A Sociolinguistic Study of Vowel Harmony in Persian (Different Accents Perspective)

Morad Bagherzadeh Kasmani

***Abstract*—The data of the present article was collected through a randomly classified data collection process and Labovian sociolinguistic interviews; the data, then, was analyzed through the Pearson Chi square method by means of SPSS. The data were described through cross tabulations and diagrams as well. A total of 210 informants were interviewed: there are six groups of informants with different Persian accents (Tehrani, Isfahani, Shirazi, Mashhadi, Baboli and Ardebili), each group covering 35 informants.I followed sociolinguistic research techniques similar to the ones utilized and established in Labov [1], Milroy [2], Eckert [3], Josey [3] and Oliver Rajan [4]. The hypothesis of the present survey research is that there is a significant difference between and among different groups of informants' accents regarding their use of vowel harmony.**

***Index Terms*—Vowel harmony, accent, extra-linguistic factors, prestige, formal.**

I. Introduction

This survey research is an attempt to study vowel harmony in its social context considering the effects of regional accents (Tehrani, Mashhadi, Isfahani, Shirazi, Baboli and Ardebili accents) on the use of vowel harmony in Persian.Thus, the present study which is a quantitative study of speech is concerned with analyzing sociolinguistic variation existing in the speech of subjects with different levels of education.

The point of view of the present study is that one cannot understand the language fully apart from the social life of the community in which it occurs. Moreover, the present study shows that language is a socio-cultural phenomenon and context-dependent.

This study shows that the variation in the use of vowel harmony in Persian is not free; rather, it depends on the formality or informality of the context, prestige and the frequency of occurrence of the linguistic element.

Furthermore, the study demonstrates that no change occurs in a social vacuum and before a phonetic variant can spread from word to word, it is necessary that one of the two rivals shall acquire some sort of prestige as it is the case for [ʊ] in [nʊhʊr] (lunch) versus [a] in [nahʊr] investigated in the present study.

Moreover, it should be noted that vowel harmony operates left in Persian (e.g. /e/ in /be+bor/ changes into [o], so/ be+bor/ changes into [bobor]. Therefore, it is the vowel on the left syllable which is affected. Moreover, it is affected by word- boundaries and only is the vowel in the immediate left syllable affected by word-boundaries. For instance, if the vowel harmony applies on the sentence / # ino (this) # be+gir # (get) #be+bor# (cut) (Get this and cut it), it changes into [#ino#bigir#bobor#], in which /e/ in /be+gir/ and /e/ in [be+bor] change into [i] and [o] respectively. Thus, vowel harmony is not affected by phrase boundaries in Persian.

I suppose the study may be of use and of benefit in dialectology, psycholinguistics and phonology as a main and fundamental part of grammar. Furthermore, such a study is of significance to teachers, in that they realize the fact that in addition to intra-linguistic factors, the extra-linguistic factors also affect the use of language and the fact that linguistic variations should be taken into account on the whole. Moreover, such a study consolidates the functional and interactional views of language.

The hypothesis of the present survey research is that there is a significant difference between and among different groups of informants, accents regarding their use of vowel harmony.

II. Review of Literature

In spite of the fact that there are a large number of pieces of research devoted to the various aspects of different accents of Persian, unfortunately the study of social aspects of Persian has been ignored by dialectologists. (e.g. as far as the researcher knows a few pieces of research (Modarresi [5], Jahangiri [6], Jahangiri [7] Afkhami and Bagherzadeh Kasmani [8], Bagherzadeh kasmani [9], and Bagherzadeh kasmani [10] have been conducted on a sociolinguistic study of Modern Persian and the present study is one of the three pieces of research focusing on the sociolinguistic aspects of vowel harmony in Persian.

III. Methodology

A. Subjects

A total of 210 informants were interviewed: there are six groups of informants with different Persian accents (Tehrani, Isfahani, Shirazi, Mashhadi, Baboli and Ardebili accent) , each group covering 35 informants.

It is worth mentioning that Tehran, the capital and the largest city of Iran, lies on the southern slope of the Alborz mountains 63 miles from the Caspian Sea,and is located at an altitude of about 3,800 feet above sea level. Tehran has a warm summer and a relatively cold winter. Shiraz is located at the Southern, and Isfahan is located near southern part of Iran, Mashhad is located at the north-eastern part, Babol is

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Morad Bagherzadeh Kasmani is with Islamic Azad University, Chalous Branch, Iran (e-mail: kasmankola@yahoo.com)

located at the northern part of Iran and Ardebil is located at the north-western part of Iran. Furthermore, Shiraz and Mashhad are about 1000 kilometers far from Tehran, Babol is about 220 kilometers far from Tehran, and Ardebil is about 591 kilometers far from Tehran. Moreover, it should be noted that Baboli and Ardebili people learned Persian as their second language: Baboli people speak the Mazandarani dialect and Ardebili people speak Turkish as their mother tongue. However, Tehrani, which is the standard accent, Isfahani, , Shirazi and Mashhadi people acquired Persian as their mother tongue. 1

B. Data Collection Procedure

The data of the present survey research was collected through a randomly classified data collection process, Labovian sociolinguistic interviews; the data, then, were analyzed through the Pearson Chi square method by means of SPSS. The data were described through cross tabulations and the diagrams as well.

In order to control intervening variables, all informants were chosen from among those informants with almost the same age , the same social class , the same income, the same family income, the same education and the same gender (all subjects are male).

The interviews included casual conversations of about three to four hours on different topics that were familiar to the subjects (participants). It is worth mentioning that the interviews continued until all the needed and expected data were collected.

In this study, tokens from the last quarter of the interviews were analysed because they represent the type of speech that one might find naturally in the speech community under investigation. This was done in line with Labov [11] stating that "the major part of the interview, no matter how casual it may seem on first inspection, must be classed as careful speech."

I followed sociolinguistic research techniques similar to the ones utilized and established in Labov [1], Milroy [2], Eckert [12], Josey [3], Tagliamonte [13] and Oliver Rajan [4].

As you may know, there are inherent problems in the use of impressionistic transcriptions in that the transcriber's expectations can affect what is perceived in the collected interviews .Therefore ,to overcome this problem, the researcher subjected the interviews to instrumental measurements using Praat.

The linguistic variables/dependent variables under study are as follows:

/e/> [i] , /e/>[ɪ] , /a/> [ɒ], /a/>[ä] , /e/>[o] , /o/>[u] , /ɒ/>[u] , /a/>[o] , /e/>[a], /a/>[e], /ow/>[o] , /ow/>[u] , /eɪ />[e:] and /eɪ />[e.].

IV. Results

After collecting the data, by conducting interview and tape recording, as was mentioned, the data were transcribed and then analyzed.

After running a chi-square test, the following results have been observed:

Comparing all of the six groups of accents under study, the following results have been obtained: there is a significant difference among different groups of informants, accents regarding their use of vowel harmony in all of the afore-mentioned linguistic variables except /a/>[ä] and /e/>[a].

Comparing them in twos, the following results have been gained:

1) between Isfahani and Baboli accents, there is a significant difference regarding their use of vowel harmony regarding the use of the following variables: /e/>[i] , /e/>[ɪ] , /a/>[ɒ] , /a/>[o] , /a/>[ä] , /e/>[o] and /o/>[u].
2) between Isfahani and Tehrani accents, there is a significant difference regarding the use of the following variables: /e/>[i] , /a/>[ɒ] and /a/>[o].
3) between Isfahani and Ardebili accents, there is a significant difference regarding the use of the following variables : /e/>[i] , /e/>[ɪ], /a/>[ɒ] , /e/>[o], /o/>[u] and /a/>[o].
4) between Shirazi and Baboli accents, there is a significant difference regarding the use of the following variables: /e/>[i] , /a/>[ɒ] , /e/>[o] , /o/>[u], /e/>[ɒ], /a/>[o] and /a/>[e].
5) between Shirazi and Tehrani accents, there is a significant difference regarding the use of the following variables: /e/>[i] , /a/>[ɒ] , /e/>[o] , /o/>[u], /e/>[ɒ] and /a/>[e].
6) between Shirazi and Ardebili accents, there is a significant difference regarding the use of the following variables: /e/>[i] ,/e/>[ɪ], /a/>[ɒ] , /e/>[o] , /o/>[u], /e/>[ɒ] and /a/>[e].
7) between Mashhadi and Baboli accents, there is a significant difference regarding the use of the following variables: /e/>[i] , /a/>[ɒ] , /e/>[o] , /o/>[u], /e/>[ɒ] and /a/>[e].
8) between Mashhadi and Tehrani accents, there is a significant difference regarding the use of the following variables: /e/>[ɪ] , /a/>[ɒ] , /e/>[o] , /e/>[ɒ] and /a/>[e].
9) between Mashhadi and Ardebili accents, there is a significant difference regarding the use of the following variables: /e/>[i] , /e/>[ɒ] , /e/>[o] , /o/>[u] and /e/>[ɒ].
10) between Isfahani and Shirazi accents, there is a significant difference regarding the use of the following variables:/a/>[ɒ] , /e/>[o] , /e/>[ɒ] and /a/>[e].
11) between Isfahani and Mashhadi accents, there is a significant difference regarding the use of the following variables:/e/>[ɪ], /a/>[ɒ] , /e/>[o] , /e/>[ɒ] and /a/>[o].
12) between Mashhadi and Shirazi accents, there is a significant difference regarding the use of the following variables: /e/>[i], /e/>[ɪ], /e/>[ɒ] , /a/>[o] and /a/>[e].

V. Discussion

As it is observed from the previous section, there is a significant difference among the six different groups of informants' accents regarding their use of vowel harmony in all of the afore-mentioned linguistic variables under study

[1] - The researcher selected different informants with different language backgrounds to see whether their native dialect and/or tongue affect their use of vowel harmony.

except in /a/ > [ä] and /e/ > [a]. This shows that the regional accents have an effect on vowel harmony in Persian.

The reason why there is no significant difference among the accents under study regarding the use of the variable /a/>[ä] is that [ä] is rarely used in Persian and it is an allophone, not a phoneme in this language. And, the variable /e/ > [a] changed to become an indicator in Persian.

After analyzing the obtained results, a number of very important points seem to be worth mentioning. First, comparing the accents in twos, there exist some overlaps between their significant differences in their use of different variables. For instance, between Isfahani and Ardebili accents, there is a significant difference in their use of the 60% of variables, and between Isfahani and Baboli accents there is a significant difference in their use of the 70% of the variables. The point is that there are 60% overlaps between these two comparisons: Isfahani accent differs from Baboli accent significantly in its use of the same 60% of variables as it differs from Ardebili accent plus 10%.

This is the case for the comparisons made between the other accents under study: Mashhadi accent differs from Ardebili accent significantly in its use of the same 50% of variables as it differs from Baboli accent. The present researcher calls this linguistic phenomenon "significant–difference overlapping", confirming the findings of Bagherzadeh Kasmani [9].

This phenomenon (significant-difference overlapping) is not restricted to the above; between different informants who acquired Persian as their native tongue, there exist significant–difference overlaps in their use of different variables as well: between "Isfahani and Shirazi" and "Isfahani and Mashhadi" and "Shirazi and Mashhadi" there exist " significant – difference overlaps" as well.

The researcher thinks that this phenomenon is of importance to be taken into account in that he has observed that the linguistic variables which are under the effect of " significant – difference overlaps" caused variations and a significant difference between and among different accents under study and tend to become markers and even become lexicalized but those variables which are not under the effect of this phenomenon have little variations and tend to become indicators or even to be converted into stereotypes.

This demonstrates that different variants of a linguistic variable are different regarding their "frequency" and "change in progress". Therefore, by considering such a phenomenon as "significant–difference overlapping", one can explain why "changes are in progress" and can claim that one can search for a regularity in heterogeneities and variations which has been called by Labov [14] "orderly heterogeneity".

The researcher prefers to divide the different variables under study into three different groups regarding to the results obtained: 1) those variables which are extensively under "significant–difference overlapping" such as /e/> [i], /a/>[ɒ], /e/>[o], and /o/>[u]. 2) the variables which are not under this linguistic phenomenon such as /ow/ > [u] ,/ow/>[o], /eɪ />[e:] and the variables which remained as indicator such as /e/>[a] and /a/ > [o]; and finally 3) the variables which are dominant in the accents and called by the researcher as "dialect/ accent–specific linguistic variables" such as /u/ in Baboli which is under the influence of the Mazandarani dialect, /e/ in Shirazi and /o/ in Mashhadi. This last variable (dialect/accent–specific linguistic variable) affected the informants' use of vowel harmony.

Second, the obtained results show that those informants who acquired Persian as their native language used vowel harmony more than those who learnt Persian as their second language (such as Baboli and Ardebili informants): on the whole, Shirazi informants used vowel harmony on the 34/66% of words under study, Mashhadi 33/35%, Isfahani 21/3%, Tehrani 19/13%, Ardebili 23/72% and Baboli 15/3%.(see Table 11 below).

This shows that the Tehrani informants using standard Persian and the informants using Persian as their second language (i.e. Babolli and Ardebili) were influenced by the formal written variety much more than subjects such as Isfahani, Shirazi and Mashhadi because those who learnt Persian as their second language had to learn the language via formal written variety of Persian inserted in books, magazines and newspapers, mass media etc.

Third, the obtained results show that the degree of frequency of the linguistic elements (the words under study) affected the use of vowel harmony on these words confirming the same finding of Afkhani and Bagherzadeh Kasmani [8].

Fourth, the researcher has selected 43 telephone conversations form among database of Persian telephone conversations "by which he considered the frequency of occurrence of all words under study and their variants in the informants' speech.

The conclusion has been as follows : 1) prestige" has an effect on vowel harmony more than " frequency of occurrence " , although the latter also affects the use of vowel harmony (for instance , the word bexor (eat) appeared in the telephone conversations for 12 times as (boxor),the prestigious variant , but its rival /bexor/ although being a formal variant has appeared for no time. This means that it gained no prestige. Conversely , the word 'iran' (a country) appeared in the telephone conversations for 76 times as [irɒn] (the prestige variant) but not as [irun] which is stigmatized;2) the issue of " social prestige " affects some linguistic variables (such as [/ɒ /> u]) more than some others such as /e/>(i) ,/e/>[o] etc.) For example , in the colloquial speech [ʔ un] (meaning that) has more prestige than its rival [ʔ ɒn];and this is reflected in the informants, speech: this variant(i.e.[ʔ un]) appeared for 43 times as [ʔ un] but its rival [ʔ ɒn] appeared only two times. This is because in formal settings [ʔ ɒn] and in informal settings [ʔ un] has more prestige. This also confirms the theory of lexical diffusion.

Fifth, it has been observed that because Shiraz and Mashhad are equally distant from Tehran and these two cities are far more distant from Theran in comparison to Isfahan, this non- linguistic factor has affected the informants, use of vowel harmony: Isfahani informants applied only 21.3% whereas Shirazi and Mashhadi informants applied 34.66% and 33.35 % respectively. So the more distant the informants, city is from Tehran, the capital of Iran, the more they applied the vowel harmony

on items under study .An example of the percentage of the use of vowel harmony can be demonstrated in the following figure:

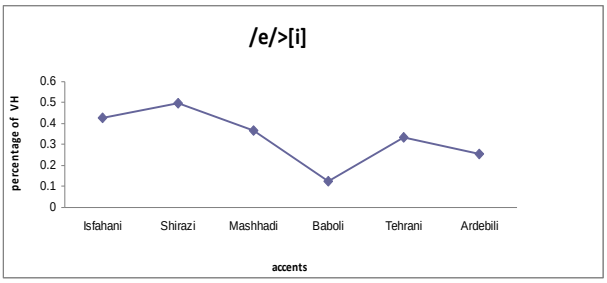

Fig. 1. The percentage of the use of vowel harmony /e/>[i] in different regional accents

VI. Conclusion

The conclusion of the research is that in addition to intra-linguistic and linguistics-related factors, the following extra-linguistic factors, also affect the use of vowel harmony: the frequency of occurrence of the linguistic element, prestige, exposure to mass media, formality or informality of the context, and whether the intended accent is learnt as the second language or not. The final conclusion is that linguistic and linguistics-related realities should be taken as effects rather than factors. In addition, it has been shown that there exists a co-variation between different accents and their use of vowel harmony in Persian.

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Morad Bagherzadeh Kasmani was born in Babol, Mazandaran province, Iran. I got my BA Degree in English Literature from Shahid Bahonar university in Kerman of Iran in 1368/1989 and I got my MA in general linguistics from Shiraz university of Iran in 1376/1997 Moreover, I got my PhD from Tehran university of Iran in 1388/2009. I have been teaching for 15 years at Islamic Azad university, Chalous branch, Iran as an ACADEMY MEMBER. I have had some articles published three of which are cited in this article. My area of interest in linguistics is sociolinguistic variation and morphology. Dr. Bagherzadeh Kasmani is a member of linguistic society of Iran (LSI) and TELLSI.