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Code-switching and language change in Tunisia

LOTFI SAYAHI

Abstract

This article quantitatively studies the patterns of Tunisian Arabic/French code-switching and the possible implications for contact-induced change in the Tunisian dialect. The purpose is to account for the extent of the occurrence of code-switching across gender lines and levels of education and assess its role in the interference from French into Arabic, both at the lexical and structural levels. Recorded semi-directed sociolinguistic interviews with twelve speakers are examined for type and frequency of code-switching and use of French borrowings.

Results show that education plays a role in distinguishing the group with a higher education from the group with only a high school education. The university-educated group shows a much higher frequency of code-switching that reflects a higher degree of competence in the French language. Gender, on the other hand, does not seem to be a factor in determining the frequency of code-switching. The article also shows that contact between the two languages has led to intensive lexical transfer from French into Tunisian Arabic and some instances of structural imposition that include phonological and morpho-syntactic features.

Keywords: code-switching; language contact; language change; Tunisian Arabic.

1. Introduction

Several studies have addressed the occurrence of code-switching between the Arabic dialects and French in the Maghreb region (Bentahila and Davies 1983, 1995; Nait M'Barek and Sankoff 1988; Heath 1989; Belazi 1992; Belazi et al. 1994; Boumens and Caubet 2000; Davies and Bentahila 2008). By and large, there is agreement that the relatively recent colonial history of North Africa,

the spread of education since Independence, and, as a result, the continuing presence of French in Tunisia, Algeria, and Morocco have contributed to considerable competence in French that has allowed colloquial Arabic and French to coexist in several domains and, inevitably, often end up being used in the same conversation. The majority of the studies, however, have focused on code-switching as a self-contained and transient phenomenon by limiting the analysis to its structural features, discursive functions and the speakers' attitudes towards it. Little attention has been paid to the implications of code-switching to the languages in contact within the North African context and much less in the case of Tunisia.

It has been shown in several studies with other pairs of languages that code-switching is the initial stage for contact-induced language change (Myers-Scotton 1992; Thomason 2001; Winford 2003). Bilingual conversations generate direct contact between the languages involved as speakers negotiate the juxtaposition of both grammatical systems which, in cases where frequent patterns of switching are established, can lead to imposition or to the acceleration of a change that is already in progress. Code-switching is also an indicator of the degree of bilingualism that exists within a certain community and, by extension, the degree of access speakers have to the source language. Frequent code-switching and more complex occurrences of the intra-sentential type allow for interference that may go beyond lexical borrowing and into the structural level. Thomason (2001) identifies three main mechanisms for contact-induced change: code-switching, code-alternation, and familiarity with the source language. While the three mechanisms are closely interrelated, code-switching seems to be the one to offer the greatest opportunity to intensify the contact and accelerate the change. In this same line, Myers-Scotton (2002) considers code-switching to be both a mechanism and an outcome of language contact. She argues that borrowing and code-switching differ in predictability as loanwords tend to be established and used by monolingual speakers while code-switching depends on several contextual factors to take place (Myers-Scotton 2002: 41).

In a special issue of *The International Journal of Bilingualism* that addressed the relationship between code-switching and structural change, Backus (2005) proposes that code-switching plays a role in structural borrowing both as a mechanism and a process of change. He states that "CS and structural borrowing must be instantiations of the same process: they constitute different aspects of language change" (Backus 2005: 315). In addition, he argues that code-switching studies can contribute to the understanding of the propagation of language change in general "if codeswitching data are conceptualized as involving the selection of 'new' forms that find themselves in ongoing competition with 'old' equivalents" (Bakus 2005: 316). In this sense, different social groups within Tunisian society vary in their production of code-switching, or

what could be considered the “new forms”, and could be initiating contact-induced change that together, with internal changes and dialect contact, is shaping Tunisian Arabic in the 21st century.

Research into code-switching as facilitator of contact-induced language change in North Africa in general is scarce. The major contribution in this direction was made by Heath (1989) who, in his book *From code-switching to borrowing*, describes the features of code-switching in Morocco and the processes of lexical and structural borrowing that accompany it. His findings show that code-switching is in fact “an avenue to borrowing” (1989: 2) with a long list of lexical items entering Moroccan Arabic from French, Modern Standard Arabic (henceforward, MSA), Spanish and other languages. He lists some 1000 stems from European languages that are in use in Moroccan Arabic and argues that “in going from such a structurally different language as Fr to MCA [Moroccan Arabic], it is likely that getting the foot in the door is the major problem; once a particular borrowed form can occur in what looks like a fairly good MCA shape, generation of further MCA inflectional and derivational forms is relatively unproblematic” (Heath 1989: 35).

In Sayahi (2007), it was argued that code-switching between Tunisian Arabic and French, on the one hand, and northern Moroccan Arabic and Spanish, on the other, has led to intensive lexical borrowing in these two dialects, while the Standard Arabic variety has remained more resistant to foreign adaptations. In her study of the phonology and morphology of colloquial Arabic, Watson (2002) also noted that Egyptian Arabic is showing changes in nominal morphology with increase in the use of concatenative morphology in addition to the more common root-and-pattern morphology “due in large measure to extended contact with other languages and cultures” (Watson 2002: 11). Overall, the data regarding structural contact-induced change in the Arabic dialects remains limited as opposed to lexical borrowing. This is not surprising given that, in contact situations, it is expected that lexical borrowing occurs first and then it may mediate structural interference depending on the intensity of the contact (Thomason and Kaufman 1988).

In this article, I will analyze a set of semi-directed sociolinguistic interviews with Tunisian speakers in order to examine the patterns of code-switching in this particular context, determine the social factors that condition its occurrence, and identify cases of change that could be attributable to this contact.

2. Tunisian Arabic/French code-switching: an overview

A few studies have analyzed code-switching between Tunisian Arabic and French with the primary focus usually put on its overall presence, its categorization as a separate code of communication, and the attitude of the speakers

towards its usage. Riahi (1970), Ounali (1983) and Jamoussi (1985) carried out studies in the 1970s and 1980s that investigated the extent of the presence of code-switching. They all confirmed its extensive use among the educated populations they studied as a result of school bilingualism. There is somewhat a negative perception within this early literature on code-switching in Tunisia dubbing it as “franco-arabe” or “mélange” (Baccouche 1994: 42), which insinuates a stable mixed variety as opposed to a dynamic linguistic phenomenon that is highly variable across speakers. Micaud (1983: 277) claims that “[b]esides the dialect, the most popular tongue of educated Tunisians has become the hybrid Franco-Arabic (FA) where the speaker uses alternately groups of French words that form correct grammatical constructions followed by an equally correct group of words in dialect, and vice-versa. It’s a convenient new ‘language’”. In turn, Baccouche (1994) argues that the presence of code-switching in independent Tunisia can be attributed to the following reasons, which include some of the early common misconceptions about code-switching in the literature in general:

A l’origine de ce mélange, le besoin de combler les lacunes du dialectal par le Français et la tendance de ‘tunisifier’ le français en l’émaillant de mots et expressions dialectaux. S’ajoute à cela, la ‘paresse’ du bilingue qui consiste à utiliser le premier signifiant qui se présente à sa mémoire quel qu’en soit le système de référence quand le receptr est également bilingue.

[The origin of this mixture is the need to fill the gaps in the dialect through French and the tendency to ‘tunisify’ French by interspersing it with words and expressions from the dialect. Added to this, the ‘laziness’ of the bilingual speaker to use the first word that comes to his memory regardless of the reference system when the receiver is also bilingual.]

(Baccouche 1994: 42)

In her study, Trabelsi (1991) argues that certain topics encourage more usage of French and code-switching, or what she calls “mélange linguistique”, among younger women in Tunisia as in the case of conversations containing taboo topics. She also observes more usage of borrowed items in this context: “mais même quand il ne s’agit pas de dire des mots obscènes la femme jeune préfère généralement, plus ou moins consciemment, dire directement en français ce qui n’est pas facile de dire directement en arabe” [But even when it is not to say obscene words, young women generally prefer, more or less consciously, to say directly in French what is not easy to say directly in Arabic] (Trabelsi 1991: 92). More favorable attitude towards code-switching by women has also been linked with a more favorable attitude towards the use of the standard variety of French in general. Dhaouadi (1996) claims that men and women do not usually articulate the French /ʁ/ in a similar manner, whether during episodes of code-switching or during monolingual French communication. This corre-

lates with another observation that women use more code-switching than men leading Dhaouadi (1996: 113) to even argue for the existence of “franco-arabe masculin et franco-arabe féminin”.

With regard to attitudes towards code-switching, Lawson and Sachdev, who published several papers on code-switching in Tunisia (Lawson-Sako and Sachdev 1996, 1997; Lawson and Sachdev 2000), analyzed attitudes towards code-switching by Tunisian bilinguals through a matched-guise experiment (Lawson and Sachdev 2000). Their major findings showed that code-switching was rated lower by Tunisian university students than French, Tunisian Arabic, Modern Standard Arabic, or English. Nevertheless, in their analysis of diaries kept by university students, they revealed that the most globally used linguistic variety is code-switching (42%) as opposed to Tunisian Arabic (38%) and French (5%). According to these authors, it appears that code-switching is the unmarked code in Tunisia. In another study, based on a collected corpus of 20 hours of natural conversations, Belazi (1992) also argues that code-switching and spontaneous borrowing, otherwise referred to as nonce-borrowing in the literature, are both frequent among Tunisian educated speakers. The reason for code-switching, according to Belazi (1992: 31), is because the speaker “simply is a bilingual who can draw on both languages he knows in order to convey his message”. He argues that code-switching does not serve to categorize the speakers ethnically, given that they overwhelmingly share the same ethnic and linguistic background, but that its role as a differentiating factor has to do more with the topic and competence in French. He refers to topic “as a regulator of code-switching”, with scientific topics, for example, requiring more code-switching given the speakers’ lack of access to scientific terms in any other language except French. As an example, Belazi (1992: 28) provides a list of technical terms collected during a conversation between speakers at a public institution in Tunis for which there are no equivalents available in Tunisian Arabic. In this one exchange, there were 1,935 words, 872 of which were in French. Belazi also signals the importance of the attitude of the speakers and their intention in signaling social status and establishing solidarity with their interlocutors as factors in the occurrence of code-switching in his corpus. On another level, Belazi (1992) and Belazi et al. (1994) contributed to an understanding of the syntactic structure of code-switching utterances by establishing the functional head constraint, which posited that code-switching cannot happen between a functional head and its complement, as one of the early syntactic-theoretical studies of code-switching (Toribio 2008).

3. Current study

The current study aims at identifying the patterns of Tunisian Arabic/French code-switching among educated Tunisians, quantifying them, and gauging the

possible implications for language change. To my knowledge, with the exception of Belazi (1992), who lists the overall frequency of switching points in his data, no quantitative study has been published on Tunisian Arabic/French code-switching with recorded natural data. The purpose is, then, to find out what categories are switched more often and what that means for potential interference from French into Arabic at the lexical and structural levels. I will also analyze the role of the level of competence in French, as it correlates with the level of education attained, in conditioning the occurrence of code-switching and the use of French loanwords. In addition, a comparison will be drawn between code-switching by educated males and educated females to confirm whether, as it has been argued before (Trabelsi 1991; Dhaouadi 1996), female speakers make more usage of code-switching and, as a consequence, may be pushing for more change to take place. Finally, cases of lexical and structural interference will be discussed to show that the intense contact between Arabic and French, as illustrated by the frequency of code-switching, is leading to instances of contact-induced change.

The data analyzed is extracted from a set of semi-directed sociolinguistic interviews centered principally on the interviewees' educational and professional experiences. In total, 12 interviews are selected from a larger corpus collected by the author over the last few years in Tunis. The age of the participants in the sample is between 20 and 42. There are 3 groups: 4 males with a secondary education only, 4 males with a higher education, and 4 females with a higher education. Each interview lasts between 45 and 60 minutes, although for the current paper only 15 minutes per speaker were analyzed making up a total of 3 hours. All instances of code-switching and borrowings were codified according to their syntactic category. Code-switched instances are considered to be those that maintain their French structure while borrowed items are those that clearly have been adapted at some level into Tunisian Arabic. As will be argued below, several factors, especially the fact that Tunisian Arabic is not standardized or satisfactorily described, make the additional distinction between borrowings and nonce-borrowings less productive in this context and, as a result, it has not been applied.

4. Features of Tunisian Arabic/French code-switching

4.1. Attitude and awareness

In the literature, bilingual speakers vary in their perception of code-switching from a highly stigmatized behavior to a crucial identity marker, depending on the symbolic and instrumental value that each of the languages holds. The informants in this study exhibit varying positions regarding their competence in

French, the use and need of French within the Tunisian context, and Tunisian Arabic/French code-switching. Speakers who did not pursue a higher education claim a lower level of French and even argue that the transition from an Arabized elementary education to a largely francophone secondary education was a turning point to the worse in their educational trajectory. Asked about why they think they did not do well in mathematics, the subject that better exemplifies the abrupt switch from Arabic to French as students start their secondary education, the informants who did not go on to pursue a higher education claimed that the change from Arabic to French was the determining factor in their falling behind in mathematics as put by the one of the speakers (1). Parts that are switched to French are underlined both in the original and in the translation.

- (1) *l-math ke:n min l-hse:b bi-l-ṣarbi kunt fih t'ayya:ra, waqit tbadil li-l-français wu ze:t l-A wu l-B wu l-C wu l-wε:hid, première année secondaire, waqtha ça y est.*
 ‘Math changed from math [in Arabic], I was excellent, to French and there came A, B, and C and stuff, the first year of high school. At that time it was all finished for me.’

Another informant argued that his teachers expected him to use French and English but he felt he did not have the support to develop them in a more systematic way. Not having competence in French stood in the way of this particular student being able to graduate high school:

- (2) *itnazim itqu:l wu a-xat'ir hatta l-uste:δ ili beṣ iqarri:k ma ifahmikiṣ l-lu:ya bi-l-gde. Français wu anglais yahki imṣa:k. hatta tis?ilu su?e:l bi-l-ṣarbi iqulik 'ya xu:ya is?ilni bi-l-anglais wa illa is?ilni bi l-français'". ε:na ma naṣrifif qulli inti kife:h nis?ilik tawwa nis?ilik.*
 ‘You can also say that it is because even the teacher who is supposed to teach you doesn’t really explain the language well to you. He talks to you in French and in English. Even if you ask him a question in Arabic he tells you “you have to ask me in English or in French”. But I don’t know, tell me how to ask and I will.’

Overall, speakers appear to possess varying degrees of proficiency in French that depend highly on whether they pursued a higher education or not and whether it was entirely in French as in the case of students of medicine or economics, included classes in Arabic as in the case of law students, or was predominantly in Arabic as in the case of students in humanities and social sciences. The difference seems also to start to become clear from earlier on when high school students decide on the tracks to follow. Interestingly, those who pursue the humanities track tend to have a lower competence in French than those who choose economics, math or the natural sciences for the simple

reason that in humanities French is only taught as a subject and not used as a vehicle of instruction. Competence in French is, hence, a valid indicator of educational background and socioeconomic status in the country. More competence in French points towards a higher level of education with a more likely background in science, engineering, economics or similar disciplines taught exclusively in French. This has led to conflicting positions regarding self-reported competence in French and also the speakers' impressions regarding the use they make of the French language that is not always accurate. As an example, the speaker quoted in (3) denies his usage of French, probably motivated by his perceived incomplete proficiency in the language, but, contradictorily, his very statement claiming the lack of use of French contains several instances of code-switching to this language.

- (3) *le: le: . Jamais istaʕmiltu l-Français. D'ailleurs ʕumru: ma ke:n fi-l-luya imte:ʕi: maʕnitha ma nitkelmu:f systematiquement.*
 'No, no. I never used French. In fact, it was never part of my speech. I mean I don't use it systematically.'

A contrasting attitude is that of speakers who see the need for French as insurmountable at the present moment, especially in fields related to science and technology, both given the francophone education imposed in science teaching in Tunisia and the efforts that they see as needed to translate scientific materials. In quote (4), one speaker who was asked whether he could do the same job and prepare the documents he needed in Arabic said that he could, but that several of the software programs he uses are in French because those who write the programs do not have the choice to do otherwise.

- (4) *innazim niktib bi-l-ʕarbi. tawwa hu:ma déjà me:ʕi:n fi ittiʕe:h be:f iʕarrbu: kulʕay ε:ma hu:ma aʕle:f yaʕimlu:ha bi-s-su:ri miʕixtiya:r. ʕala: xa:tʕir l-mihna tufriðʕ ʕli:h l'instrument, be:f yaʕmil logiciel bi-s-su:ri, fhimitni:? yaʕni: illi: be:f yexdim l-logiciel ma inazimif yexidmu: bi-l-ʕarbi, fhimit?*
 'I can write in Arabic. In fact, they are going in the direction of Arabizing everything now. But the reason why they use French is that they don't have a choice because the job imposes the instrument, to have a software in French, you understand me? It means the one who will write the software cannot do it in Arabic, do you understand?'

Another speaker seemed more skeptical about the whole Arabization process giving an argument that has often been used in favor of francophone policies. He argued that, given that the transfer of science and technology in itself takes time, trying to Arabize first will add to the burden of the educational system.

- (5) *ɛf'ku:n yaʕmil fi-l-iktifɛfɛ:t wu yaʕmil fi-l-waħda? ɛf'ku:n yaʕmil fi: hum? aħna naʕmlu: fi: hum? ma:w l-fransis wu-l-angli:z wu-l-amerike:n. aħna naʕmlu: fi-l-iktifɛfɛ:t? bɛ:f yaʕt'i:k l-lu:ya barra inti ʕarrabha wu lawwizha . C'est pas évident.*

'Who is making the discoveries and things? Who is making them? Is it us who is making them? It's the French, the English, and the Americans. We are the ones making the discoveries? They give you the language so try to Arabize it and figure it out. Not obvious at all.'

To sum up, speakers are aware that their competence in French is not equal to their competence in Tunisian Arabic but they are also aware that certain fields, principally those taught in French, require the use of the French language. In fact, the speakers' self reported competence in French and their impression of how much French they use at work is shaped by their educational experience. It has also to be pointed out that the possible contradictions between self-reported usage and actual usage of the French language, and code-switching for that matter, are highly conditioned by the speakers' personal histories and even ideological stands. Previous generations of Tunisians who received a francophone education had more competence in the language while competence among today's speakers varies more, even within the same age group. On the other hand, competence in French is more spread out now than it used to be in the past, when education was limited to a small elite. As Tunisians become more educated and Arabization advances, there could be less elite balanced bilingualism and more wide-spread varying competence in French, which shapes the type of code-switching that takes place as will be now discussed. The spread of French, albeit with varying levels of proficiency, directly affects the occurrences of code-switching.

4.2. *Inter-sentential code-switching*

In total, there were 1,721 instances of code-switching in the current three-hour sample. This is high if compared, for example, to the pioneering study of Poplack (1980) in New York City, where she identified 1,835 cases in 66 hours of conversation, or the study of Belazi (1992) in Tunisia, where he identified a total of 1,360 instances of code-switching in 20 hours of recording. The difference resides primarily in the high number of single noun switches in the current corpus, as opposed to larger chunks of code-switched utterances in Poplack's data where only 9.5% of the data were single nouns. Belazi does not provide the frequency of each syntactic category as he offers the frequencies according to the type of syntactic boundaries (Belazi 1992: 131). But, Belazi's study being from about 20 years ago, his participants and those in the current study

Table 1. Frequency and types of code-switching

Type of switch	Absolute frequency	%
Inter-sentential CS	91	5.28
Main Clauses	32	1.85
Subordinate Clauses	30	1.74
Single Nouns (singular)	680	39.51
Single Nouns (plural)	27	1.56
Noun Phrases (singular)	223	12.95
Noun Phrases (Plural)	159	9.23
Derived Adverbs	35	2.03
Underived Adverbs	139	8.07
Verbs and Verb Phrases	22	1.27
Adjectives and Adjective Phrases	65	3.77
Prepositions and Preposition Phrases	40	2.32
Conjunctions	51	2.96
Interjections	26	1.51
Numbers	96	5.57
CS from French > Arabic	5	0.29

went through different school programs with a decreasing presence of French as a vehicle of instruction in elementary and secondary education which could explain the difference in the patterns of code-switching between both groups.

As shown in Table 1, single noun switches, both in the singular and the plural forms, represent a total of 41.07% of all instances of code-switching. As a matter of fact, the number of code-switches at the sentence level represents a mere 5.28% (91 of 1,721). Switches at the clause level were not frequent either, with 32 switches at the main clause level and 30 at the subordinate level, a total of 3.59% of all switches. As a result, switches that contained a conjugated verb are extremely infrequent and, in their majority, produced by the university-educated participants. But even among those informants with a higher education, the syntactic complexity of the code-switched utterances is limited. Many of these sentences included either the verb *être* 'to be' as part of an impersonal constructions such as: *c'est trop* 'it's too much', *c'est impossible* 'it's impossible', *c'est vrai* 'it's true', etc., in addition to two highly-frequent constructions: *ça va* 'all right, OK' and *ça y est* 'that's it'. The two latter constructions are on their way of becoming established borrowings in the form of frozen expressions, as in the case of *il y est*, which is the only form used even by monolingual speakers to indicate the scoring of a goal in a soccer game. Furthermore, other inter-sentential switches included a few simple sentences, most often in the present tense: *Je (ne) crois pas* 'I don't think so', *tu (ne) peux pas* 'you can't', *tu es obligé* 'you have to', etc. Some of these code-switches could be interpreted as a separate class which, following Poplack's definition (1980: 605), include "interjections, fillers, tags, and idiomatic expressions".

An argument could be made that the informal nature of the interviews allowed for less usage of French sentences but given that the focus was on education and work, usually the two topics that trigger more code-switching, and the fact that occurrences of code-switching are abundant, it seems logical to assume that the overwhelming type of code-switching in the Tunisian context is at the intra-sentential level. This was also the case in Belazi's data as he found that only 13.8% (189/1,360) of the instances of code-switching were at the inter-sentential level (1992: 131).

The other important result is the fact that code-switching in this corpus of semi-informal conversations flows overwhelmingly in one direction: Arabic is almost exclusively the base language. Although this might appear surprising at first look, what it really indicates is the unsurprising fact that Tunisians are Arabic-dominant speakers, and as was the case in Poplack's study, L1 dominant bilingual speakers almost always use their L1 as the base language. Poplack (1980: 605) wrote that "it is striking that the Spanish-dominant speakers switch almost uniquely into English from an unambiguously Spanish base". Naït M'Barek and Sankoff (1988: 148) also found that code-switching at the noun phrase level was in the majority of the cases from Arabic into French. Given that the majority of the switches in the current corpus are at that level, it is not surprising to find very limited switching to Arabic from a French base. Topic and degree of formality might increase the usage of French in some circumstances but, as shown here, in informal conversations, Tunisian Arabic is the dominant language and code-switching into French reflects this fact. As a result, the analysis of code-switching in this context opens a window into the bilingual competence of Tunisian speakers showing that passive knowledge is characteristic of those with lower educational background (non-fluent bilinguals) while Arabic dominant bilingualism coupled with lack of actual usage of French is the case of more competent speakers. It may also be that, given the younger age of the informants, the policies of Arabization both in the educational and administrative levels are starting to have an effect on competence in French and its usage in Tunisia. If we consider the type of code-switching in evaluating the level of competence in the two languages in contact, the participants in this study would unequivocally be defined as Arabic-dominant with varying competence in French as proposed above.

4.3. *Intra-sentential code-switching*

The most frequently switched categories are single nouns and noun phrases, together they represent 1,089 tokens or 63.27% of all code-switching occurrences. Single nouns are the most frequent category (680 tokens) followed by noun phrases in the singular form (223 tokens). While the number of occurrences of

single bare nouns is almost triple the number of occurrences of single noun phrases, the opposite is the case for the plural: there are only 27 cases of bare plural nouns and 159 cases of plural noun phrases switched. Code-switching of plural noun phrases is usually triggered by the usage of French determiners, unlike what happens with singular nouns that are frequently preceded by the invariable Arabic definite article *l-* (6a) or no determiner at all since there is no indefinite marker in Tunisian Arabic. The definite article is not used with the plural without inflecting the nouns to express number given that in many cases plurality is not expressed phonologically in French and using the invariable Arabic article with an invariable French noun can lead to ambiguity with regard to number. When using a French noun in its plural form, speakers usually switch the accompanying determiner (6b) or adapt the French noun to the plural form in Arabic (6c). Naït M'Barek and Sankoff (1988) found that the most frequently switched category is noun phrases and almost always the switch is from Arabic to French as well (210/212). Nevertheless, in their data, single nouns constitute only 9% of all switched noun phrases. The difference may lay in the fact that their participants were all university students pursuing degrees in Montreal and, hence, had more competence in French than the participants in the current study and made more use of the language on a regular basis.

- (6) a. *l-prof*
 'The teacher'
 b. *Les profs*
 'The teachers'
 c. *l-profɛ:t*
 'The teachers'

The diglossic situation and school bilingualism allow for more code-switching at the nominal level because speakers may find it difficult to discuss work or studies unless they resort to code-switching to French to express technical items that are not readily available in Tunisian Arabic. Possible equivalent terms in MSA may be inadequate for the type of domain where the conversation is taking place, as in example (7) below. This is particularly true in the case of school subjects, grades, and administration. Some of these are already established borrowings as in the case of *sixième* (a national exam that marks the end of elementary schooling) or *Bac* (*Baccalauréat* or the national exam for access to college), *maîtrise* (equivalent of a BA), etc. One particular case includes the differentiation between the words used for mathematics: *l-ħse:b* was used to refer to mathematics in Arabic at elementary schools, the French word *math* was used to refer to mathematics at the secondary and higher education levels, while *riya:ð'iya:t*, the MSA term, did not appear at all in the sample or the entire corpus.

- (7) a. *ʕamlu:nna formation, ʒe:bu:lna we:ħid ingénieur mte:ʕ informatique illi ʕmel l-logiciel ʕmellinna semaine de formation.*
 ‘We had some training. They brought a computer science engineer, who wrote the software, to conduct a training week for us.’
- b. *ki:ma chimie générale, reaction yaʕmillik aʕli:ha chapitre. aħna reaction he:k ithut^ʕ acide, ithut^ʕ reactif, talqa produit.*
 ‘Like in general chemistry, they do one chapter on a single reaction. For us, a reaction is you put an acid, you put a reagent and you find a product.’

In addition to single nouns and noun phrases, other code-switched categories with much less frequency included adverbs. There were 35 code-switched derived adverbs, among the most frequent we find *vraiment* ‘really’, *justement* ‘precisely’, *apparemment* ‘apparently’, *généralement* ‘generally’, *normalement* ‘normally’ and *facilement* ‘easily’, and 139 underived adverbs including *déjà* ‘already’, *enfin* ‘finally’, *en plus* ‘furthermore’, *quand même* ‘still’, *d’ailleurs* ‘besides’, *surtout* ‘especially’, *bien sûr* ‘of course’, among several others. There were also 65 cases of code-switched adjectives, with the adjective *normal*, in particular, as the most used one across all groups. Code-switching of verbs and verb phrases on their own is extremely rare and happened only in 22 cases or less than 1.5% of the data, with the verb usually in a non-finite form. There were 51 cases of code-switching at the level of conjunctions while the switching of prepositions and preposition phrases happened in 40 cases. Also interesting is the fact that numbers, quantities, measurements and dates are more frequently given in French (8). There were a total of 96 cases of code-switched numbers which was the reason why they were counted as a separate category.

- (8) a. *ye:xið deux tiers mte:ʕ l-aʒr mte:ʕu:*
 ‘He receives two thirds of his salary.’
- b. *ma daxlitif le premier octobre. daxlit ʒe:t baʕ id le vingt et un octobre*
 ‘She did not start on October first. She came later, on October twenty-first.’
- c. *l’article he:ða ʕandi: fi:h cent quarante et un mille cinq cents.*
 ‘Under this category, I have one hundred forty-one thousand five hundred.’

4.4. Social factors

As confirmed in the extensive literature on the subject, code-switching is a highly variable behavior both across speakers and within the speech of the

Table 2. *Frequency of code-switching by gender and level of education*

	Total number of code-switches	Intra-sentential CS	Clause CS	Bare nouns	NPs	Adverbs
Males with a secondary education only	334	13	6	184	54	25
Males with a university education	708	51	36	252	166	77
Female with a university education	679	27	20	271	162	72
Total	1721	91	62	707	382	174

same individual. However, unlike other situations of bilingualism, the Tunisian case, being principally a case of educational, and to a decreasing degree administrative, bilingualism opens a window into a different pattern of code-switching that differs significantly from other cases. Two social factors have been considered in the current study: education and gender. Other factors, including age and social class, did not vary significantly across this particular sample.

With regard to education, one would expect the frequency of inter-sentential code-switching to correlate positively with higher levels of education as the latter indicate more competence in the French language. Nevertheless, the analysis produced a very limited number of this type of code-switching that is usually associated with more balanced bilinguals. It is true that the majority of instances of inter-sentential code-switching were produced by the university-educated participants but the type of sentences switched, in the majority simple impersonal phrases, does not warrant a solid distinction between the speakers with a university-education from those with only a secondary education based on this criterion alone. The difference is, nevertheless, still visible at the overall frequency of code-switching. As Table 2 indicates, the four male participants with secondary education produced a total of 334 instances of code-switching while the four male participants with a university-education produced a total of 708. Furthermore, the university-educated informants produced more instances of code-switching of all categories than the informants without a university-education. It is important to reiterate here that topic was kept as constant as possible across all interviews by asking the participants first about their educational and professional experiences (their favorite subjects, the transition from elementary education to secondary and higher education and also their current jobs and the responsibilities they include). In sum, education seems to play a role in differentiating the participants not as much with regard to the degree of complexity of their code-switched utterances but rather in the overall frequency of code-switching. There are more frequent and more diver-

sified single-word code-switches by the university-educated participants who are also responsible for the majority of the few code-switches that are beyond the single word level. This is well-illustrated in the case of numbers: of all 96 cases where a French number was used in an otherwise Arabic structure, only 6 were produced by non-university educated participants.

Less code-switching by the high-school participants is explained by extensive Arabization of secondary education and their lack of access to French in a more intensive fashion at the higher education level. We have to be cautious, however, as although higher education has not seen the same extent of Arabization, several areas of study are in fact Arabized. Finally, with regard to education, although Belazi et al. (1994: 222) argued that “. . . fluent Tunisian Arabic-French bilinguals are more sensitive to grammatical constraints on switching than their nonfluent counterparts”, there are no instances in this dataset of less competent speakers engaging in ungrammatical code-switching, principally because the type of code-switching they mostly engage in is at the single noun level. This also confirms the widely accepted fact in the literature that instances of ungrammatical code-switching are anecdotal.

The second social variable that is considered in this study is gender. As described above, it has been argued in previous studies that female speakers tend to code-switch more often than male speakers, although quantitative comparative studies were not carried out in the Tunisian context. Table 2 shows that if we compare the 4 female higher-educated speakers with the 4 male higher-educated speakers, we observe very close rates: 708 cases by the male speakers and 679 cases by the female speakers. The difference appears in slightly higher rates of inter-sentential and clause-level code-switching in the case of the male speakers and slightly higher rates in the case of single noun switches by female speakers. While these findings do not seem to position gender as a determining factor in the frequency or patterns of code-switching in Tunisia, they indicate that the democratization of education in Tunisia has effectively evened out the educational terrain between the two genders. Previous studies that were carried out in the 1970s and 1980s might have found gender to be a factor given that, during that period, probably women who had access to education came from families that were better positioned socially and had more access to French to start with. Inclusion of female participants with only a secondary education could be useful in confirming the similarity in code-switching patterns between males and females in contemporary Tunisian society.

Finally it should be indicated that because code-switching is such a variable phenomenon and given the fact that in Tunisia we are dealing with school bilingualism, as opposed to wide-spread societal bilingualism, individual factors and the personal history of each individual play a central role in competence and attitude towards French, exposure to French media and use of French in informal conversation.

5. Contact-induced change

In this section, I present a series of features that show the effect that the presence of French in Tunisia has had on the local Arabic dialect. I examine lexical borrowing and some of the structural imposition that seem to be motivated, or at least accelerated, by contact with French.

Heavy code-switching at the nominal level, as confirmed through the quantitative analysis presented above, over a relatively extended period of contact between Arabic and French has led to extensive borrowing in the North African dialects. In fact, there exists the impression among non-North African Arabic speakers that difficulty to fully understand the Maghrebi dialects is due to the fact that they are “intertwined” with French. The effect of French is, of course, only part of the picture as the genesis of the Arabic dialects, the sustained diglossic situation, and contact between Arabic and many other languages, among other socio-historical factors, conditioned the divergence between the Maghrebi dialects and the Middle Eastern dialects long before French was introduced into North Africa.

That said, loanwords in Tunisian Arabic are abundant and borrowing from French is substantial (Baccouche 1994; Talmoudi 1986; Sayahi 2007). In the current sample, there were 268 instances where a loanword was used, including 236 nouns, 24 verbs, and 8 adjectives. Nominal borrowing included some common vocabulary items with different degrees of adaptation such as those in (9a). In addition, there is an expanding list of technical and specialized terms that do not have an equivalent in Tunisian Arabic, although they do have one in MSA but whose use is restricted to formal contexts given the diglossic situation. Within this group of technical words, the current corpus has several from the field of computer science where the vocabulary remains in its entirety French. These words show little adaptation into Arabic given the direct access speakers who use this type of vocabulary have to the source language (9b). Lack of lexical availability with regards to technical terminology seems to be playing a central role in borrowing from French and affects not only nouns but also specialized verbs such as those in (9c), which were all found in the current sample inflected according to Arabic morphology. Finally, French abbreviations are also borrowed in wholesale into Tunisian Arabic given their non-existence in this language. Abbreviations are used to refer to new concepts but also when referring to local institutions in which case they are used even by monolingual speakers (9d).

- (9) a. *place* > [bla:sa] ‘place’; *marque* > [ma:rka] ‘trademark’; *dessert* > [disɛ:r] ‘dessert’; *numéro* > [nu:mru] ‘number’; *cartable* > [kart’a:ba] ‘schoolbag’; *cassette* > [kase:t] ‘tape’; *trimester* > [trimi:sta] ‘trimester’; *passeport* > [paspor] ‘passport’; *client* > [klið] ‘client’.

- b. *fichier* ‘file’; *logiciel* ‘software’; *formatage* ‘formatting’; *mot de passe* ‘password’; *imprimante* ‘printer’; *flèche* ‘arrow’; *souris* ‘mouse’; *écran* ‘monitor’; *ordinateur* ‘computer’; *disc dur* ‘disc drive’; *CD* ‘CD’.
- c. *s’entraîner* > [tre:na] ‘to practice’; *s’énervé* > [tnerviz] ‘to get annoyed’; *régler* > [ri:gil] ‘to fix’; *imprimer* > [impri:ma] ‘to print’; *taper* > [ta:pa] ‘to type’; *sauvegarder* > [sovga:rda] ‘to save’; *rédigé* > [ridi:za] ‘to write up’.
- d. *OMS (Organisation mondiale de la santé)* ‘World Health Organization’; *STEG (Société tunisienne de l’électricité et du gaz)* ‘Tunisian Electricity and Gas Company’; *CNSS (Caisse Nationale de Sécurité Sociale)* ‘National Social Security Fund’; *CNAM (Caisse Nationale d’Assurance Maladie)* ‘National Health Insurance Fund’; *CAPES (Certificat d’Aptitude au Professorat de l’Enseignement Secondaire)* ‘Secondary Education Teacher Certification’).

I have adopted a rather conservative interpretation of lexical borrowing where only tokens that show a degree of adaptation into Arabic or those that do not have an equivalent in Tunisian Arabic were considered loanwords. I am aware that this approach leaves out a considerable amount of loanwords because, being faithful to their French phonological and morphological structure, they remain difficult to differentiate from single word code-switching that is particularly abundant in the current sample. But, deciding whether a word is a loanword or not is not a straightforward process in the case of Tunisian Arabic. Continued access to French allows for faithful French phonetic rendition of even the most established loanwords, the non-existence of a Tunisian Arabic dictionary impedes the use of this decisive tool that is available for researchers of other languages, and finally the judgment of monolingual speakers is not a valid criterion either given that some of the more specialized concepts are unfamiliar to the monolingual non-French speaker who tends to be an older illiterate speaker or one with very limited schooling. Another issue with regard to French loanwords in Tunisian Arabic is that, with increased access to French through universal education, some of the older loans were reanalyzed and are phonologically more faithful to their source language which makes the distinction harder to establish between cases of code-switching and cases of established borrowing. In some cases, not applying the French grammatical rules confirms the word as a loanword in spite of a French pronunciation as in the case of opposing gender assignment. In example (10), the speaker is referring to a female teacher but instead of describing her as *sérieuse* ‘serious (Fm)’, he used the masculine unmarked form of the adjective *sérieux*. Lack of agreement in this case and the redundancy typical of Arabic warrant the interpretation of *sérieux* in this example as a loanword.

- (10) *hēdi:ka waqitha itqarri: fi-l-Bac wu miʃ normal(e) maʕnitha sérieux sérieux lebsid l- hudu:d.*
 ‘She was teaching the senior year of high school at that time and she was not normal. I mean very serious.’

Variation in the degree of adaptation of established loanwords is indeed a valid sociolinguistic factor to measure degree of bilingualism and level of education within the Tunisian context. This is clearly reflected in the case of the French word *jupe* ‘skirt’ and its adaptation in Tunisian Arabic as [ʒi:b]. The choice of the speaker regarding which variant to use is determined by access to the French form in the first place, while use of the French form does not mean automatically a case of code-switching. The same is true for many other pairs such as *veste*/ [fi:sta] ‘jacket’, *valise*/ [feli:ʒa] ‘suitcase’, or even cases of non-adapted French words vs. non-French words such as *Français*/ [su:ri] ‘French’ and *ceinture*/ [sebtɑ] ‘belt’. In other cases, there is no Tunisian form and the MSA form sounds too artificial to be used in informal conversation such as in the case of *chargeur*/ [ʃa:hin] ‘cell phone charger’. Finally, in some cases, the adapted and non-adapted forms are used interchangeably by the same speakers, sometimes in the same sentence indicating that both forms are in competition as in (11) below. All these cases serve as examples of the idea mentioned by Backus and discussed above about code-switched items as being in competition with native or, in the case of (11), nativized forms. The large number of inserted single nouns in an otherwise Arabic structure points towards the existence of more borrowing than one can discern given the circumstances of Tunisian Arabic. Given the three problems defined above as standing in the way of identifying every single loanword, we can assume that exposure to the French language through education and different media continues to sustain the access that the increasingly more educated Tunisian society has to French, allowing for a continuing process of borrowing.

- (11) *tebda l-visit, naʕimlu: inne:s l-kul vizi:ta inʕa:wdu: marra uxra*
 ‘The visit starts. We all do a visit once again.’

Changes at the structural level, as expected, are more limited and depend on the intensity of the contact (Thomason and Kaufman 1988). At the phonological level, two sounds have entered the Tunisian dialect through loanwords: /p/ and /v/ (Sayahi 2007). These two sounds, non-existent in Arabic, are found in fully-inflected loanwords and in their derivations as well (12a). It is true, however, that illiterate speakers may still substitute them with the closest Arabic counterpart /b/ and /f/. Another process includes the increasing usage of the regular form of the plural with all loanwords. No matter whether it is spontaneous borrowing or established borrowing, the plural of French words when adapted into Tunisian Arabic is the regular feminine form (12b). While the regularization of

the plural is an internal process, the fact that all masculine loanwords do not follow any established patterns for broken plurals, but rather enlarge the pool of regular plural contributes to the acceleration of this regularization process.

- (12) a. *se dépanner* > [idipa:ni ru:hu:] ‘to get by’; *visa* > [ivayez] ‘to show off’.
 b. *joueurs* > [ʒuare:t] ‘soccer players’; *portables* > [purta:blue:t] ‘cell phones’.

At the syntactic level, an interesting case is that of the expression of attributive possession. In Tunisian Arabic, there is a synthetic form, like the one existing in Standard Arabic, and an analytic form that exists only in the dialects. Although both options are present in Tunisian Arabic from the onset, the fact that the use of the genitive exponent [mte:ʕ] is increased by the presence of French words as illustrated in (13), contributes to the spread of the analytic form at the expense of the synthetic form. As a matter of fact, in a total of 128 cases when the form [mte:ʕ] was used in the data, 82 (64%) were used with a French word either as the possessor or the possessee. At the discursive level, the influence of French is evident in the use of function words to organize the discourse including some that are very frequent such as *déjà* ‘already’, *donc* ‘therefore’, *alors* ‘then’, and other adverbs, conjunctions and interjections. Another level of borrowing concerns frozen expression including French greetings and similar expressions.

- (13) a. *les SMSs mte:ʕkum*
 ‘your text messages’
 b. *naʕmil l-e-maile:t mte:ʕi*
 ‘I do my emails’
 c. *C’est le rythme mte:ʕ el haye:t l-ʕa:di*
 ‘It’s the normal pace of life’

All in all, several factors impede the full discerning of the extent of contact-induced change in Tunisian Arabic but, the sustained diglossic situation and the increase in school bilingualism point towards a very dynamic situation that leaves Tunisian Arabic open for extensive interference from French. The fact that Tunisian Arabic is not standardized or monitored only allows us to expect that, as contact continues, more changes might be underway.

6. Conclusion

The current study has shown that Tunisian Arabic/French code-switching is characterized by three facts: the direction of the switch is almost always from Arabic to French, the most frequently switched categories are single nouns and

noun phrases, and education more than anything else seems to condition its frequency. Fewer instances of code-switching at the clause level can be explained by less exclusive usage of French once education is finished. This is different from immigrant communities where both languages can be used naturally for everyday communication and the occurrence of inter-sentential code-switching is frequent. In Tunisia, chances are quite limited for a sustained contact with French monolingual speakers and thus exclusive usage of French outside education and some professional circles remains limited. The difference between this case and cases such as that of Puerto Ricans in New York City, for example, is the lack of active usage of the second language in natural unscripted interaction. Code-switching among the Tunisian immigrant community in France and their children, for example, should be more in line with the Puerto Rican case. The type of code-switching observed here points strongly towards the impossibility of displacement of Tunisian Arabic by French but does not nullify the possibility of contact-induced change as reflected in the frequency and patterns of code-switching and the examples discussed above. The fact that Tunisian Arabic is the base language allows for intense lexical borrowing from French but without the possibility for restructuring, relexification or shift as Tunisians remain dominant in Arabic. Finally, as Arabization advances and exposure to pan-Arabic media increases, it would be interesting to compare both bilingual code-switching and diglossic code-switching for a complete understanding of the evolution of the Tunisian dialects.

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References

- Baccouche, Taïeb. 1994. *L'emprunt en Arabe Moderne*. Carthage: Académie tunisienne des sciences des lettres et des arts, Beït al-Hikma; Tunis: Institut Bourguiba des langues vivantes, Université Tunis I.
- Backus, Ad. 2005. Codeswitching and language change: One thing leads to another? *International Journal of Bilingualism* 9(3–4). 307–340.
- Belazi, Hedi M. 1992. *Multilingualism in Tunisia and French/Arabic code switching among educated Tunisian bilinguals*. Ithaca: Cornell University dissertation.
- Belazi, Hedi M, Edward J. Rubin & Almeida Jacqueline Toribio. 1994. Code switching and X-bar theory: the functional head constraint. *Linguistic Inquiry* 25. 221–237.
- Bentahila, Abdelali & Eirlys E. Davies. 1983. The syntax of Arab-French code-switching. *Lingua* 59. 301–30.
- Bentahila, Abdelali & Eirlys E. Davies. 1995. Patterns of code-switching and patterns of language contact. *Lingua* 96(2–3). 75–93.

- Boumens, Louis & Dominique Caubet. 2000. Modelling intrasentential codeswitching: a comparative study of Algerian/French in Algeria and Moroccan/Dutch in the Netherlands. In John Owen (ed.), *Arabic as a minority language*, 113–180. Berlin & New York: Mouton de Gruyter.
- Davies, Eirlys E. & Abdelali Bentahila. 2008. Code switching as a poetic device: examples from rai lyrics. *Language & Communication* 28(1). 1–20.
- Dhaouadi, Mahmoud. 1996. Un essai de theorisation sur le penchant vers l'accent parisien chez la femme tunisienne. *International Journal of the Sociology of Language* 122. 105–125.
- Heath, Jeffrey. 1989. *From code-switching to borrowing: foreign and diglossic mixing in Moroccan Arabic*. London & New York: Kegan Paul International.
- Jamoussi, Souad. E. 1986. Vers une Théorie du 'Code-switching' en Tunisie. In *Actes du IIIème Colloque International de Linguistique, Tunis 18–23 Février 1985*, 41–57. Tunis: Centre d'Études et de Recherches Économiques et Sociales.
- Lawson-Sako, Sarah & Itesh Sachdev. 1996. Ethnolinguistic communication in Tunisian streets: convergence and divergence. In Yasir Suleiman (ed.), *Language and identity in the Middle East and North Africa*, 61–79. Surrey: Curzon Press.
- Lawson-Sako, Sarah & Itesh Sachdev. 1997. Accommodation communicative en Tunisie: une étude empirique. In Foued Laroussi (ed.), *Plurilinguisme et identités au Maghreb*, 101–114. Rouen: Université de Rouen.
- Lawson, Sarah & Itesh Sachdev. 2000. Codeswitching in Tunisia: attitudinal and behavioural dimensions. *Journal of Pragmatics* 32(9). 1343–1361.
- Micaud, Charles A. 1983. Bilingualism in North Africa: cultural and sociopolitical implications. In R. M. Payne (ed.), *Language in Tunisia*, 273–283. Tunis: Bourguiba Institute of Modern Languages.
- Myers-Scotton, Carol. 1992. Codeswitching as a mechanism of deep borrowing, language shift, and language death. In Matthias Brenzinger (ed.), *Language death in East Africa*, 31–58. Berlin & New York: Mouton de Gruyter.
- Myers-Scotton, Carol. 2002. *Contact linguistics: bilingual encounters and grammatical outcomes*. Oxford: Oxford University Press.
- Naït M'Barek, Mohamed & David Sankoff. 1988. Le discours mixte arabe/français: des emprunts ou des alternances de langue? *Revue Canadienne de Linguistique* 33(2). 143–154.
- Ounali, M. H. 1983. La langue des étudiants. In R. M. Payne (ed.), *Language in Tunisia*, 103–138. Tunis: Bourguiba Institute of Modern Languages.
- Poplack, Shana. 1980. Sometimes I'll start a sentence in Spanish Y TERMINO EN ESPAÑOL: toward a typology of code-switching. *Linguistics* 18. 581–618.
- Riahi, Zohra. 1970. L'emploi de l'arabe et du français par les élèves du secondaire. *Cahiers du Centre d'études et de recherches économiques et sociales* 3. 99–165.
- Sayahi, Lotfi. 2007. Diglossia and contact-induced language change. *International Journal of Multilingualism* 4(1). 38–51.
- Talmoudi, Fathi. 1986. *A morphosemantic study of romance verbs in the Arabic dialects of Tunis, Sūsa, and Sfax*. Göteborg: Acta Universitatis Gothoburgensis.
- Thomason, Sarah Grey & Terrence Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley: University of California Press.
- Thomason, Sarah Grey. 2001. *Language contact*. Washington, D.C.: Georgetown University Press.
- Toribio, Almeida Jacqueline. 2008. Syntactic-theoretical perspectives on bilingual code-switching. *Lingua* 118(6). 761–764.
- Trabelsi, Chedia. 1991. De quelques aspects du langage des femmes de Tunis. *Journal of the Sociology of Language* 87. 87–98.
- Watson, Janet C. E. 2002. *The phonology and morphology of Arabic*. Oxford: Oxford University Press.
- Winford, Donald. 2003. *An introduction to contact linguistics*. Malden, Mass.: Blackwell.