

MORPHOSYNTACTIC DOUBLING IN CODE SWITCHING

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ABSTRACT

CALEB CRANDALL HICKS: Morphosyntactic Doubling in Code Switching
(Under the direction of David Mora-Marín and Paul Roberge)

When code switching occurs between languages which are typologically opposed, the resulting utterance sometimes obeys the typological patterns dictated by both languages. If one contributor language has a basic word order of SVO, and the other has SOV, the code switched sentence may have the surface order SVOV; in effect, producing a doubled morphosyntactic element, where each “double” is realized in a different source language. In this thesis, I examine code switches which furnish doubled verbs, auxiliaries, adpositions, coordinations, complementizers, and morphological affixes from a large variety of language pairs. I argue that previous accounts of such doubles are unsatisfactory, as is the application of syntactic approaches to monolingual doubling. I contend that a framework favoring simultaneous access of multiple languages gives a more promising account of code switched doubles.

To my wife, Pankuri, whose own delightful code switches inspired me to pursue this fascinating topic.

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LIST OF ABBREVIATIONS

1	first person
3	third person
ACC	accusative
ADV	adverb
C	complementizer
CL2	class 2 noun
CL6	class 6 noun
CONT	continuous
COO	coordination
DET	determiner
EVI	evidential
FUT	future tense
INESS	inessive
INF	infinitive
NEG	negation marker
NOM	nominative
GEN	genitive
PAST	past tense
PL	plural
POSS	possessive

PRES	present tense
PRT	preterite
SG	singular
SUB	adverbial subordinator
TAG	tag particle
TOP	topic

Chapter 1: Introduction

1.1 *Overview of morphosyntactic doubling in code switching*

Intrasentential code switching is a language contact phenomenon in which a speaker utters a CP which contains syntactic and/or morphological constituents from more than one language. When two languages involved in a switch, hereafter called *source languages*, are typologically very different, the resulting code switches may adhere to the grammatical properties of one language or the other, and much code switching research has focussed on determining which of the two languages will dictate the grammar of the utterance as a whole.

Sometimes, however, both grammars are equally respected; that is, neither grammar takes precedence over the other during the course of the utterance. When the grammars converge on typological grounds (*i.e.* both languages are SOV or both languages employ postpositions), the equal adherence to both grammars will not result in an utterance which is structurally much different than it would be if uttered monolingually in either language. Alternatively, if the grammars are typologically contrastive (SVO/SOV or pre-/postpositional) *and* both grammars are equally respected, then the resulting utterance may produce a doubled morphosyntactic element, where each realization of the doubled element is in a different source language.

In the case of SVO/SOV typological contrasts, the verb or auxiliary element may be doubled, first in its unmarked position in the SVO language and then in its unmarked position in the SOV language. Examples of auxiliary doubling of this type are shown below in (1). In all examples of doubling throughout this thesis, the doubled elements will be shown in italics.

(1a) English-Marathi auxiliary doubling

it *is* like twelve-and-a-half hour's-tsa drive *aahe* one way

it is like twelve-and-a-half hour's-POSS drive is one way

‘It is like twelve-and-a-half hour’s drive, one way.’

(1b) English-Hindi auxiliary doubling

she will not come to me because the hindu system *is* tarah kaa *hai*

she will not come to me because the hindu system is that of is

‘She will not come to me because the Hindu system is like that.’

(Pandit 1986:41)

In both (1a) and (b), the utterance begins in English, which is an SVO language. The auxiliary *is* occupies its unmarked post-subject position. Later in each utterance, the source language switches from English to Marathi or Hindi, thus constituting each example as an instance of intrasentential code switching. Further in each utterance, the auxiliary *aahe* (in Marathi) or *hai* (in Hindi) is produced in its unmarked sentence-final

position for those languages. In this way, the auxiliary is effectively produced twice, once in each source language. As a result, the de facto word order of these utterances is SVOV.

Similarly, code switches can result in adpositional doubling. The examples in (2) show adpositional switches in which a preposition is uttered prenominally in one source language, while the postposition of the same meaning in the other source language is uttered postnominally.

(2a) English-Finnish adposition doubling

mutta se oli kidney-sta to aorta-an

but it was kidney-from to aorta-to

‘But it was from the kidney to the aorta.’

(Poplack et al. 1989:404)

(2b) English-Japanese adposition doubling

I think it was *about* five dollars a pound *gurai yo*

I think it was about five dollars a pound about

‘I think it was about five dollars a pound.’

(Nishimura 1995:167)

In (2a) and (b), an English-source preposition is uttered just before the noun phrase, whereas the equivalent Finnish- or Japanese-source postposition is uttered just after the noun phrase. The resultant order is adposition-noun phrase-adposition.

These instances of doubling occur when the two contributor languages in the code switching scenario are typologically opposed; these doubles are the topic of the present thesis. I argue that doubling in code switching contexts is a phenomenon which is a consequence of the simultaneous access of two languages by code switchers. Specifically, both grammars are accessed at the same time and therefore, the word order requirement of each grammar is equally respected. I examine the possibility that such doubles might be analyzed syntactically in a manner similar to that assumed for monolingual doubling, but ultimately reject this approach in preference of an analysis similar to Sadock's (1985, 1991) autolexical syntax.

1.2 *Significance*

Doubling in code switching is of particular importance both to theories of code switching and to theories of syntax. It is important to theories of code switching because, among the better-known models of code switching, some (Pfaff 1979, Poplack 1980) predict such doubles not to occur at all, others (Poplack, Wheeler, and Westwood 1989; Sankoff, Poplack, and Vanniarajan 1990) note that they occur only rarely, and at least one (Myers-Scotton 1993) claims that they only occur when they involve certain morphological affixes. The examples I have compiled indicate that code switched

doubles do in fact occur and that they are found in a large variety of language pairs. In addition, doubling involves many syntactic categories as well as morphological affixes.

Code switched doubles are also curious from the point of view of syntactic theory. How can these doubles be treated syntactically? It is problematic to incorporate two syntactically identical items into different positions of a syntactic tree if one makes standard assumptions in tree building. I will deal with this issue directly in section 4.3.

Doubles in code switches also reveal quite obvious examples of lexical superfluity since some item is produced twice. Alber (2008) notes that it is often non-standard languages such as dialect systems which show the greatest frequency of doubling, and accounts for this on the basis of normative pressures which dissuade superfluity in standard languages¹. Code switching contexts, like dialects, are very often non-standardized. As such, they may exhibit (if Alber is correct) some superfluous tendencies not found in standardized languages.

1.3 *Outline of this thesis*

The remainder of this thesis will be organized as follows. Chapter 2 will provide a general review of relevant literature, laying out terminology as it relates to the topic at hand. I will also describe the types of doubling found in code switching contexts and discuss previous accounts of these phenomena. Chapter 3 will look at doubling in

¹ I know of no so-called “standard” languages which display doubling of the types discussed here, but it is worth noting that normative pressures on standard varieties may be a fairly recent phenomenon stemming from linguistic nationalism as well as deliberate standardization and homogenization attempts. I do not assume that doubling is only possible in non-standard language varieties, and surely do not claim that superfluity is absent in standard ones.

monolingual contexts and present some syntactic analyses of this type of doubling. Chapter 4 will explore the idea that code switchers are simultaneous accessors of two (or more) languages, and I will suggest that this point of view offers insight into code switched doubles not provided by other approaches. I will provide an analysis suggesting that “dual structure” syntactic trees are appropriate and necessary for the representation of such doubles. Chapter 5 will opine a variety of future directions which are suggested by this topic, and Chapter 6 will close the thesis with concluding remarks.

Chapter 2: Review of the Literature

2.1 *Code switching and related terminology*

A tremendous body of literature has addressed the phenomenon of two or more disparate languages each providing lexical source material for a single discourse. Various, this has been labeled *code switching*, *code mixing*, *code blending*, and *borrowing*. The largest distinction in these terms has differentiated between *borrowing* and all the rest. Borrowing is a process in which lexical items from one language (the donor language) are adopted by speakers of another language (the recipient language). The borrowed item, or loanword, thereafter generally (but not necessarily) conforms to the phonological, morphological, and syntactic properties of the recipient language (Pfaff 1979:296, Poplack 1980:225-6, Clyne 1987:258), and speakers may or may not have knowledge of its source. In other words, borrowed items enter into the mental lexicons of speakers of the recipient language (Myers-Scotton 1993:163). The example below in (3) provides an instance of borrowing.

(3) English loan into Japanese

furoppii disuku < floppy disk

‘floppy disk’

(Takashi 1990:330)

Japanese speakers therefore consider the word *furoppii disuku* to be a Japanese word, and not an English word, even though some speakers may be aware that the word (or some phonological predecessor) entered Japanese from English.

The other terms — *code switching*, *code mixing*, and *code blending* — collectively refer to instances in which at least some of the material in a discourse is not attributed to the language of other material in the same discourse. The balance between the influence of each contributor language, as well as the structural properties of resultant sentences and dialogues, has provided the criteria many linguists use to differentiate *code switching*, *code mixing*, and *code blending*. While refining a definition of these terms is not directly relevant to the topic of this thesis, a brief overview is worthwhile so as to provide a context for the terminology I will use.

Code switching is generally understood as the alternate use of two or more languages within a single discourse or constituent (Poplack 1980:224, Clyne 1987:258, Myers-Scotton and Jake 1995:281). This is a broad definition that encompasses a variety of phenomena which may be subcategorized depending on the data at hand. Bokamba (1988:24) and Kamwangamalu (1989:321) define any alternate use of distinct languages within a single sentence as *code mixing*. If this definition is upheld, then all instances of

code mixing (per Bokamba and Kamwangamalu) are also instances of code switching (per Poplack and others), but not the other way around.

Mashiri (2002:246) adopts Kamwangamalu's view and sets it against a more restricted version of code switching. In Mashiri's terminology, code switching only occurs *between* sentences, rather than within a single sentence. The examples below in (4) contrast this distinction with alternations between Shona and English.

(4a) Code switching according to Mashiri (2002:246)

Uchauya kuzondiona here? *Do you have some tutorials this week?*

'Will you come see? Do you have some tutorials this week?'

(4b) Code mixing according to Mashiri (2002:246)

Une ma-tutorials here *week* ino?

'Do you have some tutorials this week?'

This terminological contrast is not employed by Myers-Scotton and Jake (1995:282); they relegate essentially the same distinction to categorical subtypes of code switching. They distinguish between *intersentential* code switching, which is the type exemplified by (4a) above, and *intrasentential* code switching, exemplified by (4b).

Yet another distinction between code mixing and code switching is made by Kachru (1978:28). He considers *code switching* to refer to the alternation of languages where each language is reserved for particular social or conversational domains; *code*

mixing for Kachru is what Poplack (1980), Myers-Scotton (1993), and other major researchers in this field label code switching.

Code blending acquires a unique definition in Porte (2003:105). His treatment restricts code blending to those instances in which morphemes from different contributor languages are produced side-by-side within a single word. Whereas code switching and code mixing are defined above as having a sentential domain (either intra- or inter-), code blending on Porte's view involves a morphological domain. Two examples he provides are reproduced below in (5).

(5a) Code blending (English-Spanish)

I was *speakando* with Steve the other day...

 speak-CONT

(Porte 2003:116)

(5b) Code blending (English-Spanish)

Nothing better than going down the coast to *sunbathar*, eh?

 sunbathe-INF

(Porte 2003:116)

In each instance, a Spanish-source bound morpheme is suffixed to an English-source content morpheme. Porte is careful to mention, however, that such instances came across as word-play by his test subjects; he is skeptical of the conclusion that these

represent behaviors of serious linguistic attention. It is worthy of note, though, that word play is not devoid of interest. It represents a level of linguistic awareness which may be just as useful in linguistic analysis as any other form of spontaneous speech. Examples from other languages display the same morpheme-level switches and are treated as significant. The sentence in (6) shows an instance of Turkish and English alternation at the morphemic level.

(6) Morpheme-level code alternation (English-Turkish)

Sen-inle bu konu-da *conflict-imiz* var.

you-PREP² this issue-PREP conflict-our exist

‘We (you and I) have a conflict (disagreement) over this issue.’

(Boztepe 2003)

Boztepe (2003) does not label the example above as a code blend as would Porte (2003); rather, he simply calls it code switching. It is far from clear whether the term *code blending* is any more useful than a qualification on the umbrella term *code switching*. By and large, the difference between code switching, code mixing, and code blending appears to be one of terminological preference. For the purposes of this thesis, I will use *code switching* to refer to all of these types collectively.

A final distinction that is suited for clarification is the term *mixed language*. Mixed languages (sometimes called *intertwined languages*) are autonomous languages

² The author does not provide a definition for this abbreviation.

resulting from bilingual contact situations. A mixed language is a fully developed linguistic system which is “distinct from both of its sources, and usually not mutually intelligible with either” (Winford 2003:169). Prototypically, mixed languages draw lexical material from one source language and grammatical structure from the other, though not all cases straightforwardly adhere to the prototype. The example in (7) shows the mixed language Media Lengua, in which Spanish-derived items provide almost the entire lexicon and Quechua-derived items provide grammatical markers as bound morphemes, as well as syntactic structure (Muysken 1981:54). Spanish-derived items are underlined.

(7) Media Lengua as a mixed language

dimas-ta llubi-pi-ga no i-sha-chu
too-much rain-SUB-TOP not go-1.FUT-NEG

‘If it rains too much, I won’t go.’

(Muysken 1981:54)

Two major distinguishing features between mixed languages and code switches are mutual intelligibility and source language functionality. Mutual intelligibility is often high between a code switched utterance and one or both of its contributor languages, presupposing some degree of bilingualism on the parts of code switchers; this is not usually the case in a mixed language. Muysken (1981) claims that Media Lengua is intelligible to neither Spanish nor Quechua speakers who do not also speak the mixed

language. In addition, the roles of the contributor languages (that is, their functions in the mixed language sentence) are highly regular and systematic in mixed languages. This is not generally true in code switches.

2.2 *Constraints on code switching*

A number of putative universal constraints on code switching have been proposed which dictate the points in a sentence at which switches can and cannot occur. As the content of this thesis is not intended as a contribution to constraint-based perspectives or as an analysis of competing theories, I will not elaborate on the many code switching constraints which have been proposed. Three constraints will be dealt with expressly: the system morpheme principle (Myers-Scotton 1993) in section 2.4.1, the equivalence constraint (Poplack 1980) in section 2.4.4, and a constraint in Sankoff's (1998) code switching production model also in section 2.4.4.

2.3 *Types of doubling in code switching*

What is here called *doubling* refers to the occurrence of two (or more) instances of a single morphological or syntactic element within a phrase, where each instance is realized in a different contributor language. From the perspective of position within a sentence, the range of doubling phenomena can broadly be divided into two types: *local doubling* and *distant doubling*. Local doubling occurs when the doubled elements are in

immediate succession. Distant doubling occurs when the doubled elements are separated by any amount of lexical or grammatical material.

Local doubling can itself be understood in terms of two subtypes: concatenative and multiword. *Concatenative local doubling* is essentially morphological concatenation or agglutination of morphemes from one contributor language with those from another. A clear example is the double marking of plurality between Dutch and Turkish, shown below in (8).

(8) Concatenative local doubling (Dutch-Turkish)

abi	zaten	led- <i>en-ler</i> -in	yarı-sı
brother	anyway	member-PL-PL-GEN	half-POSS

‘Brother, half of the members...’

(Backus 2003:93)

By contrast, *multiword local doubling* is the immediate repetition of a word or morpheme, where the repeated and original elements belong to different contributor languages. The principal difference between these subtypes is that in concatenative local doubling, the repeated element is attached (*i.e.* via affixation) to the original element, while in multiword local doubling, these elements are in immediate succession but are separated as discrete words.

Clyne (1987) provides a number of examples in which one or more words are repeated in immediate succession, where each repetition is from a different source language. (9) below shows this pattern.

(9a) Multiword local doubling (German-English)

er zieht *den Ropp die rope* down

he pulls the rope the rope down

‘He pulls the rope down.’

(Clyne 1987:277)

(9b) Multiword local doubling (English-German)

nur im Moment bin ich *on auf Urlaub auf holiday*

only at the moment am I on on holiday on holiday

‘Only at the moment am I on holiday.’

(Clyne 1987:277)

Clyne argues that instances such as those in (9) reveal a fact about sentence planning. He suggests that “some speakers [...] deviate from (or avoid returning to) the lexemes (or lexeme groups) originally chosen” (1987:277). Beyond this, however, he does not provide a specific analysis which might more fully elucidate the linguistic mechanism(s) responsible for the doubled surface forms.

The local doubling discussed so far does not result from a typological contrast between the contributor languages. The doubled plural morphemes in (8) both occur postnominally in the code switch, and each of these would occur postnominally if uttered in monolingual Dutch or monolingual Turkish. Similarly, the English and German doubles in (9) occur in their usual positions for each language relative to the surrounding material.

Doubling in which typological contrast is involved makes up the second main type: *distant doubling*. Here, the repeated and original elements are separated by other material. The size of the intervening material may be as little as a single word or as much as many words. In a discussion of borrowed and inherited items in Middle and South American languages, Stolz (1996) cites Porterie-Gutierrez (1988) with an example of distant doubling, though he does not label it such. This is replicated in (10).

(10) Distant doubling (Spanish-Aymara)

pero sorro *-sti* wali astuturi-tajna...
 but fox -COO very keen -3.SG.PRT.EVI

‘But the fox was very keen.’

(Stolz 1996:10)

In (10), the Spanish-source coordination *pero* precedes the noun, while the Aymara-source morpheme *-sti*, which is reported to carry the same meaning, follows the noun. Thus this entity has been doubled, but each instance is realized in a different

source language. Another example comes from Chan's (2008) citation of Park (1990). Here, two instances of doubling are apparent. In the first instance, the complementizer is doubled, realized first in English and second in Korean. In the second instance, the verb meaning 'think' is doubled, realized in the same order.

(11) Distant doubling (English-Korean)

everybody *think that* nay-ka yenge-lul cal hanta-ko sayngkakhayyo

everybody think C I-NOM English-ACC well do-C think

'Everybody thinks that I'm a good English speaker.'

(Chan 2008:800)

Notice that English is an SVO, complementizer-first language. Korean is an SOV, complementizer-final language. The sentence in (11) begins in English and the verb and complementizer occur in their usual English positions. After the switch into Korean, the complementizer and verb are repeated in their usual Korean positions.

An additional example in (12) shows the double infinitive marking on a French-source verb. The French-source infinitive follows the verb, while the Lingala-source infinitive precedes it. Since the verb itself comes between the doubled infinitives, this must be taken as an instance of distant, rather than local, doubling, even though both infinitives are affixed to the same morpheme.

(12) Distant doubling (Lingala-French)

trois quarts ya ba-jeune-s *ko-comprend-re*
three quarters of CL2-young-PL INF-understand-INF
‘[...] three-fourths of the young people did not understand [...]’
(Bokamba 1988:37, Parse: Myers-Scotton & Jake 1995:298)

The verb in (12) contains a Lingala-source infinitival prefix and a French-source infinitival suffix. Lingala by itself does not doubly mark infinitives (Bokamba 1988:37), and neither does French. Here again is doubling that results from a typological contrast: prefixation from one language and suffixation from another are both utilized to encode the same grammatical property.

The examples of distant doubling shown above in (10)-(12), as well as English-Marathi/-Hindi/-Finnish/-Japanese switches in (1)-(2) from Chapter 1, share a unique attribute. They all have the property of having typologically incongruous contributor languages. The specific targets of each typology vary in each example; it may be basic word order, adposition placement relative to a noun, or affix placement relative to a verb. In all cases, the typological contrast suggests any of four logical possibilities for surface typology in code switched utterances. For any two languages, A and B, the logical possibilities are outlined below in (13).

(13) Logical possibilities of surface typologies for code switched utterances in which the contributor languages are typologically contrastive

- (a) The typological patterns of language A are maintained, and those of language B are ignored.
- (b) The typological patterns of language B are maintained, and those of language A are ignored.
- (c) The typological patterns of both languages A and B are maintained; neither is ignored.
- (d) The typological patterns of both languages A and B are ignored; neither is maintained.

In the vast majority of code switches involving typologically contrastive contributor languages, the options (13a) and (b) are almost always relied upon. Indeed, the main intent of Myers-Scotton's (1993) Matrix Language Frame model is to uncover which of the two languages, A or B, will donate its typology to the code switch. The various constraints proposed in other evaluations of code switching also tilt the balance towards one of these two options. More on these and other approaches will be discussed in the following section of this chapter.

To my knowledge, code switched utterances invoking the possibility in (13d) are unattested. It seems that no code switchers are willing to sacrifice the typologies of both languages. And with good reason! Employing such a tactic would be enormously burdensome in that the speakers would have to resort to a typological pattern to which

they most likely have never been exposed. Their linguistic competences would be entirely ill-equipped to generate such sentences.

The possibility given in (13c), however, is interesting because it is attested yet rare. This is the possibility that results in all of the examples of distant doubling I have provided. It is not the case that one or the other of the languages “dominates” or “imposes its typology on” the utterance as a whole. Rather, speakers produce an utterance with typological properties of both languages. The following section will look at how these types of constructions have been dealt with in the literature to date.

2.4 Previous accounts of code switched doubles

2.4.1 Matrix Language Frame model (Myers-Scotton 1993)

By most accounts of code switching, doubling of the types shown in (10)-(12) should not exist at all. In Myers-Scotton’s (1993) Matrix Language Frame (MLF) model, this type of pattern is ruled out because one language or the other sets the morphosyntactic frame of any code switched sentence, meaning it establishes the morpheme order and supplies syntactically relevant morphemes. If one language or the other determines which language’s word order will be adopted, a sentence in which both orders are adopted is an unexpected observation.

Within the domain of morphological marking, the double infinitive example from (12) above is dealt with by Myers-Scotton in a specific way. This example is repeated below as (14).

(14) Doubling of infinitival morphology (Lingala-French)

trois quarts ya ba-jeune-s *ko-comprend-re*
three quarters of CL2-young-PL INF-understand-INF
‘[...] three-fourths of the young people did not understand [...]’

(Bokamba 1988:37, Parse: Myers-Scotton & Jake 1995:298)

In (14), the Lingala-source infinitive morpheme *ko-* is prefixed to the French-source verb stem *comprend* ‘understand.’ The French-source infinitive morpheme *-re* is suffixed to the same stem, resulting in the double marking of infinitiveness. Myers-Scotton (1993) provides many similar examples from Bantu languages switched with English or French which show the double marking of plurality. As an illustration, two of these are provided below in (15).

(15a) Doubling of plural morphology (Shona-English)

ma-day-s
CL6.PL-day-PL
‘days’

(Myers-Scotton 1993:111)

(15b) Doubling of plural morphology (Lingala-French)

ba-parent-*s*

CL2.PL-parent-PL

‘parents’

(Myers-Scotton 1993:133)

Treatment of sentences such as those in (15) falls under the System Morpheme Principle of Myers-Scotton’s MLF model. Myers-Scotton distinguishes between the contributor languages by assigning one of them the role of “matrix language” (ML), and the other the role of “embedded language” (EL). Briefly, the ML is the dominant language of the utterance and the one which supplies the morphosyntactic frame. It is determined by the frequency of that language’s contribution of morphemes or, where uncertain, by the first language of the utterance. The other (non-dominant) language is the EL.

Within the MLF model, Myers-Scotton contrasts system morphemes and content morphemes. System morphemes are essentially closed-class items which neither receive nor assign theta roles. These include items such as quantifiers, possessives, tense/aspect markers, determiners, complementizers, copulas, and structurally assigned agreement markers. Content morphemes, on the other hand, are theta role assigners or receivers such as verbs, prepositions, nouns, pronouns, and adjectives.

The importance of the distinction between ML and EL, as well as between system morphemes and content morphemes, is that these notions are crucial for Myers-Scotton’s

treatment of doubled morphology, as in examples (14)-(15). She upholds the System Morpheme Principle, which states that “if system morphemes are required in ML + EL constituents to signal system relations, they will be ML system morphemes” (1993:98).

In other words, plural morphology in a code switched constituent will be taken from the ML. Notice that the examples in (14)-(15) contain plural morphology from both languages. This means that no matter which language is the ML, the EL is also providing plural morphemes. Myers-Scotton makes the point of noting that the presence of EL plural morphology does not violate the System Morpheme Principle as long as the constituent also contains plural morphology from the ML. Thus, EL plural morphology alone would be disallowed in a code switched constituent, but EL plurals which co-occur with ML plurals are permitted.

While the Matrix Language Frame model makes an attempt at elucidating patterns of code switched doubles which are strictly morphological (*i.e.* involve morphological affixes), it does not offer support in dealing with cases of a more syntactic nature, such as word order. The model predicts the word order of one language or the other to endure throughout any code switched sentence. But clearly, this is not what always happens.

Surprisingly few researchers have attempted to tackle the phenomenon of doubled code switches head-on. If code switched doubling is addressed at all, it is often mentioned only as a brief aside. A handful of linguists, however, have put forth actual proposals to confront the issue directly.

2.4.2 Reachout Strategy (Nishimura 1995)

Nishimura (1986) gives examples of doubled verbs and adpositions in English-Japanese code switches. Below, three instances are provided. In (16a), the adposition meaning ‘in’ is doubled; in (16b), the verb meaning ‘become’ is doubled; (16c) shows the doubling of both a verb ‘bought’ and an adposition ‘about.’

(16a) English-Japanese adposition doubling

look at the things she buys *for* Sean *ni*

look at the things she buys for Sean for

‘Look at the things she buys for Sean.’

(Nishimura 1986:140)

(16b) English-Japanese verb doubling

let’s *become* kechi *ni naroo*

let’s become tight become

‘Let’s become tight.’

(Nishimura 1986:139)

(16c) English-Japanese verb and adposition doubling

We *bought about* two pounds *gurai kattekita* no

We bought about two pounds about bought TAG

‘We bought about two pounds.’

(Nishimura 1986:139)

In Nishimura’s terminology, such switches are called “portmanteau sentences” because some element is repeated in two different source languages. The normal English word order is SVO while the normal Japanese order is SOV. English employs prepositions while Japanese uses postpositions. Nishimura observes that the object in all sentences is able to act as a “common element” between the two languages. What this means is that as long as the object is realized exactly once, the material prior to it may be in English, since English uses prepositions and precedes its objects with verbs. At the same time, the material after this “common” object may be Japanese because Japanese uses postpositions and follows its objects with verbs. The resultant order in (16a) is SVPOP, in (16b) it is SVOV, and in (16c) it is SVPOPV.

Nishimura (1986) does not offer a formal account of these constructions, except to note that they involve “the same mechanism [as is found] in the speech of monolingual English speakers” as shown below in (17).

(17) English monolingual doubling

That's the only thing he does *is* fight.

(Nishimura 1986:139)

A closer look into analyses of monolingual doubling will make up Chapter 3 of this thesis, so I will not draw out more on this now. Nishimura (1995) returns to these sentences to provide an entirely functional explanation. In her view, the speaker who uttered the sentence in (16c) is employing a “reachout strategy” (1995:166-8). The reachout strategy involves simultaneously accommodating two types of listeners. One type is the English-dominant second-generation Japanese; the other type is the native Japanese speaker. Nishimura notes that the speaker had been telling a story for some time primarily in Japanese, and conjectures that when an English-dominant listener uttered the discourse marker “hum,” the speaker was reminded of the need to use English, so began the following sentence in English. After nearly finishing the utterance, he remembered that the Japanese speakers may not understand much English, so he completed the sentence using the unmarked Japanese word order. In this way, the speaker was addressing both types of listeners, and was thereby “reaching out” to both types by employing both word orders.

If Nishimura’s version is really accountable for code switched doubles, then one would predict such doubles never to occur if the reachout strategy is sociolinguistically unwarranted. For example, two bilinguals engaging in an interaction only with each other would be unlikely to reach out in this way. A telephone conversation which I

recorded for an unpublished pilot study revealed a doubled auxiliary in an English-Marathi code switch. This example is shown below in (18).

(18) English-Marathi auxiliary doubling

it *is* like twelve-and-a-half hour's-tsa drive *aahe* one way

it is like twelve-and-a-half hour's-POSS drive is one way

'It is like twelve-and-a-half hour's drive, one way.'

Since many researchers do not provide details of whatever sociolinguistic context is relevant to a given switch, it is difficult to rigorously assess Nishimura's (1995) proposal. In any case, it is highly unlikely that a reachout strategy is involved in (18), since only two speakers are engaged in the conversation and they are equally comfortable in English and Marathi.

2.4.3 Word class constraint (Azuma 1993)

Azuma (1993) incorporates such switches into an analysis which is mainly concerned with providing evidence for the primacy of a "word class constraint" in code switching. He gives one original example and pulls others from Nishimura's (1986) English-Japanese sentences. His example of a doubled complementizer meaning 'if' is given in (19) below.

(19) English-Japanese complementizer doubling

if it goes three rounds datta *ra* *ne*

if it goes three rounds was *if* TAG

‘If it goes three rounds.’

(Azuma 1993:199)

While spending some time discussing these constructions, Azuma does not provide an explanation of them, *per se*. Rather, he takes for granted their legitimacy as code switches and points out that the “common object,” which is structurally shared between the two contributor languages, is always an open-class item. He shows examples of logically possible sentences which employ closed-class items as the common object, and reports that these were judged as unacceptable by his consultants. Using the observation that open-class common objects occur in natural speech code switches while closed-class common objects do not and are judged as unacceptable, Azuma argues that a class constraint is more relevant in code switches than is a word order constraint.

As Azuma’s concern is not a direct explanation of doubling in code switching, I will not go into further detail regarding his findings and claims. However, it is worthwhile noting an important point about his methodology which relates to the range of doubled code switches which are logically possible. As mentioned, he observes that the common object cannot be a closed-class item. He arrives at this conclusion by citing the lack of such instances in natural speech and the lack of acceptability from his consultants when presented with artificially generated sentences. It is crucial to

appreciate that acceptability judgements of code switches are notoriously dubious due to a common (though not ubiquitous) property of code switches in general: their overall stigma. It would of course be preferable to generate novel code switched sentences which incorporate doubling then ask bilinguals for grammaticality judgements, as is frequently done for single languages. However, this methodology will not necessarily lead the researcher down the right track. In the words of Poplack (1980:227), “While acceptability judgments provide a manageable way to tap community grammar norms, their use is questionable in the case of an overtly stigmatized sociolinguistic marker, as is the case of code switching.” This is not to suggest that code switching is necessarily stigmatized, only that it often is; it is moreover the case that code switching represents the norm in certain (more stable) bilingual communities (Poplack 1980:230).

This is important for the topic of doubled code switches because it is reasonable to be cautious in assuming a limitation on the range of structural combinations which might result in doubling when the limitation is surmised from acceptability judgements. If it is true that closed-class items cannot act as a common object (and I have no data to refute this), then the reason should point back to the lack of positive evidence in many different language pairs, rather than acceptability judgements.

2.4.4 *Equivalence constraint*

Poplack’s (1980) paper was one of the first to bring rule-governed approaches to code switching to the front of sociolinguistic research. Her proposal involves two

principals: the free morpheme constraint, which states that “[c]odes may be switched after any constituent in discourse provided that constituent is not a bound morpheme,” (1980:227) and the equivalence constraint, which is reproduced below in (20). It is this second constraint which bears most heavily on the topic at hand.

(20) The equivalence constraint:

Code switches will tend to occur at points in discourse where juxtaposition of L1 and L2 elements does not violate a syntactic rule of either language, i.e. at points around which the surface structures of the two languages map onto each other.

(Poplack 1980:228)

This constraint is reasonable on the basis of code switching data from languages which are typologically rather similar (in Poplack’s case, English and Puerto Rican Spanish). But it predicts code switched doubles of the types discussed so far to be impossible because it does not consider the effect of typological contrasts in code switching. If one contributor language has a word order of SVO and the other has SOV, the surface order of SVOV would violate the equivalence constraint twice. The first verb would violate the verbal position dictated by the SOV language, and the second verb would violate that dictated by the SVO language.

Academic criticism of the equivalence constraint on the grounds of typological similarity was not unheard by Poplack. Along with colleagues, she published a defense of the equivalence constraint using data from English and Finnish, two very different

languages typologically (Poplack, Wheeler, and Westwood 1989). The authors even propose a unique principle of the equivalence constraint, “principle 4,” (1989:396) which expressly bans doubling in code switching (a phenomenon which the authors also dub “copy translation constructions” (1989:396)). In the course of arguing for this property of the equivalence constraint, Poplack, Wheeler, and Westwood uncover two actual examples of code switched doubles, which they relegate to a footnote. The first example is (2a) from Chapter 1, repeated below as (21a). The second example is shown in (21b).

(21a) English-Finnish adposition doubling

mutta se oli kidney-sta to aorta-*an*

but it was kidney-from to aorta-to

‘But it was from the kidney to the aorta.’

(Poplack et al. 1989:404)

(21b) English-Finnish adposition doubling

ja sitten missä hän at yliopisto-*ssa* otti art history

and then where she at university-*INESS* took.³ art history

‘And then where did she at university, she took, art history?’

(Poplack et al. 1989:405)

The authors make a point of countering Nishimura (1986) and claim that such constructions are “exceedingly rare” (1989:404). They do not pursue the issue further.

Sankoff, Poplack, and Vanniarajan (1990) use data from English-Tamil code switches to argue for the “nonce borrowing hypothesis.” In essence, they maintain that instances which appear to be violations of the equivalence constraint are in fact not code switches at all; rather they are nonce borrowings to which the equivalence constraint does not apply. They do, however, devote some discussion to the code switched doubles in their data. A few examples are provided below in (22). (22a) shows the doubling of a verb ‘gave,’ (22b) an auxiliary ‘was’ and a verb ‘talking,’ and (22c) a complementizer ‘because.’

(22a) English-Tamil verb doubling

they *gave* me a research grant *koḍutaa*

they gave me a research grant gave.3.PL.PAST

‘They gave me a research grant.’

(Sankoff et al. 1990:93)

(22b) English-Tamil auxiliary and verb doubling

I *was talking* to oru orutanooḍa *peesinḍu* *iruntein*

I was talking to one person talk.CONT be.1.SG.PAST

‘I was talking to a person.’

(Sankoff et al. 1990:93)

(22c) English-Tamil complementizer doubling

just *because* avaa innoru color and race *engindrātunaale*

just because they different color and race of-because

‘Just because they are of a different color and race.’

(Sankoff et al. 1990:93)

Sankoff, Poplack, and Vanniarajan (1990:92) call these instances “palindromic switches,” since the doubled element results in a word order which is essentially the same backwards as it is forwards. The authors admit that these constructions do indeed violate the equivalence constraint, but seem to brush off this violation. They comment that sentences such as these “are widely attested but are inevitably found to occur rarely in quantitative studies” (1990:92).

The authors explicitly deny that these constructions represent a systematic code switching production strategy and suggest a view which treats them as occasional and ad hoc. They propose that speakers are in fact attempting (unsuccessfully) to avoid equivalence constraint violations by satisfying the word order requirements of both grammars, accepting doubling as “the lesser of two evils” (1990:92).

Sankoff (1998) returns to code switched doubles with a genuine treatise on their explication. Below in (23) is reproduced a component of his code switching production model.

(23) A constraint in the code switching production model

Given two virtual sentences in languages *A* and *B*, the code switched sentence is produced by taking part of one of them, followed by part of the other, and so on, without using any word (or its translation) more than once, until every lexical element (or its translation) has been used up.

(Sankoff 1998:11-12)

Taken on its own, this constraint has the result of banning doubles in code switches because a double would entail the use of a word (or its translation) more than once. Sankoff sets aside a good deal of discussion for the purpose of testing this constraint against the English-Finnish code switches above in (21) and the English-Tamil switches in (22), which he now labels “repetition translation” or “repeat translation” constructions (1998:15-17).

Sankoff acknowledges that the constraint prohibits the attested doubles and concedes that such doubles ought to be accounted for. To do this, he proposes a relaxation of his constraint in (23). His revised constraint changes the final wording, as shown in (24) below.

(24) A constraint in the code switching production model

Given two virtual sentences in languages *A* and *B*, the code switched sentence is produced by taking part of one of them, followed by part of the other, and so on, until every lexical element (and/or its translation) has been used once.

(Sankoff 1998:16)

This revision would thereby allow a sentence to contain an element from one language and its translation in another language. Sankoff views this as a weakening of his overall model even though such an adjustment is entirely warranted by the available data.

Even with the said revision, however, the constraint is unsatisfactory because it has the potential of overgenerating doubles in code switches. The revised wording would allow every single item to be doubled in a code switch, a scenario which, to my knowledge, never occurs.

Furthermore, this does not really move us closer to an actual explanation. It is still an open question as to *how* code switchers obey two contrastive word orders. What is the mechanism which produces this ability? Any constraint-based approach to code switching has the disadvantage of applying the constraint only to code switchers. This means that code switchers have, as a part of their grammar, a property which non-code switchers do not have. Even bilinguals who are not code switchers may not have the property. The legitimacy of proposing “code switching-only” grammars will be discussed in more detail in Chapter 3.

Next, I step back from code switches and look at doubling in monolingual contexts. Monolingual doubling is explainable via apparatuses which are already available to mainstream syntactic theory. I will argue that such accounts will not be sufficient to explain doubling in code switching.

Chapter 3: Monolingual doubling

3.1 *Introduction to monolingual doubling*

Code switching scenarios are not the only contexts in which doubling has been observed. Even within a single language, the repetition of words or morphemes is attested. Instances from English, such as those in (25) below, give examples of prepositions that are sometimes at both the beginning and end of a sentence.

(25a) Monolingual doubling of prepositions in English

To whom are you giving that *to*?

(25b) Monolingual doubling of prepositions in English

With whom am I speaking *with* please?

In some sense, the examples in (25) are quite similar to the doubling which occurs in code switching. It might be argued that the speaker begins the sentence while accessing an English grammatical rule which asserts “Do not end sentences with a preposition,” and so the preposition is realized sentence-initially. At some point during the utterance, however, the speaker accesses another grammatical rule of English which

asserts that it is okay to end sentences with a preposition (and is in fact what most English speakers do in practice), so the preposition is realized again (doubled) sentence-finally. Whereas the bilingual speaker accesses two different languages over the course of a sentence, a monolingual speaker can access two different grammatical rules from the same language, both resulting in a doubled form.

A pattern identical to the English example (25) is found in Icelandic. Jónsson (2008) refers to such instances as *preposition reduplication*. The Icelandic construction is a variant available to speakers in addition to P-stranding and pied piping. An example is reproduced below in (26).

(26) Monolingual doubling of prepositions in Icelandic

um hvað eruð þið að tala *um*?
about what are you.PL to talk about
‘What are you (plural) talking about?’

(Jónsson 2008:404)

Jónsson argues that the pattern in (26) is not a performance error, but rather a genuine grammatical component of speakers’ linguistic knowledge, and claims that the same is true for identical expressions in Norwegian, Swedish, and English.

Other monolingual examples show cases of doubling in which the doubled item has a different phonetic realization from the original. In Finnish, for instance, Holmberg and Nikanne (2008) find sentences such as (27a) below in which a subject (proper name)

is doubled by a pronoun. Following this example is (27b), which shows a subject that is in effect tripled: it is doubled by two successive pronouns.

(27a) Monolingual doubling of subjects in Finnish

se *on* *Jari* lopettanut tupakoinnin

he has Jari quit smoking

‘Jari has quit smoking.’

(Holmberg & Nikanne 2008:326)

(27b) Monolingual tripling of subjects in Finnish

se *se* *on* *Tarja*-kin lopettanut tupakoinnin

she she has Tarja-too quit smoking

‘Tarja, too, has quit smoking.’

(Holmberg & Nikanne 2008:338)

Similarly, pronouns without a proper name referent are doubled in the Belgian of Antwerp, Flemish-Brabant, and western East Flanders (De Vogelaer & Devos 2008).

Other instances of monolingual doubling have been reported for determiners in Swiss German (Glaser & Frey 2006), for adjectives in colloquial American English (Kortmann & Szmrecsanyi 2006), for prepositions in Alemannic (Brandner 2008), for pronouns in colloquial Flemish (van Craenenbroeck & van Koppen 2008) and colloquial

Italian (Poletto 2008), for wh-phrases in Swiss German and Northern Italian (Barbiers 2008), and others.

3.2 *Justification for comparing monolingual and code switched doubles*

The main difference between what I have called long distance doubling in code switching contexts and the various types of doubling in monolingual contexts is that the code switching instances come about as a consequence of differences in word order typology. With this in mind, it is worthwhile asking whether it is even appropriate to investigate monolingual doubling as possibly informative of doubling in code switching.

A number of code switching theories have nominated a unique grammar to be responsible for code switches, proposing that this grammar is independent of that of either monolingual source. Poplack (1980:255), for instance, suggests that “code switching is itself a discrete mode of speaking, possibly emanating from a single code switching grammar composed of the overlapping sectors of the grammars of L1 and L2.” Mahootian (1993) vigorously counters this view. She reviews an abundance of proposed constraints on code switching and shows a variety of counterexamples for each one, ultimately rejecting the notion that code switching-specific constraints exist at all. Instead, she promotes the notion that whatever constraints govern “monolanguages” (that is, non-code switched language varieties), also govern code switched varieties — no more and no less. This point of view is labelled the Null Theory.

On purely theoretical grounds, the Null Theory has the major advantage of economy. No additional mechanism is required to account for code switching which is not already in place for monolanguages. The language faculty thereby operates equally with regard to all language varieties. This does not suggest that no constraints are operative in code switching — only that the constraints are the same as those which dictate monolanguages. According to Mahootian (1993:140), this is true regardless of “whether the switch involves a single bound morpheme, a single word, or an entire phrase.” Chan (2008) drives the point home. He remarks that in light of the Null Theory, the reason some people do not code switch is not because a code switching grammar was absent in them at birth. If they are monolinguals, the reason is because they lacked input of a second (or third plus) language. If they are bilinguals, it is because they lack the sociolinguistic motivations.

Therefore, if doubling exists in monolingual as well as code switching scenarios, it is reasonable to investigate whether or not each instance of doubling really stems from the same underlying mechanism. For this reason, the present chapter will explore doubling in monolingual contexts and attempt to relate this phenomenon to doubling in code switching. I will ultimately argue that while both cases of doubling are superficially similar, they are in fact very different phenomena. Doubling in code switching must appeal to an explanation which is altogether different from that employed for monolingual doubling.

3.3 *Syntactic approaches to monolingual doubling*

Accounts of monolingual doubling can be divided broadly into two approaches, each attempting to elucidate somewhat different phenomena. One approach observes doubling in which the doubled items are not morphologically identical. A brief example from Milanese Italian is provided below in (28).

(28) Non-identical doubling (Milanese Italian)

te gh'e de vegni anche ti
you have to come also you
'You have to come along as well.'

(Poletto 2008:42)

In (28), the doubled tonic pronoun has two morphological realizations, first as *ti* and next as *te*. The second approach deals with doubling in which the doubled items are identical. (29) shows an example from Illasian Italian.

(29) Identical doubling (Illasian Italian)

ci alo invidà ci?
whom has-he invited whom
'Whom did he invite?'

(Poletto 2008:56)

It is not clear that either of these two approaches can be said to apply neatly to doubling in code switching. On the one hand, the two realizations of the doubled code switched item will almost certainly be phonetically distinct (unless by some remarkable coincidence), since they are supplied by two different source languages. From this point of view, code switched doubles must be considered non-identical phonetically, somewhat parallel to the example in (28).

However, phonetic identity and morphological identity are not necessarily one and the same. Non-identical doubles in monolingual contexts have been argued (Barbiers et al. 2007) to possess different sets of morphosyntactic features which result in their varied spell-out. In the case of code switching, the reason for distinct phonetic realizations is unlikely to be due to differences in morphosyntactic features. In fact, to the contrary: it might be shown that the doubled items have identical morphosyntactic features, more along the lines of (29). Rather, their difference is simply an outcome of being sourced from different languages.

In other words, it is entirely possible that code switched doubles be non-identical phonetically yet identical morphologically. With this in mind, can the analyses which have been proposed for monolingual doubling contribute anything at all to our understanding of doubling patterns in code switching?

3.3.1 *Non-identical doubling*

The type of monolingual doubling in which the doubled items are morphologically distinct, as in (28) above, are argued by Poletto (2008) to be semantically the same. By this, she means that the two pronouns have the same referent. Neither instance of the pronoun makes a semantic contribution to the utterance that is different from that given by either pronoun alone.

Poletto (2008) analyzes non-identical doubling as a consequence of “splitting.” In brief, splitting is a process which assumes an internal structure of nominal expressions (pronouns, DPs, QPs, and wh-items) consisting of features, where each feature corresponds to a syntactic projection within the internal structure. In order to check these features, the phrase moves to the specifier positions of the relevant featural projections. In some cases, only the subparts of the phrase which are necessary for each feature checking operation are moved to the specifiers of the respective featural projections. In this way, the phrase is “split” during feature checking-motivated movement and when each phrasal subpart is spelled out at PF, the result is doubling.

While this summary is highly simplified, it already provides a backdrop against which to compare doubling in code switching. For code switched doubling to operate in any similar manner, it would first have to be the case that code switched doubling involves movement. Let us consider the example from (1b) in Chapter 1, shortened below as (30).

(30) English-Hindi auxiliary doubling

the hindu system *is* tarah kaa *hai*

the hindu system is that of is

‘[...] the Hindu system is like that.’

(Pandit 1986:41)

In (30), the auxiliary is doubled: once in English as *is*, and once in Hindi as *hai*. If a movement operation is responsible for the surface positions of these auxiliaries, then one or the other of them would presumably represent the deep structure position (or they have both moved from a single original position).

The first major problem with treating code switched doubles in this way is that it is unclear what the motivating factor for movement would be. In Poletto’s (2008) analysis of monolingual doubling, movement is motivated by a feature checking operation. QPs move to check the feature [±NUMBER], DPs move to check [±NUMBER] and [±GENDER], third person pronouns move to check [±NUMBER], [±GENDER], and [±TOPIC/FOCUS], and second person pronouns move to check [±NUMBER], [±GENDER], [±TOPIC/FOCUS], and [±PARTICIPANT]. However, in monolingual Hindi, the auxiliary never moves to the typical English auxiliary position, and in monolingual English, the auxiliary never moves to the typical Hindi auxiliary position. Therefore if feature checking-motivated movement is responsible for auxiliary placement in English-Hindi code switching, it may be the case that the relevant feature is always checked in situ in each monolanguage.

It is possible that this hypothetical feature only motivates movement when it is not checked in situ in a code switch. Such a feature could be something along the lines of a “language feature” which can only be checked if it is adjacent to lexical material carrying the same language feature. On this view, the auxiliary AUX is generated, say, sentence-finally. The presence of a language feature [+HINDI] would require it to stay in place and eventually surface as the Hindi auxiliary *hai*. At the same time, AUX would also possess a [+ENGLISH] feature which copies the auxiliary and moves it to a position adjacent to lexical material with the same feature. The copied auxiliary would then be spelled out as *is*.

An analysis along these lines makes the prediction that code switched doubling will not occur unless the doubled item is adjacent to material from the same source language. This prediction is contradicted by data in which a code switched double is inserted *between* material from a different source language. An example is provided below in (31).

(31) English-Marathi adposition doubling

I could run every you know *in* thirty minutes *madhe* once a day

I could run every you know in thirty minutes in once a day

‘I could run every, you know, in thirty minutes, once a day.’

In (31), the English preposition *in* occurs before the phrase *thirty minutes*, while the Marathi postposition *madhe* occurs just after it. This postposition is the only Marathi-

source word in the sentence, which means no such language feature could possibly be checked by its placement. Indeed, even motivating the presence of the Marathi postposition is challenging if one assumes that other Marathi lexical material is crucial for this solitary word, since there are no other Marathi words in this sentence. Furthermore, the splitting hypothesis in its current form is apparently restricted to nominal expressions³. The examples of doubling in code switching contexts which I have uncovered involve adpositions, verbs, auxiliaries, coordinations, complementizers, and morphological affixes.

3.3.2 *Identical doubling*

In a sense, the doubling phenomenon in code switches is somewhat akin to monolingual doubling in which the doubles have identical phonetic realization. Of course, it is not the case that code switched doubles are realized identically, but it also seems unlikely that the reason they are non-identical is because of featural differences.

Jónsson (2008) advances an analysis of doubled prepositions in Icelandic on the basis of Nunes' (2004) chain link linearization theory (to be explained). On the surface, such an analysis is appealing for the code switching data because it can take into account more phrasal categories than can splitting. It, too, relies on movement, however, the motivation of which is still questionable.

³ Poletto (2008) also analyzes DP clitics and negative concord, which I have not discussed here.

(32) below shows some examples of doubled prepositions from various Germanic languages.

(32a) Preposition doubling in Icelandic

á þessu hefur Jón lítinn skilning á
of this has John little understanding of
'John has little understanding of this.'

(Jónsson 2008:406)

(32b) Preposition doubling in Swedish

med honom vill jeg inte ha någonting att göra med
with him want I not have anything to do with
'I don't want to have anything to do with him.'

(Jónsson 2008:405 citing Delsing 2003)

(32c) Preposition doubling in English

The world *in* which we live *in* can be a frightening place
'The world we live in can be a frightening place.'

(Jónsson 2008:405)

In Jónsson's (2008) terminology, the examples in (32) are occasions of preposition *reduplication*. For consistency, I will refer to these as instances of

preposition *doubling*; no difference of meaning between these terms is intended. Jónsson accounts for such cases by assuming the theory of chain link linearization (Nunes 2004). Although the full scope of Nunes' theory is too robust to be appropriately summarized here, a very brief overview is worthwhile.

In chain linearization, a moved item and its trace(s) are jointly referred to as a *chain*, and each component of the chain is a *link*. In normal circumstances, traces are deleted at PF but remain interpretable at LF. In other circumstances, more than one link is phonetically realized because its deletion at PF is circumvented by a morphological reanalysis procedure. Morphological reanalysis precludes a chain link from being subject to the condition which regulates the deletion of traces (Kayne's (1994) Linear Correspondence Axiom).

Jónsson (2008) extends the Nunes theory to include prepositions in Icelandic, and by extension, those in other Germanic languages which exhibit the doubling phenomenon. He argues that prepositions may move to the functional head of an extended PP, as in (33). It is here that the morphological reanalysis takes place: the morphological component of the grammar analyzes the moved preposition as [P+F], rather than as [P]. Subsequently, the lowest PP is fronted. At this stage in the derivation, there are essentially three copies of the preposition: one is the fronted P, one is merged with the functional head (analyzed as [P+F]), and one is the original (lowest) trace of the fronted P. The trace deletion process provided by the LCA (Kayne 1994) is still enforced, now deleting the trace and leaving two copies of the preposition.

(33) Preposition movement to F

$$[_{FP} F [_{PP} [DP]]] \rightarrow [_{FP} F [P_i+F]] [_{PP} P_i [DP]]$$

(Jónsson 2008:412)

The immediate advantage of thinking about code switched doubling as a chain linearization phenomenon is that it allows us to capture the potential (though unattested) doubling of nominal expressions as well as the substantially attested doubling of prepositions. This asset is quickly overshadowed, however, by the conspicuous lack of motivation for movement in the first place, as was also the main problem in the splitting analysis discussed earlier. In code switching contexts, there is little reason to assume that independent factors exist which would impel an adposition to move either pre- or postnominally (depending on its original position) and be reanalyzed as a merged head. In Icelandic, preposition fronting is independently motivated, as is the raising of wh-phrases in a great many languages. Such incentives are not obviously available in the code switching instances and movement to non-fronted or non-focus positions would otherwise be highly unorthodox.

Jónsson's focus is on the doubling of prepositions, but Nunes (2004) also addresses the doubling of verbs in Brazilian sign language. Therefore, chain linearization can potentially be applied to both prepositions and verbs, but neither author addresses the doubling of complementizers or coordinations, and this is a weakness of coverage. In addition, chain linearization is unable to explain why the doubles are realized as

phonetically distinct. This is a major disadvantage over the splitting theory, which employs features as a means of explaining the phonetic distinction of doubled items.

3.4 *Monolingual syntactic mechanisms cannot account for doubling in code switching*

This chapter has reviewed the main syntactic approaches to doubling in monolingual contexts, and an effort has been made to apply these strategies to doubling in code switching. A mechanism on the basis of feature splitting has the potential of engaging the fact that code switched doubles are realized as phonetically distinct, but it is applicable only to nominal expressions. Therefore, this approach has little import for code switched doubles which are mainly prepositions, verbs, auxiliaries, coordinations, or complementizers. It also intimates a specific featural identity, such as a “language feature” to propel the phonetic realization in one language or the other.

The chain linearization approach moves a bit closer in terms of its coverage of syntactic categories. Yet, this theory predicts that doubles will be realized identically, since morphological features are retained in traces and copies. Since code switched doubles are always phonetically distinct, this approach is not fully equipped to provide a solid explanation for code switched doubling. Both theories assume a movement process which is difficult to motivate in code switching contexts. Neither theory approaches an explanation of the doubling of morphemes, such as plural, as is dealt with by Myers-Scotton (1993).

The most serious problem of all, however, is that syntactic approaches to monolingual doubles seem to be missing the point altogether when it comes to code switching. Code switchers have at least some knowledge of each language's grammatical properties. When doubling occurs in code switching, it is because the languages involved are typologically contrastive, and this is a fact not incorporated at all into the monolingual approaches. Such syntactic apparatuses fail to be adequate for code switched doubles because doubling in code switching is a wholly different phenomenon from monolingual doubling. In the following section, I explore the notion that code switchers are accessing both languages simultaneously and I will argue that an accessing perspective can offer more substance to doubled code switches. In addition, I will return to the topic of syntax and suggest a syntactic treatment of these doubles.

Chapter 4: Doubling and simultaneous access

4.1 Do code switchers access both languages simultaneously?

Nearly all of the better-known models of code switching make the claim, either explicitly or implicitly, that code switchers access each language independently rather than simultaneously. Muysken (2000) summarizes these as “on/off” approaches in the sense that they treat one language as being the “active” or “dominant one” at any given point in the utterance. In other words, at any moment, one of the two languages is “on,” while the other is “off.” When the switch occurs, the erstwhile “on” language turns off, while the “off” language turns on.

Some interpretations of psycholinguistic research support the on/off view. Macnamara and Kushnir (1971) found that bilingual subjects reading mixed language passages had slower reading times, presumably due to the additional time required to switch from processing one language to processing another. Soares and Grosjean (1984) reported similar results: bilingual subjects had slower response latencies in lexical decision tasks when they were in “bilingual speech mode” as compared to “monolingual speech mode.” The authors speculate that subjects first search an entire lexicon from one language before searching the lexicon of the other, thus resulting in a longer processing time. Whether the bilingual subjects of either study were also code switchers is unclear.

Other research supports the view of simultaneous access. Preston and Lambert (1969) gave subjects a variation of a Stroop interference task. In normal Stroop tasks, color words are printed in ink which is different from the name of the color. Subjects are instructed to ignore the printed word and name the ink color. In Preston and Lambert's variation, bilingual subjects were instructed to state the ink color in one language while the color word itself was printed in the other language.

If it is indeed the case that lexicons are accessed individually and not simultaneously, then the incongruity of the response language and printed language should not show significant interference because lexical activation of the printed language would not occur. What they found, however, was interference at both the intra-language and inter-language levels. These results have been corroborated by Chen and Ho (1986) and other studies. Similar experiments using pictures with superimposed unrelated words (Smith and Kirsner 1982) and a variety of Stroop variations using different orthographies (see Smith 1997 for a review) reveal similar results. These findings suggest that subjects search both lexicons at the same time, otherwise inter-language interference would be unlikely.

Among the most convincing arguments for simultaneous access is cross-modality language production. People who are bilingual in a signed and a spoken language often sign and speak at the same time. Cross-modality is unique in a way that other forms of bilingualism are not: it is physically possible to engage in both modalities simultaneously. The same cannot be said for two spoken languages, or two signed languages; at any single moment only one of the languages is being produced (Dufour 1997).

Research by Fischer et al. (1991) showed that adults who were bilingual in spoken English and American Sign Language were able to perform both modalities simultaneously, in both planned and spontaneous delivery tasks, and that subjects' bimodal performance produced no degradation of intelligibility in either modality.

The grammar of the signed language in simultaneous sign-speech studies, however, tends to adopt the grammar of the spoken language (Dufour 1997), suggesting that the spoken language in some way dominates or imposes its grammar on the signed language⁴. In an obvious way, bimodal simultaneous production will necessarily result in doubling. However, if signed languages always conform to the grammatical properties of a simultaneously produced spoken language, it would be obtuse to claim that the doubling results from typological contrasts between the two modalities. At least one study, however, has claimed bimodal doubling on the basis of word order differences between the signed and spoken language (Donati and Branchini, forthcoming).

The idea that language processing in general might appeal to simultaneous cognitive operations has been formalized to a certain extent within the framework of connectionism⁵ (Bechtel & Abrahamsen 1991). The connectionist program is a model of human (and artificial) intelligence which essentially views cognitive processes as involving the interaction of networks of neural units.

Connectionist principles may be a component of accounts of any number of cognitive processes, including learning, pattern recognition, representation of knowledge,

⁴ This view of bilingual language production appears similar to the Matrix Language Frame model of code switching (Myers-Scotton 1993). However, drawing this parallel is premature since the MLF model does not avow an interpretation of simultaneous language production.

⁵ I do not intend to engage in a debate about the compatibility of connectionist theories and symbolic linguistic theories. For a review, see Bechtel & Abrahamsen (1991).

and language. Within connectionism, an available and productive mechanism for the execution of cognitive tasks is termed *parallel processing* (Rumelhart and McClelland et al. 1986). Parallel processing means that multiple computations are completed simultaneously. This has the advantage of a significantly reduced processing time and a significantly increased processing load per unit of time, when compared to computations which are accomplished serially.

4.2 *Simultaneous accessing as a mechanism for code switched doubles*

Adopting a framework which treats code switchers as simultaneous accessors of two (or more) languages provides an explanation for code switched doubles which does not rely on syntactic derivation. Or, to look at it another way, the existence of code switched doubles provides further evidence that a simultaneous accessing model of code switching is on the right track.

How might a simultaneous accessing model actually work? First, it must be assumed that sentences are, on the whole, planned before they are uttered. This is a premise for which a great deal of evidence exists, famously in the form of spoonerisms (phoneme reversals), such as in (34) below.

(34) A spoonerism

Intended phrase: *pouring rain*

Produced phrase: *roaring pain*

(Motley 1973:66)

The rationale goes like this: the phoneme which is pulled from a sequentially later position in the sentence to an early position would be unknown to the speaker unless the sentence had been planned (at least on some level) before it was uttered. A code switcher, then, just like any speaker, plans a sentence before it is spoken. Since the code switcher is bilingual, the cognitive apparatus which generates the sentence is operative in both languages.

This means that the sentence is generated in both languages, and adheres fully to the grammatical rules of each language. Let us take as an example an English-Japanese sentence from Chapter 2, repeated here as (35). In this example, the adposition is doubled: first in English as *for* and second in Japanese as *ni*.

(35) English-Japanese preposition doubling

look at the things she buys *for* Sean *ni*

look at the things she buys for Sean for

‘Look at the things she buys for Sean.’

(Nishimura 1986:140)

Under the view of simultaneous access, the sentence is generated entirely in English and entirely in Japanese. This approach would suggest that even as the first part of the sentence is uttered in English, the Japanese version is stored in recent memory, after having been generated simultaneously. Just like the rest of the sentence, the generation of the PP was achieved in two languages: in English as *for Sean* and in Japanese as *Sean ni*. Since both languages are simultaneously supplying phrases to be pronounced, the speaker obeys the rules of each grammar during actual production.

As presented so far, the simultaneous accessing perspective suggests that sentences *in their entirety* are generated in two languages simultaneously. But note that the data do not obligate this conclusion. In (35), there are elements in the sentence which are not doubled, even though they could be. The verb *buys*, for example, is produced in English, but is not doubled sentence-finally in Japanese. If the full sentence were simultaneously generated in both languages, a doubled verb would be expected.

To get around this, a somewhat more subtle version reckons that *only certain phrases* in a given code switched utterance are generated simultaneously. From this point of view, the sentence in (35) is generated in English for most of its duration. It is only at the point when the speaker generates the final PP that simultaneous access of both languages occurs. Opting for phrase-only simultaneous generation provides for an explanation as to why the final PP in the utterance has a doubled head, but neither the first PP nor either of the verbs is doubled.

This type of analysis begs the question: Why are some phrases simultaneously generated while others are not? My answer to this must at this stage be speculative, and

this opens a wide area for psycho- and neurolinguistic research. Here are two possible answers:

(1) In fact, all phrases are generated simultaneously, but memory inhibits some of them from production. If this is the case, then a code switcher might generate a PP simultaneously in two typologically contrastive languages, say English and Japanese. As the speaker is uttering the PP, he or she would begin in English with the preposition, carry on to the contained NP in whichever language, and then “remember” that the head of the PP has already been uttered. This (not necessarily conscious) memory then inhibits the production of the postposition.

In some other instance, the speaker again begins with the English preposition, carries on to the NP, and then “forgets” (or fails to remember) that the head has already been uttered, so obeys the postpositional requirement stipulated by the other language in which the phrase was generated. In this sense, it is not purely linguistic properties which determine when items are doubled. Rather, it is the constraints on memory (neurological and/or other) which dictate when speakers remember to inhibit doubles, and when they do not.

Thinking along these lines does engender the deduction that doubled code switches are a type of speech error. This hypothesis treats such doubles as imperfections in the memory-linguistic system; in other words as small failures in a speaker’s ability to properly regulate his or her own speech. This, of course, would not preclude code switched doubles from genuine linguistic interest, but it would oppose them to bona fide strategies which code switchers might implement in their use of language.

(2) Simultaneous generation carries a cognitive load which is greater than that for monolingual generation. Therefore, simultaneous generation is essentially a “cost” to the neurolinguistic system. As a cost, simultaneous generation may not always be an available resource since the energy required to maintain it might be diverted elsewhere in the brain. Depending on the energetic resources available at a given time, it may “go in and out” and only be truly simultaneous occasionally.

In this scenario, a speaker generates a PP simultaneously in both languages only when the cognitive system is able to supply sufficient energy to do so. At other times, when such energy is not available, generation would be monolingual only. Since available energy may change dramatically over a course of milli- or microseconds, energy which only produces monolingual generation early in a sentence may be amplified sufficiently for simultaneous generation later in the same sentence. Thus, a particular phrase which happens to be generated simultaneously would be at the whim of surpluses of the energy which is distributed around the brain. Whether or not energy is available would largely be out of the control of the speaker. Multitudes of factors may influence available neurological energy, such as other activities in which the speaker is engaging (driving, cooking, television viewing, etc.) or other regular functions of the brain.

4.3 *Syntactic structure of code switched doubles*

I have been arguing for a point of view which treats doubles in code switches as the result of simultaneously generated phrases. This line of thinking leads to the obvious

question of how to represent such doubles structurally. I have alleged that the syntactic explanations for monolingual doubling cannot satisfactorily be applied to doubling in code switching. This does not mean, however, that doubled code switches are somehow outside the realm of syntax. Before discussing syntactic structures, it is worthwhile laying out a couple of observations which should be captured in any structure if it is to satisfactorily portray code switched doubles.

First, all of the doubled code switches have some “shared element.” This was pointed out in Japanese-English code switches by Nishimura (1986) and elaborated on by Azuma (1993). Nishimura notes that sharing an element is possible in these constructions “because the final element of an English sentence (whether it is a switched element or English) can serve as the initial element of a Japanese sentence” (1986:139). As an example, a nominal element can act as a complement to an English preposition and the *same* nominal element can act as a complement to a Japanese postposition. This nominal element can thereby serve as a shared complement between two adpositions.

This observation is borne out in all of the instances of code switched doubles I have found. A handful of examples in (36)-(39) below illustrate this point. The element which is shared between the two languages is underlined.

- (36) the hindu system *is* tarah kaa *hai*
the hindu system is that of is
‘The Hindu system is that way.’
(English-Hindi, Pandit 1986:41)

(37) we bought about two pounds *gurai kattedekita*

we bought about two pounds about bought

‘We bought about two pounds.’

(English-Japanese, Nishimura 1986:139)

(38) everybody *think that* *nay-ka yenge-lul cal hanta-ko sayngkakhayyo*

everybody think C I-NOM English-ACC well do-C think

‘Everybody thinks that I’m a good English speaker.’

(English-Korean, Chan 2008:800)

(39) they gave me a research grant *koḍutaa*

they gave me a research grant gave

‘They gave me a research grant.’

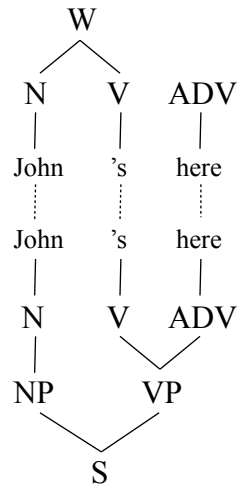
(English-Tamil, Sankoff et al, 1990:93)

In (36), the PP *tarah kaa* acts as a verbal complement to both the English *is* and the Hindi *hai*. In (37), the DP *two pounds* is a complement to the English preposition *about* and to the Japanese postposition *gurai*. The IP *nayka yengelul cal hanta* is the shared complement of the English complementizer *that* and the Korean complementizer *ko* in (38). In (39), the DP *a research grant* is a complement to the English verb *gave* and the Tamil verb *koḍutaa*.

The second observation which a structural analysis should account for is that some element is always provided by one contributor language, but not by the other. In the examples I have found, this element is always the subject of the sentence. In each example, the subject always comes from whichever language is first in the utterance. The second language never contributes a subject as well; in other words, the subject is never doubled (but see the discussion below for possible exceptions).

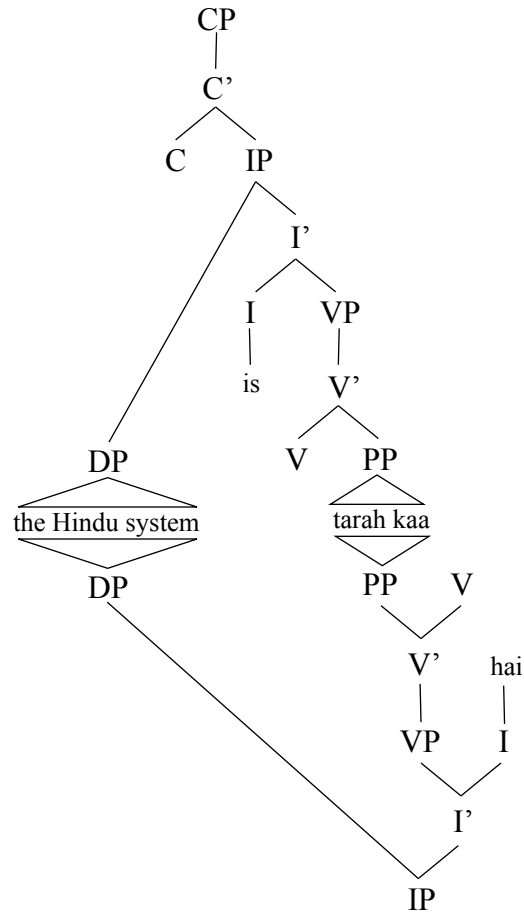
With these observations in mind, I posit a structure for doubled code switches which parallels autolexical representation as employed by Sadock (1985, 1991) in his depiction of the morphosyntactic interface. In Sadock's approach, so-called "upper trees" and "lower trees" are both incorporated into a two-sided "dual structure" (1985:385) for the main purpose of diagramming morphosyntactic phenomena such as cliticization and lexical incorporation. The upper trees represent the morphological component of the grammar, while the lower trees represent the syntactic component. An example of his dual structure is shown below in (40).

(40) Dual structure (Sadock 1985:385)



Code switched sentences which contain doubles can be represented in a similar fashion, with the exception that the upper tree represents the syntactic component of one source language, while the lower tree represents the syntactic component of the other. Such a structure provides a straightforward way of dealing with the shared element. The shared element is the “meeting place” of the upper and lower structures; it is a complement of two heads at once, one head ascending and the other descending. The structure of the English-Hindi code switch in (36) is shown below in (41).

(41) Structure of an English-Hindi code switch



In (41), the shared element is a PP. It is a complement to the V contained in the English IP, and also to the V contained in the Hindi IP. The English component of the sentence is represented in the upper tree and the Hindi component is shown in the lower tree.

Notice that the specifier positions of both the English and Hindi IPs are filled with a single shared subject. The structure in (41) therefore makes a prediction: a code switch involving a head-initial and a head-final language (such as English and Hindi, respectively), where each language is also subject-initial, will never produce a doubled

subject when two IPs are present. This is because the subject positions will always be the same for the upper and lower structures.

Another structure in (42) shows the English-Japanese code switch from (37). This structure involves the the same patterns as (41), except that both an adposition and a verb are doubled. In (42), a DP is the shared element by acting as a complement to the English preposition and to the Japanese postposition. Again, the subject occupies the specifiers of both IPs.

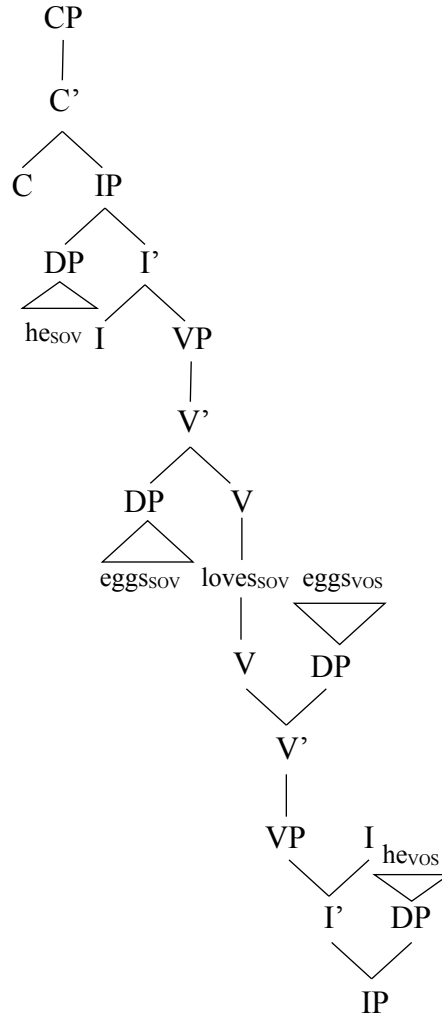
structural level below the IP (as shown in (44)), in which case only one subject would be expected.

But it is important to point out that the absence of doubled subjects is a byproduct of a typological bias in my data and should not be taken as a claim for code switches of languages with any typology. There are some typological combinations in which a doubled subject might be expected, even though certain combinations might be very difficult to come by in the real world. For example, an SOV language switched with a VOS language (perhaps Telugu-Malagasy or Arabic-Tzotzil⁶) could have the structure as in (43) below⁷. The resulting surface order would be SOVOS, with the verb as the shared element. This scenario is of course speculative and would need corroboration from actual language data.

⁶ VOS basic word order is claimed for Tzotzil by Aissen (1987).

⁷ A structure along these lines assumes that subjects in VOS languages are in right-branching specifiers of IP, similar to the proposal by Guilfoyle, Hung, and Travis (1992) for certain Austronesian languages. This is opposed to the topicalization derivation analysis proposed by Pearson (2001) for Malagasy.

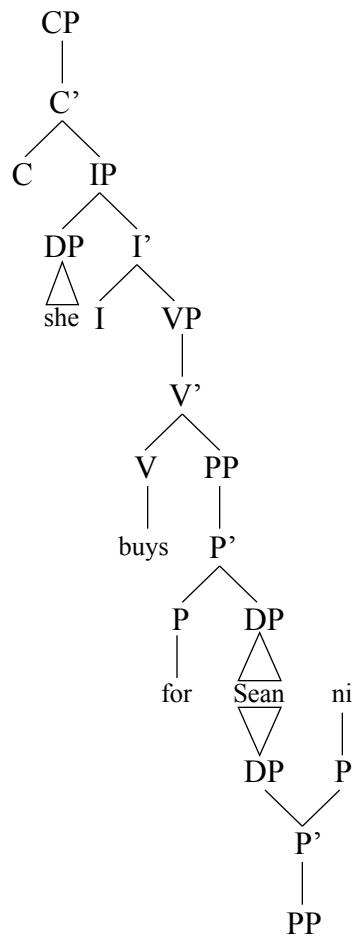
(43) **Hypothetical structure of a doubled code switch between an SOV and VOS language**



In section 4.2, I argued that phrases, rather than full sentences, are the relevant type of constituent for simultaneous generation. If this is correct, then it is not necessary to assume that every node in the string is analyzed in both the top and bottom structures. The structures in (41) and (42) each show two IPs, one top-down and the other bottom-up. The top IP extends from a CP, but the bottom IP does not. This is because it is only the IP, not the entire CP, which is simultaneously generated and therefore doubled.

In other code switches, other phrases are doubled, and so only these phrases are replicated in the lower structure. A structure from an English-Japanese switch is shown below in (44). Here, the adposition is doubled, but not the verb. The bottom structure therefore consists only of a Japanese PP whose head shares a complement with that of the English PP in the top structure.

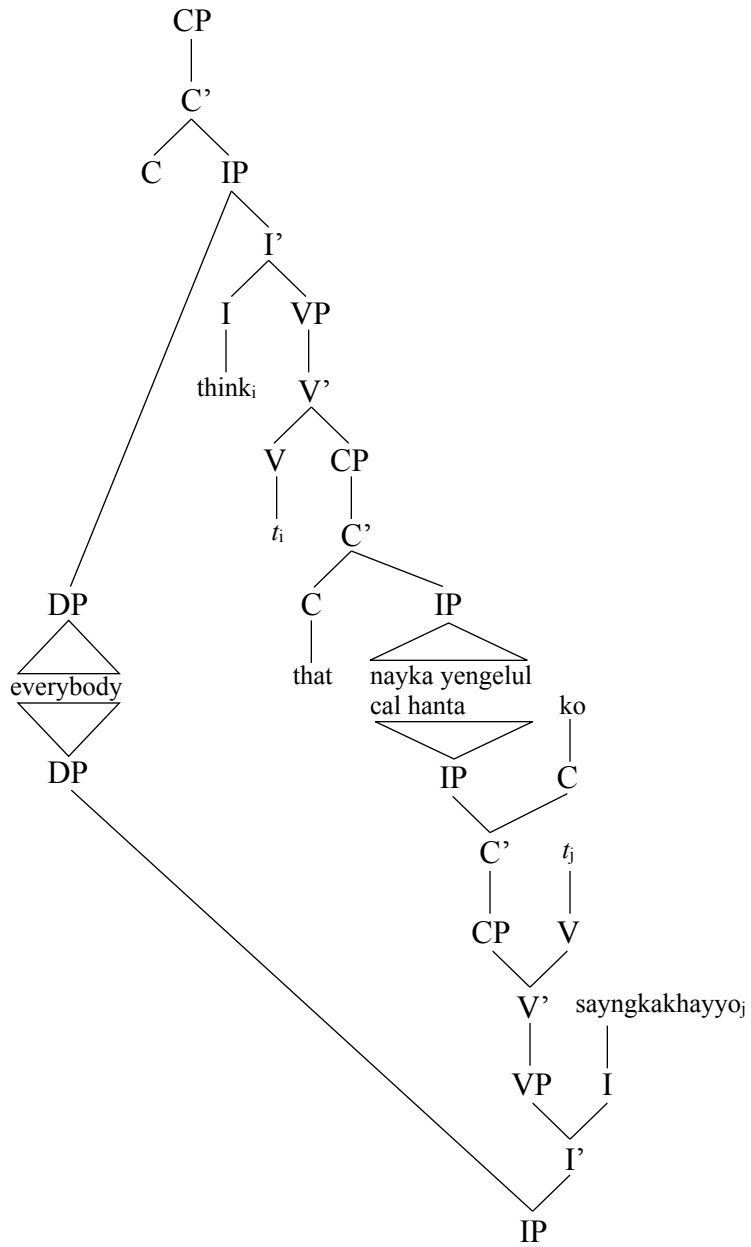
(44) Structure of an English-Japanese code switch in which only a PP is doubled



In (44), the subject DP is not shared by the top and bottom structures because the Japanese IP does appear in this structure at all. Since the doubled PP occurs below the IP and there is no doubled verb, only one IP is generated.

The view that a doubled phrase is the only necessary component of the bottom structure has a further theoretical implication: VPs cannot be doubled unless the IP which contains them is doubled as well. Any code switch containing a doubled verb must also contain a doubled IP because the verb must get tense from I. If a VP is doubled, but its dominating IP is not, the verb will have no way of getting tense. On the assumption that verbs get tense by raising from V to I, this movement would happen in both the top and bottom structures. This is a detail which, for simplicity, I have omitted from the trees in (41) - (44), but the tree below in (45) shows V to I movement in both the top and bottom structures. The tree in (45) shows the English-Korean code switch glossed in (38) above.

(45) Structure of an English-Korean code switch showing V to I movement



Chapter 5: Future directions

What I have done here is provided some evidence and argumentation that simultaneous access and generation of phrases may be at work in code switchers, but I have not proved this. What would such proof look like? It would first have to be shown that when two languages are available to a single person, those languages are treated discretely by the brain. For instance, in Hindi-English bilinguals, is there a Hindi “region” and an English “region?” Are the lexicons for each respective language represented by separate neural networks? If the lexicons are separate, are the grammars for each language separate as well? If this is the case, then avant-garde neuroimaging could presumably show activation of each network as the speaker generates and produces phrases and sentences. I hope that significant advances in neurolinguistic studies may someday shed light on this.

It is also doubtful that the full range of code switched doubles is accurately represented in the available data. From various sources, I have uncovered doubles of adpositions, verbs, auxiliaries, coordinations, complementizers, and various morphological affixes from typologically contrastive language pairs. Other doubles are hypothetically possible, such as a doubled subject in an SOV/OVS code switch (perhaps Kayapó and Hixkaryana⁸ in Brazil), or a doubled article in an article-noun/noun-article

⁸ Hixkaryana is claimed to have a basic word order of OVS in Derbyshire (1977).

code switch (perhaps Dutch and Kobon in New Guinea). It is impossible to know how many of these doubles have in fact been observed but have been ignored due to their remarkable rarity or to the fact they generally don't fit into the framework in which most linguists are currently working.

In Chapter 2, I reviewed a variety of types of doubling which have occurred in code switching contexts, but for the bulk of the thesis, I have dwelled only on one of those types. My focus has been on distant doubling, in which the doubled items are separated by some other lexical material. This is the type which follows most logically from a typological contrast between the contributor languages. But local doubling, where the doubles are in immediate succession, also occurs, and seems not to stem from typological differences. This is an observation which could be more fully spelled out. Is the notion "doubling" really one thing? Is it an umbrella phenomenon which might be realized in a number of specific ways? Or, are the processes which result in distant and local doubling in fact truly separate phenomena whose nomenclature ought to reflect entirely distinct operations?

In section 4.2, I suggested two possible answers to the question, "Why are some phrases doubled in a code switch, while others are not?" One possible answer is that memory inhibits doubles from occurring; that is, code switchers only produce doubles when they "forget" to hamper them. This would mean that doubling would be more frequent when the speaker's memory is heavily taxed, because he or she would more easily forget to inhibit doubles. Another possible answer is that doubling is only viable when surpluses of neurological energy are available for their production. This would

mean that code switchers who are involved in many cognitive tasks at once would be less likely to produce doubles, because the neurological energy essential for doubles is occupied elsewhere.

These two possibilities are essentially opposites: one suggests that doubles are likelier when the speaker is enduring a mental burden, the other suggests that doubles are likelier when the speaker has a small cognitive load. A research study could be conducted which would bear on this issue. Code switchers who have been observed to produce doubles might be given cognitive load tasks of varying intensities. If the tasks are designed to increase cognitive load and also encourage conversation, the rate of doubling could be measured under different cognitive loads. More doubles with a greater cognitive load would point towards memory constraints, while more doubles with a smaller load would point towards the availability of neurological energy. Statistically significant results might be difficult to extract from such a study, since doubles in code switches are rare as it is; it is possible that test subjects would produce very few doubles no matter what type of cognitive load was presented.

Beyond the possibilities for future research mentioned here, it is also constructive to ask what else the presence of doubles in code switches might be able to tell us. What other insight can be gained into, say, diachronic processes which reveal changes in word order on the basis of linguistic convergence? Convergence is a process in which languages adopt grammatical or structural properties of other languages with which they are in contact (Aikhenvald 2008). Thomason and Kaufman (1988) list a variety of examples in which the basic word order of one language has been influenced by that of

another. Citing several authors, they mention the change to SVO from SOV in Finnish based on Indo-European contact, the same change in Ma'a as influenced by Bantu languages, SVO in Austronesian languages became SOV under the influence of Papuan, and a change from VSO to SOV in Akkadian via the influence of Sumerian.

Of course, changes in word order do not happen overnight. They are gradual processes which are no doubt subject to substantial variation before they fossilize as the basic word order of a contemporary variety of the language. What might this period of variation look like? Perhaps what I have called *doubling in code switching* is really a normal intermediate stage in some types of linguistic shift. If multilinguals who command typologically contrastive languages are also code switchers of those languages, it is possible that doubling is one step which opens the door to a permanent preference for one word order over another. In this vane, maybe doubled code switches have the potential of providing a unique synchronic window into language change which might otherwise be obscured by lack of attention to this curious and compelling phenomenon.

Chapter 6: Conclusion

In this thesis, I have described the doubling of items within the context of code switching. Specifically, when two languages in a code switch are typologically contrastive (such as having different basic word orders, or being pre- vs. postpositional), certain elements may be produced twice, once in each source language. In particular, I have shown examples of doubled adpositions, verbs, auxiliaries, complementizers, coordinations, and inflectional morphemes. I have drawn on code switches from language pairs such as Spanish-Aymara and Lingala-French, as well as English switched with Marathi, Hindi, Finnish, Japanese, Korean, Shona, and Tamil.

I have reviewed the literature which has dealt with doubles in code switching, looking at the Matrix Language Frame model (Myers-Scotton 1993), the reachout strategy (Nishimura 1986), the equivalence constraint (Poplack 1980), and numerous attempts to salvage the equivalence constraint (Poplack, Wheeler, and Westwood 1987; Sankoff, Poplack, and Vanniarajan 1990; and Sankoff 1998). I argued that previous analyses were not sufficiently able to account for the data in a passable way largely because each analysis only applies to limited data, or the authors downplay the significance of code switched doubles in the first place.

I explored the possibility that syntactic approaches to monolingual doubling might be able to suggest an analysis for doubling in code switches. I reviewed feature splitting

and chain linearization as possible syntactic accounts, but asserted that both strategies rely heavily on movement, which is difficult to motivate in code switches. Moreover, neither approach is equipped to account for the doubling of all of the types of phrases which I have shown to be doubled in code switches. Also, feature splitting can account for the fact that code switched doubles are phonetically non-identical, and chain linearization implies that they are featurally the same, but neither approach can do both.

Finally, I proposed that one way of treating doubling in code switching is to assume that code switchers access and generate both languages simultaneously. This allows the grammatical rules dictated by each language (such as word order) to be obeyed at the same time. The simultaneous accessing framework does not depend on constraints on code switching, and so does not ban word placement which may violate the word order of one language or the other. I suggested that doubles in code switches can be diagrammed syntactically with dual trees similar to those used in autolexical syntax (Sadock 1985, 1991).

Appendix: Doubles in Code Switches

DOUBLED AUXILIARIES

(A) **English-Marathi** — Examples (1a), (18)

it *is* like twelve-and-a-half hour's-tsa drive *aahe* one way

it is like twelve-and-a-half hour's-POSS drive is one way

‘It is like twelve-and-a-half hour’s drive, one way.’

(B) **English-Hindi** (Pandit 1986:41) — Examples (1b), (30), (36)

she will not come to me because the hindu system *is* tarah kaa *hai*

she will not come to me because the hindu system is that of is

‘She will not come to me because the Hindu system is like that.’

(C) **English-Tamil** (Sankoff 1990:93) — Does not appear in body of thesis

they *make* candai *poodaraanga*

they make fight make.3.PL.PRES

‘They are fighting.’

(D) **English-Tamil** (Sankoff 1990:93) — Does not appear in body of thesis

they don’t want *to be* steady-aa strong-aa *irukkaratu-ille*

they don’t want to be steady-ADV strong-ADV be.INF-NEG

‘They don’t want to be steady and strong.’

(E) **English-Japanese** (Nishimura 1986:140) — Does not appear in body of thesis

there's children *iru yo*

there's children are (existential)

'There are children.'

DOUBLED VERBS

(F) **English-Tamil** (Sankoff 1990:93) — Examples (22a), (39)

they gave me a research grant *koḍutaa*

they gave me a research grant gave.3.PL.PAST

'They gave me a research grant.'

(G) **English-Japanese** (Nishimura 1986:166) — Example (16b)

let's become *kechi ni naroo*

let's become tight become

'Let's become tight.'

DOUBLED ADPOSITIONS

(H) **English-Japanese** (Nishimura 1995:139) — Examples (16c), (37)

We bought about two pounds *gurai kattekita no*

We bought about two pounds about bought

'I think it was about five dollars a pound.'

(I) English-Japanese (Nishimura 1995:167) — Example (2b)

I think it was *about* five dollars a pound *gurai yo*

I think it was about five dollars a pound about

‘I think it was about five dollars a pound.’

(J) English-Japanese (Nishimura 1986:140) — Examples (16a), (35)

look at the things she buys *for* Sean *ni*

look at the things she buys for Sean for

(K) English-Finnish (Poplack et al. 1987:404) — Examples (2a), (21a)

mutta se oli kidney-sta to aorta-*an*

but it was kidney-from to aorta-to

‘But it was from the kidney to the aorta.’

(L) English-Finnish (Poplack et al. 1987:405) — Example (21b)

ja sitten missä hän at yliopisto-*ssa* otti art history

and then where she at university-*INESS* took.³ art history

‘And then where did she at university, she took, art history?’

(M) English-Marathi — Example (31)

I could run every you know *in* thirty minutes *madhe* once a day

I could run every you know in thirty minutes in once a day

‘I could run every, you know, in thirty minutes, once a day.’

DOUBLED CONJUNCTIONS

(N) Spanish-Aymara (Stolz 1996:10) — Example (10)

pero sorro *-sti* wali astuturi-tajna...

but fox -COO very keen -3.SG.PRT.EVI

‘But the fox was very keen.’

DOUBLED COMPLEMENTIZERS

(O) English-Tamil (Sankoff 1998:16) — Does not appear in body of thesis

I *think* \emptyset it’s the European influence *nu* *ninaikirein*

I think (that) it’s the European influence that think.1.SG.PRES

‘I think it’s the European influence.’

(P) English-Tamil (Sankoff et al. 1990:93) — Example (22c)

just *because* avaa innoru color and race *engindratunaale*

just because they different color and race of-because

‘Just because they are of a different color and race.’

(Q) **English-Japanese** (Azuma 1990:199) — Example (19)

if it goes three rounds datta ra ne

if it goes three rounds was if TAG

‘If it goes three rounds.’

DOUBLED AFFIXES

(R) **Lingala-French** (Bokamba 1988:37, Parse: Myers-Scotton & Jake 1995:298) —

Examples (12), (13)

l’ heure ya kala trois quarts ya ba-jeune-s

DET hour of past three quarters of CL2-young-PL

ko-comprend-re avenir te

INF-understand-INF future not

‘Three-fourths of the young people did not understand.’

(S) **Shona-English** (Myers-Scotton 1993:111) — Example (15a)

ma-day-s

CL6.PL-day-PL

‘days’

(T) Shona-English (Myers-Scotton 1993:132) — Does not appear in body of thesis

ma-game-s

CL6.PL-game-PL

‘games’

(U) **Lingala-French** (Myers-Scotton 1993:133) — Example (15b)

ba-parent-s

CL2.PL-parent-PL

‘parents’

DOUBLED AUXILIARIES AND VERBS

(V) **English-Tamil** (Sankoff 1990:93) — Example (22b)

I was talking to oru orutanooda peesindu iruntein

I was talking to one person talk.CONT be.1.SG.PAST

‘I was talking to a person.’

DOUBLED COMPLEMENTIZERS AND VERBS

(W) **English-Korean** (Chan 2008:800) — Examples (11), (38)

everybody think that nay-ka yenge-lul cal hanta-ko sayngkakhayyo

everybody think C I-NOM English-ACC well do-C think

‘Everybody thinks that I’m a good English speaker.’

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