

On the How, What, and Why of the Adaptation of
French Loanwords in Algerian Arabic

By
Tarek Ziadna

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The dissertation is approved by the following members of the Final Oral Committee:

Katrina Thompson, Professor, African Cultural Studies (co-advisor)
Samuel England, Assistant Professor, African Cultural Studies
Nevine El Nossery, Associate Professor, French & Italian
Rajiv Rao, Associate Professor, Spanish & Portuguese (co-advisor)

ABSTRACT

Title: On the How, What, and Why of the Adaptation of French Loanwords in Algerian Arabic

This study uses data gathered from four separate data reservoirs (viz. my native-speaker knowledge of an AA dialect, established literature, social media and the internet, and informal conversations with speakers of AA in Algeria in summer 2017) to serve as a basis to describe how French loanwords are adapted, both phonologically and morphologically, when they enter AA. To describe these adaptations, I will shed light over the course of this study on the following linguistic processes: first, how French sounds, consonants and vowels, are adapted when they enter AA; secondly how French loanwords that violate phonotactic constraints imposed by AA are adapted; thirdly, how French noun loans are inflected with regard to the categories of number, gender, and definiteness; and finally how French verb loans are typically integrated into AA.

In terms of phonological adaptation, there is one view, namely that posited by the phonological standpoint, which claims that the source language phonemes are mapped onto their equivalent phonemes in the recipient language, thereby ignoring the allophonic, phonetic details extant in the source language. Conversely, the phonetic view of loanword adaptation claims that adaptations are based on the phonetic proximity between that of the sounds of the source language and that of the sounds present in the recipient language. In this study, evidence generated by this author's study of AA is presented so as to show that both factors interact to determine the optimal output of the adaptation of a loanword from French and that it is hard, if not impossible, to single out one or other specific factor being responsible for the adaptation.

In addition to the aforementioned phonetic and phonological factors, the morphology of the recipient language also plays a role in loanword adaptation in that some loanwords are mapped onto AA patterns, where the stem consonants in the prototype are abstracted and mapped onto a native pattern, whereas the vowels in the prototype are completely ignored.

In addition to linguistic factors, this study ascertained a factor overlooked in previous studies on loanword adaptation. The research of this study revealed a previously overlooked non-linguistic factor that plays an important role in loanword adaptation: specifically that of gender. One case in point is the adaptation of the French rhotic /r/, which indexes gender in AA. Socially male speakers map it onto the closest phoneme in AA, whereas socially female speakers map it onto the acoustically closest sound.

In terms of morphological adaptation, this author's analysis revealed that most noun loans form their plural in *-āt* /-a:t/ and names of professions ending in *-ī* /-i:/ form their plural in *-ya* /-ja/. Past and present participles form their plural in *-īn* /-i:n/. Most noun loans maintain the gender they have in the source language and have the AA feminine marker *-a* /-a/ suffixed at their end if they are feminine. However, if a noun loan ends in *-ment* /-mẽ/ or *-a* /-a/, the AA recipient-language speakers ignore its original gender and assign it a feminine gender by analogy with the AA feminine marker *-a*. Assigning gender on the basis of the stem-final vowel is an area where morphology and phonetics overlap. Most nouns are made definite by prefixing the AA definite marker *l-* /l-/, which assimilates to stem-initial consonant if it is a coronal. French verb loans, on the other hand, are assimilated by suffixing the AA weak-verb ending *-ā* /-a:/ at their end.

Knowledge gained from this study can be used to develop materials to teach AA, as well as to familiarize a wider English language audience with the nuances of spoken AA, in addition to demonstrating the typologies and evolving nature of loanword adaptation and assimilation in AA.

This is important to researchers, language learners and linguists, given that there persists a dearth of linguistic studies of AA outside of the few studies written in French and Arabic.

DEDICATION

To my mother, who bore and raised me and my ten siblings to (wo)manhood ...

To my dad, who pursued in me his dream of a decent education, a dream that he was denied in colonial Algeria, and who made sure I enter school and keep climbing the education ladder ...

To Algeria who sacrificed more than a million son and daughter to free her of the firm grip of an evil colonialism ...

To Algeria's martyrs who died so I, and all Algerians, could have access to education in an independent Algeria

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man jadda wajada wa-man zara 'a ḥaṣada

As you sow, so shall you reap.

Proverb

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Ever since she joined our department in 2013, I have considered Professor Thompson, who supervised me at the university as I fulfilled two different roles of an instructor of Arabic and graduate student, a role-model that I followed to successfully complete my studies and grow professionally as a language instructor. I learned a lot from her high work ethic, her commitment to academic pursuits, and the prodigious productivity that resulted from the synthesis of these two traits possessed by someone who capably fulfills the demands of the scholastic profession. I

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INTRODUCTION

Despite governmental efforts to marginalize multilingual practices in Algeria, both during colonization and after independence, multilingualism still pervades the country's linguistic scene. From 1830 to 1962, the French colonized Algeria in a very systematic way. As part of their "civilizing mission," they adopted a monolingual, monocultural policy known as *assimilation*, or *francization*, to spread the French language and culture among Algerians. This linguistic policy also affected non-French European settlers, mostly of Spanish, Maltese, and Italian origins, known as the *colons* 'settlers'. In order to counter francization in post-independent Algeria and decolonize the country, the Algerian government adopted a policy known as *ta'rīb* (i.e., Arabicization), which faced the same fate as its predecessor: failure (Benrabah 2013).

The multilingual character of Algeria is the product of its particular geography and history. Geographically speaking, Algeria extends about 2,400 kilometers (km) from east to west, south of the Mediterranean Sea, and 2,100 km from north to south. Historically, various powers competed to dominate the Mediterranean basin. As a result, various ethnic groups, speaking a variety of languages, came into contact and permanently marked Algeria's linguistic shape. One such group is the Arabs, who introduced Arabic in Algeria in two different waves, each with its own dialect.

The multilingual character of Algeria and ensuing cross-linguistic influences has made it a fertile land for research on language contact phenomena. Since its introduction, Arabic in Algeria has been influenced by various languages and has evolved to give birth to what is now known as Spoken Algerian Arabic (AA). Due to the nature of French colonization, which disrupted Algerian traditional systems and institutions and supplanted them with European ones,

French has had far-reaching consequences on the lexicon of AA. And with the importance that English enjoys worldwide now as a world language and with the spread of the internet, social networks and mobile apps, a few English words are starting to find their way into AA. Lexical borrowing is an ongoing process.

In this dissertation, I investigate the phonological processes involved in the indigenization of French loanwords in AA and the morphological processes involved in the indigenization of French nominal and verbal loanwords in AA. How are French sounds adapted when they enter AA? How does AA adapt loanwords that violate its phonotactic constraints, that is, loanwords that begin with a vowel and those that have non-final open syllables (i.e., syllables that have no consonant following a short vowel)? How does AA make French *nominal* loanwords definite, and how does it pluralize and assign gender to them? And how does it integrate *verbal* loanwords?

To investigate these adaptation processes, I collected data from four data reservoirs, namely my knowledge as a native speaker of an AA dialect, informal conversations with speakers of AA in Algeria in summer 2017, social media and the internet, and from established literature (e.g., [Hadj-Sadok \[1955\]](#); [Tapiéro \[2008\]](#)).

For my analysis, I draw on and contribute to the fields of: 1) phonetics, or the study of the articulation, transmission, and reception of speech sounds (Prasad 2012); 2) phonology, i.e., the study of the sound inventory in a particular language, the distribution of these sounds, their transformation in the neighborhood of other sounds, and possible sound combinations; and 3) morphology, i.e., the study of the internal structure of words and the system of categories and rules involved in word-formation (Fromkin, Rodman, and Hyams 2013).

This study provides theoretical insight into the phenomena of language contact and lexical borrowing. I argue that *both* phonetic and phonological factors—not just one or the other—play a role in loanword adaptation. I also argue that the recipient language morphology and analogy between the source language and recipient language morphologies interfere with how a loanword is adapted. In addition, I find that both linguistic and socio-cultural factors interact with each other in loanword adaptations, an interaction which affirms an observation made by Uffmann (2015), who speculates that the linguistic factors (i.e., phonological equivalence and phonetic similarity) seem to be mediated by sociolinguistic factors and argues that the former, which are established in the literature, should be supplemented with a sociolinguistic approach. As for socio-cultural factors, my study confirms the role played by age as well as that of education and the insignificant role played by orthography, and uncovers another socio-cultural variable that influences loanword adaptation: gender.

This study also fills gaps in the existing literature on AA in general and the phenomenon of lexical borrowing in it in particular, which I will discuss shortly.

Literature on AA: The gap

The few studies that have investigated AA have been conducted mostly by non-Algerians, especially French linguists, as interest in AA, and the autochthonous Berber language, started with French colonization. As far as I can tell, no rigorous study took place before the coming of the French army who had linguist officers and officer-interpreters in their ranks. After Algeria's independence, the French, through their media, continued to investigate the extent to which and why Algerians continued to use French, and how the populations' use of it affected their Arabic-language proficiency.

Few Algerian scholars studied AA either before or during colonization and even fewer have studied it since Algeria gained independence in 1962. There could be several reasons why Algerians shy away from and are reluctant to study AA. First, many Algerians misconceive the relationship between the spoken dialects and Modern Standard Arabic (MSA), believing that these two varieties are dichotomous, existing in a competitive, rather than a complementary, relationship—a belief they inherited from colonial efforts to demarcate the two. Drawing a barrier between Algerians and the written dialect distanced them from their pre-colonial heritage and history. So, any attempt to study the spoken dialects in post-colonial Algeria is (mis)conceived as an attack on the standard “pure” variety, a misconception that has its origins in colonial efforts to teach the spoken variety at the expense of the standard one. Second, many speakers of Arabic, including Algerians, stigmatize the spoken dialects in favor of MSA and think that the vernaculars are without any status (or grammar) and that they are a corruption of the Arabic language. The stigmatization of AA is very well captured by the protagonist in Franco-Algerian writer, Azouz Begag’s (2007) novel, *Le Gone du Chaâba*, when he affirms that “At home the Arabic we spoke would no doubt make the residents of Mecca flush with anger” (Begag 2007, 175). Some Arabic scholars, too, believe that it is useless to spend any time on the study of the vernaculars as Versteegh (1997) observed.

These factors have contributed to the dearth of scholarly research on spoken Arabic dialects, including AA. This study contributes to this area of scholarship by branching the investigation of Arabic in a new direction by adding the Algeria case. Martin Stone (1997) argued that “there are few countries as little studied and as much misunderstood as modern Algeria, at least in the English-speaking world” and that “Algeria was explained to the world through French or French-educated eyes and articulated in a French intellectual idiom” (v).

Indeed, most of the American experts on Algeria are fluent in French, one of the most commonly taught languages here in the U.S., and not in MSA, a less commonly taught language, and very few in AA (Terrence Peterson, personal communication).

During my own experience teaching AA as a foreign language, I found that, as of 2018, there are only two textbooks in English, including Elizabeth Bergman's (2005) grammar book titled *Spoken Algerian Arabic*, which made teaching it a challenge. I ended up designing my own textbook and I could not refer my students to extra resources on the dialect because the few available were in French. Thus, this dissertation will contribute to the production of empirical materials for teaching and learning this dialect, and to theoretical approaches to teaching it.

Literature on lexical Borrowing in AA: The gap

Very little studies have directly investigated the phenomenon of lexical borrowing in AA. In a (1922) doctoral study, Ben Cheneb investigated Turkish and Persian loanwords in AA. However, he did not investigate the processes involved in their indigenization but rather provided a list of such borrowings together with their original (i.e., Turkish or Persian) form. Similarly, Hadj-Sadok (1955) added to the literature by providing an extensive list of French loanwords in AA in a variety of semantic domains. However, Hadj-Sadok approached borrowing from French into AA, where borrowing occurred extensively from several sub-populations, from the angle of francization of Arabic, a francization he claimed mirrored the "arabicization" of Berber before it. Therefore, he did not analyze the adaptation processes these loanwords undergo before they enter AA and merely referred the reader to a study by Brunot (1949) on loanword adaptations in Moroccan Arabic (MA).

There is a need, then, for a linguistic study that investigates borrowing from the perspective of the recipient language, AA, in order to shed light on the processes involved in the

indigenization of French loanwords that have become an integral part of its lexicon. While linguists such as W. Marçais (1930) and Hadj-Sadok (1955) drew attention to the extensive borrowing from French into AA to provide evidence for their claims that the latter would supplant the former, which will eventually die, I investigate this same phenomenon to draw attention to the indigenization processes that speakers of AA have adopted to integrate lexical borrowings from French. In doing so, I analyze the phonological and morphological processes speakers of AA adopted to indigenize French loanwords.

Aim of the study

The aim of this study is to identify patterns in the way AA adapts French loanwords both phonologically and morphologically, test different theoretical claims and predictions related to how loanwords are adapted along these linguistic lines, and show how morphological adaptations affect segmental ones.

The processes involved in loanword adaptation have long been a serious bone of contention among loanword phonologists. There is an ongoing conversation as to the nature of these adaptation processes and the input to them. While some loanword phonologists (e.g., Paradis and LaCharité 1997, 2008; LaCharité and Paradis 2005) argue that the input to these processes is the underlying mental representation (i.e., phonemic representation), defined as the string of sound units or phonemes that make up a word, others (e.g., Silverman 1992; Peperkamp 2004) argue that the input is the surface or actual phonetic representation, defined as the actual pronunciation of a word that provides more phonetic details. Yet, a third group argues that both phonetic and phonological representations serve as input to adaptation. Kang (2011) argues that both representations are involved in adaptation processes. My data on French loans in AA will contribute more evidence supporting the third view by showing how speakers of AA attend to

both phonemic and phonetic information in the loanwords and adapt them accordingly. I also take this conversation one step further by investigating the role of morphology in segmental adaptations, that is identify any morphophonemic adaptations in the data.

Notwithstanding the disagreement, there is consensus in the literature that loanword data can inform our knowledge of the phonology of the recipient language. In other words, phonological processes that are not readily visible through analyses of the native phonology can become apparent in the analysis of loanwords (Kang 2011). An investigation of the adaptation processes that AA uses on foreign lexical items, French loanwords in this case, will allow us a window into its phonology and morphology to anyone interested in these two areas.

Outline of the Chapters

After this introduction, the dissertation consists of five chapters and a conclusion. In Chapter 1, I begin by describing the linguistic scene in Algeria and the various languages involved in it. I also provide a historical background of how these various languages came into contact with each other and the linguistic policies adopted both before and after Algeria gained independence in 1962. In Chapter 2, I present the various theories on loanword adaptation. I also review various studies on lexical borrowing and draw from various language-pairs around the world to illustrate phonological and morphological adaptations before I narrow down to focus on the limited literature produced on borrowing in AA. In Chapter 3, I provide a description of the phonemic and morphological systems of AA and French, a description that guides my analysis of the data as it reveals areas of contrast and overlap between these two languages. In Chapter 4, I describe the step-by-step process of how I collected and I analyzed the data for this study. In Chapter 5, with the literature review as a backdrop, I analyze my data to identify any patterns and test the various claims I raised in the literature on loanword adaptations. In the conclusion, I

synthesize the main findings and show how this study contributes invaluable information to anyone interested in teaching or learning AA, or any linguist interested in cross-linguistic influences in multilingual settings.

CHAPTER 1

LANGUAGE CONTACT IN ALGERIA

Chez nous, toute femme a quatre langues
celle du roc, la plus ancienne,
disons de Jugurtha, la « libyque », appelait-on cette berbère
le plus souvent rebelle et fauve,

la seconde, celle du Livre et des prières cinq fois par jour, celle du Prophète dans
sa caverne écoutant, et voyant, et subissant Gabriel, la langue arabe donc qui, pour
moi, enfant, se donnait des airs de précieuse, affichait, pour nous autrefois, ses
manières hautaines

- nous laissant pour le quotidien son ombre nerveuse et fragile, elle la sœur
« dialectale » ...

[...]

la troisième serait la langue des maîtres d’hier, ceux-ci ayant fini par partir, mais
nous laissant leur ombre, leurs remords, un peu certes de leur mémoire à l’envers

[...]

Trois langues auxquelles s’accouple un quatrième langage : celui du corps avec ses
dances, ses transes, ses suffocations

Assia Djebar, *Ces voix qui m’assiègent: -- en marge de ma francophonie*

In my country, every woman has four languages

that of the rock, the oldest,

Let us say (the language) of Jugurtha, the “libyque,” as we used to call this Berber
(language)

usually rebellious and tawny

the second, that of the (Holy) Book and the five daily prayers, that of the Prophet,
in his cavern, listening, seeing, and submitting to Gabriel, the Arabic language,
which for me, as a child, gave itself precious airs, showing for us at that time, its
haughty ways

– leaving for us for our daily use its nervous and fragile shadow, its sister,
the “colloquial” ...

[...]

the third would be the language of the masters of yesterday, who ended up leaving
(the country), but left for us their shadow, their remorse, and surely a little bit of
their memory turned upside down

[...]

Three languages to which is added a fourth language: that of the body with its
dances, its trances, its suffocations.

These voices that besiege me: - on the margin of my French-speaking

world¹

¹ my translation

In this chapter, I describe the multilingual nature of Algeria and the languages involved in it. I retrace the path taken by Algeria's most widely spoken language, Algerian Arabic (AA), and the various circumstances under which it came into contact with other languages that ultimately influenced it. These influences were apparent in the area of vocabulary, which I illustrate with examples of borrowings from each of these languages. But before showing the examples, I define the term *borrowing* and how it is different from other language-contact phenomena.

The languages of Algeria

The languages used in Algeria currently are Berber, Arabic, French (as the epigraph above shows) and, to a lesser extent, English. Berber is the autochthonous language. It acquired the status of national language in April 2002 and official language, along with Arabic, in 2015. Arabic has been an official language in Algeria since 1963. French is an ex-colonial language whose effect can still be strongly felt in the country even though it does not have an official status (Sayahi 2014). All Algerian students study French as a foreign language as part of their compulsory education. They start learning it in third grade, at an average age of eight, and continue taking it throughout secondary school. As a result, more Algerians now have access to the ex-colonial language than they did during colonization. In addition to French, Algerian students begin studying English in middle school. They have already been taught French for four years and Modern Standard Arabic (MSA) for six years when they start studying English for four hours a week. English has been gaining traction in Algeria because its use is valuable in fields such as the oil industry, computer science, and scientific and technological documentation. Between 1993 and 2003, the Department of Education launched experimental language schools

within the public school system, where English courses started in the fourth grade of primary school (Benrabah 2007).

Arabic language use in Algeria is an example of *diglossia*, a situation in which one dialect or language is used in formal or written contexts and a second dialect or language is used in informal or spoken contexts (Ferguson 1959). The Arabic varieties used in Algeria are MSA, spoken AA (*dārja*), and classical Arabic (CA). MSA is the variety used in formal situations and *dārja* in daily conversations among friends and family, in folk tales, songs, and poems, and in Algerian soap operas and movies. *Dārja* is mainly a spoken medium but it may be used in written media that represent speech, such as comic strips, cartoons, and literature that aims for a sense of realism and captures the sociolinguistic complexity of Algeria. For instance, in some novels, the narration may be in MSA but the conversations between characters in *dārja*. With the advent of technology, the line separating the written and spoken media has been further blurred, with many Algerians now using *dārja* in texting and social media. Finally, CA is a liturgical variety and is the language of prayers, religious sermons, and the *Qur'an*, Muslims' holy book.

Western scholars use the term CA to refer to pre-Islamic through medieval Arabic and MSA to refer to its modern variant. They might have coined the term CA as an analogy to *classical languages*, a term that refers to the dead literary languages of Europe (i.e., Latin and Greek). This treatment was evident in France's colonial policies in Algeria, where literary Arabic was relegated to the status of an archaic, almost dead, language (Deming 2006). A few linguists refer to a third variety, Middle Arabic (MA), which falls between CA and MSA, spanning the thirteenth to the eighteenth century (Ryding 2005). In Arabic scholarship, as well as in popular culture, CA and MSA are both referred to as *fushā* or simply *al-'arabiya* 'Arabic' (Ryding 2005; Bassiouney 2009; Watson 2007).

A definition of the term *fushā* and its derivatives, as Arab scholars use them, is worth considering in order to understand how Arabic came to be standardized and how the spoken colloquial dialects came to be stigmatized and, eventually, neglected in Arabic scholarship. An examination of words that share the same roots gives us a sense of the connotations associated with *fushā*, which has a three-consonant root *f-ṣ-ḥ* from which the verb *'afṣaḥa* is derived. The latter is glossed in the *Hans Wehr Dictionary of Modern Written Arabic* as the ability “to express o.s. [oneself] in flawless literary Arabic; to speak clearly; distinctly; intelligibly” (837).

Another derivative of the word *fushā* is the adjective *faṣīḥ*, glossed in the *Hans Wehr Dictionary* as “pure, good Arabic (language); intelligible” (837). The Arabic dictionary *Lisān al-‘Arab* [Tongue of the Arabs] defines *faṣīḥ* as “eloquent”.

From the above dictionary definitions, one can see that *fushā* has various meanings in the Arabic tradition, none of which translates into “CA” or “MSA.” One such meaning is common among purists who use the term *fushā* to mean “pure.” Interestingly, by “pure” not only do they mean that the language has no *a‘jamīy* ‘non-Arabic’ elements but that it is also free from the influence of *al-‘ammīya* ‘colloquial’ elements. The attribution of intelligibility to *fushā* hints at the speech of non-Arabs who learned Arabic as a second or foreign language and speak it with an accent, rendering it unintelligible. According to some Arabic lexicographers, such as Ibn Manẓūr (1990), a non-Arab might speak Arabic correctly and intelligibly just as an Arab might speak it incorrectly by committing solecisms. According to Ibn Khaldūn (1969), these solecisms, which later came to characterize the linguistic habits of the Arabs, were caused by the contact the Arabs had with non-Arabs after the expansion of the Muslim empire outside of the Arabian Peninsula. Ibn Khaldūn’s ideas are reminiscent of the audiolingual method of teaching, whose proponents argue that errors are the result of mother tongue interference, with the mother tongue

being Berber in the case of Maghrebis. Ultimately, the way Berbers spoke Arabic influenced that of native speakers, or the “true Arabs” who came into contact with them. Arabic scholars were more interested in the influences the various second languages (L2s), such as Berber in the Maghreb and Coptic in Egypt had on Arabic, which was the Arab invaders and immigrants’ first language (L1), than they were in the influences Arabic had on any of them.

In the field of Second Language Acquisition (SLA), intelligibility is a function of accuracy, which constitutes one of five key criteria used to assess oral proficiency in a second or foreign language. An L2 learner’s speech ranges from being “difficult to understand even by the most sympathetic interlocutors accustomed to non-native speech” at the novice level to being “understood by native speakers of the language, including those unaccustomed to non-native speech” at the advanced level (ACTFL 2012). One reason for lack of intelligibility is mother tongue interference.

Unintelligibility becomes a major concern for Muslim scholars when it comes to recitation of the *Qur’an*—the holy book that most Muslims view as the actual word of God. Due to unintelligibility, the exact meaning of the *qur’anic* verses gets lost, leaving room for misinterpretation.

Growing Concern over unintelligibility started to occur as a result of the solecisms that “corrupted” the speech of the Arabs, who came into contact with non-Arabs in the seventh and eighth centuries, and the spread of Islam and Arabic outside of the Arabian Peninsula. The Islamic tradition abounds in examples of mistakes, mostly grammatical in nature, in reading *qur’anic* verses. These grammar mistakes, which resulted in misinterpretations, led Muslim scholars to make concerted efforts to standardize the language during the ‘Abbasid rule of the Muslim empire (750-1258 CE). These scholars relied on four major sources in their

standardization efforts: The *Qur'an*, the *hadith* (i.e., sayings of Prophet Mohammed), *al-Mu'allaqāt* (i.e., “the suspending poems,” pre-Islamic odes), and Bedouin informants believed to have retained the original forms of the language, that is, the forms it had before coming into contact with foreign languages. If the language were not standardized, Muslim scholars feared, Muslims would no longer understand the *Qur'an* and *hadith* (Ibn Khaldūn 1969). A standardized Arabic variant, referred to as *CA* in Western tradition, was the medium in which Muslim scholars, including non-Arabs, produced their works. It was also the language of administration and of international scholarly and scientific communication throughout the Muslim empire during the Islamic Golden Age (Ryding 2005). Maghrebi Berbers, whose native language was mainly oral, adopted it as their written medium.

Classical Arabic remained unchanged until the second half of the nineteenth century and early years of the twentieth century, when a movement known as *al-Nahḍa* (i.e., revival, renaissance), encouraged by the spread of the printing press and the growth of European influence in the Middle East, began to develop in Arab cultural circles. It was mainly associated with Egypt, Syria, and Lebanon in its early phases (Meisami and Starkey 1998).

In literary terms, the main impact of *al-Nahḍa* was the translation and introduction of Western genres such as novels, short stories, and dramas, which eventually supplanted traditional Arabic forms (Meisami and Starkey 1998). Associated with these literary developments were efforts to “modernize” the Arabic language through the introduction of neologisms capable of dealing with modern concepts in a manner accessible to a reading public that had increased with the introduction of public education. The resultant variant is referred to as *MSA* in Western scholarship.

Linguistically speaking, MSA has retained most of the features of CA, especially in the areas of syntax, phonology, and morphology (Versteegh 1997; Holes 2004). Where there is a difference between the two varieties is in the areas of lexis and stylistics. Arab intellectuals felt the urge to adapt the Arabic language to the needs of modern times and cope with the flow of modern European concepts and technical jargon. They created neologisms using one or more of the following techniques: 1) coining new words using the language's root-and-pattern system; 2) integrating foreign words morphologically and/or phonologically; 3) calquing (translating foreign words literally); and/or 4) reviving CA words that had fallen out of use (Versteegh 1997).

Vocabulary is an area where the standard variety deviates considerably from spoken dialects; while the latter extensively borrowed and integrated foreign words from European languages (e.g., French in the case of AA), lexical borrowing was the least favored method of creating neologisms in the case of the standard variety.

The first attempts to “modernize” the Arabic language were isolated in nature; for example, individual translators had to create new words for Western concepts. Later, language academies were established throughout the Arab world to supervise the “modernization” of the lexicon of the Arabic language and regulate its expansion. They also made sure the new lexicon was consistent throughout the Arab world, a consistency that would facilitate communication between Arab scholars. The objectives set by the academies coincided with the rise of Arab nationalism and Pan-Arabism in Arab countries.

Stylistic variation between CA and MSA is due to massive translations from European languages as well as bilingualism in Arabic and an ex-colonial European language (Ryding 2005). For example, calques such as *al-ḥarb al-bārida* ‘cold war,’ were introduced to MSA as a literal word-for-word translation of original European expressions. Most such calques originated

in journalistic Arabic, where news reporters face the challenge of translating a piece of news from a European language synchronously (Holes 2004). Through the widespread access to media and news channels, these expressions started to gain currency among speakers of Arabic.

Spoken Algerian Arabic

The spread of Arabic in the Maghreb went through two major phases (Sayahi 2014; Versteegh 1997). The first phase refers to the early *futūḥāt islāmīya* ‘Islamic conquests’ that reached the Maghreb in the seventh century. Muslim conquerors established urban and sedentary zones along the Mediterranean coast. During this phase, Arabicization did not affect the Berber populations, most of which were concentrated in rural areas. The second phase refers to the *taghrība* ‘westward exodus’ of the Bedouin tribes of Banī Hilāl in the eleventh century (c. 1050 CE), who, unlike the Muslim soldiers of the earlier phase, settled in rural areas. This migration brought the Berbers into direct contact with the Arabic speaking tribes of Banī Hilāl, and eventually led to their gradual Arabicization (Abun-Nasr 1987). Some Berber tribes, however, took refuge in inhospitable mountainous areas, where they preserved their own languages and traditions. According to Sayahi (2014), these two historical events (i.e., Islamic conquests and tribal migration) introduced two different Arabic varieties to the Maghreb, namely sedentary pre-Hilālian and Bedouin Hilālian Arabic varieties, which I will discuss further in Chapter 3.

Little is known about the development of spoken dialects because Arabic scholars largely viewed them as deviations from “correct” Arabic. This view was later both evidenced in and reinforced by skeptical attitudes towards studying and teaching the spoken dialects, which were promoted by the colonial authorities (Versteegh 1997). In Algeria, for instance, interest in AA and Berber started with French colonization. No rigorous study took place before the coming of the French army, who brought with them “hordes of interpreters, geographers, ethnographers,

linguists, botanists, diverse scholars and professional scribblers” to study every aspect of the indigenous population to better subdue them (Djebar 1993, 45); my emphasis). In other words, interest in the colloquial varieties was driven by colonial intentions, which were translated into pedagogic practices.

Algerian Arabic is the mother tongue of most Algerians, with different speech communities using different, though mutually intelligible, varieties. Although Hayane (1989) claims that the differences pertain to the areas of pronunciation (or accent) and part of the lexicon, but not to grammar, I have noticed that there are some grammatical differences across regions in Algeria. Some of these differences relate to negating nonverbal predicates, such as adjectival (or nominal) attributes, and gender differentiation of the second-person singular. For instance, adjectival attributes are negated differently in Setif, an inland town, and Jijel, a coastal town. In Setif, a negative particle, *māšī* ‘not’, is added before the adjective, for example, *b’īda* ‘far’ is negated as *māšī b’īda* ‘not far’. In Jijel, however, a circumfix is added: *mā b’idā-š*. The difference between the two dialects is that of word order, where part of the negative particle, *šī* ‘a thing’, is moved after the attribute in the dialect of Jijel. Second, many Algerian dialects have preserved gender differentiation of the second person singular, for example, *ktab-t* ‘You (masculine) wrote’ vs. *ktab-ti* ‘You (feminine) wrote’. Some dialects, however, have lost this gender differentiation and use the same form, usually the feminine, for both.

In addition to these grammatical differences, there are pronunciation differences across regions in Algeria. Some Algerian Arabic dialects differ in the way they realize a given MSA phoneme. But before I illustrate some of these differences, a few definitions are in order here.

The phoneme is an abstract unit of speech and is placed between slanted brackets in linguistic writing. It is the smallest distinctive unit; substituting one phoneme for another

changes the meaning of the word. The string of sound units or phonemes that make up a word is called phonemic representation (Roach 2009). For example, the phonemic representation of the word “coat” in General American English, as spoken with a standard American accent, is /koot/, which is made up of the phonemes /k/, /oo/, and /t/. The actual realization of a phoneme is called an allophone and is placed between square brackets. The phonetic representation of phonemes in a word refers to their actual pronunciation and provides more articulatory details than the phonemic one. For example, the phonetic representation of the word “coat” is [k^ho^{ʊ̃}t̚], placed between square brackets, which is made up of the allophones [k^h], [o^{ʊ̃}], and [t̚], where the superscript [h] refers to the aspiration of the phoneme /k/, the breve to the shortening of the diphthong /oo/, and the superscript right angle to the non-release of the stop /t/.

Some MSA phonemes are realized differently by different dialects in Algeria: 1) The phoneme /q/ is pronounced as [ʔ], [g], or [k], depending on the dialect. For example, the word *qult* ‘I said’ is pronounced as [ʔult] in Tlemcen, a western city bordering Morocco, as [gult] in rural and Bedouin areas, and as [kult] in Jijel; 2) The phoneme /y/ is pronounced as [q] in the southern dialects. For instance, the word *ḡadwa* ‘tomorrow’ is pronounced as [qadwa] in Djelfa, Laghouat, and Bou Saada, a city in M’sila, but as [yadwa] elsewhere; and 3) The phoneme /dʒ/ is pronounced as [ʒ] in the northeast. For example, *jā* ‘He came’ is pronounced as [ʒā] in Annaba and Skikda (see Map 1 for the various Algerian provinces, totaling 48).



Map 1 The 48 provinces of Algeria (source: Psephos: Adam Carr's election archive: <http://psephos.adam-carr.net/countries/a/algeria/statsalgeria.shtml>)

Algerian Arabic lexicon is similar throughout Algeria, although on the borders with Tunisia and Morocco, people speak varieties closer to Tunisian Arabic or Moroccan Arabic. However, there are a few lexical differences across regions in Algeria. For example, lexical differences in the words *dannag!* 'Look!' and *marrah* 'at all' are unique to the region of Setif. In some regions, they use the words *ukzar!* and *gā'* to convey the same respective meanings.

Spoken Arabic dialects are loosely related to CA. They are the result of contact between the different dialects of CA, which were spoken in the Arabian Peninsula, the autochthonous languages, and the colonial European languages (Habash 2010). For instance, AA has many influences from the autochthonous Berber language and the ex-colonial French language. Berber

influences on AA are more evident in the Arabic dialects that neighbor it. For example, Jijelli Arabic, which is spoken in the province of Jijel, has many features of the Berber language because Jijel borders the Berber province of Bejaia (see Map 1 above). In addition, some Berber regions have witnessed a linguistic shift from Berber to Arabic where Berber influence is to be expected (Versteegh 1997).

Some of the phonological Berber influences on AA include “preference for initial complex consonant clusters [i.e., a sequence of two or more consonants], vowel reduction [i.e., weakening and shortening the vowel to schwa], labialization of velar stops [i.e., articulating them with lip-rounding], and the instability of several Arabic sounds among isolated rural speakers,” influences that have resulted in differences between AA and MSA (Sayahi 2014, 181). For instance, the word for “book” is *kitāb* in MSA and *ktāb* in AA.

Two of these influences, namely vowel reduction and consonant clusters, have been contested. Algerian linguist Souag (personal communication) challenges the claim that vowel reduction and consonant clusters in syllable-onset position (i.e., before a vowel in a syllable) in AA are instances of Berber influence, a view he shares with Kossmann (2013). Vowel reduction, Souag adds, is attested everywhere in Arabic dialects and complex consonant clusters exist in Arabic varieties, such as Levantine Arabic, which has not had contact with Berber. Souag’s claim is plausible because, as I mention below in Chapter 3, consonant clusters result from deleting MSA short vowels occurring in open syllables. So, consonant sequences are an internal rather than an external linguistic change.

As for the third influence, namely labialization or lip rounding of consonants, some Maghrebi Arabic (MA) dialects have acquired labialized consonants such as /b^w/, /f^w/, /g^w/, and /k^w/, due to influence from the Berber substratum (Zavadovskiĭ 1978). From the list of labialized consonants

provided by Zavadovskiĭ (1978), one can see that stops are not the only consonants that can be labialized. In addition to labialization, some dialects have acquired palatalized consonants such as /gʲ/ and /kʲ/ (i.e., consonants produced with a secondary articulation that involves raising the front part of the tongue [O'Grady 2012]) and new affricates not attested in MSA, such as /dz/ and /ts/ (Zavadovskiĭ 1978). But since both MA and Berber are oral languages and in the absence of written accounts that can help us trace the development of these sound changes, it is hard to prove that they originated in Berber. They might have developed simultaneously in MA and Berber, two languages which have been in contact for an extended period of time (Kossmann 2013).

Lexical differences between AA and MSA are observed in the area of borrowing, with AA being more susceptible to borrowing than MSA. For example, AA has borrowed significantly from the languages that existed in, neighbored, or colonized what is today Algeria. This is because, unlike the standard variety, AA is not standardized and has been left to develop on its own far from the auspices of language academies.

Berber

Berber speakers make up 20 to 30 percent of the whole population in Algeria (Brahimi 2000; Sayahi 2014). Like Arabic, Berber is a member of the Afro-asiatic language family, previously known as the Hamito-Semitic language family (Kossmann 2013). Before the arrival of Arabs to the area in the seventh century, the Berbers came into contact with Phoenicians, who founded the city of Carthage, located in modern-day Tunisia, in the second millennium BCE. The Carthaginians spoke Punic, a North African dialect of Phoenician. It is worth mentioning, however, that the Carthaginian rule over Berber North Africa was confined to the coastline (see Map 2) and the Carthaginians had little interaction with native Berbers.



Map 2. The Phoenician colonies of North Africa (source:

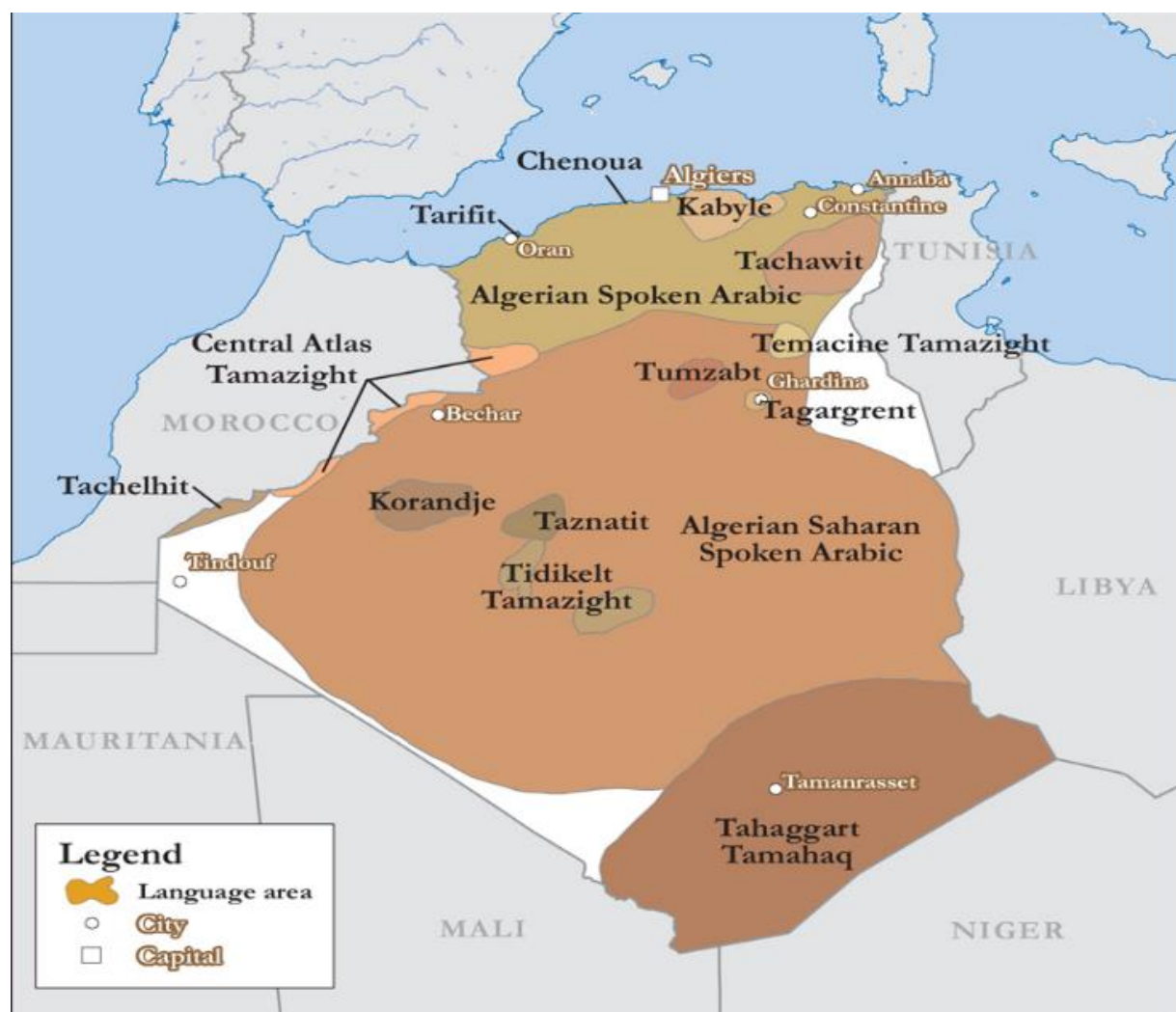
<https://kids.britannica.com/kids/article/exploration-of-Africa/628097/336520-toc>)

Around 310 BCE, the Greeks invaded Carthage and ruled it for a short period before the Carthaginians expelled them around 306 BCE. This short-lived invasion does not seem to have influenced Berber.

Around 146 BCE, the Romans took over the western Mediterranean, bringing the autochthonous Berber language into contact with Latin. Among the loanwords Berber borrowed from Latin, or its North African variety, African Romance, is Latin *pullus* ‘a chick’ > Tashelhiyt Berber *afullus* (Kossmann 2013).

Like AA, Berber has different varieties: Taqbaylit (or Kabyle), spoken in the mountainous areas of Kabylia; Tachawit, spoken in the Awres mountains; Tumzabt, spoken in the north-central part of the Algerian Sahara; and Touareg, spoken in the south. Ethnologue (2016) cites eight other Berber varieties described as developing (e.g., Tashelhit), dormant (e.g., Tarifit), shifting (e.g., Temacine Tamazight and Chenoua), threatened (e.g., Tahaggart Tamahaq,

Tagargrent, and Taznatit), or nearly extinct (e.g., Tidikelt Tamazight) (see Map 3 for the distribution of these and other Algerian languages).



Map 3: Language distribution in Algeria (source:

http://www.gmi.org/files/7913/1067/6499/Lang_Algeria_800px.jpg)

Berber played a major role in the development of Maghrebi Arabic varieties, including AA (Kossmann 2013). The latter has also been influenced, to varying degrees, by European languages, such as Spanish (mainly on the west coast), Turkish, Italian (mainly on the east coast), and French.

European languages

The European languages have entered the Algerian linguistic scene as a result of colonial interests in North Africa.

Spanish

With the completion of the Reconquista in the Iberian Peninsula, the Spaniards began establishing enclaves along the Mediterranean coast, leaving the interior in the hands of native rulers. In Algeria, Mers El-Kebir ‘the great port’, located on the Gulf of Oran, was captured in 1505, Oran in 1509, and Bejaia and Algiers in 1510. The Spaniards left Algiers in 1529, Bejaia in 1554, and Mers El Kebir and Oran in 1708. In 1732, the Spaniards returned and took over Oran and Mers El Kebir again, which they held until 1792. The long years of Spanish rule over Oran explains the reason why the Algerian dialects of Oran and neighboring Tlemcen, in western Algeria, have more Spanish loanwords than the dialects spoken in central and eastern Algeria (Prochaska 2002). For example, the dialect of Oran, spoken in western Algeria, has the following Spanish loanwords: *flīča* ‘arrow’ (Sp. *flecha*), *mīča* ‘petard, banger’ (Sp. *mecha*), *būrṣa* ‘plastic bag’ (Sp. *bolsa*), and *šangla* ‘flip-flops’ (Sp. *chancla*) (Guerrero 2015).

Frenchification, or Making Algeria French

The French took over Algeria in 1830. To subjugate the natives, they adopted brutal “scorched earth” practices that included the systematic destruction of villages, livestock, and crops, the asphyxiation of men, women, and children, and the confiscation of lands owned by peasants. They killed many natives and left many others landless. The latter had to migrate to major urban centers in the fertile strip along the Mediterranean coast, which were mostly populated by European settlers, or *pieds noirs* (literally ‘black-feet’). According to *Larousse* online dictionary, *pied-noir* is “*Français d’origine européenne installé en Afrique du Nord*

jusqu'à l'époque de l'indépendance" ('A French of European origin who settled in North Africa until independence'). As for the origin of the term, *Le Centre National De Ressources Textuelles et Lexicales* (CNRTL) 'the national center for textual and lexical resources' claims that the term was first used to refer to Algerian shipmen who used to work barefooted in the coal room of a steam ship. This derogatory term was later appropriated by the Algerians and used to refer to Algerian-born Europeans.

The *pieds noirs* spoke a language called Pataouète, which had elements from various languages including Arabic, Jewish Arabic, French, Spanish, Maltese, Italian, German, Greek, and Alsatian (Lattuga 2002). The Pataouète variety spoken in Bône (modern-day Annaba), in eastern Algeria, had more Italian elements than the one spoken in Oran, in western Algeria, which had more Spanish elements (Prochaska 2002). After the standardization of the French language and its spread and promotion by the educational system, European settlers were instructed in French, which almost completely supplanted Pataouète. Only a few Pataouète expressions still survive in AA, such as the interjection *Poh! Poh! Poh!* 'Wow!', rendered in AA as *ḃah! ḃah! ḃah!*.

Linguistically and culturally speaking, the French, driven by a belief in the superiority of their language and culture, dismantled what they considered "inferior" cultures and languages. In order to dismantle Islamic cultures and the Arabic language, they confiscated the properties and land owned by mosques, which used to serve as centers of learning, thus depriving the mosques of their source of income (Abdulrazak 1982). In addition, they converted many mosques into military barracks (Knauss and Knauss 1987). Consequently, the traditional educational system in Algeria was disrupted and replaced by the French educational system, which reinforced French

values. The imposition of a new system brought with it new terminology, previously unknown to the Algerians. These new terms would serve later as loanwords.

The spread of the French language and culture at the expense of local languages and cultures was part of France's assimilationist *mission civilisatrice* 'civilizing mission'. The latter is best reflected in France's educational system. In an article titled "La Diglossie Arabe" (Arabic diglossia), William Marçais, who had assumed the position of an inspector general of the education system for the native population, presented the diglossic situation of Arabic as problematic. He described it as "*une sorte d'animal à deux têtes et quelles têtes! que les programmes scolaires ne savent trop comment traiter, car ils ne sont pas fait pour héberger les monstres*" 'A kind of a two-headed animal, and what heads! that school programs do not know how to deal with because they are not made to house monsters' (W. Marçais 1930, 409). He wrote his article in the same year that the French celebrated a centenary of France's presence in Algeria (1830-1930). Eight years later, on March 8 1938, MSA was declared a foreign language. As a result, AA, which is a derivative of CA and its modern variant (i.e., MSA), was cut from the source from which it sustained itself. In such a context, it had to borrow from French to fill in the gap left by MSA (Sayahi 2014). This is one of the main factors explaining the influx of French loanwords into AA. Upon the recommendation of W. Marçais, AA was taught to *pièdes noirs* students at the secondary and tertiary levels (Benrabah 2007). As for MSA, it was offered as a foreign language and had very low enrolment.

To create a rift between Algeria's Muslim population (i.e., between Arabs and Berbers), French linguists, most of whom served in the French Army, magnified the linguistic differences between Arabic and Kabyle, a variety of Berber, to the point of categorizing the latter as an Indo-European language. Implicit in this language classification is the claim that, by virtue

of the languages they spoke, Kabyle speakers were susceptible to assimilation into the “superior” French culture while Arabs were not (Benrabah 2013). The latter had inherited “deplorable” habits of mind through their use of an “ambiguous” language (i.e., MSA), characterized by “*le manque de liaison logique, l’obscurité, le non sens même*” ‘lack of logical connection, obscurity, and even nonsense’ (W. Marçais 1930, 404).

In addition, in order to create a rift between the masses and their leaders, the French set up a privileged and assimilated elite, who were taught French language and culture to the exclusion of the large masses. At independence, the overwhelming majority of Algerians were illiterate both in French and literary Arabic (Heggoy 1973; Deming 2006).

Immediately after independence, in 1962, the Algerian government adopted counter policies to overthrow the French language and supplant it with Arabic. These policies were known as *Arabicization*, defined as the government’s efforts to convert all aspects of Algerian life—administrative, social, and educational—into Arabic. Arabicization faced many obstacles and challenges. First, logistically speaking, Arabicization was difficult to implement due to an increase in the number of schooled children and lack of qualified staff. The overwhelming majority were illiterate. Second, Algeria still had strong economic ties with France because of various treaties and contracts and a significant number of Algerian immigrant workers in France. Third, many French citizens fulfilled military service by teaching French in Algeria. Fourth, a significant number of the population spoke Berber, and those who were educated spoke French. The Algerian elites, educated in French, did not want to lose their jobs if Arabic overtook French. Therefore, Francophone and Berberophone Algerians wanted to maintain the status quo. With time, major opposition to Arabicization came from the Berbers, who demanded that their language be recognized and taught. Fifth, there were ideological conflicts between Francophiles

and proponents of Arabic. The former inherited the colonizer's values and believed that "classical Arabic was an artificial language, and colloquial Arabic was useless for the modern technical world" (Gordon 1966, 192). Proponents of Arabic, on the other hand, advocated for a return to pre-colonial traditions and values. The Francophiles lobbied to block any efforts made at Arabicization. Finally, Algeria's presidents since independence have implemented various policies ranging from gradual to immediate Arabicization. The current president, Abdelaziz Bouteflika, however, seems to favor bilingualism, with French serving as the language of science. The current secretary of the Department of National Education, Nouria Benghabrit, is more proficient in French than she is in MSA, the country's official language. Despite efforts to arabicize the education system and all walks of life, French is still considered, by some, a prestigious language that serves as a window into the west and a shortcut into modernization (Deming 2006).

The aforementioned historical events brought AA into contact with a number of languages, which have influenced it to varying degrees. One area where these influences can be seen is vocabulary, as AA has borrowed from these languages. Before I delve into a discussion of borrowing in AA and provide examples of loanwords from each of the donor languages, I will first define what borrowing is and is not.

Defining Borrowing

Borrowing refers to the process of importing linguistic items from one linguistic system into another when two or more cultures come into contact over a period of time. Languages may borrow from any linguistic domain, with vocabulary and phonology borrowed more readily than other domains (Hoffer 2002). Within vocabulary, nouns and verbs are borrowed more readily than words belonging to other grammatical categories. Most languages tend to borrow more

nouns than verbs since the latter would require complex morphological adaptations such as tense, aspect, and mood (Winford 2003). In my data, verb loans are adapted by suffixing *-ā* to the stem, which is no more complicated than suffixing the AA feminine marker *-a* or prefixing the AA definite article *l-* to incoming noun loans. There must be some other factor, at least in the case of AA and that factor is the function nouns and verbs play in a language. A verb usually denotes an action, a feeling, or a state of being. Nouns usually name an object. It seems more plausible that the source-language speakers would introduce new cultural objects than they would actions. Another factor might be the frequency of verbs to nouns in the donor language, which needs to be explored.

The rate of borrowing differs from one language to another. A comparison of loan databases from forty-one recipient languages, a project known as the World Loanword Typology (WLT), has revealed different levels of resistance or susceptibility to borrowing (Tadmor 2009). Some languages tend to be more open to borrowing than others due to factors such as speakers' attitudes, ideologies of linguistic purism, and the material to be borrowed. For instance, religious material tends to be transmitted in its original form (Hoffer 2002). On the other hand, cultural vocabulary, which designates new concepts coming from the outside, is more susceptible to borrowing than basic vocabulary for which a native word already exists (Haspelmath 2009). Although the WLT does not provide any information about resistance or susceptibility to borrowing of any of the Arabic varieties, including AA, and lists Arabic only as a donor language to some of the included recipient languages such as Swahili and Tarifit Berber, AA is evidently susceptible to borrowing since it has borrowed extensively from French. Compared to MSA, spoken varieties, including AA, are more susceptible to borrowing because they are not codified (Sayahi 2014).

Language contact, and ensuing borrowing, occurs in various situations and under various social circumstances. One such situation is commerce, where people from different linguistic backgrounds get together for trade. For instance, Swahili has borrowed extensively from Arabic, both historically, because of the contact between Arabs and Africans living on the east coast of Africa during Indian Ocean trading transactions (Schadeberg 2009), and on an ongoing basis (in the coastal dialects of Swahili) because most coastal Swahili speakers are Muslims. Language contact also occurs when one group comes under the control of another, as in the case of colonization. Here, borrowing is mostly one-way in the sense that the dominated group borrows linguistic items from the dominant group's language. For instance, AA and French came into contact due to the French colonization of Algeria in 1830. A third situation is in educational settings, where the educated classes borrow from a language that enjoys prestige. For instance, Latin phrases such as *a priori* are used in scholarly publications in English (Hoffer 2002).

A number of factors influence the amount and rate of borrowing. First, close contact between two (or more) languages over time results in borrowing and, sometimes, re-borrowing. That is, the same word might be borrowed at different times from the same source. These re-borrowed words are known as doublets (Hoffer 2002). Second, the advent of mass media, such as radio, television, and internet, has facilitated cross-cultural diffusion and communication and, therefore, borrowing. Third, the globalization of markets and international companies has introduced cultural loans such as food items. For instance, Middle Eastern cuisine has introduced loans such as *falafel* and *hummus*. Fourth, means of transportation such as the airplane have made physical movement of people over long distances easier and facilitated cross-cultural contact. Finally, linguistic policies and ideologies might play a role in shaping the linguistic structure of a language, including borrowing. For instance, French colonial policies in Algeria

played a role in reshaping AA through cutting it from its source, MSA, and enforcing, instead, a new source of vocabulary to cope with a new reality imposed from above (Sayahi 2014). All of the above factors have affected the phenomenon of borrowing into AA.

Borrowing can be categorized into *material* and *structural* borrowing. Structural borrowing refers to the copying of syntactic, morphological, or semantic patterns (Haspelmath 2009). It can be further categorized into calques, loanshifts, and loanblends. A *calque* is an expression borrowed from another language in a literal word-for-word translation. For instance, the Arabic *nāṭiḥat saḥāb* and the French *gratte-ciel* are calques of the English *skyscraper*. A *loanshift*, or *semantic extension*, is a change in the meaning of an established native word to accommodate a new concept acquired from another language. This results in *polysemy*, or many meanings for one word. For example, the Arabic word *tayyār* ‘current’ once referred only to the flow of water, but after contact with English, its meaning has been extended to refer to the movement of electricity as well (Suleiman 1985). *Loanblends* contain both native and borrowed elements to refer to a concept (Haspelmath 2009). For example, the Arabic word for *geopolitical* is *jiyūsiyāsī*, formed by blending the English morpheme *geo-* with the native adjective *siyāsī* ‘political’ (Badarneh 2007). Finally, *material borrowing* refers to the borrowing of sound-meaning pairs (Haspelmath 2009). Haugen (1950) uses the term *loanword* to refer to the *material borrowing* of the meaning of a lexical item together with the item’s phonemic shape, which might be adapted. The focus of this dissertation is material, rather than structural, borrowing.

The most important function of a loanword is communicating a new object, action, or idea, but loanwords also serve functions other than the ordinary communication of words and ideas. The use of foreign loans signals that a speaker is up-to-date and fashionable. In this

respect, college students seem to be constantly aware of changes in the most recent usage in a language. For instance, college students in Algeria tend to borrow from French on a regular basis, even if a native word exists. A loanword might also function euphemistically, replacing a native word that is considered taboo. For instance, AA speakers use loans such as the exclamation *mārd!* (from French *merde!* ‘Shit!’), instead of AA *krā!* In addition, speakers tend to borrow from languages considered to be prestigious, as we have already seen. Conversely, the dominant group might borrow a word from a less prestigious language and use it pejoratively (Appel and Muysken 1987). Even though AA was the language of the dominated group during colonization, it has borrowed a few words from French, the prestigious language of the dominant group, and used them pejoratively. For instance, the AA word for “politics” is MSA *siyāsa*. AA has also borrowed French *politique* ‘politics’, which is adapted as *būlītīk* and given the pejorative meaning of “tampering with.” Other examples are the French loanword *fīgūra* ‘face’ (Fr. *figure*) and Italian loanword *fāčča* ‘face’ (It. *faccia*), both of which have a pejorative meaning in AA, namely ‘ugly face’. A more neutral word with the meaning “face” in AA is MSA *wajh*.

Borrowing is but one among various contact phenomena that result whenever two or more languages come into contact with one another, as in the case of bilingual or multilingual communities such as Algeria. Other contact phenomena include code-switching, code-mixing, transfer, and interference (Kamwangamalu 2000).

There are areas of overlap between certain contact phenomena such as borrowing and code-switching. Since my research focuses solely on borrowing, it is important to clearly distinguish between the two. In what follows, I will highlight some of the linguistic and pragmatic differences between them.

Codeswitching vs. Borrowing

In contrast to borrowing, or the introduction of new lexical items from another language, *code-switching* refers to the alternating use of two or more languages within the same conversation between bilingual speakers (Grosjean 1982). Some linguists tend to distinguish between borrowing and code-switching quantitatively, that is, they consider singly-occurring lexemes as borrowings and larger constituents (i.e., the phrase, clause, or utterance) as code-switched forms. Myers-Scotton (1992), however, disagrees with such a categorization, claiming that some singly-occurring lexemes are code-switched forms rather than borrowings and that researchers are increasingly considering some singly-occurring lexemes as material that must be accounted for in code-switching theories. Arguing from a different angle, Poplack et al. (2015) postulate that determiner + noun sequences or phrases are integrated in the same way as their single counterparts and constitute one type of borrowing, which they call compound borrowing. For instance, the phrase *les cours* ‘the courses’ in the phrase *les cours haḍūka* ‘those courses’ follows Tunisian Arabic grammar, where the demonstrative, *haḍūka*, follows the noun it modifies. The challenge, then, would be to distinguish borrowings from code-switched forms.

Kamwangamalu (2000) enumerates four aspects that distinguish borrowing from code-switching. First, unlike borrowings, switched forms do not fill in “lexical gaps” in the host language, although they might fill in gaps in a conversation, as when a bilingual speaker cannot recall a word in one of the languages s/he speaks. In this case, the language does have a word for a given concept, but the speaker does not know it or has forgotten it. Loanwords, on the other hand, are gap fillers. This is mostly the case when a speech community borrows a newly introduced cultural item or concept together with the word referring to it. For instance, Algerian speakers use the terms *micro*, an abbreviation of the French word *micro-ordinateur* ‘desktop

computer’, and *flash disque* ‘flash drive’, which are borrowed from French to refer to technological inventions. These are considered loanwords because AA does not have native terms for them. In the case of code-switching, however, one of the speakers might use a word from the other language as a communication strategy, not because the language s/he switches from lacks the term, but rather because s/he cannot recall the word.

Myers-Scotton (1992) argues that not all loanwords fill in lexical gaps and that a speech community might borrow a word even if a local word exists for its referent. This is the case when the donor language enjoys prestige among speakers of the host language. For instance, many speakers of AA use French adjectives of color even though Arabic words for them exist. In addition to prestige, Sayahi (2014) argues that the reason why some Maghrebi Arabic speakers use a French loanword for a word that already exists is (in)accessibility. For instance, in the case of a car’s mechanical parts, Maghrebi speakers might learn the French word before they learn the Arabic word for it in school. But even going to school is not a guarantee that they will ever come across such a technical word in MSA.

The second contrast between borrowing and code-switching is that switched forms do not refer to a limited set of linguistic items accepted by the speech community (Kamwangamalu 2000). Any linguistic item can be used in code-switching even though certain syntactic constraints determine the switch site. Borrowings, on the other hand, are restricted in number and are considered part of the recipient language; they should have a dictionary entry if the language is codified.

Third, borrowed forms are assimilated into the host language (Kamwangamalu 2000). In a similar vein, Haugen (1956) claims that code-switching represents maximal distinction

between two linguistic codes, while borrowing represents maximal leveling of distinctions, that is, adaptation into either code.

The third criterion by Kamwangamalu (2000) has been challenged because some phonologically adapted items are switches rather than borrowings, while some unadapted items are borrowings. An example of the latter is nouns in business, computing, and other specialized domains that become part of the lexicon of the recipient language even though they remain unadapted. Revisiting the *flash disque* example above, this is a case of an unadapted loanword. The word *flash disque*, pronounced as [flaʃdisk], is not adapted because it does not have any illicit forms (i.e., sounds) that violate the phonology of AA. One should not jump to conclusions, however, before analyzing extensive data. It might be the case that the word *flash disque* is adapted but that its adapted form happens to be the same as its original form.

In the literature on language contact, there is significant disagreement as to the status of unintegrated, singly-occurring linguistic items. While some researchers refer to them as *nonce borrowings* that fall within the scope of the contact phenomenon of borrowing, others consider them *switched forms* and incorporate them in their analyses of code-switching phenomena (Myers-Scotton 1992). One aspect differentiating nonce borrowings from switched forms is that the former are part and parcel of the linguistic system of the recipient language while the latter are not. And even though nonce borrowings are not adapted linguistically, they are integrated socially and used by speakers of the recipient language.

Fourth, and perhaps most importantly, switched forms can occur only in the speech of bilingual speakers while borrowings can occur both in the speech of both bilingual and monolingual speakers (though phonetic adaptation is more likely to occur in the speech of monolinguals). For instance, AA uses the loanword *bašūla* ‘gun’, which is an adaptation of the

French word *pistolet* (Aziri [2014] lists this word as an Italian—rather than French—loan with the Italian original form being *pistola*). A monolingual Algerian pronounces it as [bɑʃtʰoːla] whereas a bilingual might keep its French pronunciation, [pistɔlɛ].

Hafez (1996) speaks of three degrees or stages of adaptation.

- 1) The loanword is unadapted and retains its source-language form, as in the case of nonce borrowings. Unadapted loanwords are referred to as imports (Haugen 1950).
- 2) The loanword is partially adapted.
- 3) The loanword is fully adapted to the phonology and morphology of the recipient language and, therefore, it is not distinguishable from the native lexicon.

Among the factors that determine the degree of adaptation are prestige and bilingualism. (Hafez 1996) claims that loanwords that preserve their original form are considered more prestigious than those that do not since they imply that speakers using them are more educated, younger, urban, and of a higher social status. As for bilingualism, Sayahi (2014) argues that denativization of older French loanwords may take place in the Maghreb since more Maghrebis now know French to varying degrees.

In addition to the linguistic differences mentioned above, the phenomena of borrowing and code-switching can be differentiated from each other pragmatically, that is, based on the purpose they serve and the motives that trigger them. While code-switching serves functions such as in-group identification, modernization, confidentiality, and eliteness (Kamwangamalu 2000), borrowing mainly fills in gaps in the host language and introduces new concepts. I see eliteness and prestige as two sides of the same coin, a function of both borrowing and code-switching. A word might gain prestige and currency in a given society by virtue of its being used by the elite.

Finally, it is worth mentioning that code-switching experts such as Myers-Scotton argue that the two phenomena of borrowing and code-switching are interrelated in the sense that code-switching is a venue through which a word may be borrowed. In other words, a loanword occurs first as a switched form and later becomes part of language users' mental representation of the recipient language.

I see bilingualism is a decisive factor in any attempt to distinguish between code-switching and borrowing. If code-switching implies knowledge of two languages, any foreign item, regardless of whether it is adapted or not, must be a loanword if it occurs in the speech of a monolingual. Therefore, I shall use the term *French loanword* to refer to any word of French origin that occurs in the speech of monolingual AA speakers.

Lexical borrowing in Algerian Arabic

As we have seen, AA has influenced, and been influenced by, various languages with which it has come into contact since Arabic was first introduced in North Africa in the seventh century CE. Significant crosslinguistic influences are observed in the area of lexicon. In the absence of language academies that would supervise the creation of neologisms, AA has borrowed from a variety of languages either directly or through an intermediate third language. These foreign elements are the most important factors contributing to the stigmatization of spoken dialects, which have lost their linguistic "purity."

Berber loanwords in Algerian Arabic

Berber has been in contact with Arabic for more than a thousand years. As a result, there has been a considerable linguistic influence between the two, with Berber undergoing the greater change because Arabic has a long written tradition while Berber is largely oral (Brahimi 2000). According to Sayahi (2014), most of the lexical items that Arabic has borrowed from Berber

relate to local fauna and flora and body parts: 1) fauna such as *fakrūn* (MSA *sulahfāt*) ‘tortoise’, *muqargar* (MSA *difda*) ‘frog’, and *hallūf* (MSA, *kinzīr*) ‘pig’; 2) flora such as *zabbūj* (MSA *zaytūn barrī*) ‘wild olive’ and *faggūs* (MSA *šammām*) ‘muskmelon’; and 3) body parts such as *šlāgham* (MSA *šārib*) ‘moustache’, *garjūma* (MSA *ḥalq*) ‘throat’, *malgīga* (MSA *qahf*) ‘cranium’, *gōsmār* (MSA *fakk*) ‘jaw’, and *ar’ūra* (MSA *ḥadaba*) ‘hunched back’. The latter’s meaning has changed slightly. In Berber, it means simply “back” but in AA it refers specifically to a hunched back. This is an instance of a borrowing where the native word continues to coexist with the loanword, with the latter’s meaning slightly changing to capture a semantic nuance. It makes sense that the local fauna and flora kept the names they had had before the Arabs arrived in the area. However, it is not clear what motivates the borrowing of certain names of body parts into Arabic, which are part of the language’s core vocabulary, since one would assume it already had terms for these in its lexicon. According to Tadmor (2009), borrowing core vocabulary constitutes evidence for an intensive contact between the donor and recipient languages, a claim which holds true for Arabic and Berber. In the case of *ar’ūra* ‘hunched back’, the borrowing is motivated by AA speakers’ desire to describe a particular feature of the “back” for which there already exists an Arabic word, *zhar* (MSA, *zahr*).

Greek and Latin loanwords in Algerian Arabic

Algerian Arabic never had contact with Greek. Nevertheless, it has a few words that we can trace back to it through intermediary CA. During the Golden Age of the Islamic civilization, Greek logical, medical, and philosophical writings were translated into CA and culminated in the establishment of *Bayt al-Ḥikma* ‘House of Wisdom’ by the Caliph al-Ma’mūn around 830 CE (Versteegh 2013). In fact, some Greek loans have survived in spoken dialects. For instance, the AA word *tfalsaf* ‘to philosophize’ comes from CA/MSA *tafalsafa*. This is a case of borrowing

through an intermediary language: Greek *φιλοσοφία* /*filosofía*/ > CA/MSA *falsafa*, from which the verb (v.) *tafalsafa* and the verbal noun (v. n.) *tafalsuf* are derived > AA *falsafa* (v. *tfalsaf*; v. n. *tfalsīf*). Note that both of the AA words begin with a consonant cluster, unlike the original MSA forms.

As we have seen, Berber borrowed the word for “chick” from Latin (Kossmann 2013). Later, AA borrowed this loanword from Berber. This is another case of a loanword that has entered the lexicon of AA through an intermediate third language, Berber, in this case: Latin *pullus* ‘a chick’ > Tashelhiyt *afullus* > AA *fallūs* [fəl'u:s].

Turkish and Persian loanwords in Algerian Arabic

Turkish loanwords entered AA in cities that were under the rule of the Ottoman Empire, such as Algiers, Medea, and Constantine. Turkish loans in AA comprise administrative terms, military and maritime terms, names of professions, including government posts, and cultural loans (i.e., food, clothing, and utensils); for example, *bāša*, *bāy* (from Turkish *bey*), and *baylik* (from Turkish *beylik*, the latter of which originally referred to a regional governor with fewer powers than the *bey* in Turkish). In AA, however, it no longer refers to a position in government, but rather is used to mean ‘public’, as opposed to ‘private’, as in the phrases *ṭrīg l-bāylak* ‘public road’ and *sbīṭar l-bāylak* ‘public hospital’. Turkish loans referring to food include famous dishes such as *ḍolma* (Turkish *dolma*), *rašta* (Turkish *erişte*), *kafta* (Turkish *köfte*) and *būrāk* (Turkish *börek*), and deserts such as *baqlāwa* (Turkish *baklava*). Loans referring to clothes include *bābūš* ‘slippers’ and *bašmāq* ‘women’s slippers’, and examples of utensils include *ṭabsi* ‘plate’. In some cases, AA has borrowed only the Turkish suffix *-ji*, to form names of professions from Arabic nouns; for example, *ḥalwa* ‘dessert’ + *ji* = *ḥlāwji* ‘dessert seller/maker’; and *ḳaznāji* ‘a treasurer’, formed from the Arabic *ḳazna* ‘a safe’ + Turkish suffix *ji* (Ben Cheneb 1922). It is

likely that AA has not borrowed the Turkish bound morpheme *-ji* by itself. It might be the case that this morpheme became productive in the language because AA borrowed many Turkish words ending in *-ji*. When a language borrows many words with the same suffix, the latter becomes productive in the recipient language, which begins to apply the suffix to its native lexicon (Hoffer 2002).

A similar case involves the use of Turkish *bāš* ‘head, chief’ as either a prefix or a suffix to an Arabic word (Ben Cheneb 1922). The use of combinations such as *bāš* + name of profession fell out of use in AA and is retained only in proper nouns. For instance, there is a municipality in the capital, Algiers, called *Bāš Jarrāḥ* (literally, ‘chief surgeon’). In addition, there is a theater called *Bāš Ṭārzi* (literally, ‘chief tailor’), named after Mahieddine Bachtarzi, an Algerian writer, director, actor, and musician. Egyptian and Syrian dialects, however, have retained some of the *bāš* compounding in names of professions; for example, the Egyptian Arabic *bāš muhandis* ‘chief engineer’ (Brown 1996).

Persian loanwords were introduced into AA by the intermediary of Osmanli Turkish, which was the language of administration in the Algerian cities that were under the Ottoman rule that lasted for three centuries. In addition, Algerian pilgrims introduced a few other words, which mostly referred to Persian cultural products such as carpets and utensils (Ben Cheneb 1922). Examples of Persian loans include *kāḡaṭ* ‘paper’ (Persian *kāghadh*), *qaṭān* ‘kaftan’ (Persian *khafṭān*), and *zanjar* ‘rust’ (Persian *zangār*) (Nakhla 1960).

Spanish and Italian loanwords in AA

We find examples of Spanish loanwords in the western coastal cities of Tlemcen and Oran, which the Spaniards first invaded in the 16th century. Examples of Spanish loans in AA are *gāna* ‘a desire’, from the Spanish *gana*, and *tbarna* ‘tavern’ (from the Spanish *taberna*) (Guella

2011). In the case of French-Spanish cognates such as Spanish *semana* and French *semaine*, it is hard to know with certainty which is the donor language, especially because AA is mainly a spoken language with few written sources. The unavailability of written resources on AA makes it hard to trace back the origin of older loanwords because information on when the loanword was first attested in the language is lacking.

Some Spanish loans entered AA through Andalusian Arabic, the variety of Arabic that was spoken on the Iberian Peninsula before the expulsion of the Muslims who introduced it into the North African countries where they took refuge. According to Sayahi (2014), this Arabic variety is extinct now; however, it still survives in Morocco and Algeria in the musical genre known as Andalusian, which has its origins in *al-Andalus*. In Algeria, for instance, there are three Andalusian musical genres, namely the *Ġarnāti* (literally, from Granada) in Tlemcen, the *San'a* (literally, 'craft', 'skill') in Algiers, and the *Mālūf* (literally, 'traditional', 'customary') in the east of the country.

Italian words entered AA with the Italian settlers that the French brought, along with settlers from many other European countries, to settle the lands that were confiscated from native Algerians. An example of an Italian loan is *sordi* 'money' (from the Italian *soldi*). It should also be noted that some Italian words entered AA through Pataouète, a lingua franca spoken mainly at seaports, as discussed above.

French loanwords in Algerian Arabic

The recent colonial history of Algeria allowed for intensive contact between French and AA, which led to heavy lexical borrowings from French into Arabic, by far the largest in the history of the language. This influx was motivated by the colonial language policies adopted to culturally assimilate ("Frenchify") the natives. The French colonial administration adopted three

language policies to fulfill its mission (Sayahi 2014). First, access to school was restricted to the Europeans and the native elite. Second, the ethnic division between Arabs and Berbers was reinforced. The French administrators applied different linguistic and educational policies to Arabic and Berber, especially the variety of Berber spoken by the Kabyle people in the north and northeast of Algeria. The French believed that the Kabyles, who “had no culture of their own,” could be assimilated into French culture, while Arabs could not (Murphy 1977, 4). This came to be known as the “Kabyle myth” (Benrabah 2013). Third, use of Arabic, which was decreed a foreign language in 1938, was severely restricted and use of French extended to all aspects of public life: economy, education, administration, and literary production.

Most of the French loans that entered AA did not retain their original form. They were adapted phonologically, morphologically, and syntactically. A few linguists have investigated AA and fewer have studied the language-contact phenomenon of borrowing. In the following chapter, I shall review the literature on loanword adaptations in various contact situations around the world and in the more specific case involving AA.

CHAPTER 2

LINGUISTIC ADAPTATION AND SOCIOCULTURAL FACTORS

A la maison, l'arabe que nous parlons ferait certainement rougir de colère un habitant de La Mecque. Savez-vous comment on dit les allumettes chez nous, par exemple ? *Li zalimite*. C'est simple et tout le monde comprend. Et une automobile ? *La taumobile*. Et un chiffon ? *Le chiffoun* ... le Maroc ? Mes parents ont toujours dit *el-Marroc*, en accentuant le *o*. Alors je répons à M. Loubon :

- LE Maroc, m'sieur, ça se dit *el-Marroc* !

D'abord, il parait un peu stupéfait, puis il poursuit :

- On ne dit pas *el-Maghreb* ?

- Ah non, m'sieur. Mon père et ma mère, ils disent jamais ce mot. Pour appeler un marocain, ils disent *Marrocci*.

Azzouz Begag, Le gone du Chaâba

(“At home the Arabic we spoke would no doubt make the residents of Mecca flush with anger. For example, do you know how we would say *les allumettes* [matches]? *Li zalimite*. It was simple and everybody understood it. And *automobile*? *La taumobile*. And [un] *chiffon*? *Le chiffoun* [...] *Morocco* [sic.]? My parents had always said *el-Marroc*, putting a stress on the *o*. so I replied to Monsieur Loubon:

‘For Morocco, sir, we say *el-Marroc*!

At first, he seemed quite surprised; then he continued:

‘Don’t you say *el-Maghreb*?’

‘Oh, no, sir. My father and mother never use that word. To call someone a Moroccan, they say *Marrocci*’ (Trans. Wolf and Hargreaves, 175-76).

How did French loanwords such as *allumettes* ‘matches’, *chiffon* ‘cloth’, *automobile* ‘car’, and *Maroc* ‘Morocco’ mentioned in the epigraph above enter Algerian Arabic (AA)? Were they introduced by bilingual or monolingual speakers? After they entered AA, how were they phonologically and morphologically integrated? Did speakers of AA take into consideration phonetic details in the source French words or did they ignore them? And what strategies did they employ when a lexical item did not conform to the native grammar?

Sociolinguistic evidence suggests that French loanwords, the earlier ones to be more specific, were neither introduced by a monolingual nor a bilingual. They were imposed by the French colonial administration and French personnel, who did not speak AA and who interacted with the native Algerians in areas such as the military, education, and construction. Most historical accounts agree that by 1962, the year when Algeria gained independence, the overwhelming majority of Algerians were illiterate in French (at least 95%), an illiteracy that was imposed both by the French discriminatory educational policies and the Algerians' reluctance to join the dubious colonial schools. As for the transformations these loanwords have undergone, my data show evidence of both phonetic adaptations, where the borrower is sensitive to phonetic details in the source-French word, and phonemic adaptations. In addition, these adaptations are sensitive to the phonotactic constraints imposed by AA grammar. My data show that phonotactic constraints, such as a constraint against onsetless syllables and non-final open syllables, play a major role in the adaptations. Another factor that plays a significant role in the adaptations is the morphology of AA, that is, its root-and-pattern system and AA canonical word shape. In certain cases, the deletion versus preservation of a source segment and the unpacking versus denasalization of a nasal vowel are determined by the number of consonants and syllables the French source word has.

In this chapter, I first discuss phonological adaptations that loanwords undergo when they enter the recipient language, namely: segment substitution, insertion, and/or deletion and phonotactic restrictions. I also discuss how various recipient languages adapt nominal and verbal loanwords morphologically. I then discuss the sociocultural circumstances that motivate borrowing.

Even though AA and French are structurally different and belong to different language families, AA borrowed extensively from French. I argue that this rate of borrowing is motivated by the following factors: 1) The French colonial administration disrupted the diglossic, complementary relationship between AA and Modern Standard Arabic (MSA) and created a rift between the two varieties in colonial Algeria. Many neologisms were created in MSA to refer to new cultural objects and institutions introduced by the French, but remained inaccessible to most Algerians, who were illiterate. As a result, the Algerian masses had to borrow from French because the MSA neologisms were only known to the literate few; 2) after independence, relatively more Algerians gained access to French, through education, than it was the case under colonization. Before the Algerian government gradually adopted arabicization in education, French had been the language of instruction due to pragmatic reasons, such as lack of qualified personnel to teach Arabic; and 3) the ex-colonizers' language enjoyed prestige shortly before and after independence among an impoverished population. In addition, AA, unlike MSA, has no standard form to which its speakers are expected to conform; there is no academy of AA to guard it against the "intrusion" of foreign elements as is the case with languages such as French, Chinese, and MSA. The borrowing rate in AA is also aided by the fact that it is mainly an oral language.

Borrowing words, phrases, or even affixes, from another language is a common phenomenon (Fromkin, Rodman, and Hyams 2013). It takes place when people from different linguistic backgrounds come together as in the case of colonization, immigration, trade (Haugen 1956), or pilgrimage. French loanwords in AA, French and Spanish loanwords in Moroccan Arabic (MA) (Heath 1989), and French loanwords in Fula, Kinyarwanda, and Lingala (Paradis and Prunet 2000; Paradis and LaCharité 1997) are all examples of borrowing that took place

when a colonizers' language came into contact with that of the colonized. Due to immigration, many languages have come into contact with each other. For example, the Norwegian immigrant population of Wisconsin borrowed many American-English (AE) loanwords (Haugen 1956, 1950). During trade transactions between the Omanis and Tanzanians in east Africa, many Arabic words entered Swahili, a borrowing that was reinforced by the spread of Islam among the Tanzanians. As for pilgrimage, some Persian loanwords were introduced into AA by Algerian pilgrims (Ben Cheneb 1922).

Phonologists have long held interest in loanword adaptations because analyses of loanword data can inform our knowledge of the phonology of the recipient language. Certain phonological processes such as segmental substitution, deletion, and/or insertion may not be readily visible through analyses of the native phonology but may become apparent in the analysis of loanwords. For instance, Paradis and Prunet (2000) use both internal evidence, from French, and external evidence, from French loanwords in a variety of languages, to support their argument that French nasal vowels are underlyingly biphonemic, that is, they consist of two phonemes: a vowel (V) and a following nasal (N). The fact that these nasal vowels are consistently unpacked and adapted as VN sequences in languages that lack nasal vowels, such as MA, Fula, Lingala, and Kinyarwanda, constitutes further evidence that they are indeed biphonemic (Paradis and Prunet 2000). With the advent of constraint-based framework of Optimality Theory (Prince and Smolensky 1993), loanword adaptations provide insight into the ranking of faithfulness constraints (Itô and Mester 1994; Paradis and Prunet 2000), a ranking which I discuss further below.

In addition, the way different languages adapt foreign items reveals cross-linguistic or universal processes (Kang 2011). Among the universal tendencies observed in a cross-linguistic

comparison of various recipient languages, which was undertaken by the World Loanword Typology project (WLT), are the following: most, if not all, languages have borrowed lexical items at some time in their history; culturally-specific vocabulary is more susceptible to borrowing than core vocabulary, which is common to both cultures and for which the recipient culture has a word; and content words are more borrowed than function words (Tadmor 2009). In the area of phonology, and based on their large database, Paradis and Lacharité (1997) argue that an illicit segment in the donor language is always replaced by one single segment in the recipient language, never two, and that, when faced with an illicit syllabic structure, languages tend to resort to epenthesis (i.e., insertion) rather than deletion to repair it, what they call the *preservation principle*.

Analysis of loanwords may also help us trace the history of the speakers of the recipient language (Fromkin, Rodman, and Hyams 2013). In AA, for instance, the origin of some loanwords could be traced as far back as when the Romans ruled North Africa even though Latin and AA did not come into direct contact with each other. In addition, the fact that some French loanwords refer to military and educational referents reveals areas where the French had the greatest impact on the lives of speakers of AA.

When a word is borrowed, it usually undergoes adaptation processes for it to conform to the phonology and morphology of the recipient language while maintaining as much as possible the original form it had in the donor language.

Below I enumerate the linguistic (phonological and morphological) processes that a loanword undergoes, first drawing examples from a variety of language-contact situations involving other language pairs. I then discuss these adaptations and related literature in the particular context of AA. Wherever possible, I will keep the notations and transcription,

phonemic or phonetic, provided by the original resource. If no transcription is provided, as is the case with most examples from the WLT project, and if I know the language in question, I will supply the phonemic transcription myself. In those instances where I illustrate a point with examples from my data, I transliterate the AA word, provide the spelling for the French word, and transcribe both of them phonemically. But when it is necessary to draw the reader's attention to phonetic details or allophonic variations, I will provide the phonetic transcription instead.

Linguistic adaptations

A loanword may undergo any or all of the following adaptations: phonetic/phonological, morphological, syntactic, and semantic. Some loanwords may be borrowed without any alteration to their original form, what Haugen (1950) calls importations. For the purpose of this dissertation, I am more interested in the former two types of adaptations, namely phonological and morphological.

Phonological adaptations

A borrowed item that has illicit forms that do not conform to the phonetic, phonological, or morpho-phonological structure of the recipient language usually undergoes repair strategies that target the illicit form and make the loanword conform to the native grammar (Kang 2011). In terms of phonological and morphological adaptation, there are three groups of loanwords, namely fully-adapted loanwords, partially adapted loanwords, and loanwords with minor or no adaptations, that is, imports (Kossmann 2009; Haugen 1950). One factor that determines the degree of assimilation is the time when the loanword entered the recipient language: earlier loans seem to be more assimilated than later loans. In addition, if borrowing continues over an extended period of time, it may influence the borrowing-language phonology, which in turn influences how a loanword is adapted. For example, Latvian borrowed the German word *kaffee*

‘coffee’ on two different occasions, first as *kapija*, where the illicit phoneme /f/ is adapted as /p/, and later as *kafiĵa*, after the phoneme /f/ has been incorporated into Latvian as a result of extensive borrowing over an extended period of time (Steinbergs 1985). Another factor, which plays a role in how a loanword is adapted, is bilingualism (Haugen 1950); for example, the older Norwegian immigrant generations imported AE whip [ʰwɪp] ~ [wɪp] as [hyppa], where labial glide [w] and front vowel [ɪ] coalesce into front rounded vowel [y]. The younger generations, who had extensive contact with AE, however, adapt it as [wippa]. A third factor relates to the social setting where the loanword is used: urban speakers tend to use less adapted forms of the loanword than rural speakers (Steinbergs 1985). This sounds plausible since urban speakers have a better chance of knowing the source word, either through education or contact with a native speaker, than a rural speaker. In urban centers in Algeria, such as Algiers, some people draw from various linguistic repertoires, including French, and mix them in speech, or even use French exclusively.

Fully adapted loanwords

In fully adapted loanwords, source-language sounds are replaced by the “closest” ones in the recipient language. Some loanword phonologists measure closeness in terms of perceptual similarity between the foreign segment and a native one (Peperkamp 2004), while others view it in terms of distinctive features. The French word *adjutant* /adʒydɑ̃/ ‘sergeant major’ is adapted into AA as *jūdān* /dʒu:da:n/, where French illicit segments (i.e., segments that are not part of the phonemic system of AA), are replaced with native segments: French /y/, a high front rounded vowel, is substituted by AA /u:/ (i.e., its back counterpart) and /ɑ̃/, an open back unrounded nasal vowel, by AA /a:n/ (i.e., its oral counterpart followed by a nasal). In this example, we see that the

French segments were replaced by AA segments that are similar to them, with the differences in each case being one distinctive feature.

Another example where the recipient language replaces foreign sounds with native ones comes from Nigerian Arabic (NA), which does not have MSA pharyngeals /ħ/ and /ʕ/, interdental fricatives /θ/ and /ð/, nor diphthongs in its sound inventory (Owens 2000). These MSA phonemes are replaced by native NA sounds: MSA /ħ/ > NA /h/; MSA /ʕ/ > NA /ʔ/; MSA /θ/ > NA /t/ ~ /s/; MSA /ð/ > NA /d/ ~ /z/, MSA /ay/ > NA /ee/; and MSA /aw/ > NA /oo/. For example, MSA *baḥath* /baħaθ/ ‘research’ > NA *bahas* /bahas/, where MSA /ħ/ and /θ/ are replaced by NA /h/ and /s/, respectively. In his analysis of loanwords in NA, Owens (2000) considers MSA as a donor language along with African and European languages that contributed loanwords to NA. In my dissertation, I use a different approach from Owens’ where I consider MSA as a reference point to describe AA rather than a donor language from which AA has borrowed. I consider any differences between MSA and AA as internal rather than external changes in the language.

Partially adapted loanwords

In the second group of loans, the phonological adaptation is only partial. For example, the French (determiner + noun) phrase *le vote* ‘the voting’ is adapted as AA *l-vōṭ* /lvu:tʰ/, where the illicit sound /v/ is retained but the sound /t/ is realized as emphatic /tʰ/. Emphasis on the consonant /t/ is a prerequisite to realize AA vowel /u/ as [o]. The French verb *voter* ‘to vote’ > AA *vōṭā* /vu:tʰa:/ ‘he voted’ (imperfective *yvōṭē* /jvu:tʰi:/) has emphatic /tʰ/ as well. If this word were fully adapted, it would not have the sound /v/, which is not part of the phonemic inventory of AA. It is worth mentioning that all instances of French /v/ in loanwords in Hadj Sadok’s (1955) study were adapted as AA /f/ (or /b/ in a few cases), never as /v/. As I mentioned above,

more Algerians now have access to French than they did during colonization. As a result, foreign sounds such as /p/ and /v/ found their way into AA. Paradis and Prunet (2000) report a similar case in Fula, where French /z/ and /v/ are beginning to be part of the language.

A further example of partial adaptation comes from Haugen's (1950) study. AE *whip* /hwip/ is adapted as /hypp/ by American immigrants whose first language is Norwegian. Here, the English sound /h/ is preserved, whereas the glide + vowel sequence /wi/ is replaced by /y/, which merges the "round" feature of the glide /w/ and the "front" and "high" features of /i/. Recall that this word is adapted as /wippa/ by the younger generations by virtue of increased bilingualism.

A third example of a partially adapted loanword comes from NA. NA verb *taʔallam* 'he learned' is partially adapted. Phonologically speaking, it is fully adapted since MSA pharyngeal /ʕ/ is replaced with NA glottal stop /ʔ/. Morphologically, however, it has retained its source MSA pattern *tafa* 'al (ta.CaC.CaC) instead of adopting the NA pattern al-CaCCaC (Owens 2000).

Loanwords with minor or no adaptations

The process by which a loanword does not undergo phonological substitution is called importation, where only minor or no adjustments take place (Haugen 1950). As in the case of partially-adapted loanwords, the recipient language adopts some new sounds, which occur only in foreign words. Sa'id (1967) refers to these phonemes as peripheral, as opposed to core or native, phonemes. The latter pose a structural problem as to their status in the recipient language (Sa'id 1967). In other words, should the recipient language treat the new sounds it has acquired through loanwords as phonemes, as in the donor language, or allophones, as in the native system? For instance, the sounds /p/ and /b/ are distinct phonemes in French because substituting one for another changes the meaning of the word; for example: *poule* /pul/ 'hen' vs. *boule* /bul/

‘ball’. However, the sound [p] is an allophone of the phoneme /b/ in Arabic. It only occurs when voiced /b/ loses its voicing before voiceless consonants, what is known as “devoicing assimilation,” for example, *katabt* /katabt/ ‘I wrote’ may be pronounced [katapt] in fast speech. There are cases where the recipient language does not have any equivalents of the newly acquired sounds in its sound inventory. Sa’id (1967) argues that peripheral phonemes should still keep their peripheral, allophonic, status in the recipient language. Paradis and LaCharité (1997) argue that fully-assimilated loanwords are part of the core lexicon of the recipient language, like most native words, whereas partially-assimilated loanwords and imports are part of the periphery, together with “some interjections, onomatopoeia, proper names and learned vocabulary” (388).

Many loanwords defy categorization into one of the groups mentioned above, as is the case when the original source word does not contain any sounds foreign to the recipient language (Haugen 1950). For example, the French compound *flash disque* /flaʃ#disk/ ‘flash drive’, does not have any sounds that are not part of the sound system of AA. Therefore, we cannot tell for sure whether it is fully, partially, or not adapted when it is integrated into AA. It is worth mentioning that this compound, which consists of two independent morphemes in the donor language, namely *flash* ‘flash’ and *disque* ‘disc’ is unsegmentable in AA and is treated as monomorphemic. AA speakers who are not proficient in French might not be aware of its composite form.

Other examples of composite loanwords adapted as simple words come from Hadhrami Arabic (HA), a dialect of Arabic that is spoken in Yemen; for example, English compounds *land rover* and *kneecap* are adapted as HA *lāndrōfar* and *nīkab*, respectively. In some cases, the second element of the compound is deleted; for example, *silf* ‘self-starter’ (Bahumaid 2015).

Bahumaid (2015) gives one example of a compound where the first, rather than the second, element was deleted, namely air-conditioner > HA *kandēshan*. To me, this seems to be caused by the fact that the first element “air-” begins with a vowel, which is not permissible in Arabic. Arabic has a restriction against an onsetless syllable, that is, a syllable that begins with a vowel.

The phonological adaptations that a language employs to integrate loanwords may target individual segments, i.e., consonants and vowels, or suprasegments, that is, units that are larger than the segment. Suprasegmental adaptations may target syllables, which I discuss in the section on phonotactic adaptations below, and prosodic units such as stress, pitch accent, and tone, which fall outside the scope of this dissertation.

Segmental adaptation

When the foreign input contains a non-native segment, this segment is replaced with the closest sound in the native phonology. For instance, both MSA and the spoken dialects lack the French vowel /y/, which is a high front rounded vowel, as in *bureau* /byro/ ‘office/desk’. Speakers of Moroccan Arabic (MA) adapt it variably as /u/, preserving its roundedness feature, or /i/, preserving its frontness feature (Kenstowicz and Louriz 2009). Speakers of Egyptian Arabic (EA), too, adapt it in a similar way, that is, as either /u/ or /i/ (Hafez 1996). Similar adaptations of French /y/ as either /u/ or /i/ are observed in Tunisian Arabic (TA) (Mzoughi 2015). NA adapts the French loan *voiture* /vwatyr/ ‘car’ as *watiir* (Owens 2000). Here, /y/ is adapted as /ii/. In all of the above examples, French /y/ is replaced with one native segment. Russian, however, adapts it as two segments, /ju/, and keeps both its frontness and roundedness features (Haspelmath 2009). Standard British English (BE), too, adapts French /y/ as /ju/; for example, Fr. *université* /yniversite/ and *universel* /yniversel/ > BE. *university* /,ju:nɪ'vɜ:sɪti/ and *universal* /,ju:nɪ'vɜ:səl/ respectively.

Vietnamese represents an interesting case because it adapts French /y/ as all of the above. Like Russian, it keeps both frontness and roundedness features and adapts /y/ as /wi/ in most cases (Kang, Pham, and Storme 2016) (Recall that in American Norwegian, the inverse case was observed, that is, /wi/ in /hwip/ was adapted as /y/ in /hyppa/). In addition, it also adapts it as in Moroccan, Egyptian, and Tunisian Arabic, that is, as /u/ or /i/, both of which retain one feature of /y/ but retain its being one segment.

In the above examples, we saw how various languages adapt a vocalic segment that is not part of their phonemic inventory. Consonants, too, may be adapted and replaced with the closest native consonant. For example, a Native American language, Massachusetts, “an extinct eastern Algonquian language spoken aboriginally and in the Colonial period in what is now southern Massachusetts” (Goddard and Bragdon 1988, xv), lacked the liquids /l/ and /r/ and substituted them for /n/ when borrowing English loanwords, for example, *share* > *shaan* (Rees-Miller 1996). Oshikwanyama, a Bantu language spoken in Namibia and Angola, lacks one of the liquids, namely /r/, and replaces it with the lateral liquid /l/; for example, Eng. *tire* [tajə] > Oshikwanyama [etayela] (Steinbergs 1985).

Considering all of the above segmental adaptations, the question that is worth asking then is whether these adaptations operate at the surface phonetic level of incoming loanwords or at a more abstract level, that is, the phonological one.

Input to the adaptation processes

While some loanword phonologists argue that the input to the adaptation processes is the underlying mental representation (i.e., phonemic representation) and that the recipient language ignores articulatory details (Paradis and Prunet 2000; Paradis and LaCharité 1997), others (Peperkamp 2004) argue that the input is the surface or actual phonetic representation. Yet, a

third group argues that both phonetic and phonological representations serve as input to adaptation. Kang (2011) argues that evidence from empirical research has shown that both representations are involved in adaptation processes. In addition, and based on evidence they gathered from analyzing the adaptation of French loanwords in Vietnamese, Kang, Phạm and Storme (2016) argue that various factors including recipient language phonological restrictions, phonetic similarity between the source and native sounds, and donor language phonological knowledge (in this case French), interact to affect adaptation.

Closely related to this debate is whether loanwords have been introduced into the recipient language by monolingual or bilingual speakers, who would adapt these loanwords differently by virtue of their knowledge, or lack thereof, of the donor language. The monolingual, who does not have access to the phonology of the donor language, would adapt a loanword based on phonetic/perceptual proximity between foreign and native sounds, that is, from ear to mouth. The bilingual, on the other hand, would adapt it based on phonemic proximity irrespective of phonetic, articulatory and acoustic, details.

Algerian Arabic presents a unique case in that some of the loanwords were introduced, or rather imposed, by the donor language speakers. Brunot (1949) claims that French loanwords in Moroccan Arabic (MA) were introduced by French speakers who were in daily contact with the native population. He even gives examples of loanwords introduced by Algerian soldiers and interpreters who worked for the French army. Among the French who introduced loanwords into MA are army officers, pharmacy boys, construction managers, and administration clerks and personnel (Brunot 1949). Some French loanwords, mostly the earlier ones, seem to have entered AA in a similar way, which I discuss further below when I talk about the sociocultural factors that motivated borrowing into it. Indeed, most of the loanwords in Hadj-Sadok's (1950) study

fall within the areas of military, construction, education, and administration. Going back to the time when the French were in Algeria, one can imagine the following scenario of how French medical loanwords entered AA: An Algerian enters a drugstore to buy medication. He gives the prescription to the French pharmacy boy. The latter will hand him the medication, point to it, say its name, and explain how to take it, maybe using gestures, similar to the way a foreign language instructor introduces new vocabulary without recourse to the students' first language. Upon returning home, the Algerian gives the medication to his sick relative and uses the names for the medication; for example, *sīru* 'syrup' (Fr. *sirop* /siro/) and *kāši* 'pills' (Fr. *cachet* /kaʃε/). The same holds true for an Algerian conscript in the French army, a female servant in a French household, or an Algerian student in a French elementary school. In situations like these, it would be hard to imagine that the Algerian speaker who introduces a loanword s/he has just heard from a French speaker would have access to its abstract phonological representation.

Recall that the phonemic representation refers to the string of phonemes that make up a word and that the phonetic representation refers to the actual pronunciation of phonemes and provides more articulatory details. An example from AA is the word *šēf* 'summer.' Phonemically, this word is transcribed /s^hi:f/. Phonetically, it is transcribed [s^he:f], where the high vowel /i/ is lowered to [e] as a result of being adjacent to the emphatic consonant /s^h/.

Below are examples of pairs of languages where a sound is a phoneme in one but an allophone in the other. According to proponents of the phonological view, the recipient language ignores surface articulatory details (i.e., allophones) and maps donor language phonemes with native ones, a claim that is not supported by my data, as we see in the analysis chapter.

The sound /q/ is both a phoneme and allophone in NA. As a phoneme, /q/ has three slightly different realizations or allophones, namely [q], [g], and less commonly [k] (Owens

2000). This is similar to AA (see Chapter 3, where I discuss the phonemes of AA and their allophones). As an allophone, [q] substitutes MSA /ʔ/; for example, MSA *ṣaḡīr* ‘small’ /sʕaʔi:r/ > NA *saqīr* [sʕaʔi:r]. Interestingly, a similar phenomenon is observed in the dialects of Djelfa, Laghouat, and Bou Saada in Algeria (see Spoken Algerian Arabic in Chapter 1).

The MSA affricate sound /dʒ/ has three allophones, namely [dʒ], [ʒ], and [g], which vary according to geographical area. For example, it is pronounced as [dʒ] in Iraq and the Gulf, as [ʒ] in most of the Levant region and North Africa, and as [g] in Cairo (Brustad, Al-Batal, and Al-Tonsi 2009). In some Algerian dialects, the affricate /dʒ/ is pronounced as [dz]. For example, MSA *al-Jazāʾir* ‘Algiers’ /ʔaldʒaza:ʔir/ is pronounced *dzāyar* [dza:jar] in AA, likely to differentiate it from the name of the country, Algeria, which is homophonous with “Algiers” in MSA. This might be a case of deaffrication (replacing the affricate with a non-affricate), in this case the stop /d/, after dropping the vowel /a/ from the first syllable: /dʒaza:ʔir/ > /dʒza:yar/ > /dza:yar/. Pronouncing the sequence affricate + fricative, /dʒz/, as [dz] is easier because the affricate sound itself is a combination of a stop followed by friction.

Rendering /dʒ/ as /j/ is usually associated with Gulf Arabic and pronouncing it as [g] with Egyptian Arabic (EA) (Holes 2004). In Kuwait, /dʒ/ is palatalized as [j]; for example, MSA *dajāj* ‘chicken’ /dadʒa:dʒ/ > Kuwaiti Arabic *dayāy* [daja:j]. In the Arabic textbook *al-Kitaab* (2011), the Egyptian characters pronounce MSA words containing the sound /dʒ/ as [g] even though the latter sound is typically associated with colloquial EA rather than the standard MSA pronunciation. This observation was confirmed by an Egyptian colleague of mine, who pronounces MSA words such as *jamīl* ‘beautiful’ /dʒami:l/ and *jiddan* /dʒiddan/ ‘very’ as *gamīl* [gami:l] and *giddan* [giddan], respectively. Pronouncing /dʒ/ as [g] can be even heard in formal contexts, where one would expect /dʒ/. During a recent Friday sermon at the Islamic Center in

Madison, Wisconsin, the *kaṭīb* ‘preacher’ pronounced MSA *jumu‘a* as [gumu‘a], a pronunciation which revealed his Egyptian background. His pronunciation of *jumu‘a* was not completely colloquial, where one would drop the vowel in the second syllable [gum‘a], nor completely MSA [dʒumu‘a]. But when he recited qur’anic verses, he pronounced /dʒ/ as [dʒ]. In addition, words with a /dʒ/ sound are rendered differently in MSA news reports on Al-Jazeera depending on where the reporter comes from. Another factor that determines how affricate /dʒ/ is pronounced has to do with the socioeconomic background of the speaker (Holes 2004). Speakers of Bedouin and rural dialects generally keep the MSA pronunciation [dʒ], whereas in urban dialects they pronounce it [ʒ]. In my native dialect, Setifian Arabic, which is an urbanized rural dialect, we use the allophone [dʒ], whereas my colleague, who speaks the urban dialect of Algiers, uses [ʒ] instead.

The allophones of MSA /dʒ/ in the various dialects, namely [dʒ], [ʒ], [g], and [j], become significant when adapting English loanwords, where all of these sounds are phonemic, and French loanwords, where all but /dʒ/, which is not a French sound, are phonemic as well. Of these four sounds, only /dʒ/ and /ʒ/ are relevant to my analysis. They are allophonic in AA; for example, in my native dialect, Setifian Arabic, we have [dʒ], whereas in Algiers, Skikda and Annaba, they pronounce it [ʒ]. Interestingly, French loanwords that have the phoneme /ʒ/ are adapted as [dʒ] in the dialects that have this allophone; for example, *gārāj* /ga:ra:dʒ/ ‘garage’ (Fr. *garage* /garaʒ/) and *jādārmī* /dʒa:da:rʃmi:/ ‘gendarme’ (Fr. *gendarme* /ʒādarm/).

In addition, French, has the phoneme /r/, which has four allophones, namely apical [r] and uvular [R] trills, uvular fricative [ʀ], which occurs in consonant clusters, and less frequently velar approximant [ʁ] and voiced [sɪc] uvular fricative [χ], which occur intervocalically (Fagyal,

Kibbee, and Jenkins 2006). The latter allophone is actually voiceless. Two of these allophones, namely voiced [ɣ] and voiceless [χ], are separate phonemes in AA.

Notwithstanding who introduces the loanword and at what stage the adaptation takes place, below is a description of the strategies that various languages employ when they encounter an illicit form, that is, a form that does not conform to the native system in the incoming loanwords. These are referred to as repair strategies (Kang 2011).

Adaptation of illicit forms (repair strategies)

When a language encounters an illicit form, it employs one or more of the following strategies to repair it: too many solutions, divergent repair, unnecessary repair, differential importation, and retreat to the unmarked (Kang 2011). Following is a definition and illustration of each of these strategies.

Too many solutions

Some languages do not allow onset clusters (i.e., onsets with more than one consonant). In these languages, a borrowed word with an illicit form, C_1C_2V , may be adapted in either of two ways to break the impermissible cluster: 1) one consonant is deleted, yielding the licit forms C_1V or C_2V ; 2) a vowel is inserted either before the consonant cluster, if the language allows onsetless syllables, yielding VC_1C_2V , syllabified as $VC_1.C_2V$ (where the period stands for syllable boundary), or inside the cluster, yielding C_1VC_2V , syllabified as $C_1V.C_2V$. The same adaptation strategies are employed to repair complex codas in languages that do not allow them. Fula, which is spoken in west and central Africa and does not allow consonant sequences in onsets and codas, adapts them by inserting a vowel after the consonant cluster if it is composed of a sonorant followed by an obstruent; for example, Fr. *carde* [kard] ‘comb’ > Fula [kar.da];

otherwise, it inserts the vowel inside the consonant cluster; for example, Fr. *mètre* [mɛtr] ‘meter’ > Fula [mɛɛ.tɛr] (Paradis and LaCharité 1997).

Mandarin Chinese (MC) adopts both strategies, that is, deletion and insertion, to adapt loanwords with consonant clusters. For example, Eng. Frankfurt /'fræŋk.fɔrt/ > MC /fa.lan.ke.fu/ (Wiebusch and Tadmor 2009); Eng. clone /kloʊn/ > MC /k^hɿluŋ/ (Miao 2005). In a dissertation on English loanwords in MC, Kim (2012) claims that MC prefers to insert a vowel to preserve the cluster, which is attested in most cases according to her. In the few cases where a consonant is deleted, it is always the /r/ sound that is dropped: CrV > CV. The argument she advances for dropping the /r/ needs scrutiny since there are cases in her data where the /r/ is preserved and adapted as /l/. This is a tendency I have observed among Chinese learners of Arabic, many of whom pronounce Arabic /r/ as [l].

Japanese, too, inserts an epenthetic vowel, /u/, to break consonant clusters (Schmidt 2009); for example, Eng. spoon /spu:n/ and fruit /fru:t/ > Jap. *supūn* and *furūtsu*, respectively. After the consonant /t/, however, Japanese inserts /o/ instead; for example, stove /stouv/ > Jap. *sutōbu*. In addition to breaking the consonant cluster, Japanese inserts a vowel to prevent an oral consonant from occurring in a coda position.

There are cases where a language allows only certain types of consonant clusters. For example, Thai allows stop + liquid clusters in the onset, but disallows other consonant clusters. When adapting loanwords with illicit clusters, Thai resolves the constraint by inserting the epenthetic vowel /a/, for example, Eng. steak /steɪk/ and sling /sliŋ/ > Thai *sà.ték* and *sàliŋ*, respectively; but Eng. break /breɪk/ > Thai *bre* (Suthiwan and Tadmor 2009).

Algerian Arabic, unlike MSA, allows two-consonant clusters in a syllable onset. However, it does not allow onsets with more than two consonants (i.e., CⁿV, where n > 2); an

epenthetic vowel [ə] is usually inserted to break consonant clusters that result from prefixing the definite article *l-* to words that begin with a two-consonant cluster; for example, prefixing *l-* /l-/ ‘the’ to the AA word *ktāb* [kta:b] ‘a book’ yields *lktāb* /lkta:b/ ‘the book’, which has an illicit three-consonant cluster in the onset. To break such an impermissible cluster, AA inserts a schwa vowel, i.e., [ə], yielding [lək.ta:b].

Divergent repair

Divergent repair refers to those instances where the repair chosen for loanwords had no precedents in the native phonology. In other words, the loanword and native word may violate the same constraint imposed by the recipient-language grammar. However, the latter repairs the violation differently, where one would expect the same repair strategies to apply for both the native lexicon and loanwords. For instance, the requirement in Thai that a final syllable be heavy (i.e., of the form CVC or CVV) is satisfied by inserting a glottal-stop /ʔ/ at the end of native Thai words. However, this same requirement, that is, heavy final syllable, is satisfied by lengthening the vowel in incoming English loanwords, a technique that is not attested in the native lexicon (Kang 2011). OshiKwanyama has a ban against nasal + voiceless consonant clusters. In the native lexicon, this constraint is repaired by coalescence; for example, Class 4 plural-prefix morpheme *e:(N)-* + stem *-pat-* ‘rib’ > [e:mati] ‘ribs’, where the nasal N and the voiceless stop /p/ merge into [m]. In loanwords, however, the same constraint is repaired by voicing the voiceless plosive, a repair strategy that is not attested in the language; for example, Eng. stamp [stæmp] > OshiKwanyama [sitamba] (Steinbergs 1985).

Syllable-codas in languages that do not allow them are repaired either by deleting the consonant in the coda or inserting a vowel after it. An example of a language that does not allow codas is Maori, a language spoken in New Zealand, which deletes the coda in native basic verb

forms; for example, /inum/ ‘drink’ > [inu]. In English loans, however, codas are repaired through vowel insertion; for example, Eng. cream /kri:m/ > Maori [kirimɪ] (Yip 2002).

In the literature on Japanese, three strata are identified in its lexicon, namely the native stratum, the Sino-Japanese stratum, and non-Chinese foreign vocabulary (Schmidt 2009). Some differences in phonological adaptations are observed among the various strata. For instance, palatalization in the native lexicon is confined only to consonants preceding the vowel /i/. In Sino-Japanese stratum, however, palatalization can also occur before /a/, /o/, and /u/ (Schmidt 2009).

Unnecessary repair

In unnecessary repair, adaptation takes place even when there is no apparent illicit structure in need of repair. For instance, Hungarian lengthens a consonant, especially if it is voiceless, when it occurs after a stressed short vowel in loanwords, a lengthening conditioned by the requirement that a syllable be heavy even though the native grammar has licit non-heavy syllables (Kertész 2006). For example, Eng. weekend > Hungarian [vikkend] (Nádasdy 1989). Standard Mandarin (SM) adapts English loanwords that have a nasal sound in medial position, which is licit in SM, by nasal gemination or doubling; for example, Eng. Daniel > SM [tan.ni:.ən] (Huang and Lin 2013). A similar phenomenon is observed in AA, which adapts some French loanwords by doubling the consonant. However, unlike SM where consonant gemination, in this case nasal gemination, is an unnecessary repair, it is necessary in AA. This is the case when the syllable preceding the consonant is light (i.e., CV, where V is a short vowel), a syllable structure that is illicit in non-final light syllables in AA; for example, Fr. *taupe* /top/ ‘rat’ < AA *ʈobba* /tʰub.ba/. Adapting it as **ʈoba* /tʰu.ba/ results in an illicit syllable structure because the first syllable is light. Another option would be to lengthen the vowel, yielding *ʈōba* /tʰu:.ba/, which is

also licit in AA. However, this is ruled out because the resultant word is homophonous with another word that means ‘a brick’. Another possibility is that AA prefers consonant insertion to vowel lengthening. My data, however, have more instances of vowel lengthening than consonant insertion in loanwords, one factor being the number of consonants in a word. Most of the native AA words have three-consonant roots. A few AA words have two- and four-consonant roots as well. Some incoming French loanwords are too long from the perspective of AA. That is why, I argue, lengthening the vowel is more common. Consonant doubling seems to apply mostly in monosyllabic and bisyllabic French words and in instances where the loanword is adapted based on an AA pattern that has a double consonant, which I illustrate below.

Hadhrami Arabic has instances of verb loans where the middle consonant is geminated in line with native verbs of the pattern *fa‘‘al* (i.e., C₁aC₂C₂aC₃); for example, *gaw.wal* ‘to score a goal’, from Eng. “goal,” and *fannash* ‘to finish’ (Bahumaid 2015). In the first example, a glide /w/ was inserted to derive a three-consonant root, *g-w-l*, from English goal, which constitutes evidence that this word is treated like a native word. Bahraini Arabic (BA), too, has instances where the second radical is geminated, for example, Eng. I filed; I typed > BA *fayyalt*; *tayyapt* (Alsadeqi 2010). AA, too, has instances of denominative verbs, that is verbs formed from the noun, following the pattern *fa‘‘al*; for example, the nominal loan *boîte* ‘a box’ /bwat/ is adapted as AA *bwāṭa* ~ *bbāṭa*, from which is derived the verb *bawwaṭ* ‘to swell’. I observed another instance of gemination in nominal loanwords that are adapted following a native pattern, namely *fa‘‘āl* (i.e., C₁aC₂C₂āC₃), which is a pattern of intensity that denotes a name of an instrument in Arabic; for example, Fr. *tarare* ‘winnow’ /tarar/ → AA *ṭarṭār* /tʰarʰarʰa:rʰ/. Interestingly, from this noun is derived AA verb, *ṭarṭar* /tʰarʰarʰa:rʰ/ ‘to winnow’.

Differential importation

Differential importation occurs when a structure that is not attested in the native phonology is exceptionally allowed in loanwords; for example, word-initial /p/ is prohibited in native Vietnamese words, but is allowed in loanwords; for example Fr. *poker* ‘poker’ is adapted as *pôke* (Pham 2012). Similarly, a constraint banning liquids from occurring in syllable-initial position in Korean native vocabulary is suspended in Japanese loanwords (Ito, Kang, and Kenstowicz 2006). In Hawaiian, a restriction against /t/ is more easily relaxed than a restriction against an onset cluster (Kang 2011). In Japanese, the structures [ti] and [si] are not attested in its native phonology. However, when adapting foreign loanwords, the restriction against the former structure, namely [ti], is more relaxed than the restriction against the latter (Broselow et al. 2012); for example, Eng. *party* > Jap. *pātii* (Schmidt 2009); Eng. *city* /siti/ > Jap. [ʃiti]; Eng. *Citibank* > Jap. [ʃitibaŋku] (Broselow et al. 2012). It is worth mentioning that Jap. [ʃiti] and [ʃitibaŋku] are partially-assimilated loans, where the illicit consonant-vowel combination /si/ is adapted as /ʃi/ and the illicit combination /ti/ is imported as is. Paradis and LaCharité (1997) claim that French fricatives /z/, /v/, /ʃ/, and /ʒ/ are illicit in Fula and are not part of its phonemic system. However, the first two, that is, /z/ and /v/, are attested in a few French loanwords that Fula has borrowed (7.8% and 9.1% respectively), while the last two are never imported. In NA, word-initial pre-nasalized velars occur only in loanwords and final stress occurs only on loanwords of African origin; for example, *ɲgalté* ‘never’, and *dugó* ‘so’, borrowed from Kanuri (Owens 2000).

The question that presents itself then is the reason why only certain native constraints against specific structures in a given language are more prone to be relaxed or violated (i.e., imported) than others.

Retreat to the unmarked

In this type of repair, loanwords conform to stricter structural requirements than the native phonology (Kang 2011). Standard Vietnamese, which is predominantly monosyllabic, has six tones exemplified by the following monosyllabic words: *ba* ‘three’, *bá* ‘governor’, *bà* ‘lady’, *bạ* ‘strengthen’, *bả* ‘poison’, and *bã* ‘residue’. In adapting French loanwords, Vietnamese uses a reduced tonal subsystem and excludes tones with complex contours. For example, monosyllabic loanwords that do not end in an obstruent coda receive the default, unmarked mid-high tone: Fr. *papa* ‘dad’ and *sou* ‘coin’ > Vietnamese *ba* and *xu* (Pham 2012).

In order to account for adaptation strategies not encountered in the native lexicon and for imports, Itô and Mester (1994) and Paradis and LaCharité (1997) postulate a structure known as the core-periphery, arguing that the words that belong within the core obey all constraints imposed by the native grammar, and that the more one moves away from the core the less the word obeys the constraints imposed by the language. In this sense, established loanwords are said to belong to the core whereas partially adapted and imported (or unadapted) ones belong to the periphery. However, this still does not resolve the issue why some constraints are more relaxed and prone to be imported than others. Another solution would be to postulate a hierarchy of constraints, as in Optimality Theory (OT) (Prince and Smolensky 1993), where the constraints that are not relaxed are ranked higher than those that are (Itô and Mester 1994; Paradis and LaCharité 1997).

Given all of the above repair strategies, this dissertation determines which ones AA adopts in indigenizing French loanwords, including those that are not attested in the native phonology and morphology.

In analyzing loanwords, one is tempted to focus only on how those loans that violate the phonological and morphological structure of the recipient language are adapted. However, from the repair strategies discussed above, one understands that a reliable analysis should also take into consideration segments or structures that are licit in the native language since these too may be unnecessarily adapted, as in the case of “unnecessary repair,” mentioned above.

Morphological adaptation

Morphologically speaking, loanwords can be categorized into loanforms, loanshifts, and loanblends (Sa‘īd 1967). This categorization is similar to Haugen’s (1950), with the only exception that Sa‘īd uses the term *loanforms* where Haugen uses *loanwords*.

Loanshifts

A loanshift is a change in the meaning of a native word to accommodate a concept acquired from another language. It results in polysemy, i.e., many meanings of a word. As is clear from its definition, a loanshift is an example of a semantic rather than a morphological change. For example, Portuguese *humoroso* ‘capricious’ has acquired the meaning ‘humorous’ (Haugen 1950) and *frio* ‘cold’ the meaning ‘infection’ (Haugen 1956) as a result of the contact Portuguese has had with AE in the case of Portuguese immigrants in the US.

My data does not have instances of loanshifts, that is, AA words which have acquired an extra new meaning by virtue of its having the same morphological shape as a French word. Speakers of AA might not expect formal similarities to exist between Arabic and French, probably because French and Arabic belong to different language families. Conversely, there are cases where Speakers of AA choose to adapt a French loanword in a certain way to differentiate it from a homophonous native word, probably to avoid confusion; for example, Fr. *rail* /raj/ ‘rail’ > AA *rāya*. In my data, there is an instance of a French loanword which was adapted as

two AA words based on its pronunciation: Fr. *penitencier* /penitãsjer/ ‘penitentiary’ > AA *bnī tãši*, where *bnī* means ‘sons/descendants of’.

Loanforms

Sa’īd (1967) defines loanforms as “borrowings in which the phonemic shape of a simple word and its content are transferred into the recipient language” (39). By simple, he means an unanalyzable form in the recipient language, which might be a compound in the source language. For instance, the French compound *coup-de-pied* ‘kick’ (literally, a stroke with the leg), composed of the substantives *coup* ‘stroke’ and *pied* ‘leg’, and the preposition *de* ‘of’, is adapted as AA *kūtpī* [ku:tpi:] ~ *kūtbī* [ku:tbi:] (pl. *kutpīyāt* ~ *kutbīyāt*), which is an unanalyzable simple word. Another interesting borrowing in AA involves a whole French expression commonly used in soccer commentary, namely *ça y est* ‘it’s over! It’s done’, borrowed as AA *šāyi* [sʰɑ:ji] ~ *šāy* [sʰɑ:j].

Loanblends

Loanblends refer to the use of both native and borrowed elements to refer to a concept (Haspelmath 2009). For example, *appeesanck* ‘apple tree’ is a loan blend in the Native American language of central long island, Unquachog. It blends the English word ‘apples’ with a native word *-anck* ‘wood, tree’ (Rees-Miller 1996). In AA, there are a few instances where an AA morpheme is blended with a French morpheme; for example, *hētēst* ‘jobless,’ formed by blending AA *hēt* ‘wall’ and French suffix *-ist* (jobless young Algerian males tend to roam the streets and lean against walls, hence is the term *hētēst*). By extension, an Algerian comedy show, Lafhāma, (literally ‘understanding’) coined the word *hajrīst* ‘someone who leans against a rock’, formed by blending AA *hajra* ‘rock, stone’ and French suffix *-ist*. This word, which was created to instigate laughter, did not gain currency among Algerians (I heard it only once during the

show and never heard it again). Another AA word formed by using the same suffix is *kubzist* ‘breadwinner’, formed from suffixing French *-ist* to AA noun *kubz* ‘bread’. I also hear some Algerians jokingly use the word *fašlās*, which blends AA substantive *fašla* ‘feebleness’ and a redundant French suffix *-esse*. Actually, *fašlās* is pronounced like French *faiblesse* [fɛblɛs], which has the same meaning. Here we have a case of an AA word patterned after a synonymous French word by adding the same suffix *-esse*.

There is consensus in the literature on borrowing that free morphemes are borrowed more easily than bound morphemes, an observation that seems to flow logically from the fact that free morphemes can stand alone as words while bound morphemes cannot. They must be attached to another morpheme or word. This led some linguists to interpret what seems to be a borrowing of a bound morpheme such as a suffix as an instance of productivity in the recipient language rather than a borrowing. In other words, by virtue of borrowing words containing an affix, the latter becomes productive in the recipient language, which starts to apply it to its native lexicon (Hoffer 2002). For example, the Turkish suffix *-ji* is attached to some AA words to form names of professions (see Turkish and Persian loanwords in AA in Chapter 1). This is made possible due to the similarity of the structure of Turkish and AA in the area of job-title suffixation. The latter is called *nisba* in Arabic and is described as “the most productive word formation suffix” in the language (Schulz 2004: 86). Some names of professions are formed by adding the native suffix *-ī* in the spoken Arabic dialects and *-jī* in Turkish. Interestingly, French loanwords ending in the suffix *-ier* /-je/, which denotes the name of profession, take the corresponding AA suffix *-ī* /-i:/; for example, Fr. *forestier* /fɔʁɛstje/ ‘forester’ and *infirmier* /ɛ̃firmje/ ‘a male nurse’ > AA *fūrīstī* /fu:ri:sti:/ and *fāramlī* /fa:rmlī:/. In addition, French names of professions that do not end

in *-ier* /-je/ commonly take the AA suffix *-ī* /-i:/ when they enter the language; for example, Fr. *gendarme* /ʒɑ̃darm/ ‘gendarme’ > AA *jādārmī* /dʒa:da:rˈmi:/.

As for parts of speech, nouns seem to be borrowed more extensively than any other word class, followed by verbs, an observation that is confirmed by my data. This can be explained by the fact that nouns signify referents and that the main reason why a language borrows from other languages is to extend its referential system by integrating cultural loans (Haspelmath 2009).

Nominal loan adaptation

Arabic nouns (and adjectives) are inflected for number, gender, definiteness, and case—the latter is irrelevant in the spoken dialects and distinguishes the spoken varieties from the standard one. The question that presents itself then is: how does AA inflect incoming French nominal loans for number, gender, and definiteness?

Number

Algerian Arabic has three forms, singular, dual, and plural. The latter can be further categorized into sound plural, masculine and feminine, and broken plural. Regular or sound plurals are formed by suffixation—*-īn* in the case of a masculine noun and adjective and *-āt* in the case of a feminine noun and adjective. Broken plurals, on the other hand, involve “taking the consonants of the singular noun and changing the vowel pattern, sometimes doubling one of the consonants or adding another consonant” (Auty, Harris, and Holes 1992). For instance, the plural of *mūman* (mas.) ‘a male believer’ is *mūmnīn* ‘male believers’ and *mūmna* (fem.) is *mūmnāt*, both of which are sound plurals. However, the plural of *ṣāḥab* ‘a male friend’ is *ṣḥāb* ‘friends’ (a broken plural with the pattern C₁C₂āC₃).

Hamdi (2017) argues that MSA tends to inflect incoming nominal loans using the feminine sound plural marker *-āt*, whereas the spoken dialects opt for broken plurals. The data he

uses is too small to make his conclusions valid—a few words from MSA and two or three dialects that do not represent the four dialect major groups: Gulf, Levantine, Egyptian, and Maghrebi. In addition, borrowing in the standard and spoken dialects refers to two distinct processes. Whereas the former is deliberate and is undertaken under the auspices of language academies, the latter is more natural and spontaneous. This does not rule out the possibility that an MSA adapted form might find its way into the spoken dialects.

In order to form a broken plural, the three-consonant root needs to be abstracted out from the word before it is mapped onto one of the broken plural patterns. This is an indication that the loanword is firmly established in the recipient language. This might explain why MSA prefers suffixation of the feminine plural marker *-āt*, which would betray the foreign origin of the loanword, to broken plural. Suffixing the feminine plural marker to pluralize loanwords is also observed in NA (Owens 2000) and among Bahraini college students (Alsadeqi 2010). As for NA, both broken and suffixal plurals are attested among loanwords. However, the former type is more common among common nominal loans of Arabic and African origins whereas the latter among human nouns irrespective of the donor language, Arabic, or an African or a European donor language. Non-human nominal European loans favor the suffixal plural, which is always *-āt* (Owens 2000).

Similarly, Bahraini college students pluralize English loanwords by suffixing the feminine plural *-āt*, for example, “course” and “disc” are pluralized as *course-āt* and *disk-āt* (Alsadeqi 2010). A few loanwords have both broken and sound-feminine plurals; for example, *bīl* ‘bill’ is pluralized as either *bīlāt* or *'abyāl*. I argue that the default plural marker in AA is feminine *-āt* because it is more in tune with the fact that MSA treats non-human plurals as feminine for agreement purposes.

There are cases where a language borrows a plural form, interprets it as a singular, and pluralizes it using native inflectional morphology, for example, *sheepsog* ‘sheep’ is an Unquachog plural form composed of the English plural for sheep plus the native plural marker *-og* (Rees-Miller 1996). It is not clear if “sheeps” was the English plural form at the time of the borrowing or if speakers of this Native American language extended the plural marker *-s* to nouns that do not normally take it.

Gendering

Some languages such as English have nouns, mostly inanimate, which are gender neutral. However, both languages in this dissertation, i.e., French and AA, have grammatical gender where all nouns are obligatorily either masculine or feminine. How does AA assign gender to incoming French loanwords? Does it assign them a uniform masculine or feminine gender? Or does it preserve the gender of the original form of the loanword?

In analyzing how MSA assigns gender to neologisms created through lexical borrowing, Sa‘īd (1967) proposes the following factors, which depend on whether the incoming loan is animate or inanimate. First, animate loans are assigned their natural gender: a male referent is masculine and a female referent is feminine. For example, Fr. *papa* ‘father’ and *Le Pape* ‘Pope’ < MSA *bābā* and *al-bābā* are masculine and *madām* ‘madam’ is feminine (Sa‘īd 1967). Second, inanimate nouns take the gender that best corresponds to their phonetic form. Incoming loanwords that end in the vowel *-a /-a/* take the feminine gender because it corresponds to the feminine marker in Arabic. This factor seems to play a much greater role in the spoken dialects, where most of the loanwords entered the dialect via the spoken medium, than in MSA, where the loanwords entered the language through the written medium. This led Sa‘īd (1967) to unexpectedly postulate an Italian origin, where feminine nouns take an *-a /-a/* suffix like Arabic,

to most of the loans he has under this category when he postulates that most of his other loan examples stem either from French or English. Considering noun ending, Spanish might as well be a donor language since its feminine nouns end in *-a /-a/* as well. The correspondence between Spanish and AA feminine markers *-a /-a/* also led Brunot (1949) and Heath (1989) to postulate a Spanish influence on French loanwords in MA, a view which is not supported by my AA data. Given the fact that AA, which has not been influenced by Spanish as much as MA, also has many loanwords ending in *-a /-a/*, I argue that this is an internal inflectional process by which speakers of Arabic add the suffix *-a /-a/* to mark the feminine gender.

Third, nouns that cannot acquire gender on the basis of the previous two criteria will follow the gender of the descriptive qualifier they collocate with (i.e., occur often with) in the language, for example, the word *ūpak* ‘OPEC’ collocates with the Arabic word *munazzama* ‘organization’ and acquires a feminine gender from it: *munazzamat ūpak* ‘The organization of OPEC’. Interestingly, the first letter of the acronym, “O,” stands for “organization,” which makes the phrase *munazzamat ūpak* repetitive. Since Arabic does not use acronyms, that is, words composed of the initials of several words as in OPEC, it treats the latter as a simple unanalyzable word. And judging from the structure *munazzamat ūpak* one can deduce that *ūpak* is treated as a proper noun, though there are other variants such as simply *ūpak* or *al-ūpak* ‘the OPEC’ as a Google search reveals. In addition, the word *ūpak* is spelled with a “b” in Arabic, as it does not have a letter that stands for “p.” However, it is pronounced [p] in most news channels. My data has a few acronyms that were adapted as if they were simple unanalyzable words; for example, Fr. CFRA /se ef er a/, which stands for *société des Chemins de fer sur route d’Algérie* ‘society of railways on roads in Algeria’, is adapted as AA *es-sīfīra*, which is inflected for

definiteness. Another acronym is SNTV, which stands for *Société Nationale de Transports de Voyageurs* ‘national society of transport of passengers’. The latter is adapted as AA *s-sāntīfī*.

Finally, the remaining loans acquire a masculine gender because of a strong preference for the masculine in MSA (Sa‘īd 1967), which contradicts Hamdi’s (2017) claim that MSA tends to assign a feminine, and not a masculine, marker to plural nouns. The latter view seems more plausible since MSA treats native inanimate plurals as singular feminine where the modifiers take a feminine form; for example, *bināyāt ṭawīla* ‘tall buildings’ (building.Pl.F. tall.Sg.F. where Pl. stands for plural, F. feminine, and Sg. singular); *buyūt ṣaḡīra* ‘small houses’ (house.Pl. small.Sg.F.), and *ṣawāri ḍayyiqa* ‘narrow streets’ (street.Pl. narrow.Sg.F.).

A closer look at Sa‘īd’s list, however, might reveal another factor, namely, the word ending, which is related to the second criterion above and can be stated as follows: if an inanimate loan ends in *-a*, it is feminine. If not, it is masculine.

Definiteness

Both AA and French have a definite article. However, the definite article in AA is a bound morpheme, *l-*, which is prefixed to all nouns, animate and inanimate, regardless of their number and gender, e.g., *l-mūman* ‘the male believer’, *l-mūmnīn* ‘the male believers’, *l-mūmna* ‘the female believer’, and *l-mūmnāt* ‘the female believers’. The definite article in French is a free morpheme and has various forms depending on the number and gender of the noun it modifies, e.g., *le joueur* ‘the male player’; *la joueuse* ‘the female player’; and *les joueurs/joueuses* ‘the male/female players’. In the singular, when the French definite article precedes a noun beginning with a vowel or mute “h,” it drops its vowel to prevent the occurrence of two consecutive vowels and takes the form *l’*, e.g., *le* ‘the’ + *an* ‘year’ > **le an* > *l’an* ‘the year’. Interestingly, this

abbreviated form is homophonous with AA definite article *l-*. The question that is worth raising here is how AA adapts definite French loanwords.

Havermeier (2016) identifies five strategies that a recipient language employs to make a loanword definite. She uses the term “matrix language,” which is usually used in codeswitching analysis, because in her study she does not separate between codeswitches and ad hoc borrowing. The strategies she mentions are: 1) the recipient language employs the native definite article; for example, AA *krīyu* ‘pencil’ (Fr. *crayon* /krejɔ̃/) is made definite by prefixing AA definite article to it *l-a-krīyu*; 2) it borrows the noun together with the definite article, e.g., Arabic *'al-jabr* and *'al-kuḥūl* < English *algebra* and *alcohol*, respectively. These loans might have entered English via an intermediary language, Latin or French; 3) the recipient language uses its own article to integrate a noun that is already definite. This results in double definite marking; for example, Fr. *la hausse* /la#os/ ‘the back sight adjuster’ and *l'auto* /loto/ ‘the car’ > AA *el-lāwes* and *el-lōṭo*, respectively; 4) it inserts a bare form of the noun with no inflection for definiteness. In AA, this would be interpreted as an indefinite noun since AA has a zero morpheme for indefinite nouns; for example, *bāb* ‘a door’; *l-bāb* ‘the door’; 5) it develops a new system for nominal loans, which diverges from both donor and recipient language, a process known as “convergence.” These strategies involve pairs of languages that mark nouns for gender such as AA and French. Another strategy would be to assign a default gender to incoming loanwords that are genderless or neutral in the donor language; for example, English *weekend* < French *le weekend* (Haspelmath 2009).

Where English has no definite article as in the case of abstract nouns such as *music*, *literature*, and *philosophy*, MSA employs the definite article: *al-mūsīqā*, *al-'adab*, and *al-falsafa*.

Verb Loan adaptation

Moravcsik (1975) claims that verbs cannot be borrowed as such; they are first integrated as nouns from which a verb is later derived. Data from a variety of languages challenge such an overgeneralization, still acknowledging the fact that the treatment of loan verbs as non-verbs is common across languages. AA, for instance, has borrowed a number of verbs from French in their verbal form. Hadj-Sadok (1955) gives an estimate of 150 verb loans in the fifties. This number must have increased over the ensuing years. Bahumaid (2015) gives an estimate of twelve verb loans in HA, two of which are derived from a noun; for instance, Eng. goal < HA n. *gōl* ‘goal’, v. *gawwal* ‘to score a goal’. Interestingly, an inverse procedure is attested in HA, that is, a verbal noun, as well as active and passive participles, is derived from an English verb loan, for example, Engl. to finish < HA *fannash*, from which are derived a verbal noun *tafnīsh* ‘finishing’, an active participle *mfinnīsh* ‘finishing’ and a passive participle *mfannash* ‘finished’. From these examples, we can see that the verb loan is treated like native verbs in that a consonantal root *f-n-sh* has been abstracted from it and, then, used to derive a verbal noun and participles using native patterns. Moravcsik would argue that this is a case where the verb *fannash* was first borrowed as a noun, which was denominalized to form the verb. However, deriving nouns from verbs is an active derivational process in Arabic. To derive a noun from a verb form II, C₁aC₂C₂aC₃, the three consonants forming the root are inserted in the pattern ta-C₁C₂īC₃. This is how *tafnīsh* ‘finishing’ was derived from the verb loan *fannash*.

To integrate verb loans, a language applies one or more of the following strategies. 1) It may use direct insertion, which involves the insertion of a root-like, infinitive-like, or imperative-like form of the loan verb into the native morphology. For example, Thai has borrowed English verbs without modifying them morphologically as in care > Thai *khææ*

(Tadmor 2009); Ar. *tāba* ‘he repented’, *fahima* ‘he understood’, and *darasa* ‘he studied’ > Fulfulde *tuuba*, *faama*, and *dursa* (Versteegh [2010] speculates that they derive from the imperative forms *tub*, *’ifham*, and *’udrus*); Ar. *shakara* ‘he thanked’ and *fahima* ‘he understood’ > Swahili *-shukuru* and *-fahamu* respectively. 2) It may use indirect insertion where an affix is attached to the incoming loan verbs. The latter is then inflected using native morphology. The accommodating affix might be native to the recipient language or itself a borrowing from another language. 3) It may use a light verb, commonly but not only “to do” to integrate the verbal loans. This is referred to as “light verb strategy” or “do’-periphrasis”, for example, Arabic *tarjama* ‘to translate/translation’ > Persian *tærjome kardan* ‘translation do’ (Wohlgemuth 2009); Arabic *ta’ajjub* ‘amazement’ > Persian *ta’ajjub kardan* ‘to be amazed’, Arabic *ta’thīr* > Turkish *tesir etmek* ‘to influence’ (Versteegh 2010). With the advent of social media, such as Facebook, I observed many instances of ‘do’-periphrasis among Algerians; for example, *dīrlī tāg ~ tāgīnī* ‘tag me’ and *dīrlī jām* ‘like my post’. As these examples show, the light verb may be used with a verbal or nominal form of the source language item. 4) It may use an inflectional paradigm, that is, borrowing the loan verb in its entirety (Wichmann and Wohlgemuth 2007). There are no instances of the latter strategy in my data.

Linguists have attempted to predict which of the above strategies a language may select to integrate verbal loans. Some have postulated a number of factors that seem to determine strategy-use, among which are the following: 1) features of the languages in question, i.e., donor and recipient languages; 2) degree of bilingualism; and 3) areal integration. To these, Boumans (2007) adds context. He claims that direct insertion takes place in situations where the recipient language is socially dominant, for example, MA in Morocco, whereas use of the periphrastic

construction takes place in migrant communities where the superimposed, donor language is socially dominant, for example, MA in the Netherlands.

The linguistic factor which posits that strategy use is determined by the structure of the recipient language has been challenged by the fact that some languages, like AA, have adopted more than one strategy. To account for the fact that more than one strategy is attested in the same recipient language, a dichromic interpretation of strategy-use has been provided where a hierarchy of borrowing is posited: the periphrastic strategy < indirect insertion < direct insertion < paradigm transfer (Wichmann and Wohlgemuth 2007). Such a hierarchy implies that the longer the contact between the donor and recipient languages, the higher the degree of bilingualism and the tendency to import verb loans, and vice versa.

Japanese does not inflect verb loans as it does native verbs. Verb loans from Chinese, which are called Sino-Japanese, and from European languages are used in conjunction with the auxiliary *suru* ‘to do’; for example, Eng. to play tennis, to go for a drive > Jap. *tenisu suru* and *doraibu suru* respectively (Miyamoto 1999). However, there are some Sino-Japanese and foreign verbal borrowings that can be inflected directly, inflection that is less common in the case of European verb loans. This constitutes proof that foreign words which have entered Japanese relatively recently have not reached as high a degree of morphosyntactic integration as older loans (Schmidt 2009).

Another counterevidence to the claim that strategy use is determined by the structure of the languages in question relates to the fact that some recipient languages employ the same strategy to integrate verbal loans from various donor languages. For instance, some Arabic dialects have employed the strategy of “direct insertion” to borrow verbs from languages which

are structurally similar to them, for example, Syriac and to a lesser extent Berber, and languages which are not, for example, Ibero-romance languages (Versteegh 2009).

According to Versteegh (2009), Arabic dialects employ two of the four strategies mentioned above: direct insertion and the periphrastic construction. The second strategy takes place when there is a clear asymmetry between the recipient language speakers' proficiency in the two languages. As for "direct insertion," it is traced back to the classical period, which witnessed the introduction of many de-nominal loans, i.e., the derivation of a verb from a nominal loan using the native morphology; for example, MSA *tafalsafa* is derived from the Greek nominal loan *falsafa* 'philosophy'. Examples from the modern dialects include *talfana* 'to call by phone', derived from the substantive "telephone," and *fakkasa* 'to fax' from the substantive "fax" (Versteegh 2009). It is not clear on what basis Versteegh considers these as examples of denominal loans, a strategy by which a verb is derived from a nominal loan, rather than verb loans, i.e., borrowed in the first place as verbs rather than nouns. The donor languages French and English both have the verbs *téléphoner*/to telephone and *faxer*/to fax and the substantives *téléphone*/telephone and *fax*/fax in their lexicon. In addition, some of the examples Versteegh provides as instances of periphrastic construction seem to be calques; for example, Eng. *do shopping* < Arabic *ba'mil shopping*. Boumans (2007) argues that use of the DO-construction as in the last example depends on its availability in the donor language, an argument that is supported by data from AA. Most of the verbal loans AA has integrated are instances of direct insertion. Very few verbal loans are instances of DO-construction. Interestingly, these appear as DO-construction in the donor language, French, as well; for example, AA. *dār kaka* 'he pooed' < Fr. *faire kaka*, AA *dār pipi* 'he peed' < Fr. *faire pipi*, and AA *dār dodo* 'he slept' < Fr. *faire dodo*. Another common feature between these verbs is that they are all instances of

motherese or baby talk in both AA and French. I assume that motherese talk has instances of DO-construction since the child's linguistic skills are rudimentary. This echoes Versteegh's (2009) claim that the DO-construction is more common in situations where the speaker's proficiency in the recipient language is low, and Wichmann and Wohlgemuth's (2007) hierarchy, which postulates that the Do-construction occurs in the early stages in a contact situation, a stage at which knowledge in the recipient language is low.

Like Versteegh, Alsadeqi (2010) reports the use of two techniques to integrate English verb loans by Bahraini college students, namely direct insertion and DO-construction based on whether the English verb loan is monosyllabic or not. Monosyllabic verbs are integrated using the light verb *sawwa* 'make/do'; for example, *sawwēt drop* 'I dropped' (Alsadeqi 2010). Two or more syllable verbs are directly inserted and inflected like native verbs, for example, *I canceled* > BA *kansalt*.

So far, I have considered the linguistic factors that motivate the adaptation processes, phonological and morphological, of incoming loanwords. Adaptation may also depend on extra-linguistic sociocultural factors.

Sociocultural factors

Sociocultural factors include the degree of bilingualism in the community, role of orthography, channel of borrowing, social status of the donor and recipient languages, and recipient language speakers' attitudes towards the donor language (Kang 2011; Carole and LaCharité 2011).

Bilingualism

The rate of importation correlates positively with the level of bilingualism in the community: the higher the level of bilingualism the more likely a foreign item is borrowed

without adaptation, even if it has illicit structures (Kang 2011; Haugen 1950). In addition, the level of bilingualism is believed to determine the mode of adaptation: the higher the level of bilingualism, the more likely the adaptation will refer to phonological (deep structure) representations over phonetic (surface structure) representations (Kang 2011; Paradis and LaCharité 2008). This sounds plausible because a bilingual speaker is expected to have knowledge of both donor and recipient languages; therefore, he/she must have access to the deep, phonological structure of the original form of a loanword. On the other hand, a monolingual who does not have access to the deep structure will rely merely on perception.

The degree of bilingualism results in two different types of adaptations: phonetic adaptation in the case of a monolingual and phonological adaptation in the case of a bilingual (Kang 2011). In other words, a monolingual would adapt a loanword based on phonetic proximity between the source-language sound and a native one, whereas a bilingual would ignore phonetic details and map a source-language phoneme to its equivalent in the native grammar. Paradis and LaCharité (2011), for instance, argue that loanwords are always introduced by a bilingual, a view that is not supported in the case of AA. Some of the French loans that entered the dialect and refer to military loanwords were introduced by Algerian conscripts who did not speak French and who had to rely on perception (Hadj-Sadok 1955). Only a few Algerians, those who joined the colonial school, had access to the French language during the French colonial rule. Some of them had only elementary school education and learned French only enough to prepare them to do manual jobs in farms and construction sites. This is clearly manifested in the fact that many loanwords fall within these two areas.

After independence, French, together with English, has been taught as a foreign language in Algeria. As a result, more Algerians now know French, to varying degrees. In terms of

knowledge of the French language, we can speak now of a continuum similar to the one proposed by Hadj-Sadok (1955). According to him, shortly before independence there was a continuum ranging from the bilingual young urban dweller to the monolingual shepherd, with many individuals with varying degrees of bilingualism in between. Besides, there were cases where a native speaker had only a passive knowledge of the loanwords; for example, the mother of a schoolchild could understand a loanword used by her child but could not use it actively herself (Hadj-Sadok 1955). With the passing of time, however, the loanwords have spread among the society members and are now being used by most, except for technical jargon.

Not only does bilingualism affect the way a loanword is adapted but also the contact phenomenon to which a speaker might resort. For instance, the bilingual urban dweller would resort to code switching between French and Arabic while the monolingual shepherd only to borrowings (Hadj-Sadok 1955).

Now that Algerians have access to the French language both in the school setting and in the media, de-nativization of the older loans may take place (Sayahi 2014). In other words, education, which entails higher proficiency in the donor language, may affect the way loanwords are adapted. For example, the list of French loanwords Hadj-Sadok (1950) provided includes *mestrāšyūn* and *māksyān* (Fr. *administration* /administrasjɔ̃/ and *mécanicien* /mekanisjɛ̃/, respectively), forms which I have never heard. Many Algerians now use the unadapted forms *administration*, especially in a university setting, or its MSA variant *'idāra*, and *mécanicien*. Another way that education may determine how a loanword is adapted is by introducing speakers of the recipient language to the written form of the loanword. In other words, earlier loans, which might have entered the recipient language through the oral medium, might be reintroduced into it through the written one.

Orthography

A second debate in the literature on loanword adaptations questions whether orthography plays a role. It is evident that orthography does not play any role if the donor language is only spoken and has no written form. In Algeria, for instance, AA has borrowed words from Berber, which is mainly a spoken language; these loans must have entered the language through an oral and not a written medium. I should add, however, that Berber is now taught both in Algeria and in Morocco and has acquired a writing system. The first attempts to teach and, hence, develop a writing system for Berber took place during the French colonial rule of the Maghreb. There are claims, however, that Berber had its own script, known as Tifinagh, long before the French colonization.

Seeing the spelling of the loanword might help the recipient-language speaker identify it better. In an attempt to spread the Berber language in the Maghreb and make it more accessible to Maghrebis, a Libyan music channel called Yefran has undertaken the task of transliterating and translating the most popular Berber songs into Arabic. Seeing the written form of Berber words has helped me a lot in recognizing the lexical items shared between Berber and Arabic, that is, loanwords in both directions. Had it not been for the transcription, it would be hard to notice these words, which are obscured by the pronunciation and phonological adaptations they have undergone. Recall that Arabic and Berber have been in contact since Arabic was first introduced in North Africa in the seventh century. Therefore, very old loans must have been integrated completely to the extent that they have become indistinguishable from the native lexicon.

In a study they conducted on French loans in Moroccan Arabic in 2009, Kenstowicz and Louriz played down the role played by orthography and claimed that adaptation was entirely

unmediated by literacy. In my data, however, there are at least three loans which might have entered AA through the written medium, namely *būnt* /bu:nt/ ‘point in a game, cigarette butt’ (Fr. *point* /pwɛ̃/), *serjīntī* /srdʒi:nti:/ ‘sergeant’ (Fr. *sergent* /sɛrʒɑ̃/), and *bank* /bank/ ‘stool’ (Fr. *banc* /bɑ̃/). As the transcriptions reveal, stem-final consonants in these loans, namely /t/, /t/, and /k/, respectively, are silent in speech in French and appear only in spelling. It might be the case that these consonants used to be pronounced at the time the words were borrowed and have been dropped with time. In cases like these, knowledge of the phonologies of both the recipient and donor languages at the time of borrowing is indispensable (Carole and LaCharité 2011). But other than these examples, my data does not show proof of any spelling influences. Therefore, I argue that most, if not, all the French loanwords entered AA through the oral, rather than, the written medium. This argument is also supported by the fact that some loanwords show evidence of liaison, a phenomenon by which a word final consonant, which is otherwise silent or latent, is only realized when the next word is vowel initial; for example: Fr. *les outils* /le.zu.ti/ ‘tools’ and *les allumettes* /le.za.ly.met/ ‘matches’, where the plural suffix *-s* added at the end of the French definite article *les* is silent and is only pronounced across word boundary, are adapted as AA *zūṭī* and *zalāmēṭ*, respectively. These two phrases, composed of a definite article and a noun, clearly show that Algerian speakers borrowed them in oral form since there is no letter ‘z’ in the spelling of these items. Another interesting observation about these two phrases is that speakers of AA dropped the definite article and kept only its final consonant, which provides onset to an otherwise onsetless syllable. Further evidence of the insignificance of orthography in the case of French loanwords in AA is the fact that many silent letters in French are not realized when they enter AA.

The issue of orthography becomes apparent in contact situations where the donor and recipient languages have different writing systems, for instance, Japanese, Chinese, and Korean on the one hand and western languages, particularly English, on the other. In a dissertation on English loanwords in Mandarin Chinese (MC), Kim (2012) discusses types of loanwords where the written form of the source word was borrowed together with its meaning, what she calls graphic loans. These are different from phonetic loans where only the phonetic form and meaning of the source word are borrowed (Kim 2012).

Among graphic loans in MC are Japanese graphic loans. The latter have kept their original Japanese form in MC and are written using Japanese characters. But since Japanese characters are originally Chinese, Japanese graphic loans are pronounced according to the writing system of MC and not Japanese. This led some linguists to deny their being loanwords as they did not mimic the pronunciation they had in Japanese, the source language. In other words, there was disagreement on whether or not to consider Japanese loanwords that kept their written form and meaning in Chinese but are now pronounced differently as loanwords. This situation involves a donor language, Japanese, where Japanese characters have the same source as the native ones, that is, Chinese. There are cases where the donor language has an alphabet, like English. English loanwords that keep their spelling in MC are called alphabetic loans, which Kim (2012) excludes from her study on the basis that they are foreign. Examples of English graphic loans in MC are AIDS and CD. I see a parallel here between alphabetic loans that keep their original graphic form and nonce-borrowings (i.e., imports) that keep their original phonetic form.

Now that AA, which has long been mainly oral by virtue of its being in a diglossic relationship with literary MSA, is used in writing in social media, the issue of orthography

becomes relevant. The Algerian speaker has two options, either to use Arabic or Roman script. In either case, he faces the challenge of spelling those sounds that are not shared by the two languages. In social media, I see internet users employ digits to represent Arabic letters that have no equivalent Roman symbols; for example, 2 stands for ' /ʕ/ (Arabic ع), 3 for ' /ʕ/ (Arabic ع), 6 for *t* (Arabic ط), 7 for *h* (Arabic ح), and 9 for *q* (Arabic ق). I am not sure how these digits came to represent Arabic sounds/letters but their choice does not seem to be random as they slightly resemble the shape of the Arabic letters. Those who choose to use Arabic script face the challenge of spelling French sounds that MSA does not have, namely /g/, /p/, and /v/. Since the sound /g/ is both a phoneme and allophone in AA, it is spelled in place names such as Ḥammām Gargūr and Guelma as ڭ, a letter that is not found in MSA. During my fieldwork in the summer of 2017, I saw a few signs on shops in Setif City which had both French and Arabic letters. This is something I have noticed in the Facebook posts of a young Algerian writer, Djallel Edine Smaane, who inserts the French letters “g” and “p” in his Arabic posts. It seems that we are now witnessing graphic loans or blends, the graphic equivalent of loanblends.

Also during my summer fieldwork, I heard a few English loanwords. Interestingly, these loanwords are pronounced like French because the Algerians see them in writing. Therefore, they pronounce them like French because both languages use Roman script. For example, *šūrūm* [ʃu:ru:m] ‘show room’, *kamāl* [kama:l] ‘Camel’, which is a tobacco brand, and *gūldanāy* [gu:ldana:j] ‘Golden Eye’, which is a TV brand. It is very hard for an English speaker to realize their English origin. I myself did not know what the source word was until I asked what these loans meant. Another example involves donuts and McDonalds, where Algerians drop the plural morpheme “s,” which is normally pronounced in English but dropped in French. All of these loans have a spelling pronunciation, that is, a pronunciation that is based on the spelling of the

word. But in the case of these English loans, it is a pronunciation based on knowledge of French spelling and not English. This is a case of spelling influences by a second language rather than the source language, both of which share the same script. OshiKwanyama, too, has instances of loans with spelling pronunciation, a pronunciation that constitutes evidence that they were borrowed in writing; for example: Eng. police [pəli:s] and Christmas [kɪsməs] > OshiKwanyama [omupolifi] and [okilifitimiɸa], respectively (Steinbergs 1985).

Borrowing-language speakers' attitudes

A community's attitudes towards the donor language might also motivate the adaptation processes loanwords undergo. In Algeria, for instance, attitudes towards the French language seem to have changed drastically in colonial and post-colonial Algeria. During colonization, French was seen as the colonizer's language and it is likely that Algerians completely nativized French loanwords and made them conform to AA as a way of appropriating the language and as a form of resistance. However, in post-independence Algeria, and probably shortly before, French started to gain prestige as it became a commodity and a means to climb the social ladder by giving those who master it access to key positions in the administration and government, and job opportunities in metropolitan France, especially that knowledge of MSA was devalued by the colonial administration. These attitudes are far from being shared by the whole population. There are Algerians, fifty-five years after independence, who are still resistant to the use of French. Resistance to French use is at times at the official level too. On July 5, 2017 during the celebration of Algeria's independence, the Department of Posts and Communications announced the Arabicization of its services, which used to be in French.

Loanwords that preserve the original form they had in the donor language are considered more prestigious than those that do not and imply that the speaker is more educated, younger,

urban, and of a higher social status (Hafez 1996). I believe that most Algerians now hold similar attitudes towards loanwords that kept their original French forms. If this is truly the case, the denativization processes, which Sayahi (2014) claimed would take place in the Maghreb, will be accelerated.

The fact that the recipient language speakers hold favorable attitudes towards the original form of the source-language items entails that they stigmatize fully-assimilated forms associated with lack of education, low social status, and rurality, as one can see in social media. For example, a Facebook page titled *Algérie* ‘Algeria’, with a million followers, once posted an article about French use in Algeria. Many of the commentators made mocking comments about Algerians’ low proficiency in French, citing established loanwords as proof thereof. Even though these commentators do not represent the attitudes of all Algerians, since most of them are French-speaking Algerians both in and outside of Algeria, comments like these illustrate the stigmatization of well-established loanwords. And a YouTube video of a French-speaking Yemeni journalist went viral on Facebook. The journalist rendered French with an Arabic accent, similar to the way a loanword is adapted, where foreign sounds are replaced with native ones. Many Maghrebi commentators lamented how the Yemeni reporter butchered the language of Molière. In addition to these French videos, there are videos involving the English language such as a video by an Egyptian woman who addressed a message in English to President Obama. Many Arab YouTubers, especially from Lebanon and Egypt, made fun of her accent. Some commentators on YouTube even reproached her for misrepresenting Egypt. This lady, who “egyptianized” English, even appeared on a popular show called *Arabs Got Talent*. But this and the previous examples involve more than adapting loanwords; they involve speaking a prestigious foreign language with an accent.

Hadj-Sadok (1955) provides an account of the sociocultural and psychological factors that contributed to the francization of the Algerian dialects, a francization that was made even stronger by the fact that the Arabic language was decreed a foreign language in “French” Algeria just like German or English (Hadj-Sadok 1955). Even though Hadj-Sadok’s account looks at the issue of borrowing from a different angle—he was more interested in the francization of Arabic rather than arabicization of French—many of the points he raises are relevant to my study as they shed light on the various factors that led to extensive borrowing from French.

Psychologically speaking, Algerians who came into contact with the French made big steps towards them and were eager to live, speak, and dress like them (Hadj-Sadok 1955), a feeling that must have been imposed and reinforced by the racist French schools which portrayed the Algerian Ali as a “donkey” and a “dirty Arab” as the following textbook page shows.

LANGAGE	SYNTAXE Verbe être et attribut de sujet. Phrase négative : Ali <u>est</u> un âne; ali <u>ne</u> mange pas le bonbon.	VOCABULAIRE nom : papier, cahier, craie, âne. Adjectif : jaune.
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est | et

la page de l'histoire

ali | et | rené



« Ali est un âne »

LANGAGE du sujet. Phrase négative : Ali est un âne; ali ne mange pas le bonbon noms : papier, cahou, craie, âne. Adjectif : jaune

est et la page de l'histoire

ali et rené

je dis à ali et à rené " mangez le bonbon "

rené
rené mange le bonbon.

ali mange le cahier ! ali mange le tableau !

ali mange le caillou ! ali mange le chiffon ! ali mange le papier !

ali mange la craie jaune !

ali ne mange pas le bonbon :
ali est un âne !

Travail de l'élève

- 1) constituer les étiquettes "caillou" "cahier" "papier" "craie jaune" "âne" et les placer à l'endroit approprié sur les dessins.
- 2) à l'aide des images, reconstituer l'histoire d'ali qui ne comprend pas qu'on lui dit de manger le bonbon et qui mange tout le reste. Inversement, jalonner l'histoire des images correspondantes.

Figure 2. 1 A page from a French textbook (1950).

Translation

The story page

Ali and René

I say to René and Ali, "Eat the candy!"

René eats
the candy.

Ali eats the notebook!

Ali eats the board!

Ali eats the stone!

Ali eats the cloth!

Ali eats the paper!

Ali eats the yellow chalk!

Ali does not eat the candy:

Ali is a donkey!

This textbook excerpt shows how the French colonial school taught Algerians who entered school to despise their “uncivilized” culture and lose faith “in their languages [...] It makes them see their past as one wasteland of non-achievement and it makes them want to distance themselves from that wasteland” (Ngũgĩ 1992, 3), feelings which are reinforced by the fact that the Algerians do not have access to most archives, which are kept in France. Little is known about pre-colonial Algeria since many archives and transcripts disappeared during colonization. As a result, many accounts about pre-colonial and colonial Algeria are shaped by French ideological and racist scholarship. In return, the French school offered the Algerians a model, the civilized René, to imitate, an objective in line with France’s civilizing mission. On another page of what seems to be the same textbook, we read that Ali is dirty and is washed with soap by his French master (the French word *maître* can be translated as both master and instructor).

LANGAGE Révision	SYNTAXE emploi des adjectifs possessifs et de la préposition avec	VOCABULAIRE noms : savon, poche - verbe : vider - adjectif : sale
lecture V V		
vide ta poche ali!		
ali vide à poche		vide - vi - v - i - vi - vi vive - vélo - savate - vote a - va - savate - va
à poche		V / é - vé - vélo - vo i - vi - vive - vu o - vo vote - ve
		la poche d'ali est sale! sale sa s a sa se si so su
		ali est sale, le maître lave ali avec du savon
Travail	Associer différemment les étiquettes : maître, ali, mange, il y a, poche sale, est, le, pour former des phrases.	
Dictée	ali se lave.	
Dessin		

Figure 2. 2 Another page from the French textbook (1950).

The excerpt above shows a lesson on French letter “v.” We are told here that Ali is being commended to empty his pocket, which is described as being “dirty.” By extension, “*Ali est sale*” ‘Ali is dirty’ and is washed with soap by his instructor.

Excerpts like the above show deliberate colonial agenda to distance the Algerians from their culture, and by extension, their language, and to instill in them feelings of inferiority and low self-esteem. Colonial stigmatization of the Muslim natives continued even after Algeria gained independence, as can be seen in the way Algerian immigrants were treated by the French. In his autobiographical novel, *Le gone du Chaâba* ‘Shantytown Kid’, Azzouz Beggag (2008)

writes how the French instructor, Monsieur Grand, described Moussaoui, the son of an Algerian immigrant living in a shantytown in the suburbs of Paris as dirty after he resisted the instructor's order to the class to place their socks on the table. The instructor was oblivious to the fact that water was scarce in shantytowns and that the immigrants' children had to walk for miles to go to school.

Ironically, the authors of the French textbook are not as racist and hostile to the Algerian Fatima, who is described on the page below as *jolie* 'nice'. The textbook appeared in the 50s at a time when the French colonial authorities started to reach out to Algerian women to win them over. The choice of the name here is not random. Moghadam (1994) writes that all Algerian females were referred to as *Fatmas* by the colons (i.e., Algerian settlers of a European, often Spanish or Italian, origin), a form of depersonalization. This observation is confirmed by a dictionary entry for the name *Fatma* in a patouète dictionary by Bacri (1969). The latter defines Fatma as "le nom de la fille du Prophète [...] et depuis, tout le monde y préfère appeler *fatmas* toutes les femmes musulmanes" 'the name of the Prophet's daughter [...] and ever since, everyone prefers to call all Muslim women by *fatmas*' (55). By extension, I argue that *Ali*, which is the name of Prophet Mohammed's cousin and son-in-law, is the name used by colons to refer to all Muslim men.

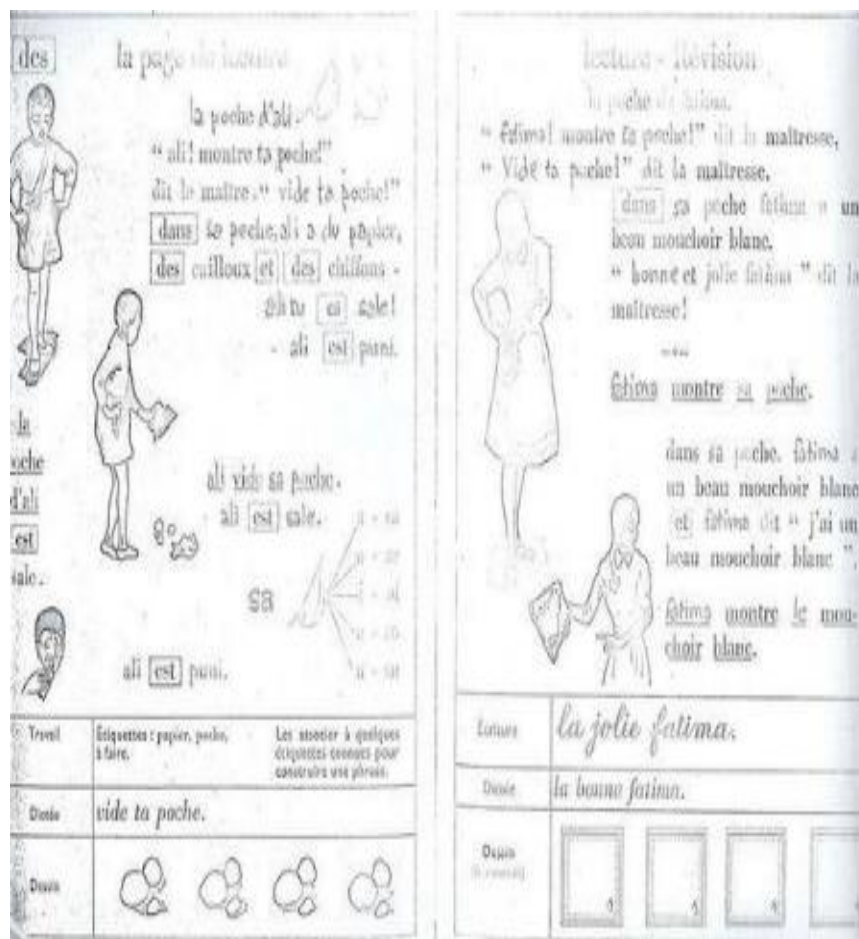


Figure 2. 3 Another page from the French textbook (1950).

This excerpt shows colonial sex discrimination as Ali is portrayed as “dirty” and Fatima as “nice.” They are asked to empty their pockets. In Ali’s pocket are stones, cloth, and paper. Fatima has a nice white handkerchief. But the portrait of Fatima in the excerpt does not match that we see in colonial photographs of native Algerian girls. As I mentioned above, the different treatment of Algerian women in the textbook is a reflection of France’s intention to win women over in their “civilizing mission.” Ironically, French efforts to educate Algerian women lagged behind compared to their efforts to educate Muslim boys, which were insignificant anyway (Lazreg 2014).

French contempt for the “uncivilized” Muslim Ali was projected onto the language he spoke. Arabic was seen as a useless, difficult, barbarian, and harsh language, feelings that were shared by many Muslim *évolués*, i.e., the native elites who became Europeanized through education (Hadj-Sadok 1955). Contempt for one’s language can be illustrated by Senegalese writer Senghor’s own words: “In our languages the halo that surrounds the words is by nature merely that of sap and blood; French words send out thousands of rays like diamonds” (Senghor, qtd. in Ngũgĩ 1978, 19). The “halo” feature of African languages is reminiscent of W. Marçais’s claim that MSA is an ambiguous language. These stereotypical features of a language can be advanced as arguments to exclude them from education and offer instead the more “rational” European languages, to use W. Marçais’s words. Eventually MSA was relegated to the status of a foreign language and was taught as such in colonial schools in Algeria. It was not as popular as other foreign languages such as German and English (Hadj-Sadok 1955).

Another factor that contributed to the spread of the French language among Algerians was contact with French people, who were concentrated in the cities. Algerians who had to interact with the French for one reason or another had to use French since the former did not speak Arabic nor were they interested in learning it (Hadj-Sadok 1955).

French was also the preferred medium in interactions among Arabic speakers who came from different backgrounds and spoke different dialects. It was neutral and would spare them from any kind of commentary on or mockery of their dialect (Hadj-Sadok 1955). This is illustrated in Djébar’s (2003) tribute to three of her friends, *Algerian White*, where she writes that she used to converse with her bilingual Algerian friends in French out of neutrality since speaking in Arabic would betray her bourgeois status as well as one of her friends’ village accent. This argument does not sound plausible to me. As I mentioned above, pronouncing

French with an Arabic accent is stigmatized and mocked even more. Both Djébar and Hadj-Sadok seem to be referring to highly proficient speakers of French like themselves. In order to avoid mockery on their “stigmatized” variety, speakers of this variety would level out their dialect and avoid features that are unique to it.

Use of French was also common in households who knew the French language (Hadj-Sadok 1955). Arabic, on the other hand, was relegated to a minor role and was used to interact with elders who were monolingual Arabic speakers. As for children in such households, they acquired French, instead of Arabic, as a first language due in part to the prejudices attached to the latter.

In print media in the fifties, only two weekly papers were in circulation among Algerians. Of these two, one was in MSA. In such circumstances, the chances for an Algerian to have exposure to MSA were slim, unlike French, which took over Arabic in all aspects of life. This was mostly the case in the cities where there were more chances to enter school and interact with French speakers. In rural areas, the spoken Algerian dialects were socially dominant. However, they themselves underwent rapid change, especially in the area of vocabulary, through the influx of French loanwords, on one hand, and abandoning native words, on the other. This influx was so high that the dialect was unintelligible to the Arabic expert or “pure” Arabic speaker. The latter would prefer to create an MSA word for new uses introduced by the French rather than borrow the French word. However, before the MSA neologism could spread among the illiterate majority, who had no access to school and, by extension, to MSA, the masses were faced with the urgent need of referring to the items that the French had been introducing for more than a century, starting in 1830. To these masses, the foreign origin of the word did not matter as much

as being understood, which at times meant using French language forms, especially in cases where they had to express semantic nuances (Hadj-Sadok 1955).

Past research on borrowing in AA

There is a dearth of research on AA. Very few studies have directly investigated this variety. Thus, the literature on AA has many gaps that need to be filled. A study with large data sets is needed to uncover any hidden patterns in this variety and arrive at valid conclusions about it. As for the phonological and morphological adaptation processes of loanwords, one needs to collect French loanwords from all parts of speech.

Some linguists who have investigated the spoken dialect have done so for pedagogical reasons, that is, to design a textbook to teach this variety. Among these textbooks are *Spoken Algerian Arabic* (Bergman 2005), *Manuel d'arabe Algérien moderne* (Tapiéro 2008), and *Le parler Algérien* (Fekhar and Deville 1968). Other linguists were interested in a specific variety of AA, e.g., *Le dialecte arabe parlé à Tlemcen* (W. Marçais 1902), and *Le parler arabe de Cherchell, Algérie* (Grand'hénry 1972). Also, among the few texts produced on AA are French-Arabic/Arabic-French dictionaries such as *Dictionnaire français-arabe (idiome parlé en Algérie)* (Paulmier 1850).

A quick glance at the above list reveals the fact that most of the linguists who studied AA, for one reason or another, are non-Algerian. Some of the works on AA were produced during the French colonial rule of Algeria (i.e., 1830 – 1962), and were thus influenced by the racist and nationalist ideologies of the time. They were conducted by linguists and philologists who worked for the French army, were biased in nature, and were meant to serve the colonial agenda of dividing the Muslim population along linguistic lines, as I illustrated in Chapter 1 in the section on Frenchification, or Making Algeria French.

Of the works that have investigated AA dialect(s), very few studies have directly investigated the phenomenon of borrowing in these dialects. These studies are master's theses for the most part and have been conducted by Algerian students. Among these are "Language Contact and Noun Borrowing in AA and Maltese: A Comparative Study" (Kheder 2011) and "Adaptation of Borrowed Words from French Language into Algerian Dialects: Case Study of Tlemcen Speech Community" (Chouaou and Boukhatem 2015). A more recent article, Slimani (2016), entitled "The Morphological Nativization of French Loanwords in the Djelfa Dialect with Special Reference to some Phonological Processes Targeting it within OT" is an attempt to use OT to account for the morphological adaptations of French loanwords in the Algerian dialect of Djelfa and the ensuing morphophonemic repair strategies. A much earlier study by Hadj-Sadok (1955), entitled "*Dialectes arabes et francisation linguistique de l'Algérie*" 'Arabic dialects and linguistic francization of Algeria' investigated the linguistic francization of the Arabic dialects in Algeria. As its name suggests, Hadj-Sadok's study was more interested in the francization of the Algerian dialects, which was evident in the phenomena of switching between French and Arabic and massive borrowings from French, than he was in the arabicization of these borrowings.

Hadj-Sadok's (1955) study

The study by Hadj-Sadok (1955) is a good source of data on French loanwords in AA. I use most of the loans he provided. With the intention of illustrating the impact the French language had had on the spoken dialects, what he called "francization," Hadj-Sadok collected a list of loanwords in the dialect spoken in Chlef, a province in northern Algeria about 200 km west of the capital, Algiers. However, he claims that the list is valid for all Algerian dialects.

Indeed, we use many of the loans on his lists in my dialect, Setifian Arabic, loans which I will include in my analysis.

Hadj-Sadok's list is very significant because he collected the loanwords a short period after they were introduced into the AA dialects, even though there is no mention of how he collected them. Interestingly, most of these loans, which he dated to the period 1939-1945, had then the same form they have today. In addition, Hadj-Sadok categorizes these loanwords into semantic fields based on the setting/situation in which they were introduced. These semantic fields reflect the areas where the French language exerted the most influence on AA: the military (e.g., *jūdān* 'warrant officer', *bāṭāyūn* 'battalion', and *kābṛān* 'corporal'), education (e.g., *krīyu* 'pencil', *kārni* 'notebook', and *gzāmā* 'examination'), housekeeping and houseware (e.g., *kaṣṛōna* 'saucepan', *bāsīna* 'wash basin', and *fūtāy* 'armchair'), clothing (e.g., *fūlāra* 'scarf', *bālto* 'coat', and *trīku* 'sweater'), and so on. However, Hadj-Sadok does not describe the phonological and morphological adaptations these loanwords have undergone, a shortcoming that my dissertation will expand upon.

Kheder's (2011) study

Kheder (2011) conducted a comparative study between phonological and morphological adaptation processes in two Arabic varieties: AA and Maltese. To analyze the morphological adaptations of nominal loans, Kheder focused on gender, plural, and definiteness inflectional morphemes. The aim of the study was to compare how these historically related, but now not mutually intelligible, Arabic varieties adapt nominal loans from French (in the case of AA) and Italian (in the case of Maltese). It is not clear on what grounds the researcher makes this comparison given the fact that the recipient and donor languages are different. It would make more sense if the comparison involved the adaptation of loans from various donor languages in

the same recipient language (e.g., a comparison of the adaptation of Turkish and French loans by speakers of AA) or the adaptation of loans from the same donor language by various recipient languages, such as a comparison of the adaptation of French loans by speakers of AA and speakers of MA.

To collect oral data for AA, Kheder used interviews recorded by a different researcher for a different study. The interviewees, between sixty and ninety-six years of age, lived in Algeria during the French colonization and were mostly illiterate. Of the 110 interviewees, thirty-one were male and seventy-nine female. A few interviewees were monolingual, and a few had some knowledge of French. However, there is no mention of how they acquired this knowledge, that is, whether they attended the French school, worked for the *colons*, served in the military, or immigrated to France.

Kheder used her own intuition as a native speaker of AA to collect the nouns she judges to be loanwords. To collect instances of borrowings rather than code-switched forms, the researcher selected only those forms used by both monolingual and bilingual Algerian speakers. She then categorized the nouns she collected according to gender (i.e., masculine/feminine) (e.g., masculine *bālto* ‘coat’, *trīku* ‘sweater’, and *pāke* ‘packet, bag’; feminine *pošta* ‘post office’, *jakīta* ‘jacket’, and *kravaṭa* ‘necktie’), number (singular/plural) (e.g., SG *kravaṭa* PL *kravaṭāt*, SG *ṭābla* PL *ṭwābal*), and definiteness (definite/indefinite) (IND *kravaṭa* D *l-a-kravaṭa*; IND *pošta* D *l-pošta*). Then, she herself filled in the missing pair. And to confirm her own categorization and pronunciation, she interviewed Algerian native speakers on the phone. There is no description of how she elicited responses on the phone nor demographic information about the speakers.

Chouaou and Boukhatem's (2015) study

Chouaou and Boukhatem's (2015) M.A. study explores the phenomenon of borrowing from French by speakers of AA and the ways in which they have adapted loanwords. Their research investigates: 1) whether speakers of AA are aware of the use of loans in their speech; 2) the reasons that trigger the borrowing; and 3) how these loans have been adapted phonologically and morphologically. They find that educated people are aware of the "foreignness" of loanwords, including assimilated ones. They attribute borrowing from French among Algerians to historical factors (i.e., colonization) as well as the prestige French now enjoys among some Algerians. In addition, they claim that loanwords are adapted both phonologically and morphologically to the extent that they are indistinguishable from the native lexicon. While Chouaou and Boukhatem's initiative to explore such an uncharted research area is welcome, it has some limitations, especially as they relate to the third research question, which I hope to address with my own research.

To answer their research questions, Chouaou and Boukhatem collected data using a questionnaire and a word list, which were either in English or in Arabic. These research instruments were handed to ninety participants who speak the Tlemceni dialect of AA, come from various educational backgrounds, and fell within the age range 18-42. It would be interesting to have participants from the older generations because age is likely a significant factor in the adaptation of loans. First, the older generations might have adapted the French loans as a means of resistance. Second, during French colonial rule, most Algerians were denied education in the French schools and, therefore, did not have access to the French language (Holt 1994). Conversely, the younger generations in postcolonial Algeria have more access to French through public education, the media, and the internet. Third, the ex-colonial language now

enjoys considerable prestige as the language of modernization and international standing. French is no longer seen as a colonial language, but rather, by some, as a practical language that can be used in all domains and can keep up with a modern, technological world (Chebchoub 1985). This change in the Algerians' attitudes towards French will inevitably influence the ways in which they adapt foreign loans. Therefore, a study on loanword adaptation should recruit speakers spanning all age groups.

Another factor that is likely to influence the adaptation of loanwords is education (see "socio-cultural factors" above). Even though Chouaou and Boukhatem collected biographical data on their participants' educational level, they did not investigate the correlation between this social variable and the way a word is adapted (i.e., fully, partially, or if the original form is retained). More research is needed to investigate the correlation between age and education on one hand and the degree of adaptation of loans on the other. For my own research, I focus more on the linguistic factors involved in the adaptation of loanwords, but will incorporate a sociolinguistic perspective wherever possible.

In addition to being silent on the significance of social variables such as age and education, Chouaou and Boukhatem's study has a methodological problem. First, the way some of the questionnaire items are phrased might have influenced the participants' answers. For instance, the first item on the questionnaire reads, "Which *language* do you use in your daily life?" (my emphasis) to which the respondents are expected to choose among MSA, AA, Berber, and French. Because of the use of the singular noun *language*, the respondents selected only one variety, AA, when most Algerians switch between these various varieties daily. Their switching depends on social variables such as the setting, the interlocutor, and the topic under discussion (Chebchoub 1985). An Algerian who uses AA or Berber at home uses mostly French or MSA in

more formal contexts (i.e., in class, at work, and so on). Second, the researchers assume that the participants are conscious of the phenomenon of borrowing and aware of the donor language(s). For instance, the last items on the questionnaire expect the participants to explain the reason(s) why people, in general, borrow words from other languages, and why Algerians borrow words from French and make adaptations and changes during the borrowing process. These are questions that a linguist should answer, and not a speaker of the language. A linguist is trained to answer questions like these while a native speaker has a subconscious knowledge of the language. In the case of French loans in AA, a monolingual speaker might not even be aware of the origin of these loans and might consider them as part of the native lexicon.

Another methodological problem has to do with the data collection instrument and the size of the data. To collect data for their study, Chouaou and Boukhatem used a word list, the first part of which contained only fifteen AA items to which the respondent was expected to supply the donor/source language. With such a short list, it is hard to come to any conclusions. The second part of the word list had sixteen words in English, twelve nouns and four verbs, for which the respondents were expected to provide the AA equivalent, which is a French loanword. To analyze the morphological processes involved in the adaptation of French loans, Chouaou and Boukhatem asked the participants to provide the plural forms of the nouns and to conjugate the verbs in the first person. It is not clear why the researchers chose to collect written data when the dialect is mostly spoken and not codified. Such an approach led them to make wrong conclusions based on the written data they collected. For example, Arabic has more consonants than French, some of which cannot be represented using Roman script. For instance, for the word “school bag,” the respondents provided the Algerian word *kartable*. This led the researchers to conclude that this word is pronounced the same both in French and AA, which is not the case. The French

word *cartable* is pronounced as [kɑʁtabl] in French but as [kɑrtʰɑ:bəl] in AA. Relying on the transliteration of the words would obscure significant pronunciation differences. Even though the researchers claim they gave an Arabic version of the questionnaire and word lists to those respondents who do not speak English, there is no mention of whether there are respondents who answered in Arabic, using the Arabic script. In addition, very few Algerians speak English. Most Algerian bilinguals use French and not English.

Slimani's (2016) study

Slimani's (2016) study takes the morphological analyses observed in Kheder's descriptive study one-step further by attempting to account for them using OT. She explains a number of morphophonemic adaptations that are attested in her native Djelfa Arabic (DjA) dialect, where a number of constraints imposed by the dialect compete to yield the optimal output. The morphological adaptations she addresses in her study are nominal inflection for gender and definiteness, as in Kheder's and my study. In addition, she analyzes verbal inflections such as passive-voice inflection, dative enclitic (i.e., a pronoun that is suffixed to verbal phrases and stands for the indirect object), and inflection for the third person plural. Slimani also addresses the process of nasal place-assimilation, which is a phonological rather than a morphological adaptation, as it does not involve any morphological inflections.

Morphological inflections of loanwords sometimes result in phonological structures that violate the native system. As a result, the recipient language employs a number of strategies, known as morphophonemic adaptation strategies, to repair such ill-formed structures. In order to account for these adaptations, Slimani postulates a hierarchy of constraints in DjA.

Slimani's main claim is that the constraint of Maximum Input-Output (MAX I-O), a constraint that prevents deletion of a sound, is ranked very high in her dialect. In this, the

implication is that DjA opts for segment insertion rather than deletion when it encounters, for example, an illicit three-consonant cluster in a loanword (cf. § “too many solutions” above). However, such a view is not supported by data from AA, which includes Slimani’s dialect as well. For instance, long loanwords tend to be truncated, e.g., Fr. *électricité* < AA. *trīsīti*. Hafez (1996) reports a similar process of truncation in Egyptian Arabic. In addition, vowel deletion, which violates the highly ranked constraint MAX I-O, is attested in loans such as Fr. *écraser* ‘to crush’ > AA *krāzā*, Fr. *effacer* ‘to erase’ > AA *fāṣā*, and Fr. *s’engager* ‘to enlist’ > AA *gājā*. According to Slimani’s analyses, one would expect consonant insertion to prevent a vowel from being deleted, a process that violates the highly ranked MAX I-O constraint advocated by her. In addition, Slimani claims that the DjA passive marker *t-*, which is prefixed to verbal loans, assimilates to the coronal consonant (i.e., dental, alveolar, post-alveolar, or retroflex) that follows it, a phenomenon that has not been attested before. In MSA, for instance, the sound /t/ assimilates to [tʔ] after emphatic consonants in Form VIII verbs, which have a passive meaning.

Slimani’s study is interesting in that it attempts to account for, rather than merely describe, the processes involved in adapting loanwords. My major concern with her analysis and OT in general is that it starts with the optimal form and moves backwards. This kind of analysis accounts for why an output to the adaptation processes is the way it is but cannot predict it. In addition, the input in her analyses is an adaptation of the French loanword rather than the original French form itself, which diverges considerably from my study. In other words, she investigates morphological adaptations in established loans. She would reach the same conclusions if she analyzed the morphophonemic processes attested in her native DjA lexicon and not only French loanwords. Finally, she needs to account for the fact that AA tends to delete CA short vowels in open syllables.

From the above one can notice the dearth of research on French loanwords in AA. Only four studies have directly investigated this phenomenon thus far. More research is needed to fill in the gaps in this area. In addition, the four studies already conducted are not without shortcomings. While Chouaou and Boukhatem's study barely scratched the surface on how the French loans have been adapted phonologically and morphologically in AA, Kheder's study focused only on French nominal loans, to the exclusion of the other parts of speech. In addition, Hadj-Sadok's study is more sociolinguistic and focuses on the factors that led to borrowing and the settings in which the borrowing occurred. My own research, presented in the following chapters, is based on much larger data sets representing all parts of speech.

Conclusion

In this chapter, I discussed the linguistic and sociocultural factors that motivate lexical borrowing. While borrowing in colonial Algeria took place because French was the language of the dominant group, that is, the colonizer, borrowing in post-colonial Algeria seems to be motivated by factors such as prestige, which is the case in most post-colonial societies. Then, I discussed the phonological adaptations, namely substituting a donor-language segment for the closest segment in the recipient language and adaptations imposed by the phonotactic rules of the recipient language such as deleting or inserting a segment.

In the area of morphological adaptations, I illustrated how some languages adapt noun and verb loans and how they assign definiteness, gender, and plurality to the former. As for verb loans, four techniques are attested in how various languages adapt them, namely direct insertion, indirect insertion, 'do'-periphrasis, and inflectional paradigm.

With the above phonological and morphological adaptations in mind, I present my analysis of French loanwords in AA in the following chapters. Phonologically speaking, I

specify what French segments are substituted and what AA segments replace them. For example, I argue that AA adapts French /y/ like MA, TA, and EA, that is, as either /u/ or /i/. I also analyze the loanwords to specify how AA satisfies its phonotactic rules and whether it favors segment deletion or insertion, bearing in mind the fact that Maghrebi dialects, in general, and AA, in particular, show preference for consonant clusters in words that are originally MSA, which results from dropping the short vowels in non-final, open syllables.

I also present my analysis of how AA adapts noun and verb loans morphologically. For example, in the area of plural formation, there seems to be conflicting views on whether the Arabic dialects assign the feminine plural marker *-āt* to incoming loans, which is supported by data from NA (Owens 2000) and BA (Alsadeqi 2010), or broken plurals (Hamdi 2017).

CHAPTER 3

THE PHONOLOGY AND MORPHOLOGY OF ALGERIAN ARABIC AND FRENCH

“(On the few occasions, it seems to me, where I must have started spontaneously a sentence in my local urban dialect, I knew directly that I appeared precious—to Kader— even perhaps outdated, and that because of the softness of the dental consonants in the accent from the place where I was brought up—so [I] quickly went back to the impersonality of French. In a second, by the flash of his gaze, I understood: speaking in Arabic together, we were becoming excessively so, I an old-fashioned *bourgeoise* and he a crude village lad!... No, we just seemed different by suddenly perceived atavisms in the variations of our mother tongue!)”
— Assia Djebar, *Algerian White*

In order to uncover the phonological and morphological processes involved in the adaptation of French loanwords that entered Algerian Arabic (AA), it is important to provide a description of the phonemic inventories and morphological systems of both the donor language, French, and recipient language, AA. Such a description unveils areas where the two languages are similar to each other as well as areas of contrast.

I first describe the phonemic systems, that is, consonants and vowels, of AA and French. I will be using the term *French* to refer to standard French, unless otherwise stated, and the term *Algerian Arabic* (AA) as a cover term for Algerian spoken dialects. The phonemic inventories and the example words illustrating AA refer to the dialect I speak, Setifian Arabic (SA), which might be slightly different from the other dialects, dialect variations which I discuss in detail in Chapter 1 and below. In addition, since Modern Standard Arabic (MSA) is the modern variant of Classical Arabic (see Chapter 1), I use the term *Classical Arabic* (CA) in this chapter as a referent system for AA sounds and words illustrating them and as a cover term for both CA and MSA. As I mentioned above, the Arabic tradition does not distinguish between CA and MSA and refers to both as *fushhā*, as opposed to ‘*āmmīya* ‘colloquial’ (*dārja* is the term commonly used

in the Maghreb). In this chapter, I am using CA to stand for *fuṣḥā*, both CA and its modern variant, MSA.

In Algeria, as in the rest of the Arab world, there are two types of dialects based on the demographic characteristics of their speakers. These dialects are referred to as Bedouin and sedentary dialects, the latter being further subdivided into urban and rural (or village) dialects, as shown in the epigraph above. The rural dialects are closer to the urban ones than the Bedouin dialects but they share some features with the latter (Albirini 2016).

Some scholars such as P. Marçais (1956) speak of pre-Hilalian and Hilalian dialects that were introduced to North Africa by two different waves of Arab conquerors and immigrants at different times. The former wave, people who spoke the Meccan urban dialect, founded urban centers and had barely any contact with the native Berbers. They introduced what later developed into North African urban dialects spoken in old cities such as Tlemcen and Constantine in Algeria. The second wave of Bedouin Hilalian tribes introduced their Bedouin varieties to North Africa. Hachimi (2007) mentions a third wave, namely the Andalusian Muslim and Jew immigrants who fled Iberia and took refuge in urban centers in the Maghreb after the Reconquista in the fifteenth century. This group, who spoke Andalusian Arabic, reinforced the urban dialects spoken in the old cities. The fact that the Andalusian refugees arrived in North Africa about four centuries after the Hilalian tribes, who arrived there in the eleventh century, led Hachimi (2007) to challenge the appellation *pre-Hilalian* and use instead *non-Hilalian* as a cover term for both pre-Hilalian Muslim conquerors coming from the Arabian Peninsula and Andalusian refugees coming from Iberia. According to her, both groups have the same lineage.

Because not all city dialects are originally urban—due to massive migration into the city, some urban dialects are originally rural and are referred to as urbanized rural dialects, while

others, which are originally urban, have become bedouinized as in the case of Oran City dialect—it is important to classify local dialects according to the demographic characteristics rather than the geographical location of the speakers. The Urban-Rural-Bedouin divide was disrupted during colonization. It continued after independence, as various varieties have merged as a result of urbanization, education, and mass migration to the cities. Some urban varieties such as the ones spoken in two of Algeria’s biggest cities, Oran and Constantine, are now described as Bedouin-based (Miller et al. 2008). Urban dialect bedouinization or ruralization was mostly the case in post-colonial societies such as Algeria, which witnessed massive displacement of the natives during the colonial era and massive migration into the city both before and after independence. Referring to the capital Algiers specifically, a *cha’bī* singer by the name Abdelmadjid Meskoud laments in a song titled “Yā Dzāyar Yā L-‘Āṣima” how the capital has lost its traits and cultural specificity and attributes the losses to what is called *z-zahf r-rifī* ‘rural sprawl’. The latter is a derogatory term and is still used today to refer to the rural migrants who “creep” into the city, mostly for economic reasons—the same word, *z-zahf*, is used to describe the advancing of the military or the creeping of the soil. These rural migrants bring with them their spoken varieties, which influence and are influenced by the urban ones. In Tunisia, for instance, Sayahi (2014) describes how Tunisian rural migrants shift to the prestigious Tunisois dialect of the capital city, Tunis, by shoveling off linguistic traits that are stigmatized and considered Bedouin and rural, the most apparent one of which is rendering /q/ as [g]. These two sounds constitute one major distinction between urban dialects, on one hand, and rural and Bedouin dialects, on the other. In Tunisia, for instance, urban dialects, in which the CA verb *qāla* ‘he said’ is pronounced with a [q] sound, are referred to as the *qala* dialects. Conversely, the rural and Bedouin dialects, in which the same CA verb, *qāla*, is pronounced with a [g] sound are

referred to as the *gala* dialects (Sayahi 2014). As we will see later, the number and nature of sounds in AA varies according to dialect type, that is whether it is an urban, rural, or Bedouin dialect.

As I mentioned above, in describing the phonemic system of AA, I will be referring mostly to the dialect I speak and I am most familiar with, that is Setifian Arabic, which is an urbanized rural dialect. Whenever necessary, I will mention pronunciation differences between this and other AA dialects. After describing the phonemic systems of AA and French, I describe their morphological systems. For the purpose of this dissertation, I focus on gender, definiteness, and plural inflectional morphemes.

The phonemic systems of AA and of French

Setting the inventories of both AA and French side by side will reveal the phonemes that occur only in the donor language, French, and that may be adapted when borrowed by speakers of AA. However, there are cases where the recipient language speakers may adapt a source language sound even if it is not illicit, which I illustrated in Chapter 2 in the section on Unnecessary Repair. Below is a description of the phonemic systems of AA and French in this order.

The phonemic system of AA

In AA, we find a very small vowel inventory but a very rich consonant inventory. This asymmetry between vowels and consonants is also attested in the source CA language, where consonants, through a three-consonant root system, are bearers of semantic meaning. This is reflected in the writing system of Arabic, where short vowels are dropped. Even when they are inserted, they do not have a skeletal slot of their own. The basic skeleton of a word in Arabic consists mainly of consonants and the long vowels, two of which function as consonants as well,

that is, they are semi-vowels. Arabic script uses the same letters to represent the long vowel /i:/ and /u:/ and the corresponding homorganic glides /j/ and /w/. Short vowels are marked as diacritics and are separated from the basic skeleton (Brustad, Al-Batal, and Al-Tonsi 2009). They are added either above or below the consonants as seen in the following example:

أنا أحب اللغة العربية.

أنا أُحِبُّ اللُّغَةَ العَرَبِيَّةَ.

'nā 'ḥb l-lght l-'rbyt

'anā 'uḥibb(u) l-lughata l-'arabīyata.

I love the language the Arabic

‘I love the Arabic language.’

The sentence in the first line is unvoeled—it lacks the short vowels to be more specific—while the second is fully voweled and shows all vowels and grammatical markers. The fact that grammatical case endings are expressed by means of short vowels in CA might be the reason why they are dropped in spoken dialects.

In addition to the fact that CA, the source variety, has a small vowel inventory in the first place, the spoken dialects, especially in the Maghreb, have lost most of the contrasts that exist between CA short vowels and have reduced them to [ə]. As a result, most of the differences (lexical or grammatical) marked by changing internal vowels in CA are marked by consonant segments in spoken dialects. For example, one way of marking the passive voice in CA is by changing the vowel after the first radical into /u/ and the one before the last radical into /i/: *fa'ala* /faʕala/ ‘to do’ > *fu'ila* /fuʕila/ ‘was done’, for example, CA *jaraḥa* /dʒaraħa/ ‘he injured’ > *juriḥa* /dʒuriħa/ ‘was injured’. This way of marking the passive voice is lost in AA because, unlike CA, it lost short vowels in non-final open syllables. As I mentioned above, AA has a

restriction against short vowels occurring in a non-final open syllable. Therefore, it cannot mark a grammatical category only by means of short vowels. For example, CA *jaraha* /dʒaraħa/ and *kasara* /kasara/ ‘he broke’ > AA *jrah* /dʒraħ/ and *ksar* /ksar/, respectively. In order to form the passive, AA prefixes *t-* to the verb stem, yielding *t-a-jrah* /tdʒr^ʕaħ/ and *t-a-ksar* /tksar/ respectively (where epenthetic *-a-* breaks an impermissible three-consonant cluster).

Below is a description of the consonants of AA followed by a description of its vowels, together with an example word for each sound. In the case of AA, I also provide the source CA word for the example words and the English gloss in those cases where the AA meaning has diverged from that of the source CA word.

AA consonants

Algerian Arabic has a relatively large consonantal inventory. The thirty consonants, nine of which are articulated in the velar and post-velar region of the vocal tract, are classified according to four parameters: 1) place of articulation, or the place in the mouth or throat where the channel through which the air flows, coming out of the lungs, is narrowest; 2) manner of articulation, which refers to the degree of closure between articulators (i.e., complete, partial, or narrow closure), which affects the level of turbulence of air flow; 3) voicing, i.e., whether or not the vocal cords vibrate; and 4) pharyngealization, which involves, according to Laver (1994), constricting the pharynx or drawing the root of the tongue-back towards the back wall of the pharynx. Pharyngealization, for which the diacritical mark is a superscript [ʕ] (or a subscript dot in transliteration), is phonemic in Arabic: Substituting a pharyngealized (or an emphatic) consonant for a plain consonant changes the meaning of the word; for example, AA *tāb* /ta:b/ ‘he repented’ vs. *ṭāb* /t^ʕa:b/ ‘cooked/ripen’ and *tālab* /ta:lab/ ‘to conspire against’ vs. *ṭālab* /t^ʕa:lab/

‘seeking’. There are six pairs of plain/emphatic dento-alveolar plosives and fricatives in AA (see Table 1 below).

Below is a list of AA consonants categorized according to manner of articulation and described using the above articulatory parameters, namely manner and place of articulation, voicing, and emphasis.

Plosives

A plosive is a sound articulated with a complete closure to the air stream flowing out of the mouth and nose, followed by a sudden release with a small puff of air or plosion (Roach 1992), hence the name plosive. AA has the following plosives in its sound inventory:

- /t/ voiceless dental plain plosive as in *tāb* /ta:b/ (CA *tāba*) ‘he repented’.
- /tˤ/ voiceless dental emphatic plosive as in *tāb* /tˤa:b/ (CA *tāba*) ‘cooked/ripen’.
- /k/ voiceless velar plosive as in *kalb* /kalb/ (CA *kalbun*) ‘a dog.’
- /q/ voiceless uvular plosive as in *qrā* /qrˤa:/ (CA *qara’a* ‘he read’) ‘he read/studied’.
- /b/ voiced bilabial plosive as in *bāb* /ba:b/ (CA *bābun*) ‘a door’.
- /d/ voiced dental plain plosive as in *dāb* /da:b/ (CA *dābba* ‘an animal’) ‘a mule’. This is a case where the source CA word is a hypernym for its AA derivative, that is, its meaning is broader than and encompasses that of the AA word.
- /g/ voiced velar plosive as in *g’ad* /gˤad/ (CA *qa’ada*) ‘he sat’.

The number of consonants in AA varies from that in CA. It also varies from one Algerian dialect to another. In most AA dialects, the glottal stop /ʔ/, which is a phoneme in CA, is either replaced by the palatal approximants [j] and [w] or is dropped. It is retained only in some proper nouns and religious expressions. Examples of proper nouns where it is retained are male ’Anas /ʔanas/ and ’Amīr /ʔami:r/ and female ’Asma /ʔasma/ and ’Aḥlām /ʔaḥla:m/. However, it is dropped in names such as ’Aḥmad /ʔaḥmad/, which is pronounced Ḥmad [ḥməd] in AA. In addition, CA names such as ’al-Ḥasan /ʔalḥasan/ and ’al-Ḥusain /ʔalḥusajn/ are pronounced Laḥsan [ləḥsən] and Lḥūsīn [lḥu:si:n], respectively, in AA. Here, the glottal stop of the definite article, ’al-, and the vowel following it are dropped.

Examples of religious expressions are *'astaḡfiru llāh* /ʔastayfiru#lʕa:h/ 'I ask God's forgiveness' and *'a'ūdu bi-llāh* /ʔaʕu:ðu#bi-lla:h/ 'God forbid! I seek refuge in God'. The verbs in these two expressions keep their CA conjugation, where a prefix beginning with a glottal stop *'a-* is added to the verb stem to form the first person imperfective. Elsewhere in the dialect, the first person imperfective is formed by adding a prefix *n-*, rather than *'a-*, to the verb stem. This prefix, *n-*, distinguishes Western Arabic varieties, including AA, from Eastern Arabic dialects (Hachimi 2007; Albirini 2016). In addition, the nominative case ending *-u*, added at the end of the imperfective verbs in CA, as seen in the two religious expressions mentioned above, is retained even though the spoken dialects normally drop case endings, for example, CA *'a-ktub-u* /ʔaktubu/ 'I write' > AA *na-ktab* [nəktəb].

In addition to religious expressions and some proper nouns, the glottal stop is also retained as a necessary onset to vowel pronunciation, that is, it is retained to prevent a vowel from occurring in an onsetless syllable; for example, *'arwāh!* /ʔarwa:ħ/ 'Come!' Dropping /ʔ/ in such a context would result in an onsetless syllable, a structure that is illicit in Arabic. In the literature on AA, some linguists claim some AA words begin with a vowel and transcribe them as such, maybe under the influence of European languages, where a word may begin with a vowel (e.g., Tapiéro [2008]).

Besides the very few cases where the glottal stop is retained in AA, it is almost always dropped in word-initial and -final positions, a feature that distinguishes AA from CA. For instance, CA verbs *'akala* /ʔakala/ 'he ate' and *jā'a* /dʒa:ʔa/ 'he came/arrived' are pronounced [kla] and [dʒa], respectively, in AA. In medial position, the glottal stop is dropped but the vowel preceding it is lengthened; for example, CA *sa'ala* /saʔala/ 'he asked' > AA *sāl* [sa:l]. Interestingly, Sibawayh provides the same example in his book *al-Kitab*, referring to the Arabic

spoken in the eighth century (Al-Nassir 1985). In order to account for the lengthening of the vowel, Al-Nassir (1985) postulates that the glottal stop is replaced by long \bar{a} /a:/, after which the two vowels bordering the glottal stop are deleted: *sa'ala* /saʔala/ > *saāala* [saa:al] (glottal replacement) > *sāla* [sa:la] (bordering-vowels deletion). This interpretation sounds complicated. A more plausible explanation is that the glottal stop is deleted rather than replaced with \bar{a} /a:/. Then, the vowel preceding it is lengthened either to compensate for the loss of the glottal stop, or as a result of it, since dropping the glottal stop would lead to a sequence of two identical vowels: CA *sa'ala* /saʔala/ > *saal* [saal] (glottal stop loss) > *sāl* [sa:l]. Another interpretation is that both the glottal stop and the vowel following it are dropped, after which the remaining vowel is lengthened to compensate for the loss: CA *sa'ala* /saʔala/ > *sal* [sal] (glottal stop and vowel loss) > *sāl* [sa:l] (vowel lengthening).

Another case where the CA glottal stop is dropped in AA is in active participles of the pattern *fā'il* (C¹āC²iC³) 'doing', where it is replaced by [j]; for example, CA *sā'ih* /sa:ʔih/ 'a tourist' > AA *sāyah* [sa:jah]. Note how in the second syllable in CA, /i/ is raised to [a] in AA, a phenomenon known as vowel harmony. Sibawayh reports an inverse phenomenon, that is, the \bar{a} of the first syllable being raised to \bar{e} under the influence of the high vowel /i/ in the second syllable, for example, *ālim* /ʔa:lim/ 'scholar' > *ēlim* [ʔe:lim], which he attributes to ease of pronunciation (Al-Nassir 1985).

In source CA words where the vowel preceding or following the glottal stop is /u/, AA replaces the stop with the glide corresponding to /u/, that is, [w]; for example, CA *'uḏun* /ʔuḏun/ 'an ear' > AA *wḏan* [wḏən]; CA *su'āl* /suʔa:l/ 'a question' > AA *swāl* [swa:l]. Sibawayh reports a case similar to my second example, which (Al-Nassir 1985) accounts for by claiming that the glottal stop is replaced with [w] if it is preceded by /u/ and followed by /a/. This explanation does

not account for the loss of the vowel /u/ in *swāl*. Like in the case of the CA *sa'ala* /saʔala/ becoming *sāl* [sa:l], I think the glottal stop is dropped, and not replaced. Dropping it in the case of *su'āl* leads to a vocalic sequence: *su'āl* > *suāl*. Since Arabic does not allow vocalic sequences, the first vowel was replaced with a homorganic glide: *su'āl* /suʔa:l/ > *suāl* [sua:l] > *swāl* [swa:l].

In both CA words, *'uḏun* /ʔuḏun/ and *su'āl* /suʔa:l/, the glottal stop ' is one of the radicals of the three-consonant root, namely '-ḏ-n and s-'-l, respectively. In the case of '-ḏ-n, all derived words have the glottal stop; for example, *'aḏḏana* /ʔaḏḏana/ 'to call to prayer', *'aḏān* /ʔaḏa:n/ 'call to prayer', and *mi'dana* /miʔḏana/ 'minaret'. Interestingly, the glottal stop is retained in all these religious words in AA, unlike *'udhun* where it is replaced by [w]. An exception is the perfective *yu'aḏḏinu* /juʔaḏḏinu/, which is pronounced *yadḏan* [jəḏḏən] in AA. The same holds true for s-'-l. All derived words in CA have the glottal stop; for example, *sa'ala* /saʔala/ 'to ask', *mas'ala* /masʔala/ 'problem', and *mas'ūl* /masʔu:l/ 'responsible'. In AA, however, the middle radical is *w*, yielding *s-w-l*. When a form II verb of the pattern *fa'al* (C¹VC²C²VC³) is formed from the verb *sāl* [sa:l] in AA, we get *sawwal* [səwwəl] where the middle radical is *w*. The words *mas'ala* and *mas'ūl* also retain the glottal stop in AA, the reason being that they both are learned, as opposed to daily, vocabulary. The former, *mas'ala*, refers to a mathematical problem or to an issue and the latter, *mas'ūl*, to functionaries. The word *mas'ūl* is also mentioned in the *Qur'an* and prophetic *hadiths* to mean 'responsible/accountable for'.

In the western dialect of Tlemcen, the glottal stop is an allophonic realization of the CA uvular stop /q/, which has three other allophones in AA: 1) [g] in Bedouin and rural dialects; 2) [q] in urban dialects and in learned and religious vocabulary cross-dialectally—for example, the word for the CA word *Qur'an* /qurʔa:n/ in AA is pronounced [qurʔa:n] in all AA dialect types; and 3) a sound that is intermediate between [k] and [q] in Jijelli Arabic. Bahloul (2007) mentions

seven allophones of CA /q/, namely [ʃ], [dʒ], [ɣ], [k], [g], [ʔ], and [q], the last four of which are attested in Algeria.

In addition to its being an allophone of /q/ in AA, /g/ is a phoneme in its own. AA distinguishes between some CA homonyms that have the sound /q/ by replacing it with /g/ in one of the homonyms; for example, CA *waraqa* /waraqa/ ‘a paper’ and *waraqa* /waraqa/ ‘a leaf’ > AA *warqa* /warqa/ and *warga* /warga/, respectively, and CA *qarn* /qarn/ ‘a century’ and *qarn* /qarn/ ‘a horn’ > AA *qarn* /qarn/ and *garn* /garn/, respectively. As a result, /g/ has acquired phonemic status in AA. There are a few other minimal pairs where substituting /q/ for /g/ would result in a new meaning; for example, *maq‘ad* /maqʃad/ ‘a chair’ vs. *mag‘ad* /magʃad/ (CA *maq‘ada*) ‘buttocks’, *maqlī* /maqli:/ ‘fried’ vs. *maglī* /magli:/ ‘toasted’, and *qābal* /qa:bal/ ‘agreeing’ vs. *gābal* /ga:bal/ (CA *qābala*) ‘to face’.

In the Setifian dialect as spoken in Setif City, as opposed to the countryside, the emphatic *t* /tʰ/ is de-emphasized in a few words that have the sound /q/ as well. For example, CA *ṭāq* /tʰa:q/ ‘window’ and *ṭarīq* /tʰari:q/ ‘road’ are pronounced *tāqa* [ta:qa] and *trīq* [tri:q], respectively, in Setif City but *ṭāga* [tʰa:ga] and *ṭrīg* [tʰri:g] elsewhere in Setif province. Interestingly, the words where emphatic *t* /tʰ/ is de-emphasized also have /q/ instead of /g/. However, my first name, *Tarek*, is pronounced *tāraq* [ta:rəq] in Setif city and *ṭāraq* [tʰa:rəq] in the countryside but never *ṭārag* with a [g]. De-emphasizing *t* is a characteristic of the dialect that Assia Djébar speaks and mentions in her obituary *Algerian White* (see epigraph above).

Fricatives

A fricative is a sound in which the articulators come close together to produce a high degree of stricture. The air flows through a narrow gap, generating a hissing noise. Following is a list of AA fricatives, together with their articulatory characteristics.

- /f/ voiceless labiodental fricative as in *faḥḥ* /farḥ/ (CA *farahun*) ‘joy, wedding’.
 /θ/ voiceless dental fricative as in *talj* /θaldʒ/ (CA *taljun*) ‘snow’.
 /s/ voiceless alveolar plain fricative as in *shāb* /sha:b/ (CA *saḥābun*) ‘clouds’.
 /sʰ/ voiceless alveolar emphatic fricative as in *ʃhāb* /sʰha:b/ (CA *ʿaṣḥābun*) ‘friends’.
 /ʃ/ voiceless postalveolar fricative as in *ʃrab* /ʃrab/ (CA *ʃariba*) ‘he drank’.
 /χ/ voiceless uvular fricative as in *kubz* /χubz/ (CA *kubzun*) ‘bread’.
 /ħ/ voiceless pharyngeal fricative as in *hūt* /ħu:t/ (CA *hūtun*) ‘fish’.
 /h/ voiceless glottal fricative as in *hrab* /hrab/ (CA *haraba*) ‘he ran away’.
 /ð/ voiced dental plain fricative as in *dāb* /ða:b/ (CA *dāba*) ‘melted’.
 /ðʰ/ voiced dental emphatic fricative as in *zrab* /ðʰrab/ (CA *ḍaraba*) ‘he beat’.
 /z/ voiced alveolar plain fricative as in *zād* /za:d/ (CA *zāda* ‘increase’) ‘was born’.
 /zʰ/ voiced alveolar emphatic fricative as in *zawra* /zawra/ (CA *baṭṭanīya*) ‘blanket’.
 /ɣ/ voiced uvular fricative as in *ḡda* /ɣda/ (CA *ḡadāʿun*) ‘lunch’.
 /ʕ/ voiced pharyngeal fricative as in *ʿayn* /ʕayn/ (CA *ʿaynun*) ‘eye/faucet’.

In some AA dialects, the interdental fricatives /θ/ and /ð/ are pronounced as the dental stops [t̪] and [d̪], respectively, a process called *fortition*. This feature distinguishes urban dialects, which have lost the interdental fricatives, from rural and Bedouin dialects, which have preserved them (Holes 2004).

Also, as I mentioned above, the phoneme /ɣ/ is pronounced [q] in some Bedouin dialects where the sound /q/ is both a phoneme in its own and an allophone of the phoneme /ɣ/. This is the reverse phenomenon of what is attested in some Arabic dialects where the sound [ɣ] is an allophone of /q/ (Bahloul 2007).

Affricates

An affricate consists of a complete closure, as in a plosive, followed by a slow, rather than a sudden, release of air, as in a fricative. In other words, it consists of a homorganic (i.e., produced with the same place of articulation) plosive and fricative. AA has a voiced postalveolar affricate, /dʒ/, as in *jbal* /dʒbal/ ‘mountain’. This phoneme is pronounced [ʒ] in some dialects, mostly urban ones.

A few AA words have the voiceless counterpart, /tʃ/, as in *čīna* /tʃi:na/ ‘orange’ and *čippa* /tʃippa/ ‘tip’. These words must be foreign loans, most likely from Spanish, for two reasons.

First, the second word *čippa* has the sound /p/, which is not a native Arabic sound. Second, the word for *orange* in Puerto Rico and the Dominican Republic, where Spanish is the first language, is *china*.

Larbi Dziri (1970) attributes the origin of some of the words that have the sound /tʃ/ to Turkish and gives the example of *čārāk*, which is a cookie made of flour, sugar, and butter and stuffed with almonds. In *Mots turcs et persans conservés dans le parler algérien*, Ben Cheneb (1922) provides an entry of all the Turkish loans that entered AA and have the sound /tʃ/. However, he claims that this sound is pronounced as [ʃ] by Arabs. In my Setifian dialect, we pronounce words like *čārāk* and *čakčūka* ‘a local dish’ with [tʃ] (the second word does not figure in Ben Cheneb’s entry). In the Algerian movie *ttāksī lmaḵfī* ‘Clandestine Taxi’ (1991), one of the main actors, who speaks an urban Algiers dialect, uses the word *čābčāq* and pronounces it [tʃəbtʃɑːqa] with a [tʃ] sound rather than [ʃ].

In some AA dialects, the affricate [tʃ] is an allophone of /k/ or /dʒ/. For example, CA *wajhun* /wadʒhun/ ‘face’ is pronounced [wəʃ] in the dialect spoken in the capital Algiers, where the voiced affricate /dʒ/ and voiceless /h/ merge into [tʃ] after dropping the nominative case ending *–un*: /wadʒhun/ > wadʒh > [wəʃ]. In Iraqi Arabic (IA), [tʃ] is an allophone of /k/; for example, CA *kalbun* ‘dog’ > IA *čalb*.

In my fieldwork in Algeria in the summer of 2017, I heard speakers of the dialect of Skikda, a city in northeastern Algeria, pronounce the dental stop /t/ as affricate [tʃ]. In other words, [tʃ] is an allophone of /t/. For example, *hūta* /huːta/ ‘a fish’ is pronounced [ħuːtʃa].

Approximants

An approximant is a sound in which the articulators approximate each other, but less so than in fricatives, leading to very little obstruction to the airflow (i.e., more vowel-like).

Approximants can be grouped into liquids and glides. Below is a list of AA liquids and glides in this order. In AA, there is a pair of plain-emphatic liquids.

Liquids

/r/ voiced alveolar plain trill as in *bra* /bra/ ‘needle’ and *dār* /da:r/ ‘he did’.

/r^ʕ/ voiced alveolar emphatic trill as in *brā* /br^ʕa:/ ‘he healed’ and *dār* /da:r^ʕ/ ‘he turned around/a house’.

/l/ voiced alveolar lateral as in *l-īl* /l:i:l/ ‘(the) night’.

/l^ʕ/ voiced alveolar lateral as *l-īh* /l^ʕi:h/ ‘God’.

Emphatic /l^ʕ/ occurs in very few words including the name of God, *ʿAllāh* /ʔal^ʕf^ʕa:h /, and any expressions with it such as *nch ʿAllāh* /nʃa:l^ʕf^ʕah/ ‘God willing’. Emphatic /l/ in the word *ʿAllāh* is pronounced plainly if it is preceded by the vowel /i/ as in *bismi l-lāh* [bəsməllah] ‘In the name of God’ (CA [bismilla:h]). There are two other expressions that have emphatic /l/, namely *thalīla f-* [thal^ʕf^ʕa#f] ‘take care of’ (Souag 2005; Heath 1989 for MA). I think this expression too has the name of Allah and is originally CA *ʿittaqi llāh fi* /ʔittaqi#lla:ha#fi/ ‘fear Allah in’ > AA *thalīla f-* [thal^ʕf^ʕa#f]. The second word, other than the word for God, which has emphatic /l/ is *walla* /wal^ʕf^ʕa/ ‘or’ (probably CA *ʿawlā* ‘worthier’ /ʔawla:/).

Emphatic trill is allophonic in CA ([r^ʕ]) but phonemic in AA (/r^ʕ/). In CA, /r/ has two allophones: emphatic and plain. It is emphatic if it is followed or preceded by /a/ or /u/. However, it is plain if it is followed or preceded by /i/ except if it is followed by an emphatic, in which case it is emphasized as well.

Treating emphatic [r^ʕ] as an allophone in CA led Belkacem Belaredj (2008) to consider it an allophone of /r/ rather than a phoneme in its own right in AA, even though he provides minimal pairs to demonstrate that emphasis on the /r/ sound can change the meaning of the AA word:

/r/	/r ^ʕ /
<i>rāb</i> /ra:b/ ‘demolished’	<i>rāb</i> /r ^ʕ a:b/ ‘battered (milk)’

<i>rākab</i> /ra:kab/ ‘mounted’	<i>rākab</i> /r ^s a:kab/ ‘assembled, installed, set up’
<i>dār</i> /da:r/ ‘to do/make’	<i>dār</i> /da:r ^s / ‘to turn around, house’
<i>jārī</i> /dʒa:ri:/ ‘flowing’	<i>jārī</i> dʒa:r ^s i:/ ‘my neighbor’ (Heath 1989)

Heath (1989) claims that emphatic *r* is phonemic in MA. He gives the example of two MA words that share the same root *k-b-r*, namely MA *kbar* /kbar/ (CA *kabura* /kabura/) ‘he grew up’ vs. *kbar* /kbar^s/ (CA ‘*akbar* /ʔakbar/) ‘bigger’. The sound /r/ has acquired emphasis in MA due to dropping short vowels. To this, and based on the *kbar/kbar* contrast above, I add the factor of dropping the glottal stop in the spoken dialects, which sometimes results in homonymy, that is two or more words which are pronounced in exactly the same way but mean different things. Consequently, emphatic *r*, which is allophonic in CA, has acquired a phonemic status in AA. In other words, lexical and grammatical differences that are marked using short vowels and the glottal stop in CA tend to be expressed using consonants in AA. Dropping the short vowels and glottal stop in AA sometimes results in homophony, for example, dropping the glottal stop (and the vowel following it) from the comparative ‘*akbar* /ʔakbar/ ‘bigger’ yields *kbar*, which is homophonous with the verb *kbar* that results from dropping the short vowels of CA *kabura* /kabura/ ‘to grow’. After dropping these sounds, the words have become homophonous. This might be the reason why the /r/ sound is emphasized in the former word, that is, to distinguish it from the latter.

Some Arab grammarians and linguists consider *r* as an emphasized, rather than an emphatic, consonant. In other words, it gets emphasis from being adjacent to the primary emphatic sounds *t*, *s*, *d* and *z*. However, the minimal pairs I provided above have no primary emphatic sounds in them, which constitutes further evidence that the emphasis on *r* is inherent and is phonemic in AA rather than allophonic as is the case in CA.

Glides

/w/ voiced bilabial glide as in *warda* /warda/ ‘a rose/girl’s name’.

/j/ voiced palatal glide as in *yāsar* /ja:sar/ ‘enough’.

As I mentioned above, some CA words having the glottal stop are pronounced with a glide [j] or [w] in AA, depending on the vowel preceding or following the glottal stop. In addition, hollow verbs of the form CVC, “traditionally analyzed as verbs with a medial glide” (Watson 2007, 202), and weak verbs with a vowel-final stem of the form CCV, tend to insert a glide /w/ or /j/ to derive related words; for example, from the weak verb *bkā* /bka:/ (CA *bakā* /baka:/) ‘he cried’ is derived *bakkāy* /bakka:j/ ‘crier’. In words where the glottal stop has been dropped, resulting in a two-, rather than the original three-consonant, root a glide is inserted; for example, from AA Form I verb *klā* /kla:/ (CA ‘*akala* /ʔakala/) is derived Form II verb *wakkal* /wakkal/ (CA ‘*aṭ‘ama* /ʔatʕama) ‘he fed’.

In some cases, a glide is inserted to prevent vowel sequences, which are illicit in Arabic. For example, the plural of *kāmyū* /ka:mju:/ ‘lorry’ is formed by adding the suffix *-āt*, which results in a vowel sequence: *kāmyū + -āt > kāmyūāt*. The vowel cluster *ūā* is broken by inserting the glide /w/, which is homorganic with the vowel /u:/, yielding *kāmyūwāt* [ka:mjuwwa:t] (underlying form /ka:mju:a:t/). After the vowel /i:/, the palatal glide /j/ is inserted; for example, *jazāyri* /dʒaza:jri:/ ‘a male Algerian’ + *-a* > *jazāyriya* [dʒaza:jrijja] ‘a female Algerian’ (underlying form /dʒaza:jri:a/).

Nasals

A nasal is a sound articulated with complete stoppage of airflow in the oral cavity (i.e., mouth). However, unlike a plosive, in which the passage into the nasal cavity is also blocked by raising the velum and pressing it against the back wall of the pharynx, air is allowed to escape through the nose in a nasal sound. AA has the following two nasals in its sound inventory.

/m/ voiced bilabial nasal as in *mrēz* /mri:ð^s/ ‘sick’

/n/ voiced alveolar nasal as in *nām* /na:m/ ‘to dream’

The bilabial nasal is both a phoneme (/m/) and allophone ([m]) in AA. Before the bilabial stop /b/, the alveolar nasal /n/ is realized as [m]; for example, ‘*anbar* /ʕanbar/ ‘umber’ is realized as [ʕambar]. Nasal-stop assimilation is confirmed by the corpus of loanwords I collected, where nasal vowels are unpacked as [Vm] before a bilabial stop; for example, Fr. *bonbon* /bõbõ/ ‘candy’ > AA *būmbu* /bu:mbu/.

The discussion of nasals concludes our description of the consonants of AA, which are presented in Table 1 below according to place and manner of articulation, emphasis, and voicing.

		Labial		Inter-dental		Dental/Alveolar		Palatal	Velar	Uvular	Pharyngeal	Glottal
		Bilabial	Labio-dental	Plain	Emphatic	Plain	Emphatic					
Nasal		m				n						
Plosive	Voiceless					t	t ^s		k	q		
	Voiced	b				d			g			
Fricative	Voiceless		f	θ		s	s ^s	ʃ	x		ħ	h
	Voiced			ð	ð ^s	z	z ^s		ɣ		ʕ	
Affricates	Voiced							ɟʒ				
Liquids	Lateral					l	l ^s					
	Trill					r	r ^s					
Glides								j	w			

Table 1 AA consonants

In addition to the above consonants, AA has acquired new sounds such as /p/ and /v/ as a result of contact with foreign languages that have these two sounds. However, /p/ and /v/ are unique to loanwords that have not been integrated fully. In loanwords that have been adapted completely, both /p/ and /v/ are realized as either AA [b] or [f]. Sometimes, a loanword is realized with either [p] or [b] depending on the meaning; for example, *pāṣa* /pa:s^sa/ ‘he passed’ vs. *bāṣa* /ba:s^sa/ ‘he put himself in trouble’. Based on the dictionary definition of the French verb *passer* /pase/ as both “to pass” and “to go through,” I assume that AA *pāṣa* and *bāṣa* are both French loans and originate from the same source verb. The reason why /p/ is adapted in one and not the other seems to be driven by a willingness to distinguish homophones in order to avoid

confusion, similar to the case of plain *r* and emphatic *r* discussed above. Hadj-Sadok's (1955) list of loanwords has the verb *bāṣa*, which, according to him originally meant serving a sentence that involves penal labor. Later, the word came to mean going through any kind of hardship. Another example of a loanword that entered AA at different times and was adapted differently to capture a different meaning is Fr. *charger* /ʃaʒʒe/ 'to load, to charge' > AA *ṣārja* /s'a:rdʒa/ 'to load' and *šārja* /ʃa:rdʒa/ 'to charge (e.g., a battery)'.

Consonant length or gemination is distinctive in Arabic; for example, *ḥāja* /ħa:dʒa/ 'a thing/ something' vs. *ḥāja* /ħa:dʒdʒa/ 'a woman who has performed pilgrimage' and *šāb* 'become white-haired' vs. *šābb* 'a youth'. This is the reason why some linguists add the doubled or long equivalents of the singleton consonants mentioned above to the phonemic inventory and end up with a list comprising twice as many consonants in AA. However, I will follow the practice adopted by Arabic grammarians and assign consonant gemination (or doubling) to the pattern system of Arabic, that is, derivational morphology. For instance, derived verbal patterns such as Form II involve doubling the middle radical of the bare stem: Form I *fa'ala* /fa'ula/ *fa'ila* (C¹aC²VC³a) > Form II *fa''ala* (C¹aC²C²aC³a). Such gemination adds a causative or intensive meaning to the verb. For example, from AA Form I verbs *qra* /qra:/ 'he read/studied' and *bkā* /bka:/ (CA *qara'a* /qaraʔa/ 'he read' and *bakā* /baka:/ respectively) are derived Form II verbs *qarṛā* /qarra:/ 'he caused someone to study/he taught' and *bakkā* /bakka:/ 'he made someone cry'. CA has *darrasa* /darrasa/ and *'abkā* /ʔabka:/ respectively. The latter is a Form IV verb of the pattern *'af'ala* (ʔaC₁C₂aC₃a) which, like Form II, adds a causative meaning to Form I verbs. However, Form IV is more common in CA than it is in the spoken dialects. The latter mostly employ Form II to express a causative meaning (Brustad, Al-Batal, and Al-Tonsi 2011). The reason might be the fact that, unlike CA, the spoken dialects tend to drop the glottal stop.

Examples include the following: CA Form I *ḍaḥika* /d^ḥahika/ ‘to laugh’ and *fariḥa* /fariḥa/ ‘to be happy’ > CA Form IV *ʿaḍḥaka* /ʿad^ḥhaka/ ‘to make someone (s.o.) laugh’, *ʿafraḥa* /ʿafraḥa/ ‘to make s.o. happy’ but AA Form I *ḥhak* /ḥ^ḥhak/ and *fraḥ* /fraḥ/ > AA Form II *ḥḥak* /ḥ^ḥahḥak/ ‘to make s.o. laugh,’ and *farraḥ* /farraḥ/ ‘to make s.o. happy’ respectively.

Compared to CA, AA has more emphatic consonants. The former has only four, namely /t^ḥ/, /d^ḥ/, /s^ḥ/, and /ḥ^ḥ/. The emphatics /d^ḥ/ and /ḥ^ḥ/, which are phonemic in CA, are merged in AA dialects. The latter use either /d^ḥ/ or /ḥ^ḥ/ but not both. Generally speaking, the urban dialects, which lost the interdental fricatives /θ/ and /ð/ and replaced them with /t/ and /d/, respectively, also lost the emphatic /ḥ^ḥ/ and kept /d^ḥ/ (Holes 2004). Preserving *ḍ* /d^ḥ/, rather than *ḥ* /ḥ^ḥ/, in the dialects that lost interdental fricatives sounds plausible because *ḥ* /ḥ^ḥ/ is the emphatic equivalent of *ḍ* /d^ḥ/, which the dialect lost. So dropping the latter from the dialect results in dropping its emphatic equivalent as well. For example, CA *ḍaraba* /d^ḥaraba/ ‘he hit’ and *ʿazzalām* /aḥ^ḥḥ^ḥala:m/ ‘the darkness’ > *ḍrab* /d^ḥrab/ and *ḍdlām* /d^ḥd^ḥlma/ in the dialect of Bnī Faṭḥ in Jijel (Belaredj 2008). Conversely, the rural and Bedouin dialects which preserved CA /θ/ and /ð/ also preserved the latter’s emphatic equivalent /ḥ^ḥ/, to the exclusion of /d^ḥ/. For example, the rural dialects of SA have preserved CA interdentals /θ/ and /ð/. Therefore, CA *ḍaraba* /d^ḥaraba/ ‘he hit’ and *ʿazzalām* /aḥ^ḥḥ^ḥala:m/ ‘the darkness’ > SA *ḥrab* /ḥ^ḥrab/ and *ḥḥalma* /ḥ^ḥḥ^ḥalma/, respectively. Interestingly, the CA word *talāṭa* /θala:θa/ ‘three’ is pronounced *tlāṭa* [tla:θa] in SA, where the first *t* /θ/ is pronounced [ṭ]. I consider this a case of *dissimilation* of the first *t* under the influence of the second.

Emphatic *ḍ* has two allophones in the Jijelli dialect of Bnī Faṭḥ, namely voiced [d^ḥ] and voiceless [ṭ]; for example, CA *ʿabyaḍ* ‘white’ > *byaṭ* (Belaredj 2008). This is something my Facebook contacts who speak Jijelli Arabic have confirmed. The factors that motivate one

allophone or another are not clear yet. The Jijelli informants with whom I spoke claim the [tʰ] variant is more common. If this is the case, then emphatic *t* is both a phoneme and an allophone of *d* in Jijelli Arabic.

In addition to CA emphatics *t* /tʰ/, *ṣ* /sʰ/ and *d* /dʰ/ and *z* /ðʰ/, which have merged in AA, AA has developed its own emphatics such as *z* /zʰ/, which is the emphatic equivalent of *z* /z/. An example of a minimal pair in AA, where substituting emphatic *z* /zʰ/ for plain *z* /z/ changes the meaning of the word, is *zabla* /zabla/ ‘cow dung’ vs. *ẓabla* /zʰabla/ ‘gaffe’. AA might have acquired *z* /zʰ/, which does not exist in CA but is distinctive and phonemic in AA, as a result of the contact it has had with Berber. The latter has emphatic *z* /zʰ/ in its sound inventory as one can clearly hear in a famous Berber song by Nna Cherifa titled *aya zarzūr* ‘Oh *zarzūr*—a local bird’. The Berber word *zarzūr* is also used by AA to refer to the same bird. Both Berber and AA are mainly oral and lack written resources where one can check the date when the word was first attested in either language to determine which of these two is the source language. One possibility is that Berber is the donor language. As I mentioned in chapter 1, when the Arabs first arrived in the area, they borrowed many words for local fauna and flora and even place names from the local Berber languages, some of which are still used today. Dallet’s Dictionnaire Kabyle-Français [Kabyle-French Dictionary] (1982) provides a list of Kabyle phonemes, including emphatic *z* /zʰ/. However, the example word he gives in the preface, namely *tazallit* ‘prayer’ is an Arabic loanword, the source word being *ṣalāt* /sʰala:t/. It is not clear why Kabyle adapted Arabic *ṣalāt* as *tazallit* and replaced Arabic *ṣ* /sʰ/ with *z* /zʰ/, even though the former is a sound in Kabyle as well.

Emphatic *z* /z^s/ is also a sound in Egyptian Arabic (EA). However, it is not phonemic. It is an allophone of CA /d^s/; for example, CA *dābiṭ* /d^sa:bit^s/ ‘officer’ > EA *zābiṭ* /z^sa:bit^s/. This sound seems to be borrowed from Turkish.

In addition to the emphatics that I mentioned above, P. Marçais (1977) claims some dialects of AA, and Maghrebi Arabic in general, have other emphatics such as *ḥ* /ḥ^s/, *ṣ* /ṣ^s/, *ṣ̣* /ṣ̣^s/, *ṣ̣̣* /ṣ̣̣^s/, *ḳ* /ḳ^s/, and *ḡ* /ḡ^s/. Heath (1987) provides the same inventory of emphatics for MA and claims that some of them occur in very few words. Some of these sounds are not emphatic on their own; they acquire emphasis in the neighborhood of an emphatic. If this is so, then these emphasized consonants are allophones rather than phonemes. I cannot think of any minimal pairs in AA where substituting one of these for their plain equivalents changes the meaning of the word. Example words of emphatic *ḥ* /ḥ^s/ in EA and MA are *ḥāḥā* /ḥ^sa:b^sa:/ and *ḥḥa* /ḥ^sb^sa/, both of which mean ‘father’. In my dialect, however, we used plain *h* /h/ for the same word: *bābā* /ba:ba:/.

AA vowels

Like CA, AA has a relatively small vowel inventory comprising six vowel phonemes, three long and three short. In addition to vowel length, vowels are described according to the following parameters such as tongue height, tongue shape—the part of the tongue, between front and back, that is raised the highest—and lip position, that is, whether the lips are protruded, spread, or neutral when producing the vowel. If the lips are protruded, the resultant vowel is described as rounded. If they are not, that is, if they are either spread or neutral, the vowel is unrounded (Roach 2009).

AA long vowels

/i:/ close front unrounded as in *zīt* /zi:t/ ‘cooking oil’.

/u:/ close back rounded as in *ḥūt* /ħu:t/ ‘fish’.

/a:/ open front unrounded as in *dār* /da:r/ ‘he did’.

Sometimes, the long vowel results from simplifying diphthongs, for example, CA *zajt* /zajt/ ‘cooking oil’ > AA *zīt* [zi:t]; CA *yawm* /jawm/ ‘a day’ > AA *yūm* [ju:m].

AA short vowels

/i/ close front unrounded as in *ismahān* /ʔismaha:n/ ‘female proper noun’.

/u/ close back rounded as in *kubz* /χubz/ ‘bread’.

/a/ open front unrounded as in *asma* /ʔasma/ ‘female proper noun’.

Boucherit (2004) claims that vowel length is not distinctive in the Arabic dialect of Algiers, which, according to her, has three phonemes /i/, /u/, and /a/, in addition to epenthetic schwa. Heath (1987) has a similar claim for MA. He claims that, compared to CA, vowel length is not contrastive in MA, where CA short vowels are dropped.

In addition, like P. Marçais (1977), Boucherit (2004) adds another parameter to vowel length, namely long-mid, which is a characteristic of final vowels, which are either short or long in CA; for example, CA *akala* /ʔakala/ ‘he ate’ and *mashā* /maʃa:/ ‘he walked’ > AA *klā* [klaː] and *mshā* [mʃaː], respectively. Since long-mid is allophonic, rather than phonemic, I will ignore this feature in my transcription and will transcribe long vowels as such in final position, even though they tend to be shorter in actual pronunciation. There are no minimal pairs distinguished by vowel length at the end of a word.

The AA vowel system is complex and more complicated than that of CA. For one, the difference between the CA short vowels /i/, /u/, and /a/ is often neutralized in AA (cf. Heath for MA). In addition, in certain environments, they disappear entirely (Bergman 2005). This is mostly the case when the short vowel occurs in an open syllable; for example, CA *kataba* /kataba/ ‘he wrote’, *kitāb* /kita:b/ ‘a book’, and *kutub* /kutub/ ‘books’ > AA *ktab* [ktab], *ktāb* [kta:b], and *ktub* [ktub], respectively. As the examples demonstrate, dropping the short vowels

results in a consonant cluster. If this cluster is preceded by a third consonant as is the case when the definite article *l-* is prefixed to the indefinite noun or a one-consonant prefix (*n-*, *t-*, *y-*) is added to the verb to form the imperfective aspect, an epenthetic vowel *a*, pronounced [ə], is inserted to break the impermissible three-consonant cluster; for example, *n-* /n/ + *ktab* /ktab/ > *nktab* > *naktab* [nək.təb] ‘I write’, *l-* /l/ ‘the’ + *ktāb* /kta:b/ ‘a book’ > *lktāb* > *laktāb* [lək.ta:b] ‘the book’. P. Marçais (1977) claims that some AA dialects allow a three-consonant cluster. Heath (1987) makes a similar claim for MA.

It is worth mentioning that CA-short-vowel loss/preservation depends on dialect type: Bedouin dialects tend to preserve vowels more than urban ones. This led Holes (2004) to claim that Bedouin dialects are the closest to CA in that they have preserved most of their features compared to the other dialects, which seems plausible given the fact that the Bedouin varieties are less susceptible to external influences. In the case of Maghrebi dialects, the more one moves westwards, the more the dialect tends to drop the vowels (P. Marçais 1977).

All of the above vowels are colored by neighboring consonants, especially emphatic ones. As a result, each vowel has two or more allophones that are in complementary distribution: 1) The phoneme /i/ has the allophones [e] in the neighborhood of emphatic, uvular, and pharyngeal consonants, and [i] when it is adjacent to anterior consonants that are articulated in the front of the mouth and comprise labial, dental, and alveolar consonants; 2) The phoneme /u/ has the allophones [o] when it is adjacent to an emphatic consonant, and [u] elsewhere; and 3) The phoneme /a/ has the allophones [ɛ] when it is contiguous to consonants that have a raising effect, [ɑ] in the neighborhood of emphatic consonants, and [æ] elsewhere, especially when it is adjacent to lowering consonants (Boucherit 2004).

Emphasis does not affect only vowels but it also colors consonants. P. Marçais (1977) speaks of emphatic consonants, in which emphasis is inherent, and emphasized consonants, which acquire emphasis in the neighborhood of an emphatic.

AA diphthongs

A diphthong is a vowel sound that consists of a glide (or movement) from one vowel to another. AA has only two diphthongs in its sound inventory:

/aj/ as in *kayt* /χajtʰ/ ‘thread’ and *hayt* /ħajtʰ/ ‘wall’.

/aw/ as in *awd* /ʕawd/ ‘horse’.

Where CA has the diphthongs /aj/ and /aw/, AA has the long vowels [i:] and [u:] respectively, for example, CA *şayf* /sʰajf/ ‘summer’ > AA *şēf* [sʰe:f] and CA *lawn* /lawn/ > AA *lūn* [lu:n] ‘color’. The diphthongs /aj/ and /aw/ tend to retain diphthongization after opening consonants such as ‘/ʕ/, *h* /ħ/, *k* /χ/, and *g* /ɣ/ (P. Marçais 1977), for example, ‘*ayn* /ʕayn/ (CA ‘eye/faucet’, *kayt* /χajtʰ/ (CA *kayt*) ‘thread’, and *gayba* /ɣayba/ (CA *gayba*) ‘absence’.

In addition to /aj/ and /aw/, P. Marçais (1977) mentions other diphthongs where the first element is long, namely *āy* /a:j/ and *āw* /a:w/; for example, *ṛāyah* /rʰa:jaħ/ ‘going’ and ‘*āwan* /ʕa:wan/ ‘he helped’. In these examples, /a:j/ and /a:w/ do not constitute a single unit, but rather belong to different syllables: *ṛā.yah* /rʰa:jaħ/ and ‘*ā.wan* /ʕa:wan/. In final position, however, /a:j/ and /a:w/ tend to behave more like diphthongs, especially in CA words that have dropped the final vowel or Turkish loans such as *bāy* /ba:j/ ‘bey’, and *dāy* /da:j/ ‘dey’, both of which are Turkish titles. In some other cases, however, the second element of the diphthong, /w/ or /j/, is epenthetic. For example, *mšāw* /mʃa:w/ ‘they walked’ is formed from adding the 3rd person plural suffix *-ū* /u:/ to the past verb: *mšā* /mʃa:/ ‘he walked’ + *ū* /u:/ > *mšāū* /mʃa:u:/ > *mšāw* [mʃa:w]. In some words, a diphthong is formed from dropping the glottal stop; for example, CA *ra’y* /raʔj/ ‘viewpoint’ and *hā’it* /ħa:ʔitʰ/ ‘a wall’ > AA *ṛāy* [rʰa:j] and *hayt* /ħajtʰ/, respectively.

AA syllable structure

Algerian Arabic syllables take many forms, some of which are not attested in CA. For instance, unlike CA, AA has complex onsets that consist of two consonants. This structure results from dropping the CA short vowels in non-final light syllables. Conversely, the structure CV (where V is a short vowel) is very common in CA but rare in AA. Therefore, many AA words undergo resyllabification in order to prevent a short vowel from occurring in an open syllable. For instance, third person plural of the perfective verb is formed by adding the suffix *-ū* to the verb stem *ktab* (CA *ka.ta.ba*) ‘he wrote’, which results in an open syllable: *ktab + -ū > *kta.bū > kat.bū* (CA *ka.ta.bū*) ‘they wrote.’

Below are all the possible syllable structures in AA, the first three of which are not attested in CA by virtue of having complex onsets. For every syllable structure, I will give example words in AA, to illustrate it, and CA equivalents in their non-pausal contextual form. I will transcribe CA words in a phonemic (broad) transcription and show the syllable boundaries to draw the reader’s attention to how AA drops case endings word-finally and short vowels in non-final open syllables, and resyllabifies them accordingly.

- 1) CCVC, for example, *ḳbaz* [χbəz] (CA *ḳabaza* /χa.ba.za/) ‘to bake’, *jmal* [dʒməl] (CA *ja.mal(un)* /dʒa.ma.lun/) ‘a camel’, and *ḅhar* [ḅhar] (CA *baħr(un)* /baħ.run/) ‘sea’. Most trilateral words in AA have this pattern. The first two words are instances of a complex onset that consists of a consonant cluster triggered by short-vowel loss in a non-final open syllable in the dialect. The third word is an example of a restructuring of the sequence CVCC to CCVC, which is common in the dialect, probably triggered by the Sonority Sequencing Principle (SSP), which claims that coda consonants must fall in sonority; for example,

dropping the nominative case-ending *-un* /un/ in the CA word *baħr(un)* /baħrun/ yields [baħr], where the sonority increases in the sequence [ħr].

- 2) CCVV, for example, *smā* [smaː] (CA *samaa'(un)* /sa.maː.ʔun/) ‘sky’. Final vowels in the dialect tend to be long-mid rather than long as I mentioned above.
- 3) CCVVC, for example, *kbāš* [kbaːʃ] (CA *kibāš(un)* /ki.baː.ʃun/) ‘sheep pl./rams’.
- 4) CVV, for example, *šā.yam* [sʰaː.jəm] (CA *šā. 'im* /sʰaː.ʔim/) ‘fasting’, *ḍab.bā.na* [ðəb.baː.na] (CA *ḍubāba* [ðu.baː.ba]) ‘a fly’, and *māšī* [maː.ʃiː] (CA *māš(in)* /maː.ʃin/) ‘walking’.
- 5) CVCC, for example, *kabš* [kəbʃ] (CA *kabš(un)* /kab.ʃun/) ‘a ram’.
- 6) CVC, for example, *yal. 'ab* [jəl.ʃab] (CA *yal'ab(u)* /jal.ʃa.bu) ‘he plays/is playing’.
- 7) CVVC, for example, *kāf* [χaːf] (CA *kāfa* /χaː.fa/) ‘he feared’.
- 8) CVVCC. This structure is uncommon and is only attested in loanwords, according to Belkacem (2008).
- 9) CV, for example, *ja.māl* [dʒa.maːl] ‘a male name’. This form, which is much more common in CA, is retained in proper nouns and very few words in AA. The reason might be the fact that, unlike most AA words, proper nouns are written in official documents such as IDs, birth certificates, and passports, based on CA. So, proper nouns have a “fixed” written form unlike other vocabulary. In addition, some proper nouns tend to break some of the constraints imposed by the native grammar, a constraint against light syllables in this case, which led to their being described as part of the periphery, together with partially-assimilated loanwords and imports, rather than the core (Paradis and LaCharité 1997).

The Phonemic system of French

Unlike AA, standard French has a relatively small consonant inventory but a very rich vowel inventory. Below is a description of its consonant and vowel phonemes along the

articulatory parameters mentioned above. Unlike AA, which is not standardized and which has not been studied extensively, French, by virtue of its being a global imperial language, was codified in the sixteenth and seventeenth centuries after the establishment of the *académie française* ‘French Academy’ in 1635 (Fagyal, Kibbee, and Jenkins 2006). All observations below refer to Parisian French, the standard variety in France, since other varieties such as Canadian French are irrelevant to my analysis due to historical and geographical reasons. Historically, Algeria was colonized by France. Therefore, speakers of AA must have been exposed to varieties spoken in France. Geographically speaking, Canada is so distant from Algeria, which makes contact with Canadian French, improbable.

Standard French consonants

Standard French has twenty-one consonants, classified by place of articulation, manner of articulation, and voicing. Unlike AA, French has no emphatic consonants in its sound inventory. Below is a description of the French consonants together with example words.

Plosives

- /p/ voiceless bilabial plosive as in *papa* /papa/ ‘dad’.
- /t/ voiceless dental plosive as in *petit* /p(ə)ti/ ‘small’.
- /k/ voiceless velar plosive as in *kilo* /kilo/ ‘kilo’.
- /b/ voiced bilabial plosive as in *bébé* /bebe/ ‘a baby’.
- /d/ voiced dental plosive as in *dans* /dã/ ‘in’.
- /g/ voiced velar plosive as in *grand* /grã/ ‘big’.

Fricatives

- /f/ voiceless labiodental fricative as in *œuf* /œf/ ‘egg’.
- /s/ voiceless alveolar fricative as in *salle* /sal/ ‘room’.
- /ʃ/ voiceless postalveolar fricative as in *chanter* /ʃa te/ ‘sing’.
- /v/ voiced labiodental fricative as in *valise* /valiz/ ‘suitcase’.
- /z/ voiced alveolar fricative as in *désert* /dezer/ ‘desert’.
- /ʒ/ voiced postalveolar fricative as in *âge* /ɑʒ/ ‘age’.

Liquids

/l/ voiced alveolar lateral as in *lait* /lɛ/ ‘milk’.

/r/ voiced velar as in *riz* /ri/ ‘rice’.

French /r/ has four allophones, namely apical [r] and uvular [ʀ] trills, and uvular fricative [ʁ] (Fagyal, Kibbee, and Jenkins 2006). When it follows a voiceless obstruent, French /r/ is devoiced; for example, *cadre* [kadʁ] ‘a frame’ vs. *quatre* [katʁ] ‘four’ (Ledgeway and Maiden 2016). The latter French allophone is a phoneme in AA.

In this chapter and throughout, I will follow the practice of using the phoneme /r/ to represent French *r* and remind the reader that the common realization of French /r/ in Parisian French, as spoken with a standard French accent, is [ʁ] (Price 2005). This distinction is very important to my analysis of how this sound is adapted in AA in Chapter 5.

Glides

/w/ voiced bilabial glide as in *oiseau* /wazo/ ‘a bird’.

/j/ voiced palatal glide as in *yeux* /jø/ ‘eyes’.

/ɥ/ voiced labio-palatal glide as in *lui* /lɥi/ ‘eyes’.

Nasals

/m/ voiced bilabial nasal as in *montagne* /mɔ̃taŋ/ ‘mountain’.

/n/ voiced alveolar nasal as in *nuit* /nɥi/ ‘night’.

/ɲ/ voiced palatal nasal as in *agneau* /aŋo/ ‘lamb’.

/ŋ/ voiced velar nasal as in *jogging* /dʒɔŋiŋ/ ‘jogging’, acquired from English.

The aforementioned consonants are classified in Table 2 below.

Manner of Articulation		Place of Articulation							
		Labial	Dental	Alveolar	Post-alveolar	Palatal	Labial-palatal	Velar	Uvular
Nasal		m	n			ɲ		(ŋ)	
Plosive	Voiceless	p	t					k	
	Voiced	b	d					g	
Fricative	Voiceless	f		s	ʃ				
	Voiced	v		z	ʒ			r	
Approximant	Liquids		l						
	Glides	w				j	ɥ		

Table 2 French consonants

French vowels

French has a relatively large vowel inventory. It has fourteen vowels, classified by tongue height and shape, and lip rounding. In addition, French vowels are described along a fourth parameter, nasality (i.e., whether the air escapes both through the nose and mouth as in the case of a nasal vowel or only through the mouth as in the case of an oral vowel). Below is a description of French oral and nasal vowels in this order (Dansereau 2006).

Oral vowels

- /i/* close front unrounded as in *île* /il/ ‘island’.
- /e/* close-mid front unrounded as in *été* /ete/ ‘summer’.
- /ɛ/* open-mid front unrounded as in *tête* /tet/ ‘head’.
- /a/* open front unrounded as in *là-bas* /laba/ ‘there’.
- /ɑ/* open back unrounded as in *gaz* /gɑz/ ‘gas’.
- /y/* close front rounded as in *bus* /bys/ ‘bus’.
- /ø/* close-mid front rounded as in *bleu* /blø/ ‘blue’.
- /œ/* open-mid front rounded as in *sœur* /sœr/ ‘sister’.
- /u/* close back rounded as in *jour* /ʒur/ ‘day’.
- /o/* close-mid back rounded as in *beau* /bo/ ‘nice’.
- /ɔ/* open-mid back rounded as in *botte* /bɔt/ ‘boot’.

The distinction between open vowels */a/* and */ɑ/*, the latter traditionally occurring in a few words, is lost in standard French (Dansereau 2006). The back vowel */ɑ/* is rare in the speech of young Parisians. It has merged with its front equivalent */a/* (Dansereau 2006; Fagyal, Kibbee, and Jenkins 2006).

In addition to oral vowels, French has four nasal vowels, two front and two back. It is one of the few languages in which nasalization is phonemic (Fagyal, Kibbee, and Jenkins 2006).

Nasal vowels

French has the following nasal vowels in its phonemic system:

- /ɛ̃/* open-mid front unrounded as in *faim* /fɛ̃/ ‘hungry’.
- /œ̃/* open-mid front rounded as in *un* /œ̃/ ‘a/one’.
- /ɑ̃/* open back unrounded as in *chambre* /ʃɑ̃br/ ‘room’.
- /ɔ̃/* open-mid back rounded as in *son* /sɔ̃/ ‘sound’.

The front vowels / $\tilde{\epsilon}$ / and / $\tilde{\alpha}$ / have merged into / $\tilde{\epsilon}$ /. The few minimal pairs distinguished by these two nasal vowels are now pronounced similarly. For example, *brin* /br $\tilde{\epsilon}$ / ‘sprig’ and *brun* /br $\tilde{\alpha}$ / ‘brown’ are now pronounced [br $\tilde{\epsilon}$] (Fagyal, Kibbee, and Jenkins 2006). However, French dictionaries still transcribe these words differently.

The aforementioned vowels are presented in “Table 3” below. The bracketed ones are nearly extinct especially among the younger generations.

Tongue height		Tongue shape				
		Front		Central	Back	
		Unrounded	rounded		unrounded	rounded
Close	Oral	i	y			u
Close-mid	Oral	e	ø	ə		o
Open-mid	Oral	ɛ	œ			ɔ
	Nasal	$\tilde{\epsilon}$	($\tilde{\alpha}$)			$\tilde{\alpha}$
Open	Nasal				$\tilde{\alpha}$	
	Oral		a		(a)	

Table 3 French vowels

So far, I have mentioned the French vowels and consonants in isolation. Below I describe how they combine to form syllables and all the possible syllable types attested in French, together with example words illustrating them (Walker 2001).

French syllable structure

- 1) V, for example, *an* / $\tilde{\alpha}$ / ‘year’.
- 2) VC, for example, *onze* / $\tilde{\alpha}z$ / ‘eleven’.
- 3) VCC, for example, *être* / ϵtr / ‘to be’.
- 4) VCCC, for example, *arbre* / $arbr$ / ‘tree’.
- 5) CV, for example, *banane* / $ba.nan$ / ‘banana’.
- 6) CVC, for example, *carton* / $kar.t\tilde{\alpha}$ / ‘cardboard’.
- 7) CVCC, for example, *porte* / $p\text{ø}rt$ / ‘door’.
- 8) CVCCC, for example, *mixte* / $mikst$ / ‘mixed’.

- 9) CVCCCC, for example, *dextre* /dɛkstr/ ‘right side’.
- 10) CCV, for example, *craie* /krɛ/ ‘chalk’.
- 11) CCVC, for example, *crise* /kriz/ ‘crisis’.
- 12) CCVCC, for example, *presque* /prɛsk/ ‘almost’.
- 13) CCCV, for example, *fruit* /fruʔi/ ‘fruit’.
- 14) CCCVC, for example, *stress* /stres/ ‘stress’.
- 15) CCCVCC, for example, *strict* /strikt/ ‘strict’.

Among these types, the first three, V, VC, and CV are not attested in AA, nor are complex codas that comprise more than two consonants. No word in AA begins with a vowel. In addition, there is a constriction on short vowels occurring in an open syllable (P. Marçais 1977).

Common sounds between AA and French

French has far fewer consonants and more vowels than AA. The consonants that are more or less similar in AA and French are /t/, /k/, /b/, /d/, /g/, /f/, /s/, /z/, /ʃ/, /y/, /l/, /m/, /n/, /w/, and /j/ (Tapiéro 2008). Tapiéro (2008) also lists the fricative /ʒ/, which makes it sixteen consonants, but this consonant, which is a phoneme in French, is allophonic in AA just like the AA phonemes /ç/ and /y/ are allophonic in French. They are both allophones of French /r/. Dziri (1970) provides a list of thirteen consonants he claims AA and French share. The lists provided by Tapiéro (2008) and Dziri (1970) are only tentative. They seem to be based on the authors’ personal impression rather than actual analyses of the sounds in both languages under laboratory conditions. We should bear in mind that both authors designed their books on AA for pedagogical reasons.

The French consonants that are not part of the phonemic system of AA are /p/, /v/, /p/, /ŋ/, and the labio-palatal glide /ɥ/. As for the vowels, one major difference between the two languages is that AA does not have nasal vowels. In addition, some of the French vowel

phonemes are allophonic in AA but phonemic in French. For instance, the vowels /i/ and /e/ are distinct phonemes in French because substituting one for the other changes the meaning of the word; for example, *nid* /ni/ ‘a nest’ vs. *nez* /ne/ ‘nose’. However, in AA [e] is an allophone of the phoneme /i/, that is, a slightly different realization of the phoneme /i/. It only occurs in the neighborhood of emphatic consonants. In other words, the phoneme /i/ is pronounced [i] in the neighborhood of plain consonants; for example, *sīf* [si:f] ‘sword’ but as [e] in the neighborhood of emphatic consonants as in *ṣēf* [s^ˈe:f] ‘summer’.

The discussion of shared and unshared sounds between AA and French concludes our description of the phonologies of both languages. Below I proceed to describe their morphologies.

Algerian Arabic and French morphologies

Below I describe the morphologies of AA and French in this order, with a focus on two word classes, namely nouns and verbs.

Algerian Arabic Noun Morphology

For the purposes of the present study, I will only describe three morphological categories relating to nouns, namely definiteness, gender, and number.

Definiteness

Like CA, a common noun in AA is made definite by prefixing the definite article *l-* to it; for example, AA *ktāb* /kta:b/ ‘a book’ > *laktāb* /l-a-kta:b/ ‘the book’ (note that a vowel “a”, pronounced [ə], is added to break the three consonant cluster that results from prefixing *l-* to the word *ktāb*). In addition, a noun becomes definite if it occurs in a construct state, defined by Merriam-Webster online dictionary as “a noun inflectional form typically designating what is possessed and accompanied by another noun designating the possessor.” In AA, as in CA, the

construct state is formed either by suffixing a possessive pronoun at the end of the indefinite noun (what is possessed), or by adding the latter to a definite noun (the possessor); for example, *ktāb* /kta:b/ ‘a book’ > *ktābī* /kta:bi:/ ‘my book’; *ktāb lmu ‘allim* /kta:b#lmuʃallim/ ‘the teacher’s book’ (literally, book of the teacher).

The definite article is prefixed to all common nouns, animate and inanimate, regardless of their number and gender, for example, *l-mūman* /lmu:man/ ‘the male believer’, *l-mūmnīn* /lmu:mni:n/ ‘the male believers’, *l-mūmna* /lmu:mna/ ‘the female believer’, and *l-mūmnāt* /lmu:mna:t/ ‘the female believers’.

The definite article, *l-*, completely assimilates to the coronal consonants, namely /t/, /tʰ/, /d/, /θ/, /s/, /sʰ/, /ʃ/, /ð/, /ðʰ/, /z/, /zʰ/, /r/, /rʰ/, /l/, /lʰ/, and /n/ that follow it, which is known as regressive assimilation; for example, *tūt* ‘berries’ /tu:t/ > *l-tūt* /ltu:t/ > *t-tūt* [ttu:t] ‘the berries’, *šams* /ʃams/ ‘sun’ > *l-šams* /lʃams/ > *š-šams* [ʃʃəms] ‘the sun’, and *dīn* /di:n/ ‘religion’ > *l-dīn* /ldi:n/ > *l-dīn* [ddi:n] ‘the religion’.

Number

AA distinguishes between sound, masculine and feminine, plurals and broken plurals. Sound masculine plurals are formed by adding the suffix *-īn* to the singular, for example, sg. *fallāḥ* ‘farmer’ > pl. *fallāḥīn* ‘farmers’. The sound masculine plural occurs often with participles, both active and passive, adjectives describing a physical or a mental state, and names of professions. Some nouns, however, may take either a sound or a broken plural depending on whether they have a participial or nominal function, for example, sg. *ḵaddām* ‘male worker/working’ > pl. *ḵaddāmīn* ‘working’ but *ḵaddāma* ‘male workers’. Sound feminine plurals are formed by adding the suffix *-āt* to the singular, for example, sg. *ḵaddāma* ‘female worker/working’ > pl. *ḵaddāmāt* ‘female workers’.

Broken plurals involve putting the root of the word in a different pattern. They exhibit a wide variety of stem internal changes in AA. Some of these stems result from dropping the vowel and glottal stop from the CA pattern. Below are all the possible broken plural patterns in AA together with example words and the equivalent CA patterns.

1. *f'ūl* (CA *fu'ūl*), for example, sg. *bīt* 'a house' > pl. *byūt*.
2. *f'īl* (CA *fa'īl*), for example, sg. *ḥmār* 'a donkey' > pl. *ḥmīr*.
3. *f'āl* (CA 'af'āl), for example, sg. *ḥjar* 'a stone' > pl. *ḥjār* 'stones,' and sg. *ṣāḥab* 'a friend' > pl. *ṣḥāb* 'friends.'
4. *f'ul* (CA *fu'ul*), for example, sg. *ktāb* 'a book' > pl. *ktub*.
5. *f'al* (CA *fi'al*), for example, sg. *gaṣ'a* 'a bowl' > pl. *gṣa'*.
6. *fū'al* (CA *fu'l*), for example, sg. *kẓar* (CA 'akhḍar) 'green' > pl. *kūẓar* (CA *khudr*), sg. *ḥmar* (CA 'aḥmar) 'red' > pl. *ḥūmar* (CA *ḥumr*). This pattern applies mostly to adjectives of color and physical disabilities.
7. *f'ūl* (CA *fu'ūl*), for example, sg. *kadd* 'cheek' > pl. *kdūd*.
8. *fa'āla* (CA), for example, sg. *rājal* 'a man' > pl. *rajjāla*.
9. *f'āyal* (CA *fa'ā'il*), for example, sg. *jūz/ jūza* 'an old woman' > pl. *jāyaz*.
10. *fwā'al* (CA *fawā'il*), for example, sg. *jāma* 'a mosque' > pl. *jwāma'*.
11. *f'ālī* (CA *fa'ālī*), for example, sg. *qahwa* 'a café/coffee' > pl. *qhāwī*.
12. *f'ā'īl* (CA *fa'ā'īl*), for example, sg. *zaḡrūta* 'ululation' > pl. *zḡārīt*.
13. *mfā'al* (CA *maf'ā'īl*), for example, sg. *maftāḥ* 'a key' > pl. *mfātaḥ*.
14. *mfā'īl* (CA *maf'ā'īl*), for example, sg. *magrūn* 'a fool' > pl. *mgārīn*.
15. *fa'lān* (CA *fi'lān/fu'lān*), for example, *krūf* 'a lamb' > pl. *karfān*.
16. *fi'lān* (CA *fi'lān*), for example, *bāb* 'a door' > pl. *bībān*.
17. *tḥā'al*, for example *ṣūra/taṣwīra* 'a picture' > pl. *tṣāwar* 'pictures'. The singular *taṣwīra* is formed from the verbal noun *taṣwīr*, itself derived from pattern II verb *ṣawwar* 'to take a picture of s.o'.

18. *f'ā'al*, for example, sg. *duwwār* 'a village' > pl. *dwāwar*.
19. *fi'āl* (CA *fu'āl*), for example, sg. *šāyab* 'an old man' > pl. *šīyāb*.
20. *f'āla* (CA *fi'āl*), for example, sg. *dīb* 'a wolf' > pl. *dyāba*.
21. *f'ūla* (CA *fu'ūl*), for example, sg. *šīk* 'an elderly' > pl. *šyūka*.
22. *fu'āl* (CA *fu'āl*), for example, sg. *šābb* 'a young man' > pl. *šubbān*.
23. *fu'āla* (CA *fu'alā*), for example, sg. *faqīr* 'a poor man' > pl. *fuqāra*.
24. *f'ālal*, for example, sg. *fallūs* 'a chick' > pl. *flālas*.
25. *fa'la*, for example, sg. *tālab* 'a student (at a Qur'anic school)' > pl. *ṭulba*.
26. *f'il*, for example, sg. *šā* 'a baton' > pl. *šī*.
27. *f'ālan*, for example, sg. *fakrūn* 'a tortoise' > pl. *fkāran*.

In MSA, nonhuman plurals are treated as a group/unit rather than a number of individuals; therefore, they take feminine singular agreement (Brustad, Al-Batal, and Al-Tonsi 2011). In other words, all plural nouns that do not refer to human beings are considered to be grammatically feminine singular. In AA, however, nonhuman plurals take masculine plural agreement; for example:

MSA: السّيّارات مركونة في المرآب
'as-sayyārāt markūna fī l-mir'āb.
 The cars-fp stationed-fs in the garage.
 The cars are stationed in the garage

AA: الطّوموبيلات راھم مقاربین في القاراج
t-tōmōbīlāt rāhum mgāryīn fī l-gārāj
 the car-fp 3mp-are stationed-mp in the garage
 The cars are stationed in the garage

Interestingly, all the words in the AA sentence except for the copula *rāhum* 'they are' and the preposition *fī* 'in' are French loanwords: plural *tōmōbīlāt* 'cars' (sg *tōmōbīl* < Fr. *automobile* 'a car'), past participle *mgāryīn* (sg *mgārya* < Fr. *garée* 'be parked'), and *gārāj* < Fr. *garage* 'garage'.

Gender

All nouns in AA are either masculine or feminine, never neutral. The feminine is formed by adding the suffix *-a(t)*, pronounced [-a], to the masculine (underlyingly, however, it is /-a(t)/. This is reflected in Arabic orthography by means of adding to the masculine form a letter called *tā' marbūṭa* ‘tied t’, which is not pronounced in pausal forms), for example, masc. *zawj* /zawdʒ/ ‘husband’ > fem. *zawja(t)* /zawdʒ-a(t)/ ‘wife’. Suffixing *-a(t)* /-a(t)/ might result in metathesis—the rearranging of sounds—to prevent a short vowel from occurring in an open syllable; for example, *tful* /tʃful/ ‘a boy’ > **tʃu.la(t)* /tʃfu.la(t)/ > *ʃu.la(t)* /tʃuf.la(t)/ ‘a girl’. The *t* /t/ at the end of feminine singular nouns, as in the previous examples, is silent except when it occurs in a construct phrase; for example, *mra(t)* [mra] ‘a woman’ > *mart kūya* [mart χu:ya] ‘my brother’s wife’.

In CA a feminine noun ends in *-ā /-ā/, -ā' /-āʔ/,* or mostly *-a(t) /-a(t)/,* for example, *salmā* /salmā/ ‘a girl’s name’; *ṣaḥrā'* /sʰaħra:ʔ/ ‘desert’; and *'imra 'a(t) /ʔimraʔa(t)/* ‘a woman’. In AA, all of the previous feminine endings have been merged into one, namely *-a(t) /-a(t)/;* for example, *salma(t)* [salma], *ṣaḥra(t)* [sʰaħra] and *mra(t)* [mra] (note the deletion of the glottal stops and the vowels following them in the last word: *'imra 'a(t) /ʔi.mra.ʔa(t)/* > AA *mra(t)* [mra]). Since the *t* of the feminine suffix *-a(t) /-a(t)/* is silent, one should provide evidence that the three CA feminine prefixes have indeed merged into the allomorph *-a(t) /-a(t)/,* and not *-ā /-a:/,* which is pronounced shorter in AA word-finally; for example, CA *šahlā'* /ʃahla:ʔ/ ‘navy blue’ > AA *šahla(t)* [ʃahla]. In the phrase *šahlat la 'yūn* [ʃahlat#laʃju:n] ‘navy blue eyed’, a *t* is pronounced at the end of *šahla(t)* as one can clearly hear in a song with the same name by Ahmed Wahbi, and repeated by Kamel Messaoudi. The *t* is also pronounced in a similar expression *kaḥlat la 'yūn* [kaħlat#laʃju:n] ‘black eyed’, which is a famous song by the Algerian

band Babylone. Pronouncing the *t* at the end of the feminine singular nouns in these expressions constitutes evidence that AA treats CA feminine nouns originally ending in *-ā* /-a:ʔ/ as ending in *-a(t)* /-a(t)/, which is also reflected in the Arabic spelling, on YouTube, of the titles of the two songs I just mentioned. The same holds true for CA feminine nouns ending in *-ā* /-a:/; for example, CA *'al-mūsīqā* /ʔal-mu:si:qa:/ > AA *l-mūsīqa(t)* [l-mu:si:qa]. In the musical show *Coke Studio Algeria*, the presenter pronounces the construct phrase ‘the music of my country’ as *mūsīqat blādi* [mu:.si.:qat#bla:.di], where the *t* at the end of the first noun is pronounced. In CA, the phrase would be read *mūsīqā biladi* [mu:.si.:qa:#bi.la:.di:], with the feminine marker *-ā*.

In the remainder of the dissertation and for purposes of convenience, I will spell the AA feminine suffix as *-a* so it does not get confused with the plural marker *-āt*, but remind the reader that a latent sound, /t/, surfaces when the feminine form occurs in all but the last position in a construct phrase.

French Noun morphology

Definiteness

The definite article in French is a free morpheme and has various forms depending on the number and gender of the noun it modifies, for example, *le joueur* ‘the male player’; *la joueuse* ‘the female player’; and *les joueurs/joueuses* ‘the male/female players’. In the singular, when the French definite article precedes a noun beginning with a vowel or mute “h,” it drops its vowel, to prevent the occurrence of two consecutive vowels, and takes the form *l’*, for example, *le* ‘the’ + *an* ‘year’ > **le an* > *l’an* ‘the year’; *le* ‘the’ + *homme* ‘man’ < **le homme* < *l’homme* ‘the man’. This abbreviated form, *l’*, is homophonous with AA *l-*.

Number

The plural is formed by adding a mute *s* to the singular when it does not end with *one*, for example, sg. *un livre* /œ#livr/ ‘a book’ > pl. *des livres* /de#livr/ ‘books’ (note that French has an indefinite plural article *des*). If the singular, however, ends in *au*, *eau*, or *eu*, its plural is formed by adding a mute *x* at its end, for example, sg. *un tuyau* /œ#tɥijo/ ‘a pipe’ > pl. *des tuyaux* /de#tɥijo/ ‘pipes’; *un bateau* /œ#bato/ ‘a boat’ > pl. *des bateaux* /de#bato/ ‘boats’; *un jeu* /œ#ʒø/ ‘a game’ > pl. *des jeux* /de#ʒø/ ‘games’. If the singular ends in *s* or *x*, it has the same form in the plural, for example, *un prix* /œ#pri/ ‘a price/prize’ > pl. *des prix* /de#pri/ ‘prices/prizes’. If the singular noun ends in *al*, the plural takes *aux* at the end (where *x* is mute), for example, sg. *un journal* ‘a newspaper’ > pl. *des journaux* ‘newspapers’ (Maynard 1853).

Since the plural marker in French is often mute, pluralization is generally marked on the determiners, as in the case of indefinite article in the examples I mentioned in the previous paragraph, and any adjectives modifying the noun.

Gender

French feminine nouns are formed by adding mute *e* to the masculine, for example, masc. *un chat* /œ#ʃa/ ‘a male cat’ > *une chatte* /yn#ʃat/ ‘a female cat’. If the masculine noun ends in *on* or *en*, the *n* is doubled and the vowel is denasalized (Brachet 1883), for example, *un chien* /œ#ʃjẽ/ ‘a dog’ > *une chienne* /yn#ʃjɛn/ ‘a bitch’; *un lion* /œ#ljɔ̃/ ‘a lion’ > *une lionne* /yn#ljɔ̃n/ ‘a lioness’.

From the previous morphological analysis, one can see that both AA and French mark nouns for gender.

Verb morphology

For verb morphology, I will only focus on those verbal aspects that are relevant to my analysis, namely verb forms (or patterns) and weak verbs in AA, and verb groups in French.

AA verbs

In Arabic tradition, patterns are formed using the three consonants *f-l-*, a root that has the abstract meaning of “to do.” Arabic verb stems take a variety of patterns, to which the European tradition of studying Arabic refers using Latin numbers (Brustad, Al-Batal, and Al-Tonsi 2013). The patterns in MSA total fifteen and range from Form I up to Form XV (Abboud and McCarus 1983). Versteegh (1997) mentions sixteen. Of these patterns, Form I, *fa‘ala/fa‘ula/fa‘ila* (i.e., $C^1aC^2VC^3a$, where V stands for a short vowel /a/, /u/, or /i/), is the simplest possible pattern, which is reflected in its Arabic name *mujarrad* (i.e., bare) (Saiegh-Haddad and Joshi 2014). The other verb forms, that is, Forms II-XV, are derived verbs. They are called *mazīd* (i.e., augmented) in Arabic and involve the gemination (i.e., doubling) of the middle root consonant (e.g., Forms II and V), lengthening of the vowel (e.g., Forms III and VI), and/or the insertion of one or more of the following consonants ’, t, n, and s. Within these augmented forms, Forms XI-XV are extremely rare (Abboud and McCarus 1983).

Compared to MSA, the spoken dialects have reduced the number of Form I stems, lost some derived (or augmented) forms, and extended others (Holes 2004). In the case of AA, these changes could be attributed to loss of short vowels in open syllables and the glottal stop. The reader shall recall from the discussion of consonant gemination earlier in this chapter how I argue that AA has lost Form IV verbs, which it substitutes with Form II to express the same meaning, as a result of dropping the glottal stop.

French Verbs

French verbs are divided into three groups, based on their infinitive ending and conjugation: first group verbs, which are majority in French, end in *-er* /-e/ in the infinitive; for example, *manger* /mãʒe/ ‘eat’, *marcher* /marʃe/ ‘walk’ and *sauter* /sote/ ‘jump’. Second group verbs end in *-ir* /-ir/ in the infinitive and *-issons* (1PI), *-issez* (2PI), and *-issent* (3PI) in the present tense; for example, *finir* /finir/ ‘finish’, *remplir* /rãplir/ ‘fill’, and *choisir* /ʃwazir/ ‘choose’. The remaining verbs comprise what is called third group verbs. These include verbs which end in *-ir* but take irregular conjugation in the present tense (Prévost 2009).

Reflexive verbs in French require the use of the reflexive pronoun, which agrees with the subject of the verb.

Conclusion

From the above, one can see that the donor language, French, has sounds that AA, the recipient language, does not. So, the question raised here is how speakers of AA adapt these sounds. What happens to the sounds that are more or less similar in both the donor and recipient languages? Do speakers of AA produce them faithfully or do they adapt them as well? As I mentioned in Chapter 2, some donor-language sounds, which the recipient language also has in its sound inventory, might also undergo phonetic/phonological adaptations.

In the area of morphology, both AA and French mark noun for gender, definiteness, and plural. I investigated how speakers of AA mark French loanwords for these three grammatical categories. But before I present the answers to these questions, drawing on the data I collected for my dissertation, I will first explain in the next chapter the step-by-step process of collecting the data.

CHAPTER 4

RESEARCH METHODOLOGY AND DATA COLLECTION

In this chapter, I will explain how I collected data for my dissertation, which consists of 487 French loanwords in Algerian Arabic (AA). I will also explain how I organized the data for analysis, using Excel 2016.

Sources of data

Data for this project comes from various sources, which can be classified into four data reservoirs: 1) my personal knowledge as a native speaker of an AA dialect; 2) informal conversations in Algeria in summer 2017; 3) data from social media and Internet (e.g., my Algerian Facebook contacts; a YouTube video titled *mā nṣōṭēš* [I won't jump] by Algerian YouTuber and artist Chemseddine Lamrani, alias DZJoker Chemsou, where DZ stands for AA *Dzāyer* 'Algeria'; and a Facebook page titled *jazā'irīyuna fī 'al-ḡurba* [Algerians abroad]); and 4) data from established literature (e.g., Hadj-Sadok [1955]; Tapiéro [2008]). Below I will explain the step-by-step process of data collection from the various sources under each of the four reservoirs.

My personal knowledge as a native speaker

I was born and raised in Algeria, and I speak AA, the dialect of Setif to be more precise, natively. As for modern standard Arabic (MSA), it is the language of instruction in elementary through high school in Algeria, where all school subjects are taught in this variety except for foreign language subjects, English and French—the logistics, such as number of contact hours and language of instruction, might have changed since I graduated from high school in 1995. My knowledge of AA was consolidated by the linguistic training I have had both as an undergraduate and graduate student, coupled with my experience teaching both varieties to

American students, some of whom spoke colloquial Arabic as in the case of heritage learners. I taught AA for one semester and MSA for eighteen semesters and have had extensive training as a language instructor in the department of African Cultural Studies (ACS), formerly African Languages and Literature, at the University of Wisconsin-Madison.

I took French from fourth grade through high school in Algeria. I also took one French course in my graduate program in Batna University in Algeria and two courses, including Advanced Phonetics, in the department of French and Italian at the University of Wisconsin, Madison.

Knowledge of all three languages, though to varying degrees, has helped me identify loanwords upon hearing them and identify their origin in the source language. In addition, I used this knowledge to supply missing information such as plural and definite forms of the loanwords I have collected.

Informal conversations with speakers of AA

In summer 2017, I received an African Studies Graduate Student Summer Fieldwork Award at the University of Wisconsin, Madison, to conduct archival research in three of Algeria's universities, namely the universities of Algiers, Constantine, and Setif. Even though my award was used mostly to conduct archival research on AA and collect secondary sources on the language, especially those produced by Algerian scholars and are inaccessible at American institutions, I used the opportunity to also collect some loanwords as I heard them being used by speakers of AA relying on my knowledge of MSA, AA, and French. Once in Algeria, I had many conversations with family at home and random people in cabs, cafes, markets, and on campus. In every conversation, I would listen carefully for any loanwords that my interlocutors used. I collected most of the loanwords from construction workers, and from cab and clandestine

drivers (i.e., drivers who do not have a permit to transport passengers), most of whom were monolingual males as these jobs are not common among women and are distributed disproportionately between the two genders. Interestingly, the words for *clandestine* and *construction worker* in AA are themselves French loanwords, namely *frōd* ‘clandestine’ (Fr. *fraude*) and *māṣṣo* ‘construction worker’, pl. *māṣṣowwāt* (Fr. *maçon*). The latter word has no feminine equivalent in AA because there are rarely, if ever, female construction workers. The word *frōd* does not appear on Hadj-Sadok’s list, probably because clandestine driving is a recent phenomenon. But the source-word itself, *fraude*, is old. It was first attested in French in 1255 and is originally Latin (CNRTL). I should add that French *fraude* refers to any act of fraud and not to the specific phenomenon of clandestine driving, which must have developed recently and might be specific to the Algerian context.

Even though MSA has a word for construction worker, namely *bannā*, AA uses the French loanword instead of the MSA word. The French loanword *māṣṣo* figures in word lists in both Hadj-Sadok (1955), under the category “modern buildings,” and Brunot: it is an old loanword. The French colonial school is likely the venue through which this loanword entered AA. During colonization, the French schools taught basic French to the few Algerians who attended school—just enough to prepare them for military service and manual jobs such as construction, carpentry, and so on. This is the reason why, under the category of education, Hadj-Sadok provides loanwords only in the area of elementary school. There are no entries for loanwords in high school education since few Algerians reached such a level. Another reason why Hadj-Sadok does not provide any loanwords in the semantic area of high school or higher education, is that the Algerians attaining these levels must have acquired a good command of the

French language, in which case they would either resort to codeswitching between AA and French or speak only French.

Another reason why AA uses the French rather than MSA word for “construction worker” is the fact that MSA is usually associated with education. Since construction in Algeria is mostly done by those with minimal education, construction workers either do not know the MSA word or would sound too formal if they used it. Algerian students who do not do well in traditional schools are sent to vocational schools which train them for manual jobs. The script sent to them at the end of the school year would read *yuwajjah 'ilā l-ḥayāt l-'amalīya* ‘to be directed to manual work’, which signals the end of their compulsory public education. In fact, Hadj-Sadok (1955) mentions that the French loanword *māṣṣo* was quickly replacing the AA word *bannāy*, a word that I have never heard used. The first time I came across such a word was in an eighth-grade English textbook, where people had Arabic names describing their profession; for example, “Mr. Bannāy is a builder”; “Mr. Najjār is a carpenter,” and so on. I should add that the word for “building” is *banya*, which has the same root as *bannāy*, namely *b-n-y*, and is not a French loanword. The verb “to build” is also expressed using an Arabic word, *bnā* (imperfect *yabnī*), rather than a loanword.

Many of the loanwords I heard in the speech of builders, carpenters, and mechanics referred to tools and technical terms. For example, in the area of construction, AA has the following loanwords *mādrīya*, pl. *mādrīyāt* ‘beam’ (Fr. *madrier*), *barwēṭa*, pl. *brāwaṭ* ‘wheelbarrow(s)’ (Fr. *brouette*), *bēṭōn* ‘concrete’ (Fr. *béton*), and *sīma* ‘cement’ (Fr. *ciment*). Using the MSA equivalent for these words would be hard especially for someone who did not finish middle school. Even someone who has graduated from high school in Algeria would not be familiar with the MSA words for some of these technical terms such as *barwēṭa*, *bēṭōn*, and

sīma. The MSA word for the latter is itself a loanword, namely *'ismant*. The reason why I am using the label *MSA* rather than *CA* here is that loanwords refer mostly to new inventions. There is no equivalent to them in the old variant, *CA*. This explains why *MSA*, too, had to either create neologisms or use loanwords to refer to these technical terms.

During my fieldwork, every time I heard a loanword during my conversations with speakers of *AA* both at home and outside of it, I wrote it down in Arabic, using my iPhone notes. I then transliterated them using the Library of Congress Romanization scheme to enter them into Excel 2016 for analysis. In those cases where the library uses digraphs (i.e., two letters) such as *sh*, *kh*, *gh*, and so on, to spell one Arabic sound, I would resort to using graphemes. Since I intend to reveal which *AA* sound replaces which French sound, I believe it is more convenient to use graphemes instead of digraphs. This would also spare readers any confusion.

Social media and Internet

In the era of technology boom and the abundance of social media networks, it is not hard to find speakers of *AA* and collect data online without having to travel to the country where the language is spoken.

The data collected under this reservoir come from social media such as Facebook, where many speakers of *AA* interact, and YouTube, where many Algerian YouTubers and bloggers upload their own videos.

Facebook contacts

Eighty-three of my Facebook contacts are Algerian. Most of them were former classmates, colleagues, or students of mine in the department of English Language and Literature (ELL) at the University of Ferhat Abbas in Setif, Algeria, where I taught from 2001-6 and again from 2007-9. During those time periods, the department of ELL used to receive students from

various provinces that neighbor the province of Setif, but mostly from Setif, Jijel, Bordj Bou Arreridj (BBA), and Ms'ila. Therefore, my Algerian contacts, most of whom I met either as a student or instructor at the department of ELL, speak four AA dialects, namely Setifian, Braidji, Jijelli, and Ms'ili Arabic, which represent the provincial origins of students taking English at Setif University.

Some of my Algerian contacts are English-Arabic bilinguals who have at least a bachelor's degree in English. Others are English-French-Arabic trilingual speakers, and a few of them speak Berber in addition to Arabic and one or two foreign languages. As I mentioned in Chapter 1, French is offered in elementary through high school in Algeria. My Algerian contacts have various periods of exposure to French, depending on how many years of instruction they have had and on whether or not they studied French in college (two of my contacts are French majors); therefore, they have varying levels of proficiency in French, ranging from modicum to native-like proficiency.

In summer 2017, I made a post—in Arabic, French, and English—on my Facebook page prompting my Algerian contacts to provide me with a list of loanwords in AA, together with the original French word (see Appendix 1). I made my post public and prompted my friends to share it with their contacts in case they were willing to contribute loanwords. Those who are familiar with both languages posted loanwords, either in Arabic or Roman script, and the French source word on my Facebook wall. Some of them posted only the loanword. In case of uncertainty, I followed up with the latter for more clarification and for the source French word. Sometimes, I followed up with them to confirm the pronunciation, especially with those who used a mixture of Roman letters and digits to represent Arabic sounds, or meaning of certain loanwords. Overall,

twenty out of the eighty-three Algerian contacts (almost a quarter) contributed loanwords, which totaled 136.

Some of the loanwords provided by my Facebook contacts were repetitive, that is, they were cited by two or more contacts. After deleting these repetitive loanwords, the list came down to thirty three loanwords.

In addition, a few loanwords had variants, that is, more than one form in AA. For instance, the French word *envelope* ‘envelope’ has two variants: *blūf*, which was provided by a contact from M’sila, and *lūnvlūp*, provided by a contact from Setif who speaks the same dialect as I do. This example confirms the observation I mentioned earlier that loanword adaptation could be influenced by the dialect type one speaks. The dialect of M’sila is a rural one and that of Setif is urbanized rural. Both dialects borrowed the same word, *envelope*, but adapted it differently. Therefore, I included both variants in my data. Another French word that has variant forms in AA, which I will call *alloloans* (like allophones, allomorphs) is *cocotte* ‘(pressure) cooker’, which has the variants *kīkōṭa*, provided by a contact from BBA, and *kōkōṭ*, as used in Setif.

I also asked my contacts to provide the AA word to determine if the loanword is necessary (i.e., cultural) or superfluous (i.e., referring to basic vocabulary for which an AA word already exists). Some of my contacts consulted the eldest female members in their families for the native AA words since some of the native words have fallen into disuse and have been supplanted by French loans but were still known by older speakers, especially women. During colonization and immediately after independence, Algerian women were mostly homemakers. Therefore, they are more likely than others to preserve native words because they had little contact with French speakers. Conversely, close to 172,000 men were conscripted to fight

alongside the French in World War I. An additional 119,000, primarily from Kabylia, arrived in France to take over jobs in factories. By 1919, close to one third of Algeria's male population were transferred to France (Aissaoui 2011). The two groups of soldiers and immigrant workers are likely to be responsible for introducing some of the French loanwords into AA (Holt 1994; W. Marçais 1961). In addition, French speakers who had interactions on a regular basis with the native population in areas such as medicine, education, construction and other manual jobs, introduced French words in these areas (Hadj-Sadok 1955; Brunot 1949 in the case of Morocco).

Facebook page *Jazā'irīyun fī 'al-ḡurba-algériens à l'étranger*

On August 26, the admin of the Facebook page “*jazā'irīyun fī 'al-ḡurba-algériens à l'étranger*” ‘Algerians abroad’, which has more than 143,000 followers, posted four loanwords, in Arabic script, namely *šambaryār* ‘inner tube’ (Fr. *chambre à air*), *lāfīzūt* ‘visit’ (Fr. *visite*), *trīsītī* ‘electricity’ (Fr. *électricité*), and *zalāmēt* and asked the page followers to provide more French words which Algerians have “deformed.” There are two observations to make about the post. First, it uses a verb loan *dīfōrmā* ‘deformed’ (Fr. *a déformé*) in the AA post in addition to the four examples of loanwords the admin provides. In fact, some participants provide this loanword, *dīfōrmā*, in their post. Second, it represents the negative attitude some Algerians have towards French loanwords, their being deformities. Some participants on this page provided the loanword, together with its French origin, and inserted a laughing emoji or “Hahaha” next to it, suggesting that they find loanwords humorous. This is not to say that all Algerians agree that loanwords are deformities as is best captured by a Facebook post that reads, “*hūmā sta 'amrū jdūdnā; ḥnā nasta 'amrū lūḡathum*” ‘Just as they [the French] conquered our ancestors, we will conquer their language’. In fact, many Algerians refer to French as a spoil of war. This post hints at the fact that adaptations might be done purposefully, what al-Hariri, an assistant professor of

French at Dartmouth College, described as *pacifist invasions* of the French language in a talk he gave at the University of Wisconsin in Madison in fall 2017. Al-Hariri was referring mostly to the invasion and appropriation of French in literary works, that is, by Arab writers. I argue that the invasion of French at the literary level parallels another kind of pacifist invasion involving the nativization of French loans in Arabic as spoken by the masses. In other words, the French language was appropriated both by bilingual writers in their creative writing and by the masses, who have varying levels of proficiency in French, in their daily interactions. Most of the studies on borrowing refer to the object of borrowing, that is loanwords, rather than the agents of borrowing, that is, the recipient language speakers.

The page's post which prompted followers to post French loanwords in AA similar to the four loanwords contributed by the admin, received 187 comments. Some participants commented more than once while others commented in response to one another. I read the comments and collected only loanwords since some of the comments included mispronunciation of French words or idiosyncrasies; for example, I excluded any comment which reads, "X (e.g., my grandmother) says so and so or pronounces x (a French word) as y." I consider these as idiosyncrasies and performance errors rather than established loanwords.

The number of loanwords I was able to identify on this page totals 245, some of which were provided more than once. After deleting repeated loanwords, the list came down to 103. The lowest number of loanwords provided by the same person is one and the highest is twenty-four. I could not collect any information about the participants' dialects because most Algerian contacts, especially women and girls, use pseudonyms and do not enter their real information on social networks such as Facebook.

Most of the contacts offered both the loanword and its origin in French. Some of the loanwords were written in Arabic, while others were in Roman script. Some of the posts challenged the page members to provide the source word, especially in the case of loanwords that deviate noticeably from the source word or technical loanwords that are specific to a given area. This helped me identify the original word in cases where it was not clear.

To ensure the accuracy of the loanwords found on this page, I looked them up in an online *dārja* ‘colloquial’ dictionary, where speakers of AA post vocabulary items, including established loanwords, together with their definition and source language if there is any reference to such. In addition, I searched online to find other citations of the loanword. Loanwords, as well as code-switched forms, abound in the lyrics of *Rai* music, a form of music which originated in western Algeria. I also sought confirmation on the shape and pronunciation of these loanwords from my Facebook contacts. For example, I would post a picture of the loanword in question on my Facebook wall—recall that most loanwords refer to cultural objects—and ask my contacts to provide me with its name in AA.

***Mā nṣōṭēšh* YouTube video**

On April 27, 2017, a few days before the executive elections in Algeria, an Algerian artist, actor, and YouTuber Chemseddine Lamrani launched a video that went viral (seen by more than 11 million viewers) and was picked up by various Arab TV channels such as Al-Jazeera. The YouTuber, speaking on behalf of most of Algeria’s youth, expressed his intention not to vote by using a French loanword *ṣōṭā* ‘he jumped’ (Fr. *sauter*) in the negative, using AA negation, *mā nṣōṭēšš* ‘I won’t jump’. In the video, Lamrani uses word play between French loanwords and AA. The French verb loan *ṣōṭā* [s^o:t^a:] ‘he jumped’ is almost homophonous with AA noun *ṣōt* [s^o:t] ‘voice, vote’ (MSA *ṣawt* /s^oawt/). This is well captured in the second

and third sentences of his monologue, when he says, “*nsam ‘ak šōtī! Wallah mā nšōtē*” ‘You want to hear my vote/voice! By God, I’m not jumping’ where the AA word *šōtī* [s^ho:ti:] ‘my vote/voice’ rhymes with the French verb loan *nšōtē* [ns^ho:t^he:] ‘I jump’. In addition, he used the negative *mā nšōtēs* ‘I won’t jump’ to imply ‘I won’t vote’, relying on the close homophony of the two words: the French loanword *šōtā* ‘he jumped’ and the noun *šōt* ‘a vote’. Besides the fact that both words sound similar, watching the video one understands that voting would not change anything about the hardships that Algeria’s youth face. One minute through the video, Lamrani is floating on water. Even though the video does not show what led to this scene, an Algerian would understand that Lamrani has fallen overboard from a sinking boat carrying a group of youths who are trying to informally traverse the Mediterranean Sea to migrate to Europe, a passage which many youths fantasize about. The immigrants who try to flee the country because of the corruption of the people in power are called *harrāga* in AA (verb *hrag*, from the root *h-r-g* ‘to burn’). So, the title can be both interpreted as “I’m not voting” and “I’m not jumping” since voting is not going to change the status quo and scores of youth will keep fleeing in boats—most of which sink and do not make it to the northern side of the sea. The political situation in Algeria has not changed much since independence. The same party, the National Liberation Front (FLN), which played a major role in the war of liberation, has been in power for years, taking advantage of this historical legacy. The current president, Abdelaziz Bouteflika, aged 81, has been in office since 1999.

Despite the few loans I collected from this source, I decided to add it to my data reservoirs for the following reasons. Unlike the other sources I used in this study, most of the loans in this one are verbs, which are much less frequent than nouns (compare sixty verb loans to 414 noun loans in my data). Second, the lyrics show how speakers of AA treat loanwords and

code-switches differently in that they spell the former in Arabic and the latter in roman script (See Appendix 2 for the lyrics in AA, together with my transliteration and translation). Third, this video shows how speakers of AA use loanwords meéhorically to pass on hidden messages and creatively to achieve stylistic effects such as rhyme.

Established literature on AA

As I mentioned above, there are a few sources on AA, most of which were produced by the French, or francophone Algerians, during colonization. Among these, Hadj-Sadok's (1955) is the only one that addresses the linguistic phenomenon of borrowing, from French, in AA to show how the Arabic dialects were "francized". The other source is Tapiéro's (2008) textbook of AA.

Tapiéro's (2008) manual

Norbert Tapiéro held the position of an assistant professor in the department of letters at the University of Lyon in 1964. By the time his second edition of the AA manual appeared in 1965, he had taught AA for eight years as he mentions in the preface to his manual. A third edition of the manual appeared in 2008. I compared the glossaries of the second and third editions and found no changes between the two editions.

Tapiéro's (2008) manual, *Manuel d'arabe Algérien*, contains thirty lessons, each containing a passage transliterated in Roman script and followed by grammar explanations. The transliteration is justified by the claim that the Arabic script would be inadequate to represent the spoken dialect faithfully, a claim which is more ideological than pedagogical. A quick glance at the passages reveals the fact that they are not authentic. They must have been authored by Tapiéro to teach AA to French learners. In addition, the textbook does not seem to represent a specific AA dialect. In the preface, it is mentioned that the variety taught in the manual is *un parler moyen* 'middle spoken Arabic', that is, an Arabic that has features shared by most of

Algeria's "dominant" dialects, which confirms my observation that the textbook is unauthentic. There is no mention of what criteria the author used to determine what constitutes a dominant AA dialect (Is a dialect dominant by virtue of its status vis-à-vis the other dialects or by the number of its speakers?).

In addition to the passages and grammar explanations, a glossary appears at the end of the book and includes a list of all the AA words that appear in the thirty passages. Tapiéro places the words which he deems foreign to AA between angled brackets both in the passages and in the glossary. I assume he highlights their origin, which he claims is mostly French, to draw the attention of the potential French learner to their French origin. This practice would help a learner guess the meaning and remember the words more easily. In other words, I assume Tapiéro highlights the foreign origin of AA words for pedagogical reasons, similar to drawing on cognates to teach vocabulary in a foreign language classroom.

I perused the glossary word by word looking for French loanwords, a task that was made easier by the fact that Tapiéro places the loanwords between angled brackets. I collected thirty-eight loanwords from this source. Being a native speaker of AA and having some knowledge of French, I could confirm that the words that he describes as loanwords are truly so. Actually, my Facebook informants provided most of the words Tapiéro lists as loanwords in the glossary. I consider the fact that they occur in more than one source as evidence as to their being loanwords, which increases the validity of my data.

In case of doubt about any of Tapiéro's loanwords, I checked their etymology, that is, the date when the loanword was first attested in the French language, using the website dictionary of *Le Centre National De Ressources Textuelles et Lexicales* 'the national center for textual and lexical resources' (CNRTL), which oftentimes provides the source language. If

CNRTL claims the source language to be Arabic, I double-check using the Arabic dictionary, *lisān al-‘arab* [Tongue of the Arabs], which is available online as well. For example, Tapiéro has the word *sokkor* ‘sugar’ (Fr. *sucré*) categorized as a loanword. I checked CNRTL but found that it is not a French loanword. French borrowed the word from Italian, which in turn, borrowed it from Arabic. The latter borrowed it from Sanskrit, according to CNRTL. Based on this information, I excluded the word *sokkor* from my list of French loanwords. Another word that Tapiéro lists as a loanword is *gītun* ‘tent’. I checked the origin of this word to realize that it is an Arabic word, not a loanword. It is derived from the root *q-ṭ-n*, meaning ‘to reside, to settle’.

In addition to the etymology of loanwords provided by Tapiéro, I sometimes decide whether or not to include a loanword based on how close it is to French compared to, say, Spanish. For example, the word *bogado* ‘lawyer’ is closer to Spanish *abogado* than it is to French *avocat*. Therefore, I excluded it from my data.

Hadj-Sadok’s (1955) study

Hadj-Sadok’s study constitutes the main source of data for my dissertation (see Table 5, page 169). As I mentioned above, Hadj-Sadok collected the loanwords a short period after they were introduced into AA. But he does not mention how and where he collected them. We can probably gain some insights as to how he collected the loanwords from Bamia’s (2001) account. The latter collected many Algerian folk poems, which culminated in a book on Algerian folk poetry titled *The Graying of the Raven: Cultural and Sociopolitical Significance of Algerian Folk Poetry* (2001). In the acknowledgment section of her book, Bamia acknowledges the significant contribution made by Hadj-Sadok, who gave her a large collection of unpublished folk poems he had collected for a potential doctoral degree on Algerian folklore, a project that never materialized. According to Bamia, Hadj-Sadok served as a deputy chief in education and

supervised the educational system throughout Algeria in the 1950s, a position that required him to travel extensively in the country, including rural areas where he collected his folk poems. From Bamia's account, I assume that Hadj-Sadok collected data on French loanwords during his travels as a deputy chief at the same time as he collected folk poems for his potential doctoral project. I read the folk poems which appear in Bamia (2001) and which she claims she received from Hadj-Sadok. Interestingly, these poems, which are written in Arabic, have a few loanwords such as terms for clothing items.

In addition to collecting loanwords during his travels, I believe that Hadj-Sadok's work in the field of education introduced him to French loanwords used by Algerian elementary school children, which he categorized under the semantic field of "education (elementary school)." I also believe that Hadj-Sadok included some loanwords from Brunot's (1949) list of French loanwords in Moroccan Arabic (MA), given how close the two studies are to each other. In addition, Hadj-Sadok himself refers the reader to Brunot for linguistic analysis of loanwords on the premise that AA and MA are sister dialects and share many characteristics in common. Going over Brunot's list, which comprises 108 words, one can clearly see that AA and MA indeed share many loanwords, some of which still exist today. Brunot claims that some loanwords were introduced by Algerians who had worked for the French after Morocco became a French protectorate in 1912. This repertoire of shared loanwords is also something I noticed going over Heath's (1997) list of French loanwords in MA.

Most of the French loanwords in AA, which Hadj-Sadok dated to the period 1939-1945, had then the same form they have today, making his data all the more valid for my study. But a few loanwords on his list fell out of use due to their nature. For instance, under the semantic field of administration, Hadj-Sadok has the loanword *tūrīzā* 'naturalize', which also appears on

Brunot's list as *tōrəz*. This word, which referred to the naturalization of Algerians—and Moroccans in the case of Brunot—under the colonial administration fell out of use after Algeria gained independence in 1962. In addition, loanwords which referred to objects and inventions that are now outdated no longer belong to the lexicon of AA. Brunot (1949) gives the example of *drīzi* 'railbike' (Fr. *draisine*), which he claims young Moroccans at the time he collected his data ignored. He adds that even younger French generations did not know the French word either since both the referent and the word referring to it disappeared.

Hadj-Sadok categorized the loanwords he had collected into semantic fields based on the setting/situation in which they were introduced. These semantic fields reflect the areas where the French language exerted the most influence on AA: the military, education, housekeeping, clothing, buildings, and so on. This is a trend I noticed during my archival research, where some areas such as construction and mechanics, which use a lot of technical vocabulary, have the most loanwords.

Even though Hadj-Sadok (1955) gauges the number of loanwords he collected to total 1665—including about 1450 nouns, 150 verbs, thirty participles, thirty adjectives, and three particles—he mainly provides example words of noun and verb loans under each of the semantic areas mentioned above. Unfortunately, he does not include an appendix with all 1665 loanwords, which makes one wonder how he came up with such a number. In addition, the fact that all the numbers he provided under each of the semantic areas are multiples of ten (except for administration) casts doubt on their accuracy. But I still find his numbers useful in that they show the areas that witnessed the most influx of loanwords (see Table 4 below). In addition, all the categories refer to cultural vocabulary as opposed to core or basic vocabulary, defined as vocabulary that is resistant to borrowing, by virtue of its referents being universal. In order to

confirm if AA indeed uses native lexicon, rather than loanwords, to name basic vocabulary items, I used the list provided by the World Loanword Typology (WLT) project. This list has a hundred items named the Leipzig-Jakarta list, which comprises 100 basic vocabulary items (Tadmor 2009). Interestingly, none of the words that appear on the list is a French loanword (See Appendix 3 for the list of words provided by Tadmor [2009], together with their equivalents in AA and CA). In addition, all the words but one are derived from CA, including those where the relationship between the two languages is not immediately obvious. The fact that 99% of the basic vocabulary in AA derives from CA supports the claim I advanced earlier, namely that AA is a derivative of CA rather than a different language which has borrowed from it.

Semantic field	Number of loanwords
Elementary school	180
Work for the European (mostly domestic and farming)	180
Administration	115
Drivers	80
Railway	80
Modern commercial transactions	80
Law	80
Clothes	70
European nutrition	70
Modern building	60
Total	995

Table 4 Number of loanwords per semantic area, based on Hadj-Sadok' (1955)

In order to achieve consistency, I used the Romanization system adopted by the Library of Congress to transliterate all loanwords, except for digraphs in which case I would use the graphemes adopted by Wehr (1979) for the reasons I explained above. I should add that, except for these digraphs, both references use the same letters to represent Arabic sounds. Sometimes, I had to slightly modify the transliteration I found in the original sources. For example, the loanwords in Hadj-Sadok's (1955) and Tapiéro's (2008) are transliterated in a way that reflects

their pronunciation. But both sources adopt the French transliteration system, which differs slightly from that of the Library of Congress. So I kept the system they adopted. However, I used a macron, instead of a circumflex accent, over the vowel letters to represent vowel length; for example: I transliterated the loanword *bâlto* [ba:lt^o], provided by Tapiéro, as *bālto*. In addition, Hadj-Sadok (1955) fluctuates in his transliteration of AA weak-verb and relational-adjective suffixes, *-ā* /-a:/ and *-ī* /-i:/, respectively, and sometimes transliterates the former as *-a* /-a/ and the latter, which is added at the end of names of profession and participles, as *-i* /-i/. His fluctuation in transliterating these two suffixes is probably due to the fact that vowel length is not contrastive word-finally. In such cases and for the sake of consistency, I use *-ā* and *-ī* instead. The latter represent the suffixes in question more accurately.

The loanwords provided by my Facebook contacts and followers of the page ‘Algerians abroad’ are written either in Arabic or Roman alphabet. Needless to say, the transliteration is not accurate since most of the participants did not likely have linguistic training that would enable them to transcribe the loanwords accurately; for example, some participants transliterated both AA plain /t/ and emphatic /t^ʕ/ as “t.” In addition, one of my Facebook contacts used the digit “9” to represent the latter sound. So, I transliterated the loanwords I collected from social media in a way that is close to how they are pronounced, using the Library of Congress Romanization system and Wehr’s transliteration system, except for the consonant *hamza* ‘glottal stop’ when it occurs in initial position. Both systems do not represent word-initial *hamza*; for example, the Arabic word for “lion,” which begins with *hamza*, is transliterated as *asad*. Omitting the symbol for *hamza* in initial-position is misleading since it gives the impression that Arabic words can begin with a vowel, which is not the case. As I mentioned above, Arabic has a restriction against onsetless syllables, that is, syllables beginning with a vowel sound, a constraint which is

reflected in the data I collected. All French loanwords that begin with a vowel are adapted in AA either by dropping the vowel or adding a consonant (i.e., onset) before it. Therefore, I will keep word-initial *hamza* in my transcription and will use the symbol adopted by the Library of Congress, that is *ʾ*, to transcribe any word that begins with it; for example, *ʾasad* and not *asad*. Another evidence of the existence of a *hamza* in AA in words that begin with a vowel from the viewpoint of a western language is the fact that in writing it is impossible to spell a word with an initial vowel; an *alif* seat is always inserted to carry the vowel.

In those instances where the data sources provide more than one variant of the same loanword, I include all variants in my analysis. For instance, Hadj-Sadok (1955) gives three variants for the word *automobile*, namely *ṭōmībīl*, *ṭōmōbīl*, and *ṭōmābīl*. For this same prototype, Tapiéro (2008) provides the loanword *ṭomobil* and the Facebook page, Algerians Abroad, *ṭōnōbīl*. These variants may refer to different stages of loan adaptation or to dialectal variations in adapting the same loanword. I am familiar with only two of these variants.

After I collected and transliterated the loanwords, I entered them into Microsoft Excel 2016. I, then, added the French source word in phonemic transcription, using the International Phonetic Alphabet (IPA). For the transcription, I used an online French-English dictionary. But for the French “r,” I used the symbol /r/, which is adopted by some loanword phonologists who study language pairs that involve French, rather than the one provided by the online dictionary, namely [R]. I then entered the word class for every loanword (i.e., noun, verb, past participle, and so on) and added the plural forms to be able to determine what technique AA uses to form the plural of incoming loanwords.

Limitations

There are several issues that impose limitations on the collection and analysis of loanwords in AA. First, as I mentioned above, there are few linguistic studies on AA. In addition, AA is a spoken variety by virtue of its being in a diglossic relationship with the formal variety, MSA. Therefore, there are very few written sources on it, which makes it hard to trace back the earliest attested uses of a given loanword. The available dictionaries of Arabic dialects are not usually very comprehensive, and may even be non-existent in some cases (Sayahi 2014). Second, AA has come into contact not only with French but also Spanish and Italian. These romance languages share many cognates. Therefore, it is sometimes difficult to determine which of these languages has provided the loanword. In addition, some loanwords might have entered AA through the intermediary of a third language, Andalusian Arabic, as a result of the Reconquista (Sayahi 2014; Grand'henry 1972). P. Marçais (1956) even traces the origin of some loanwords as far back as when the Romans ruled North Africa. In such cases, the donor language would be the parent language to all these romance languages, that is, Latin. Third, deciding whether a certain loanword entered AA via CA/MSA or a European language is difficult. Sometimes, one can decide based on when the loanword was first attested in Arabic and what the donor language is. For example, AA uses the word *ṣābūn* 'soap'. One can claim it is a French loanword where the source word is *savon*. I checked *lisān al-'arab* dictionary and I found an entry for the word *ṣābūn*. This means the donor language cannot be French, which is a modern language, whereas CA is older. I then checked CNRTL, which claims the origin to be Latin *saponem*. But since AA never had contact with Latin, I assume it borrowed the word through CA. Based on these findings, I will not include *ṣābūn* as a loanword from French since the donor

language is Latin and not French and the word entered AA through the intermediary of a third language, CA.

A further limitation stems from the fact that I provide the IPA transcription of the French source words, using the online dictionary WordReference.com, which must be based on the standard pronunciation. A more accurate analysis would refer to the actual pronunciation these French words had at the time they first entered AA. In other words, a more accurate transcription would take into consideration the French dialect which provided the loanword, which was not likely standard Parisian French. This leads to another limitation that relates to the loanwords in one of the AA sources. It is not clear how Tapiéro learned AA, that is, whether he learned it in a school setting or naturally as a result of the interactions he had with Algerians. Therefore, I cannot determine whether his transcription of the loanwords he includes in his textbook reflect how they were pronounced by Algerians at the time he wrote his textbook or if they reflect his own intuition as a second language expert.

Data analysis

For phonological adaptation, I performed a full-scale analysis of the French loanwords and compared them to the original French forms in order to determine: 1) how the French sounds, especially those not present in the phonemic system of Algerian Arabic, are adapted; and 2) how AA adapts loanwords that violate its phonotactic constraints, such as onsetless syllables and non-final open syllables.

In order to determine how speakers of AA adapt French loanwords morphologically, I focused on two of the speech classes that are borrowed the most, namely nouns and verbs. After categorizing the loanwords into their respective classes, I provided the plural and definite forms of the nominal loanwords to see how speakers of AA integrate them morphologically. In addition,

I specified the gender the loanword has in both the donor and recipient languages. As for verb loans, I described how they are integrated into AA, that is through direct insertion, indirect insertion, the ‘do’-periphrasis or importation, strategies which I illustrated in the previous chapter.

Conclusion

Data for this study comes from various sources, including informal conversations with speakers of AA in Algeria in summer 2018, my Facebook contacts, participants on an Algerian Facebook page, a textbook by a linguist who speaks AA as a second language, and Hadj-Sadok’s (1955) study (see Table 5 below). After consultation with my Facebook contacts, I supplemented any missing information (i.e., the plural and definite forms of noun loans) if there is no reference to such in the primary sources.

Data source	N. of loanwords	Percentage
<i>Mā nṣōṭēsh</i> video	10	2.1%
Tapiéro (2008)	28	5.7%
Facebook contacts	33	6.8%
Fieldwork research	38	7.8%
Facebook page	103	21.1%
Hadj-Sadok (1955)	275	56.5%
Total	487	100%

Table 5 Number and percentage of loanwords per data source

Overall, I collected 487 loans: nine adjectives (present and past participles to be more precise), one adverb, two expressions, one interjection, 414 nouns, and sixty verbs. I entered these loans on an Excel spreadsheet for analysis that I discuss in the next chapter.

CHAPTER 5

LOANWORD ADAPTATION IN ALGERIAN ARABIC

In this chapter, I first describe how French sounds, consonants and vowels in this order, are adapted, what AA sounds replace them, and the factors that motivate the adaptations. I start by describing the sound changes those French consonants which AA lacks undergo. I then proceed to describe how and why some sounds that are common between French and AA, and are expected to transfer easily into the recipient language, in fact, change. I end by describing the morphological adaptations which incoming loanwords undergo and focus on nouns and verbs, which are more frequent than any of the other classes.

Phonological adaptation

In terms of phonological adaptation, one may distinguish among three groups of loanwords: fully adapted loanwords, partially adapted loanwords, and imports (i.e., loanwords which keep their original source-language form) (Kossmann 2009). My data has instances of all three to varying degrees, with imports being the fewest. Recall from chapter 2 that the degree of adaptation depends on linguistic variables such as proficiency in the source language (French in this case), and socio-geographical variables such as whether the speech community is rural or urban. These two variables are directly related: Algerian speakers who are proficient in French tend to pronounce loanwords more faithfully than monolingual speakers, who, more often than not, are not familiar with the source form, while urban speech communities have more access to French, which is associated with urbanity and urban life, than do rural ones. Below I describe and illustrate each of these groups.

In the first group of fully adapted loanwords, the French sounds are replaced by native ones. For example, in the loanword *bōṣṭa* [bo:s^ʕt^ʕa] ‘post office’ (Fr. *poste* /pɔst/), French bilabial stop /p/ is substituted with AA /b/ (i.e., its voiced counterpart), alveolar fricative /s/ with Algerian Arabic (AA) /s^ʕ/ (i.e., its emphatic counterpart), dental stop /t/ with its emphatic counterpart in AA, /t^ʕ/, and low-mid vowel /ɔ/ with its high-mid equivalent, [o], which gets lengthened. [o] is an allophone in AA; the phoneme would be /u/. Even though AA has an alveolar fricative /s/ in its sound inventory, it replaces French /s/ with its emphatic counterpart in AA, /s^ʕ/, to preserve the French non-high vowel, [o], an emphasis that I discuss in more detail when I analyze the mapping of /s/ and /t/ onto /s^ʕ/ and /t^ʕ/, respectively, in a later section. As for /t^ʕ/, it acquires emphasis from adjacent, emphasized /s^ʕ/.

Partially adapted loanwords, the second group, preserve some features of the source language which the recipient language lacks; for example, *pōṛṭābal* is a relatively recent loan and is partially adapted because it keeps the voiceless bilabial sound /p/, which AA lacks and replaces it with /b/ in fully-assimilated loanwords.

Imports, the third group, are loanwords which keep all features of the source language; for example, *flā* /flā/ ‘custard’ (Fr. *flan* /flā/) is an import because the non-native nasal vowel /ā/ is imported as is. AA lacks nasal vowels and usually adapts them, as I show below in the section on Nasal Vowels. If the imported features are shared by the recipient language, it would be hard to decide whether it is an import or fully assimilated loanword on purely phonological grounds.

In addition to the sound conversions observed in the first and second groups (i.e., fully and partially assimilated loanwords), they both undergo morphological adaptations, as well, where the recipient language adds native inflectional morphemes to incoming loans. For example, the French word *poste* /pɔst/, which is feminine in French, keeps its gender when it

enters AA by adding the AA feminine suffix *-a* at its end: Fr. *poste* /pɔst/ > AA *bōṣṭ-a* [bo:s^ʔt^ʔ-a]. Its gender in French is marked by modifiers such as the definite article and adjective; for example, *la grande poste* ‘the big post office’ (the.fem. big.fem. post office).

Below I describe the changes French sounds, consonants and vowels in this order, undergo when they enter AA. As for consonants, I begin by describing what AA sounds replace those French sounds that AA lacks. Then, I give examples of sound transformations some shared consonants undergo.

Adaptation of non-AA French consonants

Among the French consonant sounds that AA lacks are bilabial stop /p/, labiodental fricative /v/, labio-palatal glide /ɥ/, palatal nasal /ɲ/, and velar nasal /ŋ/, the latter being restricted to English borrowings in French. These sounds are adapted when they enter AA. The postalveolar fricative /ʒ/, which is a phoneme in French, is allophonic in AA. Urban AA dialects have it as an allophone to MSA /dʒ/, while rural and Bedouin dialects lack it. Therefore, only the latter adapt it in incoming loans. Here I describe how each of these is adapted and what AA sounds replace them.

Bilabial stop /p/

- (1) /p/: number of occurrences: 74 (100%)
- Number of non-adaptations: 12 (16.2%)
- Number of adaptations: 62 (83.8%)
- /p/ → /b/: 59 (95.2%)
- /p/ → /f/: 2 (3.2%)
- /p/ → /k/: 1 (1.6%)

There are seventy-four instances of French /p/ in my data, which consists of 487 loans. In most adaptations (i.e., 95.2% of all adaptations), /p/ is replaced with AA /b/, that is, its voiced counterpart; for example, French *palto* /palto/ ‘coat’, *place* /plas/ ‘place’, and *police* /pølis/

‘police’ > AA *bālto* /ba:lʔu/, *blāša* /bla:sʕa/, and *būlis* /bu:li:s/, respectively. As I mentioned above, AA does not have /p/ in its sound inventory so it replaces it with the closest AA sound, namely /b/. These two sounds are identical except for voicing, as is shown in Appendix 4: /p/ is voiceless, whereas /b/ is voiced. However, there are twelve loanwords which retain French /p/. These are recent loans for the most part as is clear from the fact that some of them refer to relatively recent inventions, such as cell phones; for example, Fr. *couper (un appel)* /kupe/ ‘hang up’ and (*téléphone*) *portable* /pɔrtabl/ ‘cell phone’ > AA *kūppā* /ku:ppa:/ and *pōrṭābal* /po:rʔa:bəl/, respectively. The French verb *couper* has various meanings depending on the context. It can mean *trim* (e.g., hair), *clip* (e.g., nails), *cross* (e.g., a river, street), and *slice up* (e.g., a cake), which can be expressed in AA using AA verbs: *naḥḥā* /naḥḥa:/ ‘to remove’ (CA *naḥḥā*), *gaṣṣ* ‘to cut’ (CA *qaṣṣa*), *gṭa* ‘to cross’ (CA *qaṭa* ‘a), and *gaṭṭa* ‘to cut into pieces’ (CA *qaṭṭa* ‘a). As for *kūppā* ‘hang up’ (Fr. *couper*, CA *qaṭa* ‘a), it is a recent loan that entered AA with the introduction of the telephone. Interestingly, AA derives a mediopassive or reflexive verb (i.e., a verb where the action is done to or happens to oneself [Ryding 2005]) from the loan verb *kūppā*, by prefixing the AA mediopassive prefix *t-* /t-/ to it, yielding *t-kūppā* ‘be cut/interrupted’, where the agent is unknown. This is very common in telephone conversations between speakers of AA such as the following:

علاه كوڤيت؟

‘lāh kūppī-t?

Why hang-up.Per-2msg

Why did you hang up?

نكوڤي وحدو.

t-kūppā waḥd-ū

be hang up.Per.3msg alone-his.

It was cut off.

Another relatively recent loan that is associated with phone calls is the noun *appel* /apɛl/ ‘call’. Depending on the context, it can either mean ‘phone call’ or ‘(legal) appeal’. The former is borrowed as *’āpāl* /ʔa:pa:l/ and the latter as *lābīl* /la:bi:l/ (a loanword provided by Hadj-Sadok [1955]). This is a case where the same loan has been borrowed twice but has been adapted differently to capture its various meanings: Fr. *appel* /apɛl/ ‘phone call’ > AA *’āpāl* /ʔa:pa:l/, but *appel* /apɛl/ ‘(legal) appeal’ > AA *lābīl* /la:bi:l/. Another interpretation of why the same loan was adapted differently is the fact that there is time distance between the two adaptations: the older the loan, the more assimilated it is. Another loanword where /p/ is retained is *pūpīya* /pu:pi:ja/ ‘doll’ (French *poupée* /pupe/), which has a variant with a /b/ sound *būbīya* /bu:bi:ja/, pronounced mainly by older people. The latter’s meaning has been extended to refer to a beautiful woman and from it is derived, by means of backformation, the masculine *būbī* /bu:bi:/ ‘good-looking, adorable’, which is not as frequent as the feminine form. It is used mainly to refer to male babies. Note that in Arabic, the masculine is usually the default form, from which is derived the feminine by suffixing *-a* to it. In the case of *būbīya* and *būbī*, we see a reverse process, wherein the masculine is derived from the feminine by dropping the feminine marker. In other words, speakers of AA first borrowed the feminine *poupée* /pupe/, which they adapted as *pūpīya* or *būbīya*, both of which are inflected for feminine by means of AA feminine marker *-a*. Later, speakers of AA derived the masculine *būbī* by dropping the AA feminine marker. It cannot be the case that AA borrowed the masculine form first and derived the feminine from it since the source language, French, does not have the masculine form.

Adapting /p/ as /b/ might result in homophony, that is, words that have the same pronunciation but different meanings; for example, French *bombe* /bɔ̃b/ ‘bomb’ and *pompe* /pɔ̃p/ ‘pump’ are adapted as AA *būmbā* /bu:mba/ and *peignoire* /peɲwar/ ‘robe’ and *baignoire* /beɲwar/

‘bathtub’ as AA *bīnwār* /bi:nwa:r^s/. In my hometown, Setif, *bīnwār* has come to mean a traditional dress, a meaning that is typical to this province. In *Le gone du Chaâba*, an autobiographical novel by the French writer of Algerian origin Azouz Begag, the protagonist-narrator Azouz describes his mother as wearing a *binouar*. In the glossary at the end of the novel, the author Begag, himself a native of El-Ouricia in Setif, glosses *binouar* as “A corruption of the French word ‘peignoir’ (dressing gown), used by women in la Chaâba [‘shantytown’, next to Lyon, France] to refer to a traditional Algerian dress” (Begag 2007, 205). Pronouncing both *peignoire* and *baignoire* as *bīnwār* reminds me of a humorous incident that I witnessed, where a suitor from Laghouat proposed to a girl from Setif. When they met to discuss the wedding preparations, the suitor asked her about wedding customs in Setif and what he needed to buy. Among the items she mentioned was the *bīnwār*. Interpreting it as a bathtub, the suitor looked startled and wondered what it was for and what it had to do with a wedding. The confusion stemmed from the fact that both French *peignoire* ‘robe’ and *baignoire* ‘bathtub’ are adapted as AA *bīnwār*.

In only two instances, the bilabial stop undergoes *spirantization* (i.e., an articulatory weakening resulting in a stop becoming a fricative) and is replaced with AA /f/: Fr. *pansement* /pãsmã/ ‘Band-Aid’ and *pommade* /pɔmad/ ‘ointment’ > AA *fãšma* /fa:s^sma/ and *fořmãda* /fur^sma:da/, respectively. The latter was provided by Hadj-Sadok (1955). Even though I am a native speaker of an AA dialect, I had never heard it before and I would not have been able to guess its prototype based on its form. It has other more common variants in AA, among which is *būmãdã* /bu:ma:da/ (also provided by Hadj-Sadok in addition to *fořmãda*). Another variant, which I heard used in my hometown, Setif, is *pūmãřta* /pu:ma:t^sa/, where /d/ is emphasized as /t^s/, a conversion which I will discuss in more detail in a later section. From these variants, we can deduce that when *pommade* /pɔmad/ was first introduced, speakers of AA fluctuated between

various variants to finally settle on *būmādā* (or less commonly *pūmāṭa*), which is realized with a /p/ sound by most speakers now. The variant *formāda* seems to have died out.

In one loan, /p/ is realized as /k/: Fr. (*tuyau*) *d'échappement* /((tɥijo)#d-ɛʃapmã/ > AA *šākma* /ʃa:kma/. This transformation appears to be dissimilatory in that labial stop /p/, being followed by labial /m/, dissimilates to velar stop /k/. I should add that this loan, which was provided by a participant on the Facebook page Algerians Abroad, occurs mostly in the speech of mechanics, who more often than not do not finish middle or elementary school. This might explain the unusual adaptation /p/ to /k/. Being aware of how distant the loanword is from its prototype, the participant challenged the page members to guess the latter's meaning.

To summarize, French /p/ is usually replaced with /b/, its voiced counterpart, except in less assimilated loans where it is realized as is. Since Arabic-French bilingualism is spreading among Algerians due to education, media, and the internet, foreign sounds like /p/ have started to enter AA and appear in French loanwords. However, older people and monolingual speakers still use /b/. I heard an old relative of mine pronounce /p/ in French loanwords in careful speech. However, when she speaks at a normal speed, she uses /b/ instead. This is an instance of fluctuation between /p/ and /b/ in the speech of the same person. Even though she is monolingual, she claims she knows the origin of some loanwords is French but that she cannot pronounce them accurately. I carefully modeled a few French words with a /p/ sound for her to imitate but she pronounced them with a /b/. Pronunciation is the most difficult aspect to learn as an adult since the vocal apparatus is already accustomed to native sounds and needs to be trained to pronounce foreign ones (Ortega 2014), a training that Algerian schools now offer. I should add that at times when I draw to her attention the standard pronunciation, she defies me and adds that she does not care how the French pronounce it and insists on pronouncing it her way as long

as she can make herself understood. This is reminiscent of the phenomenon of fossilization (i.e., cessation to learn) in Second Language Acquisition. Among the factors that lead to fossilization is lack of adequate motivation (Han 2004). In the case of the family member I just mentioned, she does not seem to be motivated to learn the French prototype since the loanword serves the purpose.

It is worth mentioning that her pronunciation triggered the laughter of younger members, who had access to French through education. This constitutes evidence that adaptations are stigmatized and laughed at, probably because they are considered as failure on the part of the speaker to pronounce French properly, which in turn hints that the speaker is uneducated and/or from a rural background. This is well depicted in the novel *Le gone du Chaâba*, where the protagonist laughs at his father, an uneducated Algerian immigrant in France, when he pronounces *ped-noir professeur* as *binoir broufissour*, or when the tobacconist laughs at the protagonist when he pronounces *tabac à priser* ‘chewing tobacco’ as *tababrisi*, the pronunciation of which he learned from his uneducated father.

Labiodental fricative /v/

(2) /v/: number of occurrences: 39 (100%)

Number of non-adaptations: 4 (10.3%)

Number of adaptations: 35 (89.7%)

/v/ → /f/: 28 (80%)

/v/ → /b/: 7 (20%)

Like /p/, French /v/, which is not part of the phonemic system of AA, is also replaced with an AA sound. In the data I collected, there are thirty-nine occurrences of this phoneme. In twenty-eight instances (i.e., 80% of all adaptations), it is adapted as AA /f/; for example, French *veste* /vest/ ‘jacket’, *village* /vilaz/ ‘village’, and *valise* /valiz/ ‘suitcase’ > AA *fīsta* /fi:sta/, *fīlāj* /fi:la:dʒ/, and *fālīza* /fa:li:za/, respectively. In seven instances, it is adapted as /b/. Interestingly,

three of these loanwords are related in meaning in the source language: Fr. *service* /servis/ ‘set’, *serviette* /servjet/ ‘napkin’, and *servir* /servir/ ‘to serve’ > AA *serbīs* /sarbi:s/, *serbīta* /sarbi:ta/, and *sarbā* /sarba:/, respectively. These loans are not morphologically related in AA. Thus, I assume that they are not derived from the same prototype but, rather, were each borrowed separately from the two other loans. In the case of Fr. *serviette* /servjet/, both variants exist in AA: *ṣarfīta* /sʕarfi:tʕa/, where /v/ is replaced with /f/, and *serbīta* /sarbi:ta/, where it is replaced with /b/. These two variants reflect dialectal differences and show how the dialect one speaks determines how a loanword is adapted. In other words, dialectal variation within the recipient language may also play a role in how a loanword is adapted.

Another factor that plays a role in loanword adaptation is age. Younger generations are more likely to pronounce loanwords closer to the prototype because they have easier access to French due to compulsory education and the internet. For example, a young relative of mine, who dropped out from school at an early age and has low proficiency in French, managed to learn some French through social networks such as Facebook and Messenger. Conversely, the older generations did not have access to French because they were denied education by the colonial administration. As for the internet, it was introduced in Algeria in the 1990s and is more popular among the younger generations as one can clearly see in internet cafes. So the chances for old people to practice French are very slim. This is why they tend to pronounce loanwords differently from younger and bilingual speakers. For example, older females in my family pronounce French *service* /servis/ as *serbīs* [sarbi:s], where they convert labiodental /v/ to bilabial /b/, while the younger ones realize it more faithfully, that is closer to the prototype, and pronounce it *servīs* [sarvi:s], with a /v/. Interestingly, the younger females are aware of the variations among age groups. When I asked them how they say “set” in AA, they gave me both

variants, that is *serbīs* and *servīs*, and added that the variant with a /b/ is more common among older females. This variation was reiterated by my contacts on Facebook. When I elicited some loanwords, they would give me two variants and add that one of them is used mostly by older members in the family, usually a grandmother.

Another French loanword where the labiodental consonant /v/ is replaced with its bilabial counterpart /b/ is *vapeur* /vapœr/, which stands for *bateau à vapeur* ‘steamboat’. This word is adapted in AA as *bābōr* /ba:bo:r̥/. One interpretation of why /v/ goes to /b/ instead of the more common conversion into /f/, observed in most loanwords, is that the source language which provided this loanword is more likely to be Spanish, which shares this cognate with French but pronounces it [ba'por], which is closer to the AA form than French /vapœr/. Converting /v/ to /b/ is the common adaptation Spanish loanwords undergo in Moroccan Arabic (MA) (Heath 1989).

Palatal glide /ɥ/

There are only four instances of the labial palatal glide /ɥ/, which is adapted as AA /u:/ in two cases: Fr. (*l'*)*huissier* /ɥisje/ ‘(the) bailiff’ and *cuisine* /kɥizin/ ‘kitchen’ > AA *lūsī* /lu:si:/ and *kūzīna* /ku:zi:na/, respectively. One interpretation of why it converts to /u:/ is that /ɥ/, which corresponds to French vowel /y/ that is absent from AA, vocalizes as /u/, with which it shares the “round” and “high” features (see Appendix 4), after which the vowel /i/ is deleted to avoid vowel hiatus: Fr. (*l'*)*huissier* /ɥisje/ ‘the bailiff’ > */luisje/ > /lu:si:/. Note that in this same loan the front glide /j/ also elides before the front vowel /i:/, which marks relational adjectives in Arabic, due to the *obligatory contour principle* which disfavors adjacent identical units (McCarthy 1986), with /i/ and /j/ being homorganic. This is a conversion that I observed in loanwords ending in /-je/ and denoting profession, which are regularly adapted as /-i:/, a suffix that commonly denotes professions in AA; for example, *infirmier* /ẽfirmje/ ‘nurse’, *forestier* /fɔrestje/

‘forest ranger’, and *manouvrier* /manuvrije/ ‘laborer’ > *fāramlī* /fa:rmlī:/, *fūrīstī* /fu:ri:sti:/, and *mūnīfrī* /mu:ni:fri:/, respectively.

In the third case, /ɥ/ is dropped, probably due to the presence of a second glide, /j/, in the same word: Fr. *tuyau* /tɥjo/ ‘pipe’ > AA. *tīyu* /ti:ju/. Another interpretation is that the combination /ɥj/ is adapted as a back vowel, /u/, if the following syllable has a front vowel (see examples in previous paragraph) and vice versa, which would be a case of dissimilation. It is worth noting, however, that Fr. *tuyau* /tɥjo/ has another variant in AA, namely *twīyu* /twi:ju/, where /ɥ/ is replaced with /w/, with which it shares the “round” feature. I myself could not distinguish between the two glides and often used /w/ instead of /ɥ/ when I took a French phonetics course here at UW-Madison. In a study Hambye and Simon (2012) conducted about Belgian French, they claim that their Belgian French-speaking subjects do not make a difference between pairs such as *juin* /ʒɥɛ̃/ and *joint* /ʒwɛ̃/, which they pronounce as [ʒwɛ̃]. They add that in some contexts, [ɥ] functions as an allophone of /j/. In the absence of accurate data on the dialect(s) of French to which speakers of AA were exposed, it is hard to tell whether they were exposed to /ɥ/ at all since the latter is not realized and merges with /w/ in some dialects of French.

Palatal nasal /ɲ/ and velar nasal /ŋ/

In all the data, there are only two instances of velar nasal /ŋ/, itself a sound that appears only in English loanwords in French. It is adapted as a combination of /n/ and /g/, a conversion that seems to be influenced by the spelling of words; for example, *jogging* /dʒɔŋiŋ/ ‘tracksuit’ and *footing* /futiŋ/ ‘jogging’ > AA *jōging* /dʒo:ging/ and *fūting* /fu:ting/, respectively. But since orthography plays a marginal role in loanword adaptations in AA another plausible interpretation is that the source language speakers themselves pronounce /ŋ/, a non-native velar nasal, as /ŋg/.

In addition, only six words in the data have the palatal nasal /ɲ/, which is replaced with AA alveolar nasal /n/ in four instances: Fr. *compagnie* /kɔ̃paɲi/ ‘(military) company’ and *consigné* /kɔ̃sɲe/ ‘confined to barracks’ > AA *kubbānīya* /kubba.ni:ja/ and *gūsīnī* /gu:si.ni:/, respectively. In the remainder cases (i.e., two) it is adapted as /ɲj/, which is a combination of a nasal, /n/, and a palatal, /j/. Based on its features (see Appendix 4) I argue that this is the default conversion of French /ɲ/ and that the palatal /j/ deletes before /i/, as I demonstrated earlier.

Postalveolar fricative /ʒ/

- (3) /ʒ/: number of occurrences: 40 (100%)
- Number of non-adaptations: 9 (22.5%)
- Number of adaptations: 31 (77.5%)
- /ʒ/ → /dʒ/: 31 (100%)

Changing the postalveolar fricative into a homorganic affricate (i.e., affrication) in AA is an instance of adaptation determined by dialectal variation in the recipient language. The sound change /ʒ/ to /dʒ/ occurs only in those dialects of AA that lack it. For example, Fr. *fromage* /frɔmaʒ/ ‘cheese’, *cirage* /sirɑʒ/ ‘shoe polish’, and *cageot* /kaʒo/ ‘crate’ > AA *foɾmāj* /fuɾ^sma:dʒ/, *sīrāj* /si:ra:dʒ/, and *kājū* /ka:dʒu:/, respectively.

To summarize, AA lacks the French consonants /p/, adapted mostly as /b/ (a sound change known as lenition, whereby a voiceless sound is weakened and becomes voiced), /v/, adapted in most cases as /f/ (a sound change known as fortition, which, contrary to lenition, refers to a sound change whereby a voiced sound becomes stronger [O’Grady 2012]), and the nasals /ŋ/, adapted as /ng/, and /ɲ/, adapted as /ɲj/. It also lacks the labiopalatal glide, /ɥ/, which it deletes, replaces with the labial glide /w/, or vocalizes to homorganic vowel /u/. Below, we see how and why some consonants that AA shares with French get adapted.

Adaptation of shared consonant sounds

As I mentioned in Chapter 2, some source-language sounds might be adapted even if the recipient language has them. This technique is known as “unnecessary adaptation,” on the premise that the recipient language has a similar sound in its inventory and, therefore, needs not adapt it. But in the case of AA, I do not consider these changes unnecessary since they are conditioned by neighboring sounds, as I will show shortly.

Emphasization of /s/ and /t/

- (4) /s/: number of occurrences: 125 (100%)
 Number of non-adaptations: 77 (61.60%)
 Number of deletions: 3 (2.40%)
 Number of adaptations: 45 (36%)
 /s/ → /sˤ/: 43 (95.6%)
 /s/ → /ʃ/: 1 (2.2%)
 /s/ → /z/: 1 (2.2%)
- (5) /t/: number of occurrences: 162 (100%)
 Number of non-adaptations: 66 (40.7%)
 Number of deletions: 2 (1.3%)
 Number of adaptations: 94 (58%)
 /t/ → /tˤ/: 94 (100%)

Algerian Arabic has the sounds /s/ and /t/ in its sound inventory, but it sometimes adapts French /s/ and /t/ as emphatic /sˤ/ and /tˤ/, respectively. In the data, there are 125 counts of /s/, forty-three of which are emphasized as /sˤ/, and 162 counts of /t/, ninety-four of which (i.e., a little more than the half) are emphasized. There are two cases where /t/ is dropped; for example, Fr. *créditer* /kre.di.te/ ‘to credit’ > AA *kerdā* /krda:/. This is an instance of truncation, where the last syllable is dropped. In this case, the resultant AA verb, *kerdā*, has a three-consonant root, *k-r-d*, with three being the most common number of radicals in Arabic words. A more plausible interpretation for dropping /t/ is that the AA verb is formed from the substantive *crédit* /kre.di/ ‘credit’, where *t* is silent, rather than the French verb *créditer* /kre.di.te/. In this case, it would be

a denominative verb loan. /t/ is also dropped in the word *kārṭantīī* ‘ID’ (Fr. *carte d’identité* /kart#d-idētite/), a variant used mostly by old and uneducated speakers, wherein an impermissible three-consonant cluster /rtd/ in a long phrase is simplified. Very few words, if at all, exceed four syllables, in AA. Heath (1989) reports two syllables as an optimal word-size in MA, which I believe holds true for AA.

A closer look at the data reveals the fact that French /s/ and /t/ are emphasized mostly in the neighborhood of non-high French vowels /e/ and /o/, and back low vowel /ɑ/, which are allophones in AA. Kenstowicz and Louriz (2009) report a similar observation in their analysis of French loanwords in MA. Like MA, AA inserts emphasis on the consonants adjacent to the above-mentioned vowels to create the phonological environment in which the underlying AA high vowel phonemes, /i/ and /u/, and low front vowel /a/ are realized as allophones [e], [o], and [ɑ], respectively. In other words, the French non-high vowel phonemes /e/, /o/, and /ɑ/ are interpreted by speakers of AA as reflexes of an underlying emphasis on neighboring consonants in loanwords. In case the neighboring consonant has no emphatic counterpart in AA, speakers of AA resort to either of two techniques: 1) the French non-high non-low vowel is raised to either /i/ or /u/, depending on whether it is front or back, respectively, and the low back vowel is fronted; or 2) the plain consonant is replaced with emphatic *t* /tʰ/ or *s* /sʰ/, depending on whether it is a stop or a fricative, respectively; for example, there are three instances where the plain consonant /ʃ/, which is a fricative with no emphatic counterpart in AA, is replaced with the emphatic consonant /sʰ/, which is a fricative as well: Fr. *charger* /ʃarʒe/ ‘to charge’ > AA *šarjā* [sʰɑrʃdʒɑ:]. Interestingly, this same loanword was borrowed a second time to mean ‘charge (a battery)’ and is adapted as AA *šārjā* /ʃa:rʃdʒa:/, along with *chargeur* /ʃarʒœr/ ‘charger’, which is adapted as *šārjūr* /ʃa:rʃdʒu:r/.

The loanword *échafaudage* /eʃafodaʒ/ ‘scaffolding’ is adapted as AA *šāfōtāj* /sʰa:fo:tʰa:ɟ/, where both /ʃ/ and /d/ are replaced with /sʰ/ and /tʰ/, respectively. Interestingly, AA has an emphatic equivalent of /d/, namely /dʰ/, which is rarely employed to replace /d/ in the neighborhood of non-high vowels in loanwords. One interpretation is that /dʰ/ has merged with /ðʰ/ in the spoken dialects, which have lost the distinction between these two sounds. In other words, most AA dialects lost the emphatic /dʰ/ and replaced it with /zʰ/. In addition, recall from chapter 3 that certain AA dialects pronounce /dʰ/ as [tʰ]. For instance, MSA *bayḏā* /bajdʰa:ʔ/ ‘white’ has the variant *bēṭa* [be:tʰa] in the dialects spoken in Algiers and Jijel. We see a similar transformation in loanwords, where emphasis on /d/ is realized as /tʰ/.

Emphasizing /s/ and /t/ also applies in the neighborhood of French back nasal vowels /ã/ and /õ/, which are either unpacked as a vowel-nasal (VN) sequence or denasalized in AA. The emphacization of French /s/ and /t/ constitutes counter-evidence to Paradis and Lacharité (2008), Carole and LaCharité (2011), Paradis and Prunet (2000), and Paradis and Lacharité (1997), who claim that loanwords are adapted phonemically, irrespective of any phonetic details. According to their view, French /s/ and /t/ should always be mapped onto their phonemic counterparts in AA, /s/ and /t/, respectively, which is not the case, as I have illustrated here.

This is not to say that AA adapts all loanwords phonetically. There are a few instances where French phonemes /s/ and /t/ are preserved, rather than emphasized, in the neighborhood of /e/ and /o/, in which case the non-high non-low vowels /e/ and /o/ are raised to /i/ and /u/, respectively; for example, Fr. *sauvage* /sovaʒ/ ‘wild, uncivilized’, *séchoir* /seʃwar/ ‘hairdryer’, *téléphone* /telefɔn/, and *moteur* /mɔtœr/ > AA *sūfāj* /su:fa:ɟ/, *sīšwār* /si:ʃwa:r/, *tīlīfūn* /ti:li:fu:n/, and *mūtūr* /mu:tu:r/, respectively. The latter is adapted as *mōtōr* /mu:tʰu:rʰ/ in MA (Heath 1989).

Adaptation of rhotics and laterals

In all the examples mentioned above, the way a consonant sound is adapted is determined by linguistic factors such as distinctive features, the minimal contrastive unit of a sound (O’Grady 2012), and phonological environment (i.e., neighboring sounds). There is one case where the phonological adaptation of a French consonant, a liquid, indexes gender and speakers’ attitudes. This involves the French velar liquid /r/, realized as [ʀ] in some French dialects including standard French. Even though AA has a closer sound to the velar/uvular allophone [ʀ] in its sound inventory, namely /ɣ/, socially male Algerians adapt French /r/ as AA /r/ (or /r^s/ in the neighborhood of non-high vowels) rather than /ɣ/; for example, French *bricoler* /brikɔle/ ‘tinker’, *broche* /brɔʃ/ ‘pin’, and *brouette* /bruɛt/ ‘wheelbarrow’ > AA *brīkūlā* /bri:ku:la:/, *brōš* /br^su:f/ and *barwēṭa* /bar^swi:tʃa/ (pl. *brāwaṭ*), respectively. Speakers of AA perceive pronouncing words such as *brīkūlā* as [byi:ku:la], with *ḡ* [ɣ], which is more faithful to the original than [bri:ku:la], with *r* [r], as feminine. I have observed a similar phenomenon in interactions between native speakers of AA on Facebook. The French word for “thank you” is *merci*, which many Algerian men spell in AA—using Arabic script—with the letter ر (i.e., ‘r’ /r/). However, if they want to sound soft and feminine, they spell it with the letter غ (i.e., ‘ḡ’ /ɣ/). This, they follow with the grinning emoticon to hint that they are being playful and sarcastic.

Additional evidence of gender differences in pronouncing French /r/ comes from a song titled *līk mānwallīš* ‘I will not return to you’ by singer Ben Lachhab, a woman. This song has a few French loanwords, such as *kūrāj* /ku:ra:ʒ/ ‘courage’ (Fr. *courage* /kuraʒ/) and *ontūrāj* (Fr. *entourage* /ɑturaʒ/), which Ben Lachhab pronounces as [ku:ɣa:ʒ] and [ɔtu:ɣa:ʒ], respectively. A few fans have made covers of it and posted them on YouTube. I noticed that socially male singers pronounce the loanwords as [kūrāʒ] and [ɔtu:ra:ʒ], respectively. Some YouTube videos

have provided the lyrics for the song. In one video, the word *kūrāj* is spelled as كوراج in Arabic, with a ر letter (i.e., ‘r’ /r/) rather than غ (i.e., ‘g’ /ɣ/), even though the singer clearly pronounces it with a [ɣ] sound. In another video, it was spelled in Roman script, which shows that whoever provided the lyrics knows the source language. The second word was spelled in all the videos that I checked in Roman script.

The fact that neither word has an equivalent in AA, even though CA has the words *šajā* ‘a ‘bravery’, and *muhīt* and *bī’a* ‘surroundings, environment’, makes them loanwords, and not code-switches. In fact, the French loanword *kūrāj* ‘courage’, which is a noun in French, is commonly used in a DO-construction with a verbal meaning in AA (i.e., ‘have the courage’): *dār l-kūrāj* ‘to take heart’ (literally, ‘made/did courage’). I also hear it used with the preposition ‘and’ (MSA ‘*inda*) to mean ‘have’ as in *škūn ‘andū l-kūarāj ...?’* ‘Who has the courage to ...?’ and in expressions such as *kūarāj bark!* ‘Hang on!’.

The use of the Arabic phoneme /r/ instead of /ɣ/ in loanwords in AA counters an argument advanced by LaCharité and Paradis (2005), who use the example of adapting French /r/ as /r/ in Arabic (MA, to be precise) as evidence to support their claim that the source-language sounds are mapped onto their phonemic, rather than phonetic, counterparts in the recipient language. In the case of French-Arabic, this would mean mapping French /r/ to AA /r/. AA provides evidence that not only do speakers of the recipient language faithfully perceive the articulatory details of the source language, but that they also map recipient-language sounds onto their phonemic or phonetic counterparts in the source language, depending on factors such as gender: French /r/ → AA /r/ (phonemic mapping) in the speech of social males, but French [ʁ] → AA /ɣ/ (phonetic mapping) in the speech of social females. This variation in pronouncing French /r/ is well captured by an Algerian joke about a wife who joined her husband in Paris.

One day, she went out for a walk downtown. After a while, she came back home running. She met her husband at the door and told him in AA, “*ḡājlī! ’ajḡī! ’ajḡī! Jḡāna tajḡī fi Pāḡī!*” (‘Oh my husband! Run! Run! A frog is running in Paris!’), where she replaced all Arabic r’s in *rājīlī* ‘my husband’, *’ajrī!* ‘Run!’, *jrāna* ‘frog’, *tajrī* ‘is running’, and *Pārī* ‘Paris’ with *ḡ* /*ɣ*/. This joke reflects a tendency on the part of women to pronounce French uvular trills as [ɣ], which is phonetically closer to the French prototype, a tendency the woman in the joke transfers to AA /r/ after spending one week in France. I consider gender differences in adapting French /r/ a theoretical breakthrough of my study. As far as I have been able to find in the existing literature on loanwords, gender has never been reported as a factor in loanword adaptation. This must be due to the fact that most loanword theoreticians work with linguistic data, the loanwords, and ignore the agents of the borrowing, the recipient-language speakers. In an article titled “Gendering French in Tunisia: Language ideologies and nationalism,” Walters (2011) claims that Tunisian women tend to pronounce French [ʁ] faithfully while men pronounce it [r] instead, a pronunciation that is characteristic of North African French. Reporting a similar observation, Sadiqi (2007) claims that educated Moroccan women tend to switch to French more than men do and that they tend to preserve the French uvular trill, [ʁ], which men pronounce as [r]. She adds that preserving [ʁ] in the speech of women is more a characteristic of recent borrowings than old ones. This sounds plausible since women in French colonies did not have access to education and, consequently, the French language. In the examples Sadiqi provides, women are more faithful to the French prototypes and tend to preserve them more than men do. For example, women preserve the French definite article *le* (masculine) and *la* (feminine), whereas men use the MA definite article *l- /l- /*. Walters (2011) and Sadiqi (2007) refer mainly to French use and French-Arabic code-switching in Tunisia and Morocco, respectively. My data shows that

substituting [r] for [ʁ] also applies to loanwords and that pronouncing French [ʁ] as its closer counterpart [ɣ] in AA is done mostly by women. In fact, my data has three loanwords which refer to products used mostly by women, where [ʁ] is adapted as AA /ɣ/, and not /r/: Fr. *rose aux ongles* [ʁoz#oz#ãgl] ‘nail polish’, *rouge à lèvres* [ʁuz#a#lɛvʁ] ‘lipstick’, and *ballerine* [bal(ə)ʁin] ‘ballerina’ > AA *ḡūzīzāngal* [ɣu:zi:za:ngəl], *ḡūzālāv* [ɣu:za:la:v], and *balḡīna* [bəlɣi:na], respectively. I argue that, based on their form, these loanwords were introduced by women, not men.

- (6) /l/: number of occurrences: 102 (100%)
- Number of non-adaptations: 92 (90.2%)
- Number of deletions: 2 (2%)
- Number of adaptations: 8 (7.8%)
- /l/ → /n/: 5 (62.5%)
- /l/ → /r/: 2 (25%)
- /l/ → /rˢ/: 1 (12.5%)

The other liquid, lateral /l/, is preserved in most borrowings (92 out of 102); for example, Fr. *table* ‘table’ /tabl/, *stylo* ‘pen’ /stilo/, and *trolley(bus)* /trɔlə/ > AA *tābla* /tʰa:bla/, *stīlū* /sti:lu:/, and *tʁōlī* /tʰrʰu:li:/, respectively. In five instances, however, Fr. /l/ is replaced with AA /n/; for example, Fr. *journal* /ʒurnal/ ‘newspaper’, *caporal* /kapɔral/ ‘corporal’, and *casseroles* /kasrɔl/ ‘saucepan’ > AA *joɾnān* /dʒurˢna:n/, *kābrān* /ka:brˢa:n/, and *kaʃrōna* /kasˢru:na/, respectively. One plausible explanation is that the liquid sound /l/ becomes /n/ if there is /r/, also a liquid, in the same word. In the case of AA *kābrān* /ka:brˢa:n/, it is roughly patterned after *fā‘lān* (i.e., C¹aC²C³ān), a common adjectival pattern in Arabic. As for the inverse transformation, that is substituting /l/ for /n/, the same interpretation holds true: the nasal sound /n/ is replaced with /l/ if there is /m/, also a nasal, in the same word: Fr. *cinema* /sinema/ ‘cinema’ and *barre à mine* /bar#a#min/ ‘miner’s pick’ > AA *sīlīma* /si:li:ma/ and *bārāmīl* /ba:ra:mi:l/, respectively. In three cases, Fr. /l/ is replaced with /r/ ~ /rˢ/. These involve metathesis, that is, exchanging the positions

of two segments, the liquids /l/ and /r/ in this case, in the same word; for example, Fr. *litre* /litr/ ‘liter’ and *accélérer* /akselere/ ‘accelerate’ > AA *rīṭla* /ri:tla/ and *ksīrīlā* /ksi:ri:la/, respectively. The first word has another variant in the dialect I speak, Setifian Arabic (SA), namely *’īṭra* where the /l/ sound, which is part of the French stem *litre* /litr/ is interpreted as AA definite article: *litre* /litr/ ‘liter’ > SA *līṭra* /li:tʁa/ ‘the liter’ ~ *’īṭra* /ʔi:tʁa/ ‘a liter’ as in *’a’ṭīnī ’īṭra lban!* ‘Give me a liter of buttermilk!’.

To sum up, gender, a sociocultural variable, plays a role in loanword adaptation. Socially male Algerians map the French rhotic /r/, which has a standard uvular realization [ʁ], onto the closest AA phoneme, Arabic rhotic /r/, which is a coronal trill and is, therefore, perceptually distant from it. Conversely, socially female speakers map it onto the perceptually closest sound, /ɣ/, which is a velar/uvular fricative. Adapting the French rhotic /r/ as either /r/ or /ɣ/ in the same speech community provides evidence in favor of an intermediate stance, where both phonetic and phonological factors play a role in loanword adaptation. This brings the discussion of consonant-sound transformations to a close. Below, I describe how and why French vowels are adapted.

Adaptation of French vowels

Compared to consonants, there is less consistency and asymmetry in the way French vowels are assimilated. Many factors compete to determine how a French vowel is adapted, among which are the following: 1) vowel harmony manifested in the data as either (a) progressive assimilation, in which a vowel influences the vowel in the following syllable or (b) regressive assimilation, wherein a vowel influences the vowel in the preceding syllable; 2) dissimilation where one vowel becomes different from a vowel in a neighboring syllable; or 3) (non-)emphasis on a neighboring consonant, wherein a pharyngealized consonant darkens a neighboring vowel. As I mentioned above, a consonant in an incoming loan is sometimes

emphasized to preserve French non-high vowels /e/, /o/, and /a/, occurring either before or after it. This emphasized consonant, in turn, influences the vowel on its other side: $V^sCV > V^sC^sV > V^sC^sV^s$ or $VCV^s > VC^sV^s > V^sC^sV^s$, where s signifies *constricted pharynx*, a feature characteristic of emphatic or emphasized sounds (Kenstowicz and Louriz 2009); and 4) recipient-language derivational morphology, known in Arabic as the root-and-pattern system: a few French verbs are patterned after AA trilateral verb patterns *fa'ʿal* (i.e., $C^1aC^2C^2aC^3$) and *t-fūʿal* (i.e., $t-C^1ūC^2aC^3$) and quadrilateral pattern *faʿlal* (i.e., $C^1aC^2C^3aC^3$), where the consonants are extracted from the French verb to derive a three-consonant (or, less commonly, a two- or four-consonant) root or radical and mapped onto the AA verbal patterns just mentioned. Here, the vowels in the French prototype are completely ignored; for example, Fr. *voter* /vɔt/ 'to vote' > AA *fawwaṭ* /fawwaṭ^s/, derived from mapping the root *f-w-ṭ* unto the pattern *fa'ʿal*. In this example, we see how the French vowels /ɔ/ and /e/ are replaced with /a/. So, what might seem as an aberrant substitution (e.g., /ɔ/ > /a/, as opposed to the more common adaptation into /u/ (allophones [u] or [o]), depending on whether the neighboring consonant is emphasized or not) is in fact a systematic substitution determined by the language root-and-pattern derivational morphology. In fact, the verb *fawwaṭ* might be a denominative derived from the noun *vote* /vɔt/ 'vote' > AA *fōṭ* [fo:t^s], where the long vowel [o:] is underlyingly /awa/ and, hence, is the glide /w/ in the verb *fawwaṭ*. A similar phenomenon is observed in the native lexicon; for example, from the noun *nūr* [nu:r] 'light' is derived the verb *nawwar* 'to fill with light, enlighten'. I should add that the loan *fawwaṭ* is provided by Hadj-Sadok (1955) besides *fōṭā*, the former being confirmed by my Facebook contacts who claimed older and uneducated family members use it. I am more familiar with the variant *vōṭā*, *yvōṭē*, which is used frequently on the eve of elections as is clear from the so many online videos in AA encouraging or discouraging Algerians from voting.

Adaptation of oral vowels

Adaptation of back oral vowels

(7) /ɔ/: number of occurrences: 90 (100%)

Number of non-adaptations: 0

Number of deletions: 8 (8.9%)

Number of adaptations: 82 (91.1%)

/ɔ/ → /a/: 1 (1.2%)

/ɔ/ → /a:/: 2 (2.4%)

/ɔ/ → /i/: 2 (2.4%)

/ɔ/ → /i:/: 5 (6.1%)

/ɔ/ → /u/: 3 (3.7%)

/ɔ/ → /u:/: 69 (84.2%)

(8) /o/: number of occurrences: 57 (100%)

Number of non-adaptations: 16 (28.1%)

Number of deletions: 0

Number of adaptations: 41 (71.9%)

/o/ → /i:/: 1 (2.4%)

/o/ → /u/: 5 (12.2%)

/o/ → /u:/: 34 (82.9%)

/o/ → /w/: 1 (2.4%)

(9) /u/: number of occurrences: 52 (100%)

Number of non-adaptations: 7 (13.5%)

Number of deletions: 0

Number of adaptations: 45 (86.5%)

/u/ → /a/: 3 (6.7%)

/u/ → /i:/: 2 (4.4%)

/u/ → /u:/: 38 (84.4%)

/u/ → /w/: 2 (4.4%)

(10) /ɑ/: number of occurrences: 12 (100%)

Number of non-adaptations: 0

Number of deletions: 0

Number of adaptations: 12 (100%)

/ɑ/ → /a/: 1 (8.3%)

/ɑ/ → /a:/: 11 (91.7%)

French back rounded vowels /ɔ/, /o/, and /u/ are normally realized as AA long back vowel

/u:/ (allophones [u:] or [o:], depending on whether or not the vowel is tautosyllabic with a

pharyngealized consonant); for example, /ɔ/ → /u:/ in *būlītīk* /bu.li:ti:k/ ‘politics’ (Fr. *politique* /pɔlitik/), *ṭōmōbīl* /tʰu:mu:bi:l/ ‘car’ (Fr. *automobile* /ɔtɔmɔbil/), and *būlīs* /bu.li:s/ ‘policeman’ (Fr. (*agent de*) *police* /pɔlis/); /o/ → /u:/ in *mōṭō* /mu:tʰu:/ ‘motorbike’ (Fr. *moto* /moto/), *ṛōzwār* /rʰu:zwa:r/ ‘watering can’ (Fr. *arrosoir* /arozwar/), and *bīrū* /bi:ru:/ ‘desk, office’ (Fr. *bureau* /byro/); /u/ → /u:/ in *būyūn* /bu:ju:n/ ‘broth’ (Fr. *bouillon* /bujɔ̃/), *būšūn* /bu:ʃu:n/ ‘cork’ (Fr. *bouchon* /buʃɔ̃/), and *dūš* /du:ʃ/ ‘shower’ (Fr. *douche* /duʃ/).

The non-high non-low vowels /o/ and /ɔ/ both convert to /i:/ in what seems to be dissimilation; for example, *šīfōr* /ʃi:fu:rʰ/ ‘driver’ (Fr. *chauffeur* /ʃofœr/), *šīkūla* /ʃi:ku:la/ ‘chocolate’ (Fr. *chocolat* /ʃɔkɔla/), and *kīkōṭa* /ki:ku:tʰa/ ‘pressure cooker’ (Fr. *cocotte(-minute)* /kɔkɔt/), which has the variant *kōkōṭ* /ko:ku:tʰ/ in the dialect I speak. In all three examples, the back vowel in the first syllable is fronted to dissimilate with the back vowel in the following syllable. Conversely, /ɔ/ is fronted to /i:/ in *ṭōmībīl* /tʰu:mi:bi:l/ ‘car’ (a variant provided by Hadj-Sadok [1955]) and *dīmīnū* /di:mi:nu:/ ‘domino’ (Fr. *domino* /dɔmino/) under the influence of a front vowel in the following syllable. It seems that there is a hierarchy of vowels in AA in the direction $i > u > a$. Whether it is a dissimilation or an assimilation, the back vowel is fronted to /i/. We observe a similar hierarchy in MSA, where the vowel, short or long, neighboring the letter *hamza* ‘glottal stop’ determines the *kursī* ‘seat’ for it (Ryding 2005).

There are only twelve instances of French low back vowel /ɑ/ (compare with n. 233 in the case of low front vowel /a/). In all instances but one it is adapted as AA long low vowel /a:/ (allophone [ɑ:] in eight loans and [æ:] in the remaining three); for example, /ɑ/ → [ɑ:] in *gāṭṭo* [ga:tʰo] ‘cookies’ (Fr. *gâteau* /gato/), *kāškrōṭ* [ka:sʰkrʰo:tʰ] ‘snack’ (Fr. *casse-croûte* /kaskrut/), and *lāṭāš* /la:tʰɑ:ʃ/ ‘piecework’ (Fr. (*la*) *tâche* /taʃ/); /ɑ/ → [æ:] mostly in the neighborhood of emphasis-blocking consonants such as /g/ and /k/; for example, *gāzūz* [gæ:zu:z] ‘sparkling water’

(Fr. [eau] gazeuse /gazøz/) and *t-zāgāt* [zzæ:gæ:t] ‘it is getting nasty’ (Fr. *ça se gâte* [sa#sə#gat]). As for the third loan where /a/ is realized as [æ], *rāya* [ræ:ja] ‘railroad’ (Fr. *rail* /raj/), pronouncing it as [r^ha:ja] is homophonous with an MSA word, *rāya* ‘flag, banner’. One loanword, *lība* ‘stockings’ (Fr. *les bas* /le#ba/), which is plural in French is interpreted as singular feminine in AA in analogy with the AA feminine singular marker *-a* /-a/ (allophones [a] or [æ]).

Adaptation of front oral vowels

(11) /i/: number of occurrences: 128 (100%)

Number of non-adaptations: 14 (10.9%)

Number of deletions: 7 (5.5%)

Number of adaptations: 107 (83.6%)

/i/ → /a/: 10 (9.4%)

/i/ → /a:/: 1 (0.9%)

/i/ → /i:/: 96 (89.7%)

(12) /e/: number of occurrences: 143 (100%)

Number of non-adaptations: 2 (1.4%)

Number of deletions: 16 (11.2%)

Number of adaptations: 125 (87.4%)

/e/ → /a/: 7 (5.6%)

/e/ → /a:/: 47 (37.6%)

/e/ → /i:/: 7 (5.6%)

/e/ → /i:/: 64 (51.2%)

(13) /ɛ/: number of occurrences: 105 (100%)

Number of non-adaptations: 0

Number of deletions: 8 (7.6%)

Number of adaptations: 97 (92.4%)

/ɛ/ → /a/: 8 (8.2%)

/ɛ/ → /a:/: 17 (17.5%)

/ɛ/ → /i:/: 18 (18.7%)

/ɛ/ → /i:/: 54 (55.7%)

(14) /a/: number of occurrences: 233 (100%)

Number of non-adaptations: 48 (20.6%)

Number of deletions: 21 (9%)

Number of adaptations: 164 (70.4%)

/a/ → /a:/: 163 (99.4%)

/a/ → /u:/: 1 (0.6%)

French front unrounded vowels /i/, /e/, and /ɛ/ are realized as AA long front vowel /i:/, realized as [i:] or [e:], depending on whether or not the vowel is tautosyllabic with a pharyngealized consonant; for example, /i/ → /i:/ in *fīlāj* /fi:la:dʒ/ ‘village’ (Fr. *village* /vilaʒ/), *māšīna* /ma:ʃi:na/ ‘machine’ (Fr. *machine* /maʃin/), and *mīnīst* /mi:ni:st/ ‘secretary of state’ (Fr. *ministre* /ministr/); /e/ → /i:/ in *bīrī* /bi:ri:/ ‘beret’ (Fr. *béret* /berɛ/), *rīšū* /ri:ʃu:/ ‘portable stove’ (Fr. *réchaud* /reʃo/), and *tīlīfūn* /ti:li:fu:n/ ‘telephone’ (Fr. *téléphone* /telefɔn/); /ɛ/ → /i:/ in *mīr* /mi:r/ ‘mayor’ (Fr. *maire* /mer/), *fīsta* /fi:sta/ ‘jacket’ (Fr. *veste* /vest/), and *drīsa* /dri:sa/ ‘address’ (Fr. *adresse* /adʁɛs/).

In a significant number of cases (25.8%), French non-high non-low /ɛ/ is lowered and replaced with AA /a:/ (or /a/), pronounced [æ:] (or [æ]); for example, Fr. *frīdāire* /frizider/ ‘fridge’ and *karrièr* /karjer/ ‘quarry’ > AA *frijīdār* /fri:zi:da:r/ and *kārjān* /ka:rja:n/, respectively. French has the phonemes /ɛ/ and /a/ in its sound inventory, whereas AA has only /a/, which has two allophones [æ] and [ɑ], depending on whether it is tautosyllabic with an emphatic consonant or not. Using a diagram for French and MA vowels, Kenstowicz and Louriz (2009) claim that French /ɛ/ is closer, in auditory space, to MA [a] than the latter is to Fr. /a/, which is closer to the MA allophone [ɑ]. If this holds true for AA, which belongs to the same dialect group as MA, then we can justify adapting Fr. /ɛ/ as AA /a/ by perceptual closeness.

The other non-high non-low vowel, /e/, is also lowered and replaced with /a:/ (or /a/) in 37.6% of adaptations, all of which involve replacing French first group verbs ending in *-er* /-e/ in the infinitive (or *-é*, also /-e/, in case the prototype is the past participle rather than the infinitive) with AA weak-verb ending *-ā* /-a:/.

A few cases of AA /a/ from Fr. /e/ and /ɛ/ involve mapping of the stem consonants onto the pattern *fa'lān*, which is used mainly to form adjectives in Arabic, and ignoring the vowels. In loanword adaptation, this pattern is used to assimilate most military ranks; for example, Fr. *sergent* /sɛrʒɑ̃/ 'sergeant', *caporal* /kapɔral/ 'corporal', and officer /ɔfisje/ 'officer' > AA *sārdʒān* /sa:rdʒa:n/, *kābrān* /ka:bra:n/, and *fasyān* /fsja:n/, respectively.

In one instance, non-final /e/ is deleted in analogy with an AA word: *pénitancière* /penitɑ̃sjɛr/ > AA *bnī ṭāṣi* /bni: t'a:si:/, where *pénitancière* is interpreted as consisting of two words *bnī* 'sons/descendants of' and *ṭāṣi*. This is the only case where a single lexeme in the source language is adapted as two in the recipient language, a phenomenon that, to my knowledge, has not been reported in the literature. The reverse phenomenon, where a source-language compound is adapted as a single lexeme in the recipient language, has been reported extensively in the literature as I illustrated in Chapter 2.

In a few instances, a sound change such as converting /i/ to /a/ results from patterning loanwords after native lexicon that belongs to the same semantic area; for example, *brigadier* /brigadje/ 'brigadier general' > AA *bargādī* /barga:di:/ (variant *belgadīr* [Hadj-Sadok 1955]) patterned after AA names of profession such as *qahwājī* /qahwa:dʒi:/ 'coffee boy' and *kaznājī* /χazna:dʒi:/; Note how the related word *brigade* 'brigade', adapted as *lābrīgād* /la:bri:ga:d/, retains the front high vowel /i/.

French low front vowel /a/ is adapted as AA /a:/ (allophones [æ:] or [ɑ:]). In the data I collected, /a/ is adapted as a low back vowel in a significant number of instances (/a/ → [ɑ] in n. sixteen (6.9%) and [ɑ:] in n. sixty five (27.9%), in which case the consonant neighboring it on either side is emphasized to create an optimal environment for and retain [ɑ], which is an allophone of /a/ in AA that occurs in the neighborhood of emphatics; for example, Fr. *marteau*

/marto/ ‘hammer’, *cravate* /kravat/ ‘tie’, and *taxer* /takse/ ‘to tax’ > AA *mārto* [ma:r^st^so], *garbāta* [gar^sba:t^sa] (note how [a] and [r^s] are metathesized in the first light syllable, a structure which is not permissible in AA, to create a coda for it and make it heavy), and *ṭāksā* [t^sa:ksa], respectively. Kenstowicz and Louriz (2009) claim that French /a/ is adapted as MA [ɑ] since it is much closer to it than it is to the front allophone [æ], transcribed as [a] in their study, which occurs in the neighborhood of plain consonants. I believe that the same argument holds true for AA, which shares many features with MA. Adapting /a/ as [ɑ] goes hand in hand with emphasizing the consonant neighboring it, since this allophone only occurs in the neighborhood of emphatic consonants.

If /a/ is preceded or followed by consonants that block emphasis, such as /g/ and /k/, and in the absence of tautosyllabic emphasis-bearing consonants, /a/ is fronted and realized as [æ:]; for example, *s’engager* /ãgaʒe/ ‘enlist’, *cageot* /kaʒo/ ‘crate’ and *camion* /kamjõ/ ‘truck’ > AA *gājā* [gæ:dʒæ:], *kājū* [kæ:dʒu:] and *kāmyū* [kæ:mju:], respectively. If, however, there is an emphasis-bearing consonant following or preceding /a/, then this consonant is emphasized and /a/ is realized as [ɑ]; for example, *garage* /garaʒ/ ‘garage’ > AA *gārāj* [ga:r^sa:dʒ].

To sum up, French non-low front vowels are adapted mostly as AA long high front vowel /i:/, whereas French non-low back vowels are adapted mostly as AA long high back vowel /u:/. French low front vowel /a/ and low back vowel /ɑ/ are adapted mostly as AA long low vowel /a:/.

Adaptation of front rounded oral vowels

- (15) /œ/: number of occurrences: 13 (100%)
 Number of non-adaptations: 0
 Number of deletions: 0
 Number of adaptations: 13 (100%)
 /œ/ → /u/: 1 (7.7%)
 /œ/ → /u:/: 8 (61.5%)

/œ/ → /a/: 1 (7.7%)

/œ/ → /a/: 3 (23.1%)

(16) /y/: number of occurrences: 35 (100%)

Number of non-adaptations: 0

Number of deletions: 4 (2.9%)

Number of adaptations: 34 (97.1%)

/y/ → /i/: 1 (5.9%)

/y/ → /i:/: 14 (41.2%)

/y/ → /u:/: 13 (38.2%)

/y/ → /a/: 2 (11.8%)

/y/ → /a/: 1 (2.9%)

The French front rounded vowel /œ/ is adapted as AA /u:/ (pronounced [u:] or [o:]). In the latter case, the consonant is emphasized) in 70% of the cases; for example, /œ/ > [u:] in words such as *inspecteur* /ɛ̃spektœr/ ‘detective, inspector’, *moteur* /motœr/ ‘engine’ > AA *sbektūr* [sbəktu:r] and *mūtūr* [mu:tu:r], respectively; /œ/ > [o:] in words such as *chou-fleur* /ʃufloœr/ ‘cauliflower’, *vapeur* /vapœr/ ‘steamboat’, and *chauffeur* /ʃofœr/ ‘driver’ > AA *šʃflōr* [ʃi:flo:r^s], *šʃfōr* [ʃi:fo:r^s], and *bābōr* [ba:bo:r^s], respectively. Before /j/, however, /œ/ is realized as [æ:]; for example, *fauteuil* /fotœj/ ‘armchair’ and *millefeuille* /milfœj/ ‘napoleon (pastry)’ > AA *fūtāy* [fu:tæ:j] and *mīlfāy* [mi:lfæ:j], respectively. French front rounded vowel /ø/ occurs in only three loanwords and is replaced with AA /u:/ in all of them: *bātūz* /ba:tu:z/ ‘threshing machine’ (Fr. *batteuse* /batøz/), *gāzūz* /ga:zu:z/ ‘sparkling water’ (Fr. [*eau*] *gazeuse* /gazøz/), and *bnu* /pnø/ ‘tire’ (Fr. *pneu* /pnø/).

French front rounded vowel /y/ becomes AA /i:/ (14 out of 34 adaptations), with which it shares the “front” feature, or /u:/ (13 out of 34), with which it shares the “round” feature; for example, /y/ > /i:/ in words such as *bureau* /byro/ ‘desk, office’ and *costume* /kɔstym/ ‘suit’, assimilated as AA *bīrū* /bi:ru:/ and *kūstīma* /ku:sti:ma/, respectively. Examples of words where /y/ is realized as /u:/ are *cellule* /selyl/ ‘(prison) cell’, *naturaliser* /natyʒalize/, adapted as AA

sīlūl /si:lu:l/ and *tūrīzā* /tu:ri:za:/, respectively. In two instances, /y/ is realized as /a/ in what seems to be an instance of progressive assimilation in the case of Fr. (*les*) *allumettes* /le(z)#alymet/ ‘matches’ > AA *zalāmēt* /zala.mi:tʃ/. We saw similar transformations in the native lexicon where /i/, a high front vowel like /y/, in MSA active participles of the pattern *fā‘il* is lowered and realized as *fā‘al*; for example, MSA *sā‘ih* ‘traveler, flowing’, *ḥāfiḏ* ‘memorizing’, and *sākin* ‘living’ > AA *sāyah*, *ḥāfaz*, and *sākan*, respectively. The second loan where /y/ is converted to /a/ is *circuler* /siɾkyle/ ‘move around’, adapted as AA *sarkal* /sarkal/, wherein the radicals *s-r-k-l* are abstracted and mapped onto AA verbal pattern *fa‘lal*, ignoring the prototype vowels /i/, /y/, and /e/.

To sum up, French non-high non-low front rounded oral vowels /œ/ and /ø/ are adapted as AA long high back rounded vowel /u:/, except before /j/ where /œ/ is adapted as /a:/. French high back rounded vowel /y/ fluctuates between long high front unrounded vowel /i:/, with which it shares the “front” feature, and long high back rounded vowel /u:/, with which it shares the “rounded” feature.

Adaptation of schwa

- (17) /ə/: number of occurrences: 19 (100%)
 Number of non-adaptations: 3 (15.8%)
 Number of deletions: 10 (52.6%)
 Number of adaptations: 6 (31.6%)
 /ə/ → /i:/: 3 (50%)
 /ə/ → /u:/: 3 (50%)

French /ə/ is deleted half of the time (10 out of 19), certainly because it is dropped in some words and phrases in spoken French, as is made clear from the transcription offered by the online dictionary WordReference, which places /ə/ in some French words between brackets to signal its being optional; for example, *semaine* /s(ə)mɛn/ ‘week’, *bas de caisse* /ba#d(ə)#kɛs/ ‘side skirt’, and *coup de pied* /ku#d(ə)#pjɛ/ ‘kick’ > AA *smāna* /sma:na/, *bātkās* /ba:tʃka:s/, and

kūtpī /ku:tpi:/, respectively. Dropping the schwa, which is a feature of spoken French, constitutes further evidence that French loanwords entered AA via the spoken, rather than written, medium, which explains the reason why orthographic influence on loanword adaptation in AA is insignificant. Note how dropping the schwa in some of the previous examples results in consonant place-assimilation: ku#d(ə)#pje > kudpje > kutpje, adapted as AA *kūtpī*, and /ba#d(ə)#kɛs/ > bɔdkɛs > batkɛs, adapted as *bātkās* /ba:tʰka:s/, wherein the sound /t/ is emphasized to retain the allophone [ɑ]. At first glance, one would think that converting /d/ to /t/ in these examples is an instance of adaptation that took place after the loanword entered AA, which is not the case. This conversion refers to a phenomenon observed in the source language, where a consonant assimilates to a following one after dropping /ə/; for example *coup de coude* /ku#də#kud/ ‘nudge’, is pronounced [kutkud]: kudəkud > kudkud > kutkud (Fagyal, Kibbee, and Jenkins 2006). These transformations, which attend to the surface, phonetic representation, constitute counter-evidence to the view that claims that the input to loanword adaptation is the underlying phonemic representation.

Another instance of an adaptation that refers to the surface, phonetic, representation rather than the underlying, phonemic, one is provided by word-final consonant clusters C^1C^2 , where C^1 is an obstruent and C^2 is the glide /r/, which deletes in speech in all varieties of French (Detey et al. 2016). Failure to consider these facts about the source language would prompt one to consider these examples as instances of deletion by the recipient-language speakers when in fact they take place in the source-language spoken form; for example: *arbitre* /arbitr/ ‘referee’, *champêtre* /ʃãpɛtr/ ‘countryside ranger’, and *ministre* /ministr/ ‘secretary of state’ > AA *lārbīt* /la:rbi:t/, *šāmbēṭ* /ʃa:mbi:tʰ/, and *mīnīst* /mi:ni:st/, respectively.

In three loanwords, /ə/ is adapted as /u:/ because: 1) it is pronounced as /œ/ or /ø/ and 2) unlike schwa in English, French /ə/ is rounded (Fagyal, Kibbee, and Jenkins 2006), a feature it shares with /u/. In three other loanwords, /ə/ is adapted as /i:/, due to assimilation; for example, *degré* /dəgre/ ‘degree’ and *chemin de fer* /ʃəmɛ̃#də#fɛr/ ‘railroad’ > *dīgri* /di:gri/ and *šmandifīr* /ʃmandifi:r/, respectively. In the case of /ə/ > /i:/ in *crever* /krøve/ ‘puncture’, adapted as *krīfā* /kri:fa:/, I believe that speakers of AA avoided adapting it as *krūfā* /kru:fa:/ because the third-person feminine singular perfective *krufāt* as in *krufāt-lū r-rōnda* ‘his car tire punctured’ is homophonous with another loanword, namely *krufāt* ‘shrimp’.

Adaptation of nasal vowels

French nasal vowels, too, get adapted when they enter AA, which lacks them. They are either denasalized (i.e., $\tilde{V} > V$, where the tilde stands for nasalization) or unpacked (i.e., $\tilde{V} > VN$). Unpacking non-final nasal vowels into a vowel-nasal sequence sometimes depends on whether the word is long or short, with length being measured in terms of number of syllables and/or radicals in a word. If the source-word is long, the nasal vowel loses nasality; for example, the nasal vowel /ã/ is denasalized in quadrisyllabic words *pénitentaire* /penitãsjɛr/ ‘penitentiary’, adapted as AA *bnī tãši* /bni:#tã:si:/ and *champ de manœuvre* /ʃã#də#manœvr/ ‘parade ground’, adapted as AA *šāmānāf* /ʃa:ma:na:f/, which is a place name in Algiers now. If, on the other hand, the source-word is too short (a monosyllabic word with two or fewer consonant sounds), then a nasal is inserted after the vowel; for example, French monosyllabic words such as *banque* /bãk/ ‘bank’ and *banc* /bã/ ‘bench’ > AA *bānka* /ba:nka/ and *bank* /bank/ ~ *bonk* /bunk/ (pl. *bnāk* /bna:k/), respectively.

The nasal consonant to be inserted is always /n/, which has different realizations or allophones depending on the consonant following it, what is known as *place assimilation*: before

bilabial consonants, /n/ is realized as [m], and before velar consonants, it is realized as [ŋ]; for example, Fr. *bombe* /bɔ̃b/ ‘bomb’, *lampe* /lɑ̃p/ ‘lamp’, *champêtre* /ʃɑ̃pɛtr/ ‘countryside ranger’, and *banque* /bɑ̃k/ ‘bank’ > AA *būmba* [bu:mba], *lāmba* [la:mba], *šāmbēt* [ʃa:mbe:tʰ], and *bānka* [ba:ŋka], respectively. One might argue that inserting a bilabial nasal [m] is affected by the spelling, as we see in the first three examples I just provided, and constitutes an example of orthographic adaptation. However, the plural form of these loans, if it is broken plural, constitutes evidence that the default nasal is indeed /n/ and that the bilabial nasal [m] is an instance of place assimilation; for example, the plurals of *lāmba* [la:mba], *šāmbēt* [ʃa:mbe:tʰ], *šambṛa* [ʃambrʰa] ‘room’ (Fr. *chambre* /ʃɑ̃br/), and *tāmbaṛ* [ta:mbar] ‘stamp’ (Fr. *timbre* /tɛ̃br/) are broken in AA and have the forms *lwānab* /lwa:nab/, *šnābaṭ* /ʃna:batʰ/, *šnābaṛ* /ʃna:barʰ/, and *tnābaṛ* /tna:bar/ respectively, all of which have /n/. Further evidence is provided by the variants of some of these loans, which keep the alveolar nasal /n/; for example, both *šambṛa* and *tāmbaṛ* have the variants *šanbṛa* /ʃanbrʰa/ and *tānbaṛ* /ta:nbar/, respectively.

Overall, French nasal vowels are adapted in one of the following ways: 1) the nasal vowel is retained, thus introducing a new set of phonemes restricted to borrowings since AA lacks nasal vowels; for example, *flan* /flɑ̃/ ‘custard’, *dentifrice* /dɑ̃tifris/ ‘toothpaste’, and *brancher* /brɑ̃ʃe/ ‘plug in’ > AA *flā* /flɑ̃/, *dātifrīs* /dɑ̃ti:fri:s/ (which has the variant *dāndīfrīs*, pronounced mostly by old, uneducated people) and *brāšā* /brɑ̃ʃa:/, respectively; 2) the nasal vowel is converted into an AA oral vowel; and 3) the nasal vowel is unpacked as Vn, where /n/ undergoes place assimilation with the consonant following it. Below I illustrate how each of the French nasal vowels is adapted in AA.

- (18) /ɑ̃/: number of occurrences: 61 (100%)
 Number of non-adaptations: 0
 Number of deletions: 1 (1.6%)
 Number of adaptations: 60 (98.4%)

/ã/ → /a:/ 10 (16.7%)
 /ã/ → /a:/: 5 (8.3%)
 /ã/ → /an/: 15 (25%)
 /ã/ → /a:n/: 25 (41.7%)
 /ã/ → /i:n/: 1 (1.7%)
 /ã/ → /u:/: 4 (6.7%)

In non-final position, French /ã/ is unpacked and realized as a vowel-nasal sequence /a:n/ (or /an/) in forty instances (80%) (e.g., Fr. *champêtre* /ʃãpetr/ ‘countryside ranger’ and *chantier* /ʃãtje/ ‘construction site’ > šãmbēṭ /ʃa:mbi:tʰ/ and šanṭe /ʃantʰi/ [another variant is šõnṭe ju:ntʰi/], respectively) or as AA low vowel /a:/ in only five instances (e.g., *pansement* /pãsmã/ ‘band aid’ > AA *fãšma* /fa:sʰma/). At the end of a word, however, French /ã/ is consistently realized as AA /-a/ by analogy with the feminine marker; therefore, the loanword is interpreted as feminine singular regardless of the grammatical gender of the prototype; for example, *appartement* /apartãmã/ ‘apartment’, *ciment* /simã/ ‘cement’, and *bâtiment* /batimã/ > bãṛṭma /ba:rʰtʰma/, sîmma /si:mma/, and bãṭēma /ba:tʰi:ma/, respectively. Interestingly, all of these loanwords are masculine in French but feminine in AA by virtue of ending in *-a*, which marks the feminine in AA. There are four loanwords where final /ã/ is realized as AA /u:/ ([u:] or [o:]); for example, *survêtement* /syrvetmã/ ‘tracksuit’, *mi-temps* /mitã/ ‘(sports) half-time’, *coup franc* /ku#fã/ ‘free kick’, and (*les*) *gants* /le#gã/ > AA *sîrfãtmũ* /si:rfa:tmu:/, mēṭō /mi:tʰu:/, kũṭṭrō /ku:frʰu:/, and līgō /li:go:/, respectively. One interpretation why /ã/ is realized as AA /u:/ is the fact that many speakers of AA do not distinguish between the back nasal vowels, unrounded /ã/ and rounded /õ/, which are only slightly different. These two vowels constitute one of the areas where Algerian learners of French make the

most mistakes. I myself struggled a lot with these two sounds in my advanced French phonetics class here at UW-Madison.

(19) /ɔ̃/: number of occurrences: 46 (100%)

Number of non-adaptations: 0

Number of deletions: 0

Number of adaptations: 46 (100%)

/ɔ̃/ → /u/: 13 (28.3%)

/ɔ̃/ → /u:/: 7 (15.2%)

/ɔ̃/ → /un/: 1 (2.2%)

/ɔ̃/ → /u:n/: 25 (54.3%)

Non-word-final French /ɔ̃/ is mostly unpacked and becomes AA vowel-nasal sequence /u:n/ (or /un/) in ten out of twelve instances (83.3%); for example, *pompe* /pɔ̃p/ ‘pump’, *bonbon* /bɔ̃bɔ̃/ ‘candy’, and *congé* /kɔ̃ʒe/ ‘leave’ > AA u/bu:mba/, *būmbu* /bu:mbu/, and *gūnji* /gu:ndʒi/, respectively. In the remaining two instances, it is denasalized and adapted as AA /u:/ or /u/; for example, *consigné* /kɔ̃siʒe/ ‘confined to barracks’ and *compagnie* /kɔ̃paɲi/ ‘(military) company’ > AA *gūsīnī* /gu:si:ni:/ and *kubbānīya* /kubba:ni:ja/ (here, the onset of the second syllable, /b/, is doubled to provide a coda for the light syllable preceding it and make it heavy. Note how in the first word the vowel is lengthened to make the light syllable heavy), respectively. Dropping the nasal in these two examples is probably driven by the presence of another nasal in the same word. Word-finally, speakers of AA seem to fluctuate between denasalization and nasal insertion: /ɔ̃/ is denasalized in eighteen out of thirty-four instances (52.9%) in words such as *ballon* /balɔ̃/ ‘ball’, *salon* /salɔ̃/ ‘guest room’, *talon* /talɔ̃/ ‘heel’, *balcon* /balkɔ̃/ ‘balcony’, and *tampon* /tãpɔ̃/ ‘stamp’, adapted as AA *bālo* /b^sa:lu/, *ṣālu* /s^sa:lu/, *ṭālu* /t^sa:lu/, *bālko* /ba:lku/, and *ṭāmpu* /t^sa:mpu/, respectively. In the remaining instances (i.e., 47.1%), /ɔ̃/ is unpacked in words such as *bidon* /bidɔ̃/ ‘can’, *chiffon* /ʃifɔ̃/, and *béton* /betɔ̃/ ‘concrete’, adapted as AA *bīdūn* /bi:du:n/, *ṣīfūn* /ʃi:fu:n/, and *bētōn* /bi:t^su:n/, respectively. The fact that all

of these words are disyllabic makes it difficult to justify denasalization versus unpacking on the basis of word-length. In addition, even though the second set where /ɔ̃/ is unpacked is analogical with native lexicon such as *gēṭōn* ‘tent’, it is hard to justify why it unpacks in these other words such as *bāṭāyūn*, *bermesyūn*, and *mestrāṣyūn*, the last two of which occur mostly in the speech of old and uneducated speakers.

(20) /ɛ̃/: number of occurrences: 17 (100%)

Number of non-adaptations: 0

Number of deletions: 2 (11.8%)

Number of adaptations: 15 (88.2%)

/ɛ̃/ → /a/: 2 (13.3%)

/ɛ̃/ → /an/: 1 (7.7%)

/ɛ̃/ → /a:n/: 9 (60%)

/ɛ̃/ → /n/: 3 (20%)

French /ɛ̃/ becomes /a:n/; for example, *dindon* /dɛ̃dɔ̃/ ‘turkey’ and *absinthe* /apsɛ̃t/ ‘absinthe’ > AA *dāndu* /da:ndu/ and *lābsānt* /la:bsa:nt/, respectively. This is also the typical conversion at the end of loanwords where French /ɛ̃/ denotes the name of a person in a profession and is consistently adapted as *-ān* /a:n/, which is an adjectival suffix in AA; for example, *pharmacien* /farmasjɛ̃/ ‘pharmacist’, *mécanicien* /mekanisjɛ̃/ ‘mechanic’, and *ancien* (*combattant*) /ɑ̃sjɛ̃/ ‘veteran’ > AA *fermesyān* /farmasja:n/, *māksyān* /ma:ksja:n/, and *lāṣyān* /la:sʃja:n/, respectively. In these examples, the meaning and phonological form of the words determine how they are adapted: French words ending in *-ien* /-jɛ̃/, a suffix used mainly to form names of professions, are adapted in AA by adding the suffix *-ān*. /ɛ̃/ elides in two instances because it occurs word initially (i.e., in an onsetless syllable) and is adapted as AA feminine marker *-a* in two instances word finally.

To sum up, French nasal vowels are unpacked most of the time when they occur in non-final position in a word, which confirms an observation by Paradis and Prunet (2000), who claim that nasal vowels systematically unpack. In addition to unpacking, they also tend to be

lengthened in AA. Word-finally, French back rounded nasal vowel /ɔ̃/ fluctuates between denasalization and unpacking. /ẽ/ and /ã/, on the other hand, consistently denasalize as AA low vowel /a/, in which case the loanword is always interpreted as singular feminine, in analogy with the AA feminine marker, regardless of its gender in French.

Vowel lengthening

(21) Number of times vowel lengthening occurred: 481 (100%)

Number of times vowel lengthening was motivated by a constraint against light syllables (i.e., to make a syllable heavy): 310 (64.4%)

Overall, compared to consonants there is more variation in how vowels are adapted. However, one linguistic transformation observed in vowels and is very consistent: lengthening. French vowels are lengthened most of the time when they enter AA. Lengthening is sometimes conditioned by a constraint disallowing a short vowel in an open syllable; for example, Fr. *cannette* /ka.nɛt/ ‘can’ and *fourchette* /fur.ʃɛt/ ‘fork’ > AA *kānēṭa* /ka:.ni:.tʰa/ and *foršēṭa* /furʰ.ʃi:.tʰa/, respectively. In both words, the French vowel /ɛ/ occurs in a closed syllable (closed with a /t/ sound). However, after the insertion of the AA feminine singular suffix *-a*, the words were resyllabified as /ka.nɛ.ta/ and /fur.ʃɛ.ta/, respectively, leaving the vowel /ɛ/ in an open syllable; therefore, it is lengthened. However, there are cases where the vowel is lengthened even when it occurs in a closed syllable; for example, Fr. *appel* /a.pɛl/ ‘appeal’ and *grève* /grɛv/ ‘signature’ > AA *lābīl* /la:bi:l/ and *lāgrīf* /la:gri:f/, respectively. In this respect, AA shows a preference for and bias towards long vowels. Based on my data, the syllables CVVC and CCVVC seem to be optimal syllable structures in loanwords. In the native AA lexicon, we observe a tendency towards deleting short vowels in open syllables. One would think that AA treats loanwords differently from the native lexicon. I argue that deleting short vowels in the native lexicon rather than lengthening them is due to the fact that lengthening is a semantic factor, where many words sharing the same root are differentiated only by vowel length; for

example, *ktab* /ktab/ ‘he wrote’ (MSA *kataba* /kataba/) vs. *ktāb* /kta:b/ ‘book’ (MSA *kitāb(un)* /kita:bun/) and *skun* /sχun/ ‘to warm (up)’ (MSA *sakuna* /saχuna/) vs. *skūn* /sχu:n/ ‘warm’ (MSA *sākin* /sa:χin/). However, in the incoming French loanwords we do not see many words sharing the same root. Therefore, they need not to be distinguished by vowel (quality and/or quantity, that is, length). There are a few cases, where AA extracted the consonants from the French prototype to derive related words; for example, *tarare* /tarar/ ‘winnow’, from which the noun *tarṛār* /tʰarʳar/ is derived, patterned after AA *fā* ‘*āl*, used in Arabic to coin inanimate nouns of instrument and the verb *tarṛar* /tʰarʳar/, patterned after AA *fā* ‘*al*, used in Arabic to express the idea of a causative or intensive action (Ziadeh and Winder 2003; Brustad, Al-Batal, and Al-Tonsi 2011; Holes 2004). These two words, the noun and its verb, are identical except for vowel length in the second syllable.

As for vowels in final position in a word, it is understandable that they get lengthened in theory at least, if we exclude the feminine marker *-a*. Short vowels at the end of a word are interpreted by speakers of Arabic as case declensions (i.e., nominative, accusative, and genitive), a characteristic of CA and MSA that the spoken dialects have lost. This lengthening becomes obvious in Arabic script, where it is customary to drop short vowels in spelling. So, any vowel at the end of incoming French loanwords is automatically lengthened and is represented with a letter in spelling: *ū* is represented with the letter و (i.e., *w*), *ī* is represented with the letter ي (i.e., *y*), and *ā* is represented with the letters ا or آ.

Truncation

Some loanwords are reduced either by deleting individual segments, mostly vowels beginning a word, or syllables, in which case it is called truncation (Heath 1989). Sometimes a segment is deleted even if it is part of the recipient language sound system; for example, the

glide /j/ is always deleted before /i/ as in *sarbīta* (Fr. *serviette* /sɛrvjɛt/), *šūdīra* (Fr. *chaudière* /ʃodjɛr/), and *šanṭe* (Fr. *chantier* /ʃɑ̃tje/), a deletion that is prompted by the *obligatory contour principle*. As for truncation, most of the reductions are motivated by AA canonical-shape norms. As I mentioned earlier, French words that are too long from the perspective of AA are truncated; for example, French pentasyllabic words *électricité* /e.lɛk.tri.si.te/ ‘electricity’, *naturaliser* /na.ty.ra.li.ze/ ‘naturalize’, and *carte d’identité* /kart#d-idãtite/ ‘ID’ > AA *trīsīti* /tri:si:ti:/, *tūrīzā* /tu:ri:za:/, and *kāṛṭantīti* /ka:rʰtʰanti:ti:/, respectively. In addition to truncating very long words, we see a tendency to drop vowels in the first syllable, a deletion that is imposed by a constraint disallowing vowels in onsetless syllables that I discuss in the following section.

In the case of compounds, one component of the compound is deleted; for example, *soutien-gorge* /sutjẽ#gɔʀʒ/ ‘bra’, *bateau à vapeur* /bato#a#vapœr/ ‘steamboat’, and *eau gazeuse* /o#gazøz > AA *sūtyān* /su:tja:n/, *bābōṛ* /ba:bu:rʰ/, and *gāzūz* /ga:zu:z/, respectively. It is not clear if these simplifications were made by the source-language speakers for purposes of brevity when using these compounds or by the recipient-language users when they integrated them into AA.

Phonotactic constraints

- (22) Number of times the constraint against light syllables applied: 310
 Number of times the constraint against onsetless syllables applied: 49

Phonotactic constraints imposed by the recipient language play a major role in the adaptation of loanwords in AA, including a constraint against onsetless syllables (i.e., *V[Cⁿ] syllables) and light syllables (i.e., *CV syllables, where V is a short vowel). The former constraint is satisfied by either deleting the vowel or inserting a consonant before it, depending on the number of radical consonants in a loanword and on whether it is a verb or a noun loan (as I will demonstrate shortly, the inserted consonant is usually the sound /l/ of the French definite article, which modifies nouns). Examples of loans where the stem-initial vowel is deleted are

verb loans such as *ksīrīlā* /ksi:ri:la:/ ‘accelerate’ (Fr. *accélérer* /akselere/) and *gājā* /ga:ɟa:/ ‘enlist’ (Fr. (*s*) *engager* /ãgaze/) and noun loans such as *fāramlī* /fa:rmlī:/ ‘male nurse’ (Fr. *infirmier* /ẽfirmje/) and *skālī* /ska:li:/ ‘staircase’ (Fr. *escalier* /ɛskalje/).

In case a consonant is inserted, it is usually the lateral /l/ of the French definite article *l’* /l-/; for example, Fr. *arbitre* /arbitr/ ‘referee’, *engrais* /ãgre/ ‘fertilizer’, and *usine* /yzi:n/ ‘factory’ > AA *lārbūt* /la:rbi:t/, *lāngrī* /la:ngrī:/, and *lūzīn* /lu:zi:n/, respectively. The latter has a variant, *wzīn* /wzi:n/, pl. *wazna* /wazna/, where the French vowel /y/ is converted into a glide, /w/, a sound change that also prevents a vowel from beginning a word.

There are a few cases where the inserted consonant is /z/, which results from liaison, where the latent consonant /z/ at the end of the French plural definite article *les* /le/ (or indefinite article *des* /de/) is pronounced before a following vowel; for example, Fr. *les allumettes* /le.z#a.ly.met/ ‘the matches’, *les outils* /le.z#ū.ti/ ‘tools’, and *les ordures* /le.z#ɔrdyʀ/ ‘waste’ > AA *zalāmēt* /zala:mi:tʰ/, *zūtī* /zu:ti:/, and *zōrdēr* /zu:rʰdi:rʰ/, respectively. These examples constitute further evidence that the French loanwords entered AA via the oral, and not written, medium. As the examples show, there is no ‘z’ /z/ in the spelling of the source phrases.

If the French word is long—as when the word has five consonants or more or has more than three syllables—the vowel is deleted since the insertion of /l/ would make the word too long from the perspective of AA, where the maximum number of radicals is four. The latter constraint, that is how many consonants a word can have, is active in AA and determines whether a sound is deleted or inserted. For example, in the case of noun loans, which are short (i.e., with one or two consonants), the French definite article *l’* or *la* (and in a few cases *les*) is agglutinated to the word and becomes an integral part of it; for example, Fr. (*la*) *cave* /kav/ ‘(the) cellar’, (*la*) *tâche* /taʃ/ ‘(the) piecework’, and (*l’*) *auto* /oto/ ‘(the) motor car’ > AA *lākāf* /la:ka:f/,

lāṭāš /la:tʰa:f/, and *lōṭo* /lu:tʰu/, respectively. These words, which are already definite in the source language still take AA definite article, *l-*, to form the definite; for example, AA *lōṭo* ‘a motor car’ (French *l’auto* ‘the car’) > *l-lōṭo* ‘the motor car’. The French definite article is interpreted as an integral part of the word, which by itself is too short from the perspective of AA, and loses its definite meaning.

There is one case where the inserted consonant (and vowel) refers to the French article *du* /dy/ ‘some’: Fr. (*du*) *vin* /dy vɛ̃/ ‘some wine’ > AA *dīfān* /di:fa:n/, where the article *du* /dy/ becomes part of the AA word. This word is made definite by prefixing AA definite article *l-* /l-/ to it: *dīfān* ‘wine’ > *d-dīfān* /l-di:fa:n/ ‘the wine’, where the definite article /l-/ assimilates to the dental stop, /d/, following it.

The constraint against light syllables is satisfied either by geminating the onset of the syllable following it (i.e., C → CC, the first of which serves as the coda of the light syllable preceding it to make it heavy) or lengthening the vowels. Examples of gemination include *karṛōsa* /karʰ.rʰu:.sʰa/ (Fr. *carrosse* /ka.rɔs/), *kubbānīya* /kub.ba:ni:.ja/ ‘(military) company’ (Fr. *compagnie* /kɔ̃.pa.ni/), and *šabbāṭ* /sʰab.ba:tʰ/ ‘shoe’ (Fr. *savate* /savat/). For examples of lengthening the vowel see the section on Vowel Lengthening in this chapter.

Morphological adaptation

Some of the adaptations observed in the data depend on the loanword’s part of speech, that is, whether it is a noun, a verb, an adjective, and so on.

Morphological adaptation of nouns

When a noun loan enters the recipient language, it is modified for gender, definiteness, and number.

Definiteness

- (23) Total number of nouns: 414 (100%)
 Number of nouns modified with AA definite article *l-* /l-/: 372 (89.9%)

Most of the noun loans are made definite by prefixing the recipient language definite article *l-* /l-/ to them (89.9%); for example, *bābōr* ‘a steamboat’ and *gāṭṭo* ‘cookies’ > *l-bābōr* ‘the steamboat’ and *l-gāṭṭo* ‘the cookies’, respectively. This definite article assimilates to the consonant following it if it is a coronal (i.e., an alveolar or a palatoalveolar consonant); for example, indef. *dīgri* /di:ɡri/ ‘degree’, def. *d-dīgri* /l-di:ɡri/, indef. *sīmma* /si:mma/, def. *s-sīmma* /l-si:mma/, and indef. *šambra* /ʃambrʰa/ ‘room’, def. *š-šambra* /l-ʃambrʰa/.

In a few cases, a noun loan takes the definite article even if it is definite in the source language. These involve those cases where the French definite article is agglutinated to a loan, usually a monosyllabic one, and loses its grammatical meaning. Conversely, a few loans which begin with the sound /l/ are interpreted as definite even if they are not; for example, *élastique* /elastik/ ‘rubber band’ > *lāstīk* /la:sti:k/, which is interpreted as ‘the rubber band’ because it begins with the sound /l/ after the onsetless vowel /e/ elides. From *lāstīk* is derived the indefinite form *ʾāstīk* /ʔa:sti:k/ ‘a rubber band’: *élastique* /e.las.tik/ > *lāstīk* /la:s.ti:k/ (the onsetless syllable /e/ is dropped) > *āstīk* (/l/, which is interpreted as a definite article, is dropped leaving the vowel following it in an onsetless syllable) > *ʾāstīk* /ʔa:sti:k/ (the glottal stop is inserted to prevent the vowel /a:/ from occurring in an onsetless syllable). It is worth noting that words, both loans and native lexicon, beginning with the glottal stop drop it after prefixing the definite article to them, except if it is learned or religious vocabulary; for example, AA *ʾafʿa* /ʔafʿa/ ‘snake’ (CA *ʾafʿā* /ʔafʿa:/), and *ʾAmīn* /ʔami:n/ ‘a boy’s name’ > *lafʿa* /lafʿa/ ‘the snake’ (CA *al-ʾafʿā* /ʔal-ʔafʿa:/), and *Lamīn*, as in Mohammed Lamīn (CA Mohammed al-Amīn).

Interpreting initial /l-/ as an AA definite article applies in a few other cases involving the French feminine definite article *la* /la-/; for example, *la retraite* /la#rɔtrɛt/ ‘the retirement’ > AA *lānṭrēṭ* /la:ntʁi:tʃ/ (note how /r/ converts to /n/, probably because of the presence of another /r/ in the same word), from which is derived the indefinite form *ʾānṭrēṭ* /ʔa:ntʁi:tʃ/ and *ʾānṭrēṭē* ‘retired’. In this case, the French definite article is interpreted as an integral part of the word and loses its original function.

In a few cases, both stem and definite article are borrowed; for example, French feminine words *la visiste* ‘visit (by doctor)’, *la gare* /la#gar/ ‘railroad station’, *la cave* /la#kav/ ‘cellar’ > AA *lāfīzīt*, *lāgār*, and *lākāf*, respectively, all of which are feminine even though they do not take AA feminine marker *-a*. This constitutes evidence that the first syllable *lā-* has retained its feminine meaning in these words. Interestingly, uneducated speakers would interpret these loans as definite by virtue of beginning in *l-* /l-/, which is interpreted as AA definite prefix, and would derive the indefinite form of these loans by dropping it and inserting a glottal stop.

Gender

The gender of noun loans is made to match that of the prototype in 81% of the cases, usually by adding the feminine marker *-a* at the end the feminine word; for example, *banque* (f) /bāk/ and *brouette* (f) /bruɛt/ > AA *bank-a* (fem.) and *baṛwēṭ-a* (fem.), respectively.

In a few cases, as when a loanword begins with the French feminine definite article *la*, the nominal loan is interpreted as feminine even in the absence of the AA feminine marker. For example, *lābūrs* ‘scholarship’ (Fr. *la bourse*) and *lāpīsīn* ‘swimming pool’ (Fr. *la piscine*) are both feminine in AA, as the following sentences demonstrate: *dakhlāt lābūrs* (enter.3pfs the.scholarship) ‘the scholarship has been paid’ and *ḥallāt pīsīn jdīda fī sṭīf* (open.3pfs swimming pool new in Setif) ‘a new swimming pool has opened in Setif’.

In the remaining cases (i.e., 19%), where the gender in the recipient and donor languages does not match, one determining factor is the sound ending a word. As I mentioned earlier in the section on the French nasal vowel /ã/, nouns ending in *-ment* in French are interpreted as ending in *-ma* in AA; therefore, they are considered feminine regardless of their original gender. If a French loan ends in a sound other than /-a/, it is interpreted as masculine.

Another reason of why a loan might take the masculine agreement in AA, regardless of its gender in French, which sometimes results in gender mismatch, is how it is interpreted by speakers of AA. Some loans are interpreted as mass nouns, from which is derived the individuate by means of adding the AA feminine marker *-a*; for example, Fr. *baguette* ‘stick (of bread)’ and *brique* ‘brick’ are feminine in French. They are adapted as AA *bāgēṭ*, as opposed to traditional bread that has a different shape, and *brīk*. They are both interpreted as mass nouns and are, therefore, masculine. From these is derived the individuate by suffixing the singular feminine marker *-a* to them, yielding *bāgēṭa* ‘a loaf of bread’ and *brīka* ‘a brick’. Interestingly, these nouns form their plural by means of the feminine plural suffix *-āt*, yielding *bāgēṭāt* ‘sticks of bread’ as in *’ašrī zūj bāgēṭāt* ‘buy two sticks of bread!’ and *brīkāt* ‘bricks’. Compare, for instance, *’āwannī nṭall’ū labrīk* ‘help me ascend the bricks (to a higher floor)’ vs. *ṭalla t tamn brīkāt* ‘I ascended eight bricks’.

Finally, in genitive constructions, a consonant /t/, which is silent and represented in Arabic script with the letter *ṣ* which is called *tā’ marbūṭa* is realized; for example, *place* /plas/ ‘place’ > *blāṣa* /bla:sʰa/ but *blāṣtī* /bla:sʰti:/ ‘my place’ and *blāṣt l’ūd* ‘the horse square’, a famous place in Algiers.

To sum up, the gender of a loanword is usually made to match that of the prototype by suffixing the AA feminine marker at its end. In a few cases, as when the loan begins with the

French feminine definite article, *la*, the feminine suffix is not added. There are cases where the gender in the source and recipient languages does not match. Notwithstanding the gender of the prototype, loanwords ending in /ã/ are consistently interpreted as feminine, as are loanwords that the recipient language speakers consider mass nouns interpreted as masculine, from which the individuating is derived by adding the AA feminine marker.

Number

- (24) Number of nouns: 414 (100%)
 Nouns with no plural form, including mass nouns, abstract nouns, and proper nouns: 113 (27.3%)
 Nouns that have a plural form: 301 (72.7%)
 Nouns forming their plural in *-āt*: 213 (70.8%)
 Nouns that have a broken plural: 58 (19.3%)
 Nouns that have two plural forms, a regular plural in *-āt* and a broken plural: 14 (4.6%)
 Nouns forming their plural in *-ya*: 11 (3.6%)
 Nouns that keep the French plural definite article *les* /le/ (AA *lī*): 3 (1%)
 Nouns that have two plural forms, a regular plural in *-ya* and a broken plural: 2 (0.7%)

Most plurals are formed by suffixing the plural feminine marker *-āt* at the end of the singular, including masculine singular (mostly inanimate singulars and animate singulars ending in *-ān*); for example, masculine *bārāj* /ba:rʰa:ɖʒ/ ‘dam’ (Fr. *barrage* /baraʒ/) and *fīlāj* /fi:la:ɖʒ/ ‘village’ (Fr. *village* /vilaʒ/), plural *bārājāt* /ba:rʰa:ɖʒa:t/ and *fīlājāt* /fi:la:ɖʒa:t/, respectively.

If the singular form ends in *-a*, which indexes feminine gender in AA, it drops it before adding the plural suffix; for example, *bāla* /ba:la/ ‘spade’ (Fr. *pelle* /pɛl/), *bāṭēma* /ba:tʰi:ma/ ‘building’ (Fr. *bâtiment* /batimɑ̃/), and *fālīza* /fa:li:za/ ‘suitcase’ (Fr. *valise* /valiz/), plural *bālāt*, *bāṭēmāt*, and *fālīzāt*, respectively. If it ends in a vowel other than *-a*, as in *bālko* /ba:lku/ ‘balcony’ (Fr. *balcon* /balkɔ̃/), *bālo* /ba:lu/ ‘ball’ (Fr. *ballon* /balɔ̃/), *kānappī* /ka:nappi:/ ‘sofa’ (Fr. *canapé* /kanape/), and *kārṭē* /ka:rʰtʰi:/ ‘quarter, neighborhood’ (Fr. *quartier* /kartje/), a glide that is homorganic to the stem-final vowel, /j/ in the case of /i/ and /w/ in the case of /u/, is inserted before the plural suffix. Glide insertion prevents vowel hiatus, that is, two vowels from occurring

one after the other; for example, the plurals of the aforementioned singulars are *bālko-ww-āt*, *bālo-ww-āt*, *kānappī-y-āt*, and *kārṭē-y-āt*, respectively. There are a few instances where final-stem /u/ assimilates to the plural suffix-vowel: the plural of the loanwords *bīrū* /bi:ru:/ ‘desk, office’ (Fr. *bureau* /byro/) has two variants: *bīrū-w-āt* and *bīrā-w-āt*, where /u/ assimilates to the suffix vowel. Similarly, *fāgu* ‘freight car’ (Fr. *wagon* /vagō/) is pluralized as either *fāgā-w-āt* or *fāgu-ww-āt* (note how the inserted glide, /w/, is geminated to close the light syllable preceding it).

Loanwords which denote people of a particular profession and often end in AA relational suffix *-ī* /-i:/ form their plural by adding the suffix *-ya* /-ja/ at the end of the singular form; for example, *bāndī* /ba:ndi:/ ‘male bandit’ (Fr. *bandit* /bādi/), pl. *bāndīya*; *bīsrī* /bi:sri:/ ‘male grocer’ (Fr. *épiciier* /episje/ but most likely derived from *épicerie* /episri/ ‘grocery’), pl. *bīsrīya*. I should add that the feminine form of this group of loans is identical to the plural form; for example, *jādārmī* /dʒa:da:rʰmi:/ ‘gendarme’, fem. *jādārmī-y-a* /dʒa:da:rʰmi:ja/ (*jādārmī* + fem. *-a*, where a glide is inserted to prevent two consecutive vowels). Interestingly, loans that belong to the same semantic group as the above and end in *-ān* form their plural by adding the sound plural feminine marker *-āt*; for example, *jūdān* ‘warrant officer’ (Fr. *adjutant* /adʒydā/), *fermesjān* ‘pharmacist’ (Fr. *pharmacien* /farmasjē/), and *māksyān* (Fr. *mécanicien* /mekanisjē/) all form their plural by means of *-āt*. Pluralizing singular names of professions by means of *-ya* or *-āt*, depending on whether it ends in *-ī* or *-ān*, respectively, is very well illustrated by the loanword *ṣārjān* ‘sergeant’ (Fr. *sergent* /serʒā/), which has three other variants *sārjān*, *ṣārjyān* and *serjīntī*. Interestingly, the latter forms its plural in *-ya*, whereas the other three end in *-āt* in the plural form.

Another group of loans whose plural suffix is determined by its meaning (or grammatical function) is active and passive participles which are formed by prefixing *m-* /m-/ to the verb stem and adding *-ī* /-i:/ at its end. These participles form their plural by means of sound masculine plural suffix *-īn* /-i:n/, in which case the vowel at the end of the participle desyllabifies and converts into /j/; for example, *mbūrī* ‘lousy’ (Fr. *pourri* /puri/), *mdīgūtī* ‘sick of, bored’ (Fr. *dégouté* /degute/, and *msūrī* ‘insured’ (Fr. *assuré* /asyre/) all form their plural in *-īn*. I should add that there is no exception to this rule.

In addition to plural formation by means of adding AA sound plural suffixes *-āt*, *-ya*, and *-īn*, one-fifth of loanwords form their plural by mapping the stem consonants onto any of the following AA broken plural patterns: *f’ūl*, *f’āl*, *fwā’al*, *f’ā’al*, *fī’lān*, *f’āyal*, *f’āla*, and *f’ā’la*. Below is an example of each from the data I have collected:

- 1) *f’ūl*; for example, AA *bīt* /bi:t/ ‘(sports) goal’ (Fr. *but* /by(t)/), pl. *byūt* /bju:t/. This word is identical to a native word *bīt* ‘house, room’, with the same plural form.
- 2) *f’āl*; for example, AA *bank* /bank/ ‘stool’ (Fr. *banc* /bã/), pl. *bnāk* /bna:k/, *jūj* /dʒu:dʒ/ ‘judge’ (Fr. *jugé* /ʒyʒ/), pl. *jwāj* /dʒwa:dʒ/, and *dūš* /du:ʃ/ ‘shower (cubicle)’ (Fr. *douche* /duʃ/), pl. *dwāš* /dwa:ʃ/.
- 3) *fwā’al*; for example, *bābōr* /ba:bu:rʃ/ ‘steamboat’ (Fr. *bateau à vapeur* /bato#a#vapœr/), pl. *bbābar* /bwābar/ and *fīgūra* /fi:gu:ra/ ‘face’ (Fr. *figure* /figyr/), pl. *ffāgar* /fwāgar/. Note how the labiovelar glide /w/ in the plural form assimilates to the labial consonant preceding it.
- 4) *f’ā’al*; for example, *baṛwēṭa* /baʃwi:tʃa/ ‘a wheelbarrow’ (Fr. *brouette* /bruɛt/), pl. *brāwaṭ* /brʃa:watʃ/, *sarbīta* /sarbi:ta/ ‘towel’ (Fr. *serviette* /sɛrvjɛt/), pl. *srābat* /sra:bat/, and *ṭaršūna* /tʃarʃu:na/ ‘dish towel’ (Fr. *torchon* /tɔʁʃɔ̃/), pl. *ṭrāšan*. Interestingly, all of these loans have a common pattern in the singular, namely *fa’līla* ~ *fu’līla*. So, one can form the following rule: any

loanword adapted as *fa' līla* ~ *fu' līla* in AA forms its plural on the pattern *f'ā'al*. However, not all *f'ā'al* plurals have their singular as *fa' līla* ~ *fu' līla*; for example, *joṛnān* /dʒurˤna:n/ 'newspaper' (Fr. *journal* /ʒurnal/), pl. *jṛānan* /dʒrˤa:nan/ and *ṣabbāṭ* /sˤabba:tˤ/ 'shoe' (Fr. *savate* /savat/) pl. *ṣbābaṭ* /sˤba:batˤ/. Even though the latter have a different pattern in the singular from the former list, what they share in common with these words is that they all have four radicals. Thus, the broken plural pattern *f'ā'al* seems to be the pattern used by speakers of AA to pluralize four-consonant loanwords.

- 5) *fi' lān*; for example *bāš* /ba:ʃ/ (Fr. *bâche* /baʃ/), pl. *bīšān* /bijʃa:n/ and *ṣāk* /sˤa:k/ 'purse' (Fr. *sac* /sak/), pl. *ṣēkān* /sˤijka:n/, both of which have the same shape as native words *bāb* 'door', pl. *bībān* /bijba:n/ and *ṭāg* /tˤa:g/ 'window', pl. *ṭēgān* /tˤijga:n/. This is an instance where the broken plural is formed by analogy with the plural of a native word that has the same singular form as the singular loanword. In all of these plural examples, I postulate the underlying form to have the sequence /ij/ realized as [i:].
- 6) *f'āyal*; for example, *blāša* /bla:sˤa/ 'place' (Fr. *place* /plas/), pl. *blāyaš* /bla:jasˤ/. Again, the singular has the same form as *ḥlāsa* /ḥla:sa/ 'rag', pl. *ḥlāys* /ḥla:jas/ and *šmāta* /ʃma:ta/ 'jerk', pl. *šmāyat* /ʃma:jat/.
- 7) *f'āla*; for example, *doro* /durˤu/ 'five-centime coin' (Fr. *douro* /duro/), pl. *dwāra* /dwa:rˤa/, and *dōši* /du:sˤi/ (Fr. *dossier* /dosje/), pl. *dwāša*.
- 8) *f'ā'la*; for example, *fāramlī* /fa:rmlī:/ 'male nurse' (Fr. *infirmier* /ɛfirmje/), pl. *frāmla* (or *fāramlīya*).

It is worth mentioning that a few loans (4.6%) fluctuate between the sound feminine plural in *-āt* and the broken plural form; for example, the plural of the loanword *fīgūra* 'face' (Fr. *figure* /figyr/) has two variants, namely *fīgūrāt*, a variant provided by Hadj-Sadok (1955) and

ffāgar /fwāgar/, with which I am familiar. One interpretation is that the older the loan the more assimilated it is. In terms of morphological assimilation, this means abstracting the stem consonants and mapping them onto native patterns.

In all of the above examples the French articles, plural definite *les* /le/ and plural indefinite *des* /de/, which are used with plural nouns, are mostly ignored. The former, adapted as AA *lī-* /li:–/, is attested in only three loanwords, what constitutes only 1% of all noun loans: sg. *lāṣāl*, pl. *lēṣāl*; sg. *lārbēṭ* ‘referee’, pl. *līzārbīṭ*, and *’īnītī* ‘(billing) unit’, pl. *līzīnītī*. Use of *les* is more common among bilinguals and in code-switched forms.

There are two cases where the French plural definite article has been agglutinated to the loanword and reanalyzed as its initial syllable. These involve the short monosyllabic nouns *les bas* /le#ba/ ‘stockings’ (AA *lība* /li:ba/), which takes feminine singular agreement, and *les gants* /le#gɑ / ‘gloves’ (AA *līgo* /li:go/), which takes masculine singular agreement in AA. The form of these loans, namely that they begin in *lī* (Fr. *les* /le/), constitutes evidence that they were borrowed in their plural rather than singular form, which is reasonable since clothing items such as “stockings” and “gloves” are commonly used in the plural form. I should add here that the French plural article *les* has lost its source-language grammatical function (i.e., its definite and plural meaning) because both words *lība* and *līgo*, take AA definite and plural markers: *lība*, definite *l-lība*, plural *lībāt* and *līgo*, definite *l-līgo*, plural *līgo-ww-āt* ~ *līgā-w-āt*.

To summarize, speakers of AA pluralize incoming loanwords by adding the sound feminine plural suffix *-āt*, which is the default plural suffix for loanwords. Names of profession that end in *-ān* in the singular form their plural in *-āt* and those that end in *-ī* form it in *-ya*, in which case the resultant plural form of the loanword is identical to the feminine singular which forms its plural in *-āt*. Some loans, mostly fully-assimilated ones, form their plural by means of

broken plural patterns, the form of which is sometimes determined by analogy to a native singular word that has the same shape as the incoming loanword after its adaptation.

Morphological adaptation of verbs

There are sixty verbs in my data (compare with 414 noun loans), most of which are first group verbs in the source language, that is, verbs ending in *er* /-e/, which I mentioned in Chapter 3 in the section on French Verbs. A few verbs belong to French second group, ending in *-ir* /-ir/, or third group verbs.

When I entered the data, I used the infinitive form of the French prototype to the AA verb loan for practical reasons and because the form of the French verb is irrelevant to my analysis, even though it would be hard to imagine a situation where AA speakers would hear French verbs being used in the infinitive. Given the history of French presence in Algeria, one probable prototype would be the imperative. As I mentioned earlier, among the situations where speakers of AA had extensive contact with the French were in the military and security sectors, at construction sites, on farms, in housekeeping, and other locations where the colonized Algerians worked for French colonizers. In such situations, I would imagine Algerian female servants in French households and men elsewhere being exposed to the imperative form of the verb as when they receive commands to perform a certain task.

Notwithstanding the prototype, which is irrelevant to my analysis, a very consistent adaptation of verb loans is the weak form in AA, that is, verbs ending in *-ā* /-a:/; for example, French *bricoler* /brikɔle/ ‘tinker’, *profiter* /prɔfite/ ‘make the most of’, and *déranger* /derɑ̃ʒe/ > AA *brīkūlā* /bri:ku:la:/, *prōfītā* /pr^ʰu:fi:ta:/, and *dērānžā* /di:r^ʰa:nʒa:/, respectively. This adaptation applies irrespective of the group to which the verb belongs in the source language; for example, 2nd group verb *saisir* /sezir/ ‘seize’ is adapted as AA *sīzā* /si:za:/ and 3rd group verbs *se*

rendre /sə#rãdr/ ‘surrender’ and *rendre (service)* /rãdr/ ‘do a favor’ are adapted as AA *řãndã* /r̥a:nda:/. Here again, I am not necessarily claiming that the verb loans entered AA in the third person perfective form. The only reason why I provided the verbs in this form (i.e., AA 3rd person masculine perfective) in my data list in Appendix 5 is that it is the most basic form in Arabic, that is, the form with zero morphemes. There are three instances where the verb loan is formed by abstracting the stem consonants and mapping them onto AA form II, *fa* ‘al; for example, *dawwaš* ‘shower s.o.’ (Fr. *doucher* /duʃe/), *karrad* ‘card’ (Fr. *carder* /karde/), and *fawwaṭ* ‘vote’ (Fr. *voter* /vøte/). Interestingly, from *dawwaš* is derived the reflexive *t-dawwaš* ‘take a shower’ (Fr. *se doucher* ‘shower’), where the reflexive form is expressed by means of *se* in French and *t-* in AA.

Another observation is that AA sometimes ignores the reflexive pronoun when adapting reflexive verbs and sometimes matches it with its AA equivalent *t-* as I mentioned in the previous paragraph. Examples of reflexive verbs where the reflexive pronoun *se* is ignored are the following: *se défouler* /sə#defule/, *se rendre* /sə#rãdr/ ‘surrender’, *se trainer* /sə#trene/ ‘drag oneself along’, and *s’entraîner* /sãtrene/ > AA *dĩfũlã*, *řãndã*, *trĩnã*, and *’ãnṭrẽnã*, respectively. Note, for example, how both the reflexive *se rendre* /sə#rãdr/ ‘surrender’ and *rendre* /rãdr/ as in *rendre service à quelqu’un* ‘he did him service’ (AA *řãndãlũ sãrvĩs*) are both adapted as *řãndã*.

A few verb loans involve denominative derivation, that is, they were borrowed first as nouns from which the verb was later derived. Evidence for their being denominative is the fact that they have no equivalent verb in the source language. Interestingly, these loans do not take the weak form discussed in the previous paragraph. The patterns I observed in the data, which contains too few denominative loans to make my conclusions valid, are the following:

- 1) *fū‘al* if the first stem-vowel is /u/; for example, *dūmen* /du:mn/ ‘play dominoes’ (Fr. *domino* /dɔmino/ ‘domino’, AA *dūmīnū*).
fī‘al if the first stem-vowel is /i/; for example, AA *fīlaj* ‘go to the village’ (Fr. *village* /vilaz/ ‘village’, AA *fīlāj*), *sīraj* ‘polish’ (Fr. *cirage* /siraz/ ‘shoe polish’), *dīsar* /di:sar/ ‘eat dessert’ (Fr. *dessert* /deser/ ‘dessert’, AA *dīsīr*), and *mītar* ‘measure’ (Fr. *mètre* /mɛtr/ ‘meter’, AA *mītra*).
- 2) *fā‘al*, which either has an intensive or causative meaning; for example, *ṭarṭar* ‘winnow’ (Fr. *tarare* /tarar/ ‘winnow’) and *garraf* ‘go on strike’ (Fr. *grève* /grev/).
- 3) *ṛandaf* ‘to date’ (Fr. *rendez-vous* ‘date’).

To sum up, verb loans are mostly adapted as AA weak verbs, that is, they end in *-ā* which is the default verb ending in loanwords, regardless of the verb group to which it belongs in the source language. Sometimes, the reflexive form is derived by prefixing *t-* to the verb stem. A few verb loans are formed by mapping the stem consonants onto AA verbal patterns.

Conclusion

My analysis show how a mix of linguistic and non-linguistic factors affect how a loanword is adapted. The former refer to phonetic, phonological, morphological, and semantic factors, and analogy between source and recipient language categories. Non-linguistic factors refer to social variables such as age, education, and bilingualism. In addition, gender has proved to play a role in how a loanword is adapted. As for orthography, its role in loanword adaptation is insignificant.

CONCLUSION

In this study I have explored the phenomenon of language contact and ensuing lexical borrowing in spoken Algerian Arabic (AA), Algeria's most widely spoken local language. I investigated the phonological and morphological processes speakers of AA adopt to indigenize loanwords they borrow from French, the ex-colonial language, and the socio-cultural factors that motivate borrowing from it.

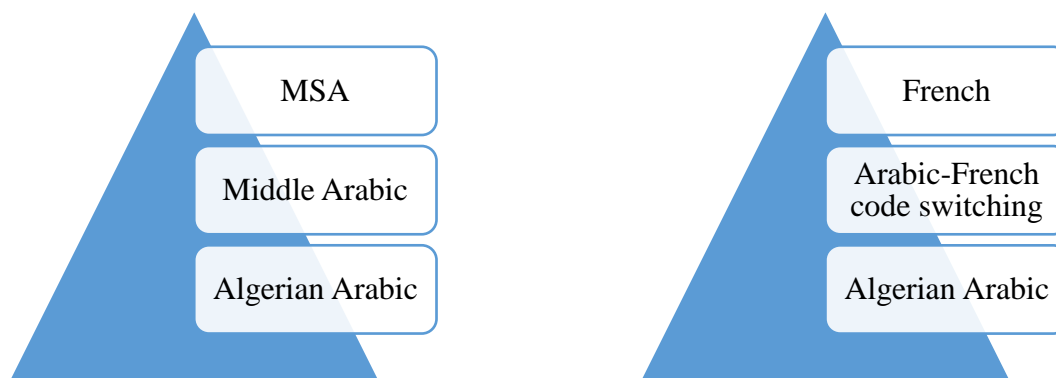
French came into close contact with AA through colonization that lasted from 1830 through 1962, the year when Algeria gained independence. Contrary to all expectations and despite post-colonial efforts to Arabicize Algeria, speakers of AA did not lose contact with French, which continued to mark and play a major role in the linguistic scene in Algeria by virtue of its being associated with modernity and urbanity. In addition, it seems difficult, if not impossible, to completely get rid of the colonizers' language. In many parts of Africa, Asia, and Latin America, the ex-colonial languages have taken root and replaced the local ones as the language of instruction and international transactions.

By virtue of its geographical location, Algeria has been a site of contact between various speech communities who use a variety of languages, including classical languages such as Berber, Phoenician, Latin, Greek, and Arabic as well as modern languages such as Turkish, Spanish, Italian, and French, with the last three sharing many cognates by virtue of their belonging to the same language family and descending from the same parent language. These population movements into Algeria, driven by the desire to dominate the area south of the Mediterranean Sea, make the country a very good candidate for research on language contact and ensuing linguistic phenomena. Yet AA is an underinvestigated variety. The field of Arabic linguistics and sociolinguistics abounds in research on the standard variety, modern standard

Arabic (MSA), but little research has been done on the spoken dialects.

A few studies investigated AA and were conducted mainly during the French colonial rule of Algeria (i.e., 1830-1962) in line with the colonial policy of “know your enemy’s language to better subdue them.” These linguistic studies were not meant as an end in themselves; rather, they were used to serve France’s colonial agenda. Still fewer studies have directly investigated the phenomenon of lexical borrowing in AA. One that investigated borrowing from French is Hadj-Sadok’s (1955), who approached this phenomenon from the angle of francization of the Arabic dialects. My research, on the other hand, looked at this same issue from the opposite angle, that is, the arabicization of French borrowings, which I hope fills in gaps in this area and contributes to the ongoing conversation about the phenomenon of lexical borrowing in general.

In order to account for the extensive borrowing from French into AA, I argued that the French colonial administration disrupted the diglossic relationship between AA and MSA and that, faced with this situation, speakers of AA had to borrow from French which supplanted MSA in all aspects of life. This can be represented as in Figure 6.1:



The diglossic relationship between MSA and spoken Arabic Supplanting MSA with French

Figure 6. 1 Disrupting Arabic diglossia in Algeria

After I accounted for the various factors that led speakers of AA to borrow from French, I investigated the phonological adaptations that French loanwords undergo when they enter AA, that is the transformations French sounds undergo before they are integrated into it.

I started by explaining in Chapter 1 how the Maghrebi variety of AA has developed over time by coming into contact with various languages including the autochthonous languages native to North Africa, languages that enriched its lexicon to varying degrees. I illustrated the linguistic influences each of these languages exerted on AA with examples of loanwords from each of them. I then narrowed it down to focus on loanwords from one specific language, that is, French, from which AA borrowed extensively.

In Chapter 2, I reviewed the literature for the various theories about loanword adaptation. In the area of loan phonology, there are three views, the first of which claims that the adaptations are phonemic in nature, that the input to these adaptations is the underlying phonemic representation, and that the source-language phonemes are mapped onto their corresponding phonemes in the recipient language. The second view, the phonetic approach to loanword adaptation, argues that phonetic information is taken into account. The third view, argues that both phonology and phonetics determine how a loanword is adapted. The aim of my study was to examine the extent to which each of these factors plays a role in loanword adaptation. Based on my data I was able to show that indeed both factors play a role in it. In Chapter 3, I described the phonemic and morphological systems in AA and French to define areas of overlap and contrast between the two, information on which I built my analysis in the fifth chapter. In Chapter 4, I enumerated the various sources from which I collected data on AA and in Chapter 5, I analyzed the data. I review this analysis briefly below.

Loanword adaptations: Linguistic factors

My study reveals how French sounds that AA lacks are mapped onto the closest AA equivalents, with closeness being gauged in terms of distinctive features. I showed how French /p/ is usually voiced in AA (i.e., an instance of lenition), spirantized in very few cases, or preserved in the speech of bilinguals and younger generations. Conversely, /v/ is usually devoiced in AA (i.e., an instance of fortition); otherwise it is converted to /b/. It also reveals how some consonants that French shares with AA and which one would expect to transfer easily into it are also adapted. This is done mostly to preserve sounds which are allophonic in the recipient language. Preserving allophonic information at the expense of phonemic ones goes contrary to the phonological view of adaptation that claims that adapters attend to source-language phonemes and ignore phonetic details.

In addition to sound changes, I also investigated the morphological adaptations noun and verb loans undergo and showed how the default plural marker is *-āt*, how names of professions ending in *-ī* consistently form their plural with *-ya*, and how nouns interpreted as mass nouns have an invariable shape for both singular and plural form. Verbs, on the other hand, are consistently adapted as weak-form verbs that end in *-ā*.

The analysis has revealed that both phonetic and phonological factors play a role in loanword adaptations. Sound transformations such as dropping /ə/, preserving allophonic information, and showing traces of liaison, all of which are done at the surface phonetic level, constitute evidence that French loanwords were adapted on the basis of phonetic, rather than, phonemic representations. As for phonology, it plays a major role in prosodic adaptations in that the two phonotactic constraints against onsetless and light syllables are very active in the adaptations. In addition, truncation is mostly driven by the canonical shape of the loanword.

Very long words that consist of more than three syllables are most likely to be truncated, as are monosyllabic loans likely to be disyllabified by means of the French definite article.

In addition to phonetic and phonological adaptations, my analysis revealed a third linguistic variable that plays a role in loanword adaptation, namely the derivational morphology of the recipient language, root-and-pattern system in the case of Arabic. I showed how certain loanwords are formed by abstracting the consonants from the prototype and mapping them onto AA noun and verb patterns. In addition, the French suffix *-ier* /-je/ is consistently adapted as AA *-ī* /-i:/, both of which have the same function in both source and recipient languages, which means the recipient language speakers use morphological information to adapt incoming loans.

I also showed some overlap between phonological and morphological clues in that the source-language definite article is agglutinated to provide an onset for an onsetless vowel in the recipient language. Conversely, a few words that begin with the sound /l-/ are interpreted as being definite because this sound matches AA definite marker *l-* /l-/. In addition, there are instances where phonological clues determine the morphological category of a loan as in the case of French stem-final /-ã/, which is consistently assigned a feminine gender by virtue of its being analogous with the AA feminine marker *-a*. Morphophonemic factors also play a role in loanword adaptation in that the glides /w/ and /j/ are inserted before the plural marker *-āt*, and get geminated to prevent a short vowel from occurring in a coda-less syllable. In other words, we see adaptations across morphemes in the data.

Loanword adaptations: Non-linguistic, socio-cultural factors

As for the socio-cultural factors, my study confirms the role played by education, bilingualism, and age. In addition to these, gender has proved to play a role in loanword adaptation as I demonstrated how speakers of Algerian Arabic adapt /r/ differently, based on

gender. Socially male speakers adapt it phonemically and map it onto its equivalent phoneme in AA, namely /r/, whereas socially female speakers adapt it phonetically and map it onto its closest AA sound, /y/. As for orthography, it barely has any role to play in the adaptations. In my data, only three words are adapted on the basis of spelling in that the stem-final consonants in them are not realized in speech and appear only in spelling. Conversely, I argued how adapting nasal sounds as a sequence of a vowel and /m/ is not an example of orthographic adaptation but a process of place assimilation.

Limitations

The standard variety

French has various dialects. However, in my study I relied on Parisian French as spoken with a standard French accent for practical reasons. I assume it was indeed the source dialect in the area of administration and education, where I expect students to be exposed to the standard variety, not the vernaculars. However, it would be hard to imagine the standard variety being used in other, informal, settings such as construction sites and housekeeping.

Cognates

French shares many cognates with its sister languages, Spanish and Italian, which makes it difficult sometimes to determine what the donor language to AA is among these three. In the case of Moroccan Arabic, many adaptations, including gender assignment and adaptation of /v/, were attributed to Spanish. In my study, I downplayed the role played by Spanish in AA because it did not have the same scope and presence in Algeria that it had in Morocco.

Lack of written resources

The fact that AA is an oral language makes it hard to locate written resources where one can trace back the time when a loanword first entered the language. This would help determine

with more precision what the donor language is and whether the loanword is recent or long-standing.

Implications

Pedagogic implications

My study has pedagogic implications and will contribute to the teaching/learning of AA outside of Algeria. When I taught Colloquial Algerian Arabic in spring 2018, I realized the huge gaps in this area as I found only two textbooks in English. So I had to draw from my own study, where I had described the phonological and morphological systems of AA in addition to dialectal variations. These descriptions will help anyone interested in designing materials to teach this variety in schools outside of Algeria. In addition, revealing the etymology of AA vocabulary, as I did in my study, will help anyone with a background in French or MSA learn AA vocabulary.

Contribute to studies on Arabic dialectology

Having CA/MSA as a backdrop to my analysis of AA phonology and morphology and providing the MSA equivalent to my AA examples helps shed the light on the ways in which AA draws from and diverges from the standard variety, MSA. In addition, by showing how French influenced AA I hope to contribute to dialectal studies interested in inter-dialectal comparisons and show how the Maghrebi dialects that have come into contact with French differ from dialects of Arabic that have come into contact with languages other than French, especially in the area of vocabulary.

Raising awareness about AA

I also hope this dissertation will raise awareness among speakers of AA of their mother tongue. When I started making posts on my Facebook page to seek information about AA as when I would ask my contacts to give me the AA word for some concept, I noticed little to no

interaction from them. When I enquired about the reason why, one of my contacts sent me a private message and told me he thought I was making fun of them because, according to him, no one cared about this variety. I also remember when a Facebook contact of mine, who teaches English at an Algerian university, told me AA has no grammar and there is no use in investigating it, which reiterates the observations made by Versteegh (1997) that speakers of Arabic have negative attitudes towards the spoken dialects. A third Facebook contact even referred to it as a “bastard” language, perhaps because of its penetration by French loans. However, with time, these and my other contacts started to interact actively with my posted questions. My experience demonstrates that people can learn to appreciate AA. I hope this dissertation has shown that AA is a legitimate variety worth of investigation and that, like all languages, it too has a structure and is not just random noises.

Future research

Loanword experts should start to consider gender as a possible factor and key player in loanword adaptation. In the case of AA, it would be interesting to find out if there are any other gendered adaptations and to either refute or confirm Sadiqi (2003), who observed that female speakers of MA tend to adapt loanwords more faithfully than male speakers, which she illustrates with retention of the French definite article in the speech of females vs. use of MA definite article by men.

Research is also needed to determine how a second language (L2) in a multilingual community such as Algeria affects the adaptation of loanwords from a third language (L3). For instance, speakers of AA adapt loanwords they borrow from English, such as *show room*, *SHAREit*, and technical jargon associated with the computer technology and iPhone apps, by relying on their knowledge of French. They might have never heard the English pronunciation of

these and other English words to adapt them on the basis of perceptual proximity. They rely on their knowledge of French spelling and pronunciation since French and English both use Roman script (see section on Orthography in Chapter 2).

In the case of Berber, Algeria's autochthonous language, it would be interesting to investigate how speakers of it adapt loanwords they borrow from French and whether or not—and if so, how—knowledge of MSA and AA, Algeria's most widely spoken language, affect the way they adapt them.

Finally, it would be interesting to investigate in more depth the interaction between the recipient-language dialect one speaks and loanword adaptation, as in the case of adapting French /ʒ/ by speakers of the AA dialects that lack this sound. In Chapter 3 in the section on AA Consonants, I mentioned how speakers of the Skikdi dialect affricate the dental stop /t/ and pronounce it as [tʃ]. It would be interesting to see if they adapt French /t/, and probably other sounds, in a similar way.

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APPENDIX 1

My Facebook post

إلى أصدقائي الجزائريين،

أبحث عن كلمات فرنسيّة معرّبة في الدّارجة الجزائريّة مثل: كاميو، أي شاحنة، من الفرنسيّة *camion*

وسأكون شاكرا وممتنا.

ملاحظة: سأترك منشوري معلقا فلا تبخلوا عليّ بأيّ كلمة تتبادر إلى أذهانكم. يمكن أيضا أن تشاركوا أصدقاءكم لأنّ منشوري

عامّ

In English:

To my Algerian friends, I am looking for French words that have been nativized/arabicized in the Algerian dialect, e.g., *kaamyu* ‘lorry’ (from French *camion*)

I would really appreciate it.

P.S. Please whenever a new word crosses your mind, write it down on my wall. You may also invite your friends to comment on this post.

In french :

A tous mes amis algériens, je cherche des mots français arabisés dans le parler algérien, ex : *kaamyu* (du Français *camion*)

P.S. S’il vous plaît, à chaque fois que vous vous-souvenez d’un mot, veuillez le noter sur mon mur svp. Je serai reconnaissant ! Vous pouvez également inviter vos amis à participer.

APPENDIX 2

YouTube video *mā nṣōṭēš!* ‘I won’t jump/vote!’

علاش؟!؟

‘lāš!?’

Why?

علاش كي يقرب الفوط تحبّي تسمعي الصوت

‘lāš kī yqarrab lvōṭ ṭhabbī tasam ‘ī ṣ-ṣōṭ!?’

Why do you want to hear my voice only when the elections draw near?

نسمعك صوتي؟!؟

nsam ‘ak ṣōṭī!?’

You want to hear my voice!?’

والله ما نصوطني!

wallah mā nṣōṭē!

By god, I am not jumping (voting)!

ما نصوطني

mā nṣōṭēš!

مانقدرش نصوطني .. شوفي حالتي .. راني نفلوطني

mā naqdarš nṣōṭē... šūfī ḥāltī! ... rānī naflōṭē!

I can’t jump! Look at me! I am floating!

اسمحي لي يمّا .. تغلب بينا البوطني

‘asamḥīlī yamma! tqallab bīnā lbōṭē.

Pardon me, mum! The boat has turned over.

ما نصوطني .. انتي كي نمرض ما تداوينيش

mā nṣōṭēš! ntī kī namroṣ mā tdāwīnīš

I will not jump. When I fall sick, you do not cure me!

باش تبني لنا سبيطار بنيتي لنا جامع بميتين مليار

bāš tabnī-l-nā sbēṭār bnīṭīlnā jāma ‘ b-mītīn malyār

Instead of building a hospital for us, you have built a mosque that cost 200 billion dinars.

و *pourtant* قاع عندنا زرابي في الدار

w-pourtant gā ‘ andnā zrābā fī d-dār

Even though we all have prayer rugs at home

كاين سبيطار؟! صحّ! على بيها مول الدار كي يمرض يروح للمطار

kāyan sbēṭār! ṣaḥḥ .. ‘lā bīhā mūl d-dār kī yamroṣ yrūḥ l-a-l-maṭār

There are hospitals! True! That is the reason why the house-head (the president) goes to the airport every time he falls sick.

ما نصوطني... و قولي عليّا جاهل

mā nṣōṭēš! w-gūlī ‘līya jāhal.

I will not jump. And call me an ignorant!

ايه جاهل انت ما قرّيتينيش .. القرابة باطل بالصّحّ النّفوس *bas*

'ih jāhal! ntī mā qarrītīnīsh. laqrāya bāṭal baṣṣaḥ l-nīvū bas!

Yes, I am ignorant. You did not teach me! Education is free but the level is low.

و اولادهم كامل يقرأوا là-bas

w-la preuve wlādhum kāmāl yaqrāw là-bas

And the proof is that all their (the authorities') children study there (abroad).

ما نصوطيش .. راني بردان وما غطيتنيش

mā nṣōṭēš! rānī bardān w-mā ḡaṭṭētīnīš

I will not jump. I feel cold and you have not covered me.

من 2001 وانا نلحم بهذيك الدار

man 2001 w-ānā naḥlum bhāḍīk d-dār

I have been dreaming of that house since 2001

تعطيها لي كي نموت، كيما مايدي! retard

ta 'tēhālī kī nmūt, kīmā Maidī! retard!

You will give it to me after I die, like Maidi! Too late

ما نصوطيش .. على جالك وليت ما ننظرينيش

mā nṣōṭēš! 'lā jālak wallīt mā nūnṭrīnīš

I will not jump! Because of you I no longer exercise (at the gym)

رايح لـ les jeux olympiques وما تعاونينيش

rāyah les jeux olympiques w-mā t 'āwnīnīš

I am participating in the Olympic Games and you did not support me.

مور لـ نريكيبيري la baignoire-f la glace

mōr l'entraînement nrīkīpīrī b-la glace f-la baignoire

After training, I recuperate with ice in the tub.

واقيل هادي ثاني الغلطة نتاع الشعب ماشي pouvoir

wāqīl hādī tānī ḡaḷṭat l-ša 'b māšī l-pouvoir

Maybe this, too, is the people's fault not the power's

ما نصوطيش .. راني مسجون ما رحمتينيش

mā nṣōṭēš! rānī masjūn mā rḥamtīnīš

I will not jump! I am in jail and you showed me no mercy.

صح غلطت ماظلمونيش .. هذي ماغاضتينيش

ṣaḥ ḡlaṭṭ mā ṣalmūnīš ... hādī mā ḡāḍatnīš.

Truly, I have faulted. They did not oppress me. I do not feel bad about this.

غاضني ميزان العدالة .. درتولو عبار غير من جبهة الزواولة

ḡāḍnī mīzān l-'adāla. Dartūlū 'bār ḡīr man jīhat l-zwāwla

I feel bad about the balance of justice. You use it only against the poor.

ما نصوطيش .. كنت نسترزق في الدلالة .. ماشي حق عليك سيزيتيلي الطابلة

mā nṣōṭēš! kunt nastarzaq fī l-dalāla. māšī haqq 'līk sīzītīlī l-ṭābla

I will not jump! I used to gain my bread in the black market. You seized away my business.

تبعث القانون حليت حانوت .. طحتي عليا بـ les impots

tabba t l-qānūn ḥallīt ḥānūt ṭuḥtī 'līya b-les impots. tatmannāylī l-mūt!?

I obeyed the law and opened my own shop. You burdened me with taxes. You wish me death!?

ما نصوطيش اربعة مية الف في الشهر ماتكفينيش

mā nṣōṭēš! rab 'myat 'alf fī š-šhar mā takfīnīš

I will not jump! 400,000 DZ a month is not enough.

ما نصوطيش .. ما تضربونيش pharmacien ندوموندي في حقي ..

mā nṣōṭēš! pharmacien ndūmūndī fī haqqī mā toḍorbūnīš

I will not jump! I am a pharmacist asking for his rights! Do not beat me up!

مانسوطيش .. ماتفكتونيش policier كي نخدم

mā nṣōṭēš! policier kī naḡdam mā tfīktūnīš.

I will not jump! I am a policeman. Don't send me away.

ما نصوطيش .. والشهرية ما تكفينيش père de famille

mā nṣōṭēš! père de famille wa-l-šahrīya mā takfīš.

I will not jump! I am a father and the monthly salary is not enough.

APPENDIX 3

The Leipzig-Jakarta List of basic vocabulary (Tadmor 2009) applied to AA.

<u>Rank</u>	<u>Word meaning</u>	<u>AA equivalent</u>	<u>CA word</u>
1	Fire	<i>nār</i>	<i>nār(un)</i>
2	nose	<i>ḵannūfa</i>	<i>'anf(un)</i>
3	to go	<i>ṛāḥ</i>	<i>ḍahaba</i>
4	water	<i>mā</i>	<i>mā'(un)</i>
5	mouth	<i>fumm</i>	<i>fam(un)</i>
6	tongue	<i>lsān</i>	<i>lisān(un)</i>
7	blood	<i>damm</i>	<i>dam(un)</i>
7	bone	<i>'zam</i>	<i>'azm(un)</i>
9	2SG pronoun	<i>nta (m.)/nti (f.)</i>	<i>'anta (m.)/'anti (f.)</i>
9	root	<i>'arg</i>	<i>'irq(un)</i>
11	to come	<i>jā</i>	<i>jā'a</i>
12	breast	<i>sdarr</i>	<i>ṣadr(un)</i>
13	rain	<i>mṭar</i>	<i>maṭar(un)</i>
14	1 SG pronoun	<i>'anā</i>	<i>'anā</i>
15	name	<i>'ism</i>	<i>'ism(un)</i>
15	louse	<i>gamla</i>	<i>qaml(un)</i>
17	wing	<i>jnāḥ</i>	<i>janāḥ(un)</i>
18	flesh/meat	<i>lḥam</i>	<i>lahm(un)</i>
19	arm/hand	<i>ḍrā 'yadd</i>	<i>ḍirā '(un)/yad(un)</i>
20	fly	<i>ṭār</i>	<i>ṭāra</i>
20	night	<i>līla</i>	<i>laylat(un)</i>
22	ear	<i>wḍan</i>	<i>'uḍun(un)</i>
23	neck	<i>ragba</i>	<i>raqabat(un)</i>
23	far	<i>b'īd</i>	<i>ba'īd(un)</i>
25	to do/make	<i>dār</i>	<i>fa'ala</i>
26	house	<i>dār</i>	<i>dār(un)</i>
27	stone/rock	<i>ḥajra/blōka</i>	<i>ḥajar(un)/ṣakhrat(un)</i>
28	bitter	<i>marr</i>	<i>murr(un)</i>
28	to say	<i>gāl</i>	<i>qāla</i>
28	tooth	<i>sanna</i>	<i>sinn(un)</i>
31	hair	<i>š'ar</i>	<i>ša'r(un)</i>
32	big	<i>kbīr</i>	<i>kabīr(un)</i>
32	one	<i>wāḥad</i>	<i>wāḥid(un)</i>
34	who?	<i>škūn?</i>	<i>man?</i>
34	3SG pronoun	<i>hūwa (m.)/hīya (f.)</i>	<i>huwa (m.)/hiya (f.)</i>
36	to hit/beat	<i>zrab</i>	<i>ḍaraba</i>
37	leg/foot	<i>rjal/krā'</i>	<i>rijl(un)/sāq(un)</i>
38	horn	<i>gṛōn</i>	<i>qarn(un)</i>
38	this	<i>hāḍa</i>	<i>hāḍā</i>
38	fish	<i>ḥūt</i>	<i>samak(un)/ḥūt(un)</i>
41	yesterday	<i>lbārah</i>	<i>'amsi/'al-bāriḥata</i>

42	to drink	<i>šrab</i>	<i>šariba</i>
42	black	<i>kḥal</i>	<i>'aswadu/'akḥal</i>
42	navel	<i>surra</i>	<i>surrat(un)</i>
45	to stand	<i>wgaf</i>	<i>waqafa</i>
46	to bite	<i>'aḏ</i>	<i>'aḏḏa</i>
46	back	<i>zhar</i>	<i>zahr(un)</i>
48	wind	<i>rīḥ</i>	<i>rīḥ(un)</i>
49	smoke	<i>dukkān</i>	<i>dukkān(un)</i>
50	what?	<i>wāš?</i>	<i>māḏā?</i>
51	child (kin term)	<i>wald/ban (m.)/bant (f.)</i>	<i>'ibn (m.)/'ibna (f.)</i>
52	egg	<i>bayza</i>	<i>bayḏat(un)</i>
53	to give	<i>madd/'ṭā</i>	<i>madda/'amadda bi/'a 'ṭā</i>
53	new	<i>jdīd</i>	<i>jadīd(un)</i>
53	to burn (intr.)	<i>taḥrag</i>	<i>'iḥtaraqa</i>
56	not	<i>māšī</i>	<i>laysa</i>
56	good	<i>mlīḥ</i>	<i>jayyid(un)</i>
58	to know	<i>'raf</i>	<i>'arafa</i>
59	knee	<i>rukba</i>	<i>rukbat(un)</i>
59	sand	<i>rmal</i>	<i>raml(un)</i>
61	to laugh	<i>zḥak</i>	<i>ḏaḥika</i>
61	to hear	<i>sma'</i>	<i>sami'a</i>
63	soil	<i>trāb</i>	<i>turāb(un)</i>
64	leaf	<i>warga</i>	<i>warqat(un)</i>
64	red	<i>ḥmar</i>	<i>'aḥmaru</i>
66	liver	<i>kabda</i>	<i>kabid(un)</i>
67	to hide	<i>tḳabba</i>	<i>'iḳtaba'a</i>
67	skin/hide	<i>jald</i>	<i>jild(un)</i>
67	to suck	<i>maṣṣ</i>	<i>maṣṣa</i>
70	to carry	<i>hazz</i>	<i>ḥamala</i>
71	ant	<i>namla</i>	<i>namlat(un)</i>
71	heavy	<i>ṭgīl</i>	<i>ṭaqīl(un)</i>
71	to take	<i>ddā</i>	<i>'akhadha/'addā</i>
74	old	<i>kbīr</i>	<i>kabīr(un)</i>
75	to eat	<i>klā</i>	<i>'akala</i>
76	thigh	<i>fkaḏ</i>	<i>fakīd(un)</i>
76	thick	<i>glīz</i>	<i>galīz(un)</i>
78	long	<i>ṭwīl</i>	<i>ṭawīl(un)</i>
79	to blow	<i>nfak</i>	<i>nafaka</i>
80	wood	<i>ḥṭab</i>	<i>ḥaṭab(un)</i>
81	to run	<i>jrā</i>	<i>jarā</i>
81	to fall	<i>ṭāḥ</i>	<i>saqaṭa</i>
83	eye	<i>'ayn</i>	<i>'ayn(un)</i>
84	ash	<i>rmād</i>	<i>ramād(un)</i>
84	tail	<i>ḏīl</i>	<i>ḏayl(un)</i>
84	dog	<i>kalb</i>	<i>kalb(un)</i>
87	to cry/weep	<i>bkā</i>	<i>bakā</i>

88	to tie	<i>rbaṭ</i>	<i>rabaṭa</i>
89	to see	<i>šāf</i>	<i>ra'ā</i>
89	sweet	<i>ḥlūw</i>	<i>ḥulw(un)</i>
91	rope	<i>ḥbal</i>	<i>ḥabl(un)</i>
91	shade/shadow	<i>zal</i>	<i>zill(un)</i>
91	bird	<i>w'al</i>	<i>'uṣfūr(un)</i>
91	salt	<i>malḥ</i>	<i>milḥ(un)</i>
91	small	<i>ṣgīr</i>	<i>ṣaḡīr(un)</i>
96	wide	<i>'rēz</i>	<i>'arīḍ(un)</i>
97	star	<i>najma</i>	<i>najmat(un)</i>
97	in	<i>fī</i>	<i>fī</i>
99	hard	<i>ṣ'īb</i>	<i>ṣa'b(un)</i>
100	to crush/grind	<i>rhā</i>	<i>rahā</i>

APPENDIX 4

Distinctive Features of consonants and vowels

Distinctive Features of consonants

[- voice] [+ voice}	p b	t d	t ^ç d ^ç	k g	q	ʔ	m	n	ɲ	ŋ	r	r ^ç	ʁ	l	f v	θ ð	ð ^ç	s z	s ^ç z ^ç	ʃ ʒ	x ɣ	ħ ç	h	j	w	ɥ
[labial] [round]	+	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	+
[coronal] [anterior] [distributed]	-	+	+	-	-	-	-	+	+	-	+	+	-	+	-	+	+	+	+	+	-	-	-	+	-	+
[dorsal] [high] [back]	-	-	-	+	+	-	-	-	-	+	-	-	+	-	-	-	-	-	-	-	+	+	-	-	+	+
[low]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
[consonantal] [sonorant] [syllabic]	+	-	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-
[continuant] [strident] [nasal] [lateral]	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
[suction]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[constricted pharynx]			+									+					+		+							
[spread glottis] [constricted glottis]	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-

Distinctive Features of vowels

	i	y	e	ø	ɛ	ẽ	œ	æ	u	o	ɔ	õ	ɑ	ɑ	ə
[consonantal]	-	-	-	-	-		-	-	-	-	-		-		-
[sonorant]	+	+	+	+	+		+	+	+	+	+		+		+
[syllabic]	+	+	+	+	+		+	+	+	+	+		+		+
[dorsal] [high] [low] [back]	+	+	-	-	-		-	-	+	-	-		-		-
[round]	-	+	-	+	-		+	-	+	+	+		-		-
[nasal]	-	-	-	-	-		-	-	-	-	-		-		-
[voice]	+	+	+	+	+		+	+	+	+	+		+		+
[continuant]	+	+	+	+	+		+	+	+	+	+		+		+
[tense]	+	+	+	+	-		-	-	+	+	-		-		-

APPENDIX 5

Loanword Appendix

AA Word	French Prototype	English Gloss	Grammatical Class	Plural Form	Gender in AA	Definite Prefix	Source
'āntīk	ātik	well-dressed, elegant	Adj	invariable	m/f	/	Hadj-Sadok
'ānṭrēnā	sātrene	exercise, train	V	/	/	/	Facebook Page
'īnītī	ynite	unit	N	līzīnītī	f	/	Facebook Page
bābor	bato#a#vapœr	steamboat	N	bbābar ~ bwābar	m	l-	Tapiéro
bābōr	bato#a#vapœr	steamboat	N	āt ~ bwābar ~ bwābēr	m	l-	Hadj-Sadok
bāgāj	bagaʒ	luggage	N	invariable	m	l-	Hadj-Sadok
bāgēṭ	baʒet	baguette, loaf of bread	N	mass noun	m	l-	Facebook Contacts
bāgēṭa	baʒet	baguette, loaf of bread	N	āt	f	l-	Facebook Contacts
bākī	pakε	packet, package, pack	N	āt	m	l-	Hadj-Sadok
bāla	pεl	shovel	N	āt	f	l-	Hadj-Sadok
balǧīna	bal(ə)rin	ballerina	N	āt	f	l-	Fieldwork research
bālko	balkō	balcony	N	āt	m	l-	Hadj-Sadok
bālo	balō	ball	N	bālūn-āt	m	l-	Hadj-Sadok
bālto	palto	coat	N	āt	m	l-	Hadj-Sadok
bālu	balō	ball	N	āt	m	l-	Facebook Page
bāndī	bādi	rascal	N	ya	m	l-	Hadj-Sadok
bandūnā	abādōne	give up, drop	V	/	/	/	Hadj-Sadok
bank	bā	bench	N	bnāk	m	l-	Tapiéro
banka	bāk	bank	N	āt ~ bnāk	f	l-	Tapiéro
bānka	bāk	bank	N	āt	f	l-	Hadj-Sadok
bārāj	baraʒ	dam, roadblock	N	āt	m	l-	Fieldwork research
bārāj	baraʒ	dam, roadblock	N	āt	m	l-	Hadj-Sadok
bārāmīl	bar#a#min	miner's pick	N	āt	m	/	Hadj-Sadok
bārasyūn	operasjō	surgery	N	āt	f	l-	Hadj-Sadok
bārāsyūn	operasjō	surgery	N	āt	m	l-	Facebook Page
bāris	pari	Paris	N	proper noun	f	/	Tapiéro
barṭe	parti	game, match	N	brāta	m	l-	Hadj-Sadok
bārṭe	parti	(political) party	N	āt	m	l-	Hadj-Sadok
bārṭma	apartēmā	apartment	N	āt	f	l-	Facebook Page
barwaṭ	bruete	move (sth) in a wheelbarrow	V	/	/	/	Hadj-Sadok
barwēṭa	bruēt	wheelbarrow	N	brāwat	f	l-	Hadj-Sadok
bāš	bqf	tarpaulin	N	bīšān	m	l-	Hadj-Sadok
bāšā	pase	sentence	V	/	/	/	Hadj-Sadok
bāsīna	basin	basin, bowl	N	āt	f	l-	Fieldwork research
bāsīna	basin	wash basin	N	āt	f	l-	Hadj-Sadok
bāṭāyūn	batajō	battalion	N	āt	m	l-	Hadj-Sadok
bāṭēma	batimā	apartment building	N	āt	f	l-	Facebook Contacts
bāṭkās	ba#də#kes	side-skirt	N	/	m	l-	Facebook Page
bātūz	batōz	threshing machine	N	invariable	f	l-	Hadj-Sadok
bāṭwār	abatwar	slaughterhouse	N	āt	m	l-	Hadj-Sadok
bbāṭa	bwat	box	N	āt	f	l-a-	Hadj-Sadok
belgadīr	brigadje	brigadier general	N	āt	m	l-	Hadj-Sadok
benter	pēdr	paint	V	/	/	/	Hadj-Sadok
bentūra	pētyr	paint	N	mass noun	f	l-	Hadj-Sadok
bermel	prōm(ə)ne	go for a walk	V	/	/	/	Hadj-Sadok

<i>bermesyūn</i>	pərmisjō	leave	N	āt	f	l-	Hadj-Sadok
<i>bīdūn</i>	bidō	can	N	byāden	m	l-	Hadj-Sadok
<i>bīfī</i>	byfe	dresser	N	āt	m	l-	Fieldwork research
<i>bījji</i>	bydʒe	budget	N	āt	m	l-	Hadj-Sadok
<i>bīki</i>	pike	peg	N	āt	m	l-	Hadj-Sadok
<i>bīkūra</i>	pikyr	injection	N	āt	f	l-	Hadj-Sadok
<i>bīnwār</i>	pejwar	robe	N	āt ~ bnāwar	m	l-	Fieldwork research
<i>bīnwār</i>	bejwar	bath tub	N	invariable	m	l-	Fieldwork research
<i>bippā</i>	bipe	beep	V	/	/	/	Facebook Page
<i>bīri</i>	berē	beret	N	āt	m	l-	Hadj-Sadok
<i>bīrī</i>	berē	French beret	N	āt	m	l-	Fieldwork research
<i>bīrūf</i>	aperitif	aperitif	N	invariable	m	l-	Hadj-Sadok
<i>bīrū</i>	byro	desk, office	N	bīruwwāt ~ bīrāwāt	m	l-	Tapiéro
<i>bīrū</i>	byro	desk, office	N	bīruwwāt ~ bīrāwāt	m	l-	Hadj-Sadok
<i>bīsrī</i>	episri	grocery	N	āt	m	l-	Hadj-Sadok
<i>bīt</i>	by(t)	(sports) goal	N	invariable	m	l-	Hadj-Sadok
<i>blāka</i>	plak	plate, street sign	N	blāyak	f	l-a-	Fieldwork research
<i>blāndī</i>	blēde	armored vehicle	N	/	m	l-a-	Fieldwork research
<i>blankār</i>	brākar	stretcher	N	āt	m	l-a-	Facebook Page
<i>blāša</i>	plas	place	N	āt ~ blāyes	f	l-a-	Hadj-Sadok
<i>blāšt</i>	plas	place of	N	blāyaš	f	l-a-	Tapiéro
<i>blūza</i>	bluz	blouse	N	blāyez	f	l-a-	Hadj-Sadok
<i>bnī ʔāši</i>	penitāsje	penitentiary	N	proper noun	/	/	Hadj-Sadok
<i>bnu</i>	pnø	tyre	N	āt	m	l-a-	Hadj-Sadok
<i>bōks</i>	bōks	boxing	N	invariable	m	l-	Hadj-Sadok
<i>bōksōr</i>	bōksøer	boxer	N	invariable	m	l-	Hadj-Sadok
<i>bōlānī</i>	bulāʒe	baker	N	ya	m	l-	Hadj-Sadok
<i>bōlōn</i>	bulō	bolt	N	āt	m	l-	Hadj-Sadok
<i>bōrtfāj</i>	pōrtfōej	wallet	N	āt	m	l-	Facebook Page
<i>bōšta</i>	pōst	post office	N	āt	f	l-	Tapiéro
<i>bōt</i>	bōt	boot	N	āt	m	l-	Fieldwork research
<i>bōzā</i>	poze	pose	V	/	/	/	Hadj-Sadok
<i>brīdu</i>	bridō	snaffle	N	āt	m	l-a-	Hadj-Sadok
<i>brīfī</i>	prefē	prefect	N	āt	m	l-a-	Hadj-Sadok
<i>brīk</i>	brik	brick	N	collective noun, sg brīka	m	l-a-	Hadj-Sadok
<i>brīka</i>	brike	lighter	N	āt	f	l-a-	Fieldwork research
<i>brīkūlā</i>	brikole	tinker	V	/	/	/	Hadj-Sadok
<i>brīzā</i>	brize	break (s.b.'s heart)	V	/	/	/	Fieldwork research
<i>brīzīdān</i>	prezidā	president	N	āt	m	l-a-	Hadj-Sadok
<i>brōša</i>	brōs	hairbrush	N	āt	f	l-a-	Facebook Page
<i>brōse</i>	prōse	lawsuit	N	āt ~ baršāwāt	m	l-a-	Hadj-Sadok
<i>bu</i>	bō	coupon	N	āt	m	l-	Hadj-Sadok
<i>būbīya</i>	pupe	doll	N	āt	f	l-	Facebook Page
<i>būksūr</i>	bōksøer	boxer	N	invariable	m	l-	Hadj-Sadok
<i>būlis</i>	aʒā#d(ə)#pōlis	policeman	N	bbālas	m	l-	Tapiéro
<i>būlis</i>	aʒā#d(ə)#pōlis	policeman	N	ya	m	l-	Hadj-Sadok
<i>būlītīk</i>	pōlitik	politics	N	abstract noun	m	l-	Hadj-Sadok
<i>būmba</i>	bōb	bomb	N	āt	f	l-	Hadj-Sadok
<i>būmba</i>	pōp	pump	N	āt	f	l-	Hadj-Sadok
<i>būmbā</i>	pōpe	pump	V	/	/	/	Hadj-Sadok
<i>būmbāʔōmik</i>	bōb#atōmik	atomic bomb	N	/	f	l-	Hadj-Sadok
<i>būmbu</i>	bōbō	candy	N	sg būmbuwwa	m	l-	Hadj-Sadok

<i>būnānī</i>	bɒn#ane	Happy New Year (card)	Expression	/	/	/	Hadj-Sadok
<i>būnja</i>	pwaɲ	grip	N	āt	f	l-	Fieldwork research
<i>būnja</i>	pwaɲ	fist	N	āt	f	l-	Hadj-Sadok
<i>būšā</i>	buše	plug	V	/	/	/	Hadj-Sadok
<i>būšī</i>	buʃe	butcher	N	ya ~ bwāša	m	l-	Hadj-Sadok
<i>būšta</i>	pɔst	post office	N	āt	f	l-	Facebook Page
<i>būšūn</i>	buʃɔ	cork	N	bwāšan ~ bbāšan	m	l-	Fieldwork research
<i>būt</i>	by(t)	(sports) goal	N	invariable	m	l-	Hadj-Sadok
<i>būyūn</i>	bujɔ	broth	N	mass noun	m	l-	Facebook Page
<i>bwāta</i>	bwat	box	N	āt	f	l-a-	Hadj-Sadok
<i>bwātkās</i>	bɑ#d(ə)#kes	side-skirt	N	/	m	l-a-	Facebook Page
<i>dāmmā</i>	dame	play checkers, pack	V	/	/	/	Hadj-Sadok
<i>dāmma</i>	dam	checkers	N	name of a game	f	l-	Hadj-Sadok
<i>dāndīfrīs</i>	dātīfrīs	toothpaste	N	mass noun	m	l-	Facebook Page
<i>dāndu</i>	dēdɔ	turkey	N	āt	m	l-	Hadj-Sadok
<i>denda</i>	dēdɔ	turkey	N	āt	f	l-	Hadj-Sadok
<i>dērānzā</i>	derāze	disturb	V	/	/	/	Facebook Page
<i>dībūī</i>	depyte	MP	N	ya	m	l-	Hadj-Sadok
<i>dīfān</i>	dy#vê	wine	N	invariable	m	l-	Hadj-Sadok
<i>dīfōrmā</i>	defɔrme	deform	V	/	/	/	Facebook Page
<i>dīfulā</i>	sə defule	relax	V	/	/	/	Facebook Page
<i>dīgizā</i>	degize	disguise	V	/	/	/	Hadj-Sadok
<i>dīgri</i>	dəgre	degree	N	āt	m	l-	Hadj-Sadok
<i>dīgūtā</i>	degute	disgust	V	/	/	/	Hadj-Sadok
<i>dīgūtāz</i>	degu	disgust	N	abstract noun	m	l-	Facebook Page
<i>dīlī</i>	dele	deadline	N	/	m	l-	Facebook Page
<i>dīlīgī</i>	delege	delegate	N	ya	m	l-	Hadj-Sadok
<i>dīmīnū</i>	domino	domino	N	/	m	l-	Facebook Page
<i>dīrānjā</i>	derāze	disturb	V	/	/	/	Hadj-Sadok
<i>dōmīno</i>	domino	domino	N	invariable	m	l-	Hadj-Sadok
<i>doro</i>	duro	five peseta coin	N	dwāra	m	l-	Tapiéro
<i>drīsa</i>	adres	address	N	āt	f	l-a-	Tapiéro
<i>dūš</i>	duʃ	shower	N	dwāš	m	l-	Fieldwork research
<i>el-bōza</i>	poz	pose	N	āt	f	/	Hadj-Sadok
<i>el-lāwes</i>	la#os	backsight adjuster	N	invariable	m	/	Hadj-Sadok
<i>el-lōto</i>	oto	car	N	āt	f	always def	Hadj-Sadok
<i>es-sīfīra</i>	se ef er a	society of railways on roads in Algeria	N	/	f	l-	Hadj-Sadok
<i>fāgu</i>	vagɔ	freight car	N	fāgāwāt ~ fāguwwāt	m	l-	Hadj-Sadok
<i>fālīza</i>	valiz	suitcase	N	āt	f	l-	Tapiéro
<i>fālīza</i>	valiz	suitcase	N	āt	f	l-	Facebook Contacts
<i>faramlī</i>	ēfirmje	male nurse	N	frāmla	m	l-	Facebook Page
<i>fāramlī</i>	ēfirmje	male nurse	N	ya	m	l-	Facebook Contacts
<i>farīna</i>	farin	flour	N	mass noun	f	l-	Tapiéro
<i>farrān</i>	furni	bakery	N	āt	m	l-	Tapiéro
<i>faʃšēta</i>	furfet	fork	N	frāʃat	f	l-	Facebook Page

<i>fāšma</i>	pāsmā	band-aid	N	mass noun	f	l-	Facebook Page
<i>fawwaṭ</i>	vote	vote	V	/	/	/	Hadj-Sadok
<i>fazz</i>	vas-y	go!	Interjection	/	/	/	Facebook Page
<i>fermesyān</i>	farmasjē	pharmacist	N	āt	m	l-	Hadj-Sadok
<i>figūra</i>	figyr	face	N	āt ~ ffigar	f	l-	Hadj-Sadok
<i>filaj</i>	vilaʒ	go to the village	V	/	/	/	Hadj-Sadok
<i>filāj</i>	vilaʒ	village	N	āt	m	l-	Hadj-Sadok
<i>fillsa</i>	vila	villa	N	āt	f	l-	Hadj-Sadok
<i>film</i>	film	movie	N	/ (now aflām ~ filmāt)	m	l-	Hadj-Sadok
<i>finya</i>	finet	brushed cotton	N	invariable	f	l-	Hadj-Sadok
<i>fīsta</i>	vest	jacket	N	āt	f	l-	Hadj-Sadok
<i>fīzūt</i>	vizit	visit (by doctor)	N	invariable	f	lā-	Hadj-Sadok
<i>fōnšā</i>	fōse	charge (in a game)	V	/	/	/	Hadj-Sadok
<i>forāra</i>	fular	scarf	N	āt	f	l-	Hadj-Sadok
<i>formāda</i>	pomad	ointment	N	āt	f	l-	Hadj-Sadok
<i>formāj</i>	frōmaʒ	cheese	N	mass noun, name of unity in -a	m	l-	Facebook Page
<i>fōrmāj</i>	frōmaʒ	cheese	N	mass noun	m	l-	Hadj-Sadok
<i>fōrmātā</i>	fōrmate	format	V	/	/	/	Facebook Page
<i>fōrno</i>	furno	furnace	N	āt	m	l-	Hadj-Sadok
<i>fōrnō</i>	furno	furnace	N	āt	m	l-	Facebook Page
<i>fōrša</i>	fōrs	strength	N	abstract noun	f	l-	Hadj-Sadok
<i>foršēta</i>	furšet	fork	N	frāšat ~ foršētāt	f	l-	Hadj-Sadok
<i>fōt</i>	vot	voting	N	abstract noun	m	l-	Hadj-Sadok
<i>fōtā</i>	vote	vote	V	/	/	/	Hadj-Sadok
<i>fransā</i>	frās	France	N	proper noun	f	/	Tapiéro
<i>frijīdār</i>	frijīder	refrigerator (trade label)	N	āt	f	l-a-	Facebook Contacts
<i>fīnā</i>	frene	brake	V	/	/	/	Hadj-Sadok
<i>fīrōdā</i>	frode	taxi driving fraud	V	/	/	/	Facebook Page
<i>fulāra</i>	fular	scarf	N	āt	f	l-	Hadj-Sadok
<i>fūrīstī</i>	gard#fōrestje	forest ranger	N	ya	m	l-	Hadj-Sadok
<i>fūsi</i>	fose	ditch	N	āt	m	l-	Hadj-Sadok
<i>fūtāy</i>	fotæj	armchair	N	āt	m	l-	Facebook Contacts
<i>fūtāy</i>	fotæj	armchair	N	āt	m	l-	Hadj-Sadok
<i>gājā</i>	āgaʒe	enlist	V	/	/	/	Hadj-Sadok
<i>gāla</i>	gala	celebration	N	invariable	f	l-	Hadj-Sadok
<i>gāmīla</i>	gamel	mess kit	N	āt	f	l-	Fieldwork research
<i>gārā</i>	gare	park	V	/	/	/	Fieldwork research
<i>gārāj</i>	garaʒ	garage	N	āt	m	l-	Hadj-Sadok
<i>gārbāta</i>	kravat	tie	N	grābat	f	l-	Hadj-Sadok
<i>gaṛd</i>	gard	guard	N	grōda	m	l-	Hadj-Sadok
<i>gārdjān</i>	gardjē	goalkeeper	N	āt	m	l-	Facebook Page
<i>garšēš</i>	egzersis	exercise, drill	N	grašas	m	l-	Hadj-Sadok
<i>garšōn</i>	garsō	server	N	grašan ~ grašēn	m	l-	Hadj-Sadok
<i>gāṭto</i>	gato	cookies	N	mass noun	m	l-	Hadj-Sadok
<i>gāzūz</i>	(o)#gazoz	sparkling water	N	mass noun	m	l-	Facebook Page
<i>gāzūza</i>	gazoz	sparkling water	N	āt	m	l-	Fieldwork research
<i>gōfīrēt</i>	gofret	wafer	N	mass noun	m	l-	Facebook Page
<i>grīf</i>	grīfe	court clerk	N	grīfawāt	m	l-a-	Hadj-Sadok
<i>gūfīrēt</i>	gofret	wafer	N	mass noun	m	l-	Facebook Page

<i>gūfīrēta</i>	gofret	wafer	N	unity	f	l-	Facebook Page
<i>gūfīrēta</i>	gofret	wafer	N	āt	f	l-	Fieldwork research
<i>gūma</i>	gom	eraser	N	āt	f	l-	Facebook Page
<i>gūnji</i>	kōze	leave	N	āt	m	l-	Hadj-Sadok
<i>gūsīnī</i>	kōsipe	confined to barracks, grounded	N	ya	m	l-	Hadj-Sadok
<i>gūžālāv</i>	ru3#a#levr	lipstick	N	mass noun	m	l-	Facebook Page
<i>gūzīzāng</i>	roz#oz#āgl	nail polish	N	mass noun	m	l-	Facebook Page
<i>gūzīzāngal</i>	roz#oz#āgl	nail polish	N	mass noun	m	l-	Facebook Page
<i>gzāma</i>	εgzamē	examination	N	āt	m	l-a-	Hadj-Sadok
<i>jādārmī</i>	zādarm	traffic cop	N	ya	m	l-	Hadj-Sadok
<i>jāmi</i>	zame	never	Adv	/	/	/	Hadj-Sadok
<i>jaṛnān</i>	zumal	newspaper	N	jṛānen	m	l-	Hadj-Sadok
<i>jornān</i>	zumal	newspaper	N	ḍjṛānan	m	l-	Facebook Page
<i>jūdān</i>	adzydā	warrant officer	N	āt	m	lā-	Hadj-Sadok
<i>jūj</i>	zyz	judge	N	ajwāj	m	l-	Hadj-Sadok
<i>jūjma</i>	zyzmā	sentence	N	āt ~ jwājem	f	l-	Hadj-Sadok
<i>kābl</i>	kabl	cable, rope	N	kabluwwāt	m	l-	Hadj-Sadok
<i>kābrān</i>	kaporal	corporal	N	āt	m	l-	Hadj-Sadok
<i>kadu</i>	kado	gift	N	āt	m	l-	Hadj-Sadok
<i>kājū</i>	kažo	crate	N	āt	m	l-	Facebook Contacts
<i>kākācā</i>	kaka#d(ə)#ja	halva (Turkish sweet)	N	invariable	m	/	Hadj-Sadok
<i>kālīs</i>	kalef	horse-drawn carriage	N	āt ~ kwālīs	m	l-	Hadj-Sadok
<i>kālšo</i>	kalsō	boxer shorts	N	āt ~ klāšan	m	l-	Hadj-Sadok
<i>kamiū</i>	kamjō	truck	N	āt ~ kmāyan	m	l-	Tapiéro
<i>kāmjū</i>	kamjō	truck	N	āt	m	l-	Hadj-Sadok
<i>kānappī</i>	kanape	armchair	N	āt	m	l-	Facebook Contacts
<i>kānēta</i>	kanet	can	N	āt	f	l-	Facebook Page
<i>kānki</i>	kēke	oil lamp	N	āt	m	l-	Hadj-Sadok
<i>kāntīna</i>	kātin	canteen	N	āt	f	l-	Hadj-Sadok
<i>kār</i>	kar	coach, bus	N	āt	f	l-	Facebook Page
<i>kārjān</i>	karjer	quarry	N	āt	m	l-	Hadj-Sadok
<i>kārni</i>	karne	notebook	N	āt	m	l-	Hadj-Sadok
<i>kaṛrōsa</i>	karos	coach	N	krāras	f	l-	Tapiéro
<i>kaṛrōša</i>	karos	coach	N	krāras ~ krārēs	f	l-	Hadj-Sadok
<i>kārta</i>	kart	card, playing card	N	invariable	f	l-	Hadj-Sadok
<i>kaṛtābal</i>	kartabl	schoolbag	N	āt	m	l-	Facebook Contacts
<i>kārtaṅtūtū</i>	kart d-idātite	ID	N	/	f	l-	Facebook Page
<i>kārṭē</i>	kartje	district, quarter	N	āt	m	l-	Fieldwork research
<i>kaṛṭōn</i>	kartō	cardboard	N	krāṭan	m	l-	Facebook Contacts
<i>kartūša</i>	kartuf	cartridge, carton	N	krātaš	f	l-	Fieldwork research
<i>kāši</i>	kafe	tablet	N	āt	m	l-	Hadj-Sadok
<i>kāsk</i>	kask	helmet	N	līkāsk	m	l-	Hadj-Sadok
<i>kaškēta</i>	kasket	cap	N	āt ~ kšakaṭ	f	l-	Facebook Page
<i>kāškrōt</i>	kaskrut	snack	N	invariable	m	l-	Hadj-Sadok
<i>kašrōna</i>	kasrol	pan	N	āt	f	l-	Hadj-Sadok
<i>kāwītšu</i>	kautfu	rubber	N	invariable	m	l-	Hadj-Sadok
<i>kāyī</i>	kaje	notebook	N	āt	m	l-	Facebook Page

<i>kayyi</i>	kaje	notebook	N	āt	m	l-	Hadj-Sadok
<i>kerdā</i>	kredite	credit	V	/	/	/	Hadj-Sadok
<i>kettān</i>	kotonad	cotton fabric	N	ktātan	m	l-	Tapiéro
<i>kīkōṭa</i>	kōkōt	pressure cooker	N	āt	f	l-	Facebook Page
<i>kīlōṭa</i>	kylōt	underpants	N	āt	f	l-	Facebook Page
<i>kīlu</i>	kilo	kilogram	N	āt ~ kīlāwāt ~ kwāla	m	l-	Hadj-Sadok
<i>klākāt</i>	klaket	flip-flops	N	klākītāt	f	l-a-	Facebook Page
<i>kmānda</i>	kōmādā	(army) major	N	n-āt	m	l-	Hadj-Sadok
<i>kōkōṭ</i>	kōkōt	pressure cooker	N	āt	f	l-	Facebook Contacts
<i>kōkōṭa</i>	kōkōt	pressure cooker	N	āt	f	l-	Facebook Page
<i>kōlōn</i>	kolō	colon	N	invariable	m	l-	Hadj-Sadok
<i>kōrnī</i>	kōrne	cone	N	āt	m	l-	Fieldwork research
<i>kors</i>	kurs	race	N	invariable	m	l-	Hadj-Sadok
<i>krāṭāš</i>	kravaš	horsewhip	N	āt	m	l-a-	Hadj-Sadok
<i>krāzā</i>	ekraze	run over, crush	V	/	/	/	Facebook Page
<i>krādī</i>	kredi	credit	N	invariable	m	l-a-	Hadj-Sadok
<i>krīfā</i>	kræve	puncture	V	/	/	/	Hadj-Sadok
<i>krīyu</i>	krejō	pencil	N	krīyāwāt	m	l-a-	Hadj-Sadok
<i>krīyūn</i>	krejō	pencil	N	āt	m	l-a-	Facebook Page
<i>krūši</i>	krōš	hook	N	āt	m	l-a-	Hadj-Sadok
<i>ksīrīlā</i>	akselere	accelerate	V	/	/	/	Facebook Page
<i>kubbānīya</i>	kōpaṇi	(military) company	N	āt ~ kbaben	f	l-	Hadj-Sadok
<i>kūfarlī</i>	kuvrēli	bedspread	N	āt	m	l-	Facebook Contacts
<i>kūfarṭa</i>	kuvertyr	cover, blanket	N	āt	f	l-	Facebook Contacts
<i>kūfērṭa</i>	kuvertyr	cover, blanket	N	āt	f	l-	Facebook Page
<i>kūlwār</i>	kulwar	hall	N	āt	m	l-	Fieldwork research
<i>kūlwār</i>	kulwar	hall	N	āt	m	l-	Hadj-Sadok
<i>kūmīrs</i>	kōmers	business	N	invariable	m	l-	Hadj-Sadok
<i>kūmisīr</i>	kōmiser	police chief	N	āt	m	l-	Hadj-Sadok
<i>kūppā</i>	kupe	cut	V	/	/	/	Facebook Page
<i>kūr#dābīl</i>	kur#d#apel	Court of Appeals	N	/	m	l-	Hadj-Sadok
<i>kurdā</i>	akorde	grant	V	/	/	/	Hadj-Sadok
<i>kūrī</i>	ekyri	stable	N	āt	m	l-	Facebook Page
<i>kūstīm</i>	kōstym	suit	N	āt	m	l-	Hadj-Sadok
<i>kūstīma</i>	kōstym	suit	N	āt	f	l-	Hadj-Sadok
<i>kūlīt</i>	kotlet	(lamb) chop	N	mass noun	m	l-	Hadj-Sadok
<i>kūtpī</i>	ku dā pje	kick	N	āt	m	l-	Facebook Contacts
<i>kūvērṭa</i>	kuvertyr	cover, blanket	N	āt	f	l-	Facebook Page
<i>kūzīna</i>	kužin	kitchen	N	āt	f	l-	Hadj-Sadok
<i>lābīl</i>	apel	appeal	N	invariable	m	l-	Hadj-Sadok
<i>lābrōš</i>	brōs	hairbrush	N	brōšāt	f	/	Facebook Page
<i>lābsānt</i>	apsēt	absinthe	N	invariable	m	/	Hadj-Sadok
<i>lāffū</i>	fo	scythe	N	āt	m	l-	Hadj-Sadok
<i>lāṭīr</i>	afer	case	N	āt	f	/	Hadj-Sadok
<i>lāṭīzīt</i>	vizit	visit (by doctor)	N	/	f	/	Facebook Page
<i>la-gār</i>	la#gar	railroad station	N	āt	f	/	Tapiéro
<i>lāgār</i>	gar	railroad station	N	āt	f	/	Hadj-Sadok

<i>lāgrīf</i>	grev	signature	N	invariable	f	/	Hadj-Sadok
<i>lāgrīv</i>	grev	strike	N	invariable	f	/	Hadj-Sadok
<i>lākāf</i>	kav	cellar	N	āt	f	/	Hadj-Sadok
<i>lākāju</i>	akazu	(color) mahogany	N	invariable	m	/	Hadj-Sadok
<i>lākrīm</i>	krēm	icecream	N	mass noun	m	/	Facebook Page
<i>lālārt</i>	alert	alarm	N	invariable	f	/	Hadj-Sadok
<i>lāmba</i>	lāp	lamb, light bulb	N	lwāneb	f	1-	Hadj-Sadok
<i>langār</i>	la#gar	railroad station	N	āt	f	/	Tapiéro
<i>lāngrī</i>	āgre	fertilizer	N	invariable	m	/	Hadj-Sadok
<i>lānšā</i>	lāse	launch	V	/	/	/	Hadj-Sadok
<i>lāntrēt</i>	r(ə)tret	retirement	N	abstract	f	1-	Facebook Page
<i>lārβēt</i>	arbitr	referee	N	līzārβēt	m	/	Facebook Page
<i>lārbūt</i>	arbitr	referee	N	invariable	m	/	Hadj-Sadok
<i>lārdwāza</i>	ardwaz	slate	N	āt	f	/	Hadj-Sadok
<i>lārōzwār</i>	arozwar	watering can	N	āt	m	/	Hadj-Sadok
<i>lāryār</i>	arjer	back	N	invariable	f	/	Hadj-Sadok
<i>lāšāl</i>	sal	(large) room	N	lēšāl	f	1-	Fieldwork research
<i>lāstīk</i>	elastik	rubber band	N	mass noun	m	1-	Facebook Page
<i>lāšyān</i>	āšjē	veteran	N	āt	m	1-	Hadj-Sadok
<i>lājāš</i>	la#taʃ	piecework	N	invariable	/	/	Hadj-Sadok
<i>lāžurnī</i>	zume	(working day)	N	āt	f	1-	Facebook Page
<i>lība</i>	le ba	stocking	N	āt	f	1-	Facebook Page
<i>līkūl</i>	ékol	school	N	āt	m	/	Hadj-Sadok
<i>lītra</i>	litr	liter	N	āt	f	/	Hadj-Sadok
<i>līzānjīn</i>	āžin	sore throat	N	/	m	/	Facebook Page
<i>lūsī</i>	qisje	bailiff	N	āt	m	1-	Hadj-Sadok
<i>lūīisma</i>	lōtismā	lot	N	invariable	f	1-	Hadj-Sadok
<i>lyūn</i>	liō (check!)	Lyon	N	proper noun	f	/	Tapiéro
<i>māč</i>	maʃ	match	N	āt	m	1-	Facebook Page
<i>māksyān</i>	mekanisjē, jen/	mechanic	N	āt	m	1-	Hadj-Sadok
<i>mānkā</i>	māke	miss	V	/	/	/	Hadj-Sadok
<i>maṛkā</i>	marke	score	V	/	/	/	Facebook Page
<i>maṛmēṭa</i>	marmit	cooking pot	N	āt	f	1-	Facebook Contacts
<i>maṛšēlya</i>	marsej	Marseille	N	proper noun	f	/	Tapiéro
<i>maṛšīnwār</i>	maṛje#nwar	black market	N	invariable	m	1-	Hadj-Sadok
<i>māṛṭo</i>	marto	hammer	N	āt	m	1-	Hadj-Sadok
<i>māšākrā</i>	masakre	tear apart	V	/	/	/	Facebook Page
<i>mašīna</i>	mašin	machine	N	mwāšan ~ mmāšan	f	1-	Tapiéro
<i>māfīna</i>	mašin	machine	N	mwāfan ~ mmāfan	f	1-	Facebook Page
<i>māššo</i>	masō	construction worker	N	maššowwāt ~ maššāwwāt ~ maššowwīn	m	1-	Hadj-Sadok
<i>mbūrī</i>	puri	lousy	Adj	īn	m	/	Hadj-Sadok
<i>mdīfōrmī</i>	defōrme	out of shape	Adj	īn	m	/	Facebook Page
<i>mdīgīzī</i>	degīze	disguised	Adj	īn	m	/	Hadj-Sadok
<i>mdīgūtī</i>	degute	bored	Adj	īn	m	/	Hadj-Sadok
<i>meḥyūn</i>	miljō	million	N	mlāyan	m	1-	Tapiéro
<i>mestrāsyūn</i>	administrasjō	administration	N	invariable	f	1-	Hadj-Sadok
<i>mīna</i>	min	mine	N	invariable	f	1-	Hadj-Sadok
<i>mīnāj</i>	menaž	housework	N	invariable	m	1-	Hadj-Sadok
<i>mīnīst</i>	ministr	secretary of state	N	invariable	m	1-	Hadj-Sadok
<i>mīnūtīr</i>	milīter	soldier	N	invariable	m	1-	Hadj-Sadok
<i>mīr</i>	mer	mayor	N	myār	m	1-	Hadj-Sadok

<i>mītar</i>	metre	measure	V	/	/	/	Hadj-Sadok
<i>mītra</i>	metr	meter	N	āt	f	l-	Hadj-Sadok
<i>mīzī</i>	myze	museum	N	āt	m	l-	Hadj-Sadok
<i>mīzīrīya</i>	mizer	poverty, destitution	N	invariable	f	l-	Hadj-Sadok
<i>mōršo</i>	mōrso	piece	N	āt ~ mōršāwāt	m	l-	Hadj-Sadok
<i>mōḷō</i>	moto	motorbike	N	āt	m	l-	Facebook Contacts
<i>mōzēta</i>	myzet	nosebag	N	mwāzaṭ	f	l-	Hadj-Sadok
<i>mrī</i>	mirwar	mirror	N	marya	m	l-a-	Facebook Contacts
<i>mšōḷē</i>	sote	berserk	Adj	īn	m	l-a-	Facebook Page
<i>msūrī</i>	asyre	insured	Adj	īn	m	/	Hadj-Sadok
<i>mūnīfrī</i>	manuvrije	laborer	N	ya	m	l-	Facebook Page
<i>mūtūr</i>	mōtær	engine	N	mwātar	m	l-	Fieldwork research
<i>nōmro</i>	nymero	number	N	āt ~ nōmrāwāt	m	l-	Hadj-Sadok
<i>nūtīr</i>	noter	attorney	N	āt	m	l-	Hadj-Sadok
<i>ōto</i>	oto	car	N	āt	f	l-	Tapiéro
<i>pōrṭābal</i>	pōrtabl	cell phone	N	āt	m	l-	Facebook Page
<i>pūmāda</i>	pōmad	ointment	N	āt	f	l-	Facebook Page
<i>pūpīya</i>	pupe	doll	N	āt	f	l-	Facebook Page
<i>rābīl</i>	rapel	back pay	N	āt	m	l-	Hadj-Sadok
<i>rāfāy</i>	revej	alarm clock	N	āt	m	l-	Hadj-Sadok
<i>rāfiāyama</i>	ravitajmā	food supplies	N	invariable	f	l-	Hadj-Sadok
<i>rāja</i>	raj	railroad	N	āt	f	l-	Facebook Page
<i>rāndā</i>	sə#rādr	surrender	V	/	/	/	Hadj-Sadok
<i>rāpīl</i>	rapel	back pay	N	āt	m	l-	Hadj-Sadok
<i>rāṭō</i>	rato	rake	N	āt	m	l-	Fieldwork research
<i>rāya</i>	raj	railroad	N	āt	f	l-	Hadj-Sadok
<i>rebbo</i>	r(ə)po	break	N	āt	m	l-	Hadj-Sadok
<i>rēvizā</i>	revize	review	V	/	/	/	Facebook Page
<i>rīdu</i>	rido	curtain	N	rīdāwāt	m	l-	Hadj-Sadok
<i>rīgla</i>	regl	ruler	N	āt	f	l-	Facebook Page
<i>rīšū</i>	refo	portable stove	N	āt	m	l-	Fieldwork research
<i>rīla</i>	litr	liter	N	āt ~ rwātel	f	/	Hadj-Sadok
<i>rīyūwāt</i>	rejō	spoke	N	plural form	f	l-	Facebook Page
<i>rōba</i>	rōb	dress	N	rōwabb	f	l-	Facebook Page
<i>robba</i>	rob	dress	N	rwabb	f	l-	Tapiéro
<i>rōmba</i>	rō#pwē	traffic circle	N	āt	f	l-	Facebook Page
<i>rōšōr</i>	r(ə)sōr	spring	N	āt	m	l-	Fieldwork research
<i>rōzā</i>	aroze	water (plants)	V	/	/	/	Hadj-Sadok
<i>rōzwār</i>	arozwar	watering can	N	āt	m	l-	Hadj-Sadok
<i>rūlīb</i>	ru#libr	(car) coast	N Compound	rwālīb	m	l-	Facebook Page
<i>šabbāṭ</i>	savat	shoe	N	šbābaṭ	m	l-	Tapiéro
<i>šāfōṭāj</i>	eşafodaç	scaffolding	N	?	m	l-	Facebook Page
<i>šāk</i>	sak	handbag, purse	N	šēkān	m	l-	Facebook Contacts
<i>šāka</i>	sak	bag (large), sack	N	āt	f	l-	Facebook Contacts
<i>šākma</i>	(tūjjo) d-eşapmā	tailpipe	N	āt	f	l-	Facebook Page

<i>šakūša</i>	sakoʃ	(small) bag	N	āt	f	1-	Facebook Contacts
<i>šāla</i>	sal	room	N	āt	f	1-	Facebook Contacts
<i>šālīmū</i>	ʃalymo	blowtorch	N	āt	m	1-	Fieldwork research
<i>šālu</i>	salō	guest room	N	āt	m	1-	Facebook Contacts
<i>šāmānāf</i>	ʃā#dā#mancevr	Place name	N	place name	/	/	Facebook Page
<i>šambaryār</i>	ʃābr a er	inner tube	N	invariable	m	1-	Facebook Page
<i>šāmbēl</i>	gard#ʃāpetr	rural policeman	N	šnābteyya ~ šnābta	m	1-	Hadj-Sadok
<i>šambra</i>	ʃābr	room	N	šnābaʃ	f	1-	Facebook Contacts
<i>šanbra</i>	ʃābr	room	N	šnābaʃ	f	1-	Facebook Page
<i>šandāla</i>	sādāl	sandal	N	šnādāl	f	1-	Fieldwork research
<i>šāngū</i>	sā#gu	tasteless	Adj	/	/	/	Facebook Page
<i>šanṭe</i>	ʃātje	construction site	N	āt	m	1-	Hadj-Sadok
<i>šāṅṭē</i>	ʃātje	construction site	N	šwānaṭ	m	1-	Facebook Contacts
<i>šanṭrā</i>	sātre	center	V	/	/	/	Hadj-Sadok
<i>šanžma</i>	ʃāžmā	change	N	/	f	1-	Facebook Page
<i>sarbīta</i>	servjet	napkin	N	srābat	f	1-	Facebook Contacts
<i>šārēṭa</i>	ʃaret	cart	N	āt	f	1-	Fieldwork research
<i>šarṭēṭa</i>	servjet	napkin	N	šrāfaṭ	f	1-	Facebook Contacts
<i>šarjā</i>	ʃarʒe	load	V	/	/	/	Facebook Page
<i>šārjān</i>	serʒā	sergeant	N	srājan	m	1-	Facebook Page
<i>šārjān</i>	serʒā	sergeant	N	āt	m	1-	Hadj-Sadok
<i>šārjūr</i>	ʃarʒer	charger	N	āt	m	1-	Facebook Page
<i>šārjyān</i>	serʒā	sergeant	N	āt	m	1-	Hadj-Sadok
<i>sarkal</i>	sirkyle	move around	V	/	/	/	Facebook Page
<i>šarṭaṭṭō</i>	ʃatertōn	insulating tape	N	invariable	m	1-	Facebook Page
<i>šāšī</i>	saʃe	bag	N	āt	m	1-	Facebook Page
<i>sātān</i>	satē	satin	N	invariable	m	1-	Hadj-Sadok
<i>sbektūr</i>	ēspektør	inspector	N	āt	m	1-	Hadj-Sadok
<i>sendīka</i>	sēdika	trade union	N	āt	f	1-	Hadj-Sadok
<i>senser</i>	sāsyre	sensor	V	/	/	/	Hadj-Sadok
<i>serbīs</i>	servis	set	N	srābes	m	1-	Hadj-Sadok
<i>serbīta</i>	servjet	napkin	N	srābet ~ srābīt	f	1-	Hadj-Sadok
<i>serdīn</i>	sardin	sardine	N	mass noun	m	1-	Hadj-Sadok
<i>serjintī</i>	serʒā	sergeant	N	ya	m	1-	Hadj-Sadok
<i>sertafīka</i>	sertifika	certificate	N	āt	m	1-	Hadj-Sadok
<i>šīflā</i>	sufle	blow	V	/	/	/	Facebook Page
<i>šīfōr</i>	ʃofør	driver	N	āt	m	1-	Hadj-Sadok
<i>šīfūn</i>	ʃifō	rag, cloth	N	mass noun	m	1-	Facebook Contacts
<i>šīfūna</i>	ʃifō	rag, cloth	N	individuaive	f	1-	Facebook Contacts
<i>šīkūla</i>	ʃəkōla	chocolate	N	ʃwākal	f	1-	Facebook Page
<i>šīkūla</i>	ʃəkōla	chocolate	N	invariable	f	1-	Hadj-Sadok
<i>šīlīma</i>	sinema	cinema	N	āt	f	1-	Facebook Page

<i>sīlūl</i>	selyl	(prison) cell	N	invariable	m	1-	Hadj-Sadok
<i>sīmma</i>	simā	cement	N	invariable	f	1-	Hadj-Sadok
<i>sīrāj</i>	siraʒ	shoe polish	N	invariable	m	1-	Hadj-Sadok
<i>sīrfātū</i>	syrvetmā	tracksuit	N	āt	f	1-	Fieldwork research
<i>sīšwār</i>	seʃwar	hairdryer	N	āt	m	1-	Facebook Page
<i>sīyū</i>	sijš	furrow	N	sīyāwāt	m	1-	Hadj-Sadok
<i>sīzā</i>	sezir	seize	V	/	/	/	Hadj-Sadok
<i>skālī</i>	eskalje	staircase	N	invariable	m	1-	Facebook Contacts
<i>skālōp</i>	eskalōp	escalope	N	mass noun	m	1-	Facebook Page
<i>šlāqā</i>	salad	salad	N	mass noun	f	1-	Facebook Page
<i>slīp</i>	slip	underpants	N	āt	m	1-	Fieldwork research
<i>smāna</i>	s(ə)men	week	N	āt	f	1-	Facebook Contacts
<i>šmandīfir</i>	ʃ(ə)mē d fer	railroad	N	āt	m	1-	Hadj-Sadok
<i>šōfāž</i>	ʃofaʒ	heating	N	āt	m	1-	Facebook Page
<i>šōfōr</i>	ʃofər	driver	N	āt	m	1-	Hadj-Sadok
<i>šōtā</i>	sote	jump, leap	V	/	/	/	Hadj-Sadok
<i>stīlū</i>	stilo	pen	N	āt	m	1-	Facebook Contacts
<i>štōk</i>	stōk	stock	N	invariable	m	1-	Hadj-Sadok
<i>štōkā</i>	stōke	store	V	/	/	/	Hadj-Sadok
<i>šūdīra</i>	ʃodjer	furnace	N	āt	f	1-	Fieldwork research
<i>sūfāj</i>	sovaʒ	wild	Adj	sfāfja	m	/	Facebook Page
<i>sūmāj</i>	ʃomaʒ	unemployment	N	invariable	m	1-	Hadj-Sadok
<i>šūmīzđīnwī</i>	ʃ(ə)miz#də#nuʃi	nightshirt	N	/	f	1-	Facebook Page
<i>sūtjān</i>	sutjē#(gərʒ)	bra	N	āt	m	1-	Fieldwork research
<i>tabla</i>	tabl	table	N	ṭwabal	f	1-	Tapiéro
<i>ṭabla</i>	tabl	table	N	ṭwābel	f	1-	Hadj-Sadok
<i>ṭāblāt</i>	tablet	tablet	N	līṭāblāt	f	1-	Facebook Contacts
<i>ṭāblīya</i>	tablije	apron	N	āt	f	1-	Hadj-Sadok
<i>ṭāks</i>	taks	tax	N	/	m	1-	Hadj-Sadok
<i>ṭāksā</i>	takse	tax	V	/	/	/	Hadj-Sadok
<i>ṭāmbūnā</i>	tāpone	stamp	V	/	/	/	Hadj-Sadok
<i>ṭāmpū</i>	tāpš	stamp	N	āt	m	1-	Fieldwork research
<i>ṭarṭar</i>	tarar	winnow	V	/	/	/	Hadj-Sadok
<i>ṭarṭār</i>	tarar	winnow	N	/	m	1-	Hadj-Sadok
<i>ṭaršūna</i>	tərʃš	dish towel	N	ṭrāšan	f	1-	Facebook Page
<i>ṭīlīfūn</i>	telefon	telephone	N	āt	m	1-	Facebook Page
<i>ṭīrā</i>	tire	shoot, pass on to	V	/	/	/	Facebook Page
<i>ṭīyu</i>	ṭijjo	pipe	N	ṭijjāwāt	m	1-	Hadj-Sadok
<i>ṭīzāna</i>	tizan	herbal tea	N	invariable	f	1-	Hadj-Sadok
<i>ṭōmābīl</i>	otōmobil	car	N	āt	f	1-	Hadj-Sadok
<i>ṭombro</i>	tšbro	cart	N	āt	m	1-	Hadj-Sadok
<i>ṭōmībīl</i>	otōmobil	car	N	āt	f	1-	Hadj-Sadok
<i>ṭomobil</i>	otomobil	car	N	āt	f	1-	Tapiéro
<i>ṭōmōbīl</i>	otōmobil	car	N	āt	f	1-	Hadj-Sadok
<i>ṭōno</i>	tono	barrel	N	āt	m	1-	Hadj-Sadok
<i>ṭōnōbīl</i>	otōmobil	car	N	āt	f	1-	Facebook Page
<i>ṭrāfārsā</i>	traverse	cross	V	/	/	/	Facebook Page

<i>trāfikā</i>	trafike	swindle	V	/	/	/	Hadj-Sadok
<i>trēṭwār</i>	trōtwar	sidewalk	N	āt	m	1-	Facebook Page
<i>trīku</i>	triko	sweater	N	trīkuwwāt ~ trīkāwāt	m	1-	Hadj-Sadok
<i>trīnā</i>	sə#trene	fool around	V	/	/	/	Hadj-Sadok
<i>trīsīti</i>	elektrisite	electricity	N	invariable (mass noun)	m	1-	Hadj-Sadok
<i>trōlī</i>	trōle	trolley	N	āt	m	1-	Facebook Page
<i>trōmbā</i>	trōpe	cheat	V	/	/	/	Hadj-Sadok
<i>trōṭwār</i>	trōtwar	sidewalk	N	āt	m	1-	Hadj-Sadok
<i>trūsa</i>	trus	pencil case	N	āt	f	1-	Facebook Page
<i>tūr</i>	tur	turn	N	twāra	m	1-	Fieldwork research
<i>tūrīzā</i>	natyralize	naturalize	V	/	/	/	Hadj-Sadok
<i>tzāgāt</i>	sa#sə#gat	It's getting nasty	Expression	/	/	/	Facebook Page
<i>vīlla</i>	vila	villa	N	āt	f	1-	Hadj-Sadok
<i>zalāmēṭ</i>	alymet	matches	N	mass noun	m	1-	Facebook Page
<i>zarṭā</i>	dezerte	desert	V	/	/	/	Hadj-Sadok
<i>zūṭrī</i>	uvrije	laborer	N	zwafra	m	1-	Fieldwork research
<i>zūṭī</i>	uti	tools	N	invariable	m	1-	Hadj-Sadok