Code-Switching Practices in Palestinian Arabic

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Máster: Lingüística Teòrica I Aplicada
Edició: 2021-2022
Directors: Dra. Sílvia Perpiñan
Any de Defensa: 2022
Col·lecció: Treballs de fi de màster
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Abstract

Code-switching (CS) is known as an ubiquitous phenomenon in multilingual societies and countries. Vernacular Palestinian Arabic variety spoken in Israel is among these languages, informally used for day-to-day conversations only. Such conversations appear to contain code-switched instances from Hebrew, the formal and dominant language of the country, even in settings where the need for CS seems to be unnecessary. This study examines the CS practices in PA and investigates the reason behind these CS instances in controlled settings and the correlation between bilingual dominance and CS. In the production-task interviews and Bilingual Language Profile test (BLP), there was a correlation between language dominance and CS; 13 participants were interviewed to elicit and analyze natural speech containing CS instances, along with undergoing a BLP test. The acceptability judgment task observed the limits and boundaries of different code-switched linguistic structures.

Keywords: code-switching, Palestinian-Arabic, Hebrew, Israel, vernacular
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1. Introduction

1.1 Palestinian Arabic and the Linguistic Situation in Palestine & Israel

The state of Palestine is currently what is left of the Palestinian territories (Gaza strip, the West Bank, and East Jerusalem) after the Israeli occupation of the whole country in 1948, before then, the Palestinian borders included what is now called Israel excluding the occupied Syrian Golan heights. After the Israeli occupation, Palestinian people primarily lived and still live in three areas, one significant part live in the Palestinian territories under the Israeli occupation, another live inside of what was occupied by the state of Israel and are considered now Israeli Arabs, while the rest live in the global diaspora. This paper is going to deal with the spoken language of the second group, Palestinian Arabic speakers (Israeli Arabs), especially those living in the Galilee region in the north of Israel.

Palestinian Arabic (Hereafter PA) is a vernacular language or dialect of Modern Standard Arabic (MSA) spoken by Palestinian citizens of Israel, Palestinians in the Levantine region, and the global diaspora at large. According to the Israeli Central Bureau of Statistics, 21.2% or 1.95 million residents of Israel are Arabs comprising almost one-fifth of the population of Israel. Furthermore, there exist almost 3.5 million Palestinian Arabic speakers in the occupied territories of Palestine as the West Bank, Gaza Strip, and East Jerusalem that are not considered under the Israeli State. Arabs that live in Israel speak Hebrew as their second language and are considered Arabic-Hebrew bilinguals. Arabs that live inside of the Palestinian borders do not usually speak Hebrew, their exposure to Hebrew mostly occurs either through their contact with the Israeli military forces or through work inside of the Israeli borders.
1.1.1 Schooling and Higher Education in Israel

While Hebrew-MSA bilingual schools do exist, the majority of Palestinians living in Israel attend monolingual schools where MSA is the official medium of education, that is, the language of literature studied in class and evaluation while code-switching between MSA and the spoken variety PA is present in teaching. Nevertheless, it should be noted that students in these Arabic-language schools must learn Hebrew and English but begin to do so only in later stages of elementary school. Modern Standard Arabic begins in first grade, Hebrew in second, and English in the third. Students continue to study all three languages until graduating and earning their Bagrut, the high school diploma. Higher education in Israel on the other hand is all conducted in Hebrew, except for three institutions of teacher training, where Arabic could be found as one of the languages of instruction. The attempts of establishing an Arab university in Israel with Arabic as a language of instructions have been rejected for political reasons. Hence, almost all Palestinian Israeli students enrolled in universities or colleges study in Hebrew, although it is not their native language but their second, and sometimes their third (for those who are exposed to English earlier than Hebrew and are more proficient in it).

Most Arab Israeli citizens understand and speak Hebrew, they are considered Arabic-Hebrew bilinguals, as mentioned above, Hebrew is taught early in elementary schools since the second grade. Israeli Palestinian Arabs use PA at home in their villages and towns while using Hebrew in more formal settings such as at work or in education. Hebrew is the dominant language in Israel, while Arabic is important only for the Palestinian minority in the country, hence, Palestinians are almost completely economically dependent on the Jewish majority while around 90% of Palestinians live in Arab towns and villages and 10% live in mixed towns and cities, yet in a separate neighborhood. From a sociolinguistic viewpoint, this indicates that Palestinians in
Israel use their language in numerous domains of life. According to Amara (2006), Israeli Palestinians perceive Arabic as a major marker of their identity despite the status of the Arabic language as compared to Hebrew in Israel. This may be considered as a reason for a significant part of Israeli Arabs to avoid the use of Hebrew in their everyday life, as the political situation in Israel and the Jewish-Arab conflict play a significant role in this domain. Nevertheless, the use of Hebrew by PA speakers in their everyday speech is noteworthy due to its increasing occurrence in the Arab-speaking community despite the attempt to avoid it.

1.1.2 Palestinian Arabic – Hebrew Contact

The efforts to delegitimize the Arabic language as an official one in Israel have existed since the mid-1900s, two proposals were rejected, in 1952 and again in 1980 by the Knesset (Amara & Mar’i, 2002). But these attempts did not stop, until 2018, when the Knesset succeeded in passing a law that cancels the status of Arabic as an official language of the country while granting it a special status (Jabareen & Bishara 2019).

Amara & Mar’i (2011) discussed the change of the Palestinian dialect in contact with Hebrew and English. Increased education allowed Arab learners to have greater contact with Hebrew and English, in which academic material was written, but never Arabic, and how that increased borrowings from the two languages into Arabic. Another factor was the decreased dependence on agriculture and the shift towards industrialization, resulting in increased contact with different dialects through trade, along with other social activities that introduced a more prestigious form of urban speech into the vernacular village speech. One other factor that has influenced the Palestinian dialect was the intermarriage of villagers with urban women. While it is the norm that the wife comes and lives with the husband in his village and not vice versa, urban
Arab dialects are more exposed to Hebrew since they exist in big Israeli cities where Arab and Jewish citizens coexist, and the two languages are in constant contact.

The extent to which Arabs in Israel used Hebrew was limited to young men who worked with Jewish people or in Jewish cities from 1948 until 1966. However, nowadays the daily contact in almost all areas of life is intensive, despite the individual’s age, gender, or education (Saban & Amara, 2002). Not knowing Hebrew is considered an obstacle for Arab citizens that wish to be enrolled in higher education, employment, or basic contact with government offices (Amara & Mar’i, 2011).

1.2 Vernacular Language & Vernacular Speaker Interview

In this section, I attempt to show how the term Vernacular Language will be defined and measured in this paper. Since observation and data collection of natural speech are the main tools in language change research, the process of collecting natural speech data creates a challenge for researchers and forms several obstacles in the attempt to gather natural, native, and unselfconscious vernacular speech or narrative (Labov, 1966, 1984, 2001, 2006; Jovchelovitch & Bauer, 2000).

1.2.1 Vernacular Speech Collection

The language that is produced by native speakers with no paid attention, or without putting effort into being careful in its production is considered the most vernacular according to Labov’s Vernacular Principle. He states that “the style which is most regular in its structure and in its relation to the evolution of language is the vernacular, in which the minimum attention is paid to speech” (Labov 1972c: 112). Interviewing a native speaker of a vernacular language in an attempt to gather analyzable natural language data does not follow one single context or style of speech (see Labov’s (2001: 94) tree for stylistic variation).
Styles of speech can be arrayed along Labov’s continuum based on attention to speech. After Labov’s Attention to Speech approach to stylistic variation was formulated, it began to be criticized by scholars for many reasons, one relevant reason I will put stress on in this section is the focus on vernacular, unselfconscious speech that underlines the Attention to Speech model. It was argued that a single ‘genuine’ vernacular does not exist for any speaker and that speakers usually adapt and shape their speech to fit the situation or suit their purpose despite feeling self-conscious (e.g., Hindle, 1979; Eckert, 2000; Milroy & Gordon, 2003:49-51; Schilling-Estes, 2001, 2004). Hence, minimizing the attention to speech and overcoming Labov’s Observer’s Paradox “To obtain the data most important for linguistic theory, we have to observe how people speak when they are not being observed” (Labov 1972c: 113), is done by the focus on speakers’ vernacular language. To use the term carefully and avoid this ambiguity in what a vernacular speech is, I will start by introducing what is considered the vernacularity of language.

1.2.2 Defining Vernacularity

Vernacular language is the language that is spoken by specific people in a specific region or country. It is the everyday language that is used by native speakers to informally communicate with each other in non-formal settings or at home. Vernaculars are spoken rather than written and are considered to have a lower status than the status of a more codified form of language, it is considered a speech variety that is used to refer to a local language or dialect. Labov argued that vernacular language was “the style in which the minimum attention is given to the monitoring of speech’ and that it is ‘the most systematic data for our analysis of linguistic structure” (Labov 1972a: 208). I deem it necessary to clarify the use of Vernacular in my paper in an effort to accurately observe the vernacular speech collected in this study while basing my arguments on it.
This word [the vernacular] is commonly used to mean low, uneducated, or low prestige speech, but I have tried to stabilize it as a technical term to signify the language first acquired by the language learner controlled perfectly and used primarily among intimate friends and family members. Thus every speaker has a vernacular, some quite close to the network standard, some quite remote from it. (Labov 2006 [1966]: 86).

Building on Labov’s detailed analysis and efforts to define vernacularity, I will henceforth consider the distinction of vernacular speech as what is spoken in a natural, casual, unselfconscious, and daily conversations in contrast with speech produced with attention and carefulness. Strictly speaking, speech that is not produced in formal settings includes environments such as work, education, prayer, or media. Since such environments demand the use of a broader vocabulary that includes subject-specific notions that do not necessarily exist or are unusual to use in one’s daily speech. The mentioned variety of language characterizes what Ferguson (1959) defined as the low (L) variety of a diglossic language.

1.3 Diglossia

One of the most distinctive features of the Arabic language is that it is one of several languages in which the phenomenon of diglossia occurs (Al-Batal, 1995). The sociolinguistic phenomenon of Diglossia is defined as when two varieties of the same language are used by the same society for a different purpose or function, a formal and an informal variety and are thus considered separate languages (Ferguson, 1959).

Ferguson (1959), in his analysis of diglossia, had considered the Arabic language as a language that has High and Low forms that are distinct from each other in their function. The High form is used in formal settings, which is considered the linguistic standard, while the Low form is considered to be the variety that is used in informal, everyday communication or as defined in the
previous section (1.2.2), the vernacular form of speech (Fisherman, 1967). The term *Diglossia* or “*diglossie*” as it was first introduced, was first used by the French Arabist William Marçais in 1930 to describe the linguistic situation of the Arabic-speaking countries (Kaye, 2001). However, in his famous article in Word, Charles A. Ferguson (1959) defined diglossia as

DIGLOSSIA is a relatively stable language situation in which, in addition to the primary dialects of the language (which may include a standard or regional standards), there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community, which is learned largely by formal education and is used for most written and formal spoken purposes but is not used by any section of the community for ordinary conversation (p. 336).

1.3.1 **The Diglossic Situation of Arabic**

Studies that dealt with such situation has shown that the Low variety of a diglossic situation does not usually serve as the first choice of language for native speakers when it came to choosing one’s vocabulary during speech. In such situations, the anticipation for an alternative choice of word usage is from the High variety of the language, due to its highly codified nature which includes concepts that are beyond the domain of everyday speech. However, in research about the diglossic situation of Arabic, speakers did not resort to the High variety, Modern Standard Arabic, but to the more dominant language in the region\country. For example, Egyptian Arabic was found to rely on English rather than MSA, same with Lebanese and Palestinian on French and Hebrew respectively (Hamed et al., 2018; Isleem, 2016; Rosenhouse & Brand, 2015; Suleiman, 2006). MSA as a mainly written variety is deemed to be too artificial for providing natural communication, on the other hand, a vernacular fails to fulfill all the required concepts that
speakers need in their communication (Kniaź, 2017), especially as the ones I defined in the previous section as formal or beyond the domain of everyday life that are not considered vernacular.

In a study about exposure to the two languages of Arabic in its diglossic situation, Eviatar & Ibrahim (2000) compared Arabic bilinguals (spoken & MSA) natives with Hebrew-Russian bilinguals and Hebrew monolinguals and concluded that the exposure to Standard Arabic by Vernacular Arabic natives required the same intensive language analyses as the ones demanded of children exposed to different languages as Russian and Hebrew, hence directly addressing the long debate of whether the two varieties of language are one or two separate ones and showing that MSA serves as another language. (Eid, 1990; Ibrahim & Aharon-Peretz, 2005).

Maamouri (1998) claimed that “Fusha”, meaning MSA, is difficult to learn since it is nobody’s native tongue, he argued that the two varieties of Arabic code-switching create a significant case of critical pedagogical issues that lead to deficient language competence and low linguistic confidence. Thus, this indicates that MSA fails to stand as the sought choice for a language by native PA speakers when faced with situations where the need for vocabulary retrieval requires code-switching. As a result, PA native speakers resort to Hebrew in such cases due to the dominance and intensive exposure to the language.

1.4 Borrowing

My definition of what vernacular is, allows me to distinguish the type of code-switched words that will be dealt with in this paper. Though distinguishing between borrowing and code-switching is believed to be problematic (Scotton, 1997; Rothwell, 2000; Schendl, 2000; Wright, 2000). Borrowing and code-switching are clearly related in their motivations, in both, elements from one language are inserted into the other to meet the speaker’s expressive needs. One
significant difference is that borrowing a word from one language to another can be done by a monolingual speaker, while CS requires a speaker to be fairly proficient in the two languages. Borrowing for PA speakers fulfills basic sociolinguistic and pragmatic needs. Borrowed words are words that enter the vocabulary of a language while their original counterparts either disappear or their use becomes inefficient, for example, words for new gadgets, electronics, and other recently created items that require new names are either borrowed from other languages, usually the language of the region it was created in or English for more universal use, or a new name is added to the lexicon that is created on purpose. Though the latter is difficult to find in a language with vernacular nature as PA, a Low variety of a diglossic language. For example, the recent official translation for ‘remote control’ in SA is ‘Saytaʕid’ (a compounding between the words ‘saytara’ meaning control, and ‘baʕid’ meaning far) another example is the word for Television ‘Mīnah’. Yet these two words as previously mentioned in this section, sound too artificial to be used in daily speech, they are used in PA only as borrowed loans from other languages like English and Hebrew as ‘Shalat’ (from Hebrew ‘remote control’) and ‘Talfızyon’ (phonologically adapted from English ‘television’). Borrowed words start as CS instances, and when their frequency reaches an unknown threshold level, these words switch from being CS forms to becoming borrowed forms thus functioning as part of the lexicon of the recipient language (Myers-Scotton, 1997).

This distinction is relevant for the kind of vocabulary under investigation in this thesis, it is different from the borrowed vocabulary from Hebrew to PA, the focus will be on the code-switched instances with words\clauses that necessarily have clear translations and uses in MSA or PA but are yet used in Hebrew during the vernacular daily discourse.
1.5 Code-switching

Various social contexts create language contact, that later produces an environment for CS to occur in societal bilingualism these contexts arise from several social and historical events such as migration, invasion, and colonialization. Several researchers attempted to define what code-switching is, along with Poplack’s (1980) broad definition of code-switching as “the alternation of two languages within a single discourse, sentence, or constituent.”. Others differentiate between code-mixing and code-switching, where code-mixing is the use of a word within a sentence (Appel and Muysken, 1987) typically used to show situations where speakers borrow words to supplement their lack of proficiency. On the other hand, code-switching refers to switching between languages or switching one grammatical system to another in the same conversation.

Code-switching is often observed as a consistent behavior of bilinguals communicating with one another, switching between two languages or different language varieties. This study investigates only one ethnic group of Arabic native speakers that could be considered late bilinguals of Hebrew due to the dominance of the language in the country. Since as mentioned in section (1.1) people from the Israeli Jewish community are not speakers of Arabic, and only a few individuals of it fully speak and understand Arabic, the phenomenon of code-switching occurs in the community of Arabic speakers, alternating between PA and Hebrew in what is intended to be a vernacular conversation in Arabic.

Sebba (2009) presents an analogy on code-switching after asking the question “what do code-switchers actually achieve?” (p. 41), they claimed code-switching is like playing football and basketball at the same time in a satisfactory way to the participants of code-switching speech. The two games have similarities and differences, as any two languages used for code-switching, and according to them, being able to play the two games while “keeping (sufficiently but not
absolutely) to the rules of both” (p. 41) is code-switching two different languages for easier and faster speech and understanding in a conversation. While I agree with this claim, my view over such an analogy is different when it comes to PA. As I see it, the code-switching between PA and Hebrew stems from the need for adapting one game for the sake of the other in an attempt to ease speech production and deliver one’s message faster and clearer. In this case, the two discussed languages, PA, and Hebrew, both are Semitic languages that have a lot of similarities when it comes to morphological, phonetic, and syntactic structures, this makes code-switching between the two more accessible and easy to do. This supports Woolford’s (1983) conclusion that the ability of two grammars to cooperate in this way, producing structurally and lexically mixed speech indicates that category labels of different languages have a crosslinguistic identity, keeping with the Chomskyan ideas of language acquisition which claims that all children have the capability to acquire the same categories.

Nevertheless, such similarities between the two languages might stand as an issue for the universal application of Myers-Scotton’s (1993, 1997) Matrix Language Frame (MLF) model, in Isleem’s (2016) study about Arabic-Hebrew code-switching in the Druze community in Israel he concluded that Arabic-Hebrew code-switching violates the asymmetrical hierarchy principles that the (MLF) model proposes, Arabic provides the system morphemes which gives it the qualification of being the Matrix Language (ML) of the discourse but does not provide more morphemes than Hebrew as expected from the ML. This study is one of the few studies in the literature that focused on PA and Hebrew CS. However, these results do not represent the whole Arab community since the Druze’s linguistic and cultural profile differs from other Arab communities in Israel. Even though Arabic is the language of the Druze religion, structural factors such as language policy and language education policy affect their linguistic profile gaining a distinct political and national
identity that exposes them to Hebrew (Kheir, 2019). Unlike other groups of Arabic native speakers living in Israel, the use of Hebrew by the Druze community is not limited to economic motivations and functionality, it also stands as an indication of solidarity and identification with Hebrew and the Israeli culture (Isleem, 2016). It is used mostly for prestigious matters which turns its speakers to use Hebrew more to fit in their community. The same can be accounted for with the Bedouin community of Israel (Amara, 2006), which will not be discussed because it mostly speaks another dialect of Bedouin Arabic. Although Myers-Scotton (2006) argues that the CS phenomenon does not occur because the first language is “(a) broken or bad language” (250) but claims that CS requires as much competence as acquiring each language on its own. However, Isleem (2016) demonstrates that CS signals the decay of the first language while eventually shifting to the second language, in this case, Hebrew. Although this may be true for the Druze Arab community in Israel for the mentioned motivations above, these motivations cannot be accounted for in the studied sample of native vernacular Palestinian Arabic dialect living in the Galilee region in this paper, since these motivations differ in their social aspects, identification, and their purpose of use.

### 1.5.1 Reasons and Motivations for Code-switching

The decision for CS relies on various factors such as the topic of the conversation, the situation in which the conversation occurs, and the interlocutor (Bhatia & Ritchie, 2004). Attitudes towards a certain language, its use, and language behavior are also considered to form a part of a speaker’s social identity and mannerisms, and researchers have provided a range of motivations for why CS appears in a conversation. In this paper, I intend to further examine what favors code-switching in situations that do not force speakers to switch, such as speaking their daily vernacular language. To show this, in an attempt to obtain accurate results, first I need to control for the type of vernacular speech that will be further analyzed in this paper. For that, the definitions that were
made in section (1.2) stand as the basis of this investigation. The economic and educational dependence of the PA native speakers on the Jewish community is what mostly produces the contact between the Arab community with the Hebrew language, so it is significant for this study that the analyzed native speech is gathered with strict control for the semantic domains of the subjects that are discussed in the discourse. In other words, to take the semantic domains of work, profession, and higher education out of the collected data. Particularly, to gather a more informal, and naturalistic daily speech and to avoid forced and/or accustomed code-switched words or clauses to Hebrew, since as mentioned in section (1.1.2), both domains depend on the Jewish community and are mainly managed in the Hebrew language in the country.

The Markedness model by Myers-Scotton (1983) was created to show the socio-psychological motivations for code-switching. It is believed that speakers have some shared understanding of the social meanings of each code and that speakers tend to speak a language that signs their rights and obligations taking into consideration their interlocutors, in a conversation. When a speaker chooses to speak in a specific language, they show how aware they are of the situation and their contextual role in it. However, Woolard (2004) demonstrates that the choice of code-switching is not always deliberate or conscious, he argues that speakers are not always aware of their code-switching in communicative interaction. Similar to this argument, Shay (2015) reported that in language learning classrooms, teachers did not use code-switching consciously, and so they may not be aware of its functions and effects in the classroom. Cheng & Butler (1989) also believed that code-switching was not a conscious effort, Martin (2010) suggested that code-switching is not only unconscious but involuntary, as in a fight or flight situation. Meanwhile, Nwoye (1993) found that the code-switching method was consciously used to accomplish different
goals including exclusion from a group, forming a new group, selecting the next speaker in a conversation, and solidarity.

Solidarity is a popular reason for code-switching in the literature (Hewitt, 1986; Crystal, 1987; Holmes, 2017; Walker, 2011; Azlan & Narusuman, 2013). Interviews that were conducted by Grosjean (1982) showed that people tend to code-switch with other bilinguals that speak the same languages. Specific to PA speakers, socio-political solidarity was shown to be a significant reason for the code-switching of the Druze Arab community in Israel (Isleem, 2016). Switching between the High and the Low varieties of Arabic (MSA & PA) has also shown to be disturbing and create difficulties in learning either language (Eid & Holes, 1993; Al Zahrani, 2013) Other reasons are when speakers do not find suitable translations to convey their message (Crystal, 1987) and clarification when a speaker does not remember suitable terms in a language (Cheng & Butler, 1989; Kogan, 2001; Freeman and Freeman, 2001; Cook, 2002). According to Grosjean (1982), CS is also used for other reasons such as quoting, specifying the addressee and talking about past events. Gumperz (1982) showed an example from a Spanish-English bilingual that uses code-switching through quotation. Bhatia & Ritche (2004) demonstrate that paraphrasing or reiteration shows another function of code-switching, and the topic-comment function makes bilinguals switch languages.

Although these motivations and reasons for CS to Hebrew may all occur in a PA conversation, this study focuses on the unintentional, involuntary CS in PA vernacular conversations that seems unclear from a linguistic point of view in what pattern these switches arise. In a study by Abdel-Fattah (2010) he puts stress on the reasons for code-switching to Hebrew by Palestinian Arabic speakers and states that Hebrew cannot always be attributed to semantic or functional necessity, in cases where Arabic counterparts are not used, the possible explanation
cannot be linguistic, but psychological or related to social stigma. To support his argument, he quotes an excerpt from Jabarin (1990) of a conversation between two PA speakers with a fair amount of different Hebrew CS instances, nouns, verbs, quantifiers, and whole clauses. In his analysis of the conversation, he states that all the Hebrew utterances could have been replaced by Arabic counterparts and that there were no functional nor pragmatic reasons for any of them, the two interlocutors of the conversation were Arabs, in an Arab town, at a shop with no non-Arab interlocutors involved. It is difficult to interpret this behavior in terms of the necessity for communication, the speaker is not trying to sound prestigious, and is not addressing someone with a different linguistic background in the conversation, there does not seem to be any reason to call for the switches that occur in the conversation. My claim is that these unintentional switches that are not called for stem from the vernacular nature of the PA language that stimulates such switches. If we rule out reasons such as prestige, drawing attention, and the use of technical or scientific terms in intensive exposure to Hebrew (work and/or education), Hebrew terms and clauses that are used in pure day-to-day PA vernacular speech rely on factors that are specific to this type of language. For example, PA speakers would resort to code-switched instances in which the equivalent word or clause in Arabic seems strange, or to instances where the Hebrew form is memorized first, faster than the one from their native language, and most importantly, to instances where the term is more acceptable, frequent, and easier for the intended message. This kind of switching is considered automatic and unconscious and thus unintentional, unlike the mentioned motivations for code-switching that rely on intentional switching.

1.5.2 Intentionality of Code-switching

Several factors affect the use of CS in PA; however, the vernacular nature of PA appears to mutually favor all these factors. For instance, the spoken nature of the PA language
characterized by its scarce vocabulary in comparison with the richness of the formal variety of Arabic (MSA) influences the use of CS, the formal variety of the language is rarely used by PA speakers. Instead, Hebrew, the dominant and formal language of the country seems to have replaced the MSA’s formal role in PA speech which plays a significant role in assisting speakers’ vocabulary selection as in the normal diglossic situation Spoken Arabic speakers would CS to MSA in such cases, but in this case, PA speakers CS to Hebrew. Thus, the use of Hebrew in formal settings by PA speakers is dragged into their informal daily speech due to the frequency of its use in Hebrew and never in MSA. These factors embody the vernacular nature of PA, they motivate the use of CS in informal settings like daily conversations, in which CS is barely triggered by any reason other than the frequency of the use of the Hebrew language in the other domains where it is required like education and work. The intentionality of CS plays a vital role in this analysis, CS instances where speakers intend to code-switch are not significant to this case, for example, CS to address somebody in a conversation, quoting or attempting to sound prestigious or impressive. These kinds of cases have a straightforward motive to use CS. The scope of this analysis concerns the unintentional instances of CS that are found in the natural daily PA conversation.

De Bot (2002) refers to these CS instances as motivated switching where speakers switch deliberately, whereas unintentional CS is labeled performance switching while this terminology is rarely used, it can explain the analysis made on the intentionality of CS. Research that had mainly worked with the topic of CS from a discourse analytical perspective (Myers-Scotton & Ury, 1977; Myers-Scotton, 1995; Auer, 1984, 1998; Li Wei, 1998; Heller, 1988a; Moyer, 1998) has discussed that CS can be intentional and the reasons behind it could be explained in detail, nonetheless, it is hard to propose reasons for every individual switch, especially in cases where speakers are continuously switching between two languages. Normally, bilingual speakers are able to separate
their languages in speech production and produce monolingual speech whenever it is required (Bullock & Toribio, 2009). Costa et al. (2006) state that bilinguals also, like monolinguals, need to practice choosing the needed words from the two competing languages. On the other hand, bilinguals have translation equivalents for a significant amount of their vocabularies, this makes the choice of speech production more difficult for bilinguals. As mentioned earlier, Arabic is a diglossic language in which the vernacular variety is the low one.

The main quality of a diglossic language is that the two varieties interfere in speech as the higher variety supports the lower less rich in vocabulary with continuous switches for assistance since the latter is believed to have originated from the former. Thus, the frequency of the standard-vernacular dialect alternation is high and native speakers are habituated to the phenomenon, similar to the case of Norwegian villagers discussed in Blom & Gumperz (2000) in which the standard-vernacular dialect alternations occur. Furthermore, the Arab minority in Israel is multilingual and although the alternation with MSA was replaced by Hebrew in terms of formality of language, MSA is still switched along with Hebrew and English in the PA vernacular speech. While the first question and hypothesis in section 2 are directly addressed and supported by showing the CS instances in the semantically controlled interviews, this analysis further explains how the vernacularity of language favors PA speakers' CS in situations that do not call for it. Research on CS patterns and grammatical constraints is challenged by their variability, which is believed to be linked to sociocultural variables, grammatical variables, and processing (Muysken, 2000). Although the attitudes towards the use of each linguistic construct in CS are different and are influenced by variables such as language use, grammar, and psycholinguistic processes.
2. Research Question & Hypotheses

The theoretical framework of this study must first be determined. I am basing my arguments on the definitions that were clarified in the previous sections because these details are key to the arguments that are presented in this study. What motivates the current issue under investigation is a personal and broad observation of the nature of code-switching of Palestinian Arabic speakers in Israel in the Galilee region with the exclusion of the Druze community (see section 1.5). Reasons and motivations for code-switching have been widely and extensively studied over the years, however, little or no information is available about the connection between the vernacular nature of a language and the pattern in which its native speakers code-switch.

Four main questions for this research are:

1. Do Palestinian Arabic speakers use unintentional code-switching in their vernacular speech?

2. Would Palestinian Arabic native speakers still code-switch in conversations that exclude formal domains like work and higher education?

3. Does higher Arabic-Hebrew bilingualism dominance indicate a higher frequency of code-switched instances?

4. What are the limits and boundaries of code-switching?

Based on the present arguments in section 1, and in an attempt to answer these questions I intend to work with the following hypotheses:
1. If unintentional code-switching to Hebrew instances were found in Palestinian Arabic speakers’ speech, code-switching would be found to constitute a significant part of the Palestinian Arabic language. Such instances are used for the purpose of easier speech and are not intended as in addressing someone in the conversation or to sound prestigious.

2. If Palestinian Arabic speakers used Hebrew code-switches in informal conversations, it will show that code-switching is used in domains that do require switching, which further shows how code-switching is constituting a significant part of the Palestinian Arabic language.

3. If Palestinian Arabic speakers with higher bilingual dominance scores show higher code-switching frequency, it will show a correlation between the two variables. Such correlation further explains how code-switching is affected by higher bilingual dominance.

4. Alternating between two grammars is not a free-choice phenomenon and it is limited to specific rules and boundaries.

3. Methodology

Three tasks were used to answer the presented questions and address this paper’s hypotheses. Participants were asked to fill out a questionnaire to measure the degree of language dominance in bilingualism through an adapted Bilingual Language Profile (BLP), which checked the attitudes towards each language as well. A Production Task of Informal Interviews gathered naturalistic, vernacular native speech data through one-to-one interviews to check for code-switching instances in a controlled setting in terms of semantic domains and other factors that motivate intentional CS. It also helped explore and describe the ways in which participants use Hebrew in CS and its frequency, as CS is a phenomenon that is best observed through speaking. An Acceptability Judgment Task inspired by the analysis of the recorded interviews of the production task to
manipulate different linguistic structures of PA and Hebrew to observe the way in which such structures are code-switched and check for their limits and boundaries in PA speech. The results of the task are presented in section 4.

3.1 Participants

Thirteen Arab bilingual speakers of Arabic and Hebrew from the Galilee region in northern Israel were randomly selected. Age ranged from 17 to 59 years old ($M=27.6$, $SD=10.24$), eight of which were male and five female. All participants were from the Arab ethnic minority in Israel that speak the same variety of Arabic dialect and spoke Hebrew as their second language. All participants had at least studied Hebrew for ten years throughout school (required by the Israeli ministry of education) starting at eight years old until 18. Participants had at least some exposure to the Hebrew-speaking community throughout their lives but do not necessarily use Hebrew daily and their levels of proficiency in the Hebrew language varied.

3.2 Bilingual Language Profile (BLP) Task

In Israel, and especially for the Palestinian Arab minority living in the country, bilingualism is the norm, and monolingualism is an exception but at the same time, the PA speakers’ experiences with multiple languages vary and can show different linguistic profiles from a person to another. Moreover, this research focused on this variability rather than treating bilingualism as a homogeneous variable to be tested against monolingualism. Therefore, before involving in the production task interviews, participants completed an adapted Bilingual Language Profile (BLP) (Birdsong et al., 2012) a validated questionnaire for assessing language dominance through self-reports (for measures of validity and reliability see Gertken et.al, 2014), which includes questions about participants’ language history, use, proficiency, and attitudes. The BLP task checks for participants’ language dominance in bilingual-speaking communities, since
dominance is a construct that derives from the nature of bilingualism and involves a relation between two language competencies. On the other hand, language proficiency does not require a bilingual context for its definition since monolingual proficiency could also be checked (Grosjean, 1989). So, measuring language dominance serves the bilingual background of participants more than language proficiency. Although bilingual dominance could be stronger towards one language over the other, the strength of the two languages may change with time and use. According to the BLP task, the output scores of participants can range from -218 (Monolingualism in PA) to +218 (Monolingualism in Hebrew), where 0 would represent perfectly balanced bilingualism. The bilingualism dominance score is used as one of the variables for checking the correlation between language dominance and the rate of CS to help address question 3. The BLP task calculates the dominance score of each language tested, in this case, PA and Hebrew for each participant, then it reduces one language's dominance score from the other to get their bilingual dominance scores.

3.3 Production Task - Informal Interviews

Following the BLP task, participants were asked to answer four questions about informal daily life subjects. The interviews try to elicit the most vernacular speech possible from participants to check whether CS plays a role in informal conversations too.

3.3.1 Procedure

The face-to-face audio-recorded interviews were collected over approximately one week and recorded using the researcher’s phone, speakers gave consent to being audio-recorded after being informed of the length of the interview and its subject. 13 interviews with a total of two hours and eight minutes, approximately 9.8 minutes for each interview were collected. Participants were asked to talk about four subjects by the researcher who was the only other interlocutor in the process of the recording, a native speaker of the same dialect as the participants. CS was used by
the researcher when asking the questions when it was required to keep participants from putting effort into speaking formally or trying not to CS on purpose to get speech that is as natural as possible. The subjects of the open questions were manipulated in terms of their formality as the purpose is to elicit informal speech, their subjects were about informal issues that do not require formal speech that may consequently lead to CS. Each question asked about a subject that has to do with the participant’s daily life, necessarily outside the domains of higher education and profession in order to elicit natural vernacular speech. The four questions were: “Describe your favorite recipe”, “Describe your favorite childhood memory from home\neighborhood”, “what is the thing that irritates you the most in your home”, and “describe your last family trip\vacation” respectively. The interviews were conducted in the Palestinian Arabic dialect spoken in the Galilee region of Israel which was the mother language of all participants. Interviewees were expected to talk about each subject for two and a half minutes. The researcher only uttered the questions after the participant completed each subject, with words or exclamations like “ok”, “so…” or “uh-huh” to keep the participant continuously speaking. The interviewer’s utterances were not included in the analysis of the interviews to not mix the count of words and CS instances.

3.4 Acceptability Judgment Task

3.4.1 Participants

The same 13 participants from the production task underwent an acceptability judgment task that the researcher designed.

3.4.2 Procedure

Following their interviews in the production task and completing the BLP task, participants were asked to answer a 24-sentence acceptability judgment task created on Google Forms and sent to the participants. We chose six linguistic structures that are different between PA and Hebrew,
the structures were elicited from the interviews. The task consisted of 24 sentences, 12 pairs, two for each of the six linguistic structures. Two items were expected to be accepted and two unaccepted under the assumption that participants will judge with respect to one language’s grammar (PA), the sentences manipulated the six linguistic structures that were identified in the analysis of the transcribed interviews from the production task with some changes for the sake of clarity and suitability for the task as to avoid ambiguities or inappropriate words. Two pairs of code-switched sentences addressed each structure, as four sentences were devoted to each of the following: (1) Person marker in verbal conjugation, (2) Progressive marker deletion, (3) Morpheme boundedness of direct object pronouns, (4) Prefixed tense markers, (5) Definiteness in prefixed-only prepositions, and (6) Gender mismatch adaptation. These structures were observed in the recorded interviews, although they are used differently in PA and Hebrew, we chose to observe them because they are adapted to fit into code-switched conversations. To make ‘unacceptable’ sentences out of them, they were manipulated by keeping the original form as they are usually used in the language they are adapted from. And ‘acceptable’ sentences were considered what is used in natural speech (the ones found in the interviews). This helps the purpose of checking the limit of CS in PA.

The sentences were recorded by the researcher and sent to the participants so they could hear each sentence pronounced (since PA is a spoken language and the research checked for vernacular speech) and be able to judge whether it is acceptable or unacceptable. Participants were asked to use their phones and laptops so they could complete the task without any difficulty by hearing the recorded sentences using their phones while answering the task on the google form link that was provided to them on their laptops, in case they want to stop the recording and be able to make judgments without interruption. They were asked to answer whether the sentence they
heard was acceptable for them or unacceptable. After submitting the questionnaire, the researcher discussed the participant’s answers to sentences that were expected to be acceptable but were judged unacceptable by the participant and vice versa. This was done to check for any mistakes made or any comments that are worth noting in the analysis of the task. This design was adapted to gauge the code-switched structures from Hebrew to PA conversations, so the controlled variable was the acceptability of the code-switched instance and not the code-switching itself, because controlling for the latter case would require non-code-switched trials (all in Arabic) which would produce only acceptable sentences. This task aims to check whether the use of the mentioned code-switched structures follows specific rules and boundaries in the PA community. Below, I will briefly present each of the variables and provide one example for each of the manipulated pair of code-switched sentences from the task.

3.4.2.1 Person Marker in Verbal Conjugation. Arabic verbs are conjugated according to person, gender, and number. While Hebrew verbs are conjugated according to gender and number only. When code-switching Hebrew verbs into Arabic verbal sentences, the Hebrew verbs occur in their original form in Hebrew, lacking a marker for person. The following examples show the code-switched Hebrew words **underlined** and the discussed structure in **bold**.

1. 
   ?alo-li ?enh-in rah **yashlim-u** el-shuyul elle dal
   Said.PL.3-BEN.1.sg that-they will **FUT.complete-PL.3** the-work that stay.PST
   ¿aleh-in bas ?adah-u-li
   on-them but ran away-3.pl-BEN.1.sg
   “…They told me that they will finish the work that was left but they didn’t…”

2. 
   *?olna-lhin ?eni-na rah **yashlim-u** el-shuyul elle dal
   PST.1.said.3.pl that-we will **FUT.complete-PL.3** the-work that stay.PST
   ?ale-na bas ?adah-na-lhin
   on-us but ran away-1.pl-.ACC.3.pl
   *“…We told them that we will finish the work that was left but we didn’t…”
(1) and (2) are Palestinian Arabic sentences with the verb “to complete” code-switched to Hebrew. As shown, the verb occurs in the same form in the two sentences although (1) is 3rd person plural and (2) is 1st person plural, as mentioned, Hebrew does not conjugate verbs with an inflection for the person, but Arabic has two distinct inflected verb forms to refer to the 1st and 3rd person. (1) would be “y-kaml-u” with the “-u” suffix referring to the plural 3rd person, and (2) would be “n-kamil” with the “n-” prefix referring to the plural 1st person. (Gender, in this case, is neutral in PA). If the sentence in (2) was translated to Hebrew it will still use the same verb and be grammatical because the same form is used for the 1st and 3rd person.

3.4.2.2 Progressive Marker Deletion. The present progressive marker in PA is the morpheme ‘ʕam’ that occurs before the verb and is separated from it. Hebrew does not have this marker, instead, the verb occurs in its present simple form. When such verbs occur code-switched in PA sentences, the sentence in PA loses the present continuous marker and is only acceptable without it.

(3) Eya el-dor zorem shaɣli-t nus seʃa w-ba-tlaʃ
Here the-line flowing something-f half hour and-PRS.1st.sg-exit
min i-ddoʔar
from the-post office

“The line (is) fast, it’ll take half an hour and I will be out of the post office”

(4) *Eya el-dor ʕam zorem, shaɣli-t nus seʃa w-ba-tlaʃ
*Here the-line PRG flowing something-f half hour and-PRS.1st.sg-exit
min i-ddoʔar
from the-post office

“The line is fast; it’ll take half an hour and I will be out of the post office”

Sentence (3) has the verb ‘flowing’ in Hebrew with the continuous marker inflected in its verb form. Sentence (4) is ungrammatical because the progressive marker morpheme in Arabic “ʕam” appears in it before the already inflected Hebrew verb. So, the inflection appears twice, once as a
separate morpheme (Arabic) and another inflected in the verb form (Hebrew). If the verb was not code-switched, the sentence would be ungrammatical if the progressive marker “ʕam” was not present.

3.4.2.3 Morpheme Boundedness of Direct Object Pronouns. The accusative masculine 1st, 2nd, and 3rd person pronouns in Hebrew ‘ʔoti, ʔoto & ʔotxa respectively) in Hebrew follows the verb as a separate morpheme that is also pronounced separately. The PA accusative masculine 1st, 2nd, and 3rd person pronouns appear as suffixes at the end of the verb ‘ ني- ‘א- ‘א- in this case “ʔoti”, “ʔoto” & “ʔotxa” respectively).

(5) yaʃni raʃash el-talfezion mi-ʃatsben ʔoti aktar min el-lazim w-el-eshi bi-dayi? the-thing frustrating
“…you know, the TV noise annoys me too much, and it's frustrating…”

(6) *yaʃni raʃash el-talfezion mi-ʃatsben-ni aktar min el-lazim-ni w-el-eshi bi-dayi?
*means noise (of)the-TV PRS-annov.m me more from the-required and-the-thing PRS-frustrate
“…you know, the TV noise annoys me too much and it's frustrating…”

In (5) when the pronoun that follows the Hebrew verb is also in Hebrew in this case “ʔoti”, the sentence is acceptable. But when the Arabic pronoun appears as a suffix on the Hebrew verb in (6) in this case “-ni” it is unacceptable although other Arabic affixes are grammatical when attached to Hebrew verbs. The same works for the 2nd and 3rd person pronouns both feminine and masculine.
3.4.2.4 Prefixed Tense Markers. When CS Hebrew verbs into PA sentences, Arabic prefix tense markers can be attached to Hebrew verbs without producing weird sentences. However, CS a Hebrew prefix only, and attaching it to an Arabic verb does produce a weird and unacceptable sentence. This is shown in (7) and (8).

(7) ʕadatan ba-thamem ʔabel el-raʔis w-baji ʕaSan ʔ-atfad-a
usually PRS-warm up before the-dance and-come.1.sg because FUT.avoid.1.sg
el- ptsiʃot.
the- injuries.
“I usually warm up before dancing so I avoid injuries”

(8) *ʕadatan mi-thamma ʔabel el-raʔis w-baji ʕaSan ʔ-atfad-a
usually PRS-warm up before the-dance and-come.1.sg because FUT.avoid.1.sg
el- ptsiʃot.
the- injuries.
“I usually warm up before dancing so I avoid injuries”

Unlike the previous examples (5) and (6), in (7) when the tense marker from Arabic was attached to the verb in Hebrew it did not produce an unacceptable sentence. So, some affixes are allowed, and some are not, notice the definite article prefix in (7) and (8) on the word Hebrew “injuries” is allowed also, but no conclusions could be drawn from that about the nature of prefixes or suffixes and their use in code-switching.

3.4.2.5 Definiteness in Prefixed-only Hebrew Prepositions. Hebrew prepositions are either attached to their complements as prefixes or precede them in forms of clitics. The prefixed prepositions are (,-ן,-ַ and -ָ) except for (-ֹ) because it is shortened from the clitic pronoun (ִּמְנ) and does not behave as other prefixed pronouns.

When a prefixed pronoun attaches to a noun, it deletes its definite article, and it appears as indefinite. Although the definiteness of the noun is still perceived by a little high-open vowel pronounced on the end of the prefix when code-switching a Hebrew noun into a PA prepositional phrase, the morpho-phonological rules of definiteness in the sentence conform to the Arabic
language. PA attaches the missing definite article to the Hebrew noun for it to be acceptable. Not only that, but the Arabic language also has phonological rules for the pronunciation of its definite article. When the definite article is attached to nouns, its pronunciation relies on the first letter of the noun. Letters are separated into two categories, lunar and solar, when the article “el\al” is followed by a noun starting with a solar letter, the second letter of the article (l) drops, and the vowel (a\e) that is left is pronounced along with a stress on the solar first letter of the noun following it. When the noun starts with a lunar letter, the definite article is pronounced as it is with no changes. This can be seen in examples (9) and (10)

(9) Rakad-it la-\do\ar w-rje\ʕ-it tox \ʕashar da\ʔayi? Run-NOM.1SG to_the-post_office and-back-NOM.1SG in ten minutes “I ran to the post-office and came back in ten minutes”
(10) *Rakad-it la-\do\ar w-rje\ʕ-it tox \ʕashar da\ʔayi? Run-NOM.1SG to-post_office and-back-NOM.1SG in ten minutes “I ran to the post-office and came back in ten minutes”

Sentence (9) shows how the code-switching conforms to the morpho-phonological rules of definiteness of the PA prefixed article on the noun from Hebrew and adds the missing article “el\al” and since the first letter of the Hebrew noun, “\do\ar” is ‘d’ which is a solar letter in Arabic it is stressed to produce the definite article. While in (10) the first letter ‘d’ in “\do\ar” is not stressed, it indicates that there is no definite article in the construction of the sentence. Thus, unlike Hebrew, PA does not allow a covert definite article although the noun is in Hebrew.

3.4.2.6 Gender Mismatch Adaptation. Arabic and Hebrew are gendered languages, their nouns, pronouns, and affixes usually have grammatical gender, in the cases where masculine words in Arabic are feminine in Hebrew and vice-versa, the gender of the code-switched Hebrew words applies to the whole PA sentence and agrees with pronouns or affixes that may refer to it.
Sentences (11) and (12) are sentences with code-switched Hebrew nouns followed by anaphoric reference pronouns.

(11) Kun-na ʕ-al ṣomit w-kan fi tnen waʔf-in ʕal-eha
Were-we on-the junction.f and-was.m in two stand-3P.M on-it.f
“We stood by the junction and there were two people standing on it”

(12) *Kun-na ʕ-al ṣomit w-kan fi tnen waʔf-in ʕal-e
Were-we on-the junction.f and-was.m in two stand-3P.M on-it.m
“We stood by the junction and there were two people standing on it”

In (11) the noun junction from Hebrew is feminine, and the Arabic pronoun that refers to it appears in its feminine form agreeing with the Hebrew noun. Although in Arabic the word for ‘junction’ is masculine when there is no gender agreement as shown in (12) the sentence is considered unacceptable. The gender mismatch is corrected, and the referral gender is adapted to the Hebrew noun.

4. Results

The interviews in the production task elicited the most possible vernacular speech data from participants, they have shown that the CS phenomenon constitutes a significant part of the PA language spoken in Israel. Even in informal domains, the use of unintentional CS was still found in PA speech where it is less likely to occur. The interviews also helped elicit different linguistic structures that are code-switched to Hebrew respecting the language’s grammar, this was further observed in the designed acceptability task to check which language rules each structure follows by analyzing participant’s acceptability rates to each construct.

The scores of each participant help address question 3 (section 2) in checking the correlation between bilingual dominance and the frequency of code-switching to support hypothesis 3. Table 1 shows the dominance scores of each participant. None of the participants were found to have perfectly balanced bilingualism in the two languages, the dominance scores
ranged between -31.42 and -126.59 (M=-80.49, SD=-27.28), and scores were all below zero since all participants are native speakers of PA.

Table 1

Language dominance scores BLP task

<table>
<thead>
<tr>
<th>Participant</th>
<th>Dominance Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>-83.73</td>
</tr>
<tr>
<td>Participant 2</td>
<td>-54.30</td>
</tr>
<tr>
<td>Participant 3</td>
<td>-90.08</td>
</tr>
<tr>
<td>Participant 4</td>
<td>-37.77</td>
</tr>
<tr>
<td>Participant 5</td>
<td>-126.59</td>
</tr>
<tr>
<td>Participant 6</td>
<td>-31.42</td>
</tr>
<tr>
<td>Participant 7</td>
<td>-116.87</td>
</tr>
<tr>
<td>Participant 8</td>
<td>-69.56</td>
</tr>
<tr>
<td>Participant 9</td>
<td>-69.10</td>
</tr>
<tr>
<td>Participant 10</td>
<td>-101.16</td>
</tr>
<tr>
<td>Participant 11</td>
<td>-75.46</td>
</tr>
<tr>
<td>Participant 12</td>
<td>-101.43</td>
</tr>
<tr>
<td>Participant 13</td>
<td>-88.90</td>
</tr>
</tbody>
</table>

There may be some factors affecting this self-assessed test since it asks about attitudes towards each language, and those attitudes vary for different reasons, for example, participant 3 had a score of -90 which relatively indicates that they are not that dominant, although participant 3 had the highest answer for years working with the Hebrew language, yet their attitudes towards Hebrew and their identification with the language is different from others, this participant was 59 years old, a period where people were born in a different political situation in Israel with a higher sense of patriotism and cautiousness to the role their native language played, so in questions about language identification to Hebrew scores were the lowest which affects the overall bilingual dominance score. Participant 5 is another example, as they are multilingual that speak another
language at home with one of the parents (foreigner), many of the questions about language use are affected by a language replacing their mother tongue (PA). Language use serves as the most relevant and significant variable that was investigated in the task to explain the overall results, specifically the use of the Hebrew language at work or university. These settings are considered the formal settings in which Hebrew is usually used. Results have shown that individuals that worked in Hebrew-speaking environments or are enrolled in universities in Israel (where Hebrew is the only language used for education) had answered that they used 60% or more of their weekly speech in Hebrew. These same participants had noted that they used Hebrew 10%-20% of their weekly speech with their families at home, and between 10%-30% with friends (participants that are in daily contact with their Hebrew-speaking friends were an exception in this case) speech environments such as family, home, and friends are considered the most informal domains. This helps explain the data that was found in the production task and the arguments about the use of Hebrew CS in the day-to-day, informal, and vernacular domains. These results could also support how the use of Hebrew is dragged into the informal settings from the high exposure and use in the formal domains.

In the production task, interviews were carefully transcribed by the researcher for analysis. First, the total number of words was manually counted. Second, the number of Hebrew code-switched words and instances was manually counted as well. The volume of the Hebrew code-switched words and instances was calculated by dividing the Hebrew code-switched words by the total amount of words in the interview and then multiplied by 100 to get the percentage scores for each participant’s code-switched words. The switched instances were manually counted for each participant. The coding of words was done by considering each code-switched word individually
as one switch, while the coding of the instances was done by considering a whole switch that consists of two words or more as one instance.

Table 2

*Code-switching to Hebrew frequency*

<table>
<thead>
<tr>
<th>Participant #</th>
<th>Total words</th>
<th>Hebrew Words</th>
<th>Code-switched Hebrew words %</th>
<th>Code-switched instances N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>890</td>
<td>46</td>
<td>5.1%</td>
<td>34</td>
</tr>
<tr>
<td>Participant 2</td>
<td>524</td>
<td>60</td>
<td>11.4%</td>
<td>44</td>
</tr>
<tr>
<td>Participant 3</td>
<td>749</td>
<td>30</td>
<td>4%</td>
<td>17</td>
</tr>
<tr>
<td>Participant 4</td>
<td>829</td>
<td>34</td>
<td>4.1%</td>
<td>25</td>
</tr>
<tr>
<td>Participant 5</td>
<td>315</td>
<td>22</td>
<td>6.9%</td>
<td>11</td>
</tr>
<tr>
<td>Participant 6</td>
<td>1983</td>
<td>45</td>
<td>2.2%</td>
<td>32</td>
</tr>
<tr>
<td>Participant 7</td>
<td>750</td>
<td>12</td>
<td>1.6%</td>
<td>10</td>
</tr>
<tr>
<td>Participant 8</td>
<td>785</td>
<td>64</td>
<td>8.1%</td>
<td>35</td>
</tr>
<tr>
<td>Participant 9</td>
<td>1050</td>
<td>69</td>
<td>6.5%</td>
<td>39</td>
</tr>
<tr>
<td>Participant 10</td>
<td>554</td>
<td>11</td>
<td>1.9%</td>
<td>12</td>
</tr>
<tr>
<td>Participant 11</td>
<td>750</td>
<td>76</td>
<td>10.1%</td>
<td>40</td>
</tr>
<tr>
<td>Participant 12</td>
<td>455</td>
<td>9</td>
<td>1.9%</td>
<td>8</td>
</tr>
<tr>
<td>Participant 13</td>
<td>549</td>
<td>40</td>
<td>7.2%</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>10183</td>
<td>518</td>
<td><em>M</em>=5.4</td>
<td><em>M</em>=25.30</td>
</tr>
</tbody>
</table>

Table 2 shows the number of Hebrew code-switched instances from the interviews of each participant in the production task. The number of code-switched instances ranged from 8-44 (*M*=25.30). Although the interviews varied in terms of duration and the speed of speech for each participant, the benefits of checking for the number of CS in the recorded interviews are twofold, first it gives a clearer and more accurate view of the use of code-switching in vernacular PA speech, and second, it helps to address two of the research questions from section 2: question 2 discusses
whether PA speakers would code-switch in settings where they are not required to code-switch, in other words, using Hebrew CS in settings where variables that motivate CS are not present and there is no specific need for it. Question 3 investigates the correlation between bilingual dominance and the frequency of code-switching, so these results were later checked along with the BLP task results for correlation.

CS occurred in all interviews, in three interviews the rate of CS is the lowest with participants 7,10, and 12 CS only 1.6%-1.9% of their total discourse. This appears to be affected by the length of their interviews as the total amount of discourse was lower than it was in the other interviews. Similarly, longer interviews which have a higher quantity of discourse seem to have also affected the rate of CS for participants as the data for participant 6 shows. Hence, table 2 confirms the second hypothesis as it shows that CS is commonly used in PA speech, and it occurs in situations that do not call for it like informal speech. As for the first hypothesis, unintentional switches to Hebrew were found in the analysis of the interviews confirming the presented hypothesis. The following two examples from two participants show these instances “basal la marhali aw matsay elli majbur agiv…” (I get to a point or a situation where I must respond…” here, participant 1 uses two nouns, once in Arabic and another (underlined) in Hebrew while referring to the same idea, notice that the first noun is the one in PA followed by an unnecessary translation to Hebrew since nothing in the interview or conversation called for a translation, clarification, or any other reason for this switch. Another example from participant 2 “w kvar aalta el bitaxon fa hit’akashti inu hay shanitti” (and I already passed the security, so I insisted that this was my bag), here the three switched words (underlined) have a normal and simple translation in vernacular PA, yet the Hebrew forms were chosen due to their higher frequency of use or were faster to say.
To directly address question 3 and check whether the results support hypothesis 3, both scores from table 1 and table 2 for each participant are used as variables to find the correlation between language dominance and the use of CS for PA speakers. Following hypothesis 3 which suggests that higher bilingual dominance predicts higher CS instances, a Pearson’s correlation coefficient test was used to check whether there is a correlation between the two variables.

H0: there is no correlation between BLP scores and CS instances.

H1: there is a correlation between BLP scores and CS instances.

Pearson correlation coefficient was positive with a moderate significance, the significance threshold was set at .05. This confirms the third hypothesis that there is a correlation between the bilingual dominance of speakers and their CS instances ($P=.0132$, $r=0.6646$).

**Figure 1**

*Correlation Between Bilingual Dominance and CS Instances*

Furthermore, in a search for patterns of code-switching through a thematic analysis approach, the collected data was analyzed to observe different linguistic structures and to see how
they are code-switched in PA conversations from Hebrew to check the limits and boundaries of the phenomenon by PA speakers. Six different linguistic structures were found code-switched by PA speakers from Hebrew: (1) Person marker in verbal conjugation, (2) Progressive marker deletion, (3) Morpheme boundedness of direct object pronouns, (4) Prefixed tense markers, (5) Definiteness in prefixed-only prepositions, and (6) Gender mismatch adaptation. To answer the fourth question and address the fourth hypothesis of this paper, the six variables were manipulated and used in the acceptability judgment task, the total acceptability average score of all the sentences that permit CS (expected to be acceptable) was 96.7%, while the total average score of all the sentences that do not permit CS (expected to be unacceptable) was 3.2%. The results are shown in Table 3 below.

Table 3

*Linguistic Structures Acceptability Rates*

<table>
<thead>
<tr>
<th>Linguistic Structure</th>
<th>Mean of Acceptability %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progressive Marker Deletion</td>
<td></td>
</tr>
<tr>
<td>Sentence 1 &amp; 3 - Acceptable</td>
<td>100%</td>
</tr>
<tr>
<td>Sentence 2 &amp; 4 - Unacceptable</td>
<td>0%</td>
</tr>
<tr>
<td>Morpheme Boundedness DO Pronouns</td>
<td></td>
</tr>
<tr>
<td>Sentence 5 &amp; 7 - Acceptable</td>
<td>96.1%</td>
</tr>
<tr>
<td>Sentence 6 &amp; 8 - Unacceptable</td>
<td>0%</td>
</tr>
<tr>
<td>Prefixed Tense Markers</td>
<td></td>
</tr>
<tr>
<td>Sentence 9 &amp; 11 - Acceptable</td>
<td>92.3%</td>
</tr>
<tr>
<td>Sentence 10 &amp; 12 - Unacceptable</td>
<td>0%</td>
</tr>
<tr>
<td>Definiteness in Prefixed-only Hebrew Preposition</td>
<td></td>
</tr>
<tr>
<td>Sentence 13 &amp; 15 - Acceptable</td>
<td>100%</td>
</tr>
<tr>
<td>Sentence 14 &amp; 16 - Unacceptable</td>
<td>0%</td>
</tr>
<tr>
<td>Gender Mismatch Adaptation</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 presents the average rates of both the permissive CS sentences and non-permissive CS sentences, sentences like 1&3, 5&7, etc... are the ones that consisted of normal CS from PA and Hebrew and were expected to be accepted (100%), while sentences like 2&4, 6&8 and so on, were the manipulated CS ones that are expected not to be accepted (0%). What is relevant for this study is the manipulated sentences, the ones that do not permit CS as we are interested in the boundaries that the phenomenon has and in what limits it. For three constructs of Progressive Marker Deletion, Definiteness in Prefixed-only Hebrew Preposition, and Person Marker in Verbal Conjugation, the acceptability judgment was as it was expected to be as the acceptable sentences were 100% accepted, and the unacceptable ones were 0% accepted.

Discussing answers with the participants after finishing the task helped analyze these results and check the reasons for accepting or not accepting each sentence. The most significant results were the Gender Mismatch, participants accepted mismatched uses of nouns from Hebrew to Arabic, although it would not have been the case if it was not for a CS situation, both languages as stated before, are Semitic and therefore are gendered languages, some nouns have the same gender in the two and some have the opposite, but grammatical gender for speakers of such languages is a concept that is easy to detect, and the acceptability of the sentences relied on speakers that could instantly tell what is the gender of each CS noun in its original language and treat it accordingly, also, since all participants speak Hebrew, most of them claimed that they have corrected the mismatch or accepted it because they knew it was accepted in its original language.
The Morpheme Boundedness DO Pronouns and the Prefixed Tense Markers were as expected in their unacceptable sentences, while the acceptable sentences were judged unaccepted due to ambiguities, clarity or the participant thought that the whole sentence had too much CS and not specifically because of the examined linguistic construct. Although the results of grammatical gender trials weren’t as consistent as the rest of the constructs, the plausible explanation for this kind of behavior is that gender is a morphological phenomenon that has no consequences for meaning, for example, if the word ‘table’ in Arabic is feminine and it was referred to with masculine agreements, it would not change the meaning of the word. However, the rest of the examined constructs are syntactic, any improper reference or misuse to such structure, especially in languages that are morpho-syntactically rich like Arabic and Hebrew. The results of the acceptability task presented in table 3 are relatively positive and are able to address the fourth question of this paper and confirm the fourth hypothesis showing that the CS phenomenon follows certain rules and is limited to specific boundaries.

5. Discussion & Conclusion

This study has explored different aspects of code-switching for speakers of the Palestinian dialect of Arabic spoken in the Galilee region. The production task tested the first and second hypotheses of whether unintentional CS would be found in PA speech, and whether PA speakers would still have those code-switches in their most vernacular and informal speech where CS is not called for. Results confirmed that many of the Hebrew CS instances in PA were unintentional and that those code-switches also occur in the vernacular speech where there is no clear reason for their use. One plausible explanation for this is that the kind of language that is spoken with such instances is in a shift for these switches from being normal CS to borrowings from Hebrew to Arabic and that it is just a matter of time that the unintentional CS battery of Hebrew lexemes will
gradually transfer to the PA vocabulary and serve as loanwords. The number of code-switched instances in the interviews was checked for correlation along with the BLP scores for each participant to confirm the third hypothesis that there is a correlation between the two variables, the higher the bilingual dominance the more code-switching instances used. Being bilingually dominant indicates higher mastery in the two languages, which will make alternating between their two grammars and lexicons in one sentence easier, this accounts for the found correlation. The acceptability judgment task was designed to examine the limits of use of different linguistic structures that were found in the production task, to see how acceptable these constructs are when manipulated from Hebrew to Arabic and vice versa, and to check the boundaries and limits to which they could be used. Results have confirmed that CS is limited to specific boundaries and that different structures are code-switched differently depending on the effect of their misuse on meaning.

A grammatical concept such as gender in CS is simple to process and is assisted by agreements in the sentence, spotting its ‘unacceptability’ and processing the issue is intuitive for native speakers of a language with grammatical gender as it is a morphological phenomenon and not syntactic which does not affect the meaning, or its misuse significantly changes the sentence’s meaning and make it difficult to comprehend or ambiguous. In conclusion, CS to Hebrew in vernacular PA speech has shown the effects of the dominance of Hebrew in Israel on PA speech replacing MSA in the formal domains and shifting into its informal speech and how this led to the dependency of PA on Hebrew in its daily speech and that CS is used under specific rules and boundaries.

Considering this study was conducted only on a small sample of 13 participants, future research could expand on a larger and more representative sample for more conclusive data. Also,
participants did not have the same background in terms of age, language use, and language exposure a more uniform sample would have probably better represented the results of the study. Using another group of a different Arabic dialect native speakers for comparison and control would have shown clearer results but, reaching for such a group was restricted due to political relations between my country of origin and other countries in the Arab world. Finally, worthy topics for future research are investigating how code-switching in closely related languages differs from code-switching between two distinct languages, and how much effort would a PA speakers put to restrict themselves in producing Arabic-only language when speaking to another Arabic native speaker that does not speak Hebrew (Syrian, Lebanese, Egyptian, etc.) would they still be able to speak fluently.
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