Analysis of Borrowed Words in the Spoken Discourse of Turkmen Native Speakers in Iran: A Sociolinguistic Perspective

[1]Abbas Eslami Rasekh, [2]Behrooz Ghoorchaei and [3]Nematullah Shomoossi
[1]Department of English, Faculty of foreign languages, University of Isfahan, Isfahan, Iran
[2]University of Isfahan, Isfahan, Iran
[3]Sabzevar School of Medical Sciences, Sabzevar, Iran

Abstract: This study addresses the issue of lexical borrowing in Yomut dialect of Turkmen spoken in Iran. Turkmen language is subject to alterations, as a result of contact with Persian, resulting in additions to its linguistic and mainly lexical, inventory in the form of loanwords. This study aims at investigating the nature of Persian lexical loanwords in the speech of native Turkmen speakers as well as the effect of sociolinguistic factors such as sex, education, age and local residence on the rate of borrowing from Persian. The results indicated that nouns, verbs and adjectives make up the first, second and third category of words borrowed, respectively. Also, of these sociolinguistic variables, education, age and place of residence had significant impacts on borrowing.

Key words: Sociolingustic perspective, borrowed words, spoken discourse

INTRODUCTION

Turkmen is spoken in Iran by approximately one million people in Iran. In interaction with the national language, Farsi or Persian, it is experiencing changes so that bilingual Turkmen speakers tune their dialect to the national language for one reason or other. This study addresses the issue of lexical borrowing in the Yomut dialect of Turkmen spoken in the Northern part of Iran in Golestan Province. Turkmen is subject to alterations due to its increasing contact with Farsi resulting in additions to its linguistic inventory usually in the form of loanwords. On the nature of loanwords, Weinreich (1979) remarks that the vocabulary of a language, being more loosely structured than its phonemics and its grammar, is beyond question the domain of borrowing par excellence. Interestingly, sociolinguistic factors have been shown in the literature to affect the norm of borrowing in bilingual communities. Thus, this study aims at investigating the nature of Persian lexical loans in the speech of Turkmen speakers as well as the effect of sociolinguistic factors including sex, education, age and place of residence on their borrowing from Farsi. In the study, a brief history of Turkmen and Farsi is presented. Also, a review of literature is given on lexical borrowing and the sociolinguistic factors which affect borrowing. The difference between the oft-confused terms "borrowing"

and "code-switching" is also tapped on in this study. The purposes of the study, instrumentations, one by one description of the informants and the procedures undertaken in this study are all explained in this study.

Turkmen language: The Turkmen Language belongs to the greater family of Turkic languages. The Turkic languages, together with the Mongolian and Manchu-Tungus languages, form the Altaic language group. Turkmen is included in the sub-group of Southern Turkic languages, along with Turkish and Azeri. Among all the Turkic languages, there are similar grammatical structures, similar phonetics and some shared vocabulary (Garrett et al., 1996). Turkmen has different dialects which differ phonologically and morphologically from one another. Major dialects of Turkmen include Yomut, Teke, Salir, Sarik, Goklen, Arsari and Chowdur. While four dialects, i.e. Yomut, Goklen, Teke and Salir are dominant in Iran, scholars like Grimes (1992) and Dulling (1960) claim that the standard language is based on the Yomut dialect. Therefore, the present study focuses on the Yomut speakers who live in Gonbad Kavoos and the village of Ghoorchay, southwest to the town.

The national language of Iran, Farsi (modern Persian) or Persian is a descendant from the Indo-Iranian branch of the Indo-European language family. This language emerged from "Middle Persian" or Pahlavi, the language

Corresponding Author: Nematullah Shomoossi, Department of English, Faculty of Foreign Languages, University of Isfahan, Isfahan, Iran

of Sassanid Empire and the Old Persian, the language of the ancient Persian Empire (Rezaei, 2003). About half of the population speaks Farsi as a native language, but virtually all educated Iranians are conversant in it. Persian is also spoken as a minority language in Afghanistan, Iraq, Tajikistan and the Persian Gulf countries. In recent years, immigration from Iran has led to the creation of Persian speaking communities in many countries, especially in the United States, Europe and Australia. Persian is written right to left in the Arabic alphabet, with a few modifications. The alphabet consists of 32 letters, 28 of which are common to Arabic while 4 Persian letters representing the phonemes /p/, /tʃ/,/g/ and /Z/ do not exist in Arabic (Mahootian, 1997).

Lexical borrowing: Lexical borrowing refers to the use of a phonologically and sometimes morphologically adapted word from one language in the other language (Pavlenko and Jarvis, 2002). A primary motivation for this phenomenon is to extend the referential potential of a language (Van Hout and Muysken, 1994). Poplack *et al.* (1988) support the traditional observation and believe that different categories can be borrowed. However, according to Muysken (1999) *nouns* are the class of elements borrowed par excellence and also the main examples of insertion under categorical equivalences. He goes on to contend that *nouns* are a natural candidate for borrowing.

Therefore, we should not think that it is only the nouns that are borrowed as Veerman- Leichsenring (1991), also, found from his study on Popoloca-an Otomanguean language-that the set of borrowed discourse organizers, prepositions, conjunctions, temporal expressions and quantifiers is only slightly smaller than a set of content nouns, adjectives and verbs (Muysken, 1999). One such investigation on borrowing in the language of immigrant generations was carried out by Pfaff (1999). In the observation of a Turkish child (immigrant to Berlin), he found that the first lexical item which was borrowed and used by her was formulaic expressions rather than referential expressions. Interestingly, the child uttered the borrowed items with L2 phonology while the interviewee (who belongs to the first immigrant generation) used L1 phonology (i.e. Turkish) of the borrowed lexical items. In other words, nouns and verbs are consecutively integrated into the morphosyntactic structure of the Turkish language.

Also, Pavlenko and Jarvis (2002), in their study on bidirectional transfer, found that L2 influence on L1 is most likely to appear first in the form of lexical borrowing and semantic extension. The use of loan words in speech operates as a social marker in a great majority of the population who migrate to the United States (Matus-

Mendoza, 2002). The American linguist, Leonard Bloomfield (1933), distinguished between *cultural borrowing of speech-forms* which is mutual and *intimate borrowing* which is one-sided, where the *lower* language, "spoken by the subject people" borrows from the *upper* or *dominant* language "spoken by the conquering or otherwise more privileged group." Extending Bloomfield's (1933) generalization, the 'lower' Turkmen has borrowed extensively from the 'upper' Persian.

Borrowing versus code switching: Code-switching occurs in the speech of competent bilingual speakers when both the speaker and the listener share the knowledge of two languages well enough to differentiate items from either language at any moment during their speech. Borrowing, on the other hand, involves the transfer of lexical items from one language to another, not the alternate use of two languages. Borrowed items are either unchanged or are inflected like words in the borrowing language. The speaker is not necessarily a competent bilingual (Rouchdy, 2002).

There are three different views with respect to lone words. The first reflected in Mahootian (1993) and Myers-Scotton (1992, 1993) does not distinguish between borrowing and code switching and regard them to be one and the same. The second view, however, (Bentahila and Davies, 1991; Bokamba, 1988) considers any single word from a donor language that is not an established loanword in the recipient language to be a code switching. The third view holds that borrowing and code switching are different mechanisms. In code switching, the integrity of the grammar of both the donor and the recipient languages is respected; while in borrowing, only the integrity of the grammar of the recipient language should be respected (Poplack, 1993; Poplack and Meechan, 1998; Ghafar-Samar and Meechan, 1998).

Borrowing and Socio-linguistic factors: A study shows that in a relatively small Puerto Rican neighborhood in New Jersey, some members freely used extreme forms of borrowing in their casual talk and formal gatherings. In defining the norms of their borrowing, factors such as region of origin, local residence, social class and occupational niche were involved. Sometimes there are equivalent words in the borrowing language for the words speakers borrow. The motivation for this, as Stockwell (2002) conjectures, arises most often from the perceived status and prestige. Such factors have been shown in the literature to play a role in speech variation too. The effect of sex, education, age and local residence on speech variation is discussed below in the next part.

Sex: The difference between males and females do not result in separate languages but rather one language with noticeable gender-oriented characteristics (Taylor, 1951). Investigations show that differences between the speech of men and women are widespread. According to Trudgill (1974), the difference could be explained in terms of the following reasons. First, women are more status-conscious than men in general and are therefore aware of the social significance of linguistic variables. Second, like many other aspects of the Working Class (WC) culture, the WC speech has connotations of masculinity. Since it is associated with roughness and toughness, is not considered to be a desirable feminine characteristic.

The difference between the speech of males and females could occasionally be attributed to differences in their occupations. Klee (1987) in a study of Spanish in the Rio Grande Valley of Texas, found that Mexican-American men tended to use their L1 significantly more than women did. The reason was explained to be women's tendency to be employed in the service and professional jobs where English was essential. While, men tended to hold jobs which did not require them to speak English. Therefore, Spanish seemed to function, according to Klee (1987) as the language used by males to establish a kind of masculine identity and to maintain a group solidarity," while English was characterized as a more "feminine language. On the other hand, Zentella (1997) showed, in a study of Puerto Ricans in New York, that females tended to use Spanish more than males because of social networks. Also, boys in the study could spend much more time off the house than the girls did. However, Poplack *et al.* (1988) found that the rate of loanword use and the types of loanwords could be predicted by sex. Moreover, the result seemed to reflect an interaction with level of English and degree of contact with bilinguals.

Education: There are differences in the patterns of borrowing between educated, semi-educated and less educated people. In Rouchdy's (2002) data, semi-educated Arab speakers tended to use Arabic prepositions together with English nouns-an example of borrowing. But educated speakers tended to use English prepositions with English nouns-an example of code switching. Another difference in borrowing, induced by differences in educational levels of the speakers, is the pronunciation of borrowed words. Semi-educated speakers pronounce English lexical items as closely as possible to how they hears them; whereas, educated persons tend to borrow foreign words through their eyes, i.e. by spelling pronunciation (Rouchdy, 2002).

To observe the rate of English loanword use by Spanish emigrants to the United States, Matus-Mendoza (2002) divided the sample into four educational groups: primary, middle school, secondary and postsecondary. This factor differentiated the performance of the 4 groups so that informants with elementary school education favored the use of English in their speech while people with postsecondary education did not include English in their speech. The reason might be that they did not wish to feel isolated from the rest of society since they had already taken step toward integration by obtaining a university degree. They were then considered as established members of the community. Moreover, they also held political positions in the local administration. The speakers did not, however, deny their emigration experience, while they did not consider it the main achievement in their lives (Matus-Mendoza, 2002).

Age: Few empirical studies have examined the effect of age on borrowing, one of which could be Poplack *et al.* (1988). The authors examined the bilingual speech community of Ottawa-Hull through analysis of interviews with a stratified sample of 120 speakers and assessed social factors which were relevant to various aspects of loanword adaptation and use. Age was found to be only marginally relevant to the rate of loanword use and the types of loanwords used. Also, Matus-Mendoza (2002) divided the informants into three generational groups: the youngest group, the mature group and the oldest group. The young informants favored English lexical loans in their speech followed by the second and the third generational groups. This might suggest that the youth start introducing English in their Spanish. In time, the older generation may follow suit. Another reason might be the older generations of migrants who tended to keep their native language and traditions by refusing to speak the language of the host country (i.e. English) (Matus-Mendoza, 2002).

Local residence: The speech community is shown in the literature to influence borrowing. Poplack *et al.* (1988) found that the degree of loanword integration was dependent upon bilingualism within the neighborhood: 'Individual's personal ability is operative but is mediated by the norms of his speech community'.

The present study aims at investigating the following research questions:

- Are nouns borrowed more than other categories of words?
- Does gender influence the use of Persian words by Turkmen speakers?
- Does education influence the use of Persian words by Turkmen speakers?

Table 1: Sex, educational level, age and local residence of informants

	Ayo	ARDI	OJO	ASHI	YUS	BAY	GHAR	HAJI	PERI	ZAD	TOR	BEH
Sex	1	1	2	2	1	1	1	1	2	2	2	1
Educational level	1	2	3	3	2	3	1	1	1	1	2	2
Age	2	1	1	2	2	1	2	1	2	1	2	2
Local residence	2	2	2	2	2	2	1	1	1	1	1	2

- Does age influence the use of Persian words by Turkmen speakers?
- Does local residence influence the use of Persian words by Turkmen speakers?

In order to find convincing answers to these questions, the study was followed through the following methodology. Since there were no treatments, the design was ex post facto. Four independent variables were considered: sex with two levels (male and female), education with three levels (high, medium and low) and age with two levels (old and young). The last independent variable was the local residence with two levels (city and village). The rate of borrowing was considered as the dependent variable.

MATERIALS AND METHODS

The data was extracted through approximately 5 h of spontaneous interview conducted by the third author. This type of free conversation or interview is basic to sociolinguistic research for a reasonable approximation of how language is actually used (Wolfram and Fasold, 1974). The data were tape-recorded and transcribed for further analysis. Also, the transcribed conversation was checked and re-checked to ensure the accuracy of transcription.

The Informants were 12 Turkmen speakers from Gonbad Kavoos and the village of Ghoorchay (Appendix 1). They were divided into 2 groups: those who live in Gonbad Kavoos (a city with both Turkmen and Persian speakers) and those who live in Ghoorchay (a village with Turkmen speakers not exposed to Persian). The informants from the city were in daily contact with Persian speakers while those from the village had very little access to native speakers of Persian. Their exposure to Persian is only restricted to the media, school settings and some occasional contact with Persian speakers in the city. It should be reminded that the informants were randomly selected on the basis of the following considerations: age (old and young), education level (high, medium and low educated) and sex (male and female). A brief description of the informants is presented in Appendix (1) which may help portray the research participants to some extent. Also, Table 1 summarizes distribution of informants with respect to their sex, educational level, age and local residence.

Interviews were conducted to obtain as much free conversation as possible. The informants were asked to focus on the topic of conversation so that that paid minimal attention to the way they spoke. The less attention was paid to speech, the more informal and natural were the informants' speech. Therefore, lengthy narratives were tolerated and in fact were encouraged to obtain the most naturalistic data as possible. After transcribing the data, SPSS was used to do the statistical analyses through logistic regression as well as descriptive statistics such as means and histograms.

RESULTS

Since, content words are more likely to be borrowed in crosslinguistic situations (Poplack and Meechan, 1998), lexical items borrowed from Persian were classified into verbs, nouns, adjectives and others and their percentage in Turkmen speech were obtained. A detailed presentation of the borrowed categories is presented below.

Nouns: The informants showed less resistance for using L2 nouns in their L1 speech and this was the category most borrowed by the informants (44.78%). See Appendix 2 for the transcription key and then note the examples:

1.

Turkmen:	Onno	bêr-dænæ	æŋgoʃtær	dax:ênêb	gelêbdi
Words in English:	That time	one-number unit	ring-Acc	to wear	come-past -perf-3sing
English translation:	That time he had come wearing a ring.				

2.

Turkmen:	mohi:t-ên-a	o-jêre	ha:lamiaddêm
Words in English:	environment -poss-Acc	that-much	like-PAST- first-sing
English translation:	I didn't like its environment that much.		

AYO used, in example 1, the Persian noun "Angoshtar" (æŋgoʃtær; *ring*) rather than its equivalent Turkmen word *Yuzuk* (*yuz:uk*). Similarly, in example 2, GHAR used the Persian noun Mohit (mohi:t, *environment*) rather than its Turkmen equivalent *Doworog* (*doworog*) (Appendix 3 for the full list).

Verbs: The second most important category was the verbs, the second class of words most borrowed by the informants (14.55%). The following examples can highlight the fact:

Table 2: The effect of sex, education, age and place of residence on borrowing

		Variables in the equation					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1ª.	Sex(1)	-70.000	0.151	216.000	1	342.000	0.932
	Edu			34.726	2	0.000	
	Edu(1)	1.432	0.269	28.380	1	0.000	4.186
	Edu(2)	1.386	0.237	34.081	1	0.000	4.001
	Age(1)	-0.250	0.116	4.645	1	0.031	0.779
	Res(1)	0.513	0.178	8.319	1	0.004	1.671
	Constant	-2.382	0.193	152.311	1	0.000	0.920

3.

Turkmen:	O	mærrefi:	et-me-di
Words in English:	He/She	to introduce	to do-Neg-Past-3Sing
English translation:	He/She didn't introduce *(him/herself)*.		

4.

Turkmen:	§o-ni	ra:hnêmayi:	et
Words in English:	He/she-ACC	to guide	do-IMP-2Sing
English translation:	Guide him /her.		

In example 3, the informant used the Persian verb *marrefi* (introduce) and the Turkmen light verb *etmek* rather than its equivalent Turkmen verb *tanidmagh* (tanêdmax, to introduce). Similarly in example 4, the Persian word Rahnemaei (ra:hnêmayi, to guide) and the Turkmen light verb *etmek* rather than the Turkmen verb *Yol kokozmeg* (yol kokoz:mek, to guide) (Appendix 4 for the full list).

Adjectives: Adjectives account for 12.44% f the lexical items borrowed from Persian, the third most borrowed words. Look at the following examples:

5.

Turkmen:	zæban-e	sevvom	bolya:
Words in English:	language-Definite-Ezafe	third	is
English translation:	It is the third language.		

6.

Turkmen:				öz:ênne
	ævvælin	bar	danê§gañ	gor-dêm
Words in English				see-past-
	First	time	university-in	1Sing
English translation:	For the first time, I saw him /her at the university.			

In Example 5, the Persian adjective *sevvom* (third) is used instead of the Turkmen word *uÇulenji*. Similarly in example 6, the word *ævvælin* (first) is used for the Turkmen *êlkênji* (Appendix 5 for the full list).

Others: Other lexical items like conjunctions, adverbs and prepositions which have not been mentioned in this study accounted for 28.23% of the lexical items borrowed from Persian (Appendix 6 for the full list). Also, the following examples may demonstrate the categories borrowed:

Table 3: Percentage of borrowed words in different gender groups

			Descriptives	
Sex			Staistic	S.D.
Borperc	1	Mean	23.6386	4.5364
	2	Mean	25.1740	6.9171
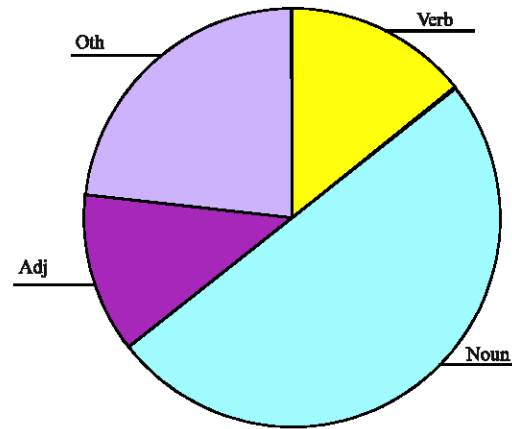
Fig. 1: Distribution of borrowed word categories

7.

Turkmen:	fæxæt	i:z-na-du§up	yorordêm
Words in English:			do-Past
	only	trace-him-to	Progressive-1Sing
English translation:	I used to follow him.		

Here, the Persian adverb *fæxæt* (only) is uttered instead of the Turkmen equivalent *yono* (only). Example 8 below shows the use of the Persian conjunction *væli* (but) by one informant. For a full distribution of the borrowed categories, Fig. 1. As the figure indicates, *nouns* are the class of words most borrowed from Persian in the speech of informants; thus the first hypothesis stating that *nouns are not the most boroed calss of words* is rejected.

8.

Turkmen:	væli	kollæn	xow-i
Words in English:	but	generally	good-be-3Sing
English translation:	But generally it is good.		

Sociolinguistic factors: Table 2 below shows the results of Logistic regression used to analyze the data. The

Table 4: Percentage of borrowed words in different education groups

			Descriptives	
Edu			Staistic	S.D.
Borperc	1	Mean	33.7060	2.2767
	2	Mean	25.7050	5.1842
	3	Mean	6.6633	1.7581

Table 5: Percentage of borrowed words in different age groups

			Descriptives	
Age			Staistic	S.D.
Borperc	1	Mean	19.5920	6.1488
	2	Mean	27.6257	4.5871

Table 6: Percentage of borrowed words in different residence groups

			Descriptives	
Res			Staistic	S.D.
Borperc	1	Mean	36.0100	1.4163
	2	Mean	15.88	3.8057

effects of sex, education, age and local residence on borrowing are separately discussed below.

The results indicated that sex does not affect borrowing (Table 1); thus the second hypothesis stating that *age does not influence the use of Persian words by Turkmen speakers* is accepted. Table 3 shows the Percentage of borrowed words in male and female speakers.

However, results on educational level indicated that education has a crucial role in the extent to which Turkmen speakers use Persian words in their speech. According to Table 1, the third null hypothesis is accepted as *education does not influence the use of Persian words by Turkmen speakers*. As shown in Table 4 , the higher the educational level, the higher the rate of borrowing from Persian.

Another factor which had a significant effect on borrowing Persian words by Turkmen speakers was *Turkmen speakers* is rejected. Older informants showed more resistance against using the second language words in their speech. Table 5 shows the percentage of borrowed words across old and young speakers.

But city dwellers and rural residents came up to be drastically different as for their borrowing behavior. According to Table 1, the fifth null hypothesis stating that *local residence does not influence the use of Persian words by Turkmen speakers* is rejected. Table 6 shows the Percentage of borrowed words in the speech of city and village residents.

DISCUSSION

In our study, nouns were found to be the borrowed category of highest frequency, which is in line with Rouchdy (2002). He found that the largest number of borrowings from English into Arabic occurred in the category of nouns. Verbs and adjectives were the second and third category of words borrowed respectively. How can we account for the hierarchy of borrowed categories in this study? The most probable explanation lies in the reasons for borrowing. According to Muysken (1999), the most important reason for borrowing is to extend the referential potential of a language and since reference is established primarily through nouns, these are the most easily borrowed elements. Generally, content words are borrowed more easily than function words since the former have clear links to cultural content and the latter do not (Appeal and Muysken, 1987).

However, many studies have shown that verbs are the category least borrowed (Myers-Scotton and Okeju, 1973), which is contrary to our results. In our study, also in a study by Rouchdy (2002), this did not prove to be the case, verbs being the second largest category of borrowing. These verbs were observed to be the unnecessary borrowings due to strong contacts between L1 and L2 speakers. Also, verbs are more crucial to organization of sentences than nouns and this can account for the fact that verbs are harder to borrow than nouns (Muysken, 1999). Regardless of their sex, education level, age and their local residence, our informants used Persian loanwords in their speech. Even *Ojo* who lives in the village and knows almost nothing of the borrowed language used some Persian words in her speech. For example:

9.

Turkmen:	a:xay	mudi:r	men	des:§u:y-æ	gêjjek	di-æ
Words in				toilet-	go-future-	say-3
English:	Mr.	Teacher	I	To-prep	1Sing	Sing
English translation:		Teacher! I want to go to the toilet.				

Example (9) provides an exemplary sentence in which *Ojo* used Persian words, the Persian noun *des:§u:y* (toilet) rather than the Turkmen equivalent *ayax yol* (toilet). Her use of Persian loanwords illustrates the influence of the environment on the speaker; she accommodates her speech to people whom she interacts with. Mendieta (1999) also explained that a lexical loan can occur even when the knowledge of the borrowed language is very limited - the speech of *Ojo* best explains Mendieta's claim.

Sex was also shown to have no significant role in the rate of loanword use by Turkmen speakers. However, women tended to use more loan words than men. As Trudgill (1974) rightly contended, women are more status-conscious than men. Therefore, their use of words from the dominant language in their speech might be due to their perceived prestige lying in the use of loanwords from the dominant language. Education, on the other hand, was

shown to have a significant effect on the use of loanwords. The more the level of education, the higher the rate of loanwords is by the speakers. This can be justified on the grounds that educated individuals have more contact with the dominant language; hence, the use of Persian loanwords is inevitable. This finding, however, is not in line with the results of Matus-Mendoza (2002) in which less educated speakers favored less use of dominant language. Also, the factor of age was shown to have a significant role in the rate of loanword use. Older people tended to use less Persian loanwords in their speech and their resistance in the use of loanwords could be explained on the grounds that they wanted to keep their Turkmen culture and identity more than younger speakers. But as for the local residence, the study showed that this factor plays a significant role in the use of Persian words. The reason could be the fact that city-dwellers have more contacts with Persian speakers. This finding is in line with Poplack *et al.* (1988) who found that the degree of loanword integration and use were dependent upon bilingualism within the neighborhood.

To sum up, this study was an attempt to investigate the nature of Persian loan words in the speech of native Turkmen speakers and the effect of sociolinguistic factors (sex, education, age and local residence) on the rate of borrowing Persian words. The results showed that sex did not play a significant role in the rate of borrowing. However, education, age and local residence were observed to influence borrowing Persian words.

ACKNOWLEDGMENT

Appendix 1: Description of the Informants

1(AYO) was the last term student at Payam-Nour University. He had lived in the village since childhood and his contact with Persian speakers was limited to school setting and the media. He had a number of Persian speaking friends who he met occasionally in the city.

2(ARDI) was a 42-year-old man from the village, with a high school diploma and having been employed as a primary school teacher in the village. Like Ayo, his contact with Persian speakers was very limited.

3(OJO) was a 60-year-old woman who lived in the same village. She was illiterate and knew almost nothing of Persian, but used some Persian borrowed words occasionally in her speech.

4(ASHI) was 26 years old and lived in the same village. She has some mid-high school studies, knew Persian and used borrowed words occasionally in her speech.

5(YUS) was a 35-year-old man who lived in the village. He had finished his mid-high school studies.

6(BAY) was an old man at his 70s. He was illiterate but was able to communicate in Persian due to his past involvement in a job which necessitated contacts with Persian speakers.

7(GHAR) was a 23-year-old boy who studied accounting at Payam-Nour University in Gonbad Kavoos. He had lived all his life in Gonbad kavoos having daily contact with Persian speakers.

8(HAJI) was a 50-year-old man who managed a language institute in Gonbad Kavoos. He used to be a high school teacher in the past and was now retired when interviewed. Since he was a city dweller, he was in daily contact with Persian speakers.

9(PERY) was a 26 year-old woman who had lived in Gonbad kavoos since childhood. She studied English at Payam-Nour University.

10(ZAD) was a 40-year-old woman having lived in Gonbad Kavoos since her childhood. She was a primary school principal with a B.A. degree in education.

11(TOR) was a 17-year-old girl who studied in grade 3 high school. She had lived in Gobad Kavoos since childhood.

12(BEH) was a boy of 18 who had recently got his diploma. He was born in the village and had lived there since childhood. His exposure to Persian was limited to the media and his occasional encounters with Persian speakers in the city.

Appendix 2: Transcription key

/a/ short low back vowel	/i/ lax high front vowel	/z:/ voiced interdental fricative	/h:/ voiceless velar fricative
/b/ voiced bilabial stop	/n/ alveolar nasal	/Ç/ voiceless alveopalatal affricate	/æ/ lax low front vowel
/a:/ long low back vowel	/i:/ tense high front vowel	/k/voiceless velar stop	/t/ voiceless alveolar stop
/m/ bilabial nasal	/p/ voiceless bilabial stop	/§/ voiceless alveopalatal fricative	/ê/ schwa
/o/ lax low rounded vowel	/e/ lax mid front vowel	/y/ alveopalatal glide	/h/ glottal fricative
/u lax high back vowel	/d / voiced alveolar stop	/ñ/ (back velar nasal)	/ng/ (front) velar nasal
/j/ voiced alveopalatal affricate	/x/ voiced velar stop	/s/ voiceless alveolar fricative	/v/voiced labiodental fricative
/u:/ tense high back vowel	/z/ voiced alveolar fricative	/s:/ voiceless interdental fricative	/w/ velar glide
/L/ lateral alveolar liquid	/G/ viced velar fricative	/g/ voiced velar stop	/r/ nonlateral alveolar liquid

Appendix 3: Persian nouns in turkmen speech

No	Noun	Meaning	No	Noun	Meaning	No	Noun	Meaning
1	lahaz	aspect	46	moxæssêr	guilty	91	glu:læ	bullet
2	§ah:a	branch	47	§êma:ra	number	92	nefer	person
3	Ba:r	time	48	ê§têba:	mistake	93	esi:r	captive
4	Danê§ga	university	49	ma§§i:n	car	94	nefer	person
5	ba:r	time	50	Turmêz:	brake	95	Janba:z	handicapped
6	tæxi:b	chase	51	bi:me	insurance	96	nefer	person

Appendix 3: Continued

No	Noun	Meaning	No	Noun	Meaning	No	Noun	Meaning
7	gori:z	escape	52	h:ata:	mistake	97	ra:nændegi:	driving
8	hæ§t	eight	53	ra:nændæ	driver	98	ru:nêwê§t	copy
9	sistem	system	54	hæri:m	limit	99	S:andali	chair
10	hæfte	week	55	foxe lisans	M.A(degree)	100	ka:r a:mu:z	apprentice
11	jæ§n	celebration	56	Meders:æ	school	101	hesabdari:	accounting
12	hijdæ	eighteen	57	duktur	physician	102	Ehtema:l	probability
13	a:ba:n	A month	58	pa:d§a	king	103	ræy	ballot
14	term	term	59	a:xa	Mr.	104	ræy	ballot
15	dænæ	number	60	des:§u:y	toilet	105	tælæffoz	pronunciation
16	ængo§tær	ring	61	hærekæt	departure	106	sæth	level
17	na:mzæd	fiance	62	pa:d§a:	king	107	kelas	classroom
18	da:nê§g:a:	university	63	pa:d§a	king	108	barge	sheet
19	pesær æmu:	cousin	64	tufeng	gun	109	tæssi:	correction
20	vaxeyyæt	reality	65	t ufeng	gun	110	læhze	moment
21	fala:ni:	A person	66	dænæ	number	111	bar	load
22			67	ræy	ballot	112	hesabdari	accounting
23	piadero	Side walk	68	ma§§i:n	car	113	zæba:n	language
24	æsra:r	secrets	69	ræy	ballot	114	mo§kel	difficulty
25	defe	time	70	§êna:sna:ma	certificate	115	kela:s	classroom
26	sa:lon	salon	71	ræy	ballot	116	Ders:	lesson
27	jæva:b	answer	72	fa:mi:l	relative	117	ostad	professor
28	da:nê§g:a	university	73	mællêm	teacher	118	dane§ju:	student
29			74	§era:yêt	conditions	119	næzærmæ	idea
30	a:da:b	custom	75	kæregær	worker	120	mokalema	conversation
31	ra:nændæ	driver	76	ensa:n	humanbeing	121	Ba:r	load
32	di:d	sight	77	hemsa:ya:	neighbor	122	kela:s	classroom
33	sæth	level	78	teda:d	number	123	ba:la:	more
34	færhæng	culture	79	howze	Office	124	hæftad	seventy
35	fa:rsi:	persian	80	æfv	amnesty	125	hæ§tad	eighty
36	S:unnot	tradition	81	zæma:n	time	126	sæd	hundred
37	ræsm	custom	82	jæng	war	127	sæhne	scene
38	Pezirayi:	party	83	amuze§	education	128	Bærh:ord	acquaintane
39	næzm	tidiness	84	Sæh:tgi:ri:	strictness	129	esteres	stress
40	§u:r	passion	85	mæntæk:æ	zone	130	azad	Open(university)
41	sha:m	dinner	86	jæv	atmosphere	131	sæd	hundred
42	§owx	happiness	87	ru:hiæ	spirit	132	sæd	hundred
43	hez:ar	thousand	88	mæmu:riæt	mission	133	konku:r	(national)exam
44	ê§têba:	mistake	89	dærre	valley	134	mæssæl æ	subject
45	æfxa:ni	afghani	90	jæsæd	body	135	stres	stress
No	Noun	Meaning	No	Noun	Meaning	No	Noun	Meaning
136	ti:p	group	181	mædræk	document	226		
137	ræy	ballot	182	mæhdu:diæt	limitation	227		
138	moæssese	institute	183	mæhdu:diæt	limitation	228		
139	su:d dehi	profitability	184	dæli:l	reason	229		
140	dæbi:r	teacher	185	zendegi:	life	230		
141	noxte	point	186	næzær	idea	231		
142	a:mu:ze§ o pærvære§	Education office	187	servæt	richness	232		
143	§ekayæt	complaint	188	tumen	toman	233		
144	t:bêstan	summer	189	pærvaz	flight	234		
145	baha:r	spring	190	nowê	type	235		
146	da:nê§amu:z	student	191	bæÇÇe bazi:	Childish thing	236		
147	nefer	person	192	kêtabÇa	booklet	237		
148	fæsl	chapter	193	mosælma:na:n	moslems	238		
149	hæft	seven	194	jæha:n	world	239		
150	kela:s	class	195	hæ§t	eight	240		
151	mohi:t	environment	196	Sa:l	year	241		
152	halæt	state	197	§ohæda	martyrs	242		
153	rexabat	competition	198	§æhr	city	243		
154	kela:s	class	199	karmænd	employee	244		
155	ha:læt	state	200	mærasem	ceremonies	245		
156	mænzu:r	aim	201	h:orde	tiny	246		
157	da:sta:n	story	202	ru:sta:	village	247		
158	hæx	right	203	ri:ze	small	248		
159	lisans	B.A(degree)	204	mo§kel	difficulty	249		
160	term	term	205	da:ne§ju:	student	250		
161	zæban	language	206	döst	friend	251		

Appendix 3: Continued

No	Noun	Meaning	No	Noun	Meaning	No	Noun	Meaning
162	mexdar	extent	207	defe	time	252		
163	bærh:ord	acquaintance	208	mu:Go	time	253		
164	h:a:nom	Ms.	209	bi:ma:resta:n	hospital	254		
165	ha:læt	state	210	hemsaya	neighbor	255		
166	madæ	mother	211	mu:Go	time	256		
167	færzænd	child	212	sælamæti:	Well being	257		
168	moællem	teacher	213	da:ne§ga:h	university	258		
169	Sa:h:teman	building	214	ni:ru:	person	259		
170	defe	time	215	lisa:ns	B.A	260		
171	fæêêaliyæt	activity	216	ba:za:r	market	261		
172	ehsas	feeling	217	ka:r	job	262		
173	ævvæli:	first	218	emka:na:t	facilities	263		
174	ru:z	day	219	næzær	idea	264		
175	yek§æmbe	sunday	220	mu:Go	time	265		
176	ru:z	day	221	a:za:d	free	266		
177	xêsmat	part	222	bærge	paper	267		
178	otoG	room	223			268		
179	ru:z	day	224			269		
180	Ketabk:ane	library	225			270		

Appendix 4: Persian verbs in Turkmen speech

No	Verb	Meaning	No	Verb	Meaning	No	Verb	Meaning
1	Rabêta bærxærar etmek	To make friends with	26	tæjjob etmek	To be surprised	51	fekr ety æn	to think
2	mærrefi: edemek	To introduce	27	na: omi:d bolmox	To be hopeless	52	Enteh:a:b edmek	To choose
3	mærrefi: edemek	To introduce	28	ælaxemænd bolmox	To be interested	53	ba:zresi etmek	To inspect
4	ru:hia beryædæ	To encourage	29	edame bermek	To keep on	54	reseedan	To reach
5	xadam wurmox	To walk	30	pi:§ræft edmek	To improve	55	pæsændaz etmek	To save
6	hefz bolmox	To be kept	31	tæ§ki:l bolmox	To be held	56	boxz tutmox	To choke
7	i:ja:d bolmox	To be made	32	sæbte na:m etmek	To register	57	tæski:n bermek	To calm
8	ja:z: wurmox	To play jazz	33	fekr etmek	To think	58	tædri:s etmek	To teach
9	Z:a:hêr bolmox	To appear	34	hozu:re zehn bolmox	To remember	59	Enteh:abedmek	To choose
10	Z:erengi etmek	To doubledoor	35	sæbte na:m etmek	To register	60	haj etmek	To visit Kaaba
11	tæja:voz: edmek	transgress	36	baes bolmox	To cause	61	lezzæti bolmox	To enjoy
12	ra:hnêmayi: etmek	To guide	37	i:ja:d etmek	To cause	62	xavu:l bolmox	To be accepted
13	z:ênnêg:i: edmek	To live	38	æmæl etmeli	To practice	63	tæsadof edmek	To have an accident
14	derbes:t edmek	To take a taxi	39	rexabæt etmek	To compete	64	bæstæri: bolmox	To be hospitalized
15	ela:m bolmox	To be announced	40	hesadæt etmek	To feel jealous	65	tædri:s etmek	To teach
16	§a:yêe doGrlomox	To gossip	41	dowre hæm bolmox	To gather together	66	pi:§ræft edmek	To improve
17	paG§ etmek	To distribute	42	mærrefi etmek	To introduce	67	fekr etmek	To think
18	tæjjob etmek	To be surprised	43	tu:l Çekmek	To last	68	fekr etmek	To think
19	Moreh:æssi: vermek	To Let sb off work	44	tædri:s edmek	To teach	69	Tamiz etmek	To make clean
20	ba:zda:§t etmek	To arrest	45	§erekæt etmek	To participate	70	§i:r ed edmek	To give confidence
21	hessedmek	To feel	46	fekr etmek	To think	71	Çe berese	Let alone
22	Sæh:ttutmox	To be strict	47	ehsas etmek	To feel	72		
23	Öwoz: edmek	To change	48	Enteh:abedmek	To choose	73		
24	soxu:tedmek	To fall	49	Enteh:abedmek	To choose	74		
25	tai:d bolmox	To be ratified	50	h:a:he§ etmek	To plead	75		

Appendix 5: Persian adjectives in turkmen speech

No	Adjective	Meaning	No	Adjective	Meaning	No	Adjective	Meaning
1			20	na:rahat	sad	39	sær be sær	balanced
2	ævvælin	first	21	ræhbæri:	(of)leader	40	sevvom	third
3	ævvælin	first	22	fe§orda	intensive	41	du:stane	friendly
4	a:§na:	familiar	23	Sæh:t	difficult	42	h:ætærnak	dangerous
5	bozorg	big	24	ra:hat	easy	43	ah: ærin	last
6	dane§ju:yi:	student	25	sa:da	simple	44	ah: ærin	last
7	ævvæl	first	26	kæbu:d	injured	45	færhangi:	cultural
8	zæru:ri:	urgent	27	bed baGêt	unfortunate	46	zende	living
9	h:ælvæt	solitary	28	bazne§æst	retired	47	færahæm	ready

Appendix 5: Continued

No	Adjective	Meaning	No	Adjective	Meaning	No	Adjective	Meaning
10	ræd	rejected	29	xævi:	strong	48	ændæki	little
11	a:za:d	free	30	rok	candid	49	pi:§	ago
12	S:ors:ori:	slippery	31	pu:st kænde	candid	50	nemu:ne	exemplary
13	xæni:	rich	32	ebtedai:	elementary	51	Çelom	fortieth
14	jozzi:	simple	33	ævvæl	first	52	amu:ze§i:	educational
15	æji:b	strange	34	elmi:	scientific	53	motæfavet	differnt
16	oxdeyi	revengeful	35	mayel	interested	54	du:stana	friendly
17	mo§æh:h:æs;	clear	36	xævi	strong	55	aksare	most
18	xa:nu:ni:	legal	37	jævan	young	56	bæzi:	some
19	zereng	clever	38	færhangi:	cultural	57		

Appendix 6: Other persian words in turkmen speech

No	Other	Meaning	No	Other	Meaning	No	Other	Meaning
1	hæmintori	For the fun of it	38	ta: ha:la:	So far	75	Çon	because
2	addi	normally	39	eger	if	76	væli	but
3	h:ob	well	40	ehtemalæn	probably	77	kollæn	All in all
4	hula:s:a	In sum	41	o	and	78	o	and
5	fæxæt	only	42	væxti:	when	79	æssæn	At all
6	o	and				80	næ	no
7	hula:s:a	In sum	44	mæmu:læn	usually	81	inke	that
8	hæmÇin	such	45	dær	in	82	æz	from
9	hætta:	even	46	vaxeæn	really	83	dige	then
10	sær	right	47	hæm Çin	such	84	æssæn	At all
11	ettefaxæn	actually	48	hæmintori	For the fun of it	85	hi:Ç	No, not any
12	eg:er	if	49	Mæh:su:sæn	specially	86	mæsælæn	For instance
13	ta inke	So that	50	væxti:	when	87	yi:	a
14	Yeks:ere	uninterruptedly	51	Ya	or	88	ke	that
15	bi: h:ia:l	Taking easily	52	yæni	That is	89	ke	that
16	Belæh:ære	finally	53	eger	if	90	ke	that
17	eg:er	if	54	vaxeæn	really	91	væli:	but
18	Belæh:ære	finally	55	dæxi:xæn	exactly	92	heyf	pitty
19	ettefaxæn	actually	56	As:lan	At all	93	yæni:	That is
20	ka:mêlæn	perfectly	57	dær	in	94	æssæn	At all
21	Mes:elen	For instance	58	ke	that	95	hætta	even
22	Belæh:ære	finally	59	Çændan	That much	96	yæni:	That is
23	As:lan	At all	60	ta:	until	97	væli:	but
24	eger	if	61	be	to	98	o	and
25	dær kol	All in all	62	be h:odie h:od	By itself	99	do næfæri:	together
26	sêri:	One time	63	ya	or	100	hodu:de	almost
27	yæni	That is	64	tæxri:ban	almost	101	dah:ele	inside
28	kullen	generally	65	Sêri:	One time	102	yæni:	That is
29	yæni	That is	66	kenar	with	103	æssæn	At all
30	yæni	That is	67	Çon	because	104	væli	but
31	dæxi:xæn	exactly	68	§æh:sæn	Personally	105	h:ob	well
32	yæni	That is	69	æksæræn	Most of the time	106	bæraye inke	because
33	kullen	completely	70	o	and	107	væli	but
34	yæni:	That is	71	seri:	One time	108	Çon	because
35	tævæssoti bilen	by	72	æksæræn	most	109	æslæn	At all
36	elbette	Of course, definitely	73	ælbætte	Of course, definitely	110		
37	tæxri:ban	almost	74	H:öb	well	111		

REFERENCES

Appeal, R. and P. Muysken, 1987. Language contact and bilingualism. London: Edward Arnold.

Bentahila, A. and E. Davies, 1991. Constraints on code-switching: A look beyond grammar. In papers for the symposium on code-switching in bilingual studies: Theory, significance and perspectives, Barcelona: Eur. Sci. Foundation, 2: 369-403.

Bloomfield, L., 1933. Language. London: George Allen and Unwin.

Bokamba, E., 1988. Code-mixing, language variation and linguistic theory: Evidence from Bantu languages. Lingua, 7: 21-62.

Dulling, S., 1960. An Introduction to the Turkmen Language. London: Central Asian Research Centre.

Garrett, J. *et al.*, 1996. Turkmen-English dictionary: a SPA project of Peace Corps Turkmenistan. Retrieved online September 2007 from www.chaihana.com/dict.doc.

Ghafar-Samar, R. and M. Meechan, 1998. The null theory of code-switching versus the none-borrowing hypothesis: Testing the fit in Persian-English bilingual discourse. Int. J. Bilingualism, 2(2): 203-219.

Grimes, H., 1992. Ethnologue: Languages of the World. Dallas: Summer Institute of Linguistics.

Klee, C., 1987. Differential Language Usage Patterns by Males and Females in a Rural Community in the Rio Grande Valley. In: Terrell, M., J. Lee and B.V. Patten (Eds.). Language and Language Use: Studies in Spanish, University Press of America, pp: 125-45.

Mahootian, S., 1993. A null theory of code-switching. Northwestern University: Doctoral dissertation.

Mahootian, S., 1997. Persian. London: Routledge.

Matus-Mendoza, M., 2002. The English lexical loan: A class marker. J. Hispanic Higher Edu., 1(4): 329-337.

Mendieta, E., 1999. El préstamo en el espa?ol de los Estados Unidos. New York: Peter Lang. In: Matus-Mendoza, M., 2002. The English lexical loan: A class marker, J. Hispanic Higher Edu., 1(4): 329-337.

Muysken, P., 1999. Three processes of borrowing: borrowability revisited. In Extra, Guus and Ludo Verhoeven (Eds.). Bilingualism and Migration. Berlin, Germany: Mouton de Gruyter, pp: 229-246.

Myers-Scotton, C., 1992. Comparing codes-witching and borrowing. J. Multilingual and Multicultural Dev., 13: 19-39.

Myers-Scotton, C., 1993. Dueling languages. Oxford: Clarendon Press.

Myers-Scotton, C. and J. Okeju, 1973. Neighbors and lexical borrowings. Language, 49(4): 871-89.

Pavlenko, A. and S. Jarvis, 2002. Bidirectional transfer. Applied Linguistics, 23(2): 190- 214.

Pfaff, C., 1999. Changing patterns of language mixing in a bilingual child. In Extra, Guus and Ludo Verhoeven (Eds.). Bilingualism and Migration. Berlin, Germany: Mouton de Gruyter, pp: 97-122.

Poplack, S., 1993. Variation theory and language contact. In Dennis, R. and Co. Preston (Eds.). American Dialect Research. Philadelphia: John Benjamin's Publishing, pp: 251-286.

Poplack, S., D. Sankoff and C. Miller, 1988. The social correlates and linguistic processes of lexical borrowing and assimilation. Linguistics, 26: 47-104.

Poplack, S. and M. Meechan, 1998. How languages fit together in code-mixing. Int. J. Bilingualism, 2(2): 127-138.

Rezaei, V., 2003. A role and reference grammar analysis of simple sentences in Farsi. Isfahan University: Doctoral dissertation.

Rouchdy, A., 2002. Language Contact and Language Conflict in Arabic: Variations on a Sociolinguistic Theme. London: Routledge Curzon.

Stockwell, P., 2002. Sociolinguistics: a resource book for students. London: Routledge

Taylor, D.M., 1951. The black Carib of British Honduras. New York: Wenner-Gren Foundation for Anthropological Research.

Trudgill, P., 1974. The social differentiation of English in Norwich. Cambridge: Cambridge University Press.

Van Hout, R. and P. Muysken, 1994. Modeling lexical borrowability. Language Variation and Change, 6: 39-62.

Veerman-Leichsenring, A., 1991. Gramatica del Popoloca de Mezontla (con vocabulario y textos). Amsterdam Atlanta, Ga: Rodopi.

Weinreich, U., 1979. Languages in contact. The Hague: Mouton.

Wolfram, W. and R.W. Fasold, 1974. Field methods in the study of social dialects. In: The study of social dialects in American English, Englewood Cliffs, NJ: Prentice hall.

Zentella, A.C., 1997. Growing up Bilingual Puerto Rican Children in New York. Oxford: Blackwell.