

An Exception to the Rule? Lone French Nouns in Tunisian Arabic

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1 Introduction

Reports on language mixing in language pairs involving Arabic often qualify that language as resistant to constraints found to operate elsewhere (e.g., Belazi 1992, Bentahila and Davies 1983, Boumans 1998, Davies et al. 2013, Nortier 1995). Close inspection of the results of those studies, however, shows that many fail to situate the purported violations with respect to the recipient language, the donor language, or even the remainder of the mixed data. As a result, it is impossible to ascertain whether the contentious forms are exceptional code-switches or ordinary borrowings, let alone whether they represent isolated cases or robust patterns.

2 Data and Method

In this study, we address these issues through analysis of an exceptionally rich corpus of Tunisian Arabic/French language mixing collected by a group member among 12 of his friends and associates residing in Ottawa, Canada. All are highly educated and proficiently bilingual.

In a pattern by now familiar from other bilingual datasets empirically studied, including those involving Arabic (e.g., Belazi 1992, Bentahila and Davies 1995, Boumans 1998, Boumans and Caubet 2000, Heath 1989, Redouane 2005), lone other-language nouns, as in (1), constitute the most frequent manifestation of this contact situation. We identified and extracted nearly 900.

- (1) l-hsɛ:b lɛ mane:f *camarades* ya ʃa:hbi! (002/9)¹
DEF.ART-math no aren't friends VOC friend.1SG.POSS
'Math no, we aren't **friends**, my friend!'

Because items like *camarades* in (1) are frequently invoked as exceptions to proposed code-switching constraints, one goal of this work is to determine their status. We do so by ascertaining how speakers treat them during their spontaneous bilingual discourse. Adopting the comparative variationist method of Poplack and Meechan (1998), we confront their behaviour with that of "benchmark" nouns produced by the same speakers in the same stretch of discourse whose status as French or Arabic is uncontroversial. We systematically compare the patterning of diagnostic linguistic structures in lone French-origin nouns in otherwise Tunisian Arabic discourse (FR in TA) with that of French nouns in French discourse (FR in FR) and Tunisian Arabic nouns in Tunisian Arabic discourse (TA in TA). The most powerful diagnostics are *conflict sites* (Poplack and Meechan 1998): areas where the grammars of the two languages differ, either qualitatively (in structure) or quantitatively (in rate and/or conditioning), as illustrated in (2–3). In the TA sentence in (2), indefinite reference is expressed with a null determiner, while in unmixed FR, the indefinite determiner is overt (3).

- (2) lqi:na [ø]ktɛ:b. 003/107)
found book
'We found (a) **book**.'

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¹Examples are reproduced verbatim from recorded speech. French-origin material is italicized and the relevant noun is bolded. Grammatical elements referenced are underlined. IPA alphabet is used for Arabic transliteration, except for pharyngealized sounds, which are indicated with diacritics placed below the letter, the voiced palatal approximant, transliterated as *y*, and the palato-alveolar sibilant, as *j*.

- (3) *J'ai jamais repris un cours.* (006/21)
 I have never repeated INDF.ART course
 'I have never repeated a **course**.'

If the behaviour of lone FR-origin nouns is parallel to that of their TA counterparts, we may infer that TA grammar is operating on them—in other words, that they have been borrowed into TA. If they pattern like their FR counterparts in (unmixed) FR, while at the same time differing from the patterning of TA nouns in (unmixed) TA, we conclude that they have retained their donor-language grammar, i.e., that they are switches to FR. Given the many typological differences between TA and FR, conflict sites in this language pair are not difficult to identify. In what follows we present a brief overview of six of them.

3 Results

3.1 Syntactic Diagnostics

We start with syntactic conflicts involving determination. One involves compound determiners: TA demonstratives (e.g., *hɛ:k*) must be combined with the definite determiner (*l*) (4), whereas FR uses only the demonstrative in this context (5). The others involve word order: quantifier *kol* 'all' (6), and inflected demonstratives (8b) can be post-posed; in FR, these are always pre-posed (5, 7).

- (4) *hɛ:k l-bara:ʔa* (011/18)
 DEM DEF.ART-innocence
 'that **innocence**'
- (5) *J'ai eu ce sentiment.* (006/22)
 I have had DEM feeling
 'I had that feeling.'
- (6) *hɛ:k l-hkɛy:t l-kol.* (006/150)
 DEM DEF.ART-stories DEF.ART-all
 'all those **stories**'
- (7) *Moi je vais danser toute la soirée.* (006/139)
 Me I go dance all DEF.ART evening
 'I am going to dance all evening.'

Considering all three diagnostics combined, Figure 1 shows that when speaking FR (FR in FR), these bilinguals never use TA determination patterns. When they incorporate FR nouns into TA contexts hosting these demonstratives and quantifiers (8), in contrast, they apply TA rules as often as to TA nouns in TA. That the constructions themselves are not very frequent overall does not detract from the fact that TA grammar is clearly operating on them, regardless of whether the noun is French or Arabic.

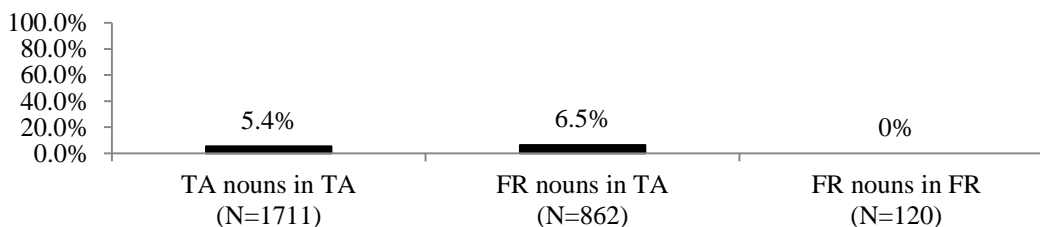


Figure 1: Proportion of nouns displaying a TA-specific strategy at three syntactic conflict sites.

- (8) a. *ɛfnyya ha l-bac?* (012/44)
 what DEM DEF.ART-diploma
 'What's this **diploma**?'

- b. xa:yfa min l-*médecin* hɛðɛ:ka. (006/122)
 afraid of DEF.ART-doctor DEM.3SG.M
 'I'm afraid of that **doctor**.'
- c. tʃaddi:na ʃa l-*grammaire* l-ko:l. (012/12)
 went over DEF.ART-grammar DEF.ART- all
 'We went over all the **grammar**.'

3.2 Assimilation of Definite Determiner

The TA definite determiner is realized as *l* (9), except when it precedes a coronal consonant, to which it assimilates, resulting in gemination of the initial segment (10). The shape of the FR definite determiner is not sensitive to the following consonant (11).

- (9) ʃa:d l-*muʃallim* yihott-na min tɛ:li. (11/25)
 so DEF.ART-teacher puts-us from back
 'So the teacher would put us in the back.'
- (10) hɛði:ka nafs ʃ-*ʃay*. (007/37)
 DEM.3SG.F same DEF.ART-thing
 'That's the same **thing**.'
- (11) a. *N'importe où* dans *le monde*. [non-coronal] (009/50)
 anywhere in DEF.ART world
 'anywhere in the **world**.'
- b. *J'ai pas le choix* [coronal]. (003/38)
 I have NEG DEF.ART choice
 'I don't have the **choice**.'
- (12) ʃnuwwa d-*différence*? (011/135)
 what DEF.ART-difference
 'What's the **difference**?'

Speakers virtually always apply this rule to TA nouns in TA contexts, but never to FR nouns in unmixed FR (Figure 2). When they incorporate coronal-initial FR nouns into TA discourse, however, they treat them like TA nouns, all but categorically assimilating the determiner (12). Thus, at sites involving qualitative conflicts with TA phonology, morphology and syntax, lone FR-origin nouns are systematically treated like their TA counterparts.

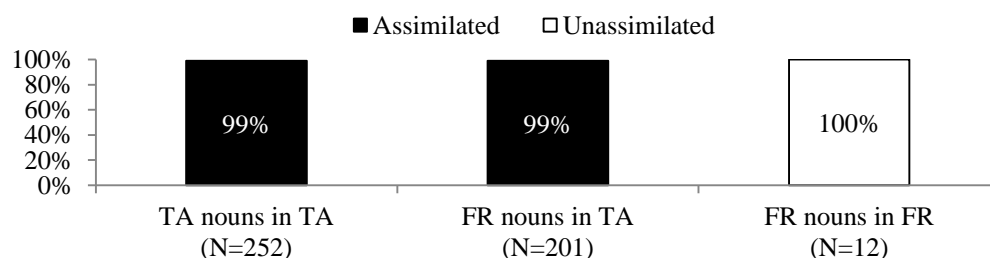


Figure 2: Phonological assimilation of the definite determiner.

3.3 Possession

We turn next to a morphosyntactic diagnostic whose expression is variable in TA: possession. TA has no possessive determiner of the type familiar from French and English (13). Instead, it suffixes this information directly onto the noun (14), or onto the post-nominal genitive exponent *mte:ʃ* (15).

- (13) ʃa c'est *mon* rêve. (009/65)
 DEM it is 1SG.POSS dream
 'That's my **dream**.'

- (14) ma nnajjimif nixdim **xidmti**. (009/140)
 NEG can.NEG work job.1SG.POSS
 ‘I can’t do my **job**.’
- (15) yaʃmlu heði:ka fi **l-xidma** mte:ʃi. (011/135)
 do DEM.3SG.F in DEF.ART-job of.1SG
 ‘They do that in my **job**.’ Lit.: ‘the **job** of mine’

Predictably enough, when speaking FR, these bilinguals only pre-pose possessive information to the noun via the FR possessive determiner, while in TA they always post-pose it (Figure 3). When lone FR-origin nouns are incorporated into TA, postposition is categorical as well (16).

- (16) a. famma ne:s yaʃni **b-diplôme:tha**. (011/96)
 LOC people means with-degrees.3PL.POSS
 ‘There are people I mean with their **degrees**.’
- b. xði:t **d-diplôme** mte:ʃi. (003/162)
 took DEF.ART-degree of.1SG
 ‘I got my **degree**.’ Lit.: ‘the **degree** of mine’

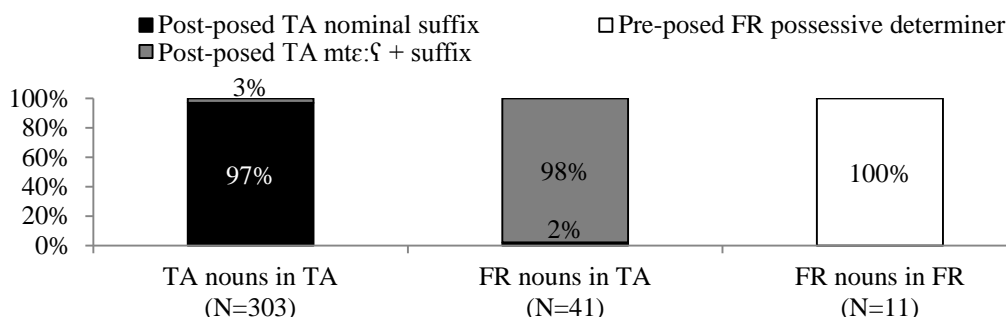


Figure 3: Marking of possession.

But while possessive marking on both TA and lone FR-origin nouns is clearly Arabic, we do note language-specific differences in the strategies adopted. The synthetic option of nominal suffixation is overwhelmingly preferred for TA nouns, but with lone FR nouns, the post-posed TA genitive exponent *mte:ʃ* tends to be inflected instead (cf. 16b). Why should this be? Looking to the recipient language to elucidate this question, we learn that choice of possessive strategy is affected by the length of the noun, its phonological shape, and the type of possessive relationship involved. Analysis of our data with respect to these parameters shows that most TA nouns in possessive constructions happen to occur in contexts hospitable to nominal suffixation: monosyllabic (71%, N=215/303), consonant-final (73%, N=220/303), and especially, inalienable (92%, N=278/303), and these do favour choice of that strategy in our corpus (see also Borg and Azzopardi-Alexander 1997, Boumans 2006, Eksell Harning 1980, Owens 2002, 2005). Lone FR-origin nouns tend instead to be long (68%, N=28/41), alienable (66%, N=27/41), and more often vowel-final (39%, N=16/41) than their TA counterparts (27%, N=83/303), all features which disfavour nominal suffixation on TA nouns. If speakers are applying this TA conditioning to their lone FR-origin nouns, this would explain, at least partly, their preference for the analytic variant.

But the quantitative disproportion between inflection rates on TA nouns and their lone FR counterparts exceeds expectations based on the parallels seen thus far. Simply put, speakers don’t seem to want to inflect these nouns. As a result, they avoid the majority variant, which involves inflection, in favour of the analytic variant. Both are uniquely TA structures and both are absent from FR, so for lone FR nouns in possessive constructions, we again conclude that the operative grammar is that of TA.

3.4 Plural Formation

A final conflict site involves a purely morphological diagnostic: plural formation. There are several ways to pluralize TA nouns. Some take a suffix, either the relatively restricted *dual* (17), or the

regular “sound” $-\varepsilon:t$ or $-i:n$ suffix (18). Another strategy, the “broken plural”, determined by the shape of the root, involves vowel change (19). There are inherently lexical plurals as well (20). In FR, on the other hand, plurality is typically only marked orthographically, and is therefore aurally indistinguishable from the singular. Its surface manifestations are expressed (if at all) via agreement with number carriers, such as the determiner and verb in (21).

- (17) **jhar**_{SG} (006/27) vs. **fahri:n**_{DU} (009/9)
 ‘a month’ ‘two months’
- (18) **hke:ya**_{SG} (002/108) vs. **hke:ye:t**_{PL} (006/150)
 ‘a story’ ‘stories’
- (19) **uste:ð**_{SG} (010/48) vs. **ʔasse:ða**_{PL} (007/96)
 ‘teacher’ ‘teachers’
- (20) ma tekilif l-**xodra**_{PL}. (006/150)
 NEG eat.NEG DEF.ART-vegetables
 ‘You don’t eat the **vegetables**.’
- (21) a. *La*_{SG} **loi**_{SG} [lwa] *est*_{SG} applicable. (002/162)
 the law is applicable
 ‘The **law** is applicable.’
 b. *Les*_{PL} **lois**_{PL} [lwa] *sont*_{PL} *applicables*_{PL}.
 the laws are applicable
 ‘The **laws** are applicable.’

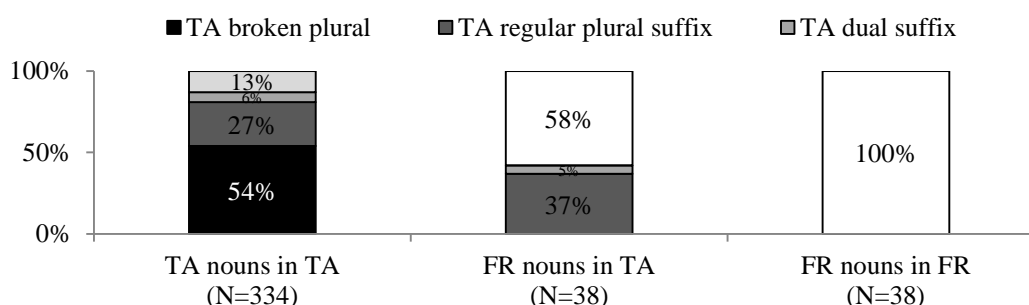


Figure 4: Plural marking.

The breakdown of TA nouns with plural reference in Figure 4 shows that every eligible plural is marked morphologically, mostly by the broken plural. Conversely, none of the FR nouns in French contexts is overtly marked for number. What of the lone FR-origin plural nouns? Some are inflected, by both the feminine $-\varepsilon:t$ suffix reported elsewhere (Heath 1987, Holes 2004) to be used on established borrowings (22), and to a lesser extent, by the dual suffix where appropriate (23).

- (22) l-**machine:t**_{PL} (001/32)
 ‘the **machines**.’
- (23) taʃti **dollari:n**_{DU} (010/12)
 give dollar.DU
 ‘You give two **dollars**.’

But as already observed with respect to possession, here too, speakers avoid the majority TA strategy—the broken plural. This would involve altering the shape of the noun, and as we have seen, speakers prefer to avoid this with FR-origin nouns. Thus, relatively few plural FR-origin nouns are inflected for number. Figure 4 shows that over half are bare, consistent with the grammar of FR, but apparently contravening that of TA. This is the first suggestion we have encountered that some of the lone FR nouns might in fact be generated by FR grammar, i.e., that they may be code-switches.

Closer inspection reveals that over one third of the bare tokens consist of the word *dollar* (24) (N=8/22). Appealing again to recipient-language grammar for an explanation, we learn that for

quantities higher than ten, TA nouns are treated as morphologically singular. So these FR-origin nouns are actually *following* TA grammar by remaining bare.

- (24) ʈeʈi:n, myɛ:t alf **dollar**[ø] (010/32)
 ‘30 or 100,000 **dollars**’

Other uninflected plurals are lexically, but not referentially plural in FR (e.g., *lunettes* ‘glasses’), and their TA counterparts are grammatically singular, so the lack of inflection on these is again consistent with TA. The same is true of academic terms (e.g., *lettres* ‘literature’). In fact, all but three of the other FR-origin nouns that surfaced bare are abiding by TA grammar, precisely by virtue of the null affix. That being said, their surface realization is also consistent with the grammar of FR. With respect to plural marking, this is a *coincidence site* (Poplack and Meechan 1998) between the two grammars; in and of itself, it is not revealing of language membership.²

Nonetheless, it is clear that speakers are avoiding marking plural morphologically on lone FR-origin nouns: only 16 are inflected for number. Moreover, the data suggest that not only is inflection eschewed, so are other-language plural nouns themselves. Lone FR nouns in TA have plural reference nearly five times less often (4%, 38/862) than TA nouns in TA (20%, 334/1711) and eight times less often than FR nouns in FR (32%, 38/120). Such disproportionate distributions are unexpected when, in other contexts, the former are treated like their TA counterparts.

Further inspection of FR nouns with plural reference elsewhere in the corpus shows that these tend not to occur in isolation like those we have examined thus far, but overwhelmingly in conjunction with a FR plural determiner (25) instead.

- (25) tu:ʃil li **les** **neurones** mte:ʃ l-mox mte:ʃik. (2/353)
 reaches to DEF.ART neurons of DEF.ART-brain of.2SG
 ‘It reaches **the neurons** of your brain.’

Why should this be? TA counterparts to the three FR determiners employed are either non-existent (*des*, *mes*) or number-neutral (*les*), and plurality is only marked elsewhere in 37% of these clauses. On the other hand, in a sub-study of the *unmixed* FR plural nouns in the corpus, the determiner was the only indicator of plurality in 93% of cases.³ Lacking a TA plural affix or a FR determiner, the number of these nouns would have been ambiguous in nearly two thirds of cases. Thus, to express plurality while eschewing inflection on FR-origin nouns, speakers incorporate the FR default plural marker, the determiner, along with the noun, giving rise to FR DET+N sequences in the context of plural reference. This suggestion is bolstered by the finding that such sequences are 16 times more likely to be plural (64%, 90/140) than lone FR nouns in TA (4%, 38/862).

These results, taken together, suggest that there is a higher-order community resistance to inflecting other-language nouns, to which we refer to as the *No Inflection Constraint*. This dearth of inflection in the NP is not unknown in the TA bilingual context, and has been documented in other varieties of Arabic in contact as well (e.g., Heath 1987, 1989, Owens 2002).⁴ In the case of possession, TA offers an analytic alternative (*mte:ʃ*), enabling speakers to side-step the inflection route while still obeying TA grammar, and they avail themselves of it at almost every opportunity. In the case of plural formation, however, there is no analytic option in TA. So they resort to the FR plural determiner instead. The same preference for an alternative to inflection was also reported by Owens (2005) for Nigerian Arabic/English mixing involving plurals and possession. When no Nigerian Arabic analytic option is available, English nouns tend to surface bare, resulting in “incorrectly missing” grammatical elements. Here, in contrast, the grammatical information is conveyed intact, albeit by the FR determiner.

²We do note, however, that more than half of these tokens display other unambiguously Arabic characteristics (e.g., an assimilated definite determiner).

³Other potential number carriers are often neutral as to number, as is the case with first-conjugation verbs (e.g., *lave*_{SG}, *lavent*_{PL} [lav]) and many adjectives (e.g., *beau*_{SG}, *beaux*_{PL} [bo], *belle*_{SG}, *belles*_{PL} [bɛl]).

⁴The actual extent of this strategy in communities where Arabic is in contact with other languages must await further accountable studies.

3.5 Determiner + Noun Sequences

DET+N sequences, identified as *constituent insertions* by Naït M'Barek and Sankoff (1988), have also been widely attested (e.g., Bentahila and Davies 1995, Boumans 1998, Boumans and Caubet 2000, Ziamari 2007) in language pairs involving Arabic (though never to our knowledge as an alternative to inflection). Bentahila and Davies (1991) attributed them to the way FR was originally acquired by the Moroccan bilinguals in their study: they learn the noun along with the determiner (according to them, usually the definite determiner). Muysken (1987) and Nortier (1995) also invoked the clitic-like nature of FR determiners in this connection. The implication is that when bilinguals call up a FR-origin noun, they bring the determiner with it. But this leaves unexplained why in other bilingual contexts, FR nouns are inserted on their own (Poplack and Meechan 1995, Poplack et al. 2006), and more pertinent, why in this corpus, *lone* FR-origin nouns outnumber FR DET+N sequences 6 to 1 (862 vs. 140). Nor does it explain why we find so many more of them in plural contexts than in possessive contexts, for example. We believe the explanation resides in the nature of the conflicts between FR and TA determination structure, mediated by community-specific mixing strategies.

Even more contentious is whether they represent a category in their own right, and if so, what its proper characterization might be. Revisiting the characteristics of constituent insertions described by Naït M'Barek and Sankoff (1988), and later applied to insertions more generally by Muysken (2000, 2015), we see that a number of criteria qualify these DET+N sequences as such. Like insertions, these tend to be single constituents, NPs, relatively short in length and unidirectional. They also exhibit an ABA structure, meaning that (unlike the case for code-switching) there is a recipient language, there is a return to the recipient language after the insertion and the recipient language determines the placement of the constituent in accordance with its own structure. Readers who have been following the code-switching/borrowing debate will recognize that these properties are also characteristic of borrowing, although the canonical borrowing is of course constituted of a single word rather than two.

Assuming that these DET+N sequences are in fact instantiations of the constituent insertions said to be characteristic of Arabic/French mixing, we now ask: just what are constituent insertions? Are they code-switches, borrowings or yet another manifestation of language contact? Rather than “simply relabeling problematic forms as something other than code-switching,” as Davies et al. (2013:330) charge, we address this question by investigating their behaviour with respect to the same diagnostics for borrowing examined for the lone FR-origin nouns above.

Like their lone counterparts, a number of these sequences also appear in syntactic constructions admitted only by TA grammar: some are followed by TA quantifiers (26) and demonstratives (27).

- (26) *Les marxistes l-kol ma humf mu:mni:n.* (007/208)
 DEF.ART Marxists DEF.ART-all NEG aren't religious
 ‘All the marxists are not religious.’
- (27) *Les cours hεðu:ka* (006/122)
 DEF.ART courses DEM.3PL.M
 ‘those courses’

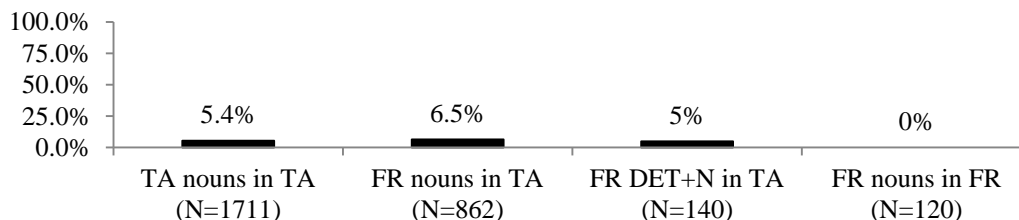


Figure 5: Proportion of DET+N sequences displaying a TA-specific strategy at three syntactic conflict sites in comparison with other nouns.

Figure 5 confirms that their rates of occurrence in these syntactic constructions parallel those of both lone FR-origin nouns and their native TA counterparts. With respect to possession (Figure 6), a few feature a pre-posed FR possessive determiner (28), inconsistent with TA, but most make use of the FR definite determiner and the post-posed inflected TA genitive exponent (29), resulting in a construction that is specifically Arabic-like, albeit partially lexicalized in FR.

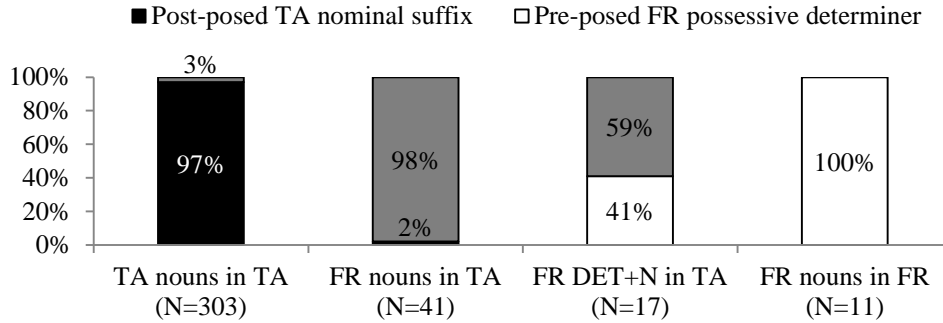


Figure 6: Marking of possession on DET+N sequences in comparison with other nouns.

- (28) yhiss ton *malheur*. (008/201)
 feels 2SG.POSS pain
 ‘He feels your **pain**.’
- (29) *les copines* mte:ʃhum (006/93)
 ‘their **girlfriends**’ Lit. ‘**the** **girlfriends** of theirs’

Because the syntactic constructions into which these DET+N chunks enter do not exist in FR, we conclude that on these measures they are behaving like borrowings, even though they are two-word sequences rather than the canonical one.

While the above results are suggestive, we caution that they must be tempered by the paucity of pertinent data in the corpus. This is the unforeseeable result of restricted applicability of the diagnostics examined (no diagnostic on its own represents more than a quarter of either the TA or FR data, and many overlap) and the rarity of FR DET+N sequences (N=140) relative to lone FR-origin nouns (N=862); as a result, demonstrable proof that they behave like TA *and not like French* is based on only 17 tokens.⁵ Prior to making more definitive claims about the status of these items, we are currently examining even more conflict sites.

4 Discussion

In this work, we have offered generalizations about the behaviour of lone FR-origin nouns in otherwise TA discourse deriving from analysis of their behaviour with respect to six diagnostics capturing grammatical conflicts at different levels of linguistic structure. As summarized in Table 1, all of them provide proof that TA/FR bilinguals are treating these nouns as if they were TA.

The diagnostics represent diverse and independent ways of tapping into the behaviour of other-language nouns, but not every one applies to every noun, and some turn out to be infrequent, not only amongst the FR incorporations, but also in the benchmark corpora. Some of the results presented above are therefore based on quantities of data that are less robust than we might have wished. This problem is inherent in the data and not in the method. One way to alleviate it is to multiply the number of conflicts. The more we examine (and the more varied), the more compelling the proof about which grammar is operating on these other-language nouns. This in turn offers a theory-independent assessment of whether they are code-switches violating (or obeying) proposed constraints, or whether they have been borrowed, and if so, whether and by what means they have been integrated into recipient-language grammar.

⁵The paucity of relevant data, especially on constituent insertions but on other contexts as well, points up the challenges of performing accountable research on language contact phenomena even in datasets as large and rich as this one, and reduces our confidence in claims unsupported by any quantitative evidence at all.

	Lone French nouns behave like:	
	Tunisian Arabic	French
Demonstrative + definite determiner	✓	X
Post-posed quantifiers	✓	X
Post-posed demonstratives	✓	X
Assimilation of definite determiner	✓	X
Possession	✓	X
Plural formation	✓ (92%)	X (42%)

Table 1: Summary.

91% of the lone FR-origin nouns subject to the six conflicts discussed above were shown to be governed *solely* by the grammar of TA, as evidenced by their occurrence in constructions alien to FR (e.g., with a post-posed quantifier, assimilated definite determiner, analytic possessive marker, etc.). Several even use two or three of these constructions simultaneously. But these only account for 30% of the 862 we originally extracted. Results of ongoing analyses of other diagnostics enable us to contextualize them with respect to the remainder of the pool. An additional 26% are modified by TA definite determiners that precede segments other than coronals. These are not eligible for gemination, but they nonetheless respect TA grammar, bringing the proportion of FR nouns that manifestly align with TA up to 56%. Of the remaining 44%, a large cohort with indefinite reference are inserted directly into TA contexts with no accompanying determiner, respecting TA requirements for indefinite nouns, and violating FR ones. This increases the number of FR-origin nouns behaving like TA nouns by an additional 36%. These diagnostics, taken together, furnish evidence that 92% of the lone FR-origin nouns in TA behave in a way that is consistent *only* with the grammar of TA. An additional 6% respect the grammars of both TA and FR (coincidence sites). This means that virtually all FR nouns are grammatically integrated into TA. Granted, the means by which speakers achieve such integration may differ from the morphological integration strategies observed in so many other language pairs, due in large part to the overriding community-specific *No Inflection Constraint*. This in no way detracts from our demonstration that the well-documented trend toward integration of lone other-language nouns into recipient-language grammar is firmly in place here as well.⁶

Using the same accountable methodology, we were also able to demonstrate that constituent insertions, long a source of controversy in the contact literature, are for the most part integrated in the same way, suggesting they are being treated as compound borrowings. In the TA/FR context at least, their occurrence is apparently largely motivated by the semantic imperative of expressing plurality coupled with the constraint against inflection.

The results of this study confirm that the status of mixed items cannot be determined in isolation; they must be contextualized with respect to the remainder of the system, including the donor language, the recipient language, and other mixed-language counterparts.

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⁶ Indeed, such integration is consistent with what Owens (2005) refers to as the North African Arabic/French pattern, reportedly also operative in Moroccan and Algerian varieties.

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