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A MATRIX MODEL ACCOUNT OF CODE SWITCHING AMONG THE MEITEIS IN DELHI

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Introduction

Language Contact outcome has been looked upon and studied from two perspectives which can be broadly classified as the sociolinguistic perspective and the structural perspective. From the sociolinguistic perspective the outcomes of language contact are seen as due to the sociolinguistic history of the speakers in contact. On the other hand, the studies of the outcomes of language contact from the structural perspectives see the outcomes as due to the structural properties of the languages involved in the contact. However these two perspectives can be due to the difference in the objectives of each to explain different aspects of language contact phenomena. As Singh (1999) in his peer comment to Traffers-Daller (1999) formulates the distribution of labour between the sociolinguistic and structural factors in language contact very clearly by saying that 'structural considerations supply the materials and the paths to be followed in language change, whereas the sociolinguistic history of the speakers decides the destination of language change' (Traffers-Deller, 1999). Given this 'distribution of labour', priority placed on either sociolinguistic over structural factors or vice versa differ among scholars.

Code switching, which is the focus of this paper, is one of the outcomes of language contact. While the studies done on code switching from a sociolinguistic point of view is related to questions of groups membership, identity, language choice reflecting power and inequality etc. (Blom and Gumperz, 1972, (Myers) Scotten-Ury, 1977, Poplack 1987, Thomason and Kaufman, 1988, Milroy 1987, etc.) the one done from a structural perspective deal with the structures of the languages involved in code switching and mixing, intersentential and intrasentential, and the constraints on mixing within a particular grammatical theory (Traffers-Daller, 1999, Muysken, 2000, Sankoff and Poplack, 1981, Di Sciullo, Muysken and Singh, 1985, Joshi, 1983, Lipski, 1978, Pfaff, 1979, Poplack 1980, Woolford, 1983, Rommaine 1986, Kachru, 1978, etc.). However there also have been other studies done on code switching from the discourse level and within the conversational analysis framework.(Gumperz, 1982, Auer, 1981,1984).

Aim of the paper

This paper focuses on the nature of code switching among the Meiteis in Delhi using the Matrix Language Frame model (MLF) of Myers-Scotten (2002) taking into account the two main oppositions of the model, namely, Matrix Language-Embedded Language opposition and the content-system morpheme opposition. The languages involved are Meiteilon and English. It is claimed that while many instances of Meiteilon- English code switching patterns can be accounted for within MLF, others cases involving adjunction structure and conjoined clauses cannot be adequately accounted for by the MLF model.

The main three languages used by these speakers are English, Hindi and Meitellon. While Meiteilon is extensively and exclusively used within the group, English and Hindi are used in communicating with people belonging to other linguistic groups.

However, English and to a little extent, Hindi tend to be used frequently within the group as well. While English is used in both formal and informal settings, Hindi is used only in very informal situations. Code mixing and switching is thus a common feature in the speech of the Meiteis in Delhi. In spite of the growing awareness of a Meitei identity, the use of English even in informal situations seems to be more frequent than would be otherwise expected. The present paper will take into account the code switching involving Engiish and Meiteilon as the code switching sample involving Hindi is found to be insufficient for the present study.

The Matrix Model and its main oppositions

Before we get into the analysis of the code switching of the Meiteis, the MLF model is explained briefly below. Myers-Scotten uses the rubric 'contact phenomena' as an umbrella for the different structural outcomes in the languages involved and 'contact linguistics' for the analysis of these outcomes. In contrast to the emphasis on contact resulting in sociopolitical conflicts of various types, Myers-Scotten's study focuses on the lexicon and the morphosyntactic aspects of the grammar in the outcomes. She argues that 'the seemingly diverse types of language contact can be discussed synthetically and are amenable to unified explanations.' The study thus attempts to contribute to the theoretical studies of grammar by looking at how when languages come in contact certain aspects of grammatical structure can be bundled differently at the abstract level in one language in contrast with another. This, she believes, would lead to important insights into the abstract linguistic structure which have otherwise been approached from the monolingual point of view.

Myers-Scotten distinguishes between two types of code switching; Classic code switching and composite code switching. Classic code switching refers to speech for which the speakers are proficient enough in the participating languages that they can produce well-formed monolingual utterances in the variety which becomes the source of what is called the Matrix Language, the abstract morphosyntactic frame of bilingual utterances. In composite code switching, utterances include surface level morphemes from two or more languages just as in classic code switching. However, composite codeswitching also shows convergence with regards to the source of some frame building procedures, as well as in the features of the abstract grammatical structures.

The Matrix Language Frame model (MLF) was designed to explain structural configurations found in classic code switching. However it has been also been used in explaining other structural outcomes of the language contact phenomena. The bilingual CP (Complementizer phrase) is taken as the unit of analysis of code switching. A bilingual CP is where the CP contains (i) one or more constituents (including other CPs) that are mixed constituents or (ii) one or more Embedded Language islands. The two examples below will illustrate the bilingual CP.

1. [Ndio wa-zungu wa na-sem-a]cp **[old habits die hard]**cp

Yes CL2-European CL2-NONPST-say-FV

'Yes [as] Europeans say, old habits die hard.'

2. [Lakini a-na **so many problems**, mtu [a-me- **repeat** mara ny-ingi]cp]cp

but 3sg-with so many problems person 3s-perf-repeat time CL9-many

'But he has so many problems, [that] [he is] a person [who] has repeated many times.'

(Swahili/English; Myers-Scotten Nairobi corpus 1988, cited in Myers-Scotten (2002))

In (1), the languages are not taken to be really in contact. The sentence isbilingual only in the sense that it contains two monolingual CPs. This is not the type of code switching that is studied with the bilingual CP as the unit of analysis. Example (2) illustrates the bilingual CP, the type of constituent where the languages are truly in contact. It contains two CPs . The higher CP constituent is a bilingual CP for two reasons.

First, it has an Embedded Language island (*so many problems*) and second, it has a second CP which has mixed constituent, embedded within the first.

The MLF model is based on two main oppositions which are briefly explained below:

Matrix Language-Embedded Language opposition

A basic premise of the MLF model is that the matrix language and the Embedded Language do not participate equally in structuring intra-CP code switching. The label matrix language identifies with the language with the larger structural role. Two principles stated below, provided by the MLF model test the premise of unequal participation and thus provide the way to identify the matrix language:

The Morpheme Order Principle: in Matrix Language + Embedded Language constituents consisting of singly occurring Embedded language lexemes and any number of Matrix Language morphemes, surface order (reflecting surface syntactic relations) will be that of the Matrix Language.

The System Morpheme principle: in Matrix Language + Embedded Language constituents, all system morphemes which have grammatical relations external to their head constituent (I.e. which participate in the sentence's thematic grid) will come from the Matrix Language.

The content-system morpheme opposition :This distinction is motivated by the two types of morpheme pattern according to the frame-building properties. Content morphemes are defined by the feature [+thematic role assigner/ receiver] and system morphemes by the features [-thematic role assigner/ receiver]. This opposition is again refined by another model provided by the MLF model, the 4-M model, by dividing the system morphemes into early and late system morphemes as below with the following features which defines them.

Content and early system morphemes [+conceptually activated]

Late system morphemes [-conceptually activated]

The latter is again divided into bridge late system morphemes which have the feature [- refers grammatical information outside the maximal projection of head] and outside late system morphemes which have the feature [+refers to grammatical information outside the maximal projection of head].

(Meitelon/ English Code switching patterns

The sample used for the present study is based on the speech recordings of five Meitei students in Delhi. The recording amounts to five hours. The code switching of Meiteilon and English can be seen in the light of the above oppositions and principles of the Matrix Language Frame model.

Before we move on to dealing with particular mixing patterns, let us look at the following example of the Meiteilon/ English code switching just as an illustration of the

Matrix Language-Embedded Language hierarchy and the content-system morpheme opposition

3. cp1[cp2[atoppa *religion*-da tou-roi hai-na *stick* touraga lei-dana]cp2,

other religion PP do neg. say –nom.(?) stick touraga stay- due to(?)

adu-na *bone of contention* oi-ra-ba amuk]cp1.

that-nom. bone of contention be-perf.-inf. again.

'She was stuck to the idea that it (the marriage) won't be to another religion. As a result that became the bone of contention again.'

The above sentence contains two bilingual CPs. CP2 (atoppa *religion*-da tou-roi hai-na *stick* touraga lei-dana) is embedded CP which is topicalized from CP1 (adu-na *bone of contention* oi-ra-ba amuk). CP1 is bilingual for two reasons. First, it contains an embedded CP, CP2 which has a two mixed constituents, a bilingual PP (atoppa *religion*5 da) and a bilingual complex verb (*stick* touraga). CP1 is bilingual as it contains an Embedded Language island (*bone of contention*). As stated in the Matrix Language- Embedded Language opposition, the participating languages do not participate/contribute equally in structuring intra-CP code switching. The Matrix Language provides the morphosyntactic structure of the bilingual CP. In the above sentence we can clearly see that Meiteilon is the Matrix Language. The surface morpheme order reflecting the surface syntactic relations is of Meiteilon (according to the morpheme order principle). In the Matrix Language-Embedded Language hierarchy, the Embedded Language islands must be well formed in their language (here, English, *bone of contention*) and must have structural dependency relations. They are full constituents consisting only of Embedded Language morphemes occurring in a bilingual CP that is otherwise framed by the Matrix Language. However the placement of the Embedded Language islands within the CP depends on Matrix Language procedures. The Embedded Language occurs in the matrix language in different forms. One of them is as a bare form as shown by the following examples, 4 and 5:

4. pung kaya-gi *match* no?

hour how much-gen match int.

'When is the match?'

5. ai-gi *imagination* ia, khang-diye.

1sg. gen imagination int know-neg

'I don't know if it is my imagination or not.'

In the above examples the Embedded Language content morphemes, *match* in (4) and *imagination* in (5) are single word Embedded Language content morphemes which occur in a bilingual CP in which the Matrix Language is Meiteilon. These content morphemes occur as bare forms in the CP. Bare forms do not show all the function words and inflections of the Matrix Language that would make them fully integrated into the matrix language. The system morphemes and the surface syntactic relations are that of the matrix language.

The MLF model predicts that the system morphemes should come from the Matrix Language. Determiners, plural markers, tense/aspect markers come under the early system morphemes. Embedded language system morphemes can appear in the Matrix Language frame if they show sufficient congruence with their Matrix Language counterparts at all the three levels of abstract grammatical structures namely the lexical-conceptual structure, the predicate-argument structure and the morphological realization patterns. One example is the case of the French determiners. In a corpora of French/ Arabic code switching, where French is the embedded language, the French determiners occur with the French Nouns and NPs (Lahlou, 1991 cited in Myers-Scotten,2002).

However they fail to appear in other corpora such as the French/Lingala code switching corpora (Kamwangamalu1998, cited in Myers-Scotten 1997) and the Wolof/French code switching corpora (Swigart 1992, cited in Myers-Scotten 2002) and the French Nps conform to the specifications of the Matrix Language.

One of the general principles guiding the overall approach to all contact phenomena (and which can be applicable to monolingual data also) according to Myers- Scotten is the Uniform Structure Principle. The Uniform structure principle states that a given constituent type in any language has a uniform abstract structure and the requirements of this well-formedness for this constituent type must be observed whenever the constituent appears. In the bilingual speech, the structure of the Matrix language is always preferred, but some embedded language structures are allowed if certain conditions are met such that they meet the structural integrity of the matrix language.

In the light of the above statements let us look at the pattern of occurrence of the

English NPs in the Meiteilon ML frame.

6. ma-na oi-ja-dra-su, ma-gi *family member*-sing-du-na khara oi-ba hai-tare

3sg. Nom be-Refl-neg 3sg-gen family member-pl-det-nom somewhat be-inf. say

'Even if he is not, his family members are'.

7. mi ama-gi *personal life* ki *basis* tu-da lairik

person one-gen personal life-gen basis-det-PP education

tam-han-ba tam-han-da-ba kai-se khallu-ne...

study-cau-inf study-cau-neg-inf like-det think-imp

'Imagine, not allowing to study on the basis of someone's personal life.'

8. nupa nipan ne *whole group* tu da

men eight cop whole group det PP

'There were eight boys in the whole group.'

The English determiners do not carry the agreement for phi features nor do the Meiteilon ones. Moreover, the word order of the two languages is different, Meiteilon being an SOV language and English an SVO language. The determiners in English always precede the nouns in their NPs whereas in Meiteilon the determiners always follow the nouns. In 6, the English NP, *family member*, first of all is marked by the Meiteilon plural marker (another system morpheme), which is followed by the Meiteilon determiner '(a)du'. Thus the English NP occurs in a larger NP which is 'ma-gi *family member*-sing-du'. Similarly in 7, the English noun *basis*, also occurs in the larger NP, 'ama-gi *personal life* kl *basis'*. In this NP there is another English NP which *is personal life*. This NP is also within the Meiteilon frame which has *ma-gi* and is inflected with the ML system morpheme, the genitive *–ki*. In 8 too, *whole group* is followed by the Meiteilon determiner. Thus in the above examples the English NPs occur in the Meiteilon frame with the Meiteilon determiners thus integrating into the Matrix language frame of Meiteilon.

Another type of construction which is often found in code switching where the languages involved come from verb-final and non-final languages is the *do*-construction. This is discussed under the category of bare forms by Myers-Scotten. *Do* construction is often employed when the Matrix Language is a verb final language. In these cases the Embedded Language verbs occur as non-finite forms followed by a matrix language verb *do* as a light verb carrying all necessary Matrix Language inflections. Thus a complex predicate structure is formed by the combination of the Embedded Language non-finite bare form and the Matrix Language *do* verb with the Matrix Language constructions.

Code switching as a trigger for such *do* constructions can be shown as follows. The left branching structure of the Matrix Language SOV language clashes with the right branching requirement of the Embedded Language SVO order. When the Embedded Language (non verb final) verb occurs, the requirement that an object/complement must follow cannot be met as the object has already appeared in the Matrix Language before the Embedded Language verb appears. The Embedded Language verb is thus blocked from projecting its own predicate-argument structure. They cannot thus pass the test of the Uniform Structure Principle which requires them to be well formed to be congruent enough and meet structural integrity of the Matrix Language. Thus, there arises a conflict between the Matrix Language and the Embedded Language branching requirements. This conflict is resolved by resorting to the *do* construction, where the Matrix Language *do* verb which takes the necessary inflections and takes the Embedded Language verb in its non-finite form as its (nominalised) complement. The new structure created would thus meet the left branching requirement of the Matrix Language structure. This explanation of *do* construction will account for the occurrence of do construction in the Meteilon English code switching. Let us look at the following examples:

9. *Actually* ai nupa khara-su *record* tou-ga-da-ba-ni

actually I men some-also record do-conj.p-inf-cop.

'Actually I have to record some men also.'

10. moi-mayam-na loi-na *advise* tou-ra-ba.

3pl-many-nom all-nom advise do-prog-inf

'They all advised (her).'

11. adu-da-gi nupa-si-na luhon-ngasi hai-na-ga *express* tou-rak-pa-ja-ni.

det-PP-gen men-det-nom marry--- say---conj.p express do-prog-inf-refl-cop

'Then (after that), the guy expressed that they should get married.'

12. adu-di ama-da *transfer* tou-ta-ba-ni-ne.

det-cond. One-PP transfer do---inf-cop-int

'Then you would have to transfer it to something else, don't you?'

13. adu-da-gi amuk, thabal chongba amuk *organize* tou-ra-ni.

get-PP-gen again thabal chongba again organize do-prog-cop

'Then again, one has to Thabal Chongba.'

In the above examples, we have the *do* constructions where the English non-finite forms (*record* in 9, *advise* in 10, *express* in 11, *transfer* in 12 and *organize* in 13) occur in a complex predicate with the Meteilon verb *do*. Thus the Meiteilon (the Matrix Language) SOV structure of left branching is maintained. Embedded language also occurs as Embedded Language islands. Embedded Language islands are full constituents occurring in a bilingual CP that is otherwise framed by the Matrix Language. They show structural dependency relations: minimally they can be of two morhemes (eg. Noun and modifier) or a content morpheme and a nonderivational system morpheme. They are different from the singly occurring EL forms in the following way. While EL islands are well-formed in all the three levels of abstract grammatical structure in the embedded language, the single-form insertions needs only the lexical-conceptual level to be implicated. Embedded Language islands occur as phrases, noun phrase, adjectival phrase and as an adjunct in examples like 15, 16:

15. nang *mental block* lei-ghi tou-ri-ne

2sg mental block be-pst do-prog-cop

'That's because you developed a mental block.'

16. manipuri si-na *politically correct* natte aseng-ba-gi-di.

manipuri det-nom politically correct not truth-inf-gen-foc

'Manipuri' is not really the politically correct term.'

In the above examples, the islands occur within the matrix frame of Meiteilon. They are well-formed in the embedded language English. For example, *mental block* in 15 is a well-formed noun phrase in English, where the English word order within the phrase (modifier-modified) is maintained. However, the phrase occurs within the Meiteilon matrix frame and is structurally dependant on the Matrix Language frame which is clear from it being taken as a complement to the *do* verb in Meiteilon. The adjectival phrase *politically correct* also occurs in the similar way, i.e., being taken as a complement to the predicate *true*. Many Embedded Language islands are adverbial phrases like the adjunct *at that point of time* in 17.

17. cp1[asom nakangi misingduna cp2[*at that point of time*]cp2

there side-gen person-pl-det-nom at that point of time

grong-grong-ga chel-li-ba ko]cp1

onomaetopic-red-gen run-prog-inf DM

'The people on the other side were running at that point of time.'

These kinds of Embedded language islands are outside the predicate-argument structure projected by the Matrix Language main clause verb. Though, thematic roles are assigned within such islands and the morphological patterns are projected, 'these features just serve to differentiate islands structurally from singly occurring insertions'. They also imply a relatively lower level of activation for embedded language islands than for mixed constituents under the matrix language control. Similar explanation is also given for Embedded Language islands whose structure is very formulaic like idioms or set collocation. An example from the Meteilon-English code switching can be the Embedded Language island *bone of contention* in example 3 above.

Code Switching patterns unaccountable by Matrix Model

Thus, many of the Meiteilon-English code switching patterns can be accounted for within the Matrix Language Frame model. However, some of the mixing patterns still need to be explained. For example:

18. cp1[the other one thinks that he is not

the other one thinks that he is not

going to die yet cp2[because *sum khal-lu-da-ba-do]*cp2]cp1.

going to die because just like that think-….-neg-inf-..

'The other one thinks he is not going to mind because it just didn't cross his mind

(literally, he just didn't think)'.

The above example has a main clause *'the other one thinks he is not going to die'* which has an adjoined reason clause 'because *sum khal-lu-da-ba-do'*. The whole CP according to the Matrix Model can be considered a bilingual CP, although the "embedded" clause is not a complement embedded inside the bigger CP, as it contains an adjoined bilingual clause. However, in the "embedded" CP, though the subordinating morpheme is from the matrix language, the Embedded Language verb is inflected by the Embedded Language system morphemes. So, does it still count as a bilingual CP?

According to the Matrix Language frame model, the embedded language has to be under the morphosyntactic frame of the Matrix language and the surface structure syntactic frame of the bilingual CP has to be that of the Matrix Language. Can we take the embedded language part of the embedded CP as an embedded language island as it is well formed according to the embedded language abstract level structure? But again, the Embedded language islands have to be structurally dependent on the matrix language frame. Or should this example be taken as not to be accounted for under the matrix model as it can be considered a juxtaposition of two monolingual CPs, the main clause belonging to English and the other to Meiteilon. This is if we can consider that position of the subordinating morpheme could also have been occupied by a Meiteilon subordination morpheme, *maram-di* 'because'. One explanation can be that the need to switch was to end a sentence with the Meiteilon inflections and therefore the overall desire to end with the verb. Again, in this case there seems to be two independent clauses, one of them being an adjunct to the other. Any adjunct is independent in the sense that its word order is not influenced by anything in the main clause. But it can't be spoken on its own whereas the main clause can be. And so, the clasues are actually independent. Since nothing in the main clause can now trigger any structural clash (clash in branching) in the rest of what the speaker has to say, s/he resorts to an adjunct. So you could say that the reason to plug in an adjunct rather than anything else (a complement or a verb) was that too much of the main clause was already spoken in English and the only way to end in Meiteilon was to resort to an adjunct which would not require any structural readjustment because of English.

The following example can also be explained similarly:

19. [IP *at that time everything went so fast*

At that time everything went so fast

[CP *that* si-gi wa-se *anticipate* tourudaba hai tare.]]

comp det-gen issue-det anticipate do-prog-neg-inf say

'At that time everything happened so fast that this issue was not anticipated.'

20. cp1[you just cross that piece of paper cp2[*aduga Nepal-da-ga youripot-ni*]cp2]cp1.

you just cross that piece of paper and Nepal-pp-conj.p. reach-be

'You just cross that piece of paper and you reach Nepal.'

Here, in each of the above two examples the CPs is again adjoined to the IPs. So

we have only adjunction structure and no real embedding.

21 [CP *I think* [CP[IP pro [IP ma-se phaja-na khang-da-ba] mal-le.]]]]

I think 3sg-foc well-inf know-neg-inf seem

'I think he does not know it well.'

I think, here is like a collocation (or even idiomatic) and therefore recalled (from whatever lexicon is being accessed in bilingual speech) as a "word" rather than as a subject and verb. Expressions like *I think* are epistemic and although appear in the main clause behave like embedded clauses. In fact, prosodically also it will be less intense (like *It will rain, I believe*), so much so that it feels like it's not there and therefore another main clause verb was needed to (i) distance from assertion and (ii) reconfirm that there is a main verb in the clause (Bhattacharya 2005).

The following examples also consist of adjoined clauses in Meiteilon and English where the main clauses are in English and the subordinate adjoined clauses are in Meiteilon. They are explained in the following way: 22 DP1[A ma-gi *facial expression* se] IP2 [B maana yamna *guilty* oi-ja-ra-kanda 3sg-gen facial expression dem he nom very guilty be-refl-prog-when DP2[C ma-na sumaina tou-ba se DP2] IP2] DP1] IP1[[D *it actually looks very sarcastic*] 3sg-nom in.this.way do-inf DEM 'His doing this when he is very guilty, his facial expression is such that it looks very sarcastic.' The possible strategy used in the case of the above example is the following way:

(i) For information theoretic reasons (i.e., to highlight the most dramatic part of the message), the speaker decides to topicalise A 'ma-gi *facial expression* se'

(Ii) This topicalised DP is modified by the whole clause B 'maana yamna *guilty* oi-ja-ra-kanda' which is inserted. The strategy is in fact to contrast the topicalised NP and the speaker chooses to insert a whole IP to bring about the contrast expressed by the facial expression that she is actually going to talk about (the one which is very sarcastic). So this extra insertion is used to set up the contrast to make whatever is being said more dramatic (sarcastic face versus guilty feeling).

During this insertion, the parser continuously revises the structure of the clause as at each clause/ phrase boundary a new decision is taken to continue the sentence and finally reach the target which is the main contentful part of the message, i.e.,

D '*it actually looks very sarcastic*'.

(iii) In her effort to continue, she employs the strategy of using a non-finite verb form at each stage (at the end of B and C). Further, it is possible the whole extra clause B (which Is adjoined to A) was going to be an equivalent of a relative12 correlative structure (like Hindi *jab ... tab*) but due to the non-availability of a correlative in Meiteilon, the speaker instead uses a gerund in place of the consequent clause (the *tab* clause), i.e., C 'maana sumaina tou-ba se'.

(iv) Finally, when the speaker returns the main message of the sentence (D) '*it actually looks very sarcastic*', the gap left by the initial strategy of topicalisation (in order to highlight) cannot be maintained anymore, again for parsing reasons. So the gap is thus resumed with a pronoun.

In the light of the above example and the explanation provided there can be a possible claim that topicalisation may lead to code switching. Topicalisation must have a pause and claim here is that pause is deleted and is replaced by the strategy of code switching. Further, Meiteilon influence drives the continuation of the sentence, i.e., since the correlative strategy is not available a gerund is produced. On the other hand, the IP adjoined to the DP (to set up contrast) ends up distancing the original topicalised material which in turn leads to resumption of the gap. Somewhere along this line of reasoning, parsing strategies of revising the structure midway through is employed.

On the basis of this observation, the Myers-Scotten's Matrix Model, thus, is not well-suited to analyzing certain code switching patterns like the ones discussed above, such as adjunctions and conjoined clauses which are encountered the Meiteilon/ English code switching corpora.

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