



Phonological Variation in the realization of the Affricate / dʒ / by Rural Migrants in Amara, Iraq

Asst. Prof. Ali Hindi Hammoudi¹, Prof. Muhammed Ahmed Abdul Sattar As-Samir (PhD)²

أ.د. علي هندي حمودي^١، أ.د. محمد احمد عبد الستار^٢

^١قسم اللغة الإنكليزية، كلية التربية، جامعة ميسان، ميسان، العراق

ali-hindi@uomisan.edu.iq

^٢قسم اللغة الإنكليزية، كلية الآداب، جامعة البصرة، البصرة، العراق

alsammermohammed6@gmail.com

ABSTRACT

This study examines the variable use of the voiced post-alveolar affricate / dʒ / in the everyday speech of rural migrants in the city of Amara. The study explores the variation in relation to two social factors, namely gender and level of education. The speech data were gathered from 20 middle-aged (40-60) participants as the sample of the study. The researcher performs both auditory and statistical analyses to investigate patterns of variation in the use of the variable. The findings reveal that the realization of the variable under study reflects a complex interplay of rural and urban linguistic forms affected by the migrants' integration into the urban setting. Gender and education emerge as significant factors, with females and more educated participants showing a stronger inclination toward the urban variant [dʒ]. These results provide new insights into sociolinguistic dynamics in the city of Amara and add to the literature on Arabic dialectology and language variation.

Keywords: Phonological Variation, Affricate / dʒ / , Rural Migration.

المستخلص

تتناول هذه الدراسة التنوع بلفظ الصوت العربي (ج) في الكلام اليومي للمهاجرين من الريف والذين يقطنون مدينة العمارة. تتحرى هذه الدراسة التنوع بأستعمال هذا الصوت بالعلاقة مع جنس المتحدث وتحصيله الدراسي. تم جمع البيانات من خلال تسجيل مقابلات مع ٢٠ من المتحدثين متوسطي العمر من المهاجرين الى المدينة كعينة للدراسة . تم تحليل البيانات استماعاً للتسجيلات ومن ثم أحصائياً لمعرفة انماط التنوع في أستعمال هذا الصوت. أظهرت النتائج بأن هناك تفاعلاً بين الصيغ اللغوية الريفية وتلك المنسوبة الى المدينة بسبب تأثير اندماج هؤلاء المهاجرين من الريف في مجتمع المدينة. كما أظهرت البيانات أيضاً بان جنس المتحدث وتحصيله الدراسي لهما دوراً هاماً في هذا التنوع , حيث أن النساء من المتحدثين والمتحدثين المتعلمين يميلون لأستعمال المتغير (ج) المنسوب الى المتحدثين من المدينة.

الكلمات المفتاحية: التباين الصوتي، الاختلاف /dʒ/، الهجرة الريفية.

1. Introduction

Sociolinguistics and language variation investigate how languages vary and change across speakers and contexts with an emphasis on the fact that language is dynamic and flexible rather than static. Language variation is concerned with how speakers of a language speak their language differently depending on a number of factors such as age, gender, level of education, social class, ethnicity, geographical region, and the context in which language is spoken. On the whole, sociolinguistics explores the correlation between language and society, with an emphasis on how social factors affect language use, structure and meaning.

The subfield of language variation has long been a rich area of sociolinguistic research, however, much still remains to be examined. Perhaps, Iraq can be a significant source of research on language variation due to its linguistic diversity. Much research has been conducted on Iraqi Arabic but it still lacks more updating studies on various aspects of its variation. Many studies described the overall structure of the dialect spoken in Baghdad, the capital city of Iraq. Blanc (1959) describes the dialects of Baghdad classifying them religiously. This study was followed by his book (1946) in which he explains the main features of Iraqi Arabic. There are many studies on Iraqi Arabic in the form of grammar books, dictionaries and articles (e.g. Abu Haidar, 1987; Erwin, 1963; Khoshaba, 2006; McCarthy and Raffouli, 1964; Odisho, 2005). Notable studies related to Iraqi Arabic (e.g. Haeri, 1987; Blake, 1999; Al-Khatib, 2003, 2007) account for such aspects as phonology, morphology, syntax, dialectology and language contact. It seems that these studies have mostly accounted for Iraqi Arabic and focused on its linguistic aspects in urban settings.

Most existing variationist studies on Iraqi Arabic have paid less or no attention to the phenomenon of rural migration and language variation. One phenomenon in the area of language variation in Iraq that is noticeably neglected is the variation in the speech of rural migrants in urban centers. Decades ago and due to a number of political, social, environmental and economic factors many Iraqis have left their original rural areas to settle in urban centers in search for better living conditions. When rural migrants settle in urban centers, their native dialect comes into contact with the local urban dialect. As a result, migration can have a noticeable effect on speech patterns of migrants as they try to modify their rural speech to fit their new urban environment.

This study is meant to deal with the variation in the pronunciation of the Arabic affricate /dʒ/ in the speech of rural migrants. One of the characteristic feature of Arabic dialects is obvious variation in the realization of the affricate /dʒ/ (As-Sammer, 2011). In Iraqi Arabic, the affricate /dʒ/ has considerable variation in its pronunciation. This depends on factors such as social status, region, context and whether the speaker is rural or urbanite. It is typically pronounced as [dʒ] in Iraqi urban context similar to the Standard Arabic pronunciation as in [dʒ a: m i ʃ] meaning 'mosque'. In southern rural regions, especially in rural areas neighbouring the cities of Basrah, Amara and Nasiriyah, the affricate /dʒ/ often shifts to either the fricative [ʒ] or to the gliding [j]. Hence, The Iraqi word [dʒ i: ba] meaning 'give me' would be pronounced as either [ʒ i: b ə] or [j i: b ə]. This shift to either [ʒ] or [j] is one of the key markers of southern Iraqi rural speech that sets the rural speech apart from urban and other regional speech (Blanc 1964: 25-28).

To the best of my knowledge, no attempt has been made to examine such variation in the speech patterns of rural migrants in the city center of Amara. However, this study is intended to fill this gap in



the existing literature on Iraqi Arabic spoken in the south. This study will also be of value to those interested in Iraqi Arabic phonology and dialectology.

The primary aim of this study is to investigate the phonological variation in the speech patterns of rural migrants in the use of the affricate / dʒ / by means of auditory analysis. The study also explores the roles of gender and level of education in this variation. 20 rural migrant speakers have been selected purposely from the city center as the sample of the study. They are middle-aged 40-60. The phonological variable under investigation is the affricate consonant (dʒ). This study is designed to test two hypotheses; (i) there is phonological variation in the speech of rural migrants in the city of Amara and (ii) the social factors of gender and level of education have a remarkable influence on the use of (dʒ) in the speech of rural migrants.

2. the setting: the City of Amara

Amara ,also known as Al-Amarah , is a city in the southeastern Iraq. It is the capital city of Misan governorate . It lies some 385 km to the south of Baghdad , the capital city of Iraq. The population of Amara is estimated to be 1,112,173 according to the census of 2020. The vast majority of the population of Amara is Arab Shi'a Muslim reflecting the social and cultural fabric of southern Iraq. At present, Amara has significant industrial sectors, most importantly is the oil and gas sector, in addition to several public and private health and education facilities.

The native population of Amara is linguistically and socially homogeneous. The local dialect spoken in Amara is a variety of Mesopotamian Arabic belonging to the *gelet* dialect group which is typical of southern Iraqi cities such as Basra and Nasiriyah (Blanc,1964). Within Amara, there may be some differences between rural and urban speakers. Rural speakers tend to have a tribal speaking style, while the locals' speech may have slight influences from other Iraqi local dialects perhaps due to communication with other regions.

During the last several decades, major cities in Iraq ,including Amara, have encountered a huge influx of migrants from various rural areas seeking for better life conditions. Rural families have also been shifting within Misan province as a result of rural to urban migration as droughts have had an effect on their farming activities which are their primary source of income. Due to the lack of irrigation sources as well as sociopolitical factors that influenced their rural life, an influx of villagers moved to the city centre simply to seek new opportunities and improve their lives; this in turn has led to contact of rural migrants with the local Iraqi Arabic of the city. What is noted here is that certain districts of the city and outskirts are largely occupied by rural migrants who came from villages and rural areas that are close to each other or the migrants themselves are related to each other by means of tribal ties ,kinship or neighbourhood relations.

3. Methodology

This study adopts a mixed- methods approach to investigate phonological variation in the speech of rural migrants in the use of one consonant sound , namely the voiced post-alveolar affricate / dʒ / . The speech data were gathered through recording informal interviews with 20 participants . The speech data were analysed auditorily to capture how the phonological variable is produced by the participants and statistically to calculate the frequencies and percentages of the variants.



3.1 the Sample

The data were collected from a sample of 20 male and female rural migrants. They were equally divided between males and females. They belong to one age group , that is, middle-aged 40-60. The sample has been purposely selected to represent the rural population in the city center of Amara.

3.2 the Variables of the Study

The present study investigates the variable use of the consonant / dʒ / in the casual speech of rural migrants in relation to two social factors (i.e., gender and level of education).

3.2.1 the Phonological Variable

The notion of the linguistic variable is the focus of language variation research. It is " an element which has a number of realizations, or variants, in speech ,but a constant meaning" (McMahon1994, p 235). The variable selected for an investigation should be frequently occurring in everyday speech and is easy to observe.

The phonological variable under investigation is the voiced post-alveolar affricative / dʒ /. It has been chosen because it indicates auditorily observable variation in the speech of rural population in the southern Iraq. In addition, the differing realization of this variable is a linguistic feature of rural areas of southern Iraq (Alsiraih,2021). This variable has three variants , namely, the voiced post-alveolar affricative [dʒ], the voiced post alveolar fricative [ʒ] and the voiced palatal approximant [j]. The variant [dʒ] is associated with Standard Arabic and the local variety of Amara. [ʒ] and [j] are associated with rural speech in southern Iraq. Hence, a word like / di dʒ a: dʒ a / meaning ' hen ' would be pronounced as [dʒ i ʒ a ʒ a] or [d i j a: j a] by rural speakers.

3.2.2 the Social Variables

In sociolinguistics, social variables are the factors the influence the speakers' choices in terms of language use within a society. Hence, language use is highly affected by a mix of social factors, not just by the rules of that language. The phonological variable under study is examined in relation to two social factors , namely gender and level of education as these factors might influence the choice of the phonological variants. The two levels of education are : Half-Educated (primary or secondary school level) and Uneducated (illiterate).

4. Recording Sessions

The interviews were recorded in the participants' own homes using a smart phone (Galaxy M12) with a lapel microphone to improve sound quality and clarity. To elicit the data from naturally occurring speech and to capture spontaneous language use, every individual recording session lasted between 15-20 minutes. The participants were instructed that the interviews were intended to be as natural and as informal as possible, so they should not put any effort into thinking about what they should or should not say. Being a native speaker and a local of the city of Amara, this helped me establish trust with participants and made them feel more relaxed during the interviews. In case where the interviewee is female, a family member is present. The interviews were focused on such questions as the informants' age, occupation, marital status, level of education, and other personal aspects. Another variety of questions was also discussed with the participants including their previous rural life, marriage customs, and the socioeconomic situation in Iraq.

5. Data Analysis



The speech data were examined using the technique of auditory analysis by careful listening to the participants' audio files individually. The participants were numbered (1-20) to code the realizations of the variable selected for analysis (Table 1). Tokens containing the phonological variable were taken out and transcribed using the IPA notation to track the occurrences of the phonological variable. After transcribing the tokens ,the frequency of each variant in the speech of each participant was calculated. Every token was assigned to one of the phonetic variants of the variable and coded for each relevant social factor. A statistical test was then performed to determine if there are differences between gender and education in the variable use of the phonological variable / dʒ / within this age group.

To calculate the percentage score of the variable, the percentage score technique was used which basically falls within the standard Labovian framework (Labov 1972a).

$$\text{Percentage score} = \frac{\text{Number of occurrences of a variant}}{\text{Total number of occurrences of a variable}} \times 100$$

5.1 Quantitative Analysis

Once the all the relevant tokens have been transcribed, the number of occurrences of each variant in the speech of each participant is calculated (Table 1). The raw numbers of occurrences are transformed into percentages in order to compare the percentages among the participants in relation to the social factors: gender and level of education.

Table 1 presents the distribution of the three variants in the speech of each participant and the social factors whose effect on the variation in the realization of the variable is tested. The total number of tokens for the three variants is 4604 : 281 tokens containing the variant [dʒ] which constitute 16% of the total number of tokens ; 3927 tokens containing the variant [ʒ] which constitute 85% of the total number of tokens and 274 tokens containing the variant [j] which constitute 6% of the total number of tokens. As seen in the table, the higher percentage in the use of [ʒ] variant seems to be predominantly used by uneducated participants. The more frequent use of this variant is a phonological feature associated with rural speech and it is a marker of rural identity. It seems that education plays a role in this variation. Moreover, I, as a native speaker and one local of the city of Amara, can observe and easily understand the linguistic differences in the speech of rural population both in an urban setting and in rural areas. The frequent use of the variant [ʒ] counts as a key marker of the rural speech specifically in southern Iraq. With regard to the variant [j] , it has the lowest percentage in the speech of participants. This may be due to regional differences among the participants where some rural areas ,in particular, northwest of Amara in which this variant is highly used and less frequent in other rural areas.



Table 1. the participants and the realization of the variable (dʒ) in their speech.

Par. of	age	gender	education	No. of [dʒ]	No. of [ʒ]	No. of [j]	% of [dʒ]	% of [ʒ]	% of [j]	Total No. 3 variants
1.	60	M	HE ⁽¹⁾	20	140	45	10	68	22	205
2.	60	M	HE	18	166	32	9	82	16	202
3.	55	M	UE ⁽²⁾	8	233	26	3	87	10	267
4.	47	M	HE	36	188	10	15	80	4	234
5.	53	M	UE	12	200	17	5	87	7	229
6.	42	M	HE	40	218	20	14	87	7	278
7.	49	M	UE	18	188	20	7	76	8	248
8.	58	M	HE	38	212	17	15	83	7	255
9.	56	M	UE	16	188	13	7	87	10	217
10.	43	M	HE	55	205	0	22	80	0	255
11.	41	F	HE	45	230	5	16	82	22	280
12.	48	F	UE	15	212	4	6	92	2	231
13.	50	F	UE	13	222	5	5	93	2	240
14.	48	F	UE	16	263	8	10	92	3	287
15.	59	F	UE	0	264	12	0	97	4	272
16.	44	F	UE	8	189	14	4	90	7	211
17.	52	F	HE	33	210	12	13	82	5	255
18.	53	F	UE	2	110	4	2	95	3	116
19.	48	F	UE	13	177	6	7	90	3	196
20.	55	F	HE	10	112	4	8	88	3	126
Total				281	3927	274	61	85	6	4604

(1) HE stands for Half-Educated.

(2) UE stand for Un-Educated (illiterate) .

6. Discussion of Results

This section presents a summary of the findings and their implications. The phonological variable under study will be explored in relation to the two social factors, gender and level of education.

6.1 the Effect of gender and level of education on the variable use of [dʒ].

Gender : $F = 0.46$, $p = 0.51$. This is not statistically significant, indicating no main effect of gender on the percentage of [dʒ] realization. Education : $F = 21.99$, $p = 0.000$. This is statistically significant, suggesting a main effect of educational level on the percentage of [dʒ] realization. The educational levels , half-educated vs. uneducated , significantly affect the realization of this variant. Education significantly influences the frequency of [dʒ], with Half-educated participants using it more frequently than Uneducated ones. The data suggest that male participants might use [dʒ] more frequently than female participants, which could reflect gendered speech patterns. This variation might be socially motivated if males in this demographic or community favor [dʒ] more as part of their speech repertoire or if they are more exposed to environments where [dʒ] is common.

Interaction between gender and level of education : $F = 0.12$, $p = 0.74$. this is not statistically significant, indicating on significant interaction effect between gender and education on the percentage of [dʒ] realization. The results suggest that while educational level has a significant impact on the realization of [dʒ] variant, gender alone does not, nor does the combination of gender and educational level. This means that differences in phonological variation are more closely tied to educational level than to gender in this sample.

6.2 the Effect of gender and level of education on the variable use of [ʒ].

The t-tests results for the variant [ʒ] are as follows:

Gender : $F = 0.067$, $p = 0.799$

Educational level : $F = 0.704$, $p = 0.414$

Interaction (gender vs. Educational level) : $F = 0.030$, $p = 0.865$

The p- values suggest that there are no statistically significant effect of gender, educational level or their interaction on the use of [ʒ] variant at the conventional significant level (e.g., $\alpha = 0.05$). The high p value means that there is no significant differences in the frequency of [ʒ] between half-educated and uneducated participants. This suggest that the use if this variant is not strongly influenced by education level.

6.3 the Effect of gender and level of education on the variable use of [j].

The mean frequency of [j] is 13.7 suggesting that [j] is used less frequently than [ʒ], but more often than [dʒ]. The standard deviation of 11.00 suggests less variation in how frequently participants use [j] compared to [dʒ], but still significant enough to suggest some differences. $-t = 0.83$, $p = 0.43$. Similarly, the p-value here indicates no significant difference between the Half-educated and Uneducated groups in the use of [j]. This suggests that education level does not have a strong effect on the frequency of [j]. It could be a sound that appears frequently in a wide range of speech contexts, regardless of education.

7. Conclusion

The analysis of the variable / dʒ / usage among rural migrants in the city of Amara reveals important insights into the interaction between rural and urban linguistic norms. The results highlight that the usage of [dʒ] is not uniform among migrants and varies based on social factors such as gender and



educational level. Migrants often adopt urban forms to varying degrees, influenced by their level of integration into urban settings. The variation in [dʒ] usage indicates an accommodation process where rural migrants adjust their speech patterns, potentially as a strategy to align with urban linguistic standards. Male and female migrants display differing tendencies in their use of [dʒ], reflecting broader sociolinguistic patterns where women are often more likely to adopt prestige urban forms. Migrants with higher education levels exhibit greater alignment with urban norms, supporting the hypothesis that education facilitates exposure to and adoption of standard or urban linguistic features. Despite these shifts, the retention of rural variants of [dʒ] among some migrants suggests a desire to maintain linguistic ties to their rural origins. This duality reflects the complex dynamics of linguistic identity and social mobility. The findings contribute to our understanding of phonological variation in sociolinguistic contexts. They underscore the role of migration in shaping linguistic repertoires and the interplay between maintaining rural identity and adapting to urban linguistic norms.

These results suggest further exploration of phonological variations among rural migrants in other Iraqi cities could provide comparative insights into dialect contact and social integration.

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