# The Appearance of Persian-English Compound Verbs in Persian Structure 

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#### Abstract

This study pursues an explanation for Persian-English codeswitching in terms of language typological differences. In particular, it aims to show how English verbs occur in Persian structure and identify possible constraints, which occur between Persian and English verbal system. A mixed method design is chosen for the study and data collection includes taperecordings of spontaneous conversations involving 12 Persian-English bilingual speakers. All bilingual complementiser phrases are transcribed, and all the classified English verbs are analysed to show how they occur in the bilingual, Persian-English complementiser phrases. The findings of the study reveal that the lack of congruity between the verbal system of Persian and English causes some constraints on the insertion of the English verbs. First, in all English elements in the findings of this study, there is no example that shows English verb occurs as a single unit in the Persian structure. Second, no single case in the findings of this study shows a combination of a Persian verbal morpheme and an English bare infinitive verb. Third, there is no example in the entire corpus that shows the combination of English verb and Persian negation element. Thus, the occurrence of Persian-English bilingual compound verbs is the result of the mentioned constraints between these two languages.


Keywords: Codeswitching, Compound Verb, Matrix Language, Embedded Language

## 1. Introduction

This study pursues an explanation for Persian-English codeswitching in terms of language typological differences. Gumperz (1982, p. 59) defined codeswitching "as the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems". The main objective of this study is to identify how English verbs occur in Persian-English bilingual speech while these two languages are typologically different.

### 1.1 Bilingualism

Bilingualism or multilingualism is the usual consequence of language contact. According to Wei (2000), language contact means talking about different people with different languages that comes into contact with one another. There are various definitions of bilingualism in the literature. For example, Bloomfield (1933) stated that a bilingual speaker should have nativelike control over both languages. On the other hand, Haugen (1953) pointed out that the speakers who are able to make complete meaningful utterances in both languages are bilingual. Myers-Scotton (2006, p. 44) defined the term of bilingualism "as the ability to use two or more languages sufficiently to carry on a limited casual conversation".

### 1.2 Codeswitching

Bilingual interaction is a crucial aspect of language learning and acts as a tool for cultural exchange between interlocutors. Usually, a bilingual conversation is full of language strategies that increase meaning. One of these language strategies is the use of codeswitching. According to Gal (1988, p. 247) "codeswitching is a conversational strategy used to establish , cross, or destroy group boundaries; to create, evoke or change interpersonal relations with their rights and obligations". Researches in codeswitching (hereafter CS) have been carried out by researchers from a vast range of principles with various perspectives and approaches. These studies have been conducted mostly on two different approaches: sociolinguistics and linguistics. The sociolinguistic approach of CS generally analyses this phenomenon in terms of motivation and meaning. Olmedo-Williams (1983) pointed out that some variables such as participants, setting and topic of conversation may influence the speakers to code switch. Other scholars (e.g. McClure, 2001; Zentella, 1982; Poplack, 1978) proposed that language preference, social identity, language proficiency, and participants' role can also be influential in a CS situation. On the other hand, the linguistic approach of CS tests the grammatical principles that govern bilingual speech. The grammatical and syntactic investigation of CS phenomenon is driven by the idea that there are some structural constraints on its production and a huge number of hypotheses have occurred in the literature formulating these constraints by different scholars (e.g. Poplack, 1981; Bentahila \& Davies, 1983; Woolford, 1983; DiSciullo, Muysken \& Singh, 1986; Belazi, Rubin \&Toribio, 1994; Mahootian, 1993; Joshi, 1985; Myers-Scotton, 1993).

### 1.3 Types of Codeswitching

Poplack (1980) identified three types of CS: intersentential switching, intrasentential switching, and tag switching. Intersentential switching occurs at a sentence level, where each sentence is from a different language. whereas intrasentential switching occurs within a sentence and is considered as a complex form of switching. Tag switching is defined as the insertion of a tag phrase such as I mean and you know from one language into the sentence of another language (Poplack, 1980). Myers-Scotton (2006) divided CS into inter-sentential switching and intra-sentential switching. Inter-sentential switching is explained as full sentences of two languages while intra-sentential switching is referred to as intra-clause switching. She found that the phenomenon of CS can be between two clauses or complementiser phrases (hereafter CP) in the same sentence. In contrast to Poplack's idea (1980), Myers-Scotton (2002) stated that extra-sentential or tag switchings are certainly monolingual CPs that contain a number of null elements and they cannot be considered as a type of CS.

The present study explores the appearance of the English verbs as an intra-sentential switching within bilingual CPs. In fact, verbs play a crucial role in the literature of CS and there is not much study between Persian and English as two typological dissimilar languages that focuses on the verbal system.

## 2. Persian Verbal System

Persian, in contrast with English, is a verb final language. Persian verbs are inflected for mood, number, person, tense, and aspect. Windfuhr (1979) believed that in Persian, verb system is the most distinguishing feature related to aspect forms. The aspect/tense forms in Persian can be derived from either past stem or present stem.

### 2.1 Imperfective Prefix mi

Imperfective aspect in Persian is illustrated in verbs using the prefix $m i$ that occur with the past stem and personal ending suffixes. Mahootian (1997) pointed out that the prefix $-m i$ is used with the present stem to indicate habitual action in the present. Example (1) presents the use of the prefix $m i$ in the present form of the verb while Example (2) shows the prefix $m i$ that is attached to the past stem kard and forms the past tense of the verb.

| (1) Alǎn | dǎr-am | dars | mi-xun-am ${ }^{\mathbf{1}}$ |
| :---: | :---: | :---: | :---: |
| now | have-1sg | lesson | IMPF-study-1Sg |

[^0]'(I) am studying right now'

| (2) Dirooz | kǎr | mi-kard-am |
| ---: | :--- | ---: |
| yesterday | work | IMPF-did-1Sg |

'(I) was working yesterday’

### 2.2 Subjective Marker

The present and the perfect are the only two types of subjunctives in the Persian language. The present form is marked by the prefix be-such as be-xor-am (that I eat), while the perfect form is marked with the prefix băš (be). In addition, the prefix băš can be used both as a subjunctive and an imperative (Naseh, 2002). In Example (3), the prefix băš is suffixed by the personal suffix $a m$ and acts as a subjunctive while in Example (4), it occurs on its own and is used as an imperative verb.
(3) Fekr mi-kon-am xord-e bǎš-am
think IMPF-do-1Sg ate-PSPT Subj-1Sg
'(I) think (that) I may have eaten'
(4) Aroom bǎs
calm be
'Be calm'
In fact, the present form of the prefix baš is limited to the formal form of language as shown in Example (5) below.
(5) Xaste
mi-bǎš-am
tired IMPF-Subj-1Sg
'(I) am tired'
One of the typological characteristics of the Persian language is that the verbs must agree with their subjects in person and number. In Persian, when the subject noun phrase is prodropped, it must be coded on the verb through the personal ending suffixes. One of the most important exceptions to this subject-verb agreement is that inanimate plural subjects can take a singular verb (Mahootian, 1997). In Example (6) the infinitive verb raftan (to go) is prefixed with the imperfective prefix $m i$ and is suffixed with the third person singular suffix $e$. It should be noted here that the personal suffix $-e$ agrees with the subject pronoun un (he/she).

| (6) Un | bǎ | man | mi-r-e |
| ---: | :---: | :--- | :--- |
| she/he | with | me | IMPF-go-3Sg |

'(She/He) will go with me'
In Example (7), the subject is null and it can be coded by the first singular personal suffix am that is attached to the verb raft.
(7) Raft -am
went $\quad-1 \mathrm{Sg}$
'I went'

### 2.3 Personal Ending Suffix

The present, past, and perfect endings of singular forms of Persian verbs are $-a m,-i,-a d,-a m$, $-i$, and $e-a m, e-i, e$-ast respectively. In contrast, the present, past, and perfect endings of plural form of Persian verbs include -im, -id, e-and and $e$-im, $e$-id, $e$-and.

| Verb Stem | Singular endings |  | Plural endings |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Present | $-a m$ | $-i$ | $-a d$ | $-i m$ | $-i d$ | $e$-and |
| Past | $-a m$ | $-i$ | $-\varnothing$ | $-i m$ | $-i d$ | $e$-and |
| Perfect | $e-a m$ | $e-i$ | $e$-ast | $e-i m$ | $e-i d$ | $e-a n d$ |

## 3. Persian Compound Verbs

Persian compound verbs have been studied by different researchers either Iranian or nonIranian around the world such as Windfuhr (1979), Rubinchik (1971), Samiian (1983), and Mohammad and Karimi (1992). In this study the term 'compound verb' or 'compound construction' is used interchangeably and compound verb refers to "a verb whose morphological structure is not simple but consists of a non-verbal constituent, such as a noun, adjective, past participle, prepositional phrase, or adverb, and a verbal constituent" (DabirMoghaddam, 1997, p. 25). A study of Persian verbs by Sadeghi (1993) report ed that in today's spoken and written Persian, the maximum number of simple verbs is 115 . This shows that there is a productive form of verb compounding in the Persian language. Lambton (1953) also defined compound verbs as a noun, an adjective, an adverb, or a prepositional phrase that combines with a simple verb. In other words, a compound verb in Persian consists of a lexical item such as an adjective, an adverb, a preposition, a particle or a noun plus an auxiliary verb. In addition, the non-verbal element in Persian compound verbs has the semantic content whereas the auxiliary verbs (e.g. kardan 'to do', šodan 'to become', dâštan 'to have' etc.) indicate only verbal inflection (Dabir-Moghaddam, 1997). Example (8) shows that the noun kăr with the auxiliary kardan resulted in the Persian compound verb.
(8) Noun + auxiliary

Kar+kardan (lit. work to do) 'to work'

In Example (9), the compound verb is formed by the auxiliary kardan and the adjective xămuš while Example (10) illustrates how the Persian auxiliary dădan and the prepositional phrase az dast are combined to form the compound verb.
(9) Adj + auxiliary
xamuš+ kadran (lit. off to do) 'to turn off'
(10) prepositional phrase + auxiliary
az dast+dadan (lit. from-hand-give) 'to lose'
In Example (11), the compound noun is formed by the adverb pas and the auxiliary dädan.

## (11) Adv+auxiliary

Pas+dǎdan (lit. back to give) 'to return'

### 3.1 Bilingual Compound Verb

Bilingual verb compounding in Persian is so productive and it dates back to the seventh century when Persian nominals in compound verbs were replaced by the borrowed nominals from Arabic (Dabir-Moghaddam, 1997). Some of these Arabic-Persian bilingual compounds verbs are as illustrated in Examples (12) and (13).
(12) maqloob kardan (lit. 'defeated-do') to defeat
(13) qǎrat kardan (lit. 'plunder-do') to plunder

In Examples (12) and (13), the nominal counterparts maqloob and qărat are Arabic adjective and noun respectively that with the Persian auxiliary kardan formed the bilingual compound verb.

## 4. Related Studies Involving Different Language Pairs

In general, verbs have been studied in different language pairs such as Turkish/Dutch (Backus, 1996), Punjabi/English (Romaine, 1989), and Tamil/English (Sankoff, Poplack \& Vanniarajan, 1990). Myers-Scotton (2000) mentioned that when bilingual compound verbs appear, the 'do construction' is the only way to use the bare infinitive of the EL verb in the ML structure. In a study about CS between Dutch-Turkish bilingual speakers, Backus (1996) showed that the Dutch infinitive verbs and the Turkish auxiliary yap appear together to make a bilingual compound verb. Nortier (1990) studied CS among Dutch-Moroccan bilingual speakers and found that Dutch infinitive bare form of verbs is usually used in MoroccanArabic sentences.

## 5. Methodology

This study used an exploratory design for analysing the data. In an exploratory design the qualitative data are collected first and the quantitative data are collected at a later time. The data in the present study were collected and analysed first qualitatively by transcribing the
data and then quantitatively by counting the frequency. The research design chosen for the present study is a mixed method one. According to Lodico, Spaulding, and Voegtle (2006), a mixed method research is a combination of quantitative and qualitative data. The CS data for the purpose of this study were collected from 8 hours tape-recordings of spontaneous conversations among 12 Persian-English bilingual speakers in a public university in Malaysia. First, the tape-recorded conversations were transcribed with each conversation ranging between 90 and 120 minutes. Then, each bilingual CP was coded carefully according to the Canonical Trilinear Representation as proposed by Lehmann (2004) in which the L1 text line is matched by two L2 lines, the IMG (Interlinear Morphemic Gloss), and a free translation.

## 6. Finding and Result

Overall, there are 215 bilingual verbs found in the data collected. The Table below illustrates these bilingual verbs according to types and frequencies.

Table 1. Distribution of English-Persian compound verbs

| Type | N | $\%$ |
| :--- | :---: | :---: |
| English bare infinitive+ Persian auxiliary | 195 | $90 \%$ |
| English noun+ Persian auxiliary | 14 | $7 \%$ |
| English adjective + Persian auxiliary | 5 | $2 \%$ |
| English verb+ particle +Persian auxiliary | 1 | $1 \%$ |
| Total | 215 | $100 \%$ |

As shown in the table above, out of a total 215 bilingual compound verbs, 194 ( $90 \%$ ) of them are English bare infinitives with Persian auxiliaries. The English nouns and adjectives also occur with Persian auxiliaries in 14 and 5 cases respectively. The findings also revealed that there is only one case where the bare English infinitive occurs with its particle and the Persian auxiliary.

### 6.1 English Bare Infinitive with Persian Auxiliary

In the following instances, each formation of the bilingual verbs is in accordance with the compound verb in Persian. However, in Persian structure the verbal element does not occur in the non-verbal position of the compound verb. In Example (14), the English bare infinitive verb manage is mixed with the Persian auxiliary kardan (to do) and forms the bilingual compound verb. As observed in the example, the infinitive form of auxiliary kardan (to do) is prefixed and suffixed by Persian verbal inflections and appears as bokoni (see more examples in Appendix 1).
(14) Barǎye in ke time-et ro bǎyad manage bo-kon-i
because time-Clitic Pro 3Sg rǎ should Subj-do-2Sg
'Because (you) should manage your time'
To compare, Example (14) shows that in the left position of the Persian auxiliary bokoni is the English infinitive verb manage, while in the Persian equivalence the left position element
is the noun modiriat. Example (15) further illustrates the monolingual equivalence of the Example (14).
(15) Barǎye in ke time-et ro bǎyad modiriat bo-kon-i
because time-Clitic Pro 3S ră should manage Subj-do-2Sg
'Because (you) should manage your time'
As shown in the examples above, the non-verbal element in Example (14) is the English bare infinitive verb manage while in the Persian equivalence in Example (15), the non-verbal element is the Persian noun modiriat.

In Examples (16), (17), and (18), the non-verbal elements of the bilingual compound verbs are move, submit, and rehearse. These elements are the examples of the English bare infinitive verbs that are combined with the Persian auxiliary kardan. It is important to note that the Persian auxiliary kardan (to do) in the following examples appears as kard, koni and mikone respectively.

| (16) Hamoon | rooz | ke | move | kard |
| :---: | :---: | :---: | :---: | :---: |
| that | day | that |  | did |

'The day that (he) moved out'

| (17) March | bǎyad | submit | kon-i? |
| :---: | :---: | :---: | :---: |
| March | should |  | do-2Sg |

‘Should (you) submit in March?'

| (18) Show | ro | ke | dǎr-e | rehearse | mi-kon-e |
| ---: | :---: | :---: | :---: | :---: | :--- |
| show | ră | that | is+ing |  | IMPF-do-3Sg |

'When (she/he) is rehearsing the show'
The Persian equivalences of bilingual compound verbs in Examples (16), (17), and (18) are asbăb keši kard, erae kardi, and tamrin mikone respectively. Example (19) shows the monolingual equivalence of the bilingual compound verb move kard in the Persian structure.

| (19) Hamoon | rooz | ke | asbǎb keši | kard |
| :---: | :--- | :--- | :--- | :--- |
| that | day | that | move | did |

'The day that (he) moved'
Example (20) shows that the Persian equivalence of the English bare infinitive submit is the noun erǎe in the native Persian compound verb.
(20) March
bǎyad
erǎe
kon-i?
'Should (you) submit in March?'
In Example (21) the Persian equivalence of the English bare infinitive rehearse is equivalent to the noun tamrin in native Persian compound verb.

| (21) Show | ro | ke | dǎr-e | tamrin | mi-kon-e |
| :---: | :---: | :---: | :---: | :---: | :--- |
| show | rǎ | that | is+ing | rehearse | IMPF-do-3Sg |

'When (she/he) is rehearsing the show'
Overall, all examples cited in this section show that the non-verbal element of the native Persian compound verbs is in contrast to the non-verbal element of Persian-English bilingual compound verbs. For all bilingual compound verbs, the non-verbal elements are bare infinitive verbs while in the native Persian compounds verbs they are not verbs.

### 6.2 English Noun and Adjective with Persian Auxiliary

The data of this study show that, there are only 19 examples that contain an English noun or adjective that occurs with the Persian auxiliaries to form bilingual verbs.

| (22) Doxtar-hǎ-ye | kelǎs | offended | na-šod-an |
| ---: | :--- | :--- | :--- |
| girl - -PL-Ez class |  | NEG-become-3Pl |  |

'The girl's students in the class has not been offended'

| (23) Axarsar | ye | solution |
| ---: | :--- | :--- |
| finally | one |  |

'Finally, (she/he) suggested a solution'
In Example (22), the English adjective offended occurs with the Persian auxiliary šodan and forms the bilingual compound verb offended našodan while in Example (23), the English noun solution appears as the non-verbal element to Persian auxiliary dǎdan and forms the bilingual compound verb solution dǎd. As such, the form of bilingual compound verbs in Examples (22) and (23) is similar to the native Persian compound verbs as the non-verbal elements are adjective and noun respectively (refer to Appendices 2 and 3 for more examples).

### 6.3 English Phrasal Verb with Persian Auxiliary

The findings of this study also reveal that there is only one data in Example (24) that the English bare infinitive narrow with its particle down is embedded in the Persian structure and with the Persian auxiliary kardan forming the bilingual compound verb narrow down bokoni.
(24)
Bǎyad
narrow down
bo-kon-i
'(You) should narrow down'

### 6.4 English Elements with Different Persian Auxiliaries

Table 2 outlines the data involving different kinds of Persian auxiliaries that are combined with English elements to form the Persian-English bilingual compound verbs.

Table 2. Distribution of English Elements with Persian Auxiliaries

| Type | N | $\%$ |
| :--- | :---: | :---: |
| English element +Persian Auxiliary kardan | 169 | $79 \%$ |
| English element +Persian Auxiliary šodan | 24 | $11 \%$ |
| English element +Persian Auxiliary dădan | 12 | $5 \%$ |
| English element + Persian Auxiliary dăštan | 6 | $3 \%$ |
| English element + Persian Auxiliary gereftan | 1 | $0.5 \%$ |
| English element + Persian Auxiliary zadan | 1 | $0.5 \%$ |
| English element + Persian Auxiliary bastan | 1 | $0.5 \%$ |
| English element + Persian Auxiliary gozăštan | 1 | $0.5 \%$ |
| Total | 215 | $100 \%$ |

The findings of the study show that the most frequent Persian auxiliary in bilingual compound verbs is the auxiliary kardan (to do). From a total number of 215 compound constructions, 169 examples ( $79 \%$ ) contain an English element as the non-verbal element and an inflected form of kardan (to do) as the verbal part. After the Persian auxiliary kardan, the most frequent Persian auxiliary found in the study are šodan with 24 examples, dǎdan with 12 examples, and däštan with 6 examples.

Examples (25) and (26) below show the integration of the English elements update and match with the Persian inflected auxiliaries' kardan (to do), and šodan (to become).
(25) Dǎr-e
is+ing
'(It) is updating'
Man bǎ
match
ne-mi-šod-am

NEG-IMPF-became-1Sg
'I didn't match this'
Examples (27) and (28), in contrast, show how the English elements knowledge and order occur at the leftmost position of the Persian inflected auxiliaries' däštan (to have) and dădan (to give).
(27) Knowledge na-dǎšt-an
'(They) did not have knowledge'
(28) Order be-d-im?

Subj-give -1Pl
'Shall (we) order?’
Examples (29) and (30) further exemplify the combination of Persian inflected auxiliaries' gereftan (to catch) and zadan (to hit) and the English elements admission and text to form bilingual compound verbs.
(29) Admission gereft
catch
'(He/She) got admission'
(30) Šomǎ dǎr-i text

## mi-zan-i

IMPF-hit-2Sg
'You are texting'
In this study, only two examples are recorded as containing the Persian inflected auxiliaries' bastan (to close) and gozăštan (to put) with different English elements (see Examples 31 and 32).
(31) Contract

> bast-i?
close-2Sg
'Did you make a contract?'
(32) Yǎroo comment gozǎšt-e
person put-PSPT
'(He/She) has commented'

### 6.5 English bare infinitive with Persian Pronominal Clitics in Compounding Construction

As already noted, there is no example in this study involving English verbs with Persian verbal inflections such as different suffix or prefix for negation, tense or aspect. However, there are 10 examples in the study that show English bare infinitive verbs are suffixed by the Persian pronominal clitics. In these data, the pronominal clitics that are attached to the English verbs act as direct objects.

To illustrate, in Examples (33) and (34), the Persian pronominal clitic -eš, as direct object, is attached to the English verbs mix and overgeneralise.
(33) Mix-eš kard-am Englisi va Fǎrsi ro
-clitic pro 3Sg did-1sg English and Persian rǎ
'(I) mixed English and Persian'
(34)
Overgeneralise -eš
ne-mi-kon-am
-Clitic pro 3Sg
NEG-IMPF-do-1Sg
'I do not overgeneralise it'
Examples (35) and (36) indicate that the Persian pronominal clitics am and ešun are attached to the English verbs motivate and inform.

| (35) Motivate-am $\quad$-Clitic Pro 1Sg did |  |  |
| :--- | :--- | :--- |
| '(She/He) motivated me' |  |  |
| (36) Mi-tun-i $\quad$ inform-ešun | kon-i |  |
| IMPF-can-2Sg | -Clitic Pro 3Pl | do-2Sg |
| '(You) can inform them' |  |  |

## 7. Discussion and Conclusion

The findings of this study revealed that some kinds of mixes in the verbal system did not occur at all. First, in all English elements in the findings of this study, there is no example that shows English verb occurring as a single unit in the Persian structure. Second, there is also no single case in the findings of this study shows a combination of a Persian verbal morpheme and an English bare infinitive verb. Third, the study recorded no data involving the combination of English verb and Persian negation element.

As mentioned earlier, English and Persian as two typological dissimilar languages have some differences in their verbal system. One of the morphological characteristics of the Persian verb system is the over inflection of the verb that codes the subject of the sentence. Another feature of the Persian verb system is the aspect that is illustrated by the Persian imperfective prefix mi. In fact, the English verbal system is free from these Persian verbal system features. Therefore, the functional categories of aspect and subject-verb agreement are two typological differences between Persian and English verbal systems that restrict the possibility of different switches.

According to Ouhalla (1991), inflectional morphemes play a crucial role in CS process. He stated that some functional categories such as tense, agreement, and negation play an important role in determining grammatical processes.

Example (37) illustrates the incongruity between Persian and English verbal markers. In this example, a Persian verb stem is suffixed with the English verb inflection -s. However, this kind of switching was not found in the present study. According to Myers-Scotton (1993),
inflectional elements are outsider system morphemes and they should only come from ML (Persian). Therefore, Example (37) is provided in this section only for clarifying the distinction between Persian and English verbal inflections.
(37) * ( mǎ) xor-s
( we) eat-(3Sg present)
'We eat'
It should be noted that in Example (38) the verb stem xor (to eat) is suffixed by the Persian Imperfective suffix $m i$ in the Persian equivalence that represents the imperfect aspect. In the Persian verb system, verbs would also be inflected for person and number and they should be in agreement with their subject. In Example (37) above, the English verb stem is inflected neither for subject-verb agreement nor for aspect features. Tense is the only feature that is illustrated in the example above through the English inflectional morpheme $-s$ which is not in agreement with the Persian subject. It is important to mention that Persian language is a prodrop language and in the absence of subject, the subject-verb agreement morpheme on the verb codes the subject's identity. Because English is not a pro-drop language, the English inflection $-s$ on the Persian verb xor cannot express the Persian subject's identity.

The Persian equivalence for Example (37) is illustrated in Example (38) below.


The example Mă mixorim above is a reverse to the bilingual example Mǎ mieatim that shown in the parenthesis. In the bilingual example mieatim, the English verb stem eat is affixed by the Persian inflections mi and im . According to Myers-Scotton (1993, 2002), the system morphemes should come from ML and all content morphemes (e.g. verb) can appear with ML markers.

Interestingly, the example Mǎ mi-eat-im(We eat) above shows no violation to the ML frame but in the data collected there is no example that shows an English verb stem inflected by the Persian verbal inflections. In the present data, no switching taking place between English verb stems and Persian negation. In Persian, negation element is always initial while in English, it comes after the 'to be verbs' and before the main verbs. There was no single example in the current data that showed the English verbs be affixed with Persian negation.

Thus, it can be concluded that as Persian and English verbal system are not congruent, these types of constraints occur.

Since English bare infinitive verbs cannot occur in Persian verbal system as a single element, they appear as non-verbal elements in bilingual compound verbs. The next sub-section focuses on the structures of English-Persian bilingual compound verbs.

### 7.1 Bilingual Compounding Construction

According to Muysken (2000, p. 184) bilingual compound verbs for different languages pairs were divided into the following groups: "First, the new verb is inserted into a position corresponding to a native verb, in adapted form or not. Second, the new verb is adjoined to a helping verb. Third, the new verb is a nominalised complement to a causative helping verb in a compound. And forth, the new verb is an infinitive and the complement of a native auxiliary".

To recapitulate, the form of English-Persian compound verbs is the English bare infinitive verb with Persian auxiliary that is usually kardan. There are also some different cases where English adjectives and nouns are combined with other Persian auxiliaries (see section 6.2). As illustrated by Muysken (2000), in some bilingual compound verbs, the inflections of ML are attached to the EL verbs. The findings of the current data indicated that there are also some examples that show the pronominal clitics are attached to the English verbs (see section 6.5).

Muysken (2000) mentioned that these types of bilingual verbs have the features of an innovation. The notion of an innovation that is he offered is compatible with the appearance of English-Persian bilingual compound verbs in the present CS data because the creation of these new bilingual compound verbs is different from the conventions of the Persian linguistics. As already noted, the non-verbal element in Persian compound verbs in the native form of the language should be a noun, an adjective, an adverb, and a preposition but not a verb. In short, it means that the bilingual speakers try to adapt the new bilingual compound verbs to the conventions of the Persian language, although the form of the new bilingual compound verbs is not totally similar to the native form of the Persian compound verbs.

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## Appendix 1.

Selected Examples of English Bare Infinitive with Persian Auxiliary

| 1)Bară-tun | cook |
| :--- | :--- |
| for | mi-kon-e |
| -Clitic Pro 2Pl |  |
| IMPF-do-3Sg |  |

'(She/He) cooks for you'
2) Download kon-am?
do-1Sg
'May I download?'
3)Bǎyad hei click na-kon-i
should again NEG-do-2Sg
'(You) shouldn't click again'
4) Dǎr-e update mi-kon-e
is+ing IMPF-do-3Sg
'(It) is updating'
5) Bǎyad safh-aš ro update kon-i
should page-Clitic pro 3Sg rǎ do-2sg
'(You) should update the page'
6) Test kard-am
did-1Sg
'(I) have tested'
7) Contract bast-i?
close- 2 Sg
'Did you make a contract?'
8)Ccon mi-xă-n compete kon-an
because IMPF-want-3PL do-3Pl
'Because (they) want to compete'
9)Badan mi-xă-d biš-tar charge kon-e
then IMPF-want-3Sg more-COMPR do-3Sg
'Then (It) wants to charge more'
10)Download mi-kon-e

IMPF-do-3Sg
'(It) is downloading'
11)alăn in or mi-tun-i play kon-i
now this rǎ IMPF-can-2Sg do-2Sg
'Now (you) can play it'
12) Na ne-mi-tun-i watch kon-i
no NEG-IMPF-can-2Sg do-2Sg
'No, (you) cannot watch it'

| 13) Bǎyad | injǎ watch | kon-i |
| ---: | :--- | :--- |
| should | here |  |
| do- $2 S g$ |  |  |

'(You) should watch it here'
14) Mi-tun-i ham download kon-i

IMPF-can-2Sg also do-2Sg
'(You) can also download'
15) Ham mi-tun-i watch kon-i
also IMPF-can-2Sg do-2Sg
'(You) can also watch'
16) Hamun file ro right click kon
that file rǎ do
'Right click that file'

| 17) Bǎ | VLC | play | kon |
| ---: | :--- | :--- | :--- |
| with | VLC |  | do |

'Play with VLC's application’
18) Bexăter-e porn approve ne-mi-kard-an

Because -Ez porn
NEG-IMPF-did-3Pl
'Because (they) didn't approve porn movies'
19)Ccon porn ro support ne-mi-kon-e
because porn rǎ NEG-IMPF-do-3Sg
'Because (it) doesn't support porn movies'
20)Mix-eš kard-am Englisi va Farsi ro
-Clitic pro 3 Sg did -1sg English and Persian rǎ
'(I) mixed English and Persian'
21)Yekšanbe dǎšt-am drive mi-kard-am

Sunday was+ing IMPF-did-1Sg
'(I) was driving on Sunday'

| 22)Roo | Ipad | record | kard-e | bood-am |
| :---: | :---: | :---: | :---: | :---: |
| on | Ipad |  | did-PSPT | was-1Sg |

'(I) had recorded on Ipad'

| 23)Agar | search | bo-kon-am |
| :---: | :---: | :---: |
| if |  | Subj-do-1Sg |

'If (I) search’
24)3 tǎ ketǎb ro barǎ-m scan kard

3 CL book rǎ for-Clitic Pro 1 Sg did
'(She/he) scanned 3 books for me'
25)Ccand -tǎ ketăb order dǎd-am

Some -CL book gave-1Sg
'(I) ordered some books'
26) Man barǎye yeki az dănešjoo-hǎ-ye UUM

I for one of student -PL-Ez UUM
edit mi-kard-am

IMPF-did-1Sg
'I edited for one of the UUM students'
27) Bǎyad bǎ -hǎš discu
should with-Clitic Pro 3Sg
(I) should discuss with him/her'
28) Hey post pone kard-i?
again did-2Sg
'Did (You) postpone again?'
29) Man shift kard-am

I did-1Sg
'I shifted'

## Appendix 2.

English Nouns with Persian Auxiliary

| 1)Tǎ | unjǎ | driving |
| :---: | :---: | :---: |
| till | mi-kon-i |  |
| there |  | IMPF-do-2Sg |

'(You) should drive till there'
2)In hǎ hame problem dǎr-e
this PL all have-3Sg
'They all have problem'
3)Motivation na-dar-am NEG-have-1Sg
'(I) don't have any motivation'
4) Knowledge na-dǎšt-an

NEG-had-3Pl
'(They) don't have any knowledge'
5) $\mathrm{Xod}-\mathrm{am}$
idea
dǎd-am
Ref-Clitic Pro 1Sg gave-1Sg
'(I) myself gave the idea’

## kon-am

do-1Sg
6) Mi-tun-i ye hypothesi
be-d-i
IMPF-can-2Sg one
Subj-give-2Sg
'(You) can form a hypothesis'
7) Axar-eš ye solution dǎd
end-Clitic Pro 3Sg one gave
'(She/He) provided a solution at the end'
8)Xeili talent dǎšt-an
very had-3Pl
'(They) were so talented'
9) Creativity na-dǎr-e

NEG-have-3Sg
'(She/He) doesn't have creativity'

| 10)Grade | mi-d-in | yǎ | nomre? |
| :--- | :--- | :--- | ---: |
|  | IMPF-give-2Pl | or | score |

'Do you give grade or score?'
11) Admission gereft
caught
'(She/He) gained admission’

| 12) Xob | be | mǎ | notification | mi-dăd-i |
| :---: | :---: | :---: | :---: | :---: |
| well | to | we |  | MPF-gave-2Sg |

'Well, (you) could notify us'

| 13) Be | aroosak | phobia |
| :---: | :--- | :--- | | dǎr-e |
| :--- |
| to |
| doll |

'(She/He) has a phobia about dolls'

| 14) Šǎyad | bar-ǎš | solution | dǎde |
| ---: | :--- | ---: | :--- |
| šod-e |  |  |  |
| perhaps | for -Clitic Pro 3Sg | gave | became-PSPT |

'Perhaps, there has been provided a solution for it'

| 15)Un-hǎ | ye | solution |
| ---: | :--- | :--- |
| that-PL | one |  |
| mi-d-an |  |  |
| IMPF-give-3Pl |  |  |

'They provide a solution'

## Appendix 3.

English Adjective with Persian Auxiliary

| 1) Doxtar-hǎ-ye | kelǎs | offended | na-šod-an |
| ---: | :---: | :---: | :--- |
| girl | -PL-Ez | class |  |

'The girls in the class has not been offended'
2) Man bǎyad over mi-šod-am

I should IMPF-became-1Sg
'I should have been over'
3) Average mi-še

IMPF-become
'(It) is average'
4) Xob fossilized šod-e
so become-3Sg
'(It) has been fossilized'
5) Qašang fresh mi-š-i
beautiful IMPF-become-2Sg
'(You) totally get fresh'

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[^0]:    ${ }^{1}$ The following abbreviations are used as the glosses of codeswitching examples: $1,2,3 \mathrm{Sg}=1,2,3$ person singular, 1.2.3 $\mathrm{PL}=1,2,3$ person plural, $\mathrm{CL}=$ classifier ( - tâ), CliticPro= pronominal clitics, COMPR=comparative (tar), DEF=definite marker ( $-e$ ), DES=descriptive ( $-i$ ), Ez= ezăfeparticle, IMPF=imperfective prefix (mi), Indef= indefinite marker $(-i), \mathrm{NEG}=$ negation element, $\mathrm{PL}=$ plural marker, $\mathrm{RFL}=$ reflexive pronoun, $\mathrm{SUPR}=$ superlative (tarin), Subj= subjunctive prefix, PSPT= past participle suffix $(-e)$.

