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Analysing Afrikaans-English bilingual children's conversational code switching *

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Abstract
It has been observed that children mix languages more often if they have been exposed to mixed speech, especially if they are in bilingual company. Very little research, however, exists on the code switching (CS) of children brought up in multilingual contexts. The study discussed in this paper investigates the grammatical and socio-pragmatic characteristics of the conversational CS of three Afrikaans-English bilingual children and aims to contribute towards a better understanding of child CS. The study was conducted through the analysis of spontaneous conversational CS elicited during multiple play sessions. Data were analysed within the frameworks of the Matrix Language Frame (MLF) model and Conversation Analysis (CA). The study accounts for the different types of CS that occur, and examines which grammatical and/or socio-pragmatic difficulties may drive children to use specific types of CS, while also considering whether the context of an utterance has an influence on how and why CS takes place.

Keywords: code switching; child bilingual; Matrix Language Frame model; Conversation Analysis

1. Introduction

It has been observed that children mix languages more often if they have been exposed to mixed speech, especially if they are in bilingual company (Hoffman 1991:95). However, as Gardener-Chloros (2009:143) points out, the study of code switching (CS) is lacking in terms of research on children brought up in multilingual contexts. The paucity of research on CS as a conversational language style in South Africa, as well as the lack of research on the language use of children growing up in such multilingual contexts, served as motivation for the study reported on in this paper.

1.1 Background and research questions

Most studies conducted on child CS concern children whose languages are relatively closely related (Gardener-Chloros 2009:144), and, while Afrikaans and South African English (SAE) are themselves relatively closely related and have certain similarities, the two languages are still typologically dissimilar in terms of word order, overt phonological realisation and grammatical features, such as tense and agreement. This typological dissimilarity makes the

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combination in terms of grammatical structure an interesting pair to analyse (Van Dulm 2007:7) when researching child CS.

There is no consensus in the literature on how and why bilingual children code switch. It is from this knowledge gap that the following research question stems:

(i) What are the *grammatical characteristics* and *socio-pragmatic characteristics* of conversational CS by Afrikaans-SAE bilingual children?

Rresearch on CS is characterised by a bidirectional trend in which the focus falls either on the grammar of CS in terms of the morphosyntax of the switched items or on the socio-pragmatic meaning created as a function of CS (Dzameshie 2001:1). The study reported on in this paper, however, set out to investigate both the grammatical and the socio-pragmatic characteristics of child CS.

The typological dissimilarities which exist between Afrikaans and English informed the grammatical focus of this study and lent the basis for the first working assumption, namely that Myers-Scotton's Matrix Language Frame (MLF) and 4-M ("four morpheme") models can be used to account for the structural aspects of child bilingual CS. The second working assumption was that a Conversation Analysis (CA) approach can be used to explain why CS occurs by capturing the socio-pragmatic characteristics of child bilingual CS.

Despite the fact that extensive research has been done on CS, in general, and on Afrikaans-SAE CS, specifically (cf., amongst others, Lawrence 1999; Finlayson and Slabbert 1997; van Gass 2002; Rose and van Dulm 2006; van Dulm 2002, 2007; Stell 2009, 2010) limited research has been done on the interactional function of CS between Afrikaans and SAE in child bilingual speech. The lack of research examining Afrikaans-English bilingual children and their specific language choices as they occur in spontaneous conversation therefore provided sufficient motivation for the study reported on here.

2. Method

2.1 Participants

The participants in the study were three eight year-old bilingual boys with similar socioeconomic status, geographical location and kinship relations. All three participants live in Paarl, a rural town in the Western Cape province of South Africa, and their parents all have at least University-level education. All three participants also attended the same dual medium playschool, where they were placed in the same age group and class. The participants were therefore well acquainted with one another. The language background of the children and the nature of their linguistic input are given in Table 1.

Table 1. Participant language background in terms of language input received

Participant Number	L1	Input in terms of Parents' Language	
		1	2
Participant A	Afrikaans	Afrikaans	Afrikaans
Participant AE	Afrikaans and English	English	Afrikaans
Participant E	English	English	English

2.2 Procedure

Data were collected from naturally occurring conversations during informal and unstructured play sessions, during which the participants played with various toys such as *Lego* (including *Lego Star Wars* and *Lego Harry Potter*) and *GoGo's*[1]. A total of four sessions took place. The first session involved all three participants, while in the remaining three sessions the participants were paired off in order to see how different language backgrounds, as well as different socio-pragmatic situations, would affect the CS patterns.

The analysis of the data consisted of a three-part process in which

(i) firstly, in order to facilitate a clearer classification of the different types of CS, a differentiation was made between the phenomenon of CS and related sociolinguistic phenomena such as borrowing;

(ii) next, the identification of the matrix language under the asymmetry principle was done by means of a quantitative analysis, while the grammatical characteristics of the children's CS were qualitatively evaluated under Myers-Scotton's MLF and 4-M models;

(iii) finally, the socio-pragmatic characteristics of the children's use of intersentential CS were qualitatively evaluated by means of CA, in which the emphasis fell on turn taking and adjacency pair sequences as well as the negotiation of power relations.

3. Identifying and classifying code switching

"Code switching" is generally defined as "the alternate use of two languages within the same utterance or during the same conversation" (Hoffmann 1991:110). Such alternation which occurs between languages creates various patterns of language use. A distinction between the "matrix/host/base language" (ML) and the "embedded language" (EL) is made to evaluate and identify how this alternation occurs (Myers-Scotton 1992:22). The ML, according to Myers-Scotton's MLF model, is the language which provides the grammatical structure of the phrase, in which the other language (i.e. the EL) becomes inserted.

However, before one can analyse the data in terms of the type and nature of the CS present, it is necessary to make a differentiation between CS and borrowing, and to provide a classification of the different types of CS, as identified in the literature.

3.1 Differentiation between code switching and borrowing

Haugen (in Grosjean 1982:312) differentiates between two types of borrowed forms, namely "loanwords" and "loanshifts". Loanwords are words which originate in the EL and are subsequently morphologically and phonetically integrated into the ML. Examples of such words in SAE are *stoep* ("porch") and *braai* ("barbeque"). Loanwords can be divided further into "pure loanwords" and "loanblends". Pure loanwords are completely integrated into the phonology and morphology of the ML. Examples of the ML constraints under which loanwords are integrated include gender and number marking as well as the placement of verbs into the largest and most common verb class (Grosjean 1982:313).

[1] Cf. *GoGo's Crazy Bones* http://en.wikipedia.org/wiki/Gogos (Accessed 29 October 2011)

Haugen (1969) (in Grosjean 1982:314) suggests a three-stage process, under which phonological adaptation takes place. The lexeme is, in the first phase, introduced by the bilingual in the purest EL form. With repetition and an increased frequency of use, the EL lexeme will, in the second stage, be integrated into the ML. If this happens to the point where native monolingual speakers start using it as a cultural borrowed form, complete phonological substitution and/or integration into the ML will take place, which is the third stage – see, for example, the substitution of the English /w/ with German /v/ when an English word is brought into German. The replication of the pure phonological form from the EL is, however, dependent on the phonological competence and performance of the bilingual who introduces the borrowed form. There will, therefore, always be a period of "uncertain language status" according to Grosjean (1982:314). Haugen (1956) (in Grosjean 1982:316-317) stresses that the adoption is always facilitated by a degree of substitution in terms of general social acceptance of the borrowed form. Each speaker therefore creates his/her own compromise replica according to his/her language competence and performance. For example, the substitution of the Spanish word *dios* ("God") in Yaqui can be pronounced as either *díos* or *líos* (Grosjean 1982:314).

Muysken (1995:190) also proposes a three-level model which coincides with Haugen's above-mentioned model. Muysken, however, uses the term "conventionalised CS" for the CS that occurs at his proposed second level, i.e. before the word becomes fully integrated into the monolingual lexicon at the third level. He therefore defines "borrowing" as "the incorporation of lexical elements from one language in the lexicon of another language" (Van Dulm 2007:9). According to Mackey (in Hoffman 1991:102), loanwords are therefore seen as forming part of 'langue' or the speaker's underlying competence.

Loanshifts (or semantic loans), in contrast to loanwords, are EL lexemes or EL islands, which have extended meanings to cover new concepts. An example of a loanshift in French is the word *réaliser*, which has the original meaning of "making something real", but also the extended meaning of "becoming aware of something", analogous to the English word *realise* (Grosjean 1982:313). While the meaning of a single EL lexeme can be extended, EL islands can also undergo extension as well as a change in the phrasal structure or patterning, which can occur due to a rearrangement in terms of the ML (Grosjean 1982:317). Loanshifts are, therefore, only influenced semantically and not phonetically, as is the case with loanwords (Grosjean 1982:317).

Loanshifts are divided into so-called "extensions" and "creations". In the case of extensions, the meaning of the lexeme in the ML is extended, so that it resembles the meaning of the lexeme in the EL (Grosjean 1982:317). At first, the meaning of both forms (the original meaning and the borrowed meaning) will be stored in the lexicon, but eventually the original meaning will fall away (Grosjean 1982:318) Extensions are also termed "semantic loans". In Portuguese-English, for instance, bilinguals adapted the meaning of the word *humoroso*, which means "to be capricious", to include an additional meaning corresponding to that of the English word *humorous* (Grosjean 1982:317).

In the case of creations, on the other hand, the lexemes or morphemes are rearranged in terms of the ML syntax. An example of such creations is the borrowing of idiomatic expressions, which are subsequently directly translated (Grosjean 1982:318-319). In data from Clyne (1967), German-English bilinguals in Australia directly translated the English expression *for better or worse* as **für schlechter oder besser*. A more accurate and idiomatic German translation would have been *in Freude und Leid* (literally, "in joy and suffering"). Extensions

and creations may consequently replace the original expression, and the bilingual may have the perception that the loanshift has become the norm (Grosjean 1982:319).

A further distinction that is made with regard to borrowing is the distinction between nonce loans and established loans, evident in the model proposed by Poplack, Sankoff and Miller (1988). Both of these differ from single CS forms. Poplack (1980) (in Myers-Scotton 1990:101) states that if an item is integrated in terms of the phonology, morphology and syntax of the ML, it is a borrowing. If it shows only phonological or syntactic integration, it is a code switch (Myers-Scotton 1990:101). Nonce borrowings are therefore individual lexemes from the EL, which are embedded into the ML. The distinction between nonce loans and established loans is that nonce loans occur with a single speaker in a specific context, and are not necessarily part of the repertoire of a monolingual speaker of the language (Van Dulm 2007:10). Established loans can therefore be equated with the concept of 'loanwords'.

For the purpose of this paper, the following differentiation is made: CS occurs when a complete shift towards the other language takes place, where the switches are juxtaposed in relation to one another. Borrowings, on the other hand, are seen as words or short phrases which have undergone phonological and morphological adaptation in terms of the ML constraints and have subsequently become part of the ML mental lexicon, in order to fill a semantic gap.

Out of the possible 160 borrowings identified in the recorded data, 158 instances were used to describe objects for which a semantic/lexical gap exists in Afrikaans. Example (1) is illustrative of this, as *Star Wars* does not have a translated equivalent in Afrikaans, unlike, for example, the cartoon character *TinTin (Kuifie)* which does.

(1) [xxx], vat *Star Wars* se goed hier buite om... Net wat *Star Wars* se goed.
[take] [things here outside around...just what] [things]

The other two instances provide insight into other types of borrowings. In example (2), morphological and phonological adaptation in terms of the ML is evident:

(2) Ons bou dit *cooler*.
[we build it]

The English word *cool* has long been integrated in Afrikaans as a pure loanword. The process of inflection that takes place to make it a superlative is proof of this integration into Afrikaans.

The second instance of borrowing shows an example of the process of creation that takes place in loanshifts. Example (3) illustrates how the phrase *not for real* in English undergoes a literal, yet prescriptively faulty, translation. In standard Afrikaans, this meaning would be expressed as *nie regtig nie* ("not real") or *speel-speel* ("play-play").

(3) Ek skiet nie vir regtig nie.
[I shoot not for real not]

3.2 Classification of the different types of CS

The terms "extrasentential", "intersentential" and "intrasentential" are used, respectively, to differentiate between different types of switches. Those instances involving the insertion of a

tag at the start of a sentence are "extrasentential" switches, as indicated by the italics in examples (4) to (9) below.

(4) *Oh no*, gee dit bietjie vir my aan
[give it little for me to]

(5) *Oh weird*, sy naam is *GoGo*
[his name is]

(6) *Yay*, ag dis hoe die
[oh that's how the]

(7) *Wait*, dis nie daai ding
[it's not that thing]

(8) *Watch*, ek gaan vir jou 'n ander een bou
[I go for you a other one build]

(9) *No*, dis my *GoGos*
[it's my]

Switches which occur between sentences are, in turn, "intersentential" switches. The data in examples (10) to (12) are illustrative of how the switches occur at the sentence boundary. The first sentence in (10) is in Afrikaans and the second is in SAE; in example (11), the inverse is the case. Example (12) illustrates that intersentential CS not only occurs as a single Afrikaans-English sequence but that multiple intersentential switches can occur within a single turn or conversation.

(10) E: *Nou gaan ons wees...ek...almal moet 'n* jetpack *hê. Die* jetpack *gaan hierso wees.*
Let's pretend this is the engine.
[now go we be...I...everyone must a jetpack have. The jetpack go here be]

(11) A: Ah no, the lava is coming, it's gonna *kry*, get him. *Nou gaan ek amper dood jy.*
[... it's gonna get, get him. now go I almost dead you]

(12) AE: Ek kan nog nie dood gaan nie. Ek moet goed nog op die *spaceship*...As ek net my mannetjie kry! *Come on*! Kom kom mannetjie.
[I can yet not dead go not. I must things yet on the spaceship… if I just my little-man get! Come on! Come come little-man]

Lastly, switches which occur within a sentence are "intrasentential" switches (Appel and Muysken 1987:118), as illustrated in example (14).

(13) A: Kom, vat al die *weapons* in die *secret* plek in.
[come, take all the weapons in the secret place in]

In terms of intrasentential CS, the distinction between below or above word level switching was be made by referring to ML/EL morphemes for below word level switches and ML/EL phrases or islands for above word level switches. Examples (14) to (16) illustrate ML/EL

morphemes, as the switch occurs below word level; the *ge-* morpheme is added to the English verb to create a past participle.

(14) Ek het 'n outjie ***ge****capture* by…die *villain*.
[I have a guy captured at… the villain]

(15) Ek het hom, hy't kop ***ge****send*.
[I have him, he's head sent]

(16) Want die lawa het dit half ***ge****burn*.
[because the lava have it half burnt]

ML/EL phrases or islands are illustrated in examples (17) to (21). Here a combination of two or more words forms a phrase or an island.

(17) Hier kom 'n *spaceship to land*.
[here come a]

(18) En het jy *these swords*?
[and have you]

(19) Nie 'n *Star Wars* een nie, 'n *battle spaceship outside*.
[no a] [one not, a]

(20) Hierso kom die *bad star spaceship*.
[here come the]

(21) Sien jy 'n *tire anywhere*?
[see you a]

4. Analysis under the MLF model

After identifying instances of CS (vs. borrowing), the data were analysed making use of the MLF model. Specifically, the following five steps were taken:

1. A quantitative identification of the ML was made per phrase. Each phrase was identified as having either Afrikaans or English as the ML.

2. If a quantitative identification of the ML was not possible, phrases were coded by means of a question mark (?) and were analysed qualitatively under the MLF model to identify the ML.

3. Analysis under the MLF model involved -
    1. an analysis of the word order of each phrase to determine the ML;
    2. identification of system morphemes and content morphemes;
    3. identification of the ML as either ambiguous or unidentifiable if either word order predictions or the assignment of content morphemes proved unreliable.

4. Identification of the ML: the number of ML and EL phrases was tallied and converted to percentages in order to identify the ML -
    1. for the entire corpus;
    2. the specific conversational combinations;
    3. for each individual.

5. The fifth and final step involved an analysis of the specific extrasentential as well as the above and below word level intrasentential CS forms in order to ascertain whether the CS forms found in the corpus could be identified as classic or composite cases of CS.

4.1 The quantitative identification of the ML per phrase

The first step of the analysis was a quantitative identification of the ML per phrase, within Myers-Scotton's MLF model which has at its core the ML hypothesis:

The ML Hypothesis

> The ML frames the morphosyntax of ML and EL constituents
>
> (Myers-Scotton 1992:24)

Each phrase was identified as having either Afrikaans or English as the ML, based on the grammatical structure of the utterance (following Myers-Scotton's Morpheme Order Principle):

The Morpheme Order Principle (MOP)

> Morpheme order of the constituents must follow the order of the ML.
>
> (Myers-Scotton 1992:24)

Examples (22), (23) and (24) contain sentences in which the quantitative analysis could easily be done according to the Morpheme Order Principle, as the morpheme order of the sentences is clearly in a Subject-Verb-Object (SVO) order (which is the Afrikaans surface word order in matrix clauses).

(22) A: *Die*! Jy. Ek het my *Star Wars Jedi trick*. Ek is nie groot genoeg om 'n hand oop te maak nie maar...ek weet jy druk dit saggies daarin, en dan...
[Die! You. I have my Star Wars Jedi trick. I am not big enough to a hand open to make not but... I know you push it softly therein, and then...]

(23) AE: Ag, jy kan maar die *sword* kry. Ek sal vir my ander *weapons* kry.
[Oh, you can but the sword get. I will for my other weapons get]

(24) E: Daar's die *owl* by die *window*. Ons het nie *windows* nie**.** Hoekom is daar *owl* hierso?
[There's the owl at the window. We have not windows not. Why is there owl here?]

4.2 The qualitative analysis under the MLF model

Where a quantitative identification of the ML was not possible, because the morpheme order was the same in both languages and the length of the switched phrases were the same, then phrases were coded by means of a question mark (?) and were then analyzed qualitatively under the MLF model and the 4-M model to identify the ML.

This was done by determining the type of morphemes in the utterance, and the language in which they occur, and then applying the System Morpheme Principle within Myers-Scotton's 4-M model.

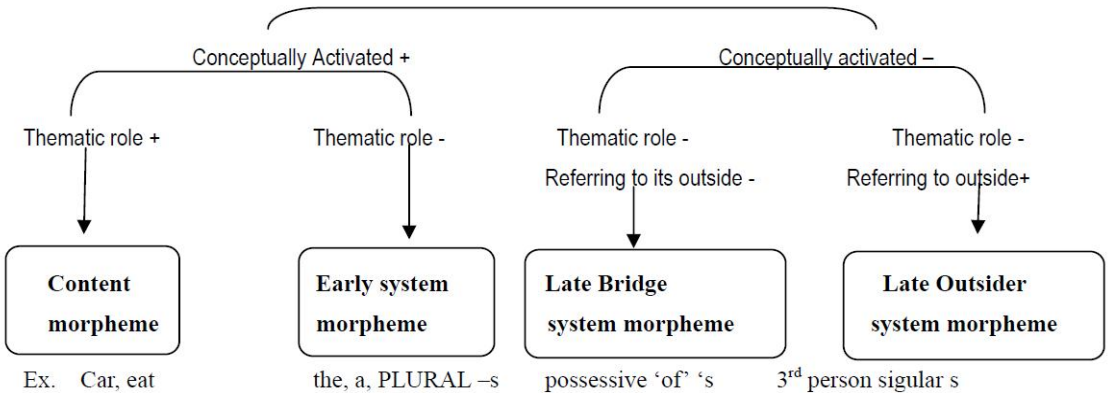
The System Morpheme Principle (SMP)

> The 'active'[2] system morphemes in the constituents come only from the ML.
>
> (Myers-Scotton 1992:24)

The 4-M model is used alongside the MLF model to offer a more detailed description of morpheme types: firstly, according to the occurrence of the morphemes in their syntactic roles and, secondly, in terms of how they are activated in language production. In this model, the term "morpheme" can refer either to the abstract entries in the mental lexicon or to the surface realisation of the abstract entries (Myers-Scotton and Jake 2009:341). Clause constructions are driven by different types of morphemes along with the differential projection of the morphemes from the mental lexicon (Wei 2000:29).

Morphemes are classified according to three features which can distinguish four morpheme types, namely [± thematic role assignment], [± conceptually-activated], as well as [± referring to grammatical information outside of its X^{Max}][3] (Myers-Scotton and Jake 2000:4). Figure 1 provides a visual explanation of the different combinations that the three features can take.

Figure 1. Morpheme Classification (Myers-Scotton 2002:73), adapted by Namba (2004:4).



This distinction between morpheme types gives greater insight into the underlying language competence and language production for classical CS because different language types are related to different production processes. The speaker's intentions and linguistic units are directly linked to the lemmas and to their specific semantic and pragmatic feature bundles from which content morphemes stem. Content morphemes are thus directly elected in the conceptual level through the assigning and receiving of thematic roles. These content morphemes subsequently, and indirectly, elect early system morphemes to express the speaker's intention by means of combined feature bundles. These bundles from the conceptual structure are then combined by means of the formulator in order to build larger linguistic units. This signal sent from the feature bundles, which guides the formulator, thus activates late system morphemes which are responsible for linking larger linguistic units as well as the mapping of the conceptual

[2] Active morphemes are morphemes which participate in relationships within the sentence but which are external from the head of the morpheme (Myers-Scotton 1992:24).
[3] X^{max} refers to the maximal projection of a phrase.

structure onto the phrase structures in order to obtain the surface order of the complementizer phrase (Myers-Scotton and Jake 2000:3).

The first pattern evident in the data below occurs in examples (25) and (26) in which the ML is identified as Afrikaans. In example (26), the Morpheme Order Principle along with the Afrikaans bridge late morpheme *van* allows for an unambiguous identification of the ML. In example (25), the application of the Morpheme Order Principle is not as clear cut as in example (26) and either English or Afrikaans could be the ML, due to the similar word order applicable to this type of phrase. The occurrence of the Afrikaans bridge late system morpheme *van*, however, supports the identification of Afrikaans as the ML. In example (27), English is identified as the ML due to the occurrence of an English word order and English possessive *'s,* despite the Afrikaans content words which are present. The ML of these sentences is easily identifiable due to the use of bridge late system morphemes in the phrases.

Table 2. Identification of ML by means of late system morphemes under the MLF model

Example		MOP	SMP	ML
(25)	More ***van*** die Jedi-swords are, *gaan*, *gaan hier*, ok [more of the Jedi swords are, go, go here, ok]	Either	Bridge late SM *of/van*	AFR
(26)	Get *daar* more ***van*** *die* lifesavers [get there more of the lifesavers]	Afr	Bridge late SM *van*	AFR
(27)	Wie***'s*** hond [whose dog]	English	Bridge late SM pos ***'s***	ENG

The second pattern in the data is prevalent in SVO word order examples (28) and (29) below, in which the Morpheme Order Principle is possible in Afrikaans and English phrases. Thus either language can serve, according to the Morpheme Order Principle, as the ML. The lack of both kinds of system morphemes in these phrases contributes to the ambiguous identification of the ML. The simple inflectional processes, which are evident in English and Afrikaans and allow for very similar grammatical features to occur in these sentences, generally complicate the identification of the ML due to a present lack of outside late system morphemes.

Table 3. The ambiguous identification of the ML in terms of the MOP under the MLF model

Example		MOP	SMP	ML
(28)	Ok, *kom* let's *speel* [ok, come let's play]	either	n/a	Either
(29)	Ok, this is *klaar* [ok, this is done]	either	n/a	Either

In cases where it was not possible to use the Morpheme Order Principle and/or the System Morpheme Principle, the assignment of theta roles was evaluated to determine the ML. If the Morpheme Order Principle and System Morpheme Principle as well as the assignment of theta roles proved unreliable, the ML was either ambiguous or could not be identified at all.

The third pattern evident in the data is shown in table 4. In these phrases, Afrikaans and English conceptually-activated morphemes (such as verbs and nouns) are both used, but neither

language's word order is reflected, nor is the Morpheme Order Principle applicable to either language. Late system morphemes and the System Morpheme Principle are also not applicable because these morphemes do not occur in these phrases. The ML, in these phrases, is hence not identifiable in terms of the MLF and the 4-M models. Composite CS and the Abstract level model were also considered, but the ML in the sentences could still not be identified.

Table 4. Unidentifiable ML in terms of the MLF, 4-M and Abstract Level Models

	MOP	SMP	ML
*O, *like* dan ons gaan (*tight*) wees. [oh, like then we go (tight) be]	neither	n/a	Neither
*die deur kan nie meer oop nie, jy't (vir my) gemaak so. [the door can not more open not, you've (for me) make so.	neither	n/a	Neither
* Nou gaan dit...Jy kan nie *look strange* nou nie. [now go it...you can not look strange now not]	neither	n/a	Neither
*En jy *him* skiet so *fast* dat jy *can* maak 'n - 'n [xxx] [and you him shoot so fast that you can make a - a]	neither	n/a	Neither
*So ek kan uitkom, want daar's 'n *fire* en jy's in die huis, dan jy en dan - dan daar moet wees 'n *crack,* want dan ons kan, dan ons kan dit stukkend maak. Jy-jy sit, kon sou dit, want dit gaan *super* [noise], dit gaan afgaan, dan ons gaan dit stukkend maak met my *sword*. Dan dit gaan uitkom. [so I can out-come, because there's a fire and you're in the house, then you and then – then there must be a crack, because then we can, then we can it broken make. You-you sit, could would it, because it go super [], it go down, then we go it broken make with my sword, then it go come out]	neither	n/a	Neither
*Jy't my geskop uit, nee jy't my geskop uit. [you've me kicked out, no you've my kicked out]	neither	n/a	neither
*Nou kan *never* inkom nie. Jy moet nou daarso sit een. [now can never come in not. You must now there sit one]	neither	n/a	neither
*Dan ek het in die *car* (gespring). [then I have in the car (jumped)]	neither	n/a	neither
Nie *one that* weet wat's *GoGo*. [no one that know what's GoGo]	neither	n/a	neither
Ok *now wish it*. *And now hide* jy die *core* en moenie vir [ok now wish it. And now hide you the core and don't for]	neither	n/a	neither
Ready jou. Ons is is *fight*. [Ready you. We are are fight]	neither	n/a	neither
*Waar's daai mannetjie *you can* skiet? Wat ons het gebring. [where's that little-man you can shoot what we have brought]	neither	n/a	Neither
*Waar's daai *guy* wat gaan in hierso? [where's that guy that go in here]	neither	n/a	Neither

4.3 The final identification of the ML

Once the ML for each phrase had been identified, the fourth step was to tally the number of ML and EL phrases and to convert these to percentages in order to identify the ML – not only for the entire corpus but also in terms of the specific conversational combinations and for each participant.

4.3.1 Results according to conversational combinations

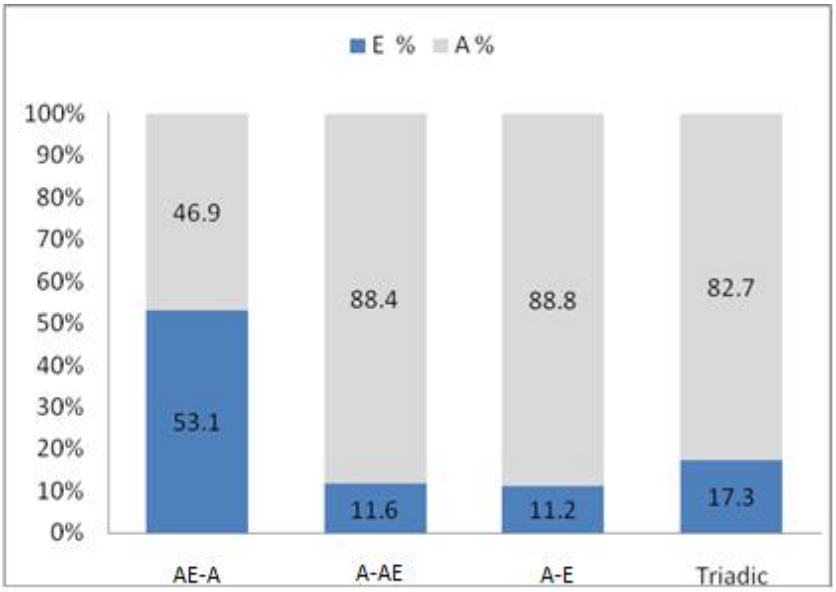
The general characteristics of CS were analysed under the MLF model by looking at the different subtypes of CS. General overarching patterns were found. This section will not go into the detailed grammatical explanations of these occurrences, as this was already explored in section 4.2; rather, this section will show how the different participants influence the percentage of occurrence of certain CS types in comparison to other CS types. A comparison between the different CS types will therefore be drawn in terms of the different conversational combinations in which these CS types occurred. Table 5 gives a detailed breakdown of the number of switches which occurred in each conversational combination and in terms of the number of words as the relevant unit of analysis.

Table 5. The total number of switches occurring in each combinational conversation

Description of specific data	**AE-E**		**A-AE**		**A-E**		**Triadic**	
	E	A	E	A	E	A	E	A
Total number of tag switches	8	-	2	-	4	-	11	-
Total number of below word level intrasentential switches	3	-	5	-	1	-	2	-
Total number of above word level intrasentential switches	62	1	58	-	43	1	119	-
Total number of borrowings	1	-	7	-	0	-	0	-
Total number of words per conversation	2245		2420		1884		4116	

The ML for the entire corpus is Afrikaans. This is also true for three of the four conversational combinations. The graph in Figure 2 below illustrates that in these three combinations, Afrikaans is the ML for ± 80% of the utterances, while English is the ML for ± 20%.

Figure 2. The percentage of Afrikaans and English occurring in each conversational combination



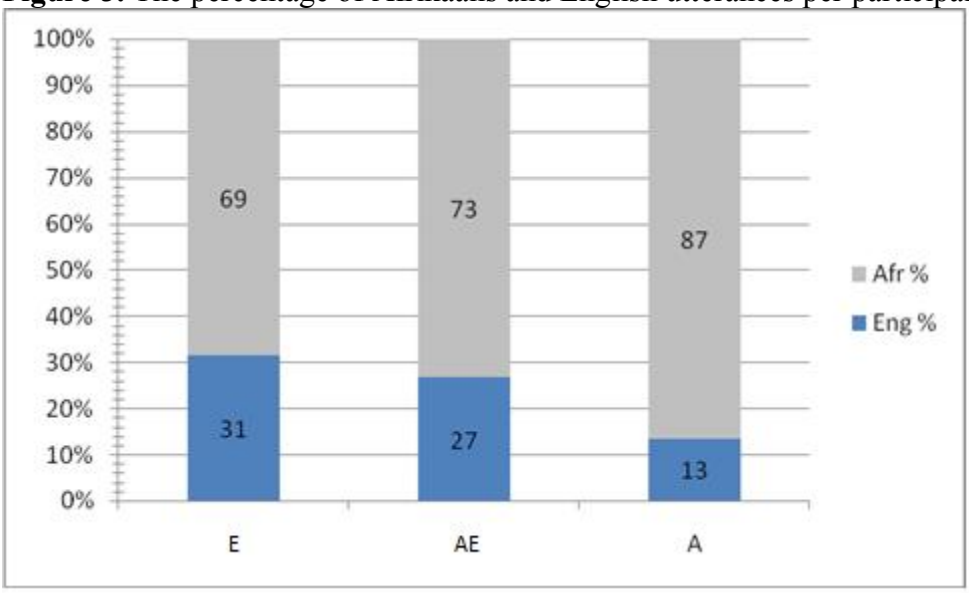
In the fourth combination, conversation AE-E, the ML is English. However, the asymmetry between percentage of Afrikaans utterances (46.9%) and percentage of English utterances (53.1%) is minor in this conversation, in comparison to the clear asymmetry in the other conversations and the corpus overall. This conversation thus seems to act as the exception to the apparent rule created in the triadic conversation, but also the conversational combinations in which each of the two participants, AE and E, otherwise participated. This exception is, however, not surprising when one takes into account the different language backgrounds of the participants, mentioned above and discussed below.

4.3.2 Results for each individual

Participant AE is a balanced bilingual and can easily switch between Afrikaans and English. Participant E, despite being less bilingual than participant AE and characterised as an L1 speaker of English, appears to switch more easily between English and Afrikaans than participant A. Participant A is an L1 speaker of Afrikaans. It can be postulated that participant A cannot accommodate to the other language, in this case English, as easily as participant AE, explaining the occurrence of a largely symmetrical conversation, in terms of ML, between participants AE and E and the large ML asymmetry in conversations in which participant A took part.

From the graph in Figure 3, however, it is clear that, despite the identification of English as the ML in conversational combination AE-E, the ML for each individual is Afrikaans, which correlates with the ML for the entire corpus. The ratio of ML to EL provides support for the argument presented in the previous paragraph regarding participants' proficiencies in the two languages as well as in CS.

Figure 3. The percentage of Afrikaans and English utterances per participant



4.3.3 Results for the entire corpus

In order to identify the ML of the corpus through quantitative analysis, in line with the Asymmetry Principle, all the transcribed phrases were tallied. For the purpose of this paper, the term "phrase" will be used as an umbrella term which includes: meaningful single word utterances, full sentences, and incomplete sentences. Portions of phrases which occur as switches were identified as either single word switches or EL islands. Unintelligible phrases,

coded with a hash (#) or [xxx], were excluded from the total number of phrases. Single, unidentifiable ML phrases, for example single word phrases such as *okay*, *wow*, *awesome*, *hey* as well as single names being called out and exclamations such as *huh* and *yoh*, were tallied as part of the total number of phrases, and coded with a tilde (~). Analysis of these single words or phrases is problematic, in identifying not only whether these are Afrikaans or English phrases but also whether these utterances are CS forms or borrowings. Without the presence of other structural phrasal constituents, identification of an ML or specific type of CS is impossible. Other phrases for which the ML could not easily be identified by means of a quantitative analysis were coded with a question mark (?). These phrases were either ambiguous or presented difficulty in terms of a quantitative analysis and need to be analysed qualitatively under the MLF model. However, even after such a qualitative analysis, some phrases remained completely unidentifiable or ambiguous. Due to this ambiguity, as well as the fact that these phrases comprised only 4% of the entire corpus, these phrases are included in the total number of phrases tallied but not in the number of phrases included in the quantitative identification of the ML.

Table 6 below illustrates the quantitative occurrence of the above mentioned phrases and ultimately shows that the ML for the entire corpus is Afrikaans, as phrases identified as having an Afrikaans ML make up 77% of the total number of phrases with an identifiable ML.

Table 6. Distribution of phrases in the corpus

Description of specific data	**Number**
Total number of phrases	2172
Total number of unintelligible phrases (not included in total)	175
Total number of single word unidentifiable ML phrases (included in total)	96
Total number of Afrikaans ML phrases	1521
Total number of English ML phrases	466
Total number of ambiguous phrases to be analysed under MLF model	89
Total number of identified ML phrases	1987
Afrikaans %	77%
English %	23%
ML for the corpus as a whole	Afrikaans

4.4 Classical and composite classification of CS

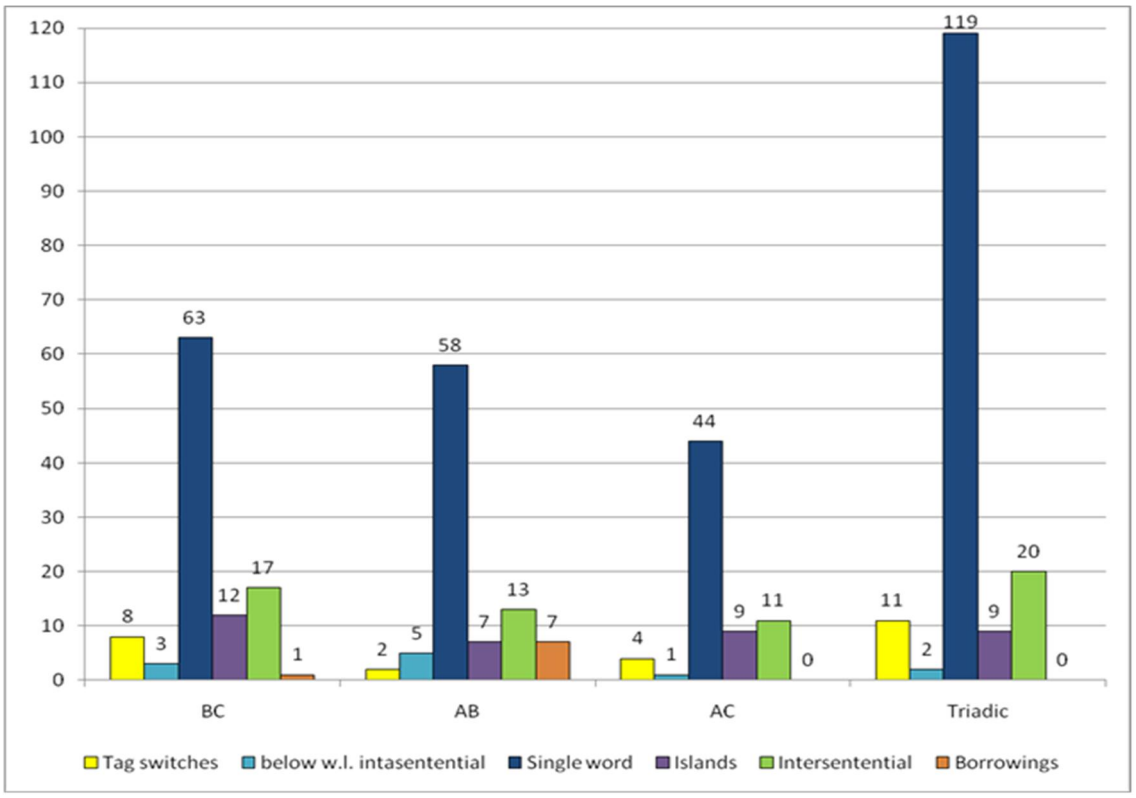
The fifth and final step of the analysis under the MLF model involved an analysis of the specific extrasentential switches, as well as the above and below word level intrasentential CS forms, in order to ascertain whether the CS forms found in the corpus could be identified as classic or composite cases of CS. "CS in which empirical evidence shows that abstract grammatical structure within a clause comes from only one of the participating languages" is defined as classical CS (Myers-Scotton and Jake 2009:337). By contrast, CS stemming from the abstract grammatical structure of mainly one language, but also partially from the other language, is defined as composite CS.

The data analysed indicate that Afrikaans is the ML for the overall corpus. From the results of an analysis in terms of DP, VP, PP, AP and AdvP structures, it is clear that these different phrasal constituents can be CS forms and that content and early system morphemes may occur in any abstract frame in terms of the ML, as well as single EL forms and EL islands. Late system morphemes are however restricted to the ML, in order to achieve an asymmetry between intrasentential phrasal constituents but also in terms of intersentential phrases in the overall conversation and corpus.

In order for classic CS to take place, the Uniform Structure Principle (USP) underlines three basic premises which have to be met (Myers-Scotton and Jake 2009). Firstly, the participating languages must not equally influence the bilingual clause. This is indeed the case in the corpus. Secondly, not all morphemes can equally stem from the ML and EL. This too is evident in the above distinction between conceptually-activated morphemes and early system morphemes which occur as English EL forms in the Afrikaans ML. Afrikaans as the ML is however defined by the occurrence of late system morphemes. Lastly, the System Morpheme Principle limits the occurrence of system morphemes that build the clausal structure of the ML. Due to the paucity of inflection, in terms of conjugation and assignment of case, in Afrikaans and English, the System Morpheme Principle played a minimal role in the analysis of the data. The System Morpheme Principle mostly played a role in the identification of the ML in instances in which the ML could not be identified quantitatively, i.e. in phrases which were coded with a question mark (?). The majority of these phrases were finally identified as either having an ambiguous ML or not being subject to analysis and identification in terms of the MLF and the 4-M models. These phrases comprised only 4.4% of the overall CS corpus and thus do not have an effect on the identification of Afrikaans as the ML for the entire corpus. Neither do these phrases play a role in defining the overall CS as composite or classic CS.

Due to the satisfaction of all three premises of the USP, as well as the application of the Morpheme Order Principle and the System Morpheme Principle to the corpus as a whole, the CS data in the present study can be classified as classical CS. In conclusion regarding the grammatical analysis of the different types of classical CS, Figure 4 shows the distribution of the various types of CS.

Figure 4. Number of occurrences of the different code switching types in each conversational combination



5. The socio-pragmatic characteristics of intersentential CS

As evident from the analysis in the previous section, the most prevalent CS form is single-word intrasentential CS, with intersentential CS occurring as the second most frequent CS form used in the corpus. While intersentential CS contributes to the characterisation of the types of CS which occur in the data, and, quantitatively, to the identification of the ML, it cannot be analysed qualitatively in terms of the MLF model, because these switches do not have an impact on the grammatical systems participating in CS, as is the case with intrasentential CS. The occurrences of the various intersentential code switches were thus analysed by means of CA methods at inter-sentence and inter-turn boundaries.

CA refers to the analysis of the organisation of a conversation in terms of adjacency pairs, turn taking sequences and the general sequentiality of the conversation. This links to back to point (iii) of the methodological procedure, namely that the socio-pragmatic characteristics of the children's use of intersentential CS were qualitatively evaluated by means of CA, in which the emphasis fell on turn taking and adjacency pair sequences as well as the negotiation of power relations within sequences. The patterns identified in terms of these three aspects were also analysed in relation to the conversational corpus as a whole, the different conversational combinations, and each of the three individual participants. However, in terms of the general pragmatic analysis of the data, the corpus as a whole did not indicate any general overarching patterns of pragmatic organisation, as was the case with grammatical features; nor did it illustrate general idiosyncratic patterns for each speaker in all conversations. The use of adjacency pairs and turn taking sequentiality thus failed in the analysis of the overall corpus because each conversational combination is organised by different socio-pragmatic motives. The relevant unit of analysis will thus be each conversational combination and how adjacency

pairs and sequentiality play a role in the organisation of the specific conversation. Before an analysis of the data is presented, however, a brief outline of the three major aspects of CA will be provided.

5.1 Conversational analysis

5.1.1 Turn taking

Turn taking in a conversation aids in cooperation in the conversation. In more natural conversations, speakers tend to overlap or interrupt. The point in a conversation where turn taking, overlap or interruption takes place is called a "transition relevance place" (TRP) (Cutting 2002:29). When a speaker does not wait for the TRP, he/she interrupts the flow of the conversation. This can be seen in the following example:

(31) Speaker A: Yes, but how do you expect // to pay for it?
Speaker B: // with my savings money.

An overlap, by contrast, takes place when a speaker can predict the turn, and come in just before the turn occurs. The overlap can be seen in the following example:

(32) Speaker A: I'm not sure. Uhm =
Speaker B: = Why don't you Google it?

Thus it becomes clear that a conversation is sustained by a continual negotiation and renegotiation of the floor (Cameron 2001:90).

Other factors which are important in determining a TRP include the content of the utterance, the prosodic and grammatical structure of the speech as well as non-verbal behavioural aspects which the speaker portrays (Cameron 2001:90). It is due to this definition that in this paper we refer to intersentential CS as switches which occur between sentences and not as inter-turn relations.

Turn taking in CA therefore does not only account for regular patterns in the data, but it also provides evidence that participants orientate to the existence of those patterns (Cameron 2001: 92). It is therefore an explanation of how and why a conversation is formed and takes place.

5.1.2 Adjacency pairs

In CA, adjacency pairs are the relations which exist between acts and the frequently occurring patterns between pairs of utterances. Such acts are ordered according to first and second parts which function to satisfy the expectation of the utterance known as the "preference structure' (Cutting 2002:30). A few examples of such adjacency pairs are as follows:

(1) A question – an answer
(2) A greeting – a greeting
(3) A blame – a denial
(4) A complaint – an apology

From a CA perspective, adjacency pairs point out solidarity in conversation in terms of assessing and agreeing with utterances or proposed meanings.

5.1.3 Sequences

Sequences are stretches of utterances which occur in a conversation. Such sequences emerge due to the mutual construction and negotiations between participants in the conversation. Types of sequences which are common in all conversations include pre-sequences, insertion sequences as well as opening and closing sequences (Cutting 2002:31).

Auer (1995) also proposed a distinction, based on these patterns, between discourse-related CS and participant-related CS. Discourse-related CS contributes to the organisation of the on-going interaction and the discourse as a whole to underline the interactional meaning of a particular sentence (Wei 2002:165). Participant-related CS, by contrast, permits participants to evaluate the speaker's language preference and the competence of the speaker in one language or the other (Wei 2002:165).

5.2 A conversational analysis of the corpus

The first problem with undertaking a CA analysis of the children's conversation is the apparent lack, in certain cases, of a typical conversational structure. The conversation illustrated in Extract 1 is not structured by the speakers' intentions, which forms the basis of sequentiality, as is the case with typical adult conversations. This conversation is, instead, structured according to an extra-linguistic context. The conversational structure is thus built up by means of extra-linguistic and context-related motives, which are external to the speakers, rather than specific sequences and adjacency pairs which occur due to specific language choices made by the speakers. It is not a continuous flow of meaningful utterances that are exchanged by the speakers, but rather an interaction in which the availability of a specific Lego piece determines the flow or organisation of the interaction. The participants are less focussed on the specific socio-pragmatic rules which speakers normally innately adhere to. The objective of the conversation, as well as the theme of each turn, is dependent on the Lego pieces which the participants are looking for and inevitably find or do not find, and on those pieces which are found instead of others.

Extract 1. Conversation AE-E[4]

[22.39s]	C:	*This is a, um, a Jedi helmet.*
[31.99 s]		[xxx]
[42.80 s]		Ek het twee mannetjies.
[44.08 s]	B:	Dis daar [xxx]
[47.30 s]	C:	*Wow*, dis 'n...
[55.81 s]		*Look! The* [xxx]*'s gone.*
[58.62 s]	B:	*Wow*, hier's Harry Potter.
[82.73 s]	C:	Ok, ek het die mannetjie.
[98.06 s]		Hy's dood.
[101.68 s]		Hy's geshot.
[104.61 s]	B:	[xxx] *at.*
[106.51 s]	C:	Hy was net in ons [xxx] *space.*
[113.04 s]		Hulle...
[114.08 s]		*Awesome*, ek kan sien dit *and* [...]
[120.29 s]	B:	Hier's dit so[...]

[4] See the Appendix for glosses of the conversations presented in Extracts 1-3.

[134.10 s]	C:	Sy kop's weg. Ek het hom, hy't kop gesend. Ek sê, hy't kop gesend. Hy betaal met *money*... kop, kop, hierso's jou kop.
[158.49 s]		*No*.
[161.20 s]	B:	Daar is *Ninja turtle*!
[166.75 s]	C:	Waar's jou kop? Hierso, hierso, hierso.
[176.05 s]		[xxx]
[183.16 s]		[xxx] kan ek daai hakkies, as ek kan [xxx] hier's hier's um *helmets*, hier's *Star Wars helmets*.
[197.22 s]		Aah, hierso's dit ene. Hierso, hierso. Sy's 'n, 'n *girl*, maar sy's die *queen*.

The majority of the conversation, which is typical of the interaction between participants AE and E, consists of either self-talk or general exclamations of what has been found. Whether the other speaker responds or not is irrelevant. None of the conversational turns overlap while none of the turns are cohesively linked to form a meaningful conversation. With each utterance that is made, the other participant is not necessarily interested and continues on his own track and with his own intentions. There are thus no negotiation or cooperative exchange structures apparent in this extract or in many other parts of the conversation. It is due to this lack of speaker cooperation and negotiation that this occurrence is defined as an interaction rather than a conversation. The intersentential CS, which takes place in self-talk or general exclamations, is thus not dependent on power relations nor does it exemplify discourse-related CS. The interactions rather illustrate a more participant-related CS, in which the contextualisation cues are of little significance in comparison to the speaker's preference for and competence in one language or the other.

However, there was evidence in the corpus of more structured conversation. Specifically, conversations A-AE and A-E, in comparison to conversation AE-E, were more organised in terms of speaker intention and in terms of functionally-related language choices. These conversations contained more meaningful speaker interaction in terms of language negotiation and cooperation. Extract 2 shows that the conversation is dynamic in terms of power relations and also that the structure and flow of the narrative and the conversation are cooperatively negotiated. Here participants A and AE are actively negotiating by means a multiple adjacency pair sequence of requests and denial of such requests. These requests and dis-preferred answers are made in a clearer and more cooperative manner than was the case in conversation AE-E.

Extract 2. Conversation A-AE

[492.58 s]	A:	Sal jy my huis klaar bou?
[494.34 s]	AE:	Nee!
[495.73 s]	A:	Sal jy?
[496.56 s]	AE:	Nee
[497.38 s]	A:	Sal jy?
[498.16 s]	AE:	Nee.
[498.89 s]	A:	Sal jy?
[499.54 s]	AE:	Nee.
[500.26 s]	A:	Sal jy?
[501.28 s]	AE:	Nee.

[501.92 s]	A:	Sal jy nou?
[502.81 s]	AE:	Nee.
[503.59 s]	A:	Sal jy nou?
[504.45 s]	AE:	Nee.
[505.35 s]	A:	Sal jy nou?
[506.03 s]	AE:	Nee.
[510.25 s]		Waar's daai swart kop?
[511.60 s]	A:	Sal jy nou?
[513.03 s]	AE:	Nee.
[517.99 s]	A:	*Will you now*?
[520.72 s]	AE:	*No*.
[521.91 s]	A:	*Will you now*?
[523.19 s]	AE:	Nee.
[523.94 s]	A:	*Will you now*?
[524.90 s]	AE:	Nee.
[526.12 s]	A:	*Will you now*?
[527.65 s]	AE:	*No*.
[530.01 s]	A:	*I said: Will you now*?
[537.36 s]		Aij!
[547.85 s]		Ek moet nog hier[...]
[549.54 s]	AE:	Ek moet nog 'n hele mannetjie kry.

In this extract, accommodation and convergence in terms of language choice also indicate the function of CS as a discourse strategy. Participant A is using intersentential CS as an additional tool of negotiation within the conversation in order to achieve his preferred intentions. When the use of Afrikaans is not eliciting a preferred response, participant A switches to English, in order to ascertain whether this language choice will aid in achieving the preferred response. It becomes clear that participant AE will not acquiesce to participant A's request. At first, participant AE answers in the same language as participant A (Afrikaans). When participant A switches to English to emphasise and aid in his request, participant AE refuses to switch to English, which, in turn, serves to emphasise his answer. When the refusal to accommodate is not effective in conveying the dis-preferred response, participant AE accommodates by switching to English. When this language choice is also ineffective, participant AE ignores the request completely and initiates a change of topic and theme.

This extract provides a good example of how conversations emerge due to the mutual construction and negotiations between participants in the conversation with the form of question–answer and a request–denial sequences as well as adjacency pairs that from part of the turn taking interaction, in which power within the sequence and the overall conversation is created by means of intersentential CS.

Interestingly, the conversations A-AE and A-E were structured largely around a narrative in which the speakers, firstly, are role-players or characters within a self-created story or role-play situation and, secondly, act as narrators of the story, constantly informing the other participant of what is happening in the story. The participants therefore actively created the narrative by negotiating a discourse within a discourse. Within these conversations, one of the functions of CS was to announce whether a speaker was a narrator or a character within the narration. As such, each participant used intersentential CS to organise the interaction, making

it clear for the other participant when he was a character within the story that has the floor and not a participant necessarily communicating with the other participant. This meant that the conversation was structured by means of either narration of the story in Afrikaans, or the construction of the context in which the story will occur, and by the use of English in order to switch between the role of constructor and narrator and the role of character within the narration. This is illustrated in Extract 3.

Extract 3. Conversation A-E

[1584.65 s]	A:	Dis stukkend.
[1585.07 s]	E:	*No*, dit's, um, *sleeping* (sigh), so ons net *sleep*.
[1591.99 s]	A:	Nou slaap julle.
[1593.21 s]		(xxx) Dit moet daar wees, dit moet daar wees.
[1593.64 s]	E:	Want-want jy't gekom, jy gaan *who's in my house.*
[1602.08 s]		*Who's in my house?*
[1606.34 s]	A:	Want ons moet dit so kan oopdruk.
[1609.79 s]	E:	*Who's in my house? Oh, you two. Get out of my house, you have to ask first. Huh? What happened? You were in my house!*
[1622.41 s]		*Say where's my sword?*
[1625.38 s]		Waar's sy *sword?*
[1627.15 s]		O
[1630.83 s]		*I (has) the sword.*
[1634.01 s]	A:	Nou gooi hom maar hier weg.
[1635.81 s]	E:	Hoekom?
[1636.06 s]	A:	Dan hou ons die pyltjie, want as julle nou dit hier ingedruk het, dan (gaan dit geslaap het).
[1644.54 s]	E:	(xxx) Jy gaan doodgaan. Want jy (xxx) doodgaan.
[1651.29 s]		(noise)
[1653.55 s]		Ek gaan net die stokkie (druk).
[1658.07 s]		(noise)
[1667.64 s]		Dan jy gekyk.

Ultimately, the less frequent use of English in the conversations of the three children, as evident from the grammatical analysis of the corpus, is not necessarily related to language proficiency but rather due to other pragmatic reasons. English is used as an organisational tool or strategy within a conversation. In this strategy speakers, either narrate the story within the play context or assume a role of a character within the story. Afrikaans, by contrast, is used in order to build and negotiate the "real life" context around the story, as well as the imminent situational context in which this narration occurs. CS is also used by the speakers during self-talk as well as to negotiate power relations within the conversation.

6. Conclusion

In this paper, the results of a study undertaken to investigate the characteristics of child Afrikaans-English CS were reported, firstly, in terms of an investigation into the grammatical characteristics of the CS data in the corpus (employing the MLF and 4-M models and their associated principles) and, secondly, in terms of an investigation into the socio-pragmatic characteristics of the CS data in the corpus (employing CA).

The occurrence and distribution of different types of CS, as well as the grammatical difficulties which may drive children to use the specific types of CS identified in the data, can be attributed to the presence of the asymmetry between Afrikaans (73% of utterances) and English (27% of utterances) in the corpus, as well as the distinction between the occurrence of conceptually-activated and system morphemes.

Despite the obvious variation in language background (and language input) of the participants, which may have led to different language proficiency levels, all three participants used Afrikaans as the ML. In terms of a grammatical analysis, the abstract grammatical frame of the phrases used stemmed from Afrikaans. The assumption can thus be made that the proficiency of the children allowed for Afrikaans to be the easiest form to use.

The reasons why the different types of CS occurred, as well as the difficulties which drive children to use the specific types of CS identified in the data, can however not only be attributed to the grammatical competency of the speakers. The communicative competency and subsequent language choice of the speakers also play an important role in the occurrence of Afrikaans as the ML, as well as socio-pragmatic difficulties which may lead to the use of CS. The fact that all three speakers attended an Afrikaans playschool and two out of the three speakers received more Afrikaans input than the third speaker, also plays a role in the occurrence of Afrikaans as the ML.

Just as CS can be found on a continuum between monolingual and bilingual language use, an internal continuum exists within CS, in which other linguistic and non-linguistic factors play a role in terms of which types of CS may occur. The types of CS on their own provide narrow insights into where CS manifests itself on the surface level of language production. How this switching manifests itself on a deeper processing level can be explained by the MLF and 4-M models.

The MLF model provides a framework within which a deeper analysis of CS can be done, not only in terms of where in the discourse CS occurs, but also in terms of frequency. The MLF model, secondly, focusses on language production but also on the underlying language competence from which this production stems, providing a deeper understanding of why CS occurs intrasententially or intersententially in certain instances. Insight into which building blocks of language are more prone to occur in certain places rather than others is also obtained. The grammatical aspects, processing and acquisition of language are thus also all continuum based. Grammar however is not the only factor at play; the situational context, the speakers and their individual characteristics (such as their language proficiency) as well as speaker intentions all play an important role in terms of why CS occurs.

The CS of these three Afrikaans-English bilingual children is thus all encompassing in terms of the different types of CS: in terms of the grammatical characteristics of their CS, there is a preference for intrasentential single CS forms, and in terms of the socio-pragmatic characteristics of their CS, intersentential CS is used for negotiating context, topic and theme as well as power relations. In this way, the results of the data analysis provide support for the two assumptions formulated, namely that (i) the MLF and 4-M models can be used to account for the structural aspects of child bilingual CS, and (ii) a CA approach can be used to explain why CS occurs by capturing the socio-pragmatic characteristics of child bilingual CS.

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Appendix
Extract 2. Conversation AE-E

[22.39s]	C:	*This is a, um, a Jedi helmet.*
[42.80 s]		[I have two little-men
[44.08 s]	B:	[It's there] [xxx]
[47.30 s]	C:	*Wow*, [it's a]...
[55.81 s]		*Look! The* [xxx]*'s gone*.
[58.62 s]	B:	*Wow*, [here's] Harry Potter.
[82.73 s]	C:	Ok, [I have the little-man]
[98.06 s]		[he's dead]
[101.68 s]		[he's shot]
[104.61 s]	B:	[xxx] *at*.
[106.51 s]	C:	[he was just in our] [xxx] *space*.
[113.04 s]		[they]...
[114.08 s]		*Awesome*, [I can see it] *and* [...]
[120.29 s]	B:	[here's it so] [...]
[134.10 s]	C:	[his head's away. I had him, he's head sent. I say, he's head sent. He pays with] *money*... [head, head, here's your head]
[158.49 s]		*No*.
[161.20 s]	B:	[there is] *Ninja turtle*!
[166.75 s]	C:	[where's your head? Here, here, here]
[183.16 s]		[xxx] [can I those 'hakkies', if I can] [xxx] [here's here's] um *helmets*, [here's] *Star Wars helmets*.
[197.22 s]		Aah, [here's this one]. [here, here. She's a, a] *girl*, [but she's the] *queen*.

Extract 2. Conversation A-AE

[492.58 s]	A:	[Will you my house done build?]
[494.34 s]	AE:	[No!]
[495.73 s]	A:	[Will you?]
…		
[501.92 s]	A:	[Will you now?]
[502.81 s]	AE:	[No]
…		
[510.25 s]		[Where's that black head?]
[511.60 s]	A:	[Will you now?]
[513.03 s]	AE:	[No]
…		
[530.01 s]	A:	*I said: Will you now*?
[537.36 s]		Aij!
[547.85 s]		[I must still here] [...]
[549.54 s]	AE:	[I must still a whole little-man get]

Extract 3. Conversation A-E

[1584.65 s]	A:	[it's broken]
[1585.07 s]	E:	*No*, [it's], um, *sleeping* (sigh), [so we just] *sleep*.
[1591.99 s]	A:	[now sleep you]
[1593.21 s]		(xxx) [it must there be, it must there be]
[1593.64 s]	E:	[because-because you've come, you go] *who's in my house.*
[1602.08 s]		*Who's in my house?*
[1606.34 s]	A:	[because we must it so can open-press]
[1609.79 s]	E:	*Who's in my house? Oh, you two. Get out of my house, you have to ask first. Huh? What happened? You were in my house!*
[1622.41 s]		*Say where's my sword?*
[1625.38 s]		[where's his] *sword?*
[1627.15 s]		O
[1630.83 s]		*I (has) the sword.*
[1634.01 s]	A:	[now throw him but here away]
[1635.81 s]	E:	[why?]
[1636.06 s]	A:	[then hold us the little-arrow, because if you now it here in-push have, then (go it slept have)]
[1644.54 s]	E:	(xxx) [you go dead] [because you] [xxx] [dead]
[1651.29 s]		(noise)
[1653.55 s]		[I go just the little-stick (push)]
[1658.07 s]		(noise)
[1667.64 s]		[then you looked]