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**Code-switching habits of bilingual students: How and why do Arabic (L1) – Greek (L2) speakers from the Aristotle University of Thessaloniki code-switch**

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# Contents

# 1. Introduction

Bilingualism is a vast and still expanding area of study. One of the more fascinating aspects of multilingualism research are the conversational strategies used by bilingual speakers on the daily basic in order to make their output more dynamic and precise. This paper is concerned with the strategy of code-switching, the detailed definition of which will be provided later in this section, but which can be generally characterized by the use of two or more different languages in the course of a single exchange. This phenomenon can be observed especially in case of highly proficient bilinguals. This study will look at the factors that contribute to code-switching. The main research question we aim to answer in this paper is why do bilinguals code-switch. Moreover, we will try to establish whether code-switching is a conscious or a unconscious process. We will also look at the situations and contexts that trigger code-switching and the influence of register upon language alteration. Our findings will be summarized in the Conclusion section of this paper.

According to Joseph Gafaranga, code-switching, or language alternation as the expert calls it, serves to the

> negotiation of aspects of the speech situation such as topics, participants' identities and relationship, negotiation of the medium, use of language alternation itself as the medium, using language alternation to signal repair, to convey metaphorical information, to generate meanings by means of language contrast, etc. (...) [L]anguage alternation is a multi-faceted phenomenon. Thus, my conclusion is that the different models of language alternation (...) should be seen as complementary. No one approach can claim to be exhaustive (2007: 307).

Our primary method of gathering information was a questionnaire made using Google Forms in May 2021. The form was later distributed by means of social media. The questionnaire was closed on June 8, 2021. Overall, there were fourteen responses submitted by that time, nine of which were deemed eligible for our case study purposes. It is worth mentioning that we have provided a brief definition of the term 'code-switching' at the beginning of the questionnaire. We can thus assume that all participants were aware what the term code-switching means and were able to answer the questions in an informed manner.

The questionnaire itself consisted of two sections. In the first section, we have asked the participants to provide their basic information - nationality, university, faculty, age, gender, first language and second languages, in order to determine whether their answers were eligible to be analyzed in this case study. In this section we have also asked if the students use code-switching on the daily basis and whether of not their code-switching is conscious. The second part of the questionnaire consisted of four multiple-choice questions. The participants were politely asked to determine all situations in which they code-switch. Then we have asked the students about the register (formal or informal) they usually use when they do code-switch. In this question the participants were asked to choose only one most suitable answer. This section ends with us asking the participants why they code-switch. The participants could choose all answers that applied to them from among ten possible reasons provided by our team. The students were also given an option to provide their own answers in writing.

Our case study group consists of nine highly proficient Arabic to Greek bilingual students of medicine from the Aristotle University of Thessaloniki. All of the participants describe their nationality as Jordanian, with their first language (L1) being Arabic. All nine participants declare that their second language (L2) is Greek. Moreover, four of the nine participants are trilingual, with their third language being English. All of the participants are male, six of whom are twenty-three years of age, two who are twenty-five, and one person who is twenty-four. Figure One shows the age of participants with the relevant percentages, which helps us to conclude that most participants of this case study were twenty-three at the moment of taking the questionnaire.
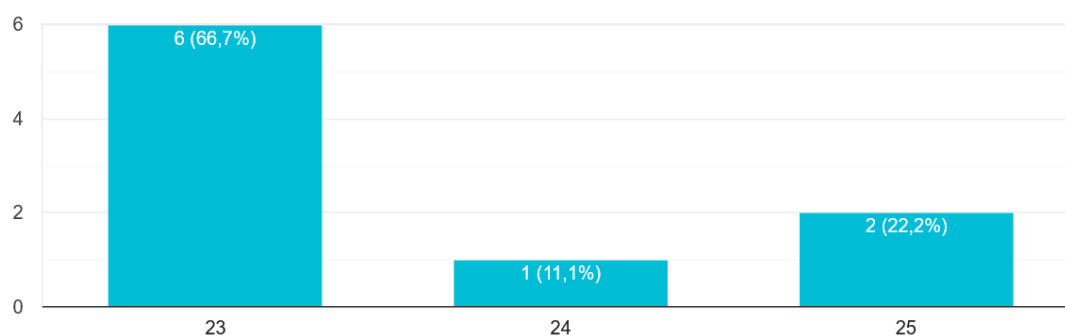


Fig. 1: Age of participants

When asked about their code-switching habits, 88,9% of participants declared that they use code-switching as a conversational strategy on the daily basis, which, as Figure Two shows, is a vast majority of participants.
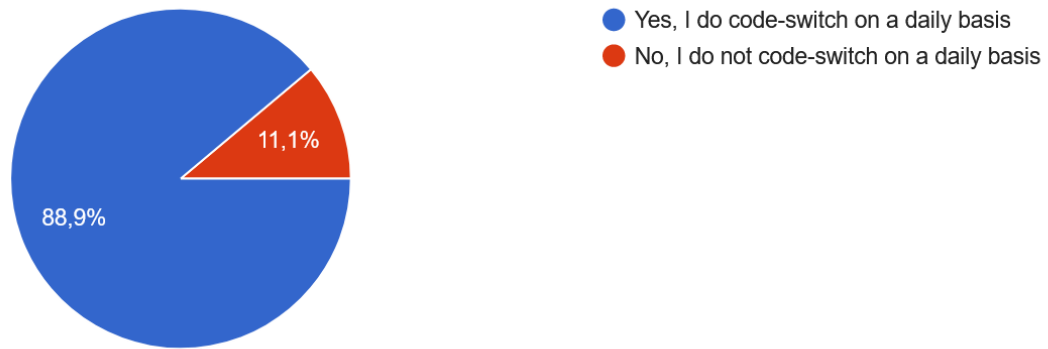


Fig. 2: Answers to the question: Do you think you code-switch on a daily basis?

We have also asked the participants whether their code-switching is conscious or unconscious and their answers, as shown on Figure Three, were inconclusive. 33,3% of the participants declare that their code-switching is unconscious most of the time, while the same number of students declare that their code-switching is always conscious. 22,2% of the participants describe their code-switching as always unconscious and 11,1% claims that it is conscious most of the time.
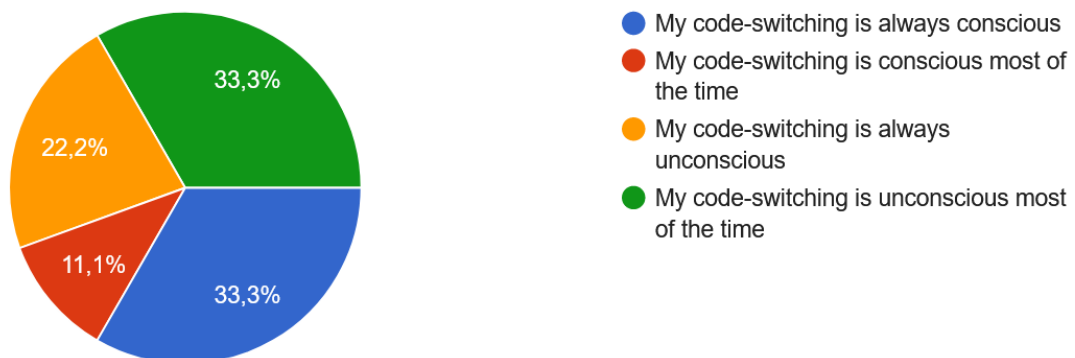


Fig. 3: Answers to the question: Is your code-switching conscious or unconscious (do you realize that you code switch)?

Ultimately, this section has provided the definition or code-switching as understood by Gafaranga (2007), and which was used in order to create this paper. We have also described our method of gathering information and foregrounded the most important information about the participants of this case study. We have determined that our research group consists of nine young male Arabic to Greek bilinguals who study medicine at Aristotle University in Thessaloniki. Responses to the main questions questions posed by the questionnaire and the analysis of these responses shall be provided in the following sections. The last section shall consist of a discussion about our findings.

## 2. Code-switching and situational setting

Figure Four presents answers to the first proper issue included in our questionnaire. In this question we asked the participants to determine in which situations they code-switch regularly. The graph indicates that the participants are more likely to code-switch in their home environment than outside of their household. Moreover, the participants are more prone to code-switching in real life conversations than they are to do it online. 77,8% of the participants claim that they code-switch at home on a regular basis, 66,7% of the participants code-switch at school and only 33,3% code code-switch during other activities. 66,7% of participants code-switch when they talk with people face to face and only 33,3% does it in writing (e.g. via instant messaging applications). What is interesting, only 22,2% of the participants code-switch on the Internet. More students (44,4%) use this conversational strategy in real life.
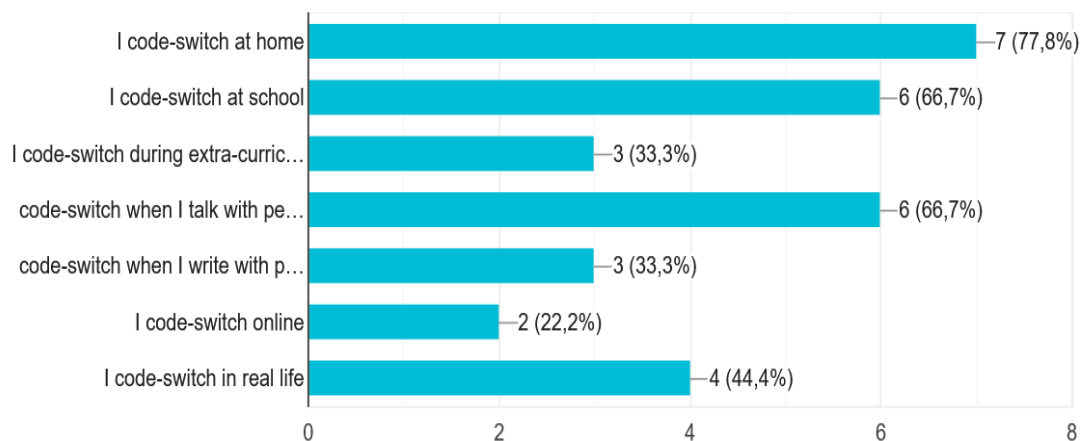


Fig. 4: Situations in which participants tend to code-switch regularly

These results demonstrate that the Arabic to Greek bilinguals prefer to code-switch in a more relaxed environment as opposed to the professional or academic environment. The questionnaire also shows that the participants code-switch more often in their spoken output, which tends to be more rapid and emotional, than in their written output, which is usually more deliberate as it does not take into account the time pressure present in verbal communication.

## 3. Code-switching and social context

The second question in this part of the questionnaire inquires about the people with whom participants tend to code-switch on a regular basis. The participants were once again asked to choose all relevant statements when answering this question. Figure Five demonstrates that the Arabic to Greek bilinguals prefer to code-switch within their friend group (88,9% of all answers). 22,2% of the participants claim that they code-switch with their elders, their siblings and their co-workers. Only one vote (11,1%) each was given to the following statements: "I code-switch with my peers", "I code-switch with my parents", "I code-switch with my teachers", "I code-switch with strangers", making them the least popular options.
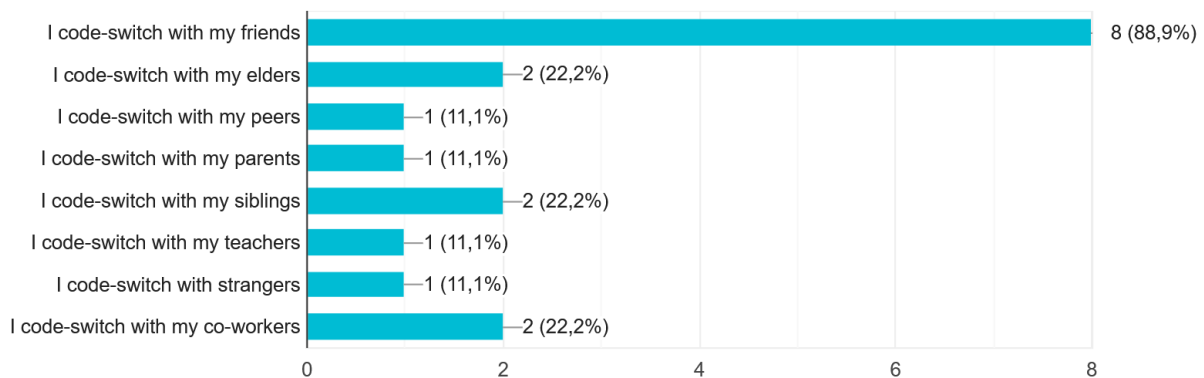


Fig. 5: Social contexts in which participants tent to code-switch regularly

These answers provide the broad idea of the social context necessary for the code-switching strategy to occur in conversation with at least one Arabic to Greek bilingual

student. By and large, the participants tend to code-switch within a more relaxed social setting that their friend group provides. Not many decide to code-switch in a more official setting (e.g., with co-workers or elders). Very few employ the code-switching strategy with teachers, parents and strangers which may be due to politeness imposed by these social contexts.

## 4. Code-switching and register

Code-switching is a multifaceted linguistic phenomenon. That is to say, no single theory or particular scientific analytic tool suffices for a holistic account of it. As it has already become obvious in the previous sections, our approach in this narrow scope research is mostly sociolinguistic, since we take into account extra-linguistic factors that make up the context of communication. In that sense, examining the correlation of code-switching and the use of register is essential.

To begin with, register is defined as *the specific lexical and grammatical choices as made by speakers depending on the situational context, the participants of a conversation and the function of the language in the discourse* (Halliday, 1989). More specifically, register actually is the result of the *functional variation* of language, i.e., the differentiations in the type of language and the way the speaker uses it, according to context. Context is a rather broad term, that usually encompasses: situation (event, activity), social setting (occasion, location, people), channel / medium (written or spoken language), interlocutors (profiles, relationship, statuses, hierarchical relations), norms of interaction (politeness, spontaneity), content and goal of the discourse / conversation etc. (Halliday, 1994).

Following Halliday's theory, by 'type and use of language', we refer to the choice and manipulation of words, grammatical properties, meanings, pragmatic features, language mode / genre and even phonological features and intonation is some cases, employed by the speaker in a certain context for reasons that have to do with the context itself. Thus, we can imagine that each linguistic feature is chosen based on one of the factors of the context and at the same time it contributes to the construction of the

context. Register, both depends on the context and constitutes a means for speakers to contextualize their interaction.

Based on the aforementioned theoretical claims, one would reasonably expect that many kinds of registers actually exist and can potentially arise. Halliday distinguishes two broad categories of registers: *closed registers*, including all special, constrained and 'fixed' uses of language for specific purposes and *open registers*, including the uses of language in non-constrained, informal, spontaneous discourse. In the same spirit, Quirk et. al. (1989), conceptualize a continuum of formal and informal registers, with *very formal* and *very informal* varieties existing on its edges, and *formal, neuter* and *informal* varieties in between. In our research, in order to facilitate our subjects, who are not familiar with this theoretical background and for the purpose of simplification, as this is a rather narrow-scope work, we only distinguished between *formal* and *informal* register.

We take *formal register* to be the use of written or spoken language in the context of 'standardized' types of discourse and interactions in formal public settings and events. Namely, among interlocutors with no friendly or intimate relationship, possibly with authority figures, such as teachers and hierarchically superior officers (since our subjects study at the military school of medicine), and also with co-workers, strangers, university staff etc. Formal register is employed in formal interactions, official documents and e-mails for purposes of rigorousness and politeness. Finally, we could consider technical register, 'science slang' as a type of formal register used among classmates, co-workers, teachers and doctors in the university or hospital where they practice. Taking all these into consideration, we predicted that our bilingual speakers would not code-switch a great deal when employing formal registers and our results confirmed that initial assumption (see the graphs depicting the results below).

Contrastively, *informal register* is the type of linguistic behavior that emerges in informal contexts of communication, among friends, peers, co-workers or classmates, family members, i.e., among people who have many things in common and share close, friendly or intimate relations. It is used either during face-to-face interaction or in texting. It is usually preferred during casual conversation in informal social activities and events (hanging out, group gatherings and activities, parties, meetings of friends in

or outside the campus, extra-curricular activities) or quick texting. Most common instances of informal register are the youth slang and the language used in humor. We hypothesized that the subjects of our research would code-switch a lot when using informal linguistic register and that was what we found (see the graphs depicting the results below).

Before we present our data, we think that it is important to mention that both social situations and language are complicated and multidimensional phenomena that are context-dependent and get interrelated with many factors. This means that linguistic and social practices and behaviors are not concrete delineated entities that can easily be distinguished and isolated, as ideal as that might be. So, most of the time the reality actually is mixed settings and registers. Context is much fluid; it cannot always be confined and it is ever-changing. Thus, a register may exhibit both formal and informal properties. Linguistic style can fluctuate from formal to informal within the same communicative episode. As much as we are aware of this, our research questions are simplified to suit the purposes of this project. A more detailed qualitative analysis would be needed in order to capture more complicated phenomena, but this goes beyond the scope of our research.

Having said that, we move on to present our findings. We formulated our question in the questionnaire used to collect our data as following:

"Now think about which register you usually use when you are code-switching. Check the most suitable answer".

We then presented our subjects with three possible options:

1) "I code-switch mostly in informal situations (when using informal register)."

2) "I code-switch mostly in formal situations (when using formal register)."

3) "I code-switch equally in formal and informal situations."

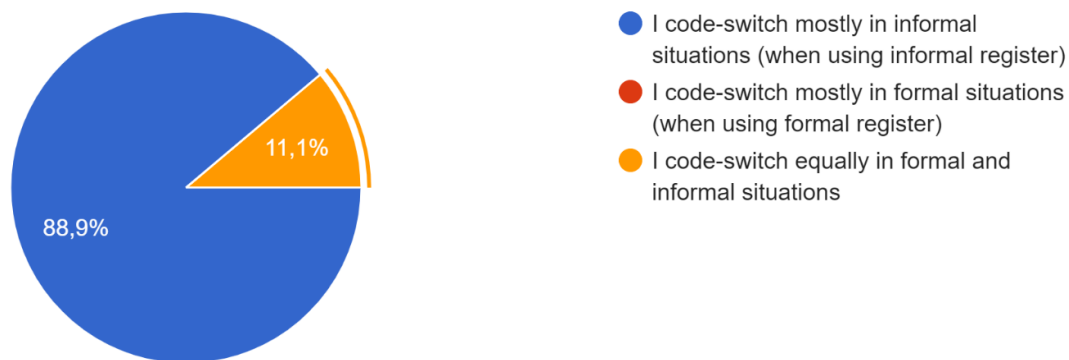The results are presented in the figure below:

**Fig. 6:** The use of formal and informal register in the code-switching habits of a group of 9 Jordanian, Arabic-Greek bilinguals studying in Greece.

As shown, 8 out of 9 Arabic (L1) – Greek (L2) bilinguals (88,9 %) stated that they code-switch mostly when using informal register and only one bilingual speaker (11,1%) considers that he code-switches equally both in formal and informal register. None of our subjects code-switches mostly in formal register. This finding confirms our initial assumptions and despite the small sample of speakers participating in our research we believe that it is indicative of the general patterns and tendencies of the code-switching practices of bilinguals, since it is also in line with other researches.

## 5. Code-switching: reasons and motivations

In this section we examine the reasons and motivations behind the code-switching practices of our group of Arabic-Greek bilingual speakers, according to the speakers themselves. A great body of sociolinguistic research has shown that, contrary to common misbelief, code-switching is not a random, disorderly mixing of languages that emerges due to linguistic inability, i.e., impoverished or underdeveloped linguistic competence. Misconceptions about bilingualism, multilingualism and language-mixing phenomena "threatening the perceived purity of languages" are not scientific, but rather harmful ideologies.

In fact, code-switching is systematic, context-dependent (as we have already shown in the previous sections) and now it will be shown that it is also *goal-oriented*. This means

that it is greatly motivated by the content and the goal of discourse or interactive communicative episode. First, we describe and explain the possible reasons that motivate code-switching, mainly based on the observations of Kim (2006). Then we present our findings.

We included the following question in our questionnaire:
"Now consider why you code-switch. Check all the boxes that apply to you."

Then we gave 10 possible reasons:

1) "I code-switch because it is convenient."

2) "I code-switch because some phrases sound better in my L2 than in my L1."

3) "I code-switch for lack of certain phrases/ words in my L1."

4) "I code-switch to show my belonging to a certain group."

5) "I code-switch to better my efficiency in my L2."

6) "I code-switch as a compensation strategy when I forget a phrase I want to use in my L1."

7) "I code-switch to make my statements more clear and precise."

8) "I code-switch to sound more convincing."

9) "I code-switch because all of my peers also code-switch."

10) "I code-switch to impress people."

"I code-switch because it is convenient.":
Under this statement we subsume all the cases in which bilinguals switch because they consider it to be easier or because they may be too tired to search for the right words in their L2. Namely, in casual speech where no rules and norms are followed, and especially in cases when they know that their interlocutors understand the language in which they switch, they prefer not to spend much more cognitive resources trying to find the equivalent words or phrases in the other language. This is a 'cognitive – psychological' reason.

"I code-switch because some phrases sound better in my L2 / L1 than in my L1 / L2."
- "I code-switch as a compensation strategy when I forget a phrase I want to use in my L1 / L2.":

In our view these reasons should be examined together as they both have to do with bilingualism and linguistic competence. To be more precise, speakers identifying with these statements are probably dominant bilinguals, who have better command of one of the two languages, or at least better command of different registers in each language. In the group of people we examine, for example, code-switching would be natural and certainly preferrable when the topic of their conversation is related to academic content (medicine, their classes, the university, studying etc.) or to experiences and activities that particularly have to do with their lives in Greece. For instance, it is actually expected that their 'medicine slang' should be mostly greek, since they learned certain concepts through the acquisition of greek scientific terms. They most probably switch in greek to refer to, explain and elaborate on scientific concepts and terminology.

"I code-switch for lack of certain phrases/ words in my L1 / L2.":

Linguistic research has shown that all languages are equal and valuable and may be rather similar with respect to their formal features, but they are far from identical. Cross-linguistic variation arises for many reasons, but mostly because it mirrors cross-cultural variation. By this reasoning, bilingual speakers of two languages that are both typologically distant and are influenced by cultures that are much different, are expected to have many 'unique' terms in their linguistic repertoire. By 'unique' we refer to words or even concepts in one of the languages the bilingual knows (L1 / L2) that have no semantic equivalent in the other one (L2 / L1) in general, or at least the speaker has no knowledge of it.

"I code-switch to make my statements more clear and precise." - "I code-switch to sound more convincing.":

These reasons are related to the speakers' will to cooperate with his/her interlocutors and reach the optimal communicative effect. Bilinguals, having taken into consideration the profile of their interlocutors and their shared background and linguistic knowledge, tend to code-switch when they think it is best for the optimization of the interactional outcome. They code-switch to elaborate on a topic, correct or alter the content of discourse, give more information and details, provide more specified cues

to the listeners and make more fine-grained distinctions in order to establish better shared understanding and optimal quality of communication.

"I code-switch to show my belonging to a certain group." – "I code-switch because all of my peers also code-switch.":

We consider these two statements to be reasons that have to do with the construction and performance of identity. Informal register involving code-switching may constitute in a way the group's particular mixed code that highlights their common ethnic, cultural and linguistic background and their shared experiences, values and traditions as a group of compatriot abroad students with the same mother tongue (L1: Jordanian Arabic) and the same acquired second / foreign language (L2: Greek). Their special code and practices of communication enhance their group identity, solidarity and sense of belonging.

"I code-switch to better my efficiency in my L2.":

This reason concerns the informal practices of *immersion* employed by speakers of foreign languages. Indeed, code-switching when performed consciously and on purpose may be an indication of the speaker's motivation to practice and better his/ her L2 knowledge.

"I code-switch to impress people.":

There is a portion of bilingual speakers that code-switch in order to captivate the attention of their interlocutors or listeners and arouse their interest by provoking them to focus on a certain concept, mark a specific information as important and distinguish it from other information. Often code-switching bears pragmatic value, as it may emerge in the performance of speech acts or be used as a source of humor among bilinguals.

In the graph below, we present in detail our findings with respect to the reasons and motivations for the code-switching of bilinguals.
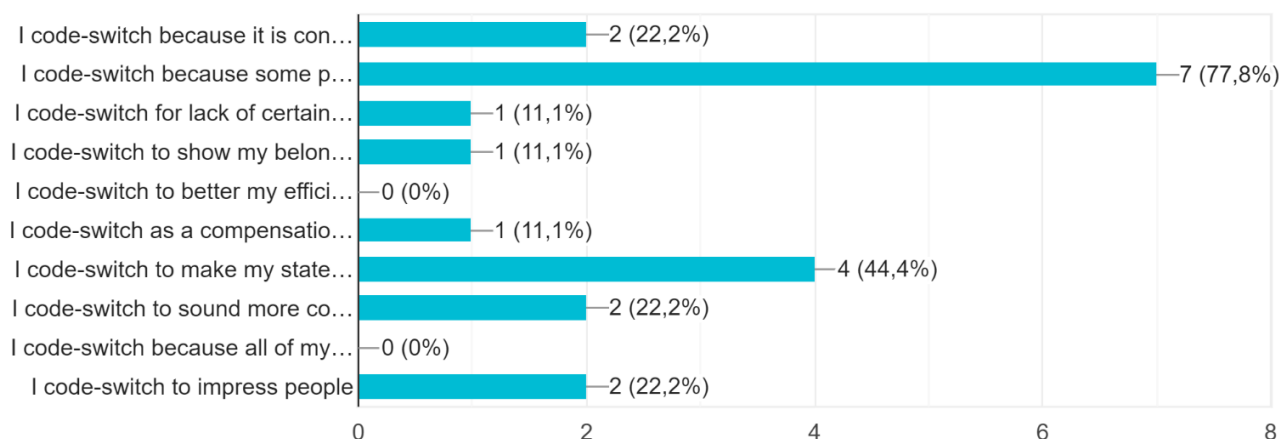
Fig. 6: Reasons and motivations behind the code-switching of a group of 9 Arabic-
Greek bilinguals studying in Greece.

Most of the participants, 7 out of 9 (77,8 %) claimed that they code-switch because some phrases sound better in their L1 than their L2. Nearly half of the participants, 4 out of 9 (44,4 %), believe that they code-switch for reasons of clarity and precision. Thus, it seems that they consider that their code-switching has to do mostly with the way linguistic choices contribute to efficient communication. A smaller portion of speakers, 2 out of 9 (22,2%), code-switch for reasons of convenience. Only 2 out of 9 participants (22,2%) declared that they code-switch in order to sound more convincing and again the same percentage code-switches to impress. Only 1 out of 9 subjects thinks that he code-switches because one of his languages sometimes lacks the appropriate vocabulary. Again, 1 out of 9 bilinguals claims that he draws a sense of belonging from his code-switching practices. Only 1 person code-switches when at a loss for words in one of his languages. Interestingly, none of our subjects code-switch in order to practice their linguistic competence and nobody in the group believes that he code-switches because he is influenced by the practices of their peers.

## 6. Conclusion: discussion of the results

Code-switching is a linguistic phenomenon that has been studied through various scientific perspectives: formal linguistics, psycholinguistics, sociolinguistics, language acquisition, linguistic anthropology, sociology of language, conversation analysis, ethnography of communication etc. Before linguists had a chance to look closely into

code-switching, it was considered by many people as an abnormal, random mixing of languages, an unwanted negative side-effect of the knowledge of more than one language. Ever since this myth was debunked by scientific observations, many interesting aspects of code-switching are being examined.

Our narrow-scope research was actually a brief survey of the linguistic habits of a group of 9 Arabic (L1) – Greek (L2), L1-dominant bilingual speakers with similar profiles and backgrounds, students who are scholars of the military School of Medicine of the Aristotle University of Thessaloniki. For our survey we distributed a questionnaire from which we attained some basic information concerning the profiles of our participants and their code-switching habits. More specifically, we designed four main questions through which we examined four main aspects of code-switching, i.e., situations where code-switching occurs, the type of interlocutors with whom one code-switches, the type of linguistic register in which people code-switch and the reasons and motivations behind this phenomenon.

*We found that most participants code-switch either consciously or unconsciously, in real time face-to-face communication, mostly in relaxed environments, with interlocutors that are their friends, while using informal register and that they mostly do so for purposes of linguistic and communicative efficiency.* Despite our sample being rather limited for the purposes of this brief essay, we hope that we have made a point and we believe that our results may be, up to a point, indicative of the function of code-switching and the way that it is dependent on context and extra-linguistic factors. Of course, further, more detailed research, involving a closer look into samples of speech of code-switchers could provide a more interesting insight into both linguistic and non-linguistic aspects of code-switching.

Finally, we would like to underline the fact that bilingualism, multilingualism and linguistic phenomena such as code-switching exhibited by non-monolingual populations are basically the norm in the modern multicultural global society, characterized by hybridity and diversity in every domain. In that sense, it seems better that we embrace such phenomena, consider them characteristic of our era and try to benefit from their scientific observation. For instance, research has shown that code-switching practices can be employed in education, with very positive results. As already

mentioned, more research into code-switching will shed more light into more of its various aspects.

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