

Code-Switching in Persian/English and Korean/English Conversations: with a focus on light verb constructions

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ABSTRACT

This study capitalizes on the hypothesis that typologically similar languages follow similar patterns for code-switching. Persian and Korean have similar syntactic structures. For example, both languages have the same canonical word order as Subject-Object-Verb. One of the most productive structures in both languages is light verb construction (LVC) in which an active/patient-denoting verbal element appears as the object or complement of the light verb. Our data in Persian/English and Korean/English code-switching reveal that bilingual speakers of Persian or Korean follow similar patterns when code-switching, especially in light verb constructions. In Persian and Korean bilingual light verb constructions, an L1 light verb or its inflected form is attached to an English noun, adjective, adverb, preposition, or verb.

The code switching data used in this study were collected from separate spontaneous conversations involving five Iranian-Canadian and five Korean-Canadian undergraduate students living in Canada. A one-hour conversation for each group was recorded and was transcribed by a native Persian and a native Korean speaker for further analyses.

We examine the pattern of code-switching in light verb constructions within the context of other relevant constraints that apply in code-switching situations between each language (Persian and Korean) and English. Within the range of our data, these constraints are as follows:

- Code switching does not happen for finite verbs as a single element.
- Code switching between a verb stem and its inflection is not observed.
- Code switching between a NEG and the verb is not evidenced.
- Code switching of functional words is not a normal process.

Based on our observation, we suggest that the above-mentioned restrictions are expected and are the result of the typological differences between Persian and Korean on the one hand and English on the other. This idea is in line with recent works on code switching (Mcswann, 1999) which state that any correct approach to code switching should look to code switching constraints within the relevant mixed grammars. We will also examine the structure of LVC in regard to the structure proposed by Folli et.al. (2005).

1 Introduction

Code switching can be defined as a bilingual speech act where two or more linguistic codes are used in a single conversation. Grosjean (1982) defines code switching as “the alternate use of two or more languages in the same utterance or conversation”. Scholars from different disciplines have studied code switching from different approaches and perspectives. These approaches are mainly either sociolinguistic or linguistic. Sociolinguists are mainly interested in the social and meaningful intentions associated with code switching while

linguists usually focus on the grammatical and structural rules that govern bilingual speech production. Within the linguistic framework, there have been a large number of studies that focus on discovering structural constraints governing code switching. Since 1970s, a large number of models of code switching are proposed, each of which states a particular constraint to account for this phenomenon. However, there has been disagreement on the nature of these constraints. Another new insight proposes that there is no special constraint to govern code switching and that the same principles that are operative in monolingual speech act are active in bilingual contexts (Mahootian 1993).

This paper offers a study of grammatical aspects of code switching observed in Persian/English and Korean/English bilingual speech. Persian and Korean are typologically similar languages. For example, word order of both languages is the same. Also these languages are head-final or predicate-final in that the predicate expression always comes at the end of a clause, whether the clause is a main (matrix) or subordinate one. Also, these languages show the properties of scrambling, i.e. there is one dominant word order in each language but it is optional to move elements in a sentence. Moreover, a verb's arguments and adverbial modifiers may be ordered relatively freely in these languages. Finally, there is no gender, no noun inflection, and no adjectival agreement in Persian or Korean.

This study suggests that since Persian and Korean are typologically similar languages, native speakers of these languages follow the same patterns when they switch to English. While the main goal is to compare the patterns of code switching in Persian with those in Korean, a selection of the models that have been most influential and debatable are used to see if there is a single model that adequately accounts for code switching patterns. As the result of this evaluation suggests, some models explain some cases of code switching but do not hold true in other cases.

Methodology contains the methods used in collecting data and selecting the participants. The first part of the analysis briefly describes the similarities between Persian and Korean while the focus of the second part is to represent the similarities of code switching patterns in Persian/English and Korean/English conversations. The third section of the analysis provides an evaluation of a selection of code switching models with regard to our data. Conclusion contains the main points of the study as well as some suggestions for further research. At the end, appendices A and B provide the reader with those sentences in which code switching has been observed. Appendix C contains the abbreviations used in transcription of the data and illustrates what they stand for.

2 Methodology

2.1 Participants

The code-switching experiment was conducted with 10 subjects – five native speakers of Korean and five native speakers of Persian –divided into two groups depending on their native languages. The participants were selected from among undergraduate students who have been living in Canada for more than 4 years. All participants have a common English background; they have taken English courses for at least 6 years in Canada. As for their language proficiency, all subjects should be considered to be fluent in English and to have

no problem in their communications with English native speakers. As well, all the participants must have intensive every day exposure to English.

The 10 subjects were told the purpose of the experiment at the beginning of the experiment; the examination of the alternation of English and Korean/Persian in their communication.

2.2 Procedure

At the beginning of the experiment, the subjects should fill out a questionnaire. The consent form ensured the subjects' agreement to use the recorded data for further analysis and the questionnaire is related to the students' identity and education.

The subjects were asked to participate in a one-hour group discussion. The discussion was held in a friendly atmosphere in order to have a more natural talk. To control the topic, the participants were asked to talk about their educational experiences in Canada. The topic was related to the students' every day life and encouraged them to get involved in a more active talk. It was assumed that the topic provides more opportunities for frequent code-switching than other topics do in that participants as a student are expected to be familiar with a wide range of academic-related English words or expressions.

The talk by subjects was recorded on a portable traditional tape recorder. The microphone was placed at the corner of the table around subjects, which allows receiving high-quality sound signals.

For this study, we did not consider the first five-minute sentences since the conversation was done as an opening warm-up. There were a couple of problems. Unlike expectation, there were some unclear sentences which are hard to hear and transcribe. These blurred utterances were disregarded in this research. Also, for the analysis on the proper noun such as the name of country, place, and person, they were not included as a part of code switching.

3 Analysis

This section contains three subsections. First, the similarities of Persian and Korean are represented in order to prove the claim that these languages are typologically the same. Second, the code switching patterns in Persian/English and Korean/English conversations are compared in order to find out the similarities and differences of these patterns. Finally, a selection of code switching models are used to evaluate some of the most controversial models and also to see if there is a model of code switching that can account for the entire data collected in this study.

3.1 Persian and Korean as typologically similar languages

Persian and Korean have some syntactic characteristics in common. For example, in both languages, the canonical word order is SOV. These languages are head-final or predicate-final in that the predicate expression always comes at the end of a clause, whether the clause is a main (matrix) or subordinate one, shown as in (1).

- (1) a. man sag ra did-am [Pr]
I dog OBJ saw-1SG

- b. na-nun kay-lul po-ass-ta. [Kr]
 I-TOP dog-ACC see-PST-DEC
 'I saw a dog.'

Both languages also show the properties of scrambling, i.e., there is one dominant word order in each language but it is optional to move elements in a sentence. A verb's arguments and adverbial modifiers may be ordered relatively freely. Examples (2) and (3) are selected from Persian and Korean data respectively.

- (2) a. man be Mary ketab ra dad-am. [S-I.O.-D.O.-V]
 I to Mary book OBJ gave-1SG
 b. man ketab ra be Mary dad-am. [S-D.O.-I.O.-V]
 I book OBJ to Mary gave-1SG
- (3) a. na-nun Mary-eykey chayk-ul cwu-ess-ta. [S-I.O.-D.O.-V]
 I-TOP Mary-DAT book-ACC give-PST-DEC
 b. na-nun chayk-ul Mary-eykey cwu-ess-ta. [S-D.O.-I.O.-V]
 I-TOP book-ACC Mary-DAT give-PST-DEC

However, there is a restriction on scrambling in that it does not allow the movement of the verb from the final position unless there is a strong emphasis on the verb. Example (4) clarifies the point.

- (4) a. ***dad-am** man ketab ra be Mary. [Pr]
 gave-1SG I book OBJ to Mary
 b. ***cwu-ess-ta** na-nun chayk-ul Mary-eykey. [Kr]
 give-PST-DEC I-TOP book-ACC Mary-DAT

Both languages have double nominative constructions, as is shown in (5):

- (5) a. Mary cheshm-a-sh ghashang-e. [Pr]
 Mary eye-PL-3SG pretty-is
 b. Mary-ka nwun-i yeypu-ta. [Kr]
 Mary-NOM eye-NOM pretty-DEC
 'Mary, her eyes are pretty.'

There is no gender, no noun inflection, and no adjectival agreement in both languages. Based on the above commonalities between Korean and Persian, we propose that these languages are typologically similar and contain more or less similar patterns for code-switching.

3.2 Persian/English and Korean/English code switching

The data collected in this study reveal that there are several types of code switching in Persian/English and Korean/English bilingual speech, although they occur with different

frequencies. The insertion may occur at word, phrase, or clause level and may also occur in different grammatical positions. However, there are some restrictions in code switching, i.e., certain mixes do not show up at all. Some of these restrictions are provided at the end of this section.

In both Persian and Korean, there are some similarities when code switching to English. The following examples are extracted from the data to show these similarities between the two languages.

3.2.1 Clausal level

Example (6) show that code switching may occur at clausal level.

- (6) a. *it's a big mistake* ke az Vancouver adam move-kon-e. [Pr]
 it's a big mistake that from Vancouver person move-do-3SG
 'It's a big mistake to move from Vancouver.'
- b. *that's amazing* tip manhi pat-nun-ket [Kr]
 that's amazing tip many get-AJ-thing
 'That's amazing, to get a lot of tips.'

3.2.2 Phrasal level

Code switching is also observed at phrasal levels, as is shown in (7):

- (7) a. *equal to that damage* be shoma pool mi-d-an. [Pr]
 equal to that damage to you money PROG-give-3PL
 'Equal to that damage, they give you money.'
- b. *eating together* nemwu choa [Kr]
 eating together very like
 'I like eating together.'

3.2.3 Word level

Code switching may occur at word level. In our data, we observed that subjects and objects may be switched to English. Nouns, adjectives, and adverbs are also subject to code switching but for functional words such as prepositions code switching is not a normal process.

a. Code switching in subject position

Code switching is observed for words in subject position, as is shown in example (8).

- (8) a. *manager*-a ye course-a-yi dar-an ... [Pr]
 manager-PL one course-PL-Indef has-3PL ...
 'The managers have some courses ...'
 b. *final*-i elye-wess-e. [Kr]
 final-NOM difficult-PST-DEC
 'The final exam was so difficult.'

b. Code switching in object position

Both sets of data provided in appendices A and B show that Persian and Korean speakers may choose to switch to English for words which are the object of a sentence, as is shown in (9):

- (9) a. *subject* mi-d-in raje-be-sh harf-bezan-im? [Pr]
 subject PROG-give-2PL about-to-3SG speech-hit-3PL
 'Do you give us a subject to talk about?'
 b. na-to *tutoring*-ul ha-nun-tey cwungtong-ai y-ess-e. [Kr]
 I-too tutoring-ACC do-AJ-but eastern.country-child be-PST-DEC
 'I also had a tutoring to an Eastern Asian child'

The switchability of a Persian (or Korean) verb and its English object NP shows that OV vs. VO configuration of the language pair does not have any influence on mixing. In other words identical word order is not a prerequisite for code switching. More evidence is provided in the following sections. In the following section, code switching in different categories is studied.

c. Code switching in nouns

Usually, nouns are free to be switched to English, as is shown in example (10):

- (10) a. dasht *pharmacy* mi-khoond. [Pr]
 (was+ing) pharmacy PROG-read
 'She was studying pharmacy.'
 b. *fruit-man* mek-ess-e. [Kr]
 fruit-only eat-PST-DEC
 'I had only fruit'

d. Code switching in adjectives

Code switching occurs for adjectives but it is restricted in some cases. For example, mixing of Persian and English does not freely occur whenever an EZAFE¹ exists between a noun and its modifying adjective. This could be due to the difference of noun/adjective structure of the two languages. Example (11) clarifies the point.

- (11) a. bazi-ya kheili *jealous*-an. [Pr]
 some-PL very jealous-3PL

¹ EZAFE in Persian is a link between a noun and its modifying element.

‘Some (people) are very jealous.’

- b. Harry Porter-to nemwu *funny*-ha-y. [Kr]
 Harry Porter-too very funny-do-DEC
 ‘Harry Porter was also so funny.’

e. Code switching in adverbs

In both Persian and Korean, code switching of adverbs is a normal phenomenon. Example (12) illustrates the point:

- (12) a. adam-a-ye rich *necessarily* adam-a-ye khoobi ni-st-an. [Pr]
 people-PL-EZ rich necessarily people-PL-EZ good NEG-is-3PL
 ‘The rich are not necessarily good people.’
- b. Canada-nun mwunwha-ka nemwu *open-twey-se* kun-il-i-ta. [Kr]
 Canada-TOP culture-NOM very open-become-and big-matter-be-DEC
 ‘Canada has so open culture.’

However, for the code switching of Korean and English, Korean bilinguals preserve Korean postpositional elements such as *-se* ‘and’. Again, in the case of Korean, we see that bilinguals save any postpositional elements such as conjunction or various case including nominative or accusative as well as they attach the bound verbal morpheme *-twayta* ‘to become’ or *-hata* ‘to do’ on noun, adjective, or adverb.

f. Code switching in compound verbs.

Code-switching of compound verbs is also observed in the collected data. In Persian, compound verbs are one of the most productive structures and are composed of two parts, a noun and a verb. The verb is almost always a form of a limited number of infinitives such as *boodan* (to be), *kardan* (do), *shodan* (to become), *gashtan* (grow or develop), and *zadan* (hit), as is shown in example (13). Korean speakers also do code-switching on verbs like in the case of noun, adjective, and adverb and attach *-twayko*, a combination of *-twayta* ‘to become’ and postpositional conjunction *-ko* ‘and’, as shown in example (14-a). In the same way, in (14-b), only verb ‘divide’ shows code switching, while Korean verbal morpheme *-hay* is used.

- (13) a. to vaghan mi-kha-y *move-kon-i* be Toronto? [Pr]
 you really PROG-want-2SG move-do-2SG to Toronto
 ‘Do you really want to move to Toronto?’
- b. age man be-r-am Toronto oonja *stuck mi-sh-am*
 if I Subj-go-1SG Toronto there stuck PROG-become-1SG
 ‘If I go to Toronto, I’ll stuck there.’
- (14) a. yecatul-i sayngkak-ha-nun kes chelem *common ground establish tway-ko* [Kr]
 ilen kes-i pilyo eps-ta.
 women-NOM think-do-AJ thing like common ground establish become-and
 this thing-NOM need NEG-DEC

‘As women think, guys do not need to establish the common ground.’

- b. tip *divide*-ha-y?
 tip divide-do-DEC
 ‘Do you divide the tip?’

3.2.4 Restrictions

As was mentioned before, code switching does not occur freely and there are some cases where restrictions are observed in both languages of Persian and Korean. Such cases are as follows:

- Code switching does not happen for finite verbs as a single element.
- Code switching between a verb stem and its inflection is not observed.
- Code switching between a NEG and the verb is not evidenced.
- Code switching of functional words is not a normal process.

Based on our observation, we suggest that the above-mentioned restrictions are expected and are the result of the typological differences between Persian and Korean on the one hand and English on the other. This idea is in line with recent works on code switching (Woolford 1983; Mahootian 1993) which state that any correct approach to code switching should look to code switching constraints within the relevant mixed grammars. However, further research is needed to explain how grammatical differences between two languages lead to code switching restrictions.

To sum up, We observed that code switching is a normal process occurring at clause, phrase, and word level. The above examples show that in both Persian and Korean code switching is observed for nouns, adjectives, and adverbs. However, there are some restrictions in both languages. These restrictions are evidenced whenever there is a difference between the grammatical structures of the matrix language on the one hand, and the embedded language on the other.

3.3 An evaluation of some of the code switching models

In this part, we are going to analyze our data in terms of a few models of code switching. The selection of the models is a reflection of our own judgment about the influence of each model on the studies about code switching and we admit that it is far from being complete.

3.3.1 Poplack’s Equivalence Construction and Woolford’s Model

Poplack (1981) proposes two constraints on code switching: the Equivalence Constraint and the Free Morpheme Constraint. The Equivalence Constraint stipulates that code switching takes place whenever the surface structures of the language pair map onto each other. In other words, if the surface orders are different, switching is blocked. Woolford (1983) expresses a similar idea in the context of Chomsky’s Principles and Parameters theory. She proposes that if phrase structure rules overlap, mixing of the two languages is possible and if

phrase structure rules are different, lexical items are taken from the language for which the phrase structure is unique.

The similarity of the above-mentioned views is that in both models switching is possible if the two grammars have parallel linear orders, however, the data provided in this study poses problem for both models. Considering the position of verb and object in a sentence, neither Persian nor Korean has the same order that English does, so according to the predictions of the above models we expect that switching between a Persian or Korean verb with an English object or vice versa is not possible. However, despite the dissimilarities in the position of the verb and object, we observed code switching between these two elements in our data, as is shown in example (15):

- (15) a. bachelor of science-e-sh-o gereft-e bood. [Pr]
 bachelor of science-EZ-3SG-OBJ took-PP was
 ‘He had got his bachelor of science.’
 b. *course*-a-ye law-ro bayad *pass mi-kard-am*
 course-PL-EZ law-OBJ should pass PROG-did-1SG
 ‘I should have passed (some) courses in law.’

It should be mentioned that the structure of light verbs² in Persian is such that code switching is possible for the first element but not the second one.

Moreover, the order of a noun and its modifying adjective is not the same as English but as we see in example (16), code switching is possible at these points:

- (16) a. kheili adam-a-ye nice-i-an. [Pr]
 very people-PL-EZ nice-Indef-3PL
 ‘They are very nice people.’

The collected data on Korean-English code switching also illustrate the violation of the equivalence constraint proposed by Poplack (1981) and Woolford (1983), like the Persian-English case. As mentioned above, the code switching on noun, adjective, adverb, and verb, Korean-English bilinguals follow methodical process, violating the equivalence constraint, as is shown in (17) and (18).

- (17) a. *accommodation*-ha-ci kulay? [Kr]
accommodation-do-AD how about
 ‘How about having accommodation?’
 ‘accommodation’ + *ha-ci*
 (English N.) + (Korea Verb *-hata*; inflected as an adverb)
 b. sensayngnim-i *selective-ha-key* tane ha-lako-ha-y-se, ta oyweya-ha-ss-e.
 instructor-NOM **selective-do-AD** word do-IMP-do-DEC-and whole
 should.memorize-do-PST-DEC

² Light verbs are one of the most productive structures in Persian. They are compound verbs consisted of a noun and a verb. The verbs are usually a form of the following infinitives: boodan (to be), shodan (to become), gashtan (grow).zadan (hit), etc.

‘We had to memorize whole the words because the instructor says selective words.’
 ‘selective’ + **ha-key**
 (English Adj.) + (Korea Verb *-hata*; inflected as an adverb)

- (18) tip *divide*-ha-y? [Kr]
 tip divide-do-DEC
 ‘Do you divide the tip?’
 ‘divide’ + **ha-y**
 (English V.) + (Korea Verb *-hata*; inflected as an informal form)

In sum, we see that Korean-English bilinguals attach Korean verb such as *-hata* ‘to do’ or *-toyta* ‘to become’ on English noun, adjective, or verb, which demonstrates that equivalence constraints do not exist in code switching. Following summarize this.

	Noun		
English Adjective		+	Korean Verb
	Verb		

As we observed in the above examples, the major problem with the models proposed by Poplack and Woolford is their empirical adequacy. Although many cases of code switching may be accountable by these models, there are some counterexamples which violate the predictions made in these models.

3.3.2 The Free-Morpheme Constraint Model

The Free Morpheme Constraint (Poplack 1981) states that code switching between a free morpheme and a bound morpheme is not possible; however, there are a lot of examples in our data which violate this rule, such as example (19):

- (19) a. pesar-a kheili **effective-tar** az dokhtar-a-n. [Pr]
 boy-PL very effective-COMP from girl-PL-3PL
 ‘The boys are much more effective than the girls.’
- b. **intense-ha-key** anh ha-y. [Kr]
 intense-do-AD NEG do-DEC
 ‘This is not an intense one.’

As the above examples illustrate, the Free Morpheme Constraint model is not capable of accounting for the code switching of free morpheme and bound morpheme of two different languages.

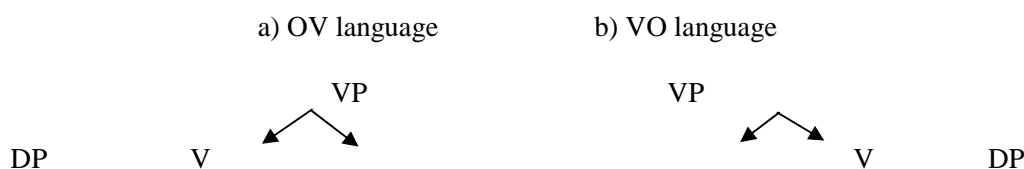
3.3.3 Mahootian’s Model

Mahootian (1993) proposes that code switching is not governed by any constraint outside the grammars of the code switching languages. She suggests that the same rules and

principles which operate on monolingual utterances account for code-switched utterances. She uses a tree-adjoining grammar (TAG) to explain the process of code switching. Santorini and Mahootian (1995) state that there is a principle on code switching between two languages:

The language of a head determines the syntactic properties of its complements in code-switching and monolingual contexts alike. (Santorini and Mahootian 1995)

In other words, the language of a head determines the phrase structure position, category, and feature content of its complement. One of the predictions made by this model is related to the code switching pattern of verbs and their objects. Languages may be VO or OV, i.e. verbs may take a DP object complement either to their right or to their left side. The difference between the two types is illustrated below:



Using Persian data, she proposes that Farsi³ and English are VO and OV languages respectively. In code-switching between these two languages, there are four possible combinations of head and complements, as is shown below:

- a) O_F, V_E
- b) O_E, V_F
- c) V_E, O_F
- d) V_F, O_E

Mahootian (1995) predicts that from the above combinations, only (b) and (c) are consistent with the verb's requirement regarding the position of its complement.

This model can correctly predict the pattern of code-switching between two typologically different languages, however, Myers-Scotton (1999) argues that the principle of code switching stated in this model overpredicts. She says that if there is no ML in code switching, then the prediction is that there could be a switch in syntactic rules and functional elements with each head. According to Myers-Scotton, this is not what happens in real code switching data. Our suggestion is that although Mahootian's model is predictive in many cases, more studies are required to verify the code switching principle proposed by this model.

4 Conclusion

A number of studies on code switching have been investigated on the unified account of grammatical mechanism in code switching over languages. While we assume that these

³ Farsi and Persian are the same and both refer to the official language spoken in Iran.

studies are able to account for Persian-English and Korean-English code switching, what this current study reveals is that each model is not sufficient enough to consider the present result from Persian and Korean bilinguals' code switching. In particular, it is difficult to find any equivalence constraints and free-morpheme constraints from both Persian-English and Korean-English code switching. As mentioned, in Persian-English code switching, switching Persian verb with English object or vice versa is possible while Persian and English has underlying different linear order, as SVO versus SOV. This is also attested in code switching of a noun and its modifying adjective in spite of the different linear order of Persian and English. Like the Persian-English code switching, Korean-English code switching illustrates that a certain model of equivalence constraints and free-morpheme is not enough to explain the data in Korean-English code switching; attaching Korean verbal morpheme *-hata* 'to do' or *-toyta* 'to become' as well as its inflected form such as *-hakey* onto English words shows the inadequacy of equivalence constraints on code switching. In addition, frequent attaching of the bound morpheme such as plural or adverb onto English words in Korean displays that the model of free morpheme is not enough to account for the code switching. This is also shown in Persian-English code switching since Persian does not allow to have code switching on bound morpheme; morpheme such as plural, copula, or clitic Pronoun as possessive pronoun.

Thus, from both Persian-English and Korean-English code switching, we confirm that Joshi (1985)'s model on code switching fits well with our analysis. As he mentioned, aux., tense and helping verbs come from the matrix language and code switching is not possible at these points, although this model does not propose any prediction for other types of words.

Even if our trial on unified account of Persian and Korean from code switching seems to be alien, our analysis reveals the possibility that typologically similar languages like Persian and Korean, which both have a SOV grammatical order, can show some relevance in code switching. Further studies can explore more details that two or more languages are able to reveal similar characteristics on code switching if the languages have similar typology. Also, why bilingual speakers preserve their native language's aux., tense, or verbal (or adverbial) morpheme can be important studies for future research to illuminate code switching over languages.

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