

# A Variationist Analysis of Progressive Aspect Alternatives in Jordanian Arabic

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**Abstract**—This study investigates alternative variants of progressive aspect in Jordanian Arabic (JA). The study explores to what extent the progressive aspect variants: [qaʕid] 'to sit', [3'am], 'to do', and [3mmal] 'to be', are constrained by the social factors of gender, age, region, and education. Drawing on Labov's (1972) variationist sociolinguistics paradigm, a quantitative analysis of the said variants in the speech of 48 native speakers of JA was undertaken. To this effect, audio-recorded interviews of 30 hours of speech samples were analyzed by using GoldVarb X. Data analysis worked along three dimensions: the overall distribution of identified, targeted variants is presented, cross-tabulation of social factors is used to quantitatively analyze the relationship between multiple variables, and multivariate analysis is conducted to find correlations between several variables simultaneously. The study revealed that region, age, and education level significantly restrict the selection of [qaʕid] variant, while gender does not. The findings also suggest that some speakers view this variant as a marker of their identity. Moreover, the study revealed a kind of prestige associated with urban dialects, with [3'am] and [3mmal] variants being mainly used by urban speakers rather than rural ones. Finally, the findings highlight the significant impact of regional factors on language variation, with urban-rural differences obviously shaping linguistic patterns.

**Index Terms**—variationist sociolinguistics, Jordanian Arabic, progressive aspect alternatives, social factors

## I. INTRODUCTION

According to Wardhaugh and Fuller (2005), sociolinguistics is "the study of our everyday lives - how language works in our casual conversations and the media we are exposed to, and the presence of societal norms, policies, and laws which address language" (p. 1). In other words, sociolinguistics is about understanding how language operates in our everyday interactions, including casual conversations and media exposure, and how societal norms, policies, and laws affect language. Sociolinguistics, put simply, examines the relationship between language and society, aiming at understanding how language is structured and used in daily communication. It explores how social factors like age, education, region, and gender influence how people use language and make choices about the words. However, variationist analysis is a part of overall sociolinguistics. To this effect, this study undertakes a variationist analysis of the progressive aspect of alternatives in Jordan Arabic. It employs quantitative methods to examine how linguistic variation - the choices speakers make between different ways of saying the same thing - is produced and constrained by social factors, particularly gender, age, region, and level of education.

### A. Language Variation

The examination of language variation is a fundamental aspect of sociolinguistic inquiries, essential for understanding how various socio-linguistic factors influence specific linguistic phenomena. Labov (1972) argues that the essence of studying language variation lies in the presence of "two or more ways of saying the same thing" (p. 271). Similarly, Al-Wer (2009) highlights that "variation is an inherent characteristic of every human language" (p. 1). This indicates that individuals do not consistently speak in the same manner across all situations. Furthermore, Wolfram (2006) suggests that "if structure is at the heart of language, then variation defines its soul" (p. 333). Variationists typically aim to quantitatively describe linguistic patterns, which are key for correctly explaining variations within a language and predicting language changes.

Variation in language is evident in everyday speech patterns, including differences in pronunciation, word choice or diction, and grammatical structures within the same speech community. This offers understanding into the diversity of language among various speaker groups and its interconnection with social factors. Arabic language, which is the study's focus, shows various types of variations, including phonological and syntactic alterations. For example, in Arabic varieties, the word for 'he said', /qa:l/, can be pronounced in seven different ways, namely [qa:l], [qa:l], [ʔa:l], [ka:l], [k-a:l], [gp:l], and [ʔv:l], each carrying distinct social meanings (Al-Wer, 2009). These different alternants of the word /qa:l/ 'he said' do not express different propositional meanings, but they are different with respect to their social meanings. Similarly, in urban Levantine dialects, variations in the feminine ending demonstrate how linguistic features

can vary based on regional and social factors (Al-Wer, 2000). This illustrates that linguistic variation extends beyond mere sounds and involves variations in grammar and word usage within specific language communities.

### B. *Jordanian Arabic (JA)*

Jordanian Arabic (JA), a modern Arabic variety, is an integral part of the wider Arabic linguistic context, which includes both an emotional and conceptual relationship to Arabic. JA serves as a native dialect for individuals residing in Jordan. According to Al-Khatib (1988), the dialect is usually divided into three primary sub-dialects: Urban or Madani, spoken by urban dwellers from major cities in Syria, Palestine and Jordan, such as Amman, Irbid and Zarqa; Rural or FallaaHi, used by individuals from rural areas in Palestine and residing in rural areas and cities in Jordan; and the Bedouin dialect spoken by the people of the southern and eastern regions of Jordan. This categorization depends mainly on phonological differences, particularly in the pronunciation of certain consonants, such as q, k and l, as the lexical, syntactic and morphological features of spoken dialects often overlap (Cleveland, 1963). This classification is relevant to the present study as it examines progressive aspect alternatives in JA through the lens of variationist sociolinguistics, considering social variables of age, gender, region, and level of education.

### C. *Progressive Aspect Alternatives in Jordanian Arabic (JA)*

The study at hand uses variationist sociolinguistics to investigate alternative variants indicating progressive aspect in JA. Particularly, the study explores how [qaʕid] ‘to sit’, [3’am], ‘to do’, and [3mmal] ‘to be’ variants, as progressive aspect markers in JA, are constrained by social factors. The following examples from JA illustrate how such variants can be used in JA as progressive aspect markers.

- 1) ʔaħmad qaʕid jehki maʕ ʔumm-uh  
Ahmad BE- MSC. SINGULAR calling with his mom  
[Ahmad is calling his mom.]
- 2) ʔaħmad ʕam jehki maʕ ʔumm-uh  
Ahmed BE calling with his mom  
[Ahmad is calling his mom.]
- 3) ʕammalha tijrab ʃa:j  
BE- FEM. SINGULAR drinking tea  
[She is drinking tea.]

In Examples (1, 2, and 3), [qaʕid], [3’am], and [3mmal] variants do not express the original lexical meanings of the verbs they derive from ‘to sit’, ‘to do’, and ‘to be’ respectively, but rather they have grammatical functions in JA. In fact, they mark progressive aspect. The examples illustrated above show that [qaʕid], [3’am], and [3mmal] are three different ways of expressing a similar interpretation, indicating that actions are in progress. According to the variationist approach, such a variation is a possible effect of sociolinguistic factors. To this effect, this study is concerned with exploring the effects of social factors, namely age, gender, region, and level of education, on variant choice.

### D. *Social Variables*

For the purpose of this study, social variables assumed to constrain the use of [qaʕid], [3’am], and [3mmal] variants as markers for progressive aspect in JA are age, gender, region, and level of education. They are selected due to the widely held assumption in variationist sociolinguistics that they are closely associated with variations in language within variationist studies. The following sub-sections discuss these variables.

#### (a). *Age*

Age has been identified in many studies, including Al-Khatib (1988), Al-Wer (2009), and Al-Shawashreh (2016), as an important factor related to speech differences among different groups of speakers. For example, Al-Wer (2009) argues that within sociolinguistic research, age serves as an indicator of time depth, influencing phonological and syntactic variability in Arabic and facilitating in-depth analysis. The various speech patterns observed are often attributed to the distinct societal roles assumed by speakers of different age groups. Al-Khatib (1988) suggests that older individuals tend to follow traditional linguistic norms more strictly due to their prolonged exposure to these norms and their emotional attachment to them.

#### (b). *Gender*

Gender is assumed to be a key factor that influences speakers' choice of linguistic variants. In this context, Cameron (1998) argues that men and women can utilize their understanding of the gender-specific connotations associated with certain speech and behaviors to create various outcomes. Generally, studies that examine social dialects tend to explore linguistic differences between male and female speakers. Such differences are related to pronunciation, morphology, and syntactic structures (Holmes, 2008). In this regard, Trudgill (1972) emphasizes that women demonstrate a greater tendency towards using prestigious speech patterns compared to those used by men. Women often employ prestigious variants as a means of asserting their social status, especially in societies where access to workplace is limited for them. Equally, male speakers are more interested in asserting dominance through their economic achievements within their societies. Concerning the Arab world, Abu-Haidar (1989) asserts that young women show increased sensitivity and creativity in response to linguistic changes compared to both older women and young men. Women in village settings,

as explained by Sidnell (1999), typically spend more time at home than men, facing restrictions on their movement and social interactions within the society. Therefore, women tend to be more aware of their behavior and interactions, as their movement is often more restricted compared to men.

(c). *Region*

Regardless of whether they live in an urban or rural location, speakers' choice of linguistic variants is greatly influenced by their geographic region (Miller, 2007). This implies that social or geographic markers may influence language variety and change. Accordingly, linguistic characteristics will vary from one place to another. Due to greater dialect interaction brought about by social mobility and improvements in communication tools, the urban dialect is becoming more and more common among younger generations (Al-Tamimi, 2001; Al-Wer, 2007). According to Al-Shawashreh (2016), there is a widespread recognition in the Arab-speaking world and elsewhere of the impact of urban speech norms on patterns of variation and change. He points out that older, less educated people have less mobility, which limits their exposure to urban speech norms. However, young speakers from rural regions who move to cities for further education or work may change their speech patterns to fit in with urban standards out of concern of being socially stigmatized for coming from a rural background (Miller, 2008). Additionally, Abdel-Jawad (1987) draws attention to the belief that linguistic urban varieties are prestigious and modern in Jordanian communities, imparting a sense of superiority in speakers.

(d). *Education*

One of the most important instruments for promoting social connection in communities is education (Al-Wer, 2000). A person's level of education is frequently used as a measure for measuring their interpersonal ties and social connections. As mentioned by Al-Tamimi (2001), education is recognized for acting "as a channel that brings people in contact with the locally prestigious dialect rather than standardizing their speech" (p. 29). In the same vein, education, according to Owens (2001), is crucial for maintaining linguistic diversity in modern Arabic, as educated speakers exhibit a greater adherence to Standard Arabic patterns compared to their uneducated counterparts. Al-Wer (2000), on the other hand, refutes this idea, arguing that language usage and educational attainment are not correlated. Rather, she claims that a speaker's education operates as a "proxy variable" that reflects the type and degree of their social connections (p. 3). Furthermore, Al-Wer (2000) highlights that native varieties' status, which is based on speakers' social standing rather than Standard Arabic, often influences linguistic changes in the Arab world. Al-Wer (2000) argues that this may not always be the case, defying the notion that education levels rise with the usage of Standard Arabic.

E. *Aims and Questions of the Study*

This study aims at investigating progressive aspect alternatives, namely [qaʕid], [3'am], and [3mmal], in JA. To this effect, it examines the effects of different social factors in constraining variant choice. Drawing on Labov's (1972) variationist sociolinguistics paradigm, the current study aims to answer the following questions: a possible effect of sociolinguistic factors.

1) Which social factors of gender, age, region, and level of education, most influence the choice of progressive aspect variants in JA?

2) To what extent are the progressive aspect variants [qaʕid] 'to sit', [3'am], 'to do', and [3mmal] 'to be' in JA constrained by the social factors of gender, age, region, and level of education?

F. *Significance of the Study*

Variation is an inherent characteristic of language as there is more than one way of saying the same thing. However, this variation is not random but structured and rule governed. The ultimate motivation behind any variationist study is to investigate to what extent do social and linguistic factors affect speakers' linguistic choice. Thus, the significance of this study lies in its attempt to provide a detailed analysis of the attribution of an array of social factors in the alternation of progressive aspect in JA in a corpus of vernacular JA recorded in Jordan in 2023. Many studies have examined linguistic variation in JA with the majority of research focusing on phonological variation in Arabic, in general (e.g., Schulz, 1980; Shorrah, 1981; Daher, 1997; among others), and in specific JA, (e.g., Abdel-Jawad, 1981; Al-Khatib, 1988; Al-Wer, 1991; Al-Tamimi, 2001; Al-Ali & Arafa, 2007; El-Salman, 2003; among others). However, the dearth of research on alternative progressive aspect variants in JA and how social factors, including gender, age, region, and level of education, may influence their choice serves as the main impetus behind this study.

## II. LITERATURE REVIEW

This section aims at placing available research in the context of existing knowledge concerning variationist sociolinguistics, with focus on research related to Jordanian vernacular Arabic.

Al-Khatib (1988) conducted a pioneering variationist study in the Jordanian city of Irbid (Hōrān), focusing on six phonological variables: (q), (dʒ), (d), (θ), (k), and (a), across five social dimensions: regional origin, gender, age, education, and style. His research revealed systematic linguistic variation between two rural communities, the Horaniis and Fellahiin, with data collected from 38 informants through face-to-face interviews. Al-Khatib found that lexical

conditioning was prevalent and noted a trend toward greater standardization among males, younger speakers, and rural speakers of Palestinian origin compared to native Jordanians. Education emerged as a significant factor, with highly educated individuals showing a greater tendency toward standardization, particularly in formal settings. However, older speakers, with fewer educational opportunities, adhered more to colloquial variants. Al-Khatib's (1988) study highlighted the influence of social context and education on phonological variation and the ongoing linguistic transformation in the Irbid community.

El-Salman (2003) investigates linguistic variation among Fallahis who moved to Karak, Jordan, due to the Arab Israeli conflicts of 1948 and 1967, focusing on the reflexes of the voiceless uvular stop /q/, the voiceless velar stop /k/, and the morphological variable (Vki) for the 2nd person feminine singular pronoun. The study, involving 48 Jordanian informants displaced from Palestine, utilizes Labov's (1972) variationist approach and SPSS for data analysis. It reveals that young Fallahis prefer the local dialect over their native variants, notably avoiding the [k] variant in favor of [g] due to its social power. Older individuals maintain the non-local [ik] variant, showing resistance to change due to deeply fixed speech patterns, social pressure, and lack of motivation. Gender influences are significant, with young women opting for the [ʔ] variant over [k], aligning with Al-Wer's (1991) view that [ʔ] denotes modernity and softness. Education emerges as a crucial factor, as exposure to other dialects during schooling abroad influences the adoption of urban varieties.

In her study, Al-Wer (2007) explores the linguistic and social dynamics shaping the 'Ammani' dialect in Amman, Jordan, focusing on the interaction between Jordanian and Palestinian dialects. She asserts that the Amman dialect developed from scratch due to the city's lack of a stable, native population. Utilizing data from the Amman Project, she categorizes the city's residents into three generations: the first generation, exposed to various dialects leading to rudimentary leveling (Trudgill, 2004); the second generation, who were the first native speakers and displayed a mix of parental and diverse dialectal features; and the third generation, which achieved linguistic stability and order, earning the label "Ammani". Despite sample limitations, Al-Wer highlights the systematic nature of her data collection, facilitating inter-speaker comparisons and underscoring the transition from chaos to a structured dialectal form in Amman.

Al-Shawashreh's (2016) seminal study on syntactic variation in Jordanian Arabic (JA) investigates word-order variability and pro(noun)-drop variability through a sociolinguistic lens. Addressing the lack of systematic, community-based studies on Arabic word order, Al-Shawashreh provides empirical evidence for the shift from VSO to SVO in vernacular Arabic by analyzing everyday speech. Utilizing Labov's variationist approach, he analyzes data from sociolinguistic interviews with 30 native JA speakers in the Irbid metropolitan area, focusing on age, gender, education, and urban/rural backgrounds. The study reveals that SV(O) word order and null subject pronouns are predominant in JA, with age and education as primary social constraints. Younger, educated speakers prefer SV, while older speakers do not, indicating ongoing change. Linguistic factors, such as transitive verbs and definite subject pronouns, also influence word order choice. In pro-drop variability, education emerges as the main social constraint, with various linguistic factors affecting the selection of overt subject pronouns. This comprehensive analysis highlights the social and linguistic constraints on syntactic variation in JA, offering new insights into its dynamic nature.

Al-Shamayleh (2021) investigates linguistic variation within the Arabic dialects of southern and northern Jordan, focusing on phonological and morphological differences. Using sociolinguistic interviews with 20 participants and the variationist paradigm framework, she identifies significant distinctions, particularly in the use of the [k] and [ʃ] variants, with the southern dialect favoring [k] and the northern dialect favoring [ʃ]. This phonetic variation aligns with findings by Al-Masaeed (2012) regarding the influence of southern Syrian dialects on northern Jordan. These variations, absent in Classical and Modern Standard Arabic, highlight the interaction of standardization and urban influences on regional dialects. Al-Shamayleh's (2021) study enhances our understanding of Arabic dialectology and sociolinguistic dynamics within Jordan.

Alshaboul et al. (2022) investigate syntactic variation in Ammani Arabic (AA), focusing on the influence of social factors, namely age, gender, and education, on the use of intensifiers. Using Labov's variationist approach, they analyze 15 hours of AA recordings to examine the intensifiers /ʔikθi:r/ [many] and its variants, employing GoldVarb X for analysis. Despite thorough analysis, they find that social factors do not significantly impact the distribution of intensifiers in AA. The study also shows that subject expression in AA is primarily driven by linguistic constraints, with minimal representation of subjects as long as they remain relevant in discourse. Furthermore, the semantic classification and functional role of adjectives notably influence the usage of /ʔikθi:r/. Age and education significantly affect word order variant selection in Jordanian Arabic (JA), with transitive object verbs and definite subject pronouns favoring the SV(O) word order. However, factors, such as grammatical subject person, subject information status, and pragmatic discourse organization, play lesser roles. The researchers identify switch reference, person, and number of subjects as primary predictors of overt subject pronouns, while age, gender, and urban/rural dichotomy exhibit minimal impact, with education being a significant constraint.

In Al-Omyan's (2023) study, the person features of the subject are identified as the most significant determinant of the complementizer agreement (CA) pattern in Jordanian Arabic (JA). The study reveals a strong correlation between the subject's person features and the CA pattern, with first and second person subjects showing a higher likelihood of the complementizer agreeing with the embedded clause's subject. This can be attributed to the 'referentiality' of first and

second person forms, which contrasts with the non-referential nature of third person forms. Additionally, the concepts of 'shared context' or 'ostensive nouns' are important in understanding these linguistic constraints, as the cohesive shared context of first and second person forms differs from the disjointed context of third person forms. Thus, syntactic variation in CA within JA is primarily influenced by linguistic rather than social factors.

Finally, as far as the researchers could investigate, progressive aspect alternatives, namely [qaʕid], [3'am], and [3mmal], in JA has not been studied before or is under-investigated, and thus it remains a gap in literature. Accordingly, the dearth of literature in this regard had been the motivation for the current study.

### III. METHODOLOGY

This section explains the adopted research design and analysis method, data collection and sampling, and framework of the study.

#### A. *Research Design and Analysis Method*

The present study follows the approach explained by Al-Shawashreh (2016), which involved not transcribing audio recordings in full. Instead, (1062) valid tokens including relevant occurrences of target variables, were taken out from the audio recordings, and transcribed into an Excel sheet for coding. Then, the tokens within the Excel file underwent coding for various social factors believed to influence variant choice. Once coding was complete and data accuracy was verified, coding strings for each token were combined. Next, both the coding strings and tokens were imported into a GoldVarb X token file, a flat-text format conducive to overall distribution, cross-tabulation, and multivariate analysis, as described by Al-Shawashreh (2016). For data analysis in variationist sociolinguistics, GoldVarb X (Sankoff et al., 2005) is usually employed by researchers. This software enables researchers to perform different analyses, including distributional, multivariate, and cross-tabulation analyses. These involve some steps. First, the frequency of variants for each variable in the dataset is calculated. Next, the distribution of variants across numerous factors influencing them is assessed, which includes comparing marginal distributions (Rand & Sankoff, 1990). A very essential step in distributional analysis is checking cross-tabulations. This step helps to understand how different factors interact (Labov, 2001). In this regard, Labov suggests alternating between cross-tabulations and multivariate analysis, particularly when dealing with social factors. Alteration is needed here because cross-tabulations reveal interaction existence, whereas multivariate analysis calculates the effect size. Incorporated into GoldVarb X, the logistic regression procedure helps identify statistically significant social factors simultaneously (Poplack & Tagliamonte, 2001).

#### B. *Data Collection and Sampling*

To answer the research questions, the study, following Labov's sociolinguistic interview methodology, examined the linguistic patterns of 48 Jordanian Arabic (JA) native speakers in Jordan in 2023. Through audio-recorded interviews, approximately 30 hours of speech samples were collected. Participants were stratified based on gender (male and female), age (young, middle-aged, and old), region (urban and rural), and education level (low educated and highly educated) to ensure diverse representation. This allowed for the exploration of potential linguistic variations across genders, age groups, geographical locations, and education levels within the JA-speaking community. Urban and rural distinctions aimed to understand the influence of geographical location on linguistic usage. Moreover, education level categorization enabled the examination of linguistic differences related to educational attainment.

#### C. *Framework of the Study*

The present study utilizes Labov's (1972) variationist sociolinguistics framework, which posits that language variability is innate but governed by internal and external constraints influenced by social and linguistic factors. Labov (1982) emphasizes the importance of understanding these constraints to gain insights into the linguistic system, highlighting the interaction between linguistic and social factors in language choice. Likewise, Poplack and Tagliamonte (2001) argue that speakers make multiple choices among alternatives with similar functions, reflecting systematic linguistic variation based on preferences and social contexts. However, Labov (1982) asserts that individual speech cannot represent the entire community's linguistic repertoire, highlighting the significance of studying variation. This perspective is supported by the notion that linguistic variation is influenced by social factors like age, gender, ethnicity, and socioeconomic status, providing insights into social stratification and identity construction. Eckert (2000) further notes that variationist analysis reveals how social meanings are encoded in linguistic forms, aiding in the understanding of the relationship between language and society.

### IV. FINDINGS AND DISCUSSION

This section is intended to present and discuss findings. It also provides some illustrative examples of progressive aspect alternatives, namely [qaʕid] 'to sit', [3'am], 'to do', and [3mmal] 'to be', identified in the data. The analysis proceeds along three dimensions: first, it presents the overall distribution of identified, targeted variants; second, it uses cross-tabulation of social factors to quantitatively analyze the relationships between multiple variables; and third, it conducts multivariate analysis to identify patterns and correlations among several variables simultaneously.

A. Overall Distribution

The researchers identified 1,062 tokens from interviews with 48 speakers, classified by gender, age, region, and education level. Table 1 below shows the overall distribution of the variants found in the data.

TABLE 1  
OVERALL DISTRIBUTION OF THE VARIANTS

VARIANT	NUMBER	PERCENTAGE (%)
DELETED (NULL)	323	30.4
[3'AM]	122	11.5
[3MMAL]	43	4
[QASID]	574	54
TOTAL	1062	100

Table 2 shows that [qaʃid] variant is the most frequent variant in the data, accounting for 54% of the overall identified tokens. It also shows that the percentages of the other variants, i.e. [3'am], and [3mmal] are relatively low, accounting for 11.5% and 4%, respectively.

B. Cross-Tabulation of Social Factors

The subsequent sections present cross-tabulations for four social factors: age, gender, education, and region. This presentation is necessary as cross-tabulations for each social factor are included to investigate whether the intersection of these factors affects the constraints on variant choice.

(a). Cross-Tabulation of Age and Gender

The cross-tabulation analysis of gender and age, as shown in Table 2, indicates that the intersection of these factors does not notably affect variant choice. Both males and females across all age groups exhibit similar preferences for the [qaʃid] variant, representing 53% and 55% respectively. Similarly, for [3'am] variant, preferences remain consistent among young, middle-aged, and old individuals of both genders, with percentages ranging from 67% to 55%. However, there is a notable difference concerning [3mmal] variant, where males consistently show preferences across age groups, while females demonstrate a distinct pattern with minimal preference across all age categories. Despite these variations, [qaʃid] variant consistently emerges as the most prevalent across all age groups and genders. These findings suggest that while gender and age do not significantly influence variant choice overall, there are slight deviations observed, particularly with [3mmal] variant, indicating nuanced differences in preference among females across age groups.

TABLE 2  
CROSS-TABULATION ANALYSIS ACCORDING TO AGE AND GENDER

Group #1 -- horizontally.  
Group #2 -- vertically.

	A		B		C		Σ	
	+	%	+	%	+	%		%
M D:	49	26:	54	30:	54	28	157	28
L:	30	16:	18	10:	19	10	67	12
X:	20	10:	15	8:	6	3	41	7
Y:	92	48:	92	51:	117	60	301	53
Σ:	191	:	179	:	196		566	
F D:	68	36:	49	34:	49	30	166	33
L:	24	13:	28	19:	3	2	55	11
X:	0	0:	2	1:	0	0	2	0
Y:	95	51:	67	46:	111	68	273	55
Σ:	187	:	146	:	163		496	
Σ D:	117	31:	103	32:	103	29	323	30
L:	54	14:	46	14:	22	6	122	11
X:	20	5:	17	5:	6	2	43	4
Y:	187	49:	159	49:	228	64	574	54
Σ:	378	:	325	:	359		1062	

Gender (M: Male, F: Female); Age: A: (young 18-31 years), B: (middle 32-49 years), C: old (50+); Variants: Y: [qaʃid], L: [3'am], X: [3mmal], D: Null.

(b). Cross-Tabulation of Age and Education

The cross-tabulation analysis of age and education levels, as shown in Table 3, reveals that regardless of age, individuals with lower education levels tend to prefer [qaʃid] variant (59%) more than those with higher education levels (49%), while highly educated individuals exhibit a preference for [3'am] variant (17%) compared to less educated counterparts (6%). Notably, among highly educated speakers, there is a distinction in the use of [3'am] variant

across generations, with younger and middle-aged individuals showing higher usage (26% and 19% respectively) compared to older individuals (6%). However, the usage of [3'am] variant remains consistent across age groups among low educated speakers. Furthermore, both highly educated and low educated speakers demonstrate similar preferences for [3mmal] variant (4%) across all age groups. These findings suggest a correlation between education levels and variant preference, with higher education correlating with a preference for [3'am] variant, and a generational divide observed among highly educated individuals regarding its usage.

TABLE 3  
CROSS-TABULATION ANALYSIS ACCORDING TO AGE AND EDUCATION

Group #1 -- horizontally.  
Group #4 -- vertically.

		A		B		C		Σ	
			%		%		%		%
H	D:	57	30:	50	31:	49	28	156	30
	L:	49	26:	31	19:	11	6	91	17
	X:	8	4:	11	7:	4	2	23	4
	Y:	77	40:	69	43:	109	63	255	49
	Σ:	191	:	161	:	173		525	
L	D:	60	32:	53	32:	54	29	167	31
	L:	5	3:	15	9:	11	6	31	6
	X:	12	6:	6	4:	2	1	20	4
	Y:	110	59:	90	55:	119	64	319	59
	Σ:	187	:	164	:	186		537	
Σ		117	31:	103	32:	103	29	323	30
L:		54	14:	46	14:	22	6	122	11
X:		20	5:	17	5:	6	2	43	4
Y:		187	49:	159	49:	228	64	574	54
Σ:		378	:	325	:	359		1062	

Education (H: high education, L: low education); Age: A: (young 18-31 years), B: (middle 32-49 years), C: old (50+); Variants: Y: [qaʕid], L: [3'am], X: [3mmal], D: Null.

(c). Cross-Tabulation of Age and Region

The cross-tabulation analysis of age and region, depicted in Table 4, reveals notable trends in linguistic variant usage among speakers. Regardless of age, individuals from rural areas predominantly utilize the variant [qaʕid] (74%), contrasting sharply with urban speakers (38%). On the other hand, variants [3'am] and [3mmal] are entirely absent among rural speakers (0%), yet urban speakers employ them, constituting 21% and 7%, respectively. This pattern underscores a clear rural preference for [qaʕid] variant, while [3'am] and [3mmal] variants are exclusive to urban contexts, indicating a distinct linguistic divergence between urban and rural regions.

TABLE 4  
CROSS-TABULATION ANALYSIS ACCORDING TO AGE AND REGION

Group #1 -- horizontally.  
Group #3 -- vertically.

		A		B		C		Σ	
			%		%		%		%
U	D:	79	36:	57	32:	64	34	200	34
	L:	54	25:	46	26:	22	12	122	21
	X:	20	9:	17	10:	6	3	43	7
	Y:	67	30:	58	33:	95	51	220	38
	Σ:	220	:	178	:	187		585	
R	D:	38	24:	46	31:	39	23	123	26
	L:	0	0:	0	0:	0	0	0	0
	X:	0	0:	0	0:	0	0	0	0
	Y:	120	76:	101	69:	133	77	354	74
	Σ:	158	:	147	:	172		477	
Σ		117	31:	103	32:	103	29	323	30
L:		54	14:	46	14:	22	6	122	11
X:		20	5:	17	5:	6	2	43	4
Y:		187	49:	159	49:	228	64	574	54
Σ:		378	:	325	:	359		1062	

Region (U: urban, R: rural); Age: A: (young 18-31 years), B: (middle 32-49 years), C: old (50+); Variants: Y: [qaʕid], L: [3'am], X: [3mmal], D: Null.

C. Multivariate Analysis of Social Factors

Multivariate analysis allows for the simultaneous examination of multiple factors within a single run, with a limit of six factors per run. According to Poplack and Tagliamonte (2001), multivariate analysis provides three key pieces of



[Taha is talking to his friend.]

2. (Urban, Young, Low-Educated Male)

?aboj qaʃid jeħdʕar ?ilʔaxbar  
My dad BE- MSC. SINGULAR watching the news

[My dad is watching the news.]

3. (Urban, Middle-aged, High-Educated Male)

tamir ʃam jeħdʕar ?ilmubarah  
Tamer BE watching the match

[Tamer is watching the match.]

4. (Urban, Middle-aged, Low-Educated Male)

Nadja ʃamalha talʃab ʃalbaskalait  
Nadia BE- FEM. SINGULAR plays bicycle

[Nadia is riding a bicycle.]

5. (Urban, Old, High-Educated Male)

ʃammar qaʃid jirdʒuf min ?ilbard  
Ammar BE- MSC. SINGULAR shaking from cold

[Ammar is feeling very cold.]

6. (Urban, Old, Low-Educated Male)

sana? qaʃdeh tʃrab maj  
Sana BE-FEM. SINGULAR drinking water

[Sana is drinking water.]

7. (Urban, Young, High-Educated Female)

muna ʃam tʃrab ʃasʃr farawla  
Muna BE drinking juice strawberry

[Muna is drinking strawberry juice.]

8. (Urban, Young, Low-Educated Female)

ʃamalha tʃrab ʃa:j  
BE- FEM. SINGULAR drinking tea

[She is drinking tea.]

9. (Urban, Middle-aged, High-Educated Female)

?ana qaʃdeh ?aʃmil muqa:baleh  
I BE- FEM. SINGULAR doing interview

[I am running an interview.]

10. (Urban, Middle-aged, Low-Educated Female)

baba ʃam biʃu:f ?ilmuba:rah  
Dad BE looking the match

[My dad is watching the match.]

11. (Urban, Old, High-Educated Female)

linda wa tuqa qaʃdat jithawafu  
Linda and Tuqa BE- FEM. PLURAL fighting

[Linda and Tuqa are fighting.]

12. (Urban, Old, Low-Educated Female)

qaʃdeh ?aʃtʃif ?ilʔardʕ  
BE- FEM. SINGULAR cleaning the floor

[She is cleaning the floor.]

13. (Rural, Young, High-Educated Male)

qaʃid ?aʃtayl ʃa muʃruʃi  
BE- MSC. SINGULAR working on my project

[I am working on my project.]

14. (Rural, Young, Low-Educated Male)

muħammad qa:ʃid jiqra? ʃa ?imtiħa:nuħ  
Mohammed BE- MSC. SINGULAR reading for his exam

[Mohammed is studying for his exam.]

15. (Rural, Middle-aged, High-Educated Male)

?inta qaʃid ?itsawlif kθi:r  
You BE- MSC. SINGULAR speaking a lot

[You are very talkative.]

16. (Rural, Middle-aged, Low-Educated Male)

?ilxazzan qaʃid jnaqqetʕ maj

- The water tank BE- MSC. SINGULAR leaking water  
[The water tank is dripping water.]  
17. (Rural, Old, High-Educated Male)  
Hajatnj qa:ʕid ʔaʕtʕj muhadʕarah  
I am BE- MSC. SINGULAR giving lecture  
[I am lecturing.]  
18. Rural, Old, Low-Educated Male)  
ha:dʒa:r qaʕdah tubrum maʕ ʕamitha ʕa talafu:n  
Hajar BE- FEM. SINGULAR talking with her aunt on the phone  
[Hajar is speaking with her aunt on the phone.]  
19. Rural, Young, High-Educated Female)  
ʔana qaʕdeh ʔaħdʕar ʔilmuhadara hasa  
I BE- MSC. SINGULAR attending lecture now  
[I am attending the lecture right now.]  
20. Rural, Young, Low-Educated Female)  
Hajatna qaʕdjn ʔindzahaiz ħalna  
We are BE- MSC. PLURAL preparing ourselves  
[We are preparing ourselves.]  
21. Rural, Middle-aged, High-Educated Female)  
Kunna qaʕdjn nishar sawa  
We were BE- MSC. PLURAL stay up together  
[We were spending time together.]  
22. Rural, Middle-aged, Low-Educated Female)  
ʔenti qaʕdeh ʔitdʕ ubbj ʔilyasi:l  
You BE- FEM. SINGULAR picking up the laundry  
[You are picking up the laundry.]  
23. Rural, Old, High-Educated Female)  
ʔana qaʕdeh ʔaktub baħθ qajjam  
I BE- FEM. SINGULAR writing research important  
[I am working on important research.]  
24. Rural, Old, Low-Educated Female)  
ʔilbisseh qaʕdeh ʔitmawwj  
The cat BE- FEM. SINGULAR meowing  
[The cat is meowing.]

#### D. Summary of Findings

In light of the results of the overall distribution, cross-tabulations, and multivariate analysis of the social (age, gender, region, and level of education) factors, it is obvious that some factors are found to be statistically significant factors in restricting the use of [qaʕid], [3ʕam], and [3mmal] variants in JA. The study shows that region, age, and education level significantly restrict the selection of [qaʕid] variant, while gender does not. This finding answers the first question of the study, which is related to the identification of which social factors of gender, age, region, and level of education, most influence the choice of progressive aspect variants in JA. Also, this finding suggests that some speakers view this variant as a marker of their identity and loyalty to their dialect, reflecting a deep connection to their cultural heritage and regional affiliation. Such expressions serve as powerful indicators of identity and group cohesion as they reinforce social and historical ties within communities. Moreover, the study highlights the prestige associated with urban dialects, with [3ʕam] and [3mmal] variants being used mainly by urban speakers and not by rural ones. This illustrates the concept of supra-localization, where urban variants gain wider acceptance at the expense of locally specific forms due to dialect contact, as discussed by Milroy et al. (1994). The findings emphasize the significant impact of regional factors on language variation, with urban-rural differences obviously shaping linguistic patterns. Additionally, the findings suggest that younger speakers are more receptive to new variants and innovations, facilitated by increased exposure to varied linguistic backgrounds through technology. This dynamic nature of language, where younger generations often introduce changes, contrasts with the tendency of older generations to maintain traditional norms, highlighting the key role of age in the evolution of language over time. Furthermore, higher education levels correlate with certain variant preferences, possibly tied to the prestige of urban dialects and the cultural affluence associated with education. This finding answers the second question of the study, related to the identification of the extent to which the progressive aspect variants [qaʕid], [3ʕam], and [3mmal] in JA are constrained by the social factors of gender, age, region, and level of education. In fact, such insights stress the dynamic nature of language variation and the interaction between social factors and linguistic choices in JA.

#### V. CONCLUSION

This study explores the variation in the use of the progressive aspect variants [qaʕid], [3'am], and [3mmal] in JA, and how social factors, such as gender, age, region, and level of education influence their usage. The results indicate that certain social factors, particularly region, age, and education level, significantly influence the selection of these variants in JA, while gender does not exhibit any statistical significance. The findings suggest that the use of specific variants serves as a marker of identity and loyalty to one's dialect, reflecting a deep connection to cultural heritage and regional connection. The study recommends expanding the sample size to include a more diverse range of speakers from various regions in Jordan to gain a comprehensive understanding of linguistic variation across the country. Also, longitudinal studies are advocated to track changes in the usage of specific linguistic variants over time, facilitating insights into the dynamics of language change and the factors driving it. In addition, the attitudes of speakers towards different variants and how these attitudes influence language use could be investigated. Understanding the social perceptions of linguistic variants can provide insights into the sociocultural dynamics of language use. Finally, comparative studies with other Arabic-speaking regions are recommended to identify similarities and differences in language variation patterns, contributing to broader Arabic dialectology.

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