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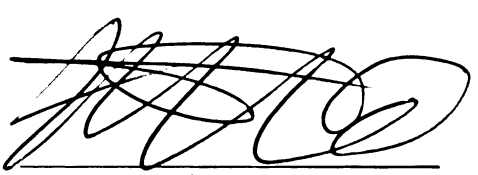

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TESTING THE MLF MODEL:

EVIDENCE FROM KOREAN-CHINESE INTRASENTENTIAL CODESWITCHING

By

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ABSTRACT

TESTING THE MLF MODEL: EVIDENCE FROM KOREAN-CHINESE INTRASENTENTIAL CODESWTICHING

By

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This paper presents empirical evidence to test the validity of Myers-Scotton's Matrix Language Framework Model by examining Korean-Chinese intrasentential code switching (CS), a study of languages that are morphosyntactically more highly disparate from each other than the ones she has studied, such as English/Swahili, Shona/English, etc.. Naturally occurring CS data from balanced Korean-Chinese bilinguals are presented to show that, although the MLF model provides a nice account for the most commonly occurring data, it fails to provide a satisfactory explanation for some of the phenomena that have been revealed in language pairs with divergent syntactic and morphological features. First, the MLF model fails to predict an asymmetry in terms of the occurrence of switchable content morphemes, a phenomenon abundantly exemplified in many bilingual CS examples. Second, the central principles of the MLF model are in conflict with Myers-Scotton's frequency-based ML criterion. Since ML assignment functions as a cornerstone of the MLF model, a more objective criterion of ML designation that is fully compatible with major claims of the MLF model is required. Finally, the double morphology data-in its expanded version-challenges the MLF model's key assumption that one language is dominant over the other. In conclusion, this study suggests that the MLF model cannot be postulated as a universal in its current form.

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TABLE OF CONTENTS

LIST OF ABBREVIATION

ACC	accusative
ACC	accusative case
ADJ	Adjective
ADNZ	adnominalizer (suffix)
AGR	agreement
CL	class
CM	code-mixing
COMP	complementizer
CONJ	cnjunctive (particle)
CONSEC	consecutive tense
COP	copula
CS	codeswitching
DCL	declarative (ending)
EL	embedded Language
EXT	existential
GEN	genitive (particle)
HABIT	habitual aspect
HON	honorific (form)
INDIC	indicative mood
INFIN	infinitive
INFL	inflection
MANN	manner
ML	matrix Language
MLF	matrix Language Frame
N	noun
NEG	negative
NOM	nominative
NOMZ	nominalizer

OSV	object + subject + verb
OVS	object + verb + subject
PL	plural
POST	postposition
PP	prepositional phrase
PRS	present Tense (suffix)
PST	past Tense (suffix)
Q	question marker
RET	retrospective Mood (suffix)
S	subject
SOV	subject + object + verb
SVO	sbject + verb + object
TOP	topic (particle)
V	verb
VOL	volitional Mood (suffix)
VOS	verb + object + subject
VSO	verb + subject + object

0. Introduction

Over the past decades, increasing interest in syntactic aspects of codeswitching has triggered a variety of investigations and theoretical discussions that have shed light on our understanding of bilingual speech behavior. Among the various analyses that have been proposed to account for structural constraints of intrasentential codeswitching (hereafter CS) (Timm, 1975; Gumperz & Hernandez-Chavez, 1975; Lipski, 1978; Pfaff, 1979; Poplack, 1980; Sridhar and Sridhar, 1980; Sankoff & Poplack, 1981; Bentahila and Davies, 1983; Woolford, 1983; Joshi, 1985; Di Sciullo *et al.*, 1986; Pandit, 1990; Myers-Scotton, 1993a; Belazi *et al.*, 1994; Mahootian, 1996, etc.), Myers-Scotton's Matrix Language Frame (hereafter MLF) model has sparked much research in the field and proven to be efficient on the basis of considerable evidence from many different language pairs, such as English/Swahili, Shona/English, Tamil/English, and Hausa/English, etc. However, a cross-linguistic applicability of this model requires more empirical support from a wider variety of languages. The motivation for this study primarily comes from a concern with typological differences, particularly with respect to the morphosyntactic features of the language pairs studied by Myers-Scotton and the ones being examined in this thesis. It is well known that Chinese is a SVO language with very little inflection, while Korean is a typical agglutinated SOV language with a rather rich morphology. Therefore, with regard to syntactic features, Korean and Chinese have quite different surface word order; while in terms of morphological features, undeniably there is vast gulf in morphoogical

complexity between Chinese and Korean, which occupy two extremes respectively in a continuum with various degrees of inflectional richness. However, the languages examined by Myers-Scotton to support her MLF model are either morphosyntatically very rich, such as Swahili, or at least showing minimum inflectional features, such as English; she examines no language pairs of which morphosyntactic features drastically differ from each other as Korean and Chinese. In fact, she examines no language like Chinese. Therefore, testing the MLF model based on such a language pair will, undoubtedly, provide convincing evidence to its universal validity.

Another driving force for this study is that despite the fact that both Korean and Chinese are major language groups and there are almost 2.5 million Korean-Chinese bilingual population members currently residing in China, no CS research to date, at least to my knowledge, has ever been done for Korean – Chinese bilinguals. Therefore, adding Korean/Chinese bilingual codeswitching to the current literature will broaden our understanding of some phenomena unique to language pairs that share similar morphosyntactic properties with Korean and Chinese.

In this paper, I will present data from Korean-Chinese bilingual utterances to examine the claims proposed in Myers-Scotton's MLF model. The organization of the paper is as follows. The first part of Section 1 lays out some terminological conventions, then a sketch of the MLF model proposed by Myers-Scotton and its central principles will be reviewed, along with a comparison of the major morphosyntactic features of Korean and Chinese relevant to current

study. In Section 2, I present Korean-Chinese codeswitching data that are conform to the prediction of the MLF model. Section 3 discusses some problematic data to show the inadequacy of the MLF model in accounting for some phenomena that are uniquely revealed in bilingual speech with two participating languages sharing different morphosyntactic features as that of Korean and Chinese.

I. Theoretical Framework

Before getting into detail with regard to the theoretical framework for CS, clarifying some terminology and concepts that are essential for understanding the theory is in order.

1.1 Bilingual Codeswitching

CS is defined by Myers-Scotton as "the selection by bilinguals or multilinguals of forms from an embedded variety (or varieties) in utterances of a matrix variety during the same conversation" (1993, 3). The basic assumption under this definition is that there evidently exists an asymmetry regarding the participation of the languages involved. The one that is more activated and functions as the principal language in CS is the matrix language; while the term embedded languages refer to other participating language(s) inserted into the matrix frame with less important roles. Although the definition of CS proposed by researchers varies in its wording (Haugen, 1956; Diebold, 1963; Macnamara, 1967; Hymes, 1974; Scotton and Ury, 1975; Valdes Fallis, 1976; Di Pietro,

1977; Baetens Beardsmore, 1982; Grosjean, 1982; Appel and Muysken, 1987; Lehiste, 1988; Poplack, 1993), they all roughly agree upon the nature of CS as the alternation of two or more languages in a conversation. Much debate, however, has been raised over the issue of what constitutes true bilingual in terms of their language proficiency. Bloomfield (1933) and others insist only native-like mastery of a second language other than one's mother tongue can be a considered as true bilingual; while others claim that minimal competency in at least one language skill (speaking, writing, listening, or reading) should be sufficient to be regarded as bilingual (Macnamara, 1967). These two criteria are perceptibly of limited merit in that the former one is too restrictive, based on which only few are eligible as true bilingual; the latter definition, however, is over inclusive that it applies to everyone who has ever come in contact with another language. For the purpose of this paper, I will adopt the view that bilingualism has the characteristics that may exist in a continuum from minimal competency to complete mastery of more than one language (Hornby, 1977). However, the subjects to be considered here are individuals at the upper end of the continuum. In other words, although they are not necessarily native like in all their linguistic competences in both languages, they should be able to communicate fluently in both (Loebell, 1989).

Another controversy surrounds the issue of what embedded language (EL) material actually constitutes true CS, specifically with regards to single-lexeme items. Many scholars in the 1970s and far into the 1980s exclude singly occurring lexemes from CS forms by claiming that only the sentences with EL

phrases or constituents should be considered CS forms (Ryes, 1976). Later some researchers try to resolve the problem by labeling sentences with single lexeme items as code-mixing (CM) (Kachru, 1978; Swigart, 1992). Relevant to current study, we will adopt Myers-Scotton's view and claim that not only can a phrase, a clause or a sentence constitute CS, but also a single word.

1.2. Distinctions between CS and Borrowing

Including single lexeme items into CS demands researchers to make a sound distinction between CS and borrowing, since they appear to be indistinguishable on the surface. How to objectively draw a fine line between CS and borrowing, however, has been quite a challenging task and raised much controversy among the researchers.

In a very general sense, borrowed forms are identical to loanwords, although some researchers further identify them into three different types: loanwords[1], loan shifts[2] and loan blends[3] (Haugen, 1956). The traditional criterion for distinguishing borrowing and CS is the degree of morphological, syntactical and phonological integration into the base language (e.g., Weinreich, 1953; Haugen, 1956; Hasselmo, Mackey, 1970; Lance, 1975; Grosjean, 1982; Lehiste, 1988; Poplack, 1993). Other researchers propose to make the distinction based on the frequency of occurrence. For example, Myers-Scotton observes the unpredictability and lower frequency of the CS forms, predictability and higher

[1]. Loanwords refer to the imported words from the other language with morphological and phonetic integration with the base language.
[2]. Loanshifts refer to the substituted items to represent a new concept or object of the donor language.

frequency of the borrowed forms. She specifies the frequency by adopting a three-occurrence rule, which is that a borrowed form is the one that occurs in a relatively large corpus at least three times (1993). However, the definition of "relatively large corpus" is rather vague and arbitrary, which diminishes the liability of this mechanism. In this study, because of the familiarity of the researcher with the community where the data were collected, the distinction of borrowed forms and CS forms will be mainly, but not exclusively, based on her own judgment. Roughly speaking, regardless of the frequency of the occurrence, if a word is a commonly used expression by monolingual speakers in the community, then it will be considered as borrowed form instead of CS form. Borrowed forms as well as proper nouns, such as names of persons, places, and objects, are excluded as code switches.

1.3. The Matrix Language Frame Model

1.3.1 Matrix language vs. embedded language

The MLF model differentiates participating languages in CS by identifying one as the matrix language (hereafter ML) and the other(s) as the embedded language(s) (hereafter EL). The ML is such labeled because it plays a predominant role in language production and its grammar sets the morphosyntactic frame for the sentences, while the EL refers to other languages that have less important roles in CS. Since the distinction of ML vs. EL is the basic principle structuring CS within the MLF model, designating the ML in CS

[3] . Loanblends refer to the cases where only one part is morphemically imported from another language, and the rest part still comes from the base language.

utterances becomes obviously crucial. While acknowledging the roles of psycholinguistic and sociolingusitic criteria in identifying the ML, Myers-Scotton proposes a frequency based criterion to objectively identify the ML: "The ML is the language of more morphemes in interaction types including intrasentential CS" (1993a: 68). Meyers-Scotton further points out that frequency count should not be based on single sentences, with no consideration of a larger corpus that contains such CS materials. Assignment of the participating languages as either ML or EL allows us to categorize the intrasentential CS into three different kinds of constituent:

1) ML islands--constituents consisting of only ML morphemes; must be well-formed according to the ML grammar.
2) EL islands—constituents consisting of only EL morphemes; must be well-formed according to the EL grammar.
3) ML+EL constituents—constituents consisting of morphemes from both the ML and EL.

The following example of Swahili/English CS illustrates these three types of constituents:

[1] Setting: several form 4 leavers (who have completed the equivalent of high school) are talking about job opportunities in the government.

Ah si-vyo, kawaida hu-wa kwa gazeti. Kama *last year*
ah NEG-MANN usually HABIT-COP in papers[s] as

i-li-ku-w-a gazeti *under public service commission.*

CL 9-PAST-INFIN-COP-INDIC paper[s]

Ma-jina i-li-to-lew-a tu hapo na mahali
CL 6-*name* CL 9-PAST-PLACE-PASS-INDIC just there and place

p-a ku-fanya *interview*
CL 16-of to-do

"Ah, no, usually it's published in the papers. For example, last year it was in the papers under Public Service Commission. The names are just released [of persons to be interviewed] and the place of doing [the] interview."

(Swahili/English; Myers-Scotton 1993a: 81)

There are two EL islands (*last year* and *under Public Service Commission*) and many ML islands. *Mahali pa kufanya interview* 'place of to do interview' is an ML+EL constituent.

1.3.2. System morphemes vs. content morphemes

The MLF also distinguishes content morphemes and system morphemes because patterns of occurrence of morphemes in bilingual codeswitched speech are constrained by the status of morphemes. The primary feature for differentiating these two types of morpheme is the feature [+/- thematic-role receiver/assigner]. Content morphemes are either thematic-role receiver or assigner, showing a plus setting for thematic-role. Most nouns are prototypical thematic-role receivers, while most verbs and prepositions are prototypical thematic-role assigners. In contrast, system morphemes lack the ability to either

assign or receive thematic-role, and most morphemes belonging to the functional category, such as inflectional morphemes, are system morphemes.

A second feature that differentiates these two types of morpheme is the feature [+/-quantification]. The feature [quantification] is defined by its property of picking out individuals across variables, e.g., determiners specify particular individuals; tense morphemes choose one specific time-frame. Quantifiers (e.g. *all, any no)*, determiners (e.g. *the, a)*, possessive adjectives (e.g. *my, your, his, her)*, tense (tense markers), aspect (aspect markers), and any other category that can appear at the specifier position of NP or quantificationally have the feature of [+quantification], therefore, they are all system morphemes. Content morphemes, on the other hand, show a minus setting for quantification.

1.3.3. Principles of the MLF model

Myers-Scotton proposes a set of interrelated hypotheses in the MLF model. The first and the most fundamental hypothesis in this model is ML Hypothesis. The ML Hypothesis states that the morphosyntactic frame, in other words, the surface structure of the ML+EL constituents, is based on ML grammar. Several principles further expand this hypothesis. The Morpheme-order Principle claims that the morpheme order must follow ML morpheme order; no violation should occur. For instance, an NP involving Swahili/English CS is shown as in the following example from Myers-Scotton:

[2] ma-mbo m-engi *new*
CL6-things CL6-many
"many new things"

(Myers-Scotton: Swahili/English No.19)

Since Swahili is the ML, the English lexeme *new* follows its head *mambo mengi* (things-many) according to Swahili syntactic restrictions.

The System Morpheme Principle states that all system morphemes will come from the ML. Based on Myers-Scotton's criterion for categorizing system morpheme as mentioned previously, quantifiers, possessives, tense/aspect, determiners, copula, do verbs, possessive of, complementizers, structurally assigned agreement and dummy pronominals all fall into the category of system morpheme. Therefore, according to this principle, all these items should come from the ML. Consider the following example:

[3] *Second group*-ul ceyil cwohahay.
second group-Acc. most like-DCL
"[I] like the second group best."

(Korean/English; Park, Troike, and Mun, 1989: 9)

Note here, an accusative case-marker *–ul* from the ML Korean appears with the English content morpheme.

The Blocking Hypothesis proposes that the ML blocks any EL content morphemes that do not meet certain congruency conditions with ML content morphemes. According to Myers-Scotton, two entities (linguistic category in this case) are congruent if they correspond in respect of relevant qualities. For example, the ML will block the occurrence of the EL content morpheme if it is

realized as a system morpheme in the ML. One specific example concerns prepositions. Prepositions can be either content morphemes or system morphemes cross linguistically. In the case of English prepositional phrases of the form of *for* + NP, *for* is a content morpheme since it assigns the thematic role to its complement NP. However, it does not have congruent status with the corresponding Swahili morpheme, which is realized as a postpositional suffix; therefore, *for* occurs when it heads an EL island, but may not occur in place of a Swahili counterpart in an ML+EL constituent as supported by the following example:

[4] Nikam wambia anipe ruhusa niende ni- ka- check for you
1s-CONSEC- check for you
"And I told him he should give me permission so htat I go and check for you."

but not:

[5] * Nikam wambia anipe ruhusa niende ni- ka- check for wewe
1s-CONSEC-check for you

"And I told him he should give me permission so that I go and check for you."

(Swahili/English; Myers-Scotton: 1993: 124)

The EL Island Trigger Hypothesis claims that the accidental accessing of any EL morpheme that violates either the ML hypothesis or the Blocking hypothesis will keep the ML from being activated; therefore, an obligatory EL island will occur. Consider the following example:

[6] Wache mimi nielekeee tauni, tukutane *this evening at the usual place.*
let us meet
"Let me go so that I may reach town, let's meet this evening at the usual place."

(Swahili/English; Myers-Scotton, 1993: 140)

Demonstratives have the feature [+ quantification] and therefore are system morphemes. The unexpected activation of system morpheme *this* from the EL forces an EL island to be constructed, here is *this evening at the usual place.*

The final hypothesis is the EL Implicational Hierarchy Hypothesis, which proposes that those formulaic, idiomatic, and peripheral constituents that are on the top of the hierarchy[4] have more tendencies to appear as EL islands. Most time adverbials, especially two-word expressions or brief prepositional phrases (PP) (e.g. *next Saturday, every morning, on Saturdays)*, set expressions such as *old habits die hard, in fact, for personal purposes*, and intensifier adverb + an adjective (*very fast, very late, very surprised)* are functionally peripheral, therefore, the EL islandhood will definitely favor these elements as supported overwhelmingly by Myers-Scotton's Nairobi corpus:

[7] Wana *some problems.*
"They have some problems."

[8] Ulikuwas ukiongea *a lot of nonsense.*
"You were talking a lot of nonsense."

[4] Myers-Scotton proposes the following Implicational Hierarchy: formulaic expressions and idioms >> other time and mannar expressions >> quantifier expressions>> non-quantifier, non-time NPs as VP complements >>Agent NPs >> Thematic role- and case assigners. (1993, p.144)

[9] Hata siyo mwezi jana. Ilikuwa *early this morning.*
"Not even last month. It was early this morning."

(Swahili/English; 1993:146-147)

To recapitulate, the MLF model identifies two crucial oppositions in intrasentential CS: ML vs. EL and content morphemes vs. system morphemes. Two central principles—Morpheme-order principle and System-morpheme principle—along with a set of interrelated hypotheses proposed within the MLF model. Given this account of the theoretical framework, in what follows, I will examine the morphosyntactic features of the language pair being studied here so that the readers will have a better understanding of the nature and significance of the current research.

1.4 Morphosyntactic Features of Chinese

Roughly speaking, Chinese mainly has the features of an SVO language. However, in terms of word-order typology, particularly in light of Greenberg's word-order correlation, Mandarin Chinese basically has SVO features as well as SOV features (Li & Thompson 1981). Prototypical SVO features are such that head verbs precede the nouns, auxiliaries precede the verbs, and there are prepositions, etc. However, Chinese also has postpositions, its relative clauses and genitive phrases always precede the head noun, and the aspect markers follow the verb, without exception. Morphologically, Chinese is well known for its impoverished morphosyntactic properties (Chao, 1968; Chen, Tzeng, & Bates,

1990; Li, 1989). Some features that are quite common in many Indo-European languages, such as verb conjugations and noun declension, are completely absent in Chinese. Nor does Chinese have case markers to signal the grammatical function the noun has in the sentence, such as subject, direct object, indirect object, and so on. In the inflectional hierarchy of natural languages, Chinese probably is one of the least inflected languages. The only markers it has are three aspect morphemes:

-le "perfective"

-guo "experienced action"

-zhe "durative"

1.5 Morphosyntactic Features of Korean

Korean, however, is canonically an SOV language, with various degree of other combinations as well, such as, VSO, VOS, OSV, and OVS, depending on the discourse or pragmatic purpose of a speaker (Park 1990). Sentences normally follow subject-object order with a verb or adjective always showing up at the end of a sentence or a clause. Modifiers, such as determiners, adverbs, possessive constructions, and relative clauses precede the modified elements, showing the characteristics of left-branching languages. In terms of morphology, Korean is well known as an agglutinative language and it has rather rich system of particles that are all postpositional (Sohn 1994). As shown in the following example, Korean noun inflection is realized through such postpositional particles to represent case relationships (subject marker -- *-ka/i*; object marker -- *ul/lu)* and

discourse function (topic marker-- *un/nun)*, as well as functions that are carried out in other language by a preposition.

[10] *Nae-ka* *tosesil -yese* *Yonghee-lul* *mannassta.*
I -Nom. library-at name-Acc. Meet

"I met Yonghee in the library."

Verb inflection in Korean has further complexity. A Korean verb consists of a stem, and a sequence of inflectional suffixes. To categorize roughly, there are two types of verb inflections: pre-wordfinal and word-final (Chang 1996). Pre-wordfinal suffixes have various social and grammatical functions, including honorifics (*-[u]*si), tense markers (*-n[n], -[e/a]ss, -ess)*, and mood indicators (*-keyss* for Volition, *-t[e/i/u]* for Retrospective). Word-final suffixes consist of six different realizations based on their syntactic functions: sentence ending (*-ta)*, nominalizing (*-ki, -m)*, adnominalizing (*-un, n, l)*, adverbializing (*-nikka, -myen, ciman)*, conjoining (*-ko, -na)*, auxiliary connecting (*-ko, -ci)*. The following examples show how verb inflectional endings work in Korean:

1. For the verb *po* "see", the pre-wordfinal inflections with *–ta* as wordfinal particle, can be as many as follow:

[11] *po- si- ta*
see-Hon-DCL

"see (HON)"

[12] *po-si- n- ta*
see-Hon –PRS-DCL

"seeing (HON)"

[13] *po- si- ess- (ess)-ta*
see-Hon-PST- PST- DCL
"saw (HON)"

[14] *po-si-keyss-ta*
see-Hon-Vol-DCL
"will see (HON)"

2. The following examples show the various wordfinal inflections:

[15] *po-ki*;
see-NOMZ

"seeing"

[16] *po-m*
see-NOMZ

"to see"

[17] *o- n- un salam*;
come-PRS-ADNZ person

"the man who comes"

[18] *o- l- salam*
come-ADNZ person

"the man who will come"

[19] *palam-i pwu-nikka*;
wind blow-ADVZ

"since the wind blows"

[20] *alam-i pwul-ciman*
wind blow-ADVZ

"Although the wind blows"

[21] *palam-i pwul-meyn*
wind blow –ADVZ

"if the wind blows"

[22] *o- ko*;
come-CONJ

"come and.."

[23] *o- na*
come-CONJ

"come or..."

[24] *o- ko- iss ta*
come-aux.con be DCL

"be coming"

[25] *nwuw- e- iss ta*
lie- aux.con be DCL

"be lying"

All the positions are optional except the word-final one. The adjective inflection has almost the same sequence position, except certain features, such as no present tense, no imperative or propositive ending and is unable to form the progressive/perfective aspect with <*-ko/e* + *issta*>, etc.

In sum, with regard to morphsyntactic features, the dissimilarity between Korean and Chinese is quite significant. The following comparison chart provides a summary of two languages:

Table 1.

Korean	Chinese
SOV	SVO
N+case marker	No case marker
N+ existential V	Existential V + N
Complement+copula	Copula + complement
N + postposition	Preposition + N
Obligatory sentence-ending particle	Non-obligatory sentence-ending particle
Neg.+ V or V + Neg.	Neg. + V
Modifier + N/Adj.	Same

Although the above illustration is not exhaustive, it suffices to suggest that an investigation of Korean and Chinese bilingual CS may reveal some new insight on syntactic constraints of intrasentential CS.

II. Korean-Chinese Bilingual Codeswitching

2. 1. Background Information for the Data

2.1.1. Description of the Bilingual Community

Data come from free conversations audio-recorded in a Korean/Chinese bi lingual community---YanJi, a small city located in the northeast part of China.

China is well known as a multi-ethnic country with 56 different ethnic groups. The Korean community in YanJi is one of the ten biggest minority independent prefectures along with Tibetan, WeiWuEr, DaLi and many other ethnic groups within Chinese territory. The population of YanJi is approximately forty percent Koreans and sixty percent other ethnic groups, mainly Han Chinese population. The recent statistics, however, show that the Korean population in the area is rapidly dropping as China gradually opens its door to the world, and the old notion of sticking to where their ancestors used to live is breaking down. Better salaried working opportunities and living conditions in major cities within China as well as in Korea and other developed countries attract talented young generations to step out of this small community and jump into world globalization.

The minority nationality autonomous regions allow the use of commonly employed languages in carrying out local affairs. Accordingly in Yanbian, where the Korean language and writing system are widely used alongside the Chinese language and writing system, both languages are used in documents and announcements of government meetings, in business and commerce, and in describing titles and writing authorizations to technicians, and workers. The signs and seals of government, business, and commercial agencies uniformly appear in Chinese and Korean, and in all matters pertaining to court and police affairs, both Korean and Chinese are used, allowing the people to communicate in their own language. Similarly students are given options to be educated and tested in their own language. China has continued to emphasize the use of

national languages in teaching in primary and middle schools. There are two types of schools in YanJi: one is a Korean school and the other one is a Chinese school. In Korean schools, Korean is the main language for teaching and Chinese is taught as a subject. Since students learn Chinese from elementary school, plus considerable influence from the public media, which is mainly broadcast in Chinese, most students who go to Korean schools can speak Chinese very well. And of course, for those students educated in Chinese schools, they can speak fluent Korean mainly due to the fact that Korean is their mother tongue, which they have been speaking before entering to the elementary schools, and it continually functions as the main tool for communication in the family, particularly with the older generations. Noticeably, minority policy in various social dimension including languages provides an answer for the puzzling question: how come most Korean-Chinese can speak Korean so well after living in China for four or five generations?—an observation that often amazes people from outside communities, particularly Korean-Americans, who are concerned about their second generation will eventually lose their own cultural identity along with the phenomenon of language loss.

In addition to the broad picture of a successful story of Chinese minority policy, some other elements at the micro level may attribute to well-maintained Korean as well. In particular, Koreans, as a nation, are proud of the pureness of their blood heritage, therefore, everyone senses this invisible solemn mission of keeping their blood pure, especially Korean men. Living and being educated in China for generations haven't really changed people's way of thinking in this

line; attitudes against interracial marriage are still commonly observed among Korean-Chinese. As a result, Koreans end up marrying their Korean fellows, with a few extremely rare exceptions. The absence of this mixture with the mainstream group helped Korean-Chinese keep their language and culture as it is now.

2.1.2. Subjects

Taking into consideration the fundamental purpose of this study, which is to examine the syntactic constraints on CS instead of the social motivation, data were collected mainly from a homogeneous group with similar educational background, language proficiency, age group, social status, etc. All speakers from these conversations were educated in Chinese schools all the way from elementary school to high school. Chinese is the most frequently used language at their workplaces, while they speak Korean at home to their kids, spouses, and older generations. Apparently, there is little room for questioning their status as balanced bilingual speakers.

2.1.3. Data Collection & Transcription

Data collection was undertaken in rather relaxing and natural ways since the subjects are close acquaintances of the researcher. Prior to recording, the subjects were told that the purpose of the recording was to analyze the local color of the language spoken in this area, and the speakers' permission to use the recorded material in an anonymous fashion was obtained. The conversations

vary in length from about thirty minutes to over an hour, and the number of participants in each conversation varies as well from two to four people. The data used in this study represent approximately 15 hours of naturally occurring free conversation.

Yale transcription system was adopted to transcribe the Korean data, while using romanization pinyin system for Chinese data. Borrowed forms and intersentential codeswitching data were excluded from the consideration.

2.2. Data Analysis

Since the current research is to test MLF model with Korean Chinese bilingual data, a good starting point will be to examine those data that can be nicely accounted for with the principles hypothesized under the MLF model. The main types of data to be analyzed are ML + EL constituents and EL islands.

According to Myers-Scotton's feature differentiation of content morpheme and system morpheme, the most prototypical content morphemes that are highly likely to show up in ML + EL constituents are nouns, verbs, adjectives, pronouns, and some prepositions. Numerous examples from my Korean-Chinese corpus confirm that only these content morphemes are inserted into ML + EL constituents as predicted by Morpheme Order Principle.

2.2.1. EL Nouns in ML + EL Constituents

As has been observed from various language pairs in the CS literature, the relative frequency of nouns to appear as EL morphemes is remarkably high.

Data from my Korean-Chinese also supports this claim and also confirm the prediction of the Morpheme-order and System Morpheme Principles. Some examples are shown below:

[27] Two young women are talking about some apartment certificate related issues:

.....ku saram-tul -un **fayuan** ka -se ku **dizhang** chaca-se .....
those people-PL-Top court go to-and that backup file found-and

"those people went to the court and found those backup files....."

[28] A young woman is telling her friend the recipe of a Chinese dish:

Jianjiao kkaci neh-myen te mas-iss-ta.
pepper also put-if more tasty-Exit.-DCL

"It tastes even better if you put hot pepper also."

[29] ...ku saram-un cikum **fendian** hana kyesok han-ta.
that guy –Top now branch store one continually running-DCL

"That guy is still running a branch store now....."

[30] .....na-nun **gongchengbu** -eyse wass-nun-ka haess-ta.
I –Top Dept. of construction-from come thought-DCL

"I thought he was from the dept. of construction...."

Notice here that, the NPs ***ku dizhang*** "those backup files," ***fayuan*** "the court" and ***jianjiao*** "hot pepper" are VP complements and unmistakenly follow the structural order of Korean, in which the complement always precedes the verb. Also, in example [29], the NP ***fendian hana*** "one branch office" is a typical ML + EL constituent that consists of a head noun plus numerals. Again, the order is exactly that of Korean instead of Chinese, in which the order is numeral + head

noun. Example [30] with a Preposition + NP constituent ***gongchengbu-ey-se*** "from the dept. of construction" again shows the Korean order in which the noun precedes the postpositional particles. It is obvious that Chinese as the EL is inserting its content morphemes into the ML, Korean here.

2.2.2. EL Verbs in ML + EL Constituents

Verbs are the second largest category which appear as embedded items in my Korean- Chinese bilingual corpus, especially in the CS forms with Korean as ML. Because Korean is an agglutinative language, the embedded Chinese embedded verbs have to be accompanied by a suffix, *–ha* support, which is similar to Do-support in English. Altogether there are more than seventy verb forms with a Chinese verb stem and the Korean suffix *–ha*. Below are some of the examples of EL verbs in CS forms:

[31] A casual conversation between mother and son at the dinner table.

onul yanjitai -eyse hankwuk yenghwa-lul **fangying** –ha-tu-la.
today YanJi channel-on Korean movie -ACC. show -do support-DCL.

"There was a Korean movie showing on Yanji Channel."

[32] Two young female friends are talking about the complicated legal procedure of interracial marriage.

caki cikcep **miandui** -ha-ni-kkan pappun-kes-kathae....
self directly face -do support-because hard -seem

"It seems hard since I am currently facing it ..."

[33] A college student is telling her friend how they take notes in her school.

sensayngnim-i **jiangke** –ha-nun-ke chem -pwuthe kkuth-kac motwu

teacher -Nom teaching –do support-thing beginning from end- to all

chao-han-ta.
copy–do-DCL

"....we copy down all that the teacher teaches, from the beginning to the end."

Notice here, the ML, Korean, visibly sets the morpheme order of the entire sentence, and the Chinese verbs are inserted into the Korean sentences almost exclusively with *ha*-support.

One interesting observation in my Korean-Chinese corpus is that Korean, in most cases, functions as the ML, setting the structural frame of the CS sentences, and in those few cases of Chinese as the ML, no Korean verbs appear in a CS sentence. Similar asymmetry has also been noted in other bilingual data (Stolt, 1964; Park 1990). Since Myers-Scotton's MLF model does not block the appearance of verbs in any way, we need further explanation for this asymmetry. We will come back to this point later in Section 3, while dealing with the problems of the MLF model.

2.2.3. EL Adjectives in ML+EL Constituents

Based on the criterion for content morphemes under Myers-Scotton's MLF model, most descriptive adjectives are potentially thematic-role assigners; therefore, they are also content morpheme, which predicts their occurrence as EL items in CS. My Korean-Chinese corpus supports this prediction, as shown in the following examples:

[34] A free conversation among three friends.

na mankhum **pusu** –han saram-to tumwul-ta.
I like frugal-ha-support person -also rare-DCL

".....Someone as frugal as me is also very rare."

[35] .....ku cip sikkwu-tul-un cinay **reqing** -han cengto-nun ani-tu-la.
That family –PL-Top very warmhearted-ha Sup. Degree-Top not DCL.

"That family is not that warmhearted."

[36] umsik-un yeki hwelssin te **xinxian** –hay-yo.
Food –Top here much more fresh - ha Supp. -DCL

"As for food, here (refer to Yanji) is much fresher."

Again, the insertion of EL Chinese adjectives *pusu* "frugal," *reqing* "warmhearted," and *xinxian* "fresh" is realized with *ha* –support, which is also a very common inflectional marker for Korean adjectives. In other words, when Chinese EL adjectives enter into CS sentences, they only substitute the stem of the words; suffixes will remain as usual. However, there is one exception, which is labeled by Myers-Scotton as bare form:

[37] ne-nye pwumonim-un cengmal **xingfu.**
Your parents -Top really happy

"Your parents are really happy....."

Here, the EL Chinese adjective *xingfu* "happy" appears as a bare form without the Korean inflectional marker *ha-ta*. It is rather obvious that Korean is the ML of this sentence with the Korean system morphemes *–un* (Topical marker) and *cengmal* "really," and the fact that the Korean adjective suffix fails to show up could be problematic. However, since this is the only example out of the whole

Korean-Chinese bilingual corpus, it can be treated as a production error as suggested by Myers-Scotton.

Possessive adjectives such as *my, your, his* and *her* are system morphemes; therefore, the occurrence of such adjectives as EL items should be blocked. My data also confirm this prediction with no EL possessives occurring in CS sentences.

[38] xiang ni **o ppa** name aide hua zenmebana!
Like your brother that short –if what to do

"What should we do if (he) is as short as your brother?"

The possible counterexample would be something like this:

[39] * xiang **ne-nye** gege name ai de hua zenmebana!
Your brother

But my data show no such examples. The only occasion of such possessive adjectives appearing as EL material is along with noun phrases (NP) to form an EL island, which rather convincingly supports the hypothesis of the MLF model, which states that the accidental entering of system morphemes of the EL will result in an obligatory EL island. Consider the following examples:

[40] **ta jiejie** –ka sicengpu-ay-se il-han-ta.
Her sister-Nom city hall-at working-DCL

"Her sister is working at the City hall."

[41] **ne** **enni** duo xiwang wo he shui ya!
Your sister how much hope I drink water-DCL

"How much does your sister hope I drink just water!"

Notice here, the accidentally appearing EL system morphemes *ta* "her" and *ne* "your" force the whole phrases to be completed in that language; [40] has a Chinese EL island and in [41] a Korean EL island. This prediction exactly conforms to the EL Island Hypothesis of MLF model. However, due to the absence of the topical/nominative case marker for the subject *ne enni* "your sister", which can be dropped in spoken language, sentence [40] can also be argued to have Korean as ML with the strings of word *duo xiwang wo he shui ya* as an EL island. This is one of the criticisms of the MLF model, which we will come back to it later.

2.2.4. EL island

The EL Island Trigger Hypothesis and the EL Implicational Hierarchy Hypothesis of the MLF model are also well-supported in the Korean-Chinese corpus. Look at the following examples:

[42] selnal nokum-ha-myen **tai za le.**
New year's day recording –do sup. –if too noisy DCL

"if (you) record on New Year's Day, then it's too noisy."

Adverbs are neither thematic-assigner nor thematic-receiver; therefore, adverbs are categorized as system morphemes. Example [42] shows that the EL adverb *tai* "too" accidentally enter into the sentence, triggers the island and forces the rest of the sentence to be completed in Chinese.

[43] nay ku-ke mospon-kye **weida de shiwu a!**
I that-thing not see- fact great pos. mistake DCL

"The fact I didn't get to see that scene is really a great mistake!"

[44] ku cwung -ye to **xiangduilaishuo** coh-un saram-to iss-ta.
Those among-Post. also relatively speaking good person-also have-DCL

"Relatively speaking, there are also some good guys among them."

Here, in [43] the Chinese two-word expression *weida de shiwu* "great mistake" is commonly used as a fixed expression with sarcastic rather than literal meaning; therefore, it again results in an EL island, indicated by the sentence final ending particle *a,* an exclamation marker. In [44] the formulaic constituent *xiangduilaishuo* "relatively speaking" also forms an island as predicted by the EL Implicational Hierarchy Hypothesis.

[45] ka-nye mwusun cengsin-ye **yizhengtian** kongpwu-ha-kyess-ni?
They what mind -Post. all day study- ha –supp-.Q

"How can they study all day long?"

[46] wenming **cemsim-ye** dou chaocai zuotang.
Wenming at noon always stir frying making soup

"At noon, Wenming always stir frying and making soups."

The time adverb *yizhengtian* "all day long" in [45] and brief PP *cemsim-ye* "at noon" [46] are all functionally peripheral; therefore, the EL island is favored by these expressions.

To summarize, as proven by the data from many other language pairs, majority of my Korean-Chinese bilingual data can be accounted for under the central principles proposed by Myers-Scotton's MLF model. However, as it is always the case, some problematic data also exist and have caught our attention to dig further. In what follows, I will provide a detailed analysis of such data to point out inadequacy of the MLF model by locating some blind spots neglected by Myers-Scotton.

III. Problems

First of all, a close observation of my Korean-Chinese corpus following Myers-Scotton's criterion for ML reveals a clear asymmetry — the occurrence of ML + EL constituents with Korean as ML and Chinese EL predominantly outnumbers those of Chinese as ML and Korean EL. In particular, as briefly mentioned previously, the Chinese NP + Korean Verb construction is abundant in my Korean-Chinese corpus, while the Chinese Verb + Korean NP construction rarely, if ever, occurs. The appearance of Chinese verbs normally triggers EL islands, forcing the rest of the sentence to be completed in Chinese. Consider the following examples:

[47] xuexiao-*ye* *ka-ta.* Vs. [48] qu *hakkyo*
School-Post. go-DCL go school

"go to school" "go to school"

[49] xinyifu *-lul* *sa-ta.* Vs. [50] mai saeos
new clothes-Acc. Buy-DCL buy new clothes

"buy new clothes" "buy new clothes"

The structure in [47] and [49] frequently occurs in Korean-Chinese bilingual speech compared to that in [48] and [50].

The occurrence of Chinese EL in a sentence is always accompanied by *ha-ta* (do-support in Korean) as shown in following example:

[51] *ku-ka* hong qunzi-*lul* chuan-*haess-ta.*
She-Nom. red dress –Acc. wear –do-support-DCL

"She wore a red dress."

Because the MLF model is based on the nature of morphemes, with no typological consideration of the two participating languages, it predicts no such asymmetry at all. For prototypical content morphemes such as verbs and nouns, nothing should block the appearance of Korean NPs as the complements of Chinese verbs, nor should the occurrence of a single Chinese verb in a Korean NP + Chinese V construction be outlawed. Similar asymmetry was observed in several other studies as well. In one of the earliest studies on the syntax of bilingual speech, Stolt (1964) shows that Latin nominal and verbal elements can freely be embedded into German-based sentences, while German insertions into Latin sentences are rare and restricted in type. More recently, in a study of Korean/English bilingual codeswitching, Park (1990) observes that only in Korean-based sentences is code-switching acceptable, while switching from English to Korean is quite limited. This observation is also supported by the

interview data he conducted among bilingual graduate students at the University of Illinois at Urbana-Champaign. The MLF model appears to be inadequate when language specific features of two languages with opposite typological values are examined.

Secondly, because the MLF model argues that one of the participating languages is dominant over the other and sets the morphosyntactic framework for the bilingual speech, identifying the ML is apparently crucial. According to Myers-Scotton, the ML is "the language of more morphemes in interaction types including intrasentential codeswitching" (1993, 68). In other words, the ML is the language with higher morpheme frequency in a codeswitching utterance. Myers-Scotton (1995, 237) further stressed the importance of this ML criterion by saying that it should be preferred over any structural considerations because the triggering facts of codeswitching are more sociolingusitic than structural, and the ML is the sociolinguistically unmarked language across the community as well as in a given conversational unit. If frequency does play such a pivotal role in determining the ML, then the following examples will pose a further problem for the MLF model:

[52] hanam cip -un ***yijinqu*** ***jiushi keting***.
Hanam house- Top once get in then is living room.

"That Hanam house, once you get in, then there is a living room."

[53] ka-nun ***meiyou*** ***wenping***.
He- Top no have diploma

"He doesn't have a (college) diploma."

[54] ***fuqi*** – kke-nun ***ruguo huan ming de hua buyong hua shouxufei.***
Husband & wife's –Top if change nam no need pay service charge.

"For husband and wife, if you change the names, then you don't need to pay any additional service charge."

[55] ***shengjiang***-un ***wei hai keyi, jiaozhe bu haochi.***
Ginger -Top smell still ok chew not tasty

"Ginger smells ok, but tastes bad if (you) chew it."

[56] sejip-i ***jiu zheme da yipian*****.....**
rented house-Nom only this big piece

"The rented house is only this big."

[57] sunok-i-do ***dou guole nage nianling le.***
Name-Nom-also already pass-Past that age DCL

"SunOk also has already passed that age."

[58] ***ziji ban xuesheng*** po-ta ***ke wai de xuesheng gengduo.***
Self class student than extracurricular DE student more

"(He) has more extracurricular students than his own in-class students

Based on Myers-Scotton's ML principle and system morpheme principle, the topicalization marker *–(n)un*, nominative case marker *-i,* postposition *–pota*, adverb *–to,* etc. are all typical system morphemes; therefore, the ML for these examples should be Korean, and the following Chinese sentences are no more than long EL islands. However, in terms of morpheme frequency, this is definitely not the case. Furthermore, it is quite common in spoken Korean to drop the case markers, especially topic markers and nominative case markers. In the following two examples, we might assume that Korean is the ML, as predicted by the MLF model:

[59] ka ***zhuangbuzhu shi.***
she keep-not-in things

"She cannot keep anything in her mind."

[60] wuli ***yiyuefen kaishi bande.***
we January start do

"We started from January."

However, this is not likely the case. In these two examples, it is more reasonable to treat the sentence as the Chinese ML with Korean insertion. In this case are two pronouns *–ka* "she" and *wuli* "we." These two groups of sentences cast some doubt on the status of Korean as the ML in examples [52] ~ [58], as predicted by the MLF model.

Similar data occurred in Korean/English bilingual data (Park, 1990) and Japanese/English data (Nishimura 1985; Morimoto 1999), as shown below:

[61] What do you call this statue ***wa***?
Top

[62] I don't know the bus stop ***no*** name.
GEN

"I don't know the name of the bus stop."

(Japanese/English; Morimoto 1999)

[63] Camp-***seikatsu ga*** made him rough.
Life Nom.

"(That) camp-life made him rough."

(Japanese/English; Nishimura 1985)

[64] Sometimes ***wuli-ga*** can't know it.
We-Nom.

"sometimes, we can't know it."

(Korean/English; Park 1990)

The above examples undoubtedly indicate that the occurrence of such data is not just a unique phenomenon in the Korean/Chinese bilingual corpus, and it certainly deserves more attention and a more unified explanation in terms of the ML assignment since two competing forces, the frequency-based criterion and system morpheme principle, are at odds with one another.

Myers-Scotton might argue, at this point, that her ML Criterion is based on a discourse sample rather than a single sentence. However, beyond noting that at least more than one sentence should be taken into consideration when determining the ML, the definition as to how large a discourse sample constitutes a large enough context is rather unclear. In addition, as pointed out by Morimoto (1999), it's been observed that bilingual speakers' intuition with regards to the language assignment of an individual utterance seems to be independent of neighboring utterances. In other words, bilingual speakers can rather accurately pinpoint the base language between two participating language pairs regardless of whichever language is dominating within the whole conversation. This observation is quite deviant from the claims of the MLF model, which predicts that the speakers' judgment of language assignment should depend on the whole

discourse unit. Therefore, a clause-by-clause basis of determining the ML seems more plausible.

Finally, the puzzling double morphology data from my Korean-Chinese corpus raises a crucial challenge for the MLF model. Double morphology is referred to by Myers-Scotton to as a single head that "has affixes from both the ML and the EL marking a feature" (1993, 61). The double morphology phenomenon has been widely observed in the bilingual codeswitching literature (Lingala/Chiluba/French, Kamwangamalu 1990; Shona/English, Crawhall 1990; Turkish/Dutch, Backus 1990; Maori/English, Eliasson 1991; Lingala/French, Bokamba 1988, etc.). Across the language pairs studied so far, the double morphology phenomenon is mainly exemplified in double-plural affixes (Myers-Scton 1993). The following example is from Myers-Scotton's Shona/English corpus:

[65] ....dzimwe dzenguva tinenge tichiita ma-game-s panze....
"....sometime we will be doing games outside...."

(Shona/English, Myers-Scotton 1993)

Here, the noun "game" shows the affixes of both the ML and the EL, one is the Shona Class 6 pluralizing prefix *–ma*, the other one is the English pluralizing suffix *–s*.

Dramatically different from this traditional understanding of the double morphology phenomenon, my data shows very interesting cases of double morphology that are quite unique. Consider the following examples:

[66]. ***bu*** ***xiang*** ***naoxueshuan.*** Cherem.
Not like cerebral hemorrhage like

"Not like cerebral hemorrhage desease....."

[67]. ***ta*** ***haoxiangshi*** ca-nun kes kathae.
He seems like sleep-ing fact As if

"It seems like that he was sleeping."

[68]. ***bu*** ***shi*** ***tebie*** ***peiyang*** ***cheng*** ***zhuanye*** anh-ul leymyun....
Not be particularly train become expert not want to

"If you don't want to train (him/her) to be a specialist (in the field)....."

[69]. ***you*** ***keneng*** nacwung-ye ***diao*** -hal kanungseng iss-nun-dey....
Have possible later on fall off do-sup. Possibility be-although

"(pure filling in) will possibly fall off later on, but ....."

[70]. saram-i ***pinwei*** ***shi*** ***yong*** hey -ro...
men –Nom taste is using tongue – by (using)

"Men are using tongue to taste things...."

[71]. ***suiran*** ***dabufen*** ***dangci*** ***di*** - ha-ci-man
although majority level low –do sup.- although

"Although most of them are pretty shaky...."

[72]. ***ye*** ***shi*** pok-i-ci
also be blessing-be-DCL

"(that) is also a blessing."

[73]. ***tamen*** ***mai*** ***naxie*** pis-sa-n-ke sa-n-ke yok-hal-kye mwueya?
They buy those expensive-stuff buy-Pst-thing Blame why

"Why would (she) blame them for buying those expensive stuff?"

It seems that Chinese morphemes and Korean morphemes with identical meanings occur simultaneously in one sentence, such as the preposition *xiang* "like" and the postposition *cherem* "like" in [66]; the adverbial phrase *haoxiang* "as if" and *kath-hae* "as if" in [67]; negative adverb *bu* "no" and *anh-i* "no" in [68]; the adverbial phrase *you keneng* "possibly" and *kanungseng* "possibility" in [69]; the preposition *yong* "with" and the postposition *-ro* "with" in [70]; the conjoining adverbial phrase *suiran* "although" and adverbializer particle *ci-man* "although" in [71]; the copula *shi* "be" and the existential copula *i* "be" in [72]; and the main verb *mai* "to buy" and *sa-ta* "to buy" as shown in [73].

It is worth mentioning here that such phenomena are by no means idiosyncratic in the Korean-Chinese bilingual data; previous literature in codeswitching has observed numerous similar examples. Nishimura (1985, 1986), in her study on Japanese/English intrasentential code-switching, notices that in some CS forms, which she refers to as mirror image correspondence, the matrix language cannot be determined. The following are examples of mirror image correspondences between English and Japanese:

Table 2.

English	Japanese
VO	OV
V complement	Complement V
There V NP	NP V
P NP	NP P
Comp S	S particle

In her data, she observed, "each of the above English constituent orderings is combined with its Japanese equivalent with a shared element" (Nishimura 1985, 83). Below are some examples given by her:

[74] We bought about two pounds *gurai kattekita no.*
about bought DCL

[75] There's children *iru yo.*
EXT DISC

[76] Let's become ***kechi*** *ni naroo.*
tight Let's become

Based on Nishimura's analysis, the underlined parts are shared by the two languages. In [74], two semantically identical verbs show up in the utterance to share the common object two pounds as their complement. With the same pattern, in [75], the NP children is shared by two copulas from both languages. In [76], the complement kechi is the shared element of an English V + complement and a Japanese complement + V construction.

Some comparable data has been observed in Park, Troike, and Park's (1989) research on Korean/English CS, further supported in Park's (1990) dissertation on Korean/English CS. Consider the following examples:

[77] My parents didn't ***helak-haci anasseyo***.
Allow-do Neg.

"My parents did not allow (it)."

[78] When I was 8 years old *ttay*, I became a Christian.
When
"When I was 8 years old, I became a Christian."

[79] *enni-nun* as an elderly care social worker *– lose il-hayyo*
sister-Top as

"My sister is working as an elderly care social officer."

[80] *wuli-nun kyohoy-ey* went to church on Sundays.
We- Top church-to

"we went to church on Sundays."

(Korean/English, Park 1990)

Again, in all these examples, two semantically identical items occur in one utterance, such as *didn't* and *anasseyo* "did not" in [77], *when* and *ttay* "when" in [78], *as* and *lose* "as" in [79], and *kyohoy-ey* "to church" and *to church* in [80].

Auer also mentions the significance of such phenomena, which he labeled as double marking, and states that such double marking is "a well-known exception from the generalization that grammatical elements should always be taken from the matrix language" (1999, 328). The following example is from a case investigated by Boeschoeten (1983):

[81] ta sinp-i sas *gaca*.
Until grade six terminative (until)

"until grade six"

(Tajik/Turkic, Boeschoten and Backus 1997)

Here, a Turkic suffix *gaca* "until" and a Tajik preposition *ta* "until" appear simultaneously in one utterance. Auer further points out that such phenomena commonly occur in a pre-/post-modifying language pair (p. 329), which is supported by my Korean/Chinese data, together with that of Park (1990), Nishimura (1985), and Park, Troike and Park (1983).

The double morphology phenomenon remains one of the unsolved cases for the MLF model. Recognizing this inadequacy, Myers-Scotton and Jake (2000) extended the MLF model to the 4-M model, mainly to refine the content versus system morpheme distinction of the MLF model. The efficacy of the 4-M model in explaining diverse data has been tested by various researches (Schmitt 2000, Wei 2000, Fuller 2000, Bolonyai 2000, etc.). One of the major contributions of the 4-M model, as claimed by Myers-Scotton and Jake, is that it "provides more precise analyses of such phenomena as 'double morphology'" (i.e., an early system morpheme from the EL duplicating one from the ML)(5). Whether this claim holds true cross-linguistically or not, particularly with regard to the problematic data I presented previously, is still to be answered. In what follows, I will first briefly introduce the 4-M model and then provide a full explanation of why and how this extended MLF model doesn't really solve the problems we are facing in this study.

Briefly speaking, in addition to the distinction of content and system morphemes, the 4-M model further classifies morphemes into four types. Rather than simply using the criterion of thematic role assignment, two more features are added to distinguish four different types of morpheme: one is [+/-

conceptually activated], and the other one is [=referring to grammatical information outside of its X^{Max}] (Myers-Scotton & Jake, 2000). A major premise of the model is that different morpheme types are activated at three different levels of production: at the conceptualizer, at the lemma level, and at the formulator. These classes of morpheme will be discussed separately below:

Content morphemes

Content morphemes are thematic role assigners or receivers and are present at the conceptual level to convey speakers' intentions. The lemmas supporting content morphemes are directly-elected by the bundles of abstract semantic and pragmatic features.

Early system morphemes

Indirectly elected by the speaker's intentions, early system morphemes are also activated at the conceptual level. They "group with content morphemes as expressing the bundles of semantic and pragmatic features satisfying the speaker's intentions" (Myers-Scotton & Jake 2000, 1962). Early system morphemes crucially contrast with content morphemes in that they lack the feature of [+/- thematic role assignment]. Examples of early system morphemes are the definite article *the* in [82] and *up* in [83].

[82] *I found the book that you lost yesterday.*

[83] *Bora chewed up the new toy.*

In [82], *book* indirectly elects *the* to complete the semantic/pragmatic feature bundle called by the speaker's intentions, adding definiteness to *book.* In [83], *chew* indirectly elects *up* to convey a different idea than a singly occurring *chew* does.

Late system morphemes

Instead of being activated conceptually, late system morphemes are structurally assigned when a larger constituent is constructed; therefore, their access in the production process is later than that of early system morphemes. They function as indicators of the grammatical relations between elements. Two types of late system morphemes will be discussed separately below:

Bridge system morphemes.

Bridge system morphemes are activated when the structure of their maximal projection requires them. Bridge system morphemes share a common property with early system morphemes in their dependence on maximal projection for their form. However, their relationship with their heads is quite different: bridge system morphemes depend on the grammatical configurations instead of on the content morpheme that is the head of that maximal projection. The preposition *of* and the possessive *–'s* in English are typical bridge system morphemes, as shown in the following examples:

[84] *a friend of Bora*

[85] *Bora's friend*

Here, both *of* and *–'s* have no semantic-pragmatic relationship with their heads; the existence of these two elements is a purely grammatical requirement of well-formed English structural configurations.

Outsider system morphemes.

Outsider system morphemes, as implied in its wording, depend on an interaction with many grammatical and pragmatic features OUTSIDE the immediate maximal projection. For example, English third person singular *–s* is under AGR in INFL, but the morpheme's form depends on coindexing with the subject NP, showing no relationship with its immediate project (here verb).

Adopting this new classification of system morphemes, Myers-Scotton & Jake show how the long-existing problems with double morphology data, plural doubling examples in particular, can be explained easily under the modified Double –morphology Hypothesis:

> In mixed constituents in classic code switching, only embedded-language early system morphemes double system morphemes from the matrix language. (2000, 1073)

In other words, the doubled system morphemes of the EL do not invalidate the ML principle in that they are conceptually activated early system morphemes.

In comparison with Myers-Scotton's double morphology data, a close examination of the double morphology data in my Korean/Chinese corpus as well as others will show that this principle fails.

First of all, Myers-Scotton assumes that the assignment of the ML is rather obvious in the mixed constituents involving double morphology

phenomenon. However, it is not always the case. A few are repeated here for convenience:

[86]. ***suiran*** ***dabufen*** ***dangci*** ***di*** - ha-ci-man
although majority level low –do sup.- although

"Although most of them are pretty shaky...."

[87]. ***ye*** ***shi*** pok-i-ci
also be blessing-be-DCL

"(that) is also a blessing."

[88]. ***tamen*** ***mai*** ***naxie*** pis-sa-n-ke sa-n-ke yok-hal-key mwueya?
They buy those expensive-stuff buy-Pst-thing Blame why

"Why would (she) blame them for buying those expensive stuff?"

Apparently, it is very difficult to accurately distinguish the ML and the EL in these data, even for native bilingual speakers. Since Myers-Scotton's Double morphology hypothesis can only be tested under the assumption mentioned previously, the position will be even harder to hold.

In addition, according to Myers-Scotton, the double morphology phenomenon refers only to two affixes from both the ML and the EL attached to a single head (1993, 61). However, numerous examples from various language pairs provide us with enough evidence to reject this definition of double morphology; this version is too narrow in that it only applies to some languages with certain morphosyntactic features. Obviously, the doubled items in Korean/Chinese, Japanese/English, and Korean/English double morphology data cover a wide range of categories, from a singly occurring head to a longer

constituent—phrase, or even small clause. The doubled verbs in [89] & [90], repeated below, are apparently content morphemes.

[89]. ***tamen*** ***mai*** ***naxie*** pis-sa-n-ke sa-n-ke yok-hal-key mwueya?
They buy those expensive-stuff buy-Pst-thing blame why

"Why would (she) blame them for buying those expensive stuff?"

[90] We bought about two pounds ***gurai*** ***kattekita*** ***no.***
about bought DCL

(Japanese/English, Nishimura 1985)

Furthermore, some doubled constituents are phrases as in [89] (here a PP) or even longer as in [90]. Consider the following examples:

[91] ***wuli-nun kyohoy-ey*** went to church on Sundays.
We- Top church-to

"we went to church on Sundays."

[92] Let's become ***kechi*** ***ni*** ***naroo.***
tight let's become

(Japanese/English, Nishimura 1985)

(Korean/English, Park 1990)

Enough evidences have been presented above to show that Myers-Scotton's MLF model, along with its extended 4-M model, is inadequate to provide a unified explanation for codeswitching phenomena; particularly for the ongoing research on Korean/Chinese bilingual speech, it fails to provide a satisfactory explanation for the double morphology data.

IV. Conclusion

This thesis has attempted to test the validity of Myers-Scotton's MLF model by examining Korean-Chinese intrasentential CS, a language pair that are morphosyntactically more highly disparate from each other than the ones under her study, such as English/Swahili, Shona/English, etc.. It has been found that, although the MLF model provides a nice account for most commonly occurring CS data in Korean-Chinese CS, it still shows insufficiency in providing a satisfactory explanation for some of the phenomena that have been revealed in language pairs with divergent syntactic and morphological features.

First, the MLF model fails to predict an asymmetry in terms of occurrence of switchable content morphemes, a phenomenon abundantly exemplified in many bilingual CS speeches. Second, the central principles of the MLF model are in conflict with Myers-Scotton's frequency-based ML criterion. Since ML assignment functions as a cornerstone of the MLF model, a more objective criterion of ML designation that is fully compatible with major claims of the MLF model is required. Finally, the double morphology data—in its expanded version—challenges the MLF model's key assumption that one language is dominant over the other in terms of activation level.

In conclusion, this study suggests that the MLF model cannot be postulated as a universal in its present form. Further development and modification is in need.

Without a doubt, additional studies need to be carried out on other syntactically and morphological contrasting language pairs to determine whether

what have been shown here to be weaknesses in the current formulation of the MLF model are born out for other language pairs as well. As for the Korean-Chinese bilingual CS, a language group that has hardly ever received any study, it is just an initial step for a descriptive study on Korean-Chinese CS; the presented data are by no means exhaustive. However, it certainly opens a new avenue for investigation and expands the scope of research on intrasentential CS, especially studies among language pairs that have significant morphosyntactic dissimilarity.

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