
| RESEARCH ARTICLE

Ambiguity in Arabic Negative Polar Questions

Reima Al-Jarf

Full Professor of English and Translation Studies, Riyadh, Saudi Arabia

Corresponding Author: Reima Al-Jarf, E-mail: reima.aljarf@gmail.com

| ABSTRACT

Negative yes-no (polar) questions in Colloquial Arabic (CA) are formed by intonation without adding yes-no question particles, in which case, a statement is uttered with a rising intonation, whether this polar question is negative or affirmative. This case is more common in CA than written MSA. Sometimes, the same negative polar question is uttered with different intonations, giving different meanings. This article investigates the multiple meanings of negative polar questions in Hijazi Arabic (HA), the kinds of ambiguities resulting from using different rising intonations, and how negative polar questions are answered. A sample of negative polar questions in HA was collected. Each was uttered with different rising intonations by a sample of students enrolled in a Semantics and Pragmatics course at the College of Languages and Translation and recordings of those were made. The student informants were asked about the meaning conveyed by each intonation of the same negative polar question. Results showed that ما شريت فستان الأسبوع الماضي؟ "Didn't you buy a dress last week?" is a negative polar question formed with a change in intonations. It is ambiguous and may render the following meanings: (i) a neutral question about whether she bought the dress or not, replying with the truth-value of the situation, or is replying to the polarity used in the question. The answer would be either "Yes" or "no", or an echo answer: "Yes I bought it" or "No I didn't buy it"; (ii) a confirmation question to which the reply is "yes" only; (iii) a confirmation question to which the reply is "no" only; (iv) disapproval: "Didn't you buy a dress last week? Why do you want to buy another dress?" (v) an exclamation: "Wow! You have bought a new dress, although you bought one last week! What a surprise! The context makes it clear which meaning each intonation implies. Detailed results of the interpretation of a sample of ambiguous spoken negative polar questions are reported.

| KEYWORDS

Negative polar questions, negative yes-no questions, binary questions, nominal negative polar questions, verbal negative polar questions, alternative negative polar questions, Hijazi Arabic, Arabic intonation, pragmatic function.

| ARTICLE INFORMATION

ACCEPTED: 10 May 2023

PUBLISHED: 17 May 2023

DOI: 10.32996/jpda.2023.2.1.6

1. Introduction

A polar question¹, also known as a yes/no, a binary, a general, or an affirmative-negative question, is a question to which the expected answer is affirmative as (yes) or negative (no). In English, polar questions begin with a modal/auxiliary verb (*is, are, can, will, has, have, do, does, did*) and are usually, but not always, answered using the same modal/auxiliary verb. Polar questions can be formed in both affirmative and negative forms (*Are you going for a picnic over the weekend? or Aren't you going for a picnic over the weekend?*) In Modern Standard Arabic (MSA), polar questions begin with one of two particles هل /hal/ and الهمزة /?a?, whereas in Colloquial Arabic (CA), no question-formation particles are used. Rather, intonation is used to mark the affirmative or negative yes-no question. Thus, in Arabic, interpretation of polar questions and answers to them are affected by prosody and

¹ <https://www.thoughtco.com/yes-no-question-grammar-1692617>

negation. The expected answer to a polar question in Arabic would be an affirmative answer نعم /naam?/ versus a negative answer لا /la?/.

Due to their prevalence in all languages, polar questions have received much attention in the syntactic research. A review of the literature has shown many studies that investigate polar (yes/no) questions in many languages and some issues related to them such as English negative polar questions (Aksenovová, 2022); negative polar question types in English (Romero, Arnhold, Braun & Domaneschi, 2017); negative polar questions in English and Czech (Malá, 2007); polar questions in Seri (Marlett & Moser, 2000); negation, alternatives, and negative polar questions in American English (AnderBois, 2019); negative answers to polar questions in English (Park & Yang, 2022); (Dis) agreement, polarity, and focus in answers to negative polar questions in Italian (Servidio, Bocci & Bianchi, 2018); polar question forms expressing bias-evidence conflicts in Italian (Di Maro, Origlia, & Cutugno, 2021); the particle mica in Italian polar questions and attitudes in discourse (Frana, & Rawlins, 2019); affirming responses to polar questions in Russian conversation (Bolden, 2016); question bias and question concern in negative polar questions in Russian (Repp & Geist, 2022); the syntax of answers to polar questions in English and Swedish (Holmberg, 2013); new perspectives on bias in polar questions in Hungarian (Gyuris, 2017); what is and (isn't) asked with a (negative) polar question in Serbian? (Todorovic, 2022); intonation and its interfaces in Sardinian polar questions (del Mar Vanrell, Ballone, Schirru, & Prieto, 2014); the interpretation of responses to particles méi (yǒu) and bù in negative polar questions in Mandarin Chinese (Li, Borràs-Comes & Espinal, 2022); the syntax of polar questions and their answers in Taiwanese (Wu, 2016); embedded negative polar questions in Japanese (Goodhue & Shimoyama, 2022); two varieties of negative polar interrogatives in Japanese (Ito & Oshima, 2014); bias and prosody in Japanese negative polar questions (Ito, 2015); the anaphoric nature of particle responses to the polar questions in English and Korean (Kim, 2017); variations in answering negative polar questions in Korean (Kim, Nam & Kim, 2023); negation and polar question-answer clauses in South African sign language (Huddleston, 2021); what negative polar questions can teach us about the in domain for Turkish sign language (Gokgoz, 2010); negative polar questions in Hong Kong sign language (Sze & Lee, 2022) and others.

As in other languages, numerous studies in the literature investigated polar questions in Modern Standard Arabic and some Arabic dialects such as polar questions in Egyptian and Tunisian colloquial Arabic (Korica, 1999; Procházka & Dallaj, 2019); the syntax of answers to affirmative polar questions in Jordanian Arabic (Omari, Mohammad, Jaber & Abudaljuh, 2021); phrase-final intonation adjustment in Lebanese Arabic (Kelly, 2023); differences among Arabic dialects in their intonation patterns which result from changes in the phonology of individual Arabic varieties (Hellmuth, 2020); the Intonation of topic and focus in Tripoli Arabic (Lybia), Juba Arabic (South Sudan), Zaar (Nigeria), and Tamasheq (Niger) (Caron, Lux, Manfredi & Pereira, 2015); variation in Arabic intonation (Hellmuth, 2014); sequential organisation of Syrian Arabic polar questions in interaction (Martini (2020); negative polarity items and negative concord in Modern Standard Arabic (Alanazi, 2013); variation in polar question contours within and between Arabic dialects (Hellmuth, 2018b); text-tune alignment and the existence of a phonological pattern of prosodically conditioned vowel epenthesis in Tunisian Arabic yes-no questions (Hellmuth, 2018a); F0 peak alignment in polar questions in Moroccan Arabic (Hellmuth, Almbark, Chlahani & Louriz, 2015); the distribution and licensing of polarity-sensitive items in Egyptian Arabic (Soltan, Farwaneh & Ouali, 2014); licensing of negative polarity items in Moroccan Arabic (Benmamoun (1997); the changes in the phonology of individual Arabic varieties resulting from differences among Arabic dialects in their intonation patterns (Hellmuth, 2020).

The Arabic literature review showed lack of studies that investigate the multiple meanings of negative polar questions in Arabic and the kinds of ambiguities that result from using different rising intonations in uttering the same negative polar question in Hijazi Arabic. Therefore, this study aims to explore the following: (i) ambiguity of negative polar questions in spoken Hijazi Arabic (HA), a dialect spoken in Makkah, Jeddah and Madinah in Saudi Arabia; (ii) the kinds of ambiguities resulting from changing the topic and focus of the same negative polar questions formed with different rising intonations in HA; (iii) the multiple meanings of negative polar questions in HA that result from changing the intonation of uttered negative polar question; (iv) how negative polar questions in HA are answered, whether the response is affirmative or negative, and whether intonation and negation affects the interpretation of polar responses; and (v) the factors that affect the interpretation of meanings of negative polar questions in HA. Ambiguity means that speech or a written text can be understood in two or more possible ways and is open to multiple interpretations.

Polar questions are an integral aspect of communication as well as language teaching and learning especially in spoken Arabic which depends on intonation rather than yes-no question markers (particles). Pronouncing the same negative polar question with differ intonations is significant for students learning Arabic as a foreign/second language (AFL/ASL) as well as student-translators who need to understand the intended meaning, purpose, and attitude and emotions of the speaker and the hearer. It

is also important to know the aspects of intonation variation of a particular when Arabic is spoken by non-native speakers. In a study by Manaf & Kumaraswamy (2023), Malaysian students learning AFL could not match the accurate intonation of native speakers for exclamatory and interrogative sentences. The researchers indicated that non-native speakers of a language tend to transfer the intonation of their first language to the second language.

2. Theoretical Framework

2.1 Arabic Diglossia

The Arabic language is diglossic, i.e., it has a Modern Standard form (SA) and a Colloquial, non-Standard spoken form (CA). The Standard form is the language of instruction at National Public schools and is commonly used by educated Arabs in formal settings such as conferences, lectures, and interviews. It is the language of print media (newspapers, magazines, and books) and TV news channels such as Aljazeera, Almayadeen, BBC Arabic, and so on. On the contrary, the Colloquial, non-Standard form is used in informal settings such as daily conversation with friends and family members about daily life issues, when shopping, at the restaurant, in TV talk shows and others. Each Arab country has its own local dialect such as Saudi, Egyptian, Tunisian, Moroccan, Syrian, Lebanese, Jordanian, Iraqi and Sudanese Arabic, and several sub-dialects existing in the different regions of each country such as Najdi, Hijazi, Alexandrian, and Cairene Arabic. Phonological, syntactic, and lexical differences exist among the MSA and CA forms and the different CA varieties used in the different Arab countries. From infancy to school age, children in all Arab countries are exposed to CA at home, and to SA on T.V. cartoon films, children's stories and school textbooks (Al-Jarf, 2023; Al-Jarf, 2021a).

2.2 Types of Sentences in Arabic

According to traditional Arab grammarians, verbal sentences (VSO) are the normal syntactic word order. According to generative grammar, VSO is the basic word order and nominal sentences (SVO) are derived through subject movement. The VSO order is unmarked for focus, emphasis, and information distribution. Arabic speakers/writers prefer VSO unless there is a good reason to use the SVO order. The shift from VSO to SVO is related to semantic, syntactic, pragmatic, and discursal factors available in a particular context and sometimes it is related to style. Semantically, the SVO pattern gives emphasis to the subject, whereas the VSO pattern gives emphasis to the verb. There is a strong tendency for given topical information to be followed by new asserted information. The various meanings in sentences are identified by the speaker's emotional state, the communicative intention of the speech act, and the theme-rheme composition (rheme is the part of an utterance that contains the aim of the message, and the theme is the part that carries additional information). Syntactically, nominal sentences and clauses (SVO structures) are used in the following cases: sentences consisting of a subject and a predicate; sentences beginning with the auxiliary /ka:na/; sentences beginning with emphatic /?inna/; sentences beginning with the negative particle /la:/; after /?axbara/ 'told' and /?araa/ 'showed,' after /qaala/ 'said'; after /THanna/ 'thought' group of verbs; and in answer to certain interrogatives. On the other hand, VSO structures (verbal sentences) are used when independent subject pronouns are deleted; in conditional sentences beginning with certain particles; in passive clauses; independent pronoun usage in subject position; and after sentence initial adverbials and prepositional phrases (Al-Jarf, 2007; Sharif 1993; Al-Khuli 1982) (See Table 1). Pragmatic and discursal factors include discourse structure, introducing a discourse topic, organization of information, implied contrast and new information affecting the use of the SVO order include. This means that the subject-verb pattern in SA is a free variant of regular patterns (Al-Jarf, 2007; Abdul-Raof, 1998).

Table 1: Examples of Nominal and Verbal Sentences in MSA and Colloquial Arabic

	MSA	Colloquial Ar
Nominal Sentences	<ul style="list-style-type: none"> ○ البنت جميلة /l-bint jami:la/ the girl beautiful The girl is beautiful. 	<ul style="list-style-type: none"> ○ البنت جات /l-bint a:t/ The girl came The girl came/has come.
Verbal Sentences	<ul style="list-style-type: none"> ○ كتب الولد /katab l-waladu/ Wrote the boy The boy wrote. 	<ul style="list-style-type: none"> ○ كتبت الدرس / katabat addars/ Wrote-she the lesson. she wrote/has written the lesson.

2.3 Types of Questions in Arabic

MSA and CA have two question types: (i) Information questions and yes-no (polar) questions. Information questions are formed by inserting the question words (*what* ما, ماذا; *who* من; *which* أي; *why* لماذا; *where* أين; *when* متى) at the beginning of a

sentence, whether it is verbal or nominal (See Table 2). On the other hand, yes-no questions or polar questions question in MSA are formed by inserting one of two particles هل /hal/, الهمزة /?a/ at the beginning of the sentences, whether it is verbal or nominal. No verb to-do insertion and no subject-verb inversion are involved, as it is the case in English. In CA, rising intonation and stressing different words are used to ask yes-no (Polar) Questions without having to add any particles. Thus, with a rising intonation, the sentences (أكلت التفاحة؟ تعشيت؟) become yes-no questions, especially in colloquial spoken Arabic, such as Hijazi Arabic. The only way to distinguish a Yes–No Question from a simple declarative statement is the rising question intonation used when uttering the question.

Table 2: Information Question Words in English, MSA and CA

English	MSA	Colloquial
What	ما /ma:/	ايش /eyʃ/
Who	من /man/	مين /mi:n/
Whom	لمن /liman/	لمين /lami:n/
Which	أي /?ay/	أي أي /?ayya/; /?ayyat/
When	متى /mata/	متى /mita/
Where	أين /?ayna/	فين /feyn/
Why	لماذا /lima:ða:/	ليه /leyh/
How	كيف /keif/	كيف /keyf/

2.4 Negation in Arabic

In MSA, negative forms are formed by inserting different negative particles لا /la:/, ما /ma:/, لن /lan/, لم /lam/ in verbal sentences, depending on the verb tense, and two particles لا /la:/ and ليس /laysa/ in nominal sentences. لا ... ولا /la: .. wala:/ (neither.... nor) is used in alternative nominal and verbal sentences and with all tenses (Al-Momani, 2011; Al Sharif & Sadler, 2009; Ouhalla, 2002; Al-Jarf, 1994). In Colloquial HA, negative yes-no (polar) questions are formed by adding the negative particle ما /ma:/ in verbal sentences and the negative particle مو /mu:/ in nominal sentences (See Table 3).

Table 3: Negation in MSA and CA in Verbal and Nominal Sentences

Sentence Types	Tenses	Meaning	MSA	Hijazi Arabic
Verbal Sentences	Past	did not	لم /lam/	ما /ma:/
		did not; never did	ما /ma:/	ما /ma:/
	Present	do not; never do	لا /la:/	ما /ma:/
	Future	will not	لن /lan/	ما /ma:/
	All tenses	Neither ... nor	لا .. ولا /la: .. wa la:/	لا .. ولا /la: .. wa la:/
Nominal Sentences	--	is not	ليس /laysa/	مو /muw/
	--	No	لا /la:/	مو /muw/
	--	Neither ... nor	لا .. ولا /la: .. wa la:/	لا .. ولا /la: .. wa la:/

2.5 Negative Polar Questions in Arabic

In MSA, only one particle الهمزة /?a/ is used to form negative polar questions. هل /hal/ cannot be used with negative polar questions. In colloquial Arabic such as HA, negative polar questions are formed by intonation without adding a yes-no Question particle particles (هل الهمزة), in which case, a statement acquires a polar question meaning when it is uttered with a rising

intonation whether this polar question is negative or affirmative. The same negative polar question is uttered with different intonations, yielding different meanings.

2.6 Intonation in Arabic

Intonation is the rise and fall of the voice while speaking. The main function of intonation is to express emotions and attitudes. In addition, intonation has a linguistic function which is to structure the information conveyed by a speaker to facilitate cognitive processing on the part of the listener. Thus, *phrasing* breaks up the speech flow into manageable chunks that group together what semantically belongs together. Second, it is possible to foreground important information by *accentuation*, i.e., by rendering parts of the speech flow that is more prominent than others. Thirdly, it is to distinguish one sentence type from another, such as statements, questions, exclamatory and so on. This distinction is mainly coded *tonally*, exploiting the up-and-down movements of *pitch* (El Zarka, 2017; Al-Jarf, 2003; Al-Jarf, 1994; Al-Jarf, 1990).

Every language has its own intonation system which means that intonation varies across the different languages. For example, in English there are three main patterns of intonation: falling intonation, rising intonation and fall-rise intonation. The rising-falling intonation is normally used at the end of simple statements of facts (declarative statements) (*This is my sister; He hasn't said a word*). (ii) Commands (*Come to see me; Give me the book?*); (iii) Questions which begin with an interrogative word, i.e., Wh-questions (*What's the matter? How are you feeling? Why is he angry?*) Rising intonation is normally used at the end of yes-no questions (*Are you ready? Did you see it? Does he like it?*); li requests (*Do shut the door; Let me know how we get on?*) and in utterances containing an element of protest or surprise as in *That wasn't my idea; Be patient; Whose idea was it?*

By contrast, falling intonation in MSA is used at the end of: (i) declarative statements: محمد في المدرسة (*Mohammad is at school*); (ii) in commands (افتح النافذة *open the window*); and (iii) in Wh-questions (أين ذهبت بالأمس؟ *Where did you go yesterday?*). Rising-falling intonation is normally used at the end of: (1) yes-no questions (هل هذا صحيح *Is this true?*); (2) in utterances containing an element of protest or surprise (ما شاء الله يا سلام *MashaAllah; Wow!*); (3) In vocatives (يا فاطمة *Hey Fatima*); (4) In requests (ممكن تنتظر قليلا *Could you please wait for a while*) (Al-Jarf, 2003; Al-Jarf, 1994; Al-Jarf, 1990).

2.7 Speech Acts

In linguistics, a speech Act² is an utterance defined in terms of a speaker's intention and the effect it has on the listener. It is the action that the speaker hopes to provoke in his/her audience. Speech acts might be greetings, requests, apologies, promises, warnings, and others. They are an important part of communication. The Speech-Act Theory is a subfield of pragmatics that is concerned with the ways in which words can be used, not only to present information but also to carry out actions. It is applied in psychology, legal and literary theories, philosophy, and in artificial intelligence.

The Speech-Act Theory considers three levels or components of utterances: (i) *locutionary acts* (the making of a meaningful statement, saying something that a hearer understands); (ii) *illocutionary acts* (saying something with a purpose, such as informing), and (iii) *perlocutionary acts*, i.e., saying something that causes someone to act. Illocutionary speech acts can also be broken down into different families, grouped together by their intent of usage.

3. Methodology

3.1 Participants

A random sample of 20 student informants majoring in translation at the College of Languages and Translation (COLT), King Saud University, Riyadh, Saudi Arabia participated in the study. The students were in their sixth semester (junior/third year) of the translation program and were enrolled in a Semantics and Pragmatics course (3 hours). They had completed 8 hours of Arabic language courses (Syntax, Academic Writing, Stylistics Applications); 35 hours of Listening, Speaking, Reading, Writing, Academic Writing, Vocabulary, Grammar, Syntax and Morphology; 4 hours of Language and Culture courses; 10 hours of Introduction to Linguistics, Text Linguistics, and Use of Dictionaries in Translation courses; 4 hours of Liaison and Consecutive Interpreting courses; and 17 hours of translation courses (Introduction to Translation, Computer-Assisted Translation, General Translation from English to Arabic, General Translation from Arabic to English, Political and Media Translation, Financial and Economic Translation, Scientific and Technical Translation). All the participants are native speakers of Arabic, with English as their target language.

² [Speech Acts.pdf \(khmn.edu.ua\)](http://SpeechActs.pdf(khmn.edu.ua))

3.2 Data Collection and Analysis

A sample of 10 negative polar questions in HA (3 verbal negative polar questions, 4 nominal negative polar questions and 3 alternative negative polar questions) was selected. Some context situations were added to some negative polar questions in the sample to help the students generate a variety of negative polar questions with different intonations. The sample was given to the students as single utterances. They were printed on paper and each student was handed a copy. Before the session, the participants received some training in pronouncing negative polar questions with different intonations, answering each version, identifying the meaning and/or purpose conveyed by each and answering it according to the intended meaning. The following are examples of meanings of negative polar questions in HA in the training material:

Example 1:

Question: ما شفت سميرة؟ كيف حالها؟ (*Haven't you seen Sameera lately? How's she doing?*); asking for confirmation of something the speaker believes to be true).

Answer: She is fine, she's O.K., or She is sick.

Example 2:

Question: ما رجعت فاطمة من السوق؟ (*Hasn't Fatima come back from the mall*); asking for confirmation of a negative belief.

Question: ما رجعت فاطمة من السوق؟ (*Asking for information*)

Question: ما رجعت فاطمة من السوق؟ (*Disapproval*)

Further possible types of meanings, interpretations, and purposes of negative polar questions conveyed by intonation in HA were given to the students such as: *a general query, a choice question, a confirmation question, a neutral question, a suggestion, an invitation, advice, an offer/a polite offer, urging/begging, verifying, astonishment, disapproval, scolding, threat, a wish, a rebuke, sarcasm, humor, a surprise, admiration/compliment, an exclamation/astonishment and whether the answers should be a simple Yes, No, or an echo answer.*

After the training session, the students performed an elicitation and a judgment/interpretation task in pairs. In the elicitation task, a student was required to pronounce each negative polar question out loud with as variety of intonations (at least five different intonations). The other student had to give an answer to each version of the negative polar question depending on its intonation. Each pair of students had to explain the meaning, purpose, attitude, force, function, and effect conveyed by each intonation of each version. They could discuss the intonations and answers together before recording their final responses. Each pair recorded their responses in the language lab. They could write their down their interpretations and comments on each item on paper as well. The students yielded more than 700 versions of negative polar questions with different intonations.

To validate the intonations of negative polar questions, answers and meanings given by the participants, the author and another colleague with a Ph.D. in linguistics listened to the recordings of each negative polar question, its various intonations and the meanings conveyed by each, and answers given to each. Those were marked as correct or incorrect. Correct intonations that received the same meaning and purpose from 70% of the students were compiled and were qualitatively reported in the results for each negative polar question.

Based on the definition and elements of the speech acts theory, the intonations with which each negative polar question in HA was uttered by the students were classified in terms of the meaning, attitude, force, function, and effect on the hearer. In other words, negative polar questions in the students' responses were classified into whether each is *a general query, a choice question, a confirmation question, a neutral question, a suggestion, an invitation, advice, offer/polite offer, urging/begging, verifying, astonishment/exclamation, disapproval, scolding, a threat, a wish, a rebuke, sarcasm, humor, a surprise or an admiration/compliment.* Answers were analyzed into a simple *Yes, No, an echo answer or no answer.*

Results of the analyses of meanings and purposes conveyed by each intonation of the negative polar questions and types of expected answers to each are described qualitatively. It was not possible to transcribe about 60 intonation versions of the negative polar questions with a speech analysis software due to the multiplicity of the voice recordings for each polar question. The spectrograms will be difficult for many readers to interpret. In addition, it is not possible to insert samples of students' recordings in the body of the article.

4. Results and Discussion

4.1 Meanings of Negative Polar Questions in Hijazi Arabic

Results of the analysis of the multiple rising intonations and multiple meanings of polar questions in HA yielded by the participants in the current study showed the following:

- 1) **The Verbal Negative Polar Question** ما شريت فستان الأسبوع الماضي؟ /ma: fareiti fusta:n lusbu:? L-maDi/ *Didn't you buy a dress last week?* is formed without a question formation particle. It is ambiguous and may render the following meanings:
 - **A neutral question** about whether she bought the dress or not, replying with the truth-value of the situation, or replying to the polarity used in the question. The answer would be either "Yes" or "No", or an *echo answer*: "Yes I bought it" or "No I didn't buy it".
 - **A confirmation** question to which the reply is "Yes" only, "No" only or "I bought a suit".
 - **Disapproval**: "Didn't you buy a dress last week? Why do you want to buy another dress?"
 - An **exclamation**: "Wow! You have you bought a new dress, although you bought one last week! What a surprise! The Answer would be: "Oh yeah"!"
 - **A Rebuke**: "This is the third time you go shopping. Haven't you bought the dress?" "No" is given as an answer.

- 2) **The Verbal Negative Polar Question** ما تبي تظفر؟ /ma: tibi tufTur?/ (*Don't you wanna have breakfast?* may imply the following meanings:
 - **A neutral question** ما حضرت الفطور لسة ما تبي تظفر؟ لسة ما حضرت الفطور (*don't you wanna have breakfast, I haven't fixed breakfast yet*). Here, the question about whether he wants to have breakfast. The answer would be with the truth-value of the situation or replying to the polarity used in the question. The answer would also be "Yes" or "No".
 - **Confirmation** ما تبي تظفر؟ هيا قوم (*Don't you wanna have breakfast? Come on*). Here the speaker knows that he will. The answer would be "yes" only or "No" only.
 - **Polite offer**: ما تبي تظفر؟ الفطور جاهز. Breakfast is ready! *Don't you wanna have breakfast?* (Offering breakfast to a guest). The answer would be O.K. طيب
 - **Exclamation** ما تبي تظفر اليوم؟ *Don't you wanna have breakfast today?*. Here no answer expected or a laugh; yes; or no
 - **Sarcasm** ما تبي تظفر؟ من متى ما شاء الله؟ *Don't you wanna have breakfast? Since when?*. No answer is expected; yes or no.
 - **Humor** ما تبي تظفر؟ علي أنا؟ *Don't you wanna have breakfast? Playing tricks on me?* No answer (a laugh); Yes; No; or O.K. O.K.
 - **Disapproval** ما تبي تظفر؟ موعاجبك الأكل؟ *Don't you wanna have breakfast? Don't you like the food?* In this case, the answer is "Yes", "no" or "not hungry."
 - **Urging/begging** ما تبي تظفر؟ أنا جيعانة. أنا يخليك. *Please, let go. I am starving. don't you wanna have breakfast?* The answer would be "O.K. طيب"; "Give me 30 minutes" or "Not now".
 - **Wish** ما تبي تظفر معي زي زمان؟ *Don't you wanna have breakfast with me like before?*. The answer would be: i wish or i would love to.
 - **Threatening** ما تبي تظفر؟ سأرفع السفرة؟/ ما تبي تظفر؟ ما في فطور بعدين *Don't you wanna have breakfast? I am gonna put the food away. No breakfast later.* The answer would be "O.K." or "No".
 - **Scolding** ما تبي تظفر؟ وراك مدرسة؟ الساعة 11. *Everyday You're Giving Me A Hard Time. It's Almost 11 A.M. You Have Classes. Don't You Wanna have breakfast .* No answer is given.
 - **Advice** ما تبي تظفر حبيبي؟ عشان تكبر وتصير قوي؟ *Don't you wanna have breakfast, dear? So than you grow up and become strong!* No answer.

- 3) **The same applies to the Verbal Negative Polar Question** ما راح تيجي معنا /ma raH tiji ma:a:na/ *Aren't you coming with us?*
 - **An Invitation**: ما راح تيجي معنا؟ *Aren't you coming with us?*
 - **A Suggestion**: ما راح تيجي معنا؟ ما يصير تجلسي لوحدهك؟ *Aren't you coming with us? You shouldn't stay home alone. Aren't you coming with us? Change your clothes.*
 - **Scolding**: ما راح تيجي معنا؟ استعجلي *Aren't you coming with us, Why are you crying? Aren't you coming with us, hurry up?*
 - **An Exclamation**: ما راح تيجي معنا؟ *After she put her clothes on, she went back to her room. Isn't she coming with us?*

- **Astonishment:** a query: ما راح تيجي معنا؟ hasn't she changed her clothes? Isn't she coming with us?
- 4) **The Nominal Negative Polar Question /ma ?indik ixtibar bukra/? Don't you have a test tomorrow? implies the following:**
- **A General Query** ما عندك اختبار بكرة؟ *Don't you have a test tomorrow?* The answer: يا ريت "I wish I had".
 - **A Query** ما عندك اختبار بكرة؟ غير متأكدة *Don't you have a test tomorrow? Are you sure?* The answer would be "Yes" or "No".
 - **A Confirmation:** ما عندك اختبار بكرة؟ متأكدة *Don't you have a test tomorrow? Are you sure?* The answer would be "Yes".
 - **Suggestion** قومي ادربي عندك اختبار بكرة؟ *Don't you have a test tomorrow? Go study.* The answer can be "No".
 - **Scolding, objecting** ما عندك اختبار بكرة؟ *Don't you have a test tomorrow? Wasting our time on Facebook.* The answer would be "No".
 - **Exclamation/surprise** ما عندك اختبار بكرة؟ *Don't you have a test tomorrow?* The answer would be لا ألغي الاختبار "No. It's been cancelled".
- 5) **The Nominal Negative Polar Question /mu: hiyya bitudrus fi biriTanya/ Doesn't she study in Britain?**
- **Query:** Echo answers *I have; I do not have; I have money; I don't have money; لا .. ما عندني No. I don't have; ايوأ عندني Yes. I have.*
 - **Context guides the listener.** Here additional information as an explanation, anticipation or inference of a further request is given such as: لا أعطيتها لأختي (*No I gave it to my sister*); or أيوأ بس مو كفاية لاشترى جوال (*Yes But not enough to buy a mobile*). Use of quantifiers and intensifiers as *ولا ريال (Not a single riyal); عندني كفاية (I have enough)*.
- 6) **The Nominal Negative Polar Question /mu: hiyya bitudrus fi biriTanya/ Doesn't she study in Britain?**
- **Surprise:** *Isn't she studying in the U.K.? Is she back?* The answer would be "Because she has no money".
 - **Query:** *Isn't she studying in the U.K. yes or no?* She is not sure whether she is in the U.K. or not. The answer would be "Yes" or "No".
 - **Verifying:** *Isn't she studying in the U.K.?* She is not sure she is studying in the U.K. or some other country. The answer would be "Yes" or "No, in Germany".
 - **Confirmation** *Isn't she studying in the U.K., I believe?* As far as I know. As far as I can remember. The answer is "Yes" or "No, she transferred".
 - **Admiration/compliment:** *Isn't she studying in the U.K.?* that's why her English is great? No answer is given.
 - **Sarcastic:** *Isn't she studying in the U.K.? Her English is so poor!* No answer.
- 7) **Nominal Negative Polar Question /mu: muhammad/ Wasn't it/he Mohammad?**
- **General query.** The answer can be "No" only or "Yes" only?
 - **Exclamation:** the answer is "No, Ali".
- 8) **Alternative Negative Verbal Polar Question /laa t?ashait wa-laa tghadait/ Haven't you had lunch or dinner:**
- **General query** about whether he has had dinner or lunch.
 - **Neutral question** replying with the truth-value of the situation, or to the polarity used in the Q. The Answer: *Yes, No, تعشيت (I had dinner), تغديت (I had lunch), تعشيت وتغديت (I had lunch and dinner), لا تعشيت ولا تغديت (I neither had lunch nor dinner).*
 - **Choice Question.** The reply is "Yes" only (ambiguous) or "No" only (ambiguous). It can be an echo answer: *تعشيت*; an echo answer: *تغديت*; an echo answer: *تعشيت وتغديت (I had lunch and dinner)*; an echo answer *لا تعشيت ولا تغديت (I neither had lunch nor dinner)*; *بس شربت قهوة (I only had coffee)* or *أكلت آيس كريم فقط (I only had icecream)*. It implies an inclusive disjunction (if either or both are true) or an exclusive disjunction (if one only, but not both is true, and false if neither or both are true).
 - **Confirmation Question:** The reply is "yes" only or "no" only.

- **Offer** ؟ عمل لك أكل؟ *Haven't you had lunch or dinner? Should I get you something?* About whether he has had dinner or lunch.
 - **Exclamation (astonishment):** He/she is asking for a meal, but the speaker is surprised because he/she knows that he had both, but doesn't want to give him food؟ معقول؟ *Haven't you had lunch or dinner? This is unbelievable!*
 - **Sarcasm/humor** !! حرام! *Haven't you had lunch or dinner? The poor thing!* He/she is asking for a meal, but the speaker is surprised because he/she knows that he had both.
- 9) The **Alternative Verbal Negative Polar Question** ما أكلت تفاحة أو برتقالة؟ /*maa a?kalti tuffaHa ?aw burtuqala/ Didn't you eat an apple or orange?* implies the following:
- **A Yes-No Question**, i.e., asking whether she has eaten either fruit. The Answer would be "Yes" or "No".
 - **Choice Question** about whether she has eaten an apple or an orange. The answer would be with the truth-value of the situation or replying to the polarity used in the question. The answer would be "An Apple" or "An Orange". It can be an echo Answer: "I have eaten an Apple" or "I have eaten an orange".
 - **General Query** about whether she has eaten anything. "Apple" and "Orange" are mentioned as examples, but the reference is not literal. It can be "A Banana" or "Nothing".
 - **Disapproval.** She is asking for food. The speaker knows that she has eaten something but is not sure whether it was an apple or an orange and does not want to give her more fruit or food.
 - **Exclamation** as she is probably saying that she is hungry, but the speaker is surprised because he/she knows that she has eaten something, but not sure what it is.
 - **Sarcasm/Humor i.e.,** whether she has "never" eaten an apple or orange. The answer would be "Never".
- 10) The **Alternative Nominal Negative Polar Question** لا علي ولا سامي؟ /*laa ali wa-laa sami/ Neither Ali nor Sami* may imply the following:
- **Neutral question:** replying with the truth-value of the situation, or to the polarity used in the Q. the answer would be: "Yes", "No", "Ali", "Sami", "Ali & Sami" or "neither Ali nor Sami".
 - **Choice question.** The reply is "Yes" only (ambiguous); "No" only (ambiguous); an inclusive disjunction or an exclusive disjunction.
 - **Choice question:** Echo answer: "Ali"; echo answer "Sami"; echo answer: "Ali & Sami"; echo answer neither "Ali nor Sami"; reply is "Sami only".
 - **Offer** ؟ اتصل بهم؟ *Neither Ali nor Sami? Call them!* About whether Ali or Sami has arrived.
 - **Exclamation/Astonishment:** لا علي ولا سامي؟ معقول! *Neither Ali nor Sami? Unbelievable!* He is asking for a meal, but the speaker is surprised because he/she knows that he had both but doesn't want to give him food.
 - **Sarcasm/Humor:** لا علي ولا سامي؟ يا شيخ *Neither Ali nor Sami? Come on!* He is asking for a meal, but the speaker is surprised because he/she knows that he had both.

In all of the above examples from HA, the negative polar questions have no morphosyntactic markings. Rather it is intonation that conveys the interrogative function. This is true of polar interrogatives in Syrian Arabic in which morphosyntactic markers are absent (Martini, 2020). However, the kinds of answers, replies found in the current study are partially similar to those found by Martini in Syrian Arabic talk-in-interaction. Martini found that the polar question/response system in Syrian Arabic is strongly biased towards the affirmative format in terms of grammar. Such form-related bias intersects with the action-related bias towards confirmation, agreement, and acceptance. In the current study on HA, answers to polar questions were Yes, No, echo answers, or even no answer.

In the Czech language, as in HA, the function of polar questions ranges from neutral questions equivalent to their affirmative counterparts, through cases where negation shows tentativeness and politeness in questions with the same degree of conduciveness as their corresponding negative English questions. As in Arabic, the interrogative sentence in Czech word order is not a primary means of differentiating the question from other sentence types. It is often distinguished from a declarative form only by intonation. As in AH, Czech affirmative and negative polar questions are generally interchangeable (Malá, 2007).

Unlike the current study, Hellmuth, (2018) found utterance-final vowel insertion in Tunisian Arabic yes-no questions. Utterance-final vowel insertion was a variable across both items and speakers. In HA, utterance-final vowel insertion was not noted in negative polar questions in HA.

4.2 Factors Affecting Meanings Derived from Ambiguous Negative Polar Questions in HA

Analysis of the negative polar question data in the current study indicates that different negative polar questions in HA have different meanings, intentions and effects depending on several factors. Context makes it clear which meaning each form implies. Some factors that affect the meanings derived from ambiguous negative polar questions in HA are (i) Attitude and whether it is negative, affirmative, neutral, resentful, sarcastic, humorous, polite, cooperative and so on; (ii) who is addressed by the question, i.e., whether the question is about the listener or whether it asks the listener about someone else; (iii) whether the polar question is nominal or verbal; (iv) body language as shown in the facial expressions (frowning, smiling), eye contact and or voice; (v) the context/situation which is reflected in the shared knowledge between the speaker and the listener (food on the table or not); the speaker's background knowledge about the listener and whether "he/she did not eat breakfast", "failed an exam and so on"; availability of the objects or things they are talking about; the linguistic context, i.e., the words and sentences that surround any part of a discourse which help determine its meaning; the social context, i.e., any aspects of an occasion in which a speech-act takes place, including the immediate physical and social setting in which people live or in which something happens or develops. The social context also includes the culture in which the speaker and/or hearer was educated or lives, and the people and institutions with whom he/she interacts.

Furthermore, findings of a study by Armstrong and Prieto (2015) provide evidence for the dynamic relationship between intonation contours and specific context types that differ in the amount and type of meaning they convey.

5. Recommendations

Data analysis of the negative polar questions in the present study has shown that not negation particles are used to form negative polar (yes-no) questions in CA in general and HA in particular. Interrogation is shown by a rising intonation. Data analysis has also indicated that negative polar questions can be uttered with more than one intonation yielding different meanings and different replies. This linguistic phenomenon in CA is problematic for students learning AFL/ASL and for student-interpreters. Therefore, negative and affirmative polarity should be part of both English and Arabic grammar courses that translations students at COLT take. A variety of online tasks that require the students to listen to and/or produce excerpts with negative polar questions in English and Arabic can be provided for comprehension, practice and mastery (Al-Jarf, 2017; Al-Jarf, 2005).

Since many textbooks and classroom instruction for teaching AFL to non-native speaking students focus on reading, writing, grammar, and translation (Al-Jarf & Mingazova, 2020), the students should practice listening to and producing Arabic oral discourse with a variety of structures such as polar questions with a variety of intonations. Teachers of AFL should make sure that students taking AFL/ASL course can utter statements, negative and affirmative polar questions with different rising intonations to convey different purposes, intentions, meanings, and effects. Textbooks for teaching AFL should also contain listening and speaking practice that focus on polar questions in Arabic.

In addition, students learning AFL may use a variety of technologies for practicing negative polar questions in Arabic with a variety of intonations and gain pronunciation accuracy by using text-to-speech software (Al-Jarf, 2022b; Al-Jarf, 2022c), and YouTube videos on their own or under the instructor's supervision (Al-Jarf, 2022d). Similarly, undergraduate interpreting students may listen to TED Talks on YouTube or in a digital multimedia language lab for practicing interpreting texts and dialogs with polar questions with a variety of rising intonations (Al-Jarf, 2021c; Al-Jarf, 2021e). They can meet online with their instructor via a video-conferencing platform such as Elluminate, Zoom, Microsoft Teams, WebEx and others to engage in listening and speaking activities that focus on polar questions in Arabic (Al-Jarf, 2013). The students may create their own podcasts in which they create dialogues and conversations with negative polar questions, engage in debates and give oral presentations in which they use negative polar questions in English and Arabic (Al-Jarf, 2022a; Al-Jarf, 2021b; Al-Jarf, 2021d).

Since polar questions are under-researched in the Arabic language literature, more research studies that investigate Arabic polar question issues are still needed such as the licensing of negative polarity items in Saudi dialects such as Najdi and Hijazi Arabic dialects, negative bias in Arabic polar questions and how student-interpreters interpret polar questions with a variety of intonations and meanings during an oral interpreting task, in addition to the processing ability of negative polar questions by students learning AFL.

Conflict of Interest: The author declares no conflict of interest.

ORCID ID: <https://orcid.org/0000-0002-6255-1305>

Publisher's Note: All claims expressed in this article are solely those of the authors' and do not necessarily represent those of their affiliated organizations, or those of the publisher, editors and reviewers.

References

- [1] Abdul-Raof, H. (1998). *Subject, theme and agent in modern standard Arabic*. Surrey, Curzon Press.
- [2] Aksenovová, Z. (2022). *English negative polar questions*. Univerzita Karlova. [130341633.pdf \(cuni.cz\)](#)
- [3] Alanazi, M. (2013). *Negative polarity items and negative concord in modern standard Arabic*. MA Thesis. Arizona State University.
- [4] Al-Jarf, R. (2023). Non-conventional spelling in informal, colloquial arabic writing on Facebook. *International Journal of Linguistics, Literature and Translation*, 6(4), 35-47. DOI: 10.32996/ijllt.2023.6.4.6. [Google Scholar](#)
- [5] Al-Jarf, R. (2022a). [how students were engaged during the second wave of covid-19 by efl, linguistics and translation instructors in distance learning](#). In Amani Hamdan Alghamdi, Teaching in the Pandemic Era in Saudi Arabia. Brill Publishing. Pp. 61–81. DOI: https://doi.org/10.1163/9789004521674_005. [Google Scholar](#)
- [6] Al-Jarf, R. (2022b). Text-to-speech software for promoting EFL freshman students' decoding skills and pronunciation accuracy. *Journal of Computer Science and Technology Studies (JCSTS)*, 4(2), 19-30. DOI: 10.32996/jcsts.2022.4.2.4. ERIC ED621861. [Google Scholar](#)
- [7] Al-Jarf, R. (2022c). Text-to-speech software as a resource for independent interpreting practice by undergraduate interpreting students. *International Journal of Translation and Interpretation Studies (IJTIS)*, 2(2), 32-39. DOI: 10.32996/ijtis.2022.2.2.3. ERIC ED621859. [Google Scholar](#)
- [8] Al-Jarf, R. (2022d). YouTube videos as a resource for self-regulated pronunciation practice in EFL distance learning environments. *Journal of English Language Teaching and Applied Linguistics (JELTAL)*, 4(2), 44-52. <https://doi.org/10.32996/jeltal.2022.4.2.4>. ERIC ED618965. [Google Scholar](#)
- [9] Al-Jarf, R. (2021a). Derivation from foreign words and acronyms borrowed in Arabic. *Lingua. Language And Culture*, 20(2), 52-77. [Google Scholar](#)
- [10] Al-Jarf, R. (2021b). EFL speaking practice in distance learning during the coronavirus pandemic 2020-2021. *International Journal of Research - GRANTHAALAYAH*, 9(7), 179-196. doi: 10.29121/granthaalayah.v9.i7.2021.4094. ERIC ED615084. [Google Scholar](#)
- [11] Al-Jarf, R. (2021c). Feasibility of digital multimedia language labs for interpreting instruction as perceived by interpreting instructors in Saudi Arabia. *International Journal of Linguistics, Literature and Translation (IJLLT)*, 4(4), 70-79. [Doi: 10.32996/ijllt.2021.4.4.8](#). ERIC ED613819. [Google Scholar](#)
- [12] Al-Jarf, R. (2021d). How EFL, Linguistics and Translation Instructors Engaged Students in Distance Learning during the COVID-19 Second Wave. 26th TCC Online Conference. Hawaii, USA. [Google Scholar](#)
- [13] Al-Jarf, R. (2021e). TED Talks as a listening resource in EFL college classrooms. *International Journal of Language and Literary Studies (ijlls)*, 2(3), 256–267. <https://doi.org/10.36892/ijlls.v2i3.691>. ERIC ED615127. [Google Scholar](#)
- [14] Al-Jarf, R. & Mingazova, N. (2020). Evaluation of Russian Arabic language teaching textbooks in the light of CEFR criteria. ARPHA Proceedings #3. Pp. 101-129. VI International Forum on Teacher Education, Kazan Federal University, Russia. DOI: 10.3897/ap.2.e0101. ERIC ED613172. [Google Scholar](#)
- [15] Al-Jarf, R. (2017). What teachers should know about online grammar tasks. In Handoyo Widodo, Alistair Wood, Deepti Gupta, Winnie Cheng's (Eds.) *Asian English Language Classrooms: Where Theory and Practice Meet*. Routledge. Pp. 113-130. <https://doi.org/10.4324/9781315755243-8>. [Google Scholar](#)
- [16] Al-Jarf, R. (2013). *Integrating Elluminate Webconferences in EFL Grammar Instruction*. In Ahmed Ferchichi, Hadhemi Achour, Jamil Itmazi (Eds.), *Second International Conference, Technologies of Information and Communications in Education and Training (TICET2013)*. Pp. 60-76. Lulu Publishing. ERIC ED610560. [Google Scholar](#)
- [17] Al-Jarf, R. (2007). SVO word order errors in English-Arabic translation. *META*, 52(2), 299–308. <https://doi.org/10.7202/016072ar>. ERIC ED623835. [Google Scholar](#)
- [18] Al-Jarf, R. (2005). The effects of online grammar instruction on low proficiency EFL college students' achievement. *The Asian EFL Journal Quarterly*, 7, 4, 166-190. [Google Scholar](#)
- [19] Al-Jarf, R. (2003). Contrastive phonology. King Saud University. [Google Scholar](#)
- [20] Al-Jarf, R. (1994). Contrastive phonetics for translation students. <https://www.researchgate.net/publication/281003427>. [Google Scholar](#)
- [21] Al-Jarf, R. (1990). English and Arabic phonology for translation students. [Google Scholar](#). <https://www.researchgate.net/publication/281003181>
- [22] Al-Khuli, M. (1982). *Al-Taraakeeb al-ahaa?i9a fi llugha al-Arabiyya (Common Structures in Arabic)*. Dar Al-Uloom Publishing Co.
- [23] Al-Momani, I. (2011). The syntax of sentential negation in Jordanian Arabic. *Theory and Practice in Language Studies*, 1(5), 482-496.
- [24] AnderBois, S. (2019). Negation, alternatives, and negative polar questions in American English. In *Questions in Discourse*. Brill. doi: https://doi.org/10.1163/9789004378308_004
- [25] Armstrong, M. E., & Prieto, P. (2015). The contribution of context and contour to perceived belief in polar questions. *Journal of Pragmatics*, 81, 77-92.
- [26] Benmamoun, E. (1997). Licensing of negative polarity items in Moroccan Arabic. *Natural Language & Linguistic Theory*, 15, 263–287. <https://doi.org/10.1023/A:1005727101758>
- [27] Bolden, G. (2016). A simple da? Affirming responses to polar questions in Russian conversation. *Journal of Pragmatics*, 100, 40-58.
- [28] Caron, B., Lux, C., Manfredi, S., & Pereira, C. (2015). The intonation of topic and focus: Zaar (Nigeria), Tripoli Arabic (Lybia), Juba Arabic (South Sudan) and Tamasheq (Niger). In Amina Mettouchi, Martine Vanhove, Dominique Caubet. *Corpus-based Studies of lesser-described Languages: The CorpAfroAs Corpus of spoken AfroAsiatic languages*. John Benjamins, 63-115.
- [29] del Mar Vanrell, M., Ballone, F., Schirru, C., & Prieto, P. (2014). Intonation and its interfaces in Sardinian polar questions. *Loquens*, 1(2), e014-e014.
- [30] El Zarka, D. (2014). Arabic Intonation. *Oxford Handbook*. <https://doi.org/10.1093/oxfordhb/9780199935345.013.77>.
- [31] Frana, I., & Rawlins, K. (2019). Attitudes in discourse: Italian polar questions and the particle mica. *Semantics and Pragmatics*, 12, 1-48. <https://doi.org/10.3765/sp.12.16>
- [32] Gokgoz, K. (2010). What negative polar questions can teach us about the C domain for Turkish sign language (Turk isaret dili-tid). *Tislr*, 10.

- [33] Goodhue, D., & Shimoyama, J. (2022). *Embedded negative polar questions in Japanese*. lingbuzz.net
- [34] Gyuris, B. (2017). New perspectives on bias in polar questions: A study of Hungarian-e. *International Review of Pragmatics*, 9(1), 1-50.
- [35] Hellmuth, S. (2014). Investigating variation in Arabic intonation. *Perspectives on Arabic Linguistics XXIV-XXV*.
- [36] Hellmuth, S. (2018a). *Text-tune alignment in Tunisian Arabic yes-no questions*. Prosodic variation (with) in languages: Intonation, phrasing and segments. Sheffield: Equinox.
- [37] Hellmuth, S. (2018b). *Variation in polar interrogative contours within and between Arabic dialects*. Proceedings of Speech Prosody 2018. <https://doi.org/10.21437/SpeechProsody.2018-200>.
- [38] Hellmuth, S. (2020). *Contact and variation in Arabic intonation*. In Christopher Lucas and Stefano Manfredi (Eds.), *Arabic and contact-induced change*, 583-601.
- [39] Hellmuth, S., Almbark, R., Chlahani, B., & Louriz, N. (2015). *F0 peak alignment in Moroccan Arabic polar questions*. In The 18th I CPhS. University of Glasgow.
- [40] Holmberg, A. (2013). The syntax of answers to polar questions in English and Swedish. *Lingua*, 128, 31-50.
- [41] Huddleston, K. (2021). Negation and polar question-answer clauses in South African Sign Language. *Sign Language & Linguistics*, 24(1), 63-86. DOI: <https://doi.org/10.1075/sll.19014.hud>
- [42] Ito, S. (2015). *Bias and prosody in Japanese negative polar questions*. Ph.D. Thesis. Cornell University.
- [43] Ito, S. & Oshima, D. (2014). On two varieties of negative polar interrogatives in Japanese. *Japanese/Korean Linguistics*, 23, 229-243.
- [44] Kelly, N. (2023). *Phrase-final intonation adjustment in Lebanese Arabic*. *Journal of the International Phonetic Association*, 53(1), 129-158. DOI: <https://doi.org/10.1017/S0025100321000037>
- [45] Kim, J. (2017). On the anaphoric nature of particle responses to the polar questions in English and Korean. *Korean Journal of Linguistics*, 42(2), 153-177.
- [46] Kim, J., Nam, Y., & Kim, J. (2023). *Variations in answering negative polar questions in Korean: An experimental study*. Ministry of Education and the National Research Foundation of Korea. <http://dx.doi.org/10.2139/ssrn.4412859>
- [47] Li, F., Borràs-Comes, J., & Espinal, M. T. (2022). On the interpretation of response particles méi (yǒu) and bù to negative polar questions in Mandarin Chinese. *Journal of Pragmatics*, 200, 267-281.
- [48] Al Sharif, A., & Sadler, L. (2009). Negation in modern standard Arabic: An LFG approach. In Miriam Butt and Tracy Holloway King (Eds) *Proceedings of the LFG09 Conference*. University of Essex.
- [49] Malá, M. (2007). *negative polar questions in English and Czech*. In Proceedings of the 4th Corpus Linguistics Conference. Birmingham University.
- [50] Manaf, N. & Kumaraswamy, S. (2023). Intonation patterns in native and non-native Arabic speakers. *International Journal of Research in Engineering and Science (IJRES)*, (11)4, 688-697.
- [51] Marlett, S. & Moser, M. (2000). Polar questions in Seri. *Working Papers of the Summer Institute of Linguistics, University of North Dakota Session*, 44(3). DOI: 10.31356/silwp.vol44.03.
- [52] Martini, L. (2020). *Grammar in interaction: polar interrogative sequences in Syrian Arabic talk-in-interaction* (Doctoral dissertation, University of Essex).
- [53] Omari, O., Mohammad, H., Jaber, A. & Abudalbh, M. (2021). The syntax of answers to positive polar questions in Jordanian Arabic. *The Arab Journal for Arts Vol*, 18(2), 645-653.
- [54] Ouhalla, Jamal. (2002). *Negative sentences*. In J. Ouhalla and U. Shlonsky (eds.), *Themes in Arabic and Hebrew Syntax*, Dordrecht, Holland: Kluwer. Pp. 299-320.
- [55] Park, B. & Yang, H. (2022). On negative answers to polar questions in English. *언어*, 47(4), 705-725.
- [56] Procházka, S., & Dallaj, I. (2019). *Polar questions in Tunis Arabic*. In *Studies on Arabic Dialectology and Sociolinguistics: Proceedings of the 13th International Conference of AIDA held in Kutaisi in June* (pp. 10-13).
- [57] Repp, S., & Geist, L. (2022). *negative polar questions in Russian: Question bias and question concern*. In Anton Benz, Manfred Krifka, Tue Trinh & Kazuko Yatsushiro (Eds.), *on Biased Questions*. Language Science Press.
- [58] Romero, M., Arnhold, A., Braun, B., & Domaneschi, F. (2017). *negative polar question types in English*. In NELS 47th Annual Meeting of Northeast Linguistic Society. University of Massachusetts, Amherst (pp. 35-48).
- [59] Servidio, E., Bocci, G., & Bianchi, V. (2018). (Dis) agreement, polarity, and focus: Answering negative polar questions in Italian. *Glossa: a journal of general linguistics*, 3(1).