



**Arabian Gulf Journal**  
Humanities and Social Studies

## **Sociolinguistic Variation in Jordanian Arabic: A Comprehensive Analysis of Phonological and Morphological Patterns**

التبالغ اللغوي والاجتماعي في اللهجة الأردنية: دراسة تحليلية للأصوات وبنية الكلمات

**Musab Yassir Al Matarneh**

مصعب ياسر سالم المطرانة

**PhD Student at Mysore University**

**Head of the Department of Private Educational Institutions Structures,  
Private Education Directorate, Ministry of Education**

DOI: <https://doi.org/10.64355/agjhss3817>



© 2025 AGJHSS Publisher / Al-Sanabel Center for Studies and Heritage This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY-NC-SA) license <https://creativecommons.org/licenses/by-nc-sa/4.0/>



## Abstract:

This study investigates sociolinguistic variation in Jordanian Arabic, focusing on phonological and morphological patterns across northern, central, and southern regions. Drawing on a stratified sample of 180 native speakers, the research employs a mixed-methods approach integrating variationist sociolinguistics, dialectology, and contact linguistics. Key findings reveal systematic regional differences, with northern and southern dialects retaining conservative features while central urban varieties exhibit innovation due to dialect contact. Phonological variables, such as the realization of /q/ and interdental fricatives, show apparent-time changes toward urban norms, influenced by age, gender, and education. Morphological variation, including verbal conjugation and pronoun systems, demonstrates regularization and contact-induced changes, particularly from Palestinian Arabic. The results contribute to Arabic dialectology by highlighting the interplay of historical, social, and functional factors in language variation. Implications for language technology, education, and policy are discussed.

**Keywords:** Jordanian Arabic, sociolinguistic variation, phonology, morphology, dialect contact, Levantine Arabic.

## الملخص:

تتناول هذه الدراسة التغير الاجتماعي-اللغوي في العربية الأردنية، مع التركيز على الأنماط الصوتية والصرفية في الأقاليم الشمالية والوسطى والجنوبية. واعتمدت الدراسة على عينة طبقية مكونة من 180 متحدثاً أصلياً، مستخدمةً منهاً مختلفاً يدمج بين السانيات الاجتماعية التغایرية، وعلم اللهجات، ولسانیات الاتصال اللغوي. وتبين النتائج الرئيسية وجود فروق إقليمية منتظمة؛ إذ تختلف اللهجات الشمالية والجنوبية بسمات محافظة، في حين تبدي اللهجات الحضرية في الإقليم الأوسط مظاهر ابتكار ناتجة عن تماس اللهجات. كما تكشف المتغيرات الصوتية، مثل تحقيق /ق/ والأصوات الاحتكاكية بين-الأسنانية، عن تغيرات زمنية ظاهرة باتجاه المعايير الحضرية، متأثرة بعوامل العمر والجنس والمستوى التعليمي. ويزيل التغير الصرفي، بما في ذلك تصريف الأفعال وأنظمة الضمائر، نزاعات نحو التبسيط والتعميد وتغيرات ناجمة عن الاتصال اللغوي، ولا سيما بتأثير العربية الفلسطينية. وتبين النتائج في دراسات لهجات العربية من خلال إبراز تفاعل العوامل التاريخية والاجتماعية والوظيفية في تشكيل التغير اللغوي. كما تناقش دلالات هذه النتائج في مجالات تقنيات اللغة، والتعليم، والسياسات اللغوية.

**الكلمات المفتاحية:** العربية الأردنية، التغير الاجتماعي-اللغوي، الصوتيات، الصرف، تماس اللهجات، العربية الشامية.

## 1. Introduction

Arabic dialectology has long fascinated linguists due to its intricate blend of historical continuity and contemporary change, particularly in the Levantine region where Jordanian Arabic occupies a pivotal position. As a crossroads of Bedouin, rural, and urban influences, Jordan's linguistic landscape reflects migration, urbanization, and contact with neighboring dialects (Al-Wer, 2007). This paper examines phonological and morphological variation in Jordanian Arabic, addressing gaps in prior research that often focused on isolated features or limited regions (e.g., Abd-el-Jawad, 1986; Al-Tamimi, 2001).

The study aims to: (1) document systematic patterns of variation across regions; (2) analyze social factors influencing these patterns; and (3) explore implications for theoretical linguistics and applied fields. By integrating data from 180 speakers, this research provides

a comprehensive view, emphasizing how variation manifests change in progress. The paper is structured as follows: literature review, methodology, results on phonological and morphological variation, discussion, and conclusion.

## 2. Literature Review

The study of Arabic dialectal variation traces back to early 20th-century scholars like Bergsträsser (1915) and Cantineau (1937), who established comparative dialectology through phonological surveys of Levantine Arabic. Post-World War II, Blanc (1964) introduced social factors, highlighting communal contact in Baghdad, a model applicable to Jordan's demographics. Ferguson's (1959) diglossia theory framed the Standard Arabic-dialect continuum, though later critiques (e.g., Holes, 2004) noted oversimplifications in multilingual contexts like Jordan.

Sociolinguistic approaches emerged in the 1980s, with Abd-el-Jawad (1986, 1987) applying Labovian methods to Jordanian urban dialects, revealing dialect mixing in Amman. Al-Wer (2007) further explored new-dialect formation in cities, emphasizing migration's role. Language attitudes research (Suleiman, 2004; Al-Omari & Herk, 2016) showed variants' social meanings, linking prestige to urban forms.

Theoretical frameworks include variationist sociolinguistics (Labov, 1972, 1994), contact linguistics (Thomason & Kaufman, 1988; Trudgill, 2004), and dialectology (Behnstedt & Woidich, 1985). Jordan-specific studies (Irshied, 1984; Al-Khatib, 1988; Al-Shamayleh, 2016) highlight regional diversity, but gaps persist in integrated analyses of phonology and morphology. Computational approaches (Biadsy et al., 2009; Zaidan & Callison-Burch, 2014) underscore variation's challenges for technology.

This review synthesizes these strands, positioning the current study as addressing underexplored synchronic-diachronic links in Jordanian Arabic.

## 3. Methodology

### 3.1 Research Design

This mixed-methods study adopts a positivist paradigm with interpretive elements, focusing on empirical patterns while considering social meanings. It combines quantitative variationist analysis with qualitative sociolinguistic insights.

### 3.2 Participants

A stratified random sample of 180 native Jordanian Arabic speakers was selected, representing northern (60), central (60), and southern (60) regions. Stratification included age (18-30, 31-45, 46-60, 61+), gender (equal male/female), education (primary/secondary/university), and urban/rural background. Recruitment used community networks, snowball sampling, and institutional partnerships.

### 3.3 Data Collection

Semi-structured interviews (60-90 minutes) elicited natural speech via demographic questionnaires, conversations on local topics, reading passages, word lists, and attitude discussions. Recordings used Zoom H4n Pro devices (WAV format, 44.1 kHz, 16-bit). Ethical approval was obtained from the University of Jordan IRB, with informed consent and anonymity ensured.

### 3.4 Data Analysis

Phonetic transcription used modified IPA, with inter-rater reliability ( $\kappa > 0.80$ ). Variables were coded for linguistic/social factors. Quantitative analysis included logistic regression and mixed-effects modeling in R software. Qualitative analysis via NVivo examined attitudes. Acoustic analysis used Praat for phonetic details.

Limitations include observer's paradox and sampling constraints, mitigated by triangulation and pilot testing.

## 4. Results: Phonological Variation

Eighteen phonological variables were analyzed, spanning consonants, vowels, and processes.

### 4.1 Consonantal Variables

The (Q) variable (/q/ realization: [q], [g], [ʔ], [k]) showed regional stratification. Northern: [ʔ] dominant in youth (78%); Central (Amman): [ʔ] at 85%; Southern: [q] retained (55% in older speakers). Age effects indicated change toward [ʔ] (odds ratio 0.25 for 18-30 vs. 61+).

Interdentals (TH: /θ/ → [θ]/[t]/[s]; DH: /ð/ → [ð]/[d]/[z]; DH<sup>f</sup>: /ð<sup>f</sup>/ → [ð<sup>f</sup>]/[d<sup>f</sup>]/[z<sup>f</sup>]) revealed stopping in progress. Northern youth: [t] 72%; Southern: [θ] conserved (60%). Gender: Women led innovation.

### 4.2 Vocalic Variables

Short /a/ (A: [a]/[æ]/[ə]) fronted in central region (45% [æ] in youth). Long /a:/ (AA: [a:]/[æ:]/[a:]) varied regionally, with central showing [æ:] preference.

### 4.3 Processes and Geographic Patterns

Imāla (/a/ fronting) interacted with emphatics. Isoglosses separated north-south divides, with urban diffusion shifting boundaries. Acoustic data confirmed gradient changes (e.g., vowel duration).

Tables 4.1-4.5 (from original data) illustrate distributions by age, gender, and region.

## 5. Results: Morphological Variation

Morphological analysis focused on verbal, nominal, and derivational systems.

## 5.1 Verbal Morphology

Perfect tense: First plural endings varied (-na/-nna/-ina), with central region showing Palestinian influence (-nna 35%). Second feminine singular (-ti/-tī) shifted toward -tī in youth (65%).

Imperfect: Negation strategies (ما...ش) circumfix increasing in central youth (65%). Future markers: راح (northern 70%), بع (southern 55%).

Imperatives: Irregulars regularized (e.g., تعال → اجي in 65% youth). Politeness via لو more in educated speakers.

## 5.2 Nominal Morphology

Pronouns: Independent forms stable, but clitics varied (e.g., 3MS -o/-u regionally). Gender marking simplified in youth.

Plurals: Broken patterns conserved in high-frequency nouns; sound plurals expanded in modern vocabulary.

## 5.3 Derivational Morphology

Diminutives: Productive in north (65% nouns); gender marking reduced in youth. Agentives: -ji innovative in modern professions (60% technical jobs).

Tables 5.1-5.8 detail distributions.

## 6. Discussion

The results align with variationist theory (Labov, 2001), showing structured heterogeneity. Regional patterns reflect historical settlements (Behnstedt, 1997), with central innovation from contact (Miller, 2007). Social factors: Youth and women lead changes toward urban prestige (Al-Omari & Herk, 2016); education correlates with conservative retention in morphology but innovation in phonology.

Compared to Levantine varieties, Jordanian Arabic bridges Palestinian and Syrian features (Versteegh, 2014). Functional pressures drive regularization (Watson, 2002). Implications: For ASR, variation demands dialect-specific models (Biadsy et al., 2009); education can incorporate findings for dialect awareness.

Limitations: Synchronic focus infers diachronic change; future work could include syntactic variation.

## 7. Conclusion

This study illuminates sociolinguistic variation in Jordanian Arabic, revealing dynamic patterns shaped by region, society, and history. By documenting phonological gradients and morphological regularizations, it advances Arabic dialectology and informs applications in

technology and policy. Future research should explore syntactic interfaces and longitudinal changes.

## References

Abd-el-Jawad, H. R. (1986). The emergence of an urban dialect in the Jordanian urban centers. *International Journal of the Sociology of Language*, 61, 53-63.

Abd-el-Jawad, H. R. (1987). Cross-dialectal variation in Arabic: Competing prestigious forms. *Language in Society*, 16(3), 359-367.

Al-Ani, S. H. (1970). *Arabic phonology: An acoustical and physiological investigation*. Mouton.

Al-Deaibes, M., Al-Shawashreh, E., & Jarrah, M. (2021). Emphatic variation of the labio-velar /w/ in two Jordanian Arabic dialects. *Heliyon*, 7(1), e05993.

Al-Khatib, M. A. (1988). *Sociolinguistic change in an expanding urban center: A case study of Irbid city, Jordan*. Doctoral dissertation, Durham University.

Al-Omari, O., & Herk, G. V. (2016). A sociophonetic study of interdental variation in spoken Arabic. *Jordan Journal of Modern Languages and Literature*, 8(2), 117-137.

Al-Shamayleh, T. S. (2016). Linguistic variation among southern and northern Jordanian dialects. *International Journal of Linguistics*, 8(1), 97-112.

Al-Shawashreh, E. (2012). Aspects of grammatical variation in Jordanian Arabic. *Proceedings of the Association for Computational Linguistics*, 1, 123-135.

Al-Sobh, M. A., Abu Melhim, A. R. H., & Bani Hani, N. A. (2015). Diglossia as a result of language variation in Arabic: Possible solutions in light of language planning. *Journal of Language Teaching and Research*, 6(2), 274-279.

Al-Tamimi, F. Y. A. (2001). *Phonetic and phonological variation in the speech of rural migrants in a Jordanian city*. Doctoral dissertation, University of Leeds.

Al-Wer, E. (2007). The formation of the dialect of Amman: From chaos to order. In C. Miller, E. Al-Wer, D. Caubet, & J. C. E. Watson (Eds.), *Arabic in the city: Issues in dialect contact and language variation* (pp. 55-76). Routledge.

Alrabab'ah, S. (2018). *Rural and urban dialects in contact in Jordan: The case of [tʃ] de-affrication in the rural dialect of Irbid suburbs*. Unpublished MA thesis, University of Canterbury.

Beaman, K. V. (1987). Coordination and subordination revisited: Syntactic complexity in spoken and written narrative discourse. In R. Tomlin (Ed.), *Coherence and grounding in discourse* (pp. 45-80). John Benjamins.

Behnstedt, P. (1997). *Sprachatlas von Syrien*. Harrassowitz Verlag.

Behnstedt, P., & Woidich, M. (1985). *Die ägyptisch-arabischen Dialekte*. Reichert.

Bergsträsser, G. (1915). *Sprachatlas von Syrien und Palästina*. Hinrichs.

Biadsy, F., Hirschberg, J., & Habash, N. (2009). Spoken Arabic dialect identification using phonotactic modeling. In *Proceedings of the EACL 2009 Workshop on Computational Approaches to Semitic Languages* (pp. 53-61). Association for Computational Linguistics.

Blanc, H. (1953). *Studies in North Palestinian Arabic: Linguistic inquiries among the Druzes of Western Galilee and Mt. Carmel*. Oriental Notes and Studies, 4, 1-96.

Blanc, H. (1964). *Communal dialects in Baghdad*. Harvard University Press.

Boersma, P., & Weenink, D. (2021). *Praat: Doing phonetics by computer* [Computer program]. Version 6.1.38. <http://www.praat.org/>

Britain, D. (2010). Conceptualisations of geographic space in linguistics. In A. Lameli, R. Kehrein, & S. Rabanus (Eds.), *Language and space: An international handbook of linguistic variation* (pp. 69-97). De Gruyter Mouton.

Brustad, K. E. (2000). *The syntax of spoken Arabic: A comparative study of Moroccan, Egyptian, Syrian, and Kuwaiti dialects*. Georgetown University Press.

Cantineau, J. (1937). Études sur quelques parlers de nomades arabes d'Orient. *Annales de l'Institut d'Études Orientales*, 2, 1-118.

Cantineau, J. (1940). Études sur quelques parlers de nomades arabes d'Orient (suite). *Annales de l'Institut d'Études Orientales*, 4, 9-75.

Cantineau, J. (1960). *Cours de phonétique arabe*. Klincksieck.

Chambers, J. K. (2009). *Sociolinguistic theory: Linguistic variation and its social significance*. Wiley-Blackwell.

Cleveland, R. (1963). A classification for the Arabic dialects of Jordan. *Bulletin of the American Schools of Oriental Research*, 171, 56-63.

Cohen, D. (1962). Koiné, langues communes et dialectes arabes. *Arabica*, 9(2), 119-144.

Cowell, M. W. (1964). *A reference grammar of Syrian Arabic*. Georgetown University Press.

Ferguson, C. A. (1959). Diglossia. *Word*, 15(2), 325-340.

Giles, H., Coupland, N., & Coupland, J. (1991). Accommodation theory: Communication, context, and consequence. In H. Giles, J. Coupland, & N. Coupland (Eds.), *Contexts of accommodation* (pp. 1-68). Cambridge University Press.

Grand'Henry, J. (1972). *Le parler arabe de Cherchell (Algérie)*. Peeters.

Grotzfeld, H. (1965). *Laut- und Formenlehre des Damaszenisch-Arabischen*. Steiner.

Guy, G. R. (1993). The quantitative analysis of linguistic variation. In D. Preston (Ed.), *American dialect research* (pp. 223-249). John Benjamins.

Habib, R. (2010). Word frequency and the acquisition of the Arabic urban prestigious form [?]. *Glossa*, 5(2), 198-219.

Hellmuth, S. (2006). *Intonational pitch accent distribution in Egyptian Arabic*. Doctoral dissertation, SOAS, University of London.

Holes, C. (2004). *Modern Arabic: Structures, functions, and varieties*. Georgetown University Press.

Holes, C. (2006). Retention and loss of the passive verb in the Arabic dialects of northern Oman and eastern Arabia. In J. Owens (Ed.), *A linguistic history of Arabic* (pp. 49-68). Oxford University Press.

Hoyt, F. M. (2007). The Arabic dual and morphosemantic features. In E. Benmamoun (Ed.), *Perspectives on Arabic linguistics XIX* (pp. 45-66). John Benjamins.

Hudson, A. (2002). Outline of a theory of diglossia. *International Journal of the Sociology of Language*, 157, 1-48.

Irshied, O. (1984). *The phonology of Arabic: Bani Hassan, a Bedouin Jordanian dialect*. Doctoral dissertation, University of Illinois at Urbana-Champaign.

Jassem, Z. A. (1993). *Impact of the Arabic glottal stop and pharyngeals on segmentation for automatic speech recognition*. Doctoral dissertation, University of Surrey.

Johnson, D. E. (2009). Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass*, 3(1), 359-383.

Kaye, A. S. (2007). Morphophonemic changes in Arabic dialects: Levantine vs. Mesopotamian. In E. Benmamoun (Ed.), *Perspectives on Arabic linguistics XIX* (pp. 67-82). John Benjamins.

Kretzschmar, W. A. (2009). *The linguistics of speech*. Cambridge University Press.

Labov, W. (1972). *Sociolinguistic patterns*. University of Pennsylvania Press.

Labov, W. (1984). Field methods of the project on linguistic change and variation. In J. Baugh & J. Sherzer (Eds.), *Language in use: Readings in sociolinguistics* (pp. 28-53). Prentice Hall.

Labov, W. (1994). *Principles of linguistic change: Internal factors*. Blackwell.

Labov, W. (2001). *Principles of linguistic change: Social factors*. Blackwell.

Ladefoged, P., & Johnson, K. (2014). *A course in phonetics* (7th ed.). Cengage Learning.

Lambert, W. E., Hodgson, R. C., Gardner, R. C., & Fillenbaum, S. (1960). Evaluational reactions to spoken languages. *Journal of Abnormal and Social Psychology*, 60(1), 44-51.

Llamas, C., Mullany, L., & Stockwell, P. (Eds.). (2007). *The Routledge companion to sociolinguistics*. Routledge.

McCarthy, J. J. (1981). A prosodic theory of nonconcatenative morphology. *Linguistic Inquiry*, 12(3), 373-418.

Milroy, L. (1987). *Language and social networks* (2nd ed.). Basil Blackwell.

Milroy, L., & Gordon, M. (2003). *Sociolinguistics: Method and interpretation*. Blackwell.

Miller, C. (2007). Arabic urban vernaculars: Development and change. In C. Miller, E. Al-Wer, D. Caubet, & J. C. E. Watson (Eds.), *Arabic in the city: Issues in dialect contact and language variation* (pp. 1-30). Routledge.

Nagy, N. (2000). *Faetar*. LINCOM Europa.

Owens, J. (2001). Arabic sociolinguistics. *Arabica*, 48(4), 419-469.

Owens, J. (2006). *A linguistic history of Arabic*. Oxford University Press.

Palva, H. (1982). Patterns of koineization in modern colloquial Arabic. *Acta Orientalia*, 43, 13-32.

Paolillo, J. C. (2002). *Analyzing linguistic variation: Statistical models and methods*. CSLI Publications.

Procházka, S. (2006). Arabic. In K. Brown (Ed.), *Encyclopedia of language and linguistics* (2nd ed., pp. 387-395). Elsevier.

R Core Team. (2021). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <https://www.R-project.org/>

Ratcliffe, R. R. (1998). *The "broken" plural problem in Arabic and comparative Semitic*. John Benjamins.

Rosenthal, S. (1994). *Vowel/glide alternation in a theory of constraint interaction*. Doctoral dissertation, University of Massachusetts, Amherst.

Ryding, K. C. (2005). *A reference grammar of Modern Standard Arabic*. Cambridge University Press.

Ryding, K. C. (2011). *Teaching and learning Arabic as a foreign language: A guide for teachers*. Georgetown University Press.

Sankoff, D. (1988). Sociolinguistics and syntactic variation. In F. J. Newmeyer (Ed.), *Linguistics: The Cambridge survey* (Vol. 4, pp. 140-161). Cambridge University Press.

Sankoff, G. (2006). Age: Apparent time and real time. In K. Brown (Ed.), *Encyclopedia of language and linguistics* (2nd ed., pp. 110-116). Elsevier.

Shahin, K. N. (2002). *Postvelar harmony*. John Benjamins.

Suleiman, Y. (2004). *A war of words: Language and conflict in the Middle East*. Cambridge University Press.

Tagliamonte, S. A. (2006). *Analysing sociolinguistic variation*. Cambridge University Press.

Tagliamonte, S. A. (2012). *Variationist sociolinguistics: Change, observation, interpretation*. Wiley-Blackwell.

Thomason, S. G., & Kaufman, T. (1988). *Language contact, creolization, and genetic linguistics*. University of California Press.

Trudgill, P. (1974). *The social differentiation of English in Norwich*. Cambridge University Press.

Trudgill, P. (2004). *New-dialect formation: The inevitability of colonial Englishes*. Edinburgh University Press.

Versteegh, K. (2014). *The Arabic language* (2nd ed.). Edinburgh University Press.

Watson, J. C. E. (2002). *The phonology and morphology of Arabic*. Oxford University Press.

Wittenburg, P., Brugman, H., Russel, A., Klassmann, A., & Sloetjes, H. (2006). ELAN: A professional framework for multimodality research. In *Proceedings of the 5th International Conference on Language Resources and Evaluation (LREC 2006)* (pp. 1556-1559). ELRA.

Wolfram, W. (1969). *A sociolinguistic description of Detroit Negro speech*. Center for Applied Linguistics.

Wolfram, W., & Fasold, R. W. (1974). *The study of social dialects in American English*. Prentice Hall.

Zaidan, O. F., & Callison-Burch, C. (2014). Arabic dialect identification. *Computational Linguistics*, 40(1), 171-202.

Zawaydeh, B. A. (1999). *The phonetics and phonology of gutturals in Arabic*. Doctoral dissertation, Indiana University.