# A Spotlight on the Matrix Language Approach to Code Switching: Evidence from Boumans Monolingual Approach Dr. Hind Amel MOSTARI, MCA Djillali Liabés University of Sidi Bel Abbes

# Abstract

The present article is an attempt to highlight the importance of one of the most influential approaches to code-switching in the bilingual speech. Even if Myers-Scotton (1992) Matrix Language Frame model, is per se, one of the most applied model on language pairs cross linguistically, we consider Boumans Monoligual approach to code switching as a plausible models on many language pairs including Algeria Arabic/French code switching. The results of this investigation revealed that the instances of Arabic/French code switching elicited from our corpus do fit within Boumans Monolingual Approach to code switching.

Key words: bilingualism, code switching, language, Monolingual Approach, Algerian Arabic, French

ملخص

هذه المقالة هي محاولة لتسليط الضوء على أهمية واحدة من النهج الأكثر تأثيرا لتحويل رمز في خطاب ثنائي اللغة. حتى لو كان نموذج مايرز - سكوتون (1992) في إطار لغة المصفوفة هو في حد ذاته أحد أكثر النماذج تطبيقا على أزواج اللغات عبر اللغويات، فإننا نعتبر نهج بومانز مونوليغوال لتحويل الرموز كنماذج معقولة على العديد من أزواج اللغات بما في ذلك الجزائر العربية / الفرنسية رمز التبديل. وأظهرت نتائج هذا البحث أن حالات تحويل الشفرات العربية / الفرنسية المستلمة من جسدنا تندرج ضمن منهج بومانز أحادي اللغة لتحويل الرموز.

الكلمات الدالة: الثنائية، التحول بالشفرات، اللغة، المنهج الأحادي، الجزائري العربي،

#### الفرنسية.

#### 1. Introduction

The idea behind a matrix language approach to constraints is that certain functional elements are realized in the matrix language and consequently this language imposes certain constraints on code switching (hereafter CS). Kamwangamalu (2000) observes that the concept of the matrix language (here after ML) in CS has attracted the attention of CS researchers over the past 20 years. He further reports that the ML issue has been investigated empirically in Japanese-English CS in the US (Nishimura ,1986), Sheng-English CS in Kenya (Mazrui & Mphande 1990), Korean-English CS in the US (Park 1990) and Chinese-English CS in Singapore (Kamwangamalu & Cher-Leng, 1991)<sup>1</sup>.

## 2. Defining the Matrix Language

One of the earliest scholars to allude to the ML was Wentz (1977). She called the ML the 'language of the sentence'. According to her, this is the language in which

1 Ogechi, 2002 :18

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the determiner and the main verb are produced. Later, Sridhar & Sridhar (1980) used the terms 'host language' and 'guest language' but they did not define them. They formulated the Dual Structure Principle through which the host language can be identified by examining the constituent order in the sentence. In particular, they stressed that the internal structure of the guest constituent need not conform to the constituent structure of the host language, "so long as its placement in the host language obeys the rules of the host language" (Sridhar & Sridhar 1980: 412). Meanwhile, Klavans (1985) argued for the definition of the ML in terms of the inflection-bearing element of the verb.

Henceforth, researchers in ML approaches, both in the more grammatical and discourse-oriented research tradition, felt the necessity to state that a given bilingual stretch of conversation is 'basically' in language **A** although elements of language **B** are also present in some way or other within it.

Assigning an ML to a clause or sentence is not an aim in itself. Researchers, who believe that clauses/sentences containing elements from more than one language can in each and every case be assigned to ML A or B, adhere to grammatical models in which language choice takes place at a 'deep' rather than 'shallow' level of syntax Auer (2000:131-131).

To them, the possibility of defining the ML in such a way that all clauses can be assigned to one language or the other, is evidence for language choice at a 'deep' level of language processing. Once the choice has been made, language *generally* does not 'change' during the production of a clause/sentence; all what can happen is that elements from the EL are inserted into the frames opened by the ML.

The concept of ML is therefore linked to certain grammatical assumptions about the processing of sentences by bilingual speakers which Muysken (1995: 180) calls "insertional". Opposed to these models are more linear, surface-oriented approaches to syntax such as that advocated by Sankoff & Poplack (1980) in which the language may change at so-called equivalence sites. Again following Muysken (1995: 180), these models can be called "alternational". They do not require the notion of an ML since language choice may change during the production of a sentence/clause at any appropriate point. More widespread, however, are approaches in which the ML by definition determines word order or the choice of grammatical elements in the sentence, the "system morphemes" (Myers-Scotton, 1993).

Finally, some researchers believe that it is the governing element in the clause (or also in a smaller constituent, such as a phrase) which defines its ML (Di Sciullo, Muysken & Singh, (1986); Bentahila & Davies, (198) speak of "subcategorization rules"); for instance, on the clause level, the verb (Klavans, 1983).

The seemingly simplest way of defining the base language for a given interactional episode, or a relevant exchange within it, is the quantitative dominance of one language over the other, established by counting words or morphemes, on the

level of the clause or sentence, as proposed by Nortier (1990) and Hyltenstamm (1995: 307)<sup>2</sup>

#### 3. Data Collection

In order to extract some instances of Algerian Arabic (AA)/Frenchy (Fr) CS, we elicited spontaneous speech from ordinary conversations among university students (30 from both genders) from the faculty of Letters ,Languages ad Arts , Djillali Liabés Uiverssity of Sidi Bel Abbés .

# 4. Boumans' Monolingual Structure Approach

Boumans<sup>3</sup> (1998) elaborated his Monolingual Structure Approach (here after MSA) on MA / Dutch corpus, as a reaction to Myers-Scotton's (1993) Matrix language Frame (hereafter MLF) Model (1993) and his doubts concerning the validity of Myers-Scotton's definitions of the ML, in particular.

Under the MLF Model (1993), the languages participating in CS play unequal roles: the ML constraints the role of the other language called the Embedded language (hereafter EL). The ML vs. El distinction determines structural outcomes in bilingual production. The ML supplies the morphsyntactic frame for the larger bilingual constituent. Major aspects of this criterion are operationalzed as the *Morpheme Order* and the *System Morpheme Principles* of the MLF: principles applying to constituents containing morphemes from both languages. The EL can provide singly occurring content elements or full constituents called EL islands.

A further distinction is between content vs system morpheme, which constraints patterns of occurrence of morpheme in bilingual utterances. The list of content morphemes includes nouns, descriptive adjective, verbs, predicate adjectives, some prepositions, and discourse markers. The system morphemes include determiners, possessive pronouns, quantifiers and verbal inflections. (Myers-Scotton, 1993:14). The notion that thematic structure of morphemes determines how they are classified is central to the MLF model discussion (The MLF as a model will be thoroughly surveyed in the next chapter).

Following Boumans (1998), there is first of all a matrix structure namely the finite clause and the clause constituents headed by one of the major syntactic categories notably: noun, verb, adjective, adverb and preposition. It is worthwhile to note that constituents are units in the analysis of sentences as hierarchical structures, constituent classes such as: determiner, noun, NP, and Prepositional Phrase (here after PP) are identified primarily by distributional facts (Boumans, 1998:69).

Following the MSA, the identification of the ML therefore depends on the interpretation of the grammatical structure. On both the constituent and the finite clause levels, the occurrence of EL elements is restricted to established insertion categories notably: noun, verb, adverbial phrase (here after ADVP), adjective phrase

<sup>2</sup> Auer,1999 :133

<sup>3</sup> Boumans (1998:61) uses the dichotomy: Community Language vs the Super Imposed language, to refer to the bilingual community's own language vs the economically and/or culturally dominant language.

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(here after ADJP), Prepositional Phrase (hereafter PP) and Verb Phrase (VP). The latter should include at least the verb and its complement.

#### 5.1 On the Constituent level

For the constituent level, the ML can be defined as:

The language to which the internal structure of the constituent as expressed by the distribution of all morphemes within the constituent can be attributed.

The distribution of a morpheme concerns with its occurrence and its order relative to other morphemes that make up the constituent.

#### (Boumans, 1998:66)

Accordingly, Boumans (1998) gives the following example:

(1) t-3afed εla l-culturr dya-lek

2-preserve on DEF-culture of-2SG

(You will preserve your culture)

From the AA/Fr corpus, we have the following instance:

(2) baġi nehdar-lek ɛla l-future ntaɛ-i

1-wouldlike 1-speak-2SG about DEF-future POSS-1SG

(I would like to speak about my future)

In the above example 42), the word order belong to AA, the French equivalent of the analytic marking possession would be '*Mon future*' (my future), whereas, the possession marking in this sentence belongs to AA.

Hence, the ML determines the relative order of the function and content morphemes that make up the constituent. Note that it is the order of the function morphemes rather than the function morphemes themselves which identify the ML.

As far as the EL content morphemes are concerned, they are commonly embedded in the ML constituents following the ML grammar. The ML is identified by its role in structuring the mixed constituents rather than by the number in a stretch of discourse or some un-specified intuitive criterion. The latter is obviously reminiscent with Joshi's (1985) association of inflections and function words with the ML and of Myers-Scotton's (1993) Morpheme Order and System Morpheme Principles.

### 5.2 The Finite Clause Level

The constituent<sup>4</sup> that includes tense and Aspect as inflectional categories will be called the finite clause (Boumans, 1998:69)<sup>5</sup>. At this level, the ML must be defined

<sup>4</sup> In syntactic analysis, a constituent is a word or a group of words that functions as a single unit within a hierarchical structure. Phrases (NPs, VPs, ..etc.) are usually constituents of a clause, but clauses may also be embedded into a bigger structure. (http://en.wikipedia.org/wiki/ constituent ) 5 According to Levelt (1989:256-8), every finite clause contains one and only one finite verb. It concerns the ordering aspect of grammatical encoding; it reflects which categorical procedures do the word and phrase ordering of the retrieved functional information.

independently for mixed constituents and mixed finite clause (Boumans, 1998:74). At the clause level, the ML is identified as the language of the inflection bearing elements of the tensed verb i.e. the language of the inflection of the finite verb.

Boumans (1998: 76) states: "In the case of finite clause there is fortunately a suitable independent criterion: the verbal inflection or perhaps more precisely inflection for the tense, is probably the best indicator of the ML". Indeed, a great number of scholars define the ML as the language of the verb (Wentz, (1977), Pandit, (1986)). Accordingly, Treffers-Daller (1994:220)<sup>6</sup> defines the language of the finite verb as the base language of the sentence, "Because the sentence is identified as the maximal projection of inflection in modern linguistic theory" (1994:204)<sup>7</sup>.

According to Ouhalla (1991) "The ordering of tense and agreement categories with respect to each other are shown to be ultimately responsible for word order variation across languages"<sup>8</sup>.

Boumans (1998) presents a series of examples from his MA/Dutch corpora:

(3) ɛta-ha-ni de buurman

give-3F-1SG EF neighour

(The neighbour gave it to me)

The word order Verb-Subject is in accordance to MA not to the Dutch syntax. Also the inflection of the tensed verb belongs to MA.

(4) mɛa-k ben ik mezelf

With-2SG am I myself

(With you I am being my self)

Accordingly, the constituent order in the above example is recognisably Dutch, including the verb's agreement tools.

As far as AA/Fr Cs is concerned, we have the following instance:

(5) Ma-nehder-ch bezza:f mea les enseignants

NEG-1-speak-- NEG a lot with the teachers

(I don't speak a lot with the teachers)

In example (5), since the inflections of the finite verb including tense, agreement and negation as well as the word order belong to Arabic, so, the ML is then AA.

Seemingly, there is a strong correlation between the language to which basic word order must be attributed and the language of the finite verb or the verbal inflection. In other words, the same language that provides the inflection of the tensed verb also organises the relative order of the verb and its arguments (Boumans, 1998:76). According to Myers-Scotton (1996:10), The ML is dynamic and thus it may change within the discourse, even within a single discourse.

<sup>6</sup> Boumans , 1998 :74

<sup>7</sup> Boumans, 1998:76

<sup>8</sup> Ibid

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### 5.3 Layered Insertion

Since the ML is defined independently on more than one level, it is possible to have successive layers of insertion. For instance, an English noun can be part of the Japanese PP, which in its turn embedded in an English clause ie to have insertion within insertion. Accordingly, many cases that are problematic for other matrix language models receive a more satisfactory explanation. According to Boumans (1998:103) the possibility of layered insertion must be recognized as a logical corollary it the insertion of content words and of complex constituents is permitted.

From MA/Fr CS, we have the following instances:

(6) Tu perds wahdel demi-heure

(You lose half an hour)

(7) Il a été convoqué f dak les premières convocations

(He was summoned in those first summonings)

(Bentahila & Davies, 1991:383)

Following Boumans'(1998) MSA , example (46) is analysed as a French finite clause with an inserted Arabic NP ( wa de I-demi heure ) in which the French content morpheme is inserted ( *demi heure* ) ( half an hour ) . In (47) the inserted Arabic PP (fdak *les premieres convocations*) (in those first summonings) constitutes a matrix on the constituent level that embeds the French NP '*les premières convocations*'.

According to Boumans (1998) approach, the Arabic strings [wadel],[fdak] cannot be considered as Arabic insertions as the MLF model predicts : The category 'function morpheme insertion' is not favoured in the MSA approach because it falls outside normal patterns in CS. Also, even if we assume the possibility of function morpheme insertion within Arabic NPs, such articles are perfectly interpretable within Arabic grammar, whereas, they would be ungrammatical sequences in French NPs.

By this process of reasoning, the layered insertion offers a solution for these problematic cases of function morpheme insertion in a variety of other language pairs (Boumans, 1998:79).

### 5.4 EL insertions

Material from another language is said to be embedded in the ML structure only if this material belongs to an established category of EL insertions. An established category of EL morphemes or constituents systematically corresponds to a category of ML morphemes or constituents, as opposed to a correspondence of individual morphemes or constituents. Boumans (1998:89) calls this category: 'category correspondence', systematic correspondence or congruence, relations are inferred from the distributional properties of the EL category in ML structures. Since an EL element represents an ML category in the ML structure, it is as much an expression of ML grammar as the ML elements that participate in the matrix structure. (Boumans, 1998: 89). Boumans (1998) uses the term single morpheme constituent instead of EL Island which should be composed of at least two lexemes in hierarchical dependency relations. (Myers-Scotton, 1993:78)

#### 6. Conclusion

Boumans (1998) MSA is, *de facto*, the latest matrix approach that attempted to identify grammatical constraints on Morrocan Arabic /Dutch language pairs. The application of such model revealed cases of plausibility in the case of AA/Fr CS. Despite its strong arguments, it could not reach the popularity of Myers-Scotton' MLF Model and was not applied cross linguistically.

That is to say no model is universal and either model/approach has its limitations regarding the language pairs that are subject to application. Hence, each language is particular, and each model can fit or not within the specificities of such languages.

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