

# The composite matrix language in mixed possessive constructions in Ewe-English codeswitching

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*In Ewe (spoken in Ghana, West Africa), relational and non-relational possessum nominals distribute differently in possessive constructions. Relational possessum nominals follow their possessor NPs directly (as *dada* 'mother' does in *John dada* 'John's mother') while non-relational possessum nominals require a possessive linker (*fe*) in-between them and their possessor NPs (as *avu* 'dog' does in *John fe avu* 'John's dog'). This morphosyntactic distinction is, however, not applicable in Ewe-English codeswitching: both English relational and non-relational possessum nominals occur after *fe* in mixed adnominal possessive constructions (APCs). Interestingly, too, no distinction is made between the two types of English possessum nominals, i.e. those that occur as complements of 's (e.g. *mother* and *dog* in *John's mother/dog*) and those that come before of (e.g. *top* in *top of the desk* and *Queen* in *Queen of England*). They all follow *fe* in mixed APCs (and neither 's nor of is acceptable in the mixed APCs).*

*The paper's orientation is clearly theoretical. Working within Myers-Scotton's (2002) framework, I argue that a Composite Matrix Language—in which English and Ewe play definable roles—frames the APCs. A crucial point is that the morpheme distribution patterns defy explanation in terms of surface structure configurations, a point I demonstrate extensively in Section 2 with Poplack's framework for analysing mixed constituents. Section 3 is devoted to exploring the Composite Matrix Language account.*

## 1. Introduction

### 1.1 Sociolinguistic background of Ewe-English bilinguals

Ewe [ɛɛ] belongs to a sub-group of Kwa languages called Gbe that are spoken in Ghana, Togo, Benin, and Nigeria. Of the Gbe languages, only Ewe is spoken in Ghana. Ewe is also spoken in Togo, but this paper concerns codeswitching (CS) involving dialects of Ewe spoken in Ghana. The other Gbe languages are Gen [gẽ] which is spoken in Togo, Aja [adʒa] and Xwla-Xwe a [xʷlaxʷela] which are spoken in Togo and Benin and Fon [fɔ̃] or Fongbe which is spoken in Benin and Nigeria.<sup>1</sup> Speakers of Ewe, the second largest ethnic group in Ghana following the Akan group, constitute approximately 13% of the country's population. Most of them, especially those who live outside their homeland (Volta Region), speak at least one more Ghanaian language, notably Akan. Educated Ewe speakers acquire English at school, because it is the official language and sole medium of formal instruction in Ghana. Previous studies of the verbal behaviour of Ewe-English bilinguals (Asilevi 1990; Dzameshie 1994, 1996; and Amuzu 1998) note that they use CS pervasively, and, according to Dzameshie (1996), their CS is structurally "a reflection of [their] dual communicative competence [and] tacit knowledge of the grammaticality and acceptability of utterances in the two languages" (1996:9). The distribution of morphemes in mixed possessive constructions will be shown to reflect how these bilinguals deal the two grammars in their CS.

### 1.2 The data

In monolingual Ewe there are two contrastive types of adnominal possessive constructions (APCs), namely alienable and inalienable APCs. Amuzu (2002) contrasts the two as follows:

An inalienable possessive adnominal construction (sic<sup>2</sup>) in Ewe is a structure involving the juxtaposition of nominals and it is used to characterise a close relationship between two entities ... e.g. the NP NP construction in Ɖevi-a fofó (child-DEF father) 'the child's father'. The one involving a possessive linker is a typical alienable construction devoted to characterising distant possessive relationships, e.g. the NP fe NP construction in Ɖevi-a fe awu (child-DEF poss dress) 'the child's dress' (p.148).

That is, possessum nominals typically found in Ewe alienable APCs encode *non-relational entities*, including body parts and meronyms (see also Ameka 1991). Another illustration of the alienable APC is the occurrence of *agbalẽ* 'book' in example (1a) under the column labelled 'Ewe APCs' in Table 1 below. Possessum nominals typically found in inalienable APCs encode *relational entities*. They include kin, spatial and socio-cultural terms. An example is the kin term *srɔ̃* 'spouse' in (1b) under 'Ewe APCs' in the table.

Table 1: Examples of mixed APCs and their Ewe vs English equivalents

	Ewe APCs		Mixed APCs		English APCs
(1a) The possessum is the non-relational entity <i>agbalẽ</i> 'book'	[NP poss NP]  ɲutsu-a fe agbalẽ-wó man-DEF poss book-PL	⇒	[NP poss NP]  ɲutsu-a fe book-wó <sup>3</sup> man-DEF poss book-PL	⇐	[NP poss NP]  <u>The man's books</u>
(1b) The possessum is the relational entity <i>srɔ̃</i> 'wife'	[NP NP]  ɲutsu-a srɔ̃-wó man-DEF wife-PL	⇒	[NP poss NP]  ɲutsu-a fe wife-wó man-DEF poss wife-PL NB: *ɲ utsu-a wife-wó	⇐	[NP poss NP]  <u>The man's wives</u>
(2a) The possessum is <i>agbalẽ</i>	[PRO poss NP] (where Possessor PRO is not a 1sg or 2sg PRO)  Miá fe agbalẽ-wó 1PL poss book-PL	⇒	[PRO poss NP]  Miá fe book-wó 1PL poss book-PL	⇐	[PRO NP]  <u>Our books</u>
(2b) The possessum is <i>srɔ̃</i>	[PRO NP] (where Possessor PRO is not a 1sg or 2sg PRO)  Miá srɔ̃-wó 1PL wife-PL	⇒	[PRO poss NP]  Miá fe wife-wó 1PL poss wife-PL NB: *miá wife-wó	⇐	[PRO NP]  <u>Our wives</u>
(3a) The possessum is <i>agbalẽ</i>	[1sg/2sg-PRO NP]  Nye agbalẽ-a 1sg book-DEF	⇒	[1sg/2sg-PRO NP]  Nye book-wó 1sg book-PL	⇐	[1sg/2sg-PRO NP]  <u>My books</u>
(3b) The possessum is <i>srɔ̃</i>	[NP 1sg/2sg-PRO]  Srɔ̃-nye-wó wife-1sg-PL	⇒	[1sg/2sg-PRO NP]  Nye wife-wó 1sg wife-PL NB: *wife-nye-wó	⇐	[1sg/2sg-PRO NP]  <u>My wives</u>

The [NP poss NP] vs [NP NP] opposition, i.e. example (1a) vs (1b) in Table 1 above, is only one of three kinds of structural oppositions of alienable and inalienable Ewe APCs. The other two involve APCs in which the possessor is a pronoun and it is presented as follows in Amuzu (2002:158):

- (i) When the possessor NP is ... a possessor pronoun other than a first or second person singular possessor pronoun,

- (a) the PRO fe posm-NP construction is used when the possessum is a non-relational, body part or meronymic term [but]
  - (b) the PRO posm-NP construction is used when the possessum is a relational nominal—kin, spatial or socio-cultural.
- (ii) In case the possessor is ... a first or second person singular possessor pronoun,
- (a) the 1 / 2 PRO posm-NP construction is used when the possessum is a non-relational or body part or meronymic term [but]
  - (b) the posm-NP 1 / 2 PRO is used when the possessum is a relational term.

The opposition that Amuzu refers to in (i) above is illustrated in examples (2a) and (2b) under 'Ewe APCs' in Table 1 and the opposition he refers to in (ii) is illustrated in (3a) and (3b), also under 'Ewe APCs' in the table. Ameka (1991:164ff) has argued that the structure [1sg/2sgPRO NP], i.e. (iia) in the quotation above, is derived from [1sg/2sgPRO fe NP] because the possessive linker *fe* is incorporated in the 1sg and 2sg possessor pronouns. That is to say, the [1sg/2sgPRO NP] structure in (3a) is an alienable APC, whose inalienable version is the [NP 1sg/2sgPRO] structure in (3b) in the table.

In English, no opposition is made between alienable and inalienable APCs. For instance, where the possessor entity is encoded by an NP, only the [NP poss NP] structure is used regardless of whether the possessum entity is relational or non-relational—see example (1a) vs (1b) under 'English APCs' in Table 1. Also, where the possessor entity is expressed by a pronoun, only the [PRO NP] structure is used regardless of whether the possessum NP is relational or non-relational—note the absence of variation in the patterns in the (2a/b) and (3a/b) English APC examples compared with the variation we find between their monolingual Ewe equivalent APCs.

Let us examine first some naturally-occurring instances of the CS patterns shown under 'Mixed APCs' in Table 1 above. The first group of structures to be illustrated are those that have been numbered (1a), (2a) and (3a) in the table. They are the mixed APCs in which the English non-relational nominal *book* occurs. As noted, they are the types that mirror their monolingual Ewe APC equivalents, namely alienable Ewe APCs. To demonstrate that the English non-relational possessum nominals occur in the same types of structures as their Ewe equivalents, the monolingual Ewe version of each example is provided as the (b) version:

Pattern in (1a):

- (4a) [Church-ha áǎé-wó fe doctrines-wó] la, ma kpɔ the Christian  
church-group INDEF-PL poss -PL TP 2sg.NEG see  
principles alo basis si dzí wó tu wó ǎǎ o  
or WH top 3PL build 3PL upon NEG  
'The doctrines of some churches, you can't see the Christian principles or basis upon which they have been built.' (Asilevi 1990:49)
- (4b) [Aso lemeha áǎ é-wó fe se-wó]...
- (5a) Mia-gblɔ be maybe [é-xɔ lo hã fe influence] le é-me  
1PL-say COMP 3sg-friend too poss be.atPRES 3sg-inner\_region  
'We can say that maybe [the influence of her friend too] is involved.' (KOFI-Accra-REC3: sn786)<sup>4</sup>
- (5b) Mia-gblɔ be maybe [é-xɔ lo hã fe nusekpɔkpɔǎmedzi] le é-me

Pattern in (2a):

- (6a) [Mia fe judge-a -wó] a, dɛwó hã, wó-be é-le é-me nyatefe be...  
1PL poss the PL TP some too 1PL-say 3sg-be.atPRES true COMP  
'Our judges, some too, they say it is true that...' (PAT-Akatsi-REC1: sn50)
- (6b) [Mia fe vɔ ɲ udɔ la-wó]...
- (7a) Ne mí ame dahe-wó mía-ga tso [mía fe political power] a-tso kpe  
if 1PL person poor-PL 1PL-RED take 1PL poss SUBJ-take add  
[wó fe social and economic power] la....  
3PL poss TP  
'If we the poor should add our political power to their social and economic power...' (Asilevi 1990:71)
- (7b) ...[mía fe dukplɔ ɲuse] tso kpe dɛ [wó fe ???]'
- (8a) [Wó-fe salary] sike me so gbɔ o  
1PL-poss REL NEG plenty NEG  
'Their salary, which is not much' (KUMA-Accra-REC2: sn463)
- (8b) [Wó-fe fetsu] sike me so gbɔ o

Pattern in (3a):

- (9a) Mi- nya bé [nye trouser] a, né me-do-i dɛ [nye boot -a] dzí a,  
2PL know COMP 1sg TP if 1sg-wear-3sg on 1sg DEF Top TP  
e-nyanyá-gé á-kpɔ páá-a?  
3sg-PASSV-ING FUT-see INT Q  
'Do you know that my pair of trousers, if I should wear it over my pair of boots, it would be very attractive?' (Amuzu 2002:160)
- (9b) Mi-nya bé [nye ata-legbe] a, né me-do-i dɛ [nye afɔ kpa-a] dzí a
- (10a) Me nana-ge be nye ɲ utɔ ma-zɔ va [wo office]  
3sg.NEG give-INGR COMP 1sg self 1sg.SUBJ-walk come 2sg  
a-va xe fe-a na wo o  
SUBJ-come pay fee-the to 2sg NEG  
'That won't compel me to walk to your office in order to pay you the fees (bribe).' (ALLICE-Akatsi-REC2: sn164)
- (10b) ....[wo dɔ wo fe]  
NB: see also [nye old lady] in (13a)

The other group of mixed APCs to be illustrated are the (1b), (2b) and (3b) types (Table 1). These mixed APCs differ from their monolingual Ewe APC equivalents because while they are alienable, their Ewe APC equivalents are inalienable. Each CS example is paired with a monolingual Ewe version in an attempt to show the contrasts that exist between distributions of English/CS relational possessum nominals and distributions of Ewe relational possessum nominals:

Pattern in (1b):

- (11a) Lé ɲku dɛ [zikpui-a fe under] alo [fridge -a fe side] kpɔ.  
hold eye to chair-DEF poss or -DEF poss see  
'Look under the chair or at the side of the fridge and see.' (Asilevi 1990:37)

- (11b) Lé ŋ ku d é [zikpui-a te] alo [fridge-a xa] kpo  
 (12a) Wó- be [sr5 fe uncle] -e gbló nya-a  
 3PL say spouse-the poss -FOC say word-the  
 'They say it was her husband's uncle who said it.'  
 (12b) Wó-be [sr5-a to d ia] -e gbló nya-a

Pattern in (2b):

- (13a) Nye old lady -a e nyé [mia fe grandmother] fe last born.  
 1sg DEF FOC be 1PL poss poss  
 'My old lady is our grandmother's last born.' (Asilevi 1990:24)  
 (13b) Nye old lady-a e.... nyé [mia mama] fe last born  
 (14a) Nutsu-a wu é-sr5 kple [é-fe sister] nyitso  
 man-the kill 3sg-spouse and 3sg-poss few\_days\_ago  
 'The man killed his wife and her sister a few days ago.' (KOFI-Accra-REC3: sn564)  
 (14b) Nutsu-a wu é- sr5 kple [é -no vi-a] nyitso

Pattern in (3b):

- (15a) Tomorrow's week-ε nyé [nye mother-in-law] fe wake-keeping la...  
 FOC be 1sg poss TP  
 'A week tomorrow is my mother-in-law's wake-keeping...' (Asilevi 1990:108)  
 (15b) Tomorrow's week-ε nyé [lo xo-nye] fe ŋ udo do lá...  
 (16a) Elabe me vá no [nye sister] gbo sometimes  
 because 1sg come be.atNPRES 1sg vicinity  
 'Because I resided with my sister sometimes.' (AMI-Accra-REC1: sn279)  
 (16b) ...me va no [no vi-nye] gbo ...

The examples presented above accentuate the point of Table 1 that the morphosyntactic distinction made in Ewe between relational and non-relational possessum nominals is not applied to English possessum nominals in mixed APCs. English relational and non-relational possessum nominals occur in Ewe-based mixed alienable APCs only. The examples also point to English as the catalyst in the inapplicability of the Ewe distinction to the English possessum nominals: English makes no such distinction in monolingual APCs. From this second point, it seems straightforward to conclude that English is responsible for the absence of the distinction among its possessum nominals. What is not as straightforward is deciding whether English is again responsible for the specific choice of Ewe-based alienable APC structures for its possessum nominals. It is not straightforward because there are some complications that need to be accounted for in any conclusion drawn about the motivations for the choice of only alienable structures for mixed APCs. With respect to a hypothesis about the role of English, the following facts about correspondences between surface structures of the mixed APCs and their English counterparts have to be taken into account:

- (i) while the [NP/PRO poss NP] structure of mixed APCs under (1a) and (1b) and the [PRO NP] structure of mixed APCs under (3a) and (3b) correspond in surface structure to their respective English APC equivalents,  
 (ii) the [PRO poss NP] structure in mixed APCs under (2a) and (2b) does not correspond in surface structure to their English equivalents, which have [PRO NP] structure.

If one takes the position that English is responsible for the choice of the Ewe-based alienable APCs structures, then, one has to explain the presence of *fe* in the (2a) and (2b) structures. It is not enough to say that the (2a) and (2b) mixed APCs are exceptions to 'the rule'.

The right questions to ask about these data are not about the surface structure correspondences per se. To underscore this point, I will attempt in Section 2 to apply Poplack's framework—a CS analytical tool that rejects the notion of matrix language (ML) for CS constituents—to analyze the data. I will argue that the right questions about the CS patterns relate more to the abstract grammatical structures of the mixed APCs than to their surface structures. That is to say, the questions concern the CS mechanisms (the nature of ML, defined in Section 3.1) involved at abstract levels of the production of the APC structures.

## 2. Poplack's framework

The basic premise in Poplack's framework (e.g. Poplack and Meechan 1995; and Meechan and Poplack 1995) for analyzing CS constituents/sentences is that languages in CS contact are only activated one at a time (i.e. they are activated alternately) during the production of mixed constituents. The argument seems to be that for a language to qualify as a participant in CS process (i.e. for it not to be regarded as merely a lexical donor to a borrowing language), it needs to be activated long enough for it to frame a well-formed constituent part of the larger mixed constituent/sentence. We are to imagine a linguistic process, definable as CS, by which alternate activations of two languages yield a string of interlocked grammatical units from these languages. Poplack and Meechan therefore distinguish between single-word inserts into another language's grammatical environments from multiple-word units of different languages that co-occur in one mixed constituent structure. The single-word inserts are 'borrowed' forms in the 'recipient language's' structures, whether such forms are established (i.e. phonologically integrated) borrowings or 'nonce' (i.e. non-phonologically integrated) borrowings. Multiple-word units, i.e. phrases and clauses, are 'true' CS forms. Before I proceed to evaluate details of Poplack's framework against the Ewe-English CS data previewed above, let us consider grounds for viewing the borrowing-CS distinction with reservation.

Both English lone nouns and phrasal category NPs occur consistently in the same kinds of non-relational possessum slots in the mixed APCs. For instance, to go by the distinction, the mechanism involved in the occurrence of the lone English non-relational noun *influence* in *é-xɔ lɔ hã fe influence* 'the influence of her friends too' in (5a) should be seen as different from the mechanism involved when the phrasal unit *spare parts* occurs in a similar environment following *fe* in:

- (17a) [ɲku fe spare parts] me-le anyigba sia dzi o  
 eye poss NEG-be earth this top NEG  
 'There is no *spare parts* for the eye on (this) earth.' (Nortsu-Kotoe 1999: 98)

The mechanism involved in the occurrence of the non-relational nominal *salary* in *wó fe salary-wó* 'their salary' in (8a) is also presumably different from the one responsible for the occurrence of the phrasal non-relational unit *social and economic power* in *wó fe social and economic power* in (8a). Likewise, following Poplack we should assume that the relational nominal *sister* in *nye sister* 'my sister' in (16a) is a 'borrowed' form and that the relational NP *younger brothers* in *nye younger brothers wó kata* in (17b) below is a 'true CS form':

- (17b) [Nye younger brothers -wó kata] wó shave-na gake  
 1sg PL all 3pl HAB but  
 'All my younger brothers shave but...' (Amuzu 1998:72)

Indeed, the assumption is that in the following sentence the speaker uses a borrowing strategy for *top* and then switched to a CS strategy to use *middle side* although both elements are in similar grammatical environments.

- (17c) É-be... nyo nuvi ye-nyé; maybe [ye fe top] vá yi [ye fe middle side]  
 3sg-say... girl LOG-COP; LOG poss come go LOG poss  
 me nyá kpo o  
 3sg-NEG PASV see NEG  
 'She says... she is a girl; (and that) maybe the top (section) of her (body) to the middle side of her (body)  
 are not beautiful looking.' (ALLICE-Akatsi-REC2: sn189)

Now to the borrowing principle. The distribution of borrowed forms into recipient language structures is presumably guided by the recipient language's morphosyntactic procedures since it is claimed that only the recipient language is activated in borrowing processes and that it is the recipient language that provides the grammatical structures into which lone loan words are integrated (Poplack and Meechan 1995). One may therefore assume that it is Ewe which functions as the recipient language in *wó fe salary- wó* [3PL poss salary-PL] 'their salary' in (9a) and *é-fe sister* [3sg poss sister] 'her sister' in (14a) above since it seems that the nominals are integrated into the Ewe APC structure. Yet, only *salary* (which represents English non-relational possessum nominals) conforms to Ewe grammar: Ewe non-relational possessum nominals occur in alienable APCs, separated from their possessor NP by *fe*—except in the case of *nye* (1sg) and *wo* (2sg) possessor PROs, which have incorporated *fe* as exemplified in (15a and 16a) above. *Sister* in (14a)—and for that matter English relational possessum nominals—does not conform to Ewe grammar as Ewe relational possessum nominals do not require the possessive linker. In view of this, the anomalous behaviour of English relational possessum nominals seems to be an indication that something is wrong with Poplack's assumption that a 'recipient language' would necessarily determine how it incorporates into its structure a lone morpheme from a donor language.

Concerning true CS, Poplack and Meechan distinguish two types of structural outcomes that are due to the alternate fashion by which languages in the CS contact are supposed to be activated. One type results from the application of what they call the 'Equivalence Constraint': grammatical units from the two languages are to be interlocked at syntactic boundaries that are 'homologous' in both grammars (Poplack and Meechan 1995: 224). The other type of structural outcome is characterized by mixed constituents in which 'constituent insertions' are made (Poplack and Meechan 1995: 224). The following is the distinction drawn between the two types of CS constituents: "Switches under equivalence occur at points around which the word order of the languages involved in the switch is homologous; constituent insertions, in contrast, need only respect the word order of the language into which they are inserted" (Poplack and Meechan 1995:224).

From the foregoing, constituent insertion is similar to lone word borrowing and we are to assume that the recipient language is activated alone to create the possessum slot into which an English possessum NP is inserted. In other words, in the examples above, English possessum NPs are expected to enter the kinds of slots in which their Ewe counterparts occur. Based on this assumption, the same mechanism should account for the insertion of *salary* in *wó fe salary-wó* 'their salary' in (8a) and of *social and economic power* in *wó fe social and economic power* (7a). But as with the single word borrowing, the constituent insertion principle applies only to the distribution of English non-relational possessum NPs. As we have seen, however, English relational possessum NPs also occur after *fe*—except after *nye* (1sg) and *wo* (2sg) possessor PROs, both of which have incorporated *fe* as illustrated in (17b) above. Thus, although the possessive linker *fe* is obligatory for *elder sister* in (18a), it is unacceptable for *da tsitsito*, its Ewe counterpart in (18b):

- (18a) Sukudzíkpo lá fe eldest sister vá sra-e.  
 head.teacher poss come visit-3sg  
 'The head teacher's eldest sister came to visit him.' (PAT-Akatsi-REC1: sn157)  
 (18b) Sukudzíkpo lá da tsitsito vá sra-e.  
 head.teacher elder.sister oldest.one come visit-3sg

The concept of switches under equivalence—Equivalence Constraint (EC)—does not fare any better. To justify the adequacy of the EC in relation to the mixed APCs, we need to show that the points of intersection between the Ewe and English monolingual parts in the mixed APCs are indeed homologous in the two grammars. Table 2 below shows

monolingual Ewe and English APC types whose internal word orders match. Their mixed APC counterparts appear in-between them (the mixed APC structure in 2a is distinguished because it does not correspond to its Ewe and English counterparts):

Table 2: Homologous Ewe and English PCS

Type	Ewe APCs	Mixed APCs	English APCs
1a	[NP poss NP]	[NP poss NP]	[NP poss NP]
2b	[PRO NP]	[PRO poss NP]	[PRO NP]
3a	[1sg/2sgPRO NP]	[1sg/2sgPRO NP]	[1sg/2sgPRO NP]

The EC seems to be validated in mixed APCs of type (3a). For instance, *nye old lady* 'my old lady' in (13a) above mirrors the word order in equivalent Ewe and English expressions: *nye/nyaga e i* and *my/old lady*.<sup>6</sup> It could be argued that *old lady* is a switch under equivalence of both grammars. A similar argument may be advanced for switches in mixed APCs of type (1a), which is illustrated by the APC structure in the first line of example (19a):

- (19a) K5 fet5 má-w6 fe poor understanding of what is happening -e  
villagers-that-PL poss -aFOC  
ná be w6 vote-ná ná Rawlings.  
give COMP 3PL HAB for R.  
'It is those villagers' poor understanding of what is happening which makes them vote for Rawlings.'  
(Amuzu 2005a:112)
- (19b) K5 fet5 má-w6 fe nyadz dz3 w6g3 memasemase
- (19c) Those villagers' poor understanding of what is happening

As (19b) and (19c) show, the monolingual structures are homologous at the point of the possessive linker, *fe*.

With a (2b) type mixed APC, however, we run into problems. As we can find in the table above, there is no overt possessive linker in either the Ewe and English type (2b) APC. But as we find in (20a), *fe* pops up before any English relational possessum NP if its possessor is a PRO which is neither 1sg or 2sg (the Ewe and English versions appear in 20b and 20c respectively):

- (20a) Mí dzí be mía ts5 mía fe beloved sister ná Joseph, Adukpo-to  
1PL want COMP 1PL take 1PL poss give J. A. -own  
'We want to give our beloved sister to Adukpo's Joseph (to marry).'
- (20b) ... ts5 mía ná vi lo lo to ná ... (Monolingual Ewe)
- (20c) ...give our beloved sister to... (Monolingual English)

The main questions are: What is the origin of the *fe* in the mixed construction? and How may the EC be used to determine that origin? Since the EC dwells on surface structure configurations, it is unclear how it anticipates the presence of *fe* in (20a).

There is also a general puzzle about the choice of *fe* over the English possessive 's. Since the linker is at the 'common' boundary (see patterns 1a and 3a in Table 2), it is difficult to see how the EC determines that the cut-off point for the Ewe material must always be after the linker and not before it. For instance, if the beginning of the English component were before the linker, we would have a structure like (21), which is an unacceptable version of (19a):



- (21) Kɔ f etɔ má-wó \*'s poor understanding of what is happening-e ...  
 villagers-that-PL poss -aFOC  
 'It is those villagers' poor understanding of what is happening....'

I believe that it is hardly enough to assume matter-of-factly that *fe*, but not *'s*, must appear as the bridge morpheme in mixed APCs. For the EC to be a viable tool for analyzing mixed APCs containing *fe*, it should tell us why the slot before the *'poss*' is not a CS juncture.

Again, the EC fares no better with mixed APCs whose Ewe and English monolingual counterparts are not homologous. Table 3 is extracted from Table 1 (the monolingual APC structures that do not match their mixed APC counterparts are distinguished):

Table 3: Patterns of Cs in non-homologous Ewe and English PCs

Type	Ewe APCs	Mixed APCs	English APCs
1b	[NP NP]	[NP poss NP]	[NP poss NP]
2a	[PRO poss NP]	[PRO poss NP]	[PRO NP]
3b	[NP 1sg/2sgPRO]	[1sg/2sgPRO NP]	[1sg/2sgPRO NP]

As the highlighted items in the table show, in the case of type (1b) the presence of *fe* in the mixed APC version is not anticipated from the surface structure of the Ewe APC. And in the case of type (2a), the presence of the linker is not anticipated from the surface structure of the English APC. Although *fe* occurs after *mia* in the type (2a) Ewe APC in *mia fe dupkɔ use*, no overt possessive linker is required in the English equivalent, i.e. *our political power*. Yet, *fe* appears before *political power* in *mia fe political power* in (7a). Mixed APCs of type (3b) also present a problem. In spite of the lack of word order equivalence between the Ewe and English APC versions (which fact should have barred CS under equivalence) English relational nominals occur as the second of the juxtaposed NPs, following the English word order as we find in *nye younger brothers wó kata* (17b above).

We have been assuming this far that *'s* is English the only counterpart of *fe*. But this assumption ignores the genitive of. Consider the following example:

- (22) E- le cupboard -a fe top.  
 3sg be.atPRES DEF poss  
 'It's on the top of the cupboard.' (Asilevi 1990: 37)

The Ewe linker is used although the English counterpart of the underlined structure is not *the cupboard's top* but *the top of the cupboard*, which has nothing to do with the structure above or with the EC.<sup>7</sup>

The foregoing shows the difficulties that come with attempts to explain the mixed APCs in terms of their surface structures. In the next section, I explore the composite Matrix Language (composite ML) account, which stems from Myers-Scotton's framework, to probe abstract grammatical structures of the mixed APCs for explanation of the surface CS patterns.

### 3. The Composite ML account

#### 3.1 Introduction

Before I attempt an explanation for the nature of the CS patterns in mixed APCs discussed above, I clarify both the notion of language production underpinning Myers-Scotton's (1993 and 2002) Matrix Language Frame model and the notion of ML in bilingual constituents.

Put broadly, language production, monolingual or bilingual, is assumed to proceed in a modular fashion involving three sub-parts of *lemmas*<sup>8</sup>—lexical conceptual structure, predicate argument structure and morphological realization pattern—supporting content morphemes (i.e. nouns, verbs, adjectives) and four levels of abstract operations, which are listed below. The basic idea originates from Levelt's (1989) speech processing model, which stipulates that the modular nature of language production processes are *lexically driven* in the sense that a speaker's need to:

- (a) express pre-verbal concepts leads him/her to
- (b) activate lemmas supporting particular (i.e. language-specific) content morphemes,<sup>9</sup> which
- (c) impose certain abstract grammatical structure requirements on the environments in which the content morphemes may occur, which requirements
- (d) result in the projection of particular slots in which the content morphemes eventually occur.

Items (a)-(d) represent the four stages of abstract level operations: (a) transpires at the Conceptual Level, (b) at the Lemma Level, (c) at the Functional Level and (d) at the Surface/Positional Level. These stages are captured in Myers-Scotton's Abstract Level model, which I interpret in *Sketch 1* (of language production processes) that appears further below.

Allied to the Abstract Level model is the notion, contained in Myers-Scotton's 4-M model, that there are four types of morphemes that perform different functions during the production of a constituent. They are content morphemes, early system morphemes, late bridge system morphemes, and late outsider system morphemes. The lemmas supporting content morphemes (such lexemes as verbs, nouns, adjectives) are activated at the lemma level; their lexical-conceptual structures make them candidates for satisfying a speaker's pre-verbal intentions. The activation of a content-morpheme lemma may entail the activation of a lemma supporting an early system morpheme at the lemma level. Early system morphemes—so named to highlight their activation so early in the production process—are such morphemes as *into* and *after* in 'look into' and 'look after'. They are required to complete the lexical-conceptual structures of the content morphemes they occur with. At the functional level, lemmas supporting late outsider system morphemes (such morphemes as verbal TAM markers, negation, case markers, etc) as well as lemmas supporting late bridge system morphemes (such as copulas and possessive linkers) are activated. They are so-named to reflect the late stage in language production when their forms become salient. The function of an outsider system morpheme is to signal the grammatical relation that obtains between a content morpheme in its maximal projection and a content morpheme in another maximal projection. For example, the tense morpheme *-s* is an outsider system morpheme in the verb phrase in 'Kofi loves Ama' because it signals number agreement between its head, the verb *love*, and Kofi, the subject NP. Bridge system morphemes forge a grammatical union between two units of structure; they therefore have grammatical relevance only within their maximal projection, as is the case with possessive linkers (e.g. the English *'s* and *of*, and the Ewe *fe*) in APCs. The following sketch of language production processes is my interpretation of the Abstract Level model as it is found in Myers-Scotton and Jake (1995 and 2001) and Myers-Scotton (2002):

#### Sketch 1: The Abstract Level Model

##### *The conceptual level*

\* At this level, speakers make selections encapsulating the conceptual structures they wish to convey. What this means is that, pre-verbally, speakers make decisions regarding what their intentions are. Such pre-verbal speaker-intentions (which consist of universally available semantic and pragmatic information) are conflated as specific semantic/pragmatic feature bundles, or SP feature bundles, which are necessarily language-specific.

\* If discourse includes CS, then the ML for mixed constructions is selected.

\* Information is sent to the lemma level, where the mental lexicon is accessed.

### *The lemma level*

\* The language-specific SP feature bundles activate entries in the mental lexicon called lemmas, which support the realization of actual surface lexemes. Specifically, the SP feature bundles activate lemmas supporting content morphemes. These lemmas may also *indirectly-elect* or point to lemmas supporting system morphemes that are needed to complete their lexical-conceptual structure, i.e. early system morphemes. For example, a noun may point to the lemma supporting a plural morpheme to enable it to refer to more than one of a certain entity.

\* The language-specific lemma supporting a content morpheme, and where applicable a early system morpheme, sends directions to the formulator (a kind of 'control centre' in actual online production) at the functional level regarding details of abstract lexical structure that need to be spelt out when the content morpheme is realized at the surface level.

### *The functional level*

\* The formulator interprets the language-specific abstract lexical structure information about the content morpheme, which comprises the already salient lexical-conceptual structure and the two other sub-parts of lemma structure: predicate-argument and morphological realisation pattern.

\* Concerning predicate-argument structure, the formulator maps thematic structure onto grammatical relations. For instance, it determines how many arguments a verb takes, what thematic role the verb assigns each argument and then maps the grammatical relations among these elements.

\* Concerning morphological realisation pattern, the formulator determines what language-specific devices for word order, agreement, tense/aspect/mood marking, case marking, negation, etc are suitable for expressing the morpheme's grammatical relations with other morphemes. Crucially, late system morphemes—structurally-assigned system morphemes—are selected at this level to furnish the content morpheme's morphosyntactic requirements.

\* Information is sent to the Articulator at the positional level.

### *The positional/surface Level*

\* Morphophonological realizations take place: i.e. surface structure after move-alpha, agreement inflections, etc as well as the production of phonetic forms.

We now turn to the production of bilingual constituents and to the notion of matrix language (ML). An ML is the source of the abstract grammatical frame for the bilingual constituent. What this means is that the ML serves as the source of the abstract details regarding the three subparts of the lemma that inform the projection of a slot for a content morpheme in a bilingual constituent. There are two types of ML.

One is a one-language ML: only one of the languages participating in CS serves exclusively as the source of abstract grammatical specifications utilized in the projection of CS slots. The ML frames the structures of bilingual clauses—or Complementizer Phrases in Myers-Scotton's terminology—by means of the System Morpheme Principle and the Morpheme Order Principle<sup>10</sup> such that linguistic materials from the other language, the Embedded Language (EL), are only inserted into slots in ML structures. This type is characteristic of Classic CS, which will not be discussed any further in this paper.<sup>11</sup> The other type of ML is composite ML: the two languages in CS function complementarily as the source of the abstract grammatical specifications. This type, termed Composite ML (Myers-Scotton 2002), is characteristic of Composite CS, the type found in Ewe-English CS (Amuzu 2005a and 2005b).

### *3.2 The Composite ML hypothesis and explication*

Applied to the production of the mixed APC, the composite ML hypothesis defines the role that English plays vis-à-vis Ewe as follows:

While English provides—from the lemma level—abstract lexical structure information (i.e. lexical-conceptual structure, predicate-argument structure and morphological realisation pattern information) about each English content morpheme selected during CS,

**Ewe provides—from the functional level—the morphosyntactic means (i.e. morpheme order and late system morphemes) with which the Formulator creates for the English content morpheme a slot that expresses its abstract lexical structure features.**

The underpinning assumption here is that language production is lexically driven, i.e. that lemmas supporting content morphemes call for the kinds of grammatical environments into which they are placed. The hypothesis places the onus to make that call on the English possessum nominal rather than on its Ewe counterpart. Let us explicate this hypothesis with reanalysis of the following two examples. The examples are chosen in order to make the point in *Sketch 2* (see below) of language production processes that the same CS mechanism applies in the distribution of English relational and non-relational possessum nominals. Example (23a) contains an English non-relational possessum nominal, *wake-keeping*, and (24a) contains an English relational possessum nominal, *uncle*.

- (23a) Tomorrow's week-e nyé nye mother-in-law fe wake-keeping lá...  
FOC be 1sg poss TP  
'A week tomorrow is my mother-in-law's wake-keeping...' (Asilevi 1990:108)
- (23b) Tomorrow's week-ε nyé nye mother-in-law fe ɲudo do lá ...
- (24a) W6- be srɔ̃-a fe uncle-e gblo nya-a  
3PL say spouse-the poss -FOC say word-the  
'They say it was her husband's uncle who said it.'
- (24b) W6-be srɔ̃-a tɔ dia-e gblo nya-a

**Sketch 2: The composite ML account of the production of mixed APCs**

\* Stage 1 - Lemma level: When a speaker selects an English content morpheme (e.g. *wake-keeping* and *uncle*) during Ewe-English CS, s/he activates the morpheme's English-origin abstract lexical structure. At this level, what becomes salient regarding the morpheme's lexical structure is its lexical-conceptual structure, i.e. the entity it encodes. Information on the morpheme's lexical-conceptual structure along with information on its predicate-argument structure and morphological realization—which are not yet salient—are sent to the formulator at the functional-level for processing.

\* **Stage 2 - Functional level:** The formulator reads the information directed to it from the lemma level, i.e.

\* Regarding predicate-argument structure, it recognises *wake-keeping/uncle* as a possessum.

\* Regarding morphological realization, the formulator detects—from the morpheme’s English-origin lemma information—that it requires a possessive bridge system morpheme to link it to its possessor NP.

\* Ewe dominates what happens at this level, and its dominance is operationalized via the System Morpheme Principle (SMP) and the Morpheme Order Principle (MOP). The SMP ensures that only Ewe supplies the required late bridge system morpheme (namely the *fe* morpheme), and the MOP ensures that Ewe morpheme order prevails in the mixed APC.

\* Stage 3 - Positional level: **Wake-keeping/uncle** occurs in an alienable Ewe APC structure.

Example (25) below shows that even if the possessive linker that an English possessum nominal requires in English is genitive *of* instead of *'s*, the formulator only uses the Ewe *fe* in conformity with the SMP. As a possessum nominal, *top* normally requires *of* to connect it to its possessor NP: *top of the cupboard* is more acceptable than *the cupboard's top*. *Top* comes before *of* in an *of*-construction, however, since the MOP ensures that Ewe grammar prevails in mixed constituents, note that *top* occurs after *fe* in (25):

- (25) E-le cupboard -a fe top.  
3sg-be.atPRES -DEF poss  
'It's on top of the cupboard.' (Asilevi 1990:37)

The key point in *Sketch 2* of language production processes and in example (25) is that regardless of whether an English possessum nominal is a relational or a non-relational nominal and regardless of whether the nominal requires *'s* or *of* to link it to the possessor NP, what the formulator does is that it satisfies the requirement by creating a slot for it after the Ewe *fe*. The process has no more to do with Ewe counterparts of the English nominals beyond the fact that they are treated as though they were all non-relational possessum nominals; as noted only Ewe non-relational possessum nominals require the possessive linker in their realization. *Wake-keeping* (23a) occurs in a slot in which its Ewe counterpart *gudo do* (23b) may also occur, and this means nothing more than the fact that as an Ewe non-relational possessum nominal *gudo do* too requires *fe* in its realization. *Uncle* (24a) occurs in a slot that is not traceable to its Ewe counterpart *to dia* (24b), but it means nothing more than the fact that as an Ewe relational possessum nominal *to dia* does not require *fe* in its realization.

As noted, some Ewe possessor PROs have incorporated *fe*. They are *nye* (1sg) and *wo* (2sg). Following the MOP, *fe* is absent in mixed APCs involving these two PROs, as we find in (26) and (27):

- (26) Nye sisters-wó a, nye mother; afi-i wó-le fia  
1sg PL TP 1sg place-WH 3PL-be.atPRES now  
wó me do me de-mí o  
3PL NEG work inside reach-PROG NEG  
'As for my sisters [and] my mother; right now they do not go to work (they are unemployed).' (KOFI-Accra-REC3: sn810)
- (27) Senyo, né é-nyé bé wo mother tsó fofogu tá twenty  
Senyo, if 3sg-be COMP 2sg-mother take sugarcane bundle  
yi asime-e eye...  
go market-FOC and...  
'Senyo, if your mother takes twenty bundles of sugarcane to the market and...' (Asilevi 1990:67)

Example (28) provides a contrast between a mixed APC (*nye old lady*) in which *fe* is unexpressed and two other APCs (*mía fe grandmother* and *grandmother fe last born*) in which *fe* cannot be covert:

- (28) Nye old-lady -a e nyé mía fe grandmother fe last born.  
1sg DEF FOC be 1PL poss poss  
'My old lady (i.e. my mother) is our grandmother's last born.' (Asilevi 1990:24)

The explication in *Sketch 2* also stipulates that the SMP guarantees the occurrence in mixed constructions of late system morphemes from the language that controls functional level procedures. This is evident in Asilevi's (1990) example below. Although the English pronouns are content morphemes (Jake 1994), the SMP blocks them from occurring in the mixed APCs because their counterparts in Ewe, the language in control of the functional level, are pronominal clitics and hence late system morphemes.

- (29) Nye wife but not \*my sɔɔ  
 1sg wife 'my wife'  
Wo textbook but not \*your agbalɛ  
 2sg book 'your textbook'  
 (Asilevi 1990:35)

#### 4. Language change in progress?

It appears that some codeswitchers ignore the fact that *nye* (1sg)—and *wo* (2sg)—has incorporated *fe*. For instance, ALLICE, a subject who 'correctly' omitted *fe* after *wo* in wo office 'your office' in (10a) above, used *fe* after *nye* in the following mixed APC:

- (30) yeadewóyi éyi me-nɔ college me-kɔ-e wɔ  
 sometimes when 1sg-beatNPRES 1sg-take-3sg do  
nye fe project work  
 1sg poss  
 'There were times, when I was in college, that I used it (computer) to do my project work.' (ALLICE-Akatsi-REC2: sn203)

Asilevi (1990) also recorded the following example:

- (31) Nye fe wife tsitsito la -e  
 1sg poss older.one DEF FOC  
 'It's my elder wife.' (Asilevi 1990:87)

I would argue that exposure to frequent use of *fe* in CS contexts is the catalyst in the resurrection of its use following *nye* in these examples.

Example (32), attributed to a child living in Accra, where exposure to English is high, suggests that the phenomenon is not restricted to CS contexts:

- (32) Me -yi nye fe xɔɔ gbɔ  
 1sg go 1sg poss friend side  
 'I went to my friend.' (Setsoafia 1989:19)

This child exhibited two elements of change in this example. The first one is that he/she treated *xɔɔ* 'friend' as if it is a non-relational nominal and so realized it after *nye*; as a relational nominal it should have preceded *nye* as in *xɔɔ-nye*. The second element of change, which the child shares with the adult speakers of (30) and (31), is that he/she overruled the fact that *nye* incorporated *fe*.

This pattern is sparse in the data, which implies that it is only idiolectal for a few speakers. What it does represent is the fact that it points to the APC as an area of Ewe grammar that is vulnerable to change due to intensive exposure to the use of *fe* in CS contexts.<sup>12</sup>

#### 4. Summary

Relational and non-relational English possessum nominals occur in only Ewe-based alienable possessive adnominal constructions/Ewe APCs, e.g. the [porNP *fe* posmNP] construction, where *fe* is the possessive linker. First, the paper demonstrated that viewing the structures in terms of surface structure configurations, as is done within Poplack's framework, does not provide reliable insights about them. Second, the paper showed that the patterns conform to the specifications of my composite ML hypothesis (i.e. English-origin abstract lexical structures/lemmas underlying English content morphemes—here the possessum nominals—project their slots onto Ewe morphosyntactic frames). This

hypothesis expects both types of possessum nominals and such relator nominals as *top* and *down* to uniformly occur in alienable Ewe APCs. In connection with this, it was noted that all English possessum nominals require a possessive bridge system morpheme: either *'s* or *of* at the surface level. The choice entails a specific morpheme order: [por-NP *'s* posmNP] or [posmNP *of* porNP]. Ewe on the other hand uses only *fe* for expressing the possessive bridge function and the fact that all English possessum nominals make a default requirement for *fe* explains why they have a uniform CS distribution pattern.<sup>13</sup>

There are signs that the alienable-inalienable APC distinction is eroding in favour of only alienable APCs in monolingual Anlo Ewe, the variety spoken by most of the sources of the data. While this phenomenon may be attributed to the speakers' exposure to the use of only the alienable APCs in CS contexts, it is equally attributable to influence from other Ewe dialects that are reported to have already conventionalized the use of only the alienable APCs.

### Notes

1. See Ameka (1991) for a comprehensive map of the region.
2. Amuzu (1998, 2002) referred to adnominal possessive constructions as 'possessive adnominal constructions'. He accordingly abbreviated the phrase as 'PAC' instead of 'APC' as I do in this paper.
3. See below for naturally-occurring illustrations of these CS patterns.
4. Data with such a reference comes from the corpus originally coded for and used in Amuzu (2005a).
5. I will use this sign if I have not been able to find an equivalent in Ewe (probably due to lexical gap in Ewe).
6. The double stokes stand for a boundary that may be considered homologous in the structure and its other language equivalent structure.
7. See examples (11a) and (17c) for similar patterns.
8. A lemma is the non-phonological set of information about a morpheme. Stored in the mental lexicon, lemmas "contain lexical rules and these rules contain all the necessary information to realize surface constructions" (Myers-Scotton 2002:14). The information about a morpheme consists of three interrelated levels of abstract lexical structure, which make up the lemma supporting the morpheme. They are: (i) the morpheme's *lexical-conceptual structure*, i.e. details about its semantic and pragmatic representation; (ii) the morpheme's *predicate-argument structure*, i.e. its syntactic properties (namely details about the subcategorization frame in which the morpheme may occur); and (iii) the morpheme's *morphological realization pattern*, i.e. specifications about language-specific devices like word order restrictions, agreement, tense/aspect marking system, case marking system, etc that may be used to signal the morpheme's relationship with other morphemes in the construction in which it occurs.
9. Content morpheme and other types of morphemes are described below.
10. The System Morpheme Principle and the Morpheme Order Principle, which constitute the ML Hypothesis of the MLF model, are as stated in Myers-Scotton (1993):  
*The Morpheme Order Principle:* In ML + EL constituents consisting of singly-occurring EL lexemes and any number of ML morphemes, surface morpheme order (reflecting surface relations) will be that of the ML.  
*The System Morpheme Principle:* In ML + EL constituents, all system morphemes which have grammatical relations external to their head constituent (i.e. which participate in the sentence's thematic role grid) will come from the ML. (Myers-Scotton 1993:82)

11. In previous studies (Amuzu 1998 and 2002) I tried unsuccessfully to analyse mixed APCs in terms of Classic CS principles, i.e. in terms of the Ewe-only ML. Full details of the shift from viewing Ewe-English CS as a case of Classic CS to viewing it as a case of Composite CS appear in Amuzu (2005a, 2005b).

12. However, a colleague who speaks one of the mid-Volta dialects of Ewe indicates to me that the use of *fe* in APCs involving relational possessum nominals is common in those dialects. This claim needs further investigation. But if found to be valid, then conclusion could be reached that the phenomenon (among the mainly Anlo speakers investigated) is due to influence from these dialects.

13. The morpheme order variation that characterizes the 's vs of distinction does not matter since it is *fe* that is picked for the function.

### Abbreviations

aFOC = Argument Focus	NEG = Negative
APC = Adnominal Possessive Construction	NPRES = Non-Present
COMP = Complementizer	PL = Plural Marker
CS = Codeswitching	Por = possessor
DEF = Definiteness Marker	Posm = possessum
EL = Embedded Language	POT = Potential
EC = Equivalence Constraint	PRES = Present Tense
FOC = Focus Marker	PROG = Progressive
FUT = Future	Q = Question Marker
HAB = Habitual	sg = Singular
INDEF = Indefiniteness Marker	SUBJ = Subjunctive
INT = Intensifier	TP = Topic Marker
INGR = Ingressive	1, 2, 3 = First-, Second-, and Third- Persons
ML = Matrix Language	[ ] = A constituent structure

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