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Variation in Negation Patterns of Verbless Clauses in Ammani Arabic

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Abstract

This study aims to examine the extent to which the alternation between the common negation patterns of verbless clauses in Ammani Arabic, namely [mu] and [miʃ], is socially constrained. Gender, age, level of education and region (West Amman vs. East Amman) were investigated in this regard. Twenty-five hours of audio-recorded sociolinguistic interviews with 32 speakers who were born and raised in Amman were conducted. After using computer software GOLDVARB X (Sankoff et al. 2005), we propose that the alternation between [mu] and [miʃ] is socially conditioned. The most significant social factor is gender. The variant [mu] is found to be a solid sign of femininity. The second most significant social factor is age, whose effect is correlated with the assumption that young speakers, unlike old speakers, prefer less-complex forms. Education and region were also found, yet to a lesser extent, significant. West Amman speakers prefer [miʃ] in contrast to East Amman people who prefer [mu]. Although this finding is arguably unpredicted as [mu] is the variant which is socially viewed as more prestigious (therefore it would be more preferred by wealthier West Amman dwellers), it is nonetheless consistent with the demographic situation of Amman. East Amman is mostly inhabited by Jordanians who descended from Palestinian regions of which the common negation pattern of verbless sentences manifests [mu] rather than [miʃ].

Keywords: Language Variation and Change, Verbless-Sentences Negation, Age, Gender, Education, Region, Ammani Arabic.

1. Introduction

This study examines the effect of four social factors (i.e., age, gender, region, and educational attainment) on the variation in negation patterns of verbless sentences in Ammani Arabic (AA), which is a prominent sub-variety of Jordanian Arabic. In AA, two patterns of negation of verbless clauses can be manifested, as shown in the following examples:

(1) a. ʔil-ɡalam mu ʔaħmar
DEF-pen NEG red
'The pen is not red.'

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b. ʔil-galam miʃ ʔaħmar
DEF-pen NEG red
'The pen is not red.'

The instances in (1) represent two different patterns used to negate a verbless sentence in AA, i.e., through the use of [mu] or [miʃ], both with the meaning of 'not'. The propositional meaning of the two sentences in (1) is actually similar with no unique semantic meaning for each; *'The pen is not red'*. Notice that neither of the two patterns of negation in (1) expresses or implicates emphasis over the other. The similarity in meaning between these two patterns of negation in (1) poses the obvious question of why there exist two different patterns of negation in AA although they similarly express the negation of the given sentence.

In this paper, we argue that the answer to this question can be sufficiently supplied in terms of variationist sociolinguistics (Labov 1972, 1982, et seq.; see also Tagliamonte 2012). Under this model of language variation and change, distinct linguistic forms, most notably those which are semantically similar, can take place in the same region whereby the choice between them is socially and/or linguistically conditioned. For the purposes of the paper, we explore the effect of four social factors on this variation; these social factors include age, region, educational attainment, and gender. Using computer software GOLDVARB X (Sankoff et al. 2005), we found that the alternation between [mu] and [miʃ] is indeed socially-conditioned. Gender, age, region and education are all found to be relevant with respect to the choice of the negation pattern in verbless sentences in AA, yet with marked differences between them in terms of the magnitude of effect.

In the next section, we provide a general discussion of negation variation in Arabic. In section 3, we explain the variationist approach as a theoretical enterprise of the study of language variation and change. In this section, we also explain our rationale of the selection of the social factors of age, gender, education, and region. In section 4, we introduce our procedures of data collection and analysis. Section 5 includes the main analysis with focus on the results of computer software GOLDVARB X. This section also includes our interpretation of the magnitude of effect of the social factors. Section 6 concludes the article.

2. Negation variation in Arabic

2.1. A view from related literature

A look at the related literature of language variation and change in various Arabic dialects reveals that sociolinguistic research primarily examines various aspects of phonological variation such as the alternation between certain allophones of the same phoneme (see Al-Wer 1991, 2002, and 2007, El-Salman 2015, among many others) as well as the correlates of emphasis spread in terms of gender and age (Zawaydeh 1998; Al-Masri 2009; Omari and Jaber 2019; Al-Deaibes et al. 2021). Other areas, such as (morpho)-syntactic variation, are limitedly investigated (see Omari 2011 and Al-Shawashreh 2016). An examination of related literature shows that the role of social factors in negation variation is given sparse attention. Only few studies on Arabic investigated the correlation between social factors and the choice of

negation variants. The main focus of the related literature was significantly placed on the syntax of negation (i.e., how negation is syntactically derived) without taking the issue of variation in negation on board (see Alsarayreh 2012 for general discussion; see also Alqassas 2018). However, there are some attempts that consider some aspects of negation variation in Jordanian Arabic (JA).

Firstly, Alqassas (2012) carries out a grammaticality judgment task that explores the distribution of two markers [ma] and [-ʃ] in different phonological and syntactic contexts in verbal negation in JA. A preference task is also conducted in order to examine the preference of the use of bipartite negation (discontinuous negation [*ma…ʃ*) and single marker negation (through the use of [ma] or [la] alone) (preverbal negation). The participants are given a questionnaire that contains the selected sentences. The participants are also asked to conduct another acceptability judgment task which aims to check the use of [ma] alone in sentences with an ambiguous pragmatic function. The participants come from the north of Jordan where these patterns of negation are productively used. The total number of participants is 83 with an age range from 18-71 years old. The participants are asked to judge whether each sentence (of the questionnaire) is preferred, not preferred, or ungrammatical. The study findings show that preverbal negation (of verbal sentences) is much used in contexts where there is no pragmatic message entrusted by the speaker. Logistic regression statistical analyses indicate that dialect contact and gender are found nonsignificant factors with respect to the use of one pattern over the other. On the other hand, age is found a significant factor as young speakers employ preverbal negation in their speech.

Talhouni (2019) investigates the correlation between some sociolinguistic factors and negation variation in Ma'ani Jordanian Arabic (MJA), particularly in terms of the choice between [mu] and [muʃ] in verbless sentences. Based on data obtained from 33 native speakers of MJA (stratified according to their age, gender, education and place of origin (Jordanian vs. Palestinian)), Talhouni finds that social factors play a major role in conditioning the choice of negation variants in MJA. The results reveal that young educated female speakers favor the new (incoming) variant [muʃ] while low-educated urban male speakers favor [mu]. Following Al-Wer's (2011) viewpoint regarding the effect of education on language variation, Talhouni argues that the motivation for this possible change-in-progress with respect to the negation system of verbless sentences in MJA is that educated speakers of MJA, unlike low-educated speakers, are more mobile and open to new variants. One important recommendation of this study is to carry out studies that investigate the alternation of negation variants beyond Ma’an which is considered a small city in the southern part of Jordan. Therefore, the current study investigates such negation variants within the context of Amman which is the capital city of Jordan.

Al-Shawashreh and Jarrah (2022) investigate the patterns of verbal negation in Jordanian Arabic from a variationist perspective. This study observes that verbal sentences are negated through three patterns. The first pattern is (ma: + verb) which is a preverbal negation; the second pattern is discontinuous negation (ma…ʃ) while the third pattern is post-verbal negation that is manifested through the use of the suffix (-ʃ) on the verb. Following the variationist approach (Labov 1972, et seq.), Al-Shawashreh and Jarrah consider a set of social variables (age, gender, educational attainment, and region) and a set of linguistic variables (tense, transitivity, stativity and the person, animacy (whether the subject

is animate or inanimate) and definiteness of the subject)). They also consider the type of the verb as cognitive, desiderative, speech, or perception. After holding 40 audio-recorded sociolinguistic interviews, the collected data were analyzed using distributional and multivariate analyses. Al-Shawashreh and Jarrah propose that the selection of negation patterns in verbal sentences in Jordanian Arabic is considerably influenced by education, gender, and region. On the other hand, age appears to have no significant role on this variation. Further, tense and definiteness of the subject are found to be in favor of choosing pre-verbal negation more than other patterns.

The current article is the first study that considers syntactic alternation in verbless negation in Ammani Arabic, a dialect that may not have been examined in this regard. It investigates whether or not this variation is socially constrained.

2.2. The variationist approach and the selection of the social factors

One important tenet of the variationist approach is that linguistic variables vary systematically not haphazardly (Tagliamonte 2012), so they could be modeled quantitatively (Labov 1972; Tagliamonte 2006; Poplack and Tagliamonte 2006). The variationist approach emphasizes the use of the vernacular form of the language. For Labov (1984, 29), vernaculars are "the most systematic data for linguistic analysis." Labov (1972) defines vernacular speech data as a thoughtless speech type used when speech is given no emphasis and speakers are not exposed to audio monitoring. Additionally, sociolinguistic variables consist of variants that are associated with "nonlinguistic variable of the social context such as: of the speaker, the addressee, the audience, the setting, etc." (Labov 1972, 237). For the purpose of the current article, four social factors are selected, namely gender, age, education and region.

Gender is chosen for the purpose of this study as a number of studies have shown that gender can be a determining factor in several cases of language variation in Arabic and beyond. In the sociolinguistic literature, there is sufficient evidence that men and women use language differently. For instance, as a symbol of identity, females attempt to take on different forms than males. According to Labov (2001), women use more prestigious variants than men do. According to Trudgill (1972), in societies where women have limited access to workplace, they tend to use prestigious variants in order to express a higher status. Men's social influence is shaped by their economic accomplishments, whereas women lack such power.

As for level of education, Al-Wer (2002, 14) mentions that "level of education as a speaker variable is a proxy variable, which acts on behalf of, mainly, amount and nature of contact with speakers of the target features". She proposes that categorizing speakers based on their educational level has provided researchers with precise results in Arabic-speaking communities, especially those with a recent history of urbanization. Education, according to her, is the primary means by which members of the community can interact with speakers from different regions. She emphasizes that the level of education is a true indicator of the nature of the speakers' social and networking contacts, which, according to her, correlates with linguistic usage (see Al-Wer 2013). In the Arab World, education always entails leaving one's hometown, changing family ties, expanding social connections, interacting with speakers of other dialects, and learning about various social values. All these aspects have an incredible effect on how people express

themselves linguistically. This role of education on the selection of the variant choice is consistent with Owens' (2001, 435) claim that "educated speakers adopt SA [Standard Arabic] forms to a far greater degree than do illiterates."

Regarding age, various studies on the sociolinguistics of the Arab World have shown that age plays a remarkable role in explaining speech variations between different groups of speakers. According to Al-Wer (1991), the linguistic burden on old people in Arab societies is much heavier than that on young people. Al-Khatib (1988) mentions that older people tend to stick to linguistic characteristics that they have used for a long time, partly due to their age and their emotional connection to conventional norms.

As far as region is concerned, the division between East Amman and West Amman has been noted by many studies. For instance, Ababsa (2011, 205) mentioned that "social disparities within the city [of Amman] continue to grow stronger between West Amman and East Amman." She also added that such "disparities tie in with morphological differences between informal housing communities developed near the Palestinian camps of Wahdat and Jabal Hussein, with their self-built buildings; and West Amman neighbourhoods with family-owned four storey buildings, interspersed with villas and office blocks" (205). Ababsa (2011) also reported that the differences between the inhabitants of West Amman and East Amman are related to lifestyles and perceptions of others. The differences between East Amman and West Amman are also linguistic. As a comment regarding the differences between these two regions with respect to linguistic variation between them, Al-Wer (2007: 63) states:

> In East Amman, the youngsters spend considerably more time with their own families, and extended families often live in the same neighbourhoods. On the other hand, in West Amman, the youngsters form intimate peer group relations, and spend most of their leisure time away from their homes and families […] In other terms, the familial networks in East Amman are closer, and, therefore, linguistic innovations (divergence from the traditional dialects) would not be expected to permeate such tightly-knit social networks easily.

West Amman has become a home for Jordanians who come from other regions of Jordan for study or work. On the other hand, East Amman is, for the most part, still a home for Jordanian nationals with a Palestinian origin. According to Horesh (2021), approximately three million Palestinians who now call Jordan home have contributed significantly to new dialect formation of the capital city of Amman (see also Al-Wer 2002, 2007). Therefore, a difference between West Amman Arabic and East Amman Arabic should be drawn, due to the differences in terms of the components of each subdialect of Amman.

In the next section, we set the scene of the current paper and lay down our main procedures of data collection and analysis.

3. Methodology

3.1. Speech community

The discourse of Amman community, the capital city of Jordan, was targeted in this study because it is a distinguished variety that is made up of an extensive combination of distinct dialects due to

immigrations from neighboring countries, namely Palestine, Syria and Iraq (Abd-El-Jawad 1981; 1987). The impact of urban speech norms on the patterns of variation and change is well reported in the Arab-speaking world, and elsewhere. Immigrants to new cities, according to Al-Wer (1991, 25), have the opportunity to be "carriers of new social standards, and perhaps new linguistic norms, from the larger communities into the communities of their hometowns."

The speech community of Amman has always been an attractive research area that is worth the consideration for a handful of studies. It is a result of a combination of different dialects as emphasized, e.g., by Abd-El-Jawad (1981) and Al-Wer (2007). Abd-El-Jawad (1981) and Al-Wer (2007) conduct their research drawing on the output variety resulting from the interaction between the dialects of Jordan and Palestine. They propose that that there is no definite dialect for Amman because there exists no fixed native population that settled in it from early stages. Amman Arabic consists of a blend of distinct dialects which makes it an appealing area of interest for linguists in general and for variationists in specific.

3.2. The sample

The pool of data of the current work consists of more than 25 hours of audio-recordings obtained from 32 native speakers of AA stratified by gender, age, region, and level of educational attainment. The youngest participant is 20 years old while the oldest participant is aged 61 years. The educational attainment of the lowest-educated participant is high school, whereas the highest-educated participant holds an MA degree. It should be noted that many explorations of the effect of socio-linguistic factors on language variation and change (and related aspects) draw on a similar number of participants. For instance, Al-Shawashreh (2016) is a PhD dissertation that investigates two aspects of grammatical variation in Jordanian Arabic (i.e., word order and pro-drop) draws on 30 native speakers of Jordanian Arabic living in the Irbid metropolitan area. Shetewi (2018) is a PhD dissertation that explores the acquisition of sociolinguistic variation in a dialect contact situation draws on a sample of 40 boys and girls between the ages of 3 and 17 years old. Ambu Saidi (2020) is also a PhD dissertation that investigates dialect contact and change in Omani Arabic draws on 38 participants. Garcia-Palomino (2021) examines dialect levelling and language attitudes in Basque with focus on intergenerational change and subjective factors draws on 20 participants.

The participants were stratified according to their age, gender, region and level of education. This is clearly shown in Table 1.

Table 1: Sampling population according to age, gender, region, and education attainment

Level of Education	East Amman				West Amman				Total
	Young		Old		Young		Old		
	Males	Females	Males	Females	Males	Females	Males	Females	
Low Education	2	2	2	2	2	2	2	2	16
High Education	2	2	2	2	2	2	2	2	16
Total	4	4	4	4	4	4	4	4	32

As for age, the participants were namely distributed into two age cohorts (young and old) (see Boberg 2004). The young speakers are the ones who aged between 18-38 years old while the older ones are more than 40 years old. Speakers are also stratified by gender (Labov, 2002). As seen in Table 1, speakers were categorized according to their educational level for the purpose of considering whether education has an influence on variant preference. Due to the obligatory education system in Jordan (Education Act, 1994), which requires ten years of basic mandatory schooling, the categorization did not enclose uneducated participants. Additionally, speakers are grouped according to their place of residence (East or West)

3.3. Data collection

Following the application of a friend-of-a-friend approach, or the "snowball technique," (Milroy and Milroy 1977), the majority of the participants were actually from our own social networks. We also met with some people (who are all from Amman) in public locations such as malls, cafes, universities and supermarkets in order to obtain more participants (Labov, 1984). It is worth mentioning that the spread of Covid-19 was a serious difficulty in approaching some of the interviewees. Therefore, some of the interviewees were contacted by means of video calls to guarantee public safety. Using a detailed consent form, we informed every participant that the recordings of the interviews would be merely used for research and academic purposes, and the researchers are the only ones who are going to listen to them. In an attempt to make the participants more comfortable, we confirmed to them that only general questions would be raised in the interviews. We also made sure that they were free not to answer or talk about any topic they do not like.

Each participant who agreed to take part in the interviews was recorded using Samsung mobile as a portable recording device. Whenever possible, the face-to-face interview technique was adopted to elicit data. The corpus was collected by audio-recordings that lasted in the range of 20-50 minutes to elicit the vernacular speech data which is “the most systematic data for linguistic analysis” (Labov 1984, 29).

The speakers were interviewed by raising questions that promote using negation and through topics that encourage them to speak freely and comfortably without paying attention to their choice of sentences. Further, in order to encourage the speakers carry on the free production of spontaneous data, we attempted to promote questions about topics relating to emotional experiences in different stages of the interviewee’s life as in school, work, or childhood. We also raised questions about ghost stories (Herman, 1999) and recent natural phenomena (Feagin, 2013). For instance, the interviews include questions on the pandemic that occupied the world recently and the lockdown due to Covid-19 and how the opportunities of finding a job were influenced in such an incident. Asking speakers such questions elicited many vivid personal narratives. Controversial questions about society or politics were also asked in order to encourage the participants to express their views on them. The questions were "formulated to be as colloquial as possible, avoiding any 'bookishness' of syntax and lexicon" (Milroy and Gordon, 2003, 60) to decrease the formality level during the interview.

3.4. Data extraction, coding and analysis

We extracted and transcribed the utterances that include the targeted negation variants from all of the audio-recordings. We did not perform a full transcription for the entire duration of the recording due to time constraints. Then, the extracted data (1179 tokens) was transferred from audio files and transcribed to an Excel file. To transcribe the data, we followed a transcription protocol that ensured that features of vernacular AA (e.g., lexical choice, vernacular syntactic constructions, etc.) were preserved.

The tokens in the EXCEL file were then coded for a set of specified variables (age, gender, education and region) speculated to influence the variant selection. The coding string correlated with each token was grouped after the completion of coding and diligent data checking. Next, the coding strings and tokens were directly imported into a token file, a flat-text file, ready for distributional analysis and statistical analysis. For data analysis, we used GOLDVARB X (Sankoff, Tagliamonte, and Smith, 2005) that provides us with distributional and binominal logistic regression analyses.

Further, the implementation of cross-tabulation was carried out to evaluate the impact of multiple variables on the choice of nonverbal negation variants. Cross-tabulation method aims to conduct quantitative analysis to figure out the affiliation between multiple variables and to better grasp the association between different variables. The effect of social factors on the variant choice was modelled via statistical analysis adopting a quantitative tool (Tagliamonte 2006; Poplack and Tagliamonte 2001).

4. Findings and Discussion

In this section, we provide the main findings of the GOLDVARB X program, particularly with respect to distributional and binominal logistic regression analyses.

4.1. Overall distribution

The results in Table (2) below show that the distribution of the negation variant [miʃ] is higher than that of [mu] in AA (76.5% and 23.5%, respectively).

Table 2: Overall distribution of [mu] and [miʃ] in AA

Variant	No.	%
[miʃ]	916	76.5
[mu]	281	23.5
Σ	1197	

To present a more detailed distribution of the two variants, we provide the frequency of the occurrence of each variant in terms of the social factors operationalized in this study. We have also cross-tabulated these factors to explore any hidden intersections in the dataset. Under the variationist approach to language variation and change, it is worthwhile to look to the data for hidden patterns or interactions among the factors through the application of cross-tabulation that is provided by GOLDVARB X (Sankoff, Tagliamonte, and Smith 2005). According to Tagliamonte (2006, 182), cross-tabulation helps in the data analysis in that it enables us "to see exactly how the data are distributed for each intersection of

factors. Interactions, poorly distributed cells, empty cells, and even coding flaws (which may be fixed in the token file) may be discovered throughout this process" (Tagliamonte 2006, 182).

Cross-tabulations of the four social factors show that highly educated, young, female speakers use [mu] more than [miʃ] while low-educated, old, male speakers use [miʃ] more than [mu] (see the appendix for more details regarding the distribution of variants according to the cross-tabulations of social factors).

However, at this point we are not able to decide whether such factors are significant in selecting the negation variant or not. Cross-tabulation shows the effects of two factors when they are combined; however, it does not indicate whether one factor is statistically significant or not. Multivariate analysis is designed to find the extent to which a specific factor is statistically significant. An additional point that also makes the result of multivariate analysis reliable is that this analysis decides significance based on the impact of all factors when they are run simultaneously. The findings of the multivariate analysis are presented in the following subsection.

4.2. Multivariate analysis

When all the factor groups are analyzed simultaneously, the logistic regression technique is implemented into computer software (GOLDVARB X) that is used to evaluate which social factors (e.g., age, gender, the level of education, and region) are statistically significant. The multivariate analysis results in a clear description of three primary lines of evidence, according to Poplack and Tagliamonte (2001, 92): “(statistical) significance of independent variables (at the 0.05 level), intensity of influence, as measured by the distribution between the highest and lowest factor weight in a factor group, and hierarchy of restrictions, or ordering of factor weights within a factor group.”

The hierarchy of restrictions is the most critical of these three lines of evidence because it is generally construed to include a window on a portion of the underlying variable grammar (Poplack and Tagliamonte 2001, 93). Constraint hierarchies offer "a critical diagnostic for comparison" (Tagliamonte 2013, 130), allowing one to figure out the essence of variation within the varieties or within distinct speaker in-groups within the same variety. Comparing restriction hierarchies for male and female speakers within a speech community, for instance, could illustrate similarities and distinctions with respect to the patterns that shape variability and "enable us to infer whether the data sets under comparison share an underlying grammar, and to what extent" (Tagliamonte 2013, 130). When the orientation of constraint hierarchies within a factor group is consistent across varieties, it indicates that their grammars are identical (Tagliamonte 2006).

The results in Table 3 show that the factor groups which are included in the multivariate analysis are all statistically significant. This means that all social factors investigated in this article play an important role in conditioning the use of the negation variants in AA.

Table 3: Multivariate analysis of the contribution of social factors to the probability of using the variant [miʃ]

Corrected mean			0.88
Log likelihood			-439.366
Significance			0.000
Total number			916/1197
Speaker's gender	Factor weight	%	N
Males	.84	96	548/627
Female	.18	59	368/587
Range	*66*		
Speaker's age			
Old	.72	89	520/587
Young	.29	65	396/610
Range	*43*		
Level of education			
High	.37	71	438/616
Low	.63	83	487/580
Range	*26*		
Region			
East	.41	73	392/536
West	.58	79	524/661
Range	*17*		

Multivariate analysis not only identifies which factors are significant in restricting the selection of the variant but also demonstrates the strongest factors measured by the range value (Tagliamonte 2006). The numerical data in Table 3 can be evaluated from the following equation: When the factor weights are greater than 0.50, it means that a factor group influences variant choice favorably, whereas those which are less than 0.50 signify that a factor group influences variant choice unfavorably.

The most interesting inference to be drawn from the numbers shown in Table 3 is that gender has the strongest effect in determining the variant choice based on the range values of the social factor groups. The constraints hierarchy within this factor group shows that males favor the variant [miʃ] (.84) whereas females disfavor it (.18). The factor group with the second strongest effect on the variant choice is age with old speakers favoring the variant [miʃ] (.72) while young speakers disfavoring it (.29). According to the findings, the speaker's level of education has the third strongest effect on the variant choice. Low educated speakers favor the variant [miʃ] (.63); however, highly educated speakers disfavor it (.37).

Region is also found to have the least effect on the variant choice with the speakers of West Amman favoring the variant [miʃ] (.58) and their counterparts in East Amman disfavoring it (.41). These findings altogether demonstrate that variation in verbless-sentences negation is socially conditioned. This fact is consistent with what has been for long observed in other languages. In French, for instance, region, education, age, and gender are all found to be significant factors that influence *ne*-omission (Ashby 2001; Armstrong and Smith 2002; Coveney 2002).

After having demonstrated the multivariate analysis of the social factors, we turn now to discuss the significance of the social factors investigated in this study and to demonstrate how the findings are related to the previous literature.

5. Discussion

5.1. Gender

The results in Table 3 above show that gender has the strongest influence on the variant choice based on the magnitude of effect. It is noticeable that female speakers highly disfavor the variant [miʃ] which seems less urbanite and so less prestigious. On the other hand, male speakers highly prefer using it. It is worth mentioning that in cross-tabulation of age and gender (see Table 4 below), the numbers demonstrated a worth noting insight - the percentage of the variant [mu] was found to be higher than the percentage of [miʃ] for the first time only in the speech of young female participants.

Table 4: Distribution of verbless-sentences negation variants [mu] and [miʃ] in AA according to the cross-tabulation of age and gender

Age	Old		Young		Total	
Gender	N	%	N	%	N	%
Males						
miʃ	284	97	264	95	548	96
mu	8	3	14	5	22	4
Σ	292		278		570	
Females						
miʃ	236	80	132	40	368	59
mu	59	20	200	60	259	41
Σ	295		332		627	

These findings can be explained in terms of the choice of the prestigious forms. According to variation literature (Labov 1990; Cameron 2003), prestigious forms are much more likely to be adopted by women. Regarding verbless-sentences negation in AA, [mu] is the prestigious form for the reason that it is more favored by highly educated young female speakers. This conforms to Al-Shawashreh and Jarrah's (2022) proposal that the preference of the pre-verbal negation (i.e., the form of negation without [-ʃ]) in speech of women is highly preferred, and consequently it is the prestigious form due to the fact that this variant is more favored by urban and highly educated speakers. They also find that young males prefer discontinuous and post-verbal negation variants more than the other groups

Based on the findings that illustrate the remarkable preference of the variant [miʃ] in the speech of males and their use of the variant almost categorically, the variant [miʃ] could be assumed as a sign of masculinity. This point is supported by Al-Shawashreh and Jarrah's (2022, 20) assumption that "using -ʃ in discontinuous and post-verbal negation is a sign of masculinity." The considerable preference of the variant [mu] in the speech of young females suggests that [mu] is a feminine and prestigious variant. This assumption is supported by the findings in the cross-tabulation of gender and age which demonstrate that the variant [mu] recorded a higher percentage over the other variant for the first time in this overlap (see Table 4). Under the analysis proposed here, it can be proposed [mu] could be considered as a sign of femininity as young females are usually observed to employ a certain variant to represent a gender identity that distinguishes them from males. This agrees with Al-Hawamdeh (2016, 70), who argues that "women's linguistic preference could be described as supra-local features, while men prefer the localized features".

As for the role of gender in the previous literature, it is found to be a major factor in linguistic change due to the apparent role of women in leading language change cross-linguistically (Labov 1990). Gender has widely affected the phonological variables in Jordanian Arabic. El-Salman (2015) found that males favor affrication more than females regarding the choice of the variant [k]. On the other hand, Ismail (2019) pointed out that females favor the variant [tʃ] more than [k]. Besides, gender was reported to affect syntactic variation in Jordanian Arabic as in (Al-Shawashreh 2016) where it was found to condition word order variation.

5.2. Age

According to the findings in Table 3 above, the social factor that has the second strongest influence on the variant choice is age. Obviously, old speakers favor the variant [miʃ] (72) while young speakers disfavor it (29). Disfavoring the variant [miʃ] by the young speakers can be attributed to the fact that young speakers found to have the tendency of using the simplified variants. The variant [miʃ] consists of two negation morphemes, namely [mu] and [ʃ] while the variant [mu] consists of merely one morpheme.

According to Labov (1994), age provides a clear indication of the type and directionality of any linguistic change in progress by comparing speech patterns in apparent time (i.e., through the examination of the state of the language at a particular point in time). The disfavor of [miʃ] by young speakers emphasizes that [mu] is the prestigious variant as younger speakers are more responsive to incoming prestigious variations (Daher 1997). On the other hand, younger females, according to Abdel-Jawad (1981, 1987), lead the [q] sound shift by adopting the more prestigious form [ʔ] and employing it in the Amman speech community. This suggests that the noticeable frequency of the variant [mu] by young females, in the cross-tabulation of age and gender in Table 4, is an indication that there might be ongoing shift from the variant [miʃ] to [mu]. In a related vein, El-Salman (2015) finds that age has a significant impact on the use of [k] by young speakers compared to other age groups (middle and old).

Instances from other languages that illustrate the significant role of age in language variation found in Coveney's (1989) study, which investigates the omission of the negative marker *ne* in spoken French, where young speakers are spearheading the dropping of the negation particle *ne*. This effect of age can be ascribed to the assumption that young speakers unlike old speakers prefer less-complex forms

5.3. Education

Regarding education, Table 3 above displays that the preference of the variant [miʃ] in the speech of low educated speakers (.63) is higher than its preference in the speech of their highly educated counterparts (.37). This is in concert with those found in Al-Khatib (1988), Abdel-Jawad (1987), and Al-Rojaie (2013) which report that the more educated the speakers are, the greater their preference for using supra-local forms.

The effect of education can be viewed from two distinct views. The first view, according to Abdel-Jawad (1987), is that educated speakers adopt standard variants as they are usually influenced by the standard speech norms due to the fact that education serves to speakers' exposure to standard variants. Speakers prefer to converge on the speech norms of standard variants to distinguish themselves from

uneducated or low-educated speakers. As a result, they employ the supra-local variation to avoid stigmatization when using the local variety and "in order not to be looked down upon for being provincial" (Miller 2008, 40). In a related vein, Coveney (2002, 57-8) mentions that in French "educated speakers feel that they are speaking badly when they omit ne, and this is due principally to the fact that ne is obligatory in written French".

On the other hand, another view is argued by Al-Wer (2013), who assumes extensively that education is rather a tool through which educated speakers enhance their mobility and social network more than a primary cause of variation. Thus, speakers who pursue education often need to relocate to large cities where universities and colleges that are typically centered in the Arabic world. Therefore, these individuals are likely to have a great opportunity to extend their social connection and speech interaction with the dwellers from various backgrounds of these cities and ultimately adopt the prestigious variants that might be similar to or different from the standard variants.

Al-Wer's view finds support in Al-Tamimi's (2001) study which refers to education as "a channel that brings people in contact with the locally prestigious dialect" (29). Likewise, Ismail (2007, 209) mentions that education in the Arab world serves as "a tool to better one's social and professional status".

Regarding our findings, it seems less desirable to propose that the disfavor of using the variant [miʃ] in verbless-sentences negation by highly-educated participants is attributed to the influence of Standard Arabic on the speakers. That is because neither of these two variants exists in Standard Arabic that uses two negation words for verbless-sentences negation, i.e., lajsa and ɣajer. Both variants [mu] and [miʃ] are rather used in colloquial speech. Additionally, it should be mentioned that the use of non-standard negation variants in AA is not stigmatized. In this research, we ascribe the effect of education on the variant choice to Al-Wer's (1997) view that variation in Arabic dialects should be fully handled apart from Standard Arabic (however see El-Hassan 1977 for a different view). Al-Wer believes that, regardless Standard Arabic, variation in the speech of Arabs should be viewed as an interaction between local varieties and internal factors.

5.4. Region

According to the multivariate analysis (see Table 3), it appears that [miʃ] is considerably more favored in the speech of the participants who live in West Amman than in that of their counterparts who dwell in the East. The results are somehow surprising as the variant [mu] is expected to be used more in West Amman due to its considerable appearance in the speech of young female participants and according to variationist studies, women are more likely to adopt prestigious forms (Labov 1990; Cameron 2003). Accordingly, [mu] was anticipated to appear in the urban centers in West Amman.

The use of [miʃ] in West Amman can be attributed to the fact that a significant number of East Amman population are originally Palestinians of urban cities like Yafa (Jaffa) and Jerusalem where the common negation pattern of verbless sentences is [mu] not [miʃ] (see Mousa 2019 who mentions that Urban Palestinian Arabic does not use the variant with [-ʃ]). On the other hand, many dwellers of West Amman belong to local tribes and regions from other parts of Jordan where the variant [miʃ] is commonly used. In other words, the demographic landscape of East Amman and West Amman is different. For each

group, population preserves their negation patterns used in their original places, something that can be interpreted as identity preservation. This result suggests that the division of East Amman and West Amman is linguistically real as far as negation patterns of verbless-sentences are concerned. Although [miʃ] variant is more frequent in the two regions as compared to [mu] variant but West Amman shows a significant preference of the former pattern in comparison to the latter pattern.

A number of research articles in this regard have shown that regional variation can be a significant social factor in constraining language variation in Arabic (see Miller 2007) and other languages. For example, Ashby (2001), Armstrong and Smith (2002) and Coveney (2002) show that region places a significant role in *ne*-omission in French. In (Jordanian) Arabic, Abdel Jawad (1987) argues that regional variation in the Jordanian context is a significant social factor in that it is strongly correlated with prestigious form used therein. The linguistic variants used in urban centers are more recognized as prestigious forms than those used in rural or Bedouin centers. Abdel-Jawad (1987, 54-5) states that Jordanians view that "linguistic urban variants are more prestigious and modern and endowed with superior status." Additionally, Al-Shawashreh and Jarrah (2022) report that rural speakers of Irbid city in Jordan use discontinuous (41.5%) and post-verbal (15.9%) negation more than urban speakers do (21.4% and 9.9%, respectively). Further, they find that urban speakers tend to use pre-verbal negation (68.7%) more than their rural counterparts (42.6%).

Summarizing, the multivariate analyses, coupled with the distributional analyses and the cross-tabulations of social factors, show that highly-educated young female speakers favor [mu] while low-educated old male speakers favor [miʃ]. These results indicate that these two groups linguistically behave in opposite directions as far as negation of verbless clauses in AA is concerned with the former using more [mu] while the latter using more [miʃ]. Moreover, the multivariate analysis of social factors indicates that old speakers favor [miʃ] while young speakers disfavor it. This generational difference in (dis)favoring these two variants of negation in verbless clauses in AA could possibly be taken as a change in progress where young speakers use more [mu] while old speakers use more [miʃ]. Additionally, the analysis of the social factor of region shows that the division of East Amman and West Amman is linguistically real as far as negation patterns of verbless-sentences are concerned.

5. Conclusion

The current study has investigated the effects of some social factors (age, gender, level of education, and region) on verbless-sentences negation in AA. Multivariate analysis of social factors under investigation has demonstrated that all social factors are statistically significant in conditioning the variant choice of verbless clauses. Based on the range value, it is found that gender is the most significant factor whereas region is the least significant factor. For the important role of gender, this study found that females use [mu] more than [miʃ] as a sign of a feminine identity. Age is also found to be significant where old participants use [miʃ] rather than [mu] which is more favored by young speakers. Education is also found significant. Low-educated use [miʃ] rather than [mu] which is more favored by highly-educated speakers. We have followed Al-Wer's (2007)

assumption that education in Arabic is a proxy variable in the sense that it indirectly affects language variation in Arabic. Education has an important role in broadening one's social network and hence to be open to linguistic patterns used in other regions including big cities and urban centers. West Amman inhabitants are also found to favor the use of [miʃ] rather than [mu] which is more favored by East Amman speakers. This effect of region is attributable to the demographic facts of Amman.

التنوع في نفي الجمل غير الفعلية في لهجة عمان

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الملخص

يهدف هذا البحث إلى اكتشاف ما إذا كان التناوب بين المتغيرين (مو) و(مُش) مقيداً بعوامل اجتماعية أم لا. تم القيام بتسجيل حوالي خمس وعشرين ساعة من المقابلات اللغويَّة الاجتماعيَّة مع 32 متحدثًا ولدوا جميعًا في عمان وما زالوا يعيشون بها. إذ تشير الدراسة إلى وجود أدلة على أن التناوب بين صيغتي (مو) و(مش) في قواعد العربية العمانية مقيد بعوامل اجتماعية. وكشفت الدراسة أن العامل الاجتماعي الأكثر أهمية هو الجنس، فاعتبر المتغير (مو) دلالة للأنوثة. وكشفت هذه الدراسة أيضاً أنّ العمر يمثل عاملاً اجتماعياً هاماً. ويعزى ذلك إلى أن الشباب يفضلون الصيغ الأقل تعقيداً. وزيادة على ذلك وجدت الدراسة أن مستوى التعليم ومنطقة السكن يشكلان عاملين مهمين. حيث وجدت الدراسة أن المتحدثين في عمان الغربية يفضلون المتغير (مش) على عكس سكّان عمان الشرقية الذين يفضلون المتغير (مو). وعلى الرغم من أن هذه النتيجة غير متوقعة إلى حد ما لأن (مو) تعدّ متغيراً أكثر رقياً (وبالتالي نظرياً سوف تفضل أكثر من قبل سكّان عمان الغربية)، إلا أن هذا التفضيل يتوافق مع الوضع السكاني لمدينة عمّان.

الكلمات المفتاحية: التنوع والتغيراللغوي، نفي الجمل غير الفعلية، العمر، الجنس، التعليم، المنطقة، لهجة عمان.

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Appendix

Table 1: Distribution of verbless-sentences negation variants [mu] and [miʃ] in AA according to the cross-tabulation of level of education and age

Level of Education	Highly educated		Low Educated		Total	
Age	N	%	N	%	N	%
Old						
miʃ	256	80	264	99	520	89
mu	63	20	4	1	67	11
Σ	319		268		587	
Young						
miʃ	182	61	214	69	396	65
mu	116	39	98	31	214	35
Σ	298		312		610	

Table 2: Distribution of verbless-sentences negation variants [mu] and [miʃ] in AA according to the cross-tabulation of level of education and gender

Level of Education	Highly educated		Low Educated		Total	
Gender	N	%	N	%	N	%
Male						
miʃ	274	94	274	99	548	96
mu	18	6	4	1	22	4
Σ	292		278		570	
Female						
miʃ	164	50	204	68	368	59
mu	161	50	98	32	259	41
Σ	325		302		627	

Table 3: Distribution of verbless-sentences negation variants [mu] and [miʃ] in AA according to the cross-tabulation of level of education and region

Level of Education	High Educated		Low Educated		Total	
Region	N	%	N	%	N	%
East						
miʃ	148	56	244	90	392	73
mu	116	44	28	10	144	27
Σ	264		272		536	
West						
miʃ	290	82	234	76	524	79
mu	63	18	74	24	137	21
Σ	353		308		661	

Table 4: Distribution of verbless-sentences negation variants [mu] and [miʃ] in AA according to the cross-tabulation of age and region.

Age	Old		Young		Total	
Region	N	%	N	%	N	%
East						
miʃ	238	85	154	60	392	73
mu	42	15	102	40	144	27
Σ	280		256		536	
West						
miʃ	282	92	242	68	524	79
mu	25	8	112	32	137	21
Σ	307		354		661	

Table 5: Distribution of verbless-sentences negation variants [mu] and [miʃ] in AA according to the cross-tabulation of gender and region.

Gender	Males		Females		Total	
Region	N	%	N	%	N	%
East						
miʃ	242	94	150	54	392	73
mu	16	6	128	46	144	27
Σ	258		278		536	
West						
miʃ	306	98	218	62	524	79
mu	6	2	131	38	137	21
Σ	312		349		661	