fie** ‘move house’. As Amuzu states, the equivalents of the generic meanings of these verbs i.e. **di** ‘eat’, **tu** ‘dig’ and **bu** ‘break’ are blocked from CS.

5.0. Conclusion

The data have shown that the two key predictions of the MLF model apply in Twi-English CS, especially with the verb phrase. That is, in the mixed VP, the System Morpheme Principle (SMP) is consistently employed because all the relevant system morphemes that are used to build grammatical relations like tense and aspect come from Twi which is the ML.

The data also show that all the English verbs that participate in Twi-English CS are fully integrated into the Twi morphosyntax both morphologically and phonologically. That is, in form; the verbs must accept extra vowels to make them disyllabic or multisyllabic and must be pronounced with Twi tone. The MLF fails to account for why there should be phonological and morphological integration of some ML lexical items in CS. For example in the Swahili/English CS corpus, the English verb **decide** in (24) does not undergo any morphological or phonological integration.

- (24) **Hata siku hizi ni- me-decide kwanza kutumia sabuni ya miti**
even days these 1SG-PERF- first to use soap of stick
‘[But] even these days I have decided first to use bar soap’
(Swahili-English; Myers-Scotton 1993:5)

This will not happen in the Twi/English CS corpus. **Decide** will be realized *decidɪ* because it ends on a closed syllable.

Secondly, all the English verbs must be finite verbs in their bare form. This might probably be because in Twi only finite verbs are used with TAM providing all the functional relations.

The data also show that the English verbs occur in slots that do not violate the syntactic rules of Twi. For example, an English transitive verb will occur in a Twi transitive verb slot, likewise an intransitive verb in an intransitive verb slot. An English verb that does not conform to these rules would be blocked, as is seen with ditransitive verb constructions. English linking verbs only allow an English complement. The MLF model fails to account for why English verbs can only occur in slots that do not violate the syntactic rules of Twi and why English linking verbs cannot take ML complements. These situations show that no one theory can fully explain the CS phenomenon, because different languages pattern differently with the EL.

With the Serial Verb Construction (SVC), English verbs are allowed slots even though English does not have this type of construction. This is because as the Morpheme Order Principle predicts, it is Twi word order that must be followed in a mixed constituent and the Twi word order has this kind of template in which the English verbs are inserted.

Another observation is that the English equivalents of certain Twi verbs do not participate in the Twi-English CS corpus. A study of these verbs does not bring out a clear pattern that can help formulate a theory for their non-switchability. A thorough investigation is required. The general observation is that because the English verbs that participate in Twi-English CS have to be marked with only Twi TAM, none of them could form a well formed EL island with their arguments.

References

- Amuzu, E.K. (1998). *Aspects of Grammatical Structure in Ewe-English Codeswitching*. M. Phil Thesis. Oslo: University of Oslo
- Amuzu, E.K. (2005) *Ewe-English Codeswitching: A case of Composite rather than Classic Codeswitching*. Ph.D dissertation, Australian: Australian National University.
- Amuzu, E.K. (2006). Language maintenance in pervasive codeswitching: insights from Ghana. *Language Centre Journal* 2: 35-66.
- Amuzu, E.K. (forthcoming). Mechanisms of L1 maintenance in Ewe-English codeswitching *Journal of West African Languages*.
- Belazi, H.M., E.J. Rubin and A.J. Toribo, (1991). Code-switching, X-bar theory, and processing. A paper presented at the XII Symposium on Spanish and Portuguese Bilingualism, Florida International University, Miami, Florida.
- Belazi, H.M., E.J. Rubin and A.J. Toribo, (1994). Code switching and X-bar theory: The Functional Head Constraint. *Linguistic Inquiry*, 25.2: 221-237
- Bentahila, A. and E.E. Davies (1982). The syntax of Arabic-French code-switching. *Lingua* 59: 301-330. North-Holland Publishing Company.
- Boadi, L.A. (2005). *Three Major Syntactic Structures in Akan*. Accra: Black Mask Ltd.
- Dolphyne, A.F. (1996). *A Comprehensive Course in Twi (Asante)*. Accra: Ghana Universities Press
- Dolphyne, A.F. (1988). *The Akan (Twi-Fante) Language: Its Sound System and Tonal Structure*. Accra: Ghana Universities Press.
- Forson, B. (1979). *Code-switching in Akan-English Bilingualism*. PhD Thesis California: University of California
- Forson, B. (1988). Code-switching, our third tongue. *Universitas* 10: 180- 194.
- Ghana Statistical Service (2002). 2000 Population and Housing Census. Accra: Ghana Publishing Corporation.
- Ghanaian Times* (2008) Dealing with the 'Akan English' phenomenon. Editorial. Accra: New Times Corporation. July 10.
- Halmari, H. (1997). *Government and Codeswitching. Explaining America Finnish*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Kachru, B.B., ed., (1983), The other tongue: English across cultures. *English Today* 1.43.
- Labov, W. (1972). *Sociolinguistic Patterns*. Philadelphia: University of Pennsylvania Press.
- Myers-Scotton, C. (1992) Constructing the frame in intrasentential codeswitching. *Multilingua*, 11: 101-27
- Myers-Scotton, C. (1993a) *Duelling Languages: Grammatical Structure in Code-switching*. Oxford: Clarendon Press.

- Myers-Scotton, C. (2002). *Contact Linguistics. Bilingual Encounters and Grammatical Outcomes*. Oxford University Press.
- Myers-Scotton, C. and J. Jake, (2001). Explaining aspects of codeswitching and their implications. In Janet Nicol (ed.), *One Mind, Two Languages: Bilingual Processing*. Pp. 84-116. Oxford: Blackwell.
- Nartey, J. (1982). Codeswitching, interference or faddism? Language use among educated Ghanaians. *Anthropological Linguistics* 24.2: 183- 192.
- Obeng Gyasi, S. (1997). An analysis of the linguistic situation in Ghana. *African Languages and Cultures* 10:63-81.
- Osam, E.K. (2004). *The Trondheim Lectures. An Introduction to the Structure of Akan: Its Verbal and Multiverbal Systems*. Accra: Dept. of Linguistics, University of Ghana.
- Poplack, S. (1980). Sometimes I'll start a sentence in Spanish Y TERMINO EN ESPANOL: toward a typology of code switching. *Linguistics* 18: 581-618.
- Poplack, S and D. Sankoff (1984) Borrowing: the synchrony of integration. *Linguistics* 22: 99-136.
- Poplack et al. (1989). Distinguishing language contact phenomena: evidence from Finnish-English bilingualism. In K. Hyltenstam, and L.K. Obler, (ed), *Bilingualism across the Lifespan: Aspects of acquisition, maturity, and loss*. Cambridge: Cambridge University Press. Pp. 132-154.
- Timm, L.A. (1975). Spanish-English code-switching: El porqué y how-not-to. *Romance Philology* 28.4: 473-482.