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Can morphological borrowing be an effect of codeswitching? Evidence from the inflectional morphology of borrowed nouns in Friulian

Abstract: This article investigates how morphological borrowing can take place in situations of language contact, and which factors play a role in this process. The author proposes that synthetic languages can use three strategies to form the plural of borrowed nouns and adjectives: oikomorphological, xenomorphological, and allomorphological. Data collected for varieties of Friulian in contact with different languages show that borrowed nouns can undergo all three types of morphological integration. The use of the xenomorphological strategy, which consists of forming the plural as in the donor language, is becoming widespread through generations of speakers of Friulian living in Italy. Basing on a comparison with the inflection of nouns and adjectives that Friulian has borrowed directly and indirectly from Italian and other languages, the author suggests that, in bilingual communities, the insertional codeswitching of inflected nouns and adjectives could be the “Trojan horse” that makes possible inflectional morphological borrowing.

Keywords: morphological borrowing, codeswitching, Friulian

1 Introduction

This article analyses how borrowed nouns and adjectives are integrated morphologically in the varieties of Friulian that are in contact with Italian, Romanian, Spanish, and English. Section 2 summarizes some of the theoretical issues that will be relevant in the following sections. Section 3 provides the information on Friulian as a language in contact. The methodological aspects are dealt with in Section 4. Section 5 offers the phonological and morphological information about Friulian and Italian that is necessary to interpret the data collected during the field research. The findings of the research are described in Section 6. On the
basis of the data collected, some hypotheses are put forward and tested in Section 7. In Section 8 the results are then discussed in the light of the theories that have been previously presented. Some general conclusions are drawn in Section 9.

2 Framework

In this section, I first summarize and discuss some general aspects of language contact and borrowing. I then propose a classification of the different strategies that languages can use to form plurals of loanwords.

2.1 Language contact, borrowing and change

Language contact is a known and necessary condition for borrowing to take place. Borrowing, in turn, represents one of the most common causes of linguistic change. In very general terms, language contact occurs when two or more languages are spoken at the same time, in the same place, and among the same group(s) of people. Such a broad definition includes a whole range of language contact situations, from momentary interactions having no effect on the languages, to situations where multiple generations of a large demographic group are bilingual. It is obvious that situations of the second kind can have important effects on the languages in terms of borrowing. The percentage of bilingual members of a community and their level of knowledge of both languages may be important factors in determining the magnitude and speed of borrowing processes: other conditions being equal, the higher the percentage of bilinguals and the higher their knowledge of both languages, the more likely it is that borrowing is a quantitatively and qualitatively important result of the language contact situation. As will be seen, all Friulian speakers living in Friuli are bilingual in the sense that they also know Italian. Their knowledge of the latter language may vary, of course, in relation to factors such as age and education.

According to the literature (see Haspelmath 2009: 50–51), if a second language (L2) with a high social status is introduced into a community where a native first language (L1) is spoken, in the first phase L1 speakers will borrow L2 lexical

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1 Of the social factors that may influence borrowing and that are not relevant to this research, we should mention at least the cultural attitude towards borrowing and the sociolinguistic status of the donor and target languages (Gardani 2008: 42–47).
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items. Only in the second phase – that is, when L1 speakers increase their knowledge of the L2 – will they borrow other elements. The L2 in this case is called a *superstrate* language. If L1 speakers become bilingual (and eventually abandon their language in favor of the L2, thus giving way to language shift), they will transfer some of their L1 phonological and syntactic features to the variety of L2 they speak. In this case, the L1 is called a *substrate* language of the variety of L2 acquired by the speakers. In Friuli, with some approximation, one can say that Italian is the superstrate language for Friulian and, at the same time, that Friulian is the substrate for the regional variety of Italian spoken in Friuli (Marcato 2001: 61–80).

Linguistic borrowing can be defined, in very general terms, as the process by which speakers of one language make use of an element from another language, thereby transferring it into their own language. A basic distinction is that between *material* and *structural* borrowing. Material borrowing refers to the borrowing of certain linguistic elements (such as phonemes, tones, morphemes, and lexemes), while structural borrowing refers to the transfer of overarching rules or structures. Structural borrowing requires an intensity of contact and a degree of knowledge of the donor language that is higher than that needed for lexical borrowing (Thomason and Kaufman 1988: 41, 74–76; Myers-Scotton 1993: 208; Winford 2003: 29, 56, 62, 64; Haspelmath 2009: 42–43). On the whole, the literature tends to pay little attention to the mechanisms that lead to structural borrowing (Gardani 2008: 93; Thomason 2001: 153). The most widespread point of view argues that structural borrowing takes place through lexical borrowing (Haspelmath 2009: 43; Winford 2003: 61; King 2000: 82–84; Moravcsik 1978). Other authors argue that it is codeswitching that leads to various forms of structural borrowing, among which is morphological borrowing (Myers-Scotton 1992; Meakins 2011).

As far as the inflectional morphology of borrowed nouns and adjectives is concerned, both material and structural borrowing are possible. Material borrowing can consist, for example, of the usage of a plural morpheme, whereas structural borrowing can consist, for example, in borrowing an entire morphological class from the donor language. An example of material morphological borrowing is the morpheme -s that Bolivian Quechua has copied from Spanish and has extended to almost all nouns, including native nouns (Muysken 2001, 2002). A similar case is the plural morpheme -im that Yiddish has copied from Hebrew, which is also applied to nouns of non-Hebrew origin (Thomason and Kaufman 1988: 21). Aromunian, Meglenite Romanian, Albanian, the Welsh dialects spoken in Bangor and Caernarfon constitute further examples of transferred plural morphemes (Gardani 2008: 51–79). The structural loan can be exemplified by Oroqen, a language that, in addition to copying from Dagur the plural morpheme /+nVr/,
has also copied the rule that stipulates that the suffix can be applied only to the morphological class of terms indicating kinship (Li and Whaley 2009: 539–540). The loan of an inflectional morpheme, however, is considered a quite uncommon event, although not unknown to happen, and it always occupies the lowest position in borrowability hierarchies (Gardani 2008: 30–33; Matras 2009: 173; Meakins 2011: 59; Thomason 2001: 69–71). Copying an inflectional morpheme is easier if, other things being equal, the language contact is intense and the two languages in contact are typologically close (Winford 2003: 63; Gardani 2008: 42–47), as is the case of Friulian and Italian.

Another aspect of borrowing on which there is consensus in the literature is the existence of a continuum that goes from nonce-borrowing (i.e. a foreign word used occasionally by one or few speakers) to integrated borrowing (i.e. a word of foreign origin that is perceived and used by much of the linguistic community as if it were a native word). It seems that the difference between a nonce-borrowing and an integrated borrowing is basically a question of time and frequency of use: if a nonce-borrowing keeps being used over time and extends to a large proportion of the linguistic community, it becomes an integrated borrowing (Matras 2009: 110–111; Myers-Scotton 1993: 163–207).

The literature also agrees that there is a difference – at least a theoretical one – between borrowing and codeswitching. Codeswitching occurs when a bilingual speaker changes languages during a conversation. Codeswitching can be limited to a single word in a sentence (insertional codeswitching) or extend to an entire phrase of an utterance (alternational codeswitching). Borrowing occurs when a speaker, who is not necessarily bilingual, uses a single word of foreign origin within a sentence in his own language. Such a word, though originally taken from a donor language, is perceived as being part of the mental lexicon of the speaker’s own language. Although the difference may seem clear in theory, in practice it is not always easy or even possible to make the distinction between insertional codeswitching and borrowing. According to Haspelmath (2009: 40–41), the difference between the two is explained in different ways: according to the first approach, the difference lies in the frequency of use of the term: if it appears on a recurring basis, then it is a borrowing. According to another approach, however, the criterion to decide if a particular word is an insertional codeswitch or a borrowing is the degree of phonological and/or morphological adaptation of the term in question.

The integration of loanwords is an aspect which the literature devotes constant attention to. An element of the donor language, in fact, may have characteristics that are not compatible with the target language. If these characteristics are modified to fit an item into the target language, we speak of integration or adaptation of the loan. A borrowed item can have different degrees of adaptation, from
no adaptation at all up to full adaptation. If the degree of adaptation is minimal, the element retains many of the features that it had in the donor language and that are incompatible with the target language. If the level of adaptation is higher, the element has lost all the characteristics that were incompatible with the target language and, therefore, cannot be distinguished from native words.

The degree of adaptation of a loan is influenced by several factors. The most obvious of such factors is the age of the loan itself: the older a loan, the more likely it is that it is fully integrated. The second factor is the frequency of use of the term: the more commonly the item is used, the more likely it is that its level of adaptation to the target language is high (Poplack et al. 1988; Haspelmath 2009: 40–41). The third factor is the degree of bilingualism of individual speakers and of the entire community. The degree of bilingualism acts in different directions. On one hand, it is directly proportional to the number and ease of loans: the higher the number of bilinguals and the higher their knowledge of the donor language, the more likely it is that you have loans and that they are numerous. In addition, a high level of bilingualism makes codeswitching easier, because understanding between speakers is possible even if one of them inserts a word or utterance from another language with which all interlocutors are also familiar (Haspelmath 2009: 40–41). Finally, in situations of a high degree of bilingualism, the tendency to integrate loans decreases. This decrease can be partly explained by the fact that bilingual speakers are also dominant in the donor language, so they do not have any difficulty, for example, in making use of sounds or rules that the donor language has but the target language does not. In addition, a person who addresses other bilinguals knows that they are able to understand him even if he uses elements that are not adapted to the target language (Haspelmath 2009: 42).

2.2 The plural marking of borrowed words across languages

Languages that mark pluralization morphologically have a limited number of possible strategies for pluralizing borrowed words (Matras 2009: 172). I propose that such strategies can be grouped into three categories, which I suggest to call oikomorphological, xenomorphological, and allomorphological.

In the case of oikomorphological solutions, which constitute the highest level of morphological integration, borrowed nouns behave morphologically like native nouns. This means that they form the plural by means of the same morphemes used for native nouns and according to the same rules. They do not form, therefore, a separate morphological class. One example is the English word
koala, which is borrowed from Dharuk but takes the plural morpheme /+s/, the unmarked option in the target language.

The opposite solution is the xenomorphological one, which represents the lowest level of morphological integration. In such cases, borrowed nouns maintain the inflectional morphology of their respective languages of origin and thus constitute one or more separate morphological classes. An example is the Greek word *phenomenon*, which in English takes the plural form with the Greek morpheme /+a/. If the speaker is bilingual, xenomorphological plurals can be interpreted as cases of insertional codeswitching.

The third way, which constitutes an intermediate degree of morphological integration, is the allomorphological one. This category includes all cases where the plural of borrowed nouns is formed neither as in the target language nor as in the donor language. In the cases of allomorphological solutions, borrowed nouns can form a separate morphological class.

The types of allomorphological solutions are quite varied. The first subset of allomorphological solutions is morphological borrowing, which occurs when one language borrows a morpheme from another language. As mentioned in Section 2.1, this situation requires an intense and prolonged language contact situation, in which speakers of the target language end up acquiring the donor language to a high degree. Once the plural morpheme has been copied into the target language, it can be either applied only to words of foreign origin, as in the case of Tarift Berber (Kossmann 2009) or several Romani varieties of the Balkans (Elšík 2009; Gardani 2008: 39), or it can be extended also to native words, as in the case of Bolivian Quechua (Muysken 2002, 2001) or Yiddish (Thomason and Kaufman 1988: 21).

A second kind of allomorphological solution consists in considering the word as invariant. Such solution is possible, for example, in standard French and in standard Spanish (in the latter case limitedly to certain words of Latin origin ending with a consonant).

The third subgroup of allomorphological solutions is characterized by the fact that the plural is formed with native morphemes that are applied according to rules that are different from those used in the case of native nouns. Among the possible examples of languages that use this strategy, two are particularly interesting because they can provide elements for comparison with Friulian: Dutch and Egyptian Arabic. In both languages there are two ways to form the plural of native nouns. In each language, one of these two strategies is more frequent (the morpheme /+en/ in Dutch, the so-called broken plural in Egyptian Arabic) and the other is less frequent (the suffix /+s/ in Dutch and the so-called sound plural in Egyptian Arabic). In both Dutch and Egyptian Arabic, the plural of borrowed nouns is formed most of the time according to the strategy which is less frequent
Can morphological borrowing be an effect? (Deroń 2003; van der Sijs 1996; Hafez 2008). In other words, the same morphological resources can be used for both native and borrowed nouns, but the order of preference is different.

Figure 1 shows the aforementioned strategies of plural formation with borrowed nouns. For each strategy, I mention the names of some languages for which it is attested.²

Figure 1 reveals that only a minority of languages make use of a single strategy for forming the plural of borrowed nouns. In addition, when a language has only one strategy, it is preferably the oikomorphological one. In contrast, the xenomorphological solution is never the only one that a language has, since it always coexists with at least one more strategy. This is probably due to the fact that maintaining a xenomorphological inflection requires a good and widespread knowledge of the donor language(s). Not surprisingly, this solution seems to be

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typical of European languages in relation to loans from classic Greek and Latin, and of bilingual societies, such as the population of Québec.

A common situation seems to be one which combines, in various ways, two of the strategies described above. This coexistence of different strategies can have two meanings. In fact, if a language has two strategies, a borrowed noun may:

1. form the plural according to only one of these strategies. For example, in Tarifyit Berber and Balkan Romani varieties, early loans form the plural only in an oikomorphological way, whereas morphological borrowing is the only way to build the plural of recent loans (Kossmann 2009; Elšík 2009).

2. form the plural according to both strategies. For example, in standard German the word *Pizza* may have the oikomorphological plural *Pizzen*, or the plural form *Pizzas*, which is the result of a morphological loan (Wegener 2003, 2004). In English the plural of the learned borrowing *phenomenon* can be xenomorphological (*phenomena*) or oikomorphological (*phenomenons*).³

In Québec French, a noun borrowed from English can have either a xenomorphological or an oikomorphological plural (Poplack et al. 1988: 67–68). In Chilean Spanish the plural of the loanword *mall* can be xenomorphological (*malls*), oikomorphological (*malles*) or allomorphological (*mall*) (Castillo Fadic 2002: 486–487). In Italian the plural of a noun borrowed from ancient Greek like *polis* is usually built allomorphologically, but it may also appear in the xenomorphological form *poleis* (Sensini 1990: 103), although the latter sounds erudite and pedantic. Similarly, speakers of Egyptian Arabic may choose between oikomorphological and allomorphological strategies to build the plural of a borrowed noun (Hafez 2008). In all these cases the choice between different morphological solutions available to the speakers seems to depend on the interaction of several variables, including:

- age of the loan: the older a loan, the more likely that its plural is formed oikomorphologically.
- frequency of use of the term: the more commonly a loanword is used, the more likely it is to form the plural oikomorphologically.
- knowledge of the language of origin: the better a speaker knows the donor language (i.e. the higher the level of bilingualism is), the more probable it is that he will form the plural xenomorphologically.

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³ I am grateful to one of the reviewers of this article for calling my attention to the fact that English provides also an interesting example of three coexisting strategies for learned borrowings. In fact, the plural of the word *octopus* can be built oikomorphologically (*octopuses*), xenomorphologically (*octopodes*) and in a peculiar allomorphological way (*octopi*, with the Latin plural morpheme *-i*, i.e. neither according to the rules of the target language nor of the donor language, but of a third language).
Friulian as a language in contact

Friulian, the easternmost of the Rhaeto-Romance languages, is spoken by about 600,000 people in Friuli, the northeastern region of Italy bordering Austria and Slovenia, and by an unknown number of persons in migrant communities abroad. At the beginning of the 15th century, a large part of Friuli was conquered by the Republic of Venice. Following this political change, while Latin remained the language of the liturgy and Friulian remained the language of the lower class, Veneto became the new language of the ruling class and Italian began to prevail, during the course of the Modern Age, as the written language. Between the late 19th and early 20th century Friuli was conquered by the Savoy dynasty and was inserted in the newborn Italian state. This led to the beginning of a massive linguistic Italianization, which operated through the school system first and later also by means of mass media (Andri 1997; De Mauro 1963). Nowadays, despite the fact that in the last decade of the 20th century Friulian was recognized as having a certain degree of legal protection, from a sociological point of view it is a minority language in danger of extinction (Unesco 2011). In fact, it is used orally in informal situations, but is usually replaced by Italian in formal contexts and written usages (Picco 2001: 38, 53–54). The intergenerational transmission of Friulian is declining, so it is estimated that the number of speakers is decreasing by one percent per year (Strassoldo 2001: 15). All speakers of Friulian living in Italy also know Italian, so the situation can be described as generalized bilingualism (Vicario 2005: 23). Such bilingualism is not equal or symmetrical: in addition to being the prevailing language of the school system, Italian is also the dominant language in the media and in public administration. Sociolinguistic research in recent decades also shows that the younger generations are progressively abandoning Friulian in favor of Italian (Picco 2001: 72–78; 2006). This abandonment is both quantitative (in the sense that fewer and fewer young people speak Friulian) and qualitative (in the sense that more and more young people have better language skills in Italian than in Friulian).

Nowadays, with the exception of few individuals or families, Italian is virtually the only language Friulian speakers living in Friuli are in direct contact with. Given the higher social status of Italian, Friulian has borrowed from this language several words. Such items may be native Italian words like *soprano* or *gelato* or foreign words used in Italian like *computer* or *referendum*.

Outside its region of origin, Friulian is still spoken in communities that originated due to the migration of several thousand Friulians during the late 19th and early 20th century. These Friulian outposts are found mainly in Romania, Argentina, Belgium, France, Switzerland, Canada and Australia, where Friulian was often transmitted to second and sometimes third generation descendants,
especially in older and bigger communities (like in Argentina, Romania and Canada). For the purposes of this research, the most interesting characteristic of these groups of speakers is that they lost or dramatically reduced contact with Italian. In this context, Spanish, Romanian, French or English became the contact languages for Friulian speakers and, consequently, the most important sources of loans.

4 Data collection

The data discussed in the following sections have been collected by means of two different methodologies (an ad hoc questionnaire and existing oral corpora) and in four different groups (Friulian-speaking communities in Friuli, Romania, Argentina and Canada).

The ad hoc questionnaire was administered to a sample of 46 persons (23 men and 23 women) between August 2010 and February 2012 in the Lower Valley of Gorto (hence LVG), which is the southern section of the Alpine valley of Gorto, in the region of Friuli bordering Austria. The total population of the area is about 3,500 inhabitants, living in 27 villages. Practically the entire local population speaks Friulian as their mother tongue and, in addition to this, Italian. LVG Friulian belongs to the Carnian dialectal group and is one of the most conservative varieties of the language (Francescato 1966: 100, 111). I interviewed at least one person from each village. 4 20 subjects have completed compulsory education, 22 have a high school diploma, and 4 have a university degree. The average age is 58 years and the distribution by age is shown in Figure 2. Although this research has focused mainly on people aged between 50 and 69 years, I have also interviewed a smaller sample of younger and older subjects, in order to check if there could be any different linguistic behavior in the various generations.

All respondents (as well as the author of this article) are native speakers of LVG Friulian, in the sense that they have spoken it as L1 in their families since early childhood. They also grew up and lived in LVG and use the local

4 Following are the names of the villages of the LVG. For each of them I give the number of interviewed persons and the number of inhabitants in August 2010: Agrons (4/60), Avausa (1/119), Cugaletto and Runchia (2/41), Cella (4/96), Chialina (1/311), Clavais (2/51), Cludinico (1/70), Comelligans (2/188), Entrampo (2/120), Lenzone (1/78), Liariis (2/222), Luincis (3/136), Luint (1/45), Maranzanis (1/43), Miele (1/73), Mione (2/113), Muina (3/147), Noiaretto (1/35), Ovaro (2/470), Ovasta (1/146), Povolaro (1/75), Pradumbli (1/54), Prato (1/208), Ravascletto (2/271), Salars (1/113), Sostasio (1/79), Tualis (2/99).
variety of Friulian in their daily life. It should be noted that all respondents also speak Italian, given the aforementioned situation of bilingualism in Friuli. With regard to the knowledge of other languages, 10 of them have declared they have school knowledge of English (2 have stated that they speak it fairly well), 1 of them studied Latin at high school and 1 spoke German when she was younger.

Data have been collected by means of an interview technique inspired by the Discourse Completion Test (Nurani 2009). Stimuli were conceived in such a way as to minimize the risk that the informant’s response was influenced by the stimulus sentences used by the interviewer. In order to detect the plural form of the word goal, for example, I asked the following question in LVG Friulian: “Ce si disia ch’a fas una scuâra di balon cuan ch’a buta denti il balon ta puarta di chê âtra scuâra?” (‘What does a football team do when they throw the ball into the other team’s gate?’). If the respondent answered “A si dis ch’a fas gôl” (‘They score a goal.’), I then asked “Se una scuâra di balon a fas un gôl tal prin timp da partida e un âti gôl tal secont timp, ce si disia ch’a à fat in dut?” (‘If a football team score one goal during the first half of a match and one more goal during the second half, what have they marked on the whole?’). The respondent then answered with a phrase containing the plural of the target word, for example, “A si dis ch’a à fat doi gôl” (‘They score two goals.’). When the informant pronounced the target word, I transcribed it phonetically. If the informant did not respond (e.g. if s/he, in response to a question about the field of computer science, reacted by saying s/he knew nothing about computers) or answered using a word different form the target (e.g. the native word macet instead of the loanword bouquet), lack of response
was recorded. The information collected by means of this questionnaire was codified in a SPSS data matrix in order to carry out basic statistical descriptive analyses.

The questionnaire included 71 target words that are listed alphabetically in the Appendix. 5 of them are native Friulian nouns that I included in the questionnaire to investigate some aspects of Friulian morphology that are not fully described in previous studies (see Section 5.2). 9 target words are Italian native nouns and adjectives used in Friulian as “firsthand borrowings” (i.e. words borrowed directly from a language where they are native), 12 are non-Italian words that Friulian has borrowed directly from the respective source languages (thus they are “firsthand borrowings”, too), and 45 are non-Italian words that Friulian has borrowed from Italian (in this sense I call them “secondhand borrowings”). The reason why I decided to give priority to originally non-Italian target words is that all native Italian nouns end in a vowel and, consequently, if their derivational morphology is not adapted to Friulian, they may take only the plural morpheme /+s/, never /+i/. Foreign words used in Italian, on the contrary, may end with a consonant, which makes possible the use of either morpheme in Friulian. In addition, I wanted to determine if there was a difference in the morphological treatment of borrowed words of Italian origin and “secondhand borrowings”.

Given the fact that the number of studies on the Friulian spoken by migrant communities is extremely low (Vicario 1992, Rizzolatti 2007), the data for those dialects have been collected by means of the analysis of different written, audio and audiovisual corpora. The data on the Friulian-speaking communities in Romania are contained in two scientific publications that include phonetic transcriptions of large oral texts (Vrabie 1970; Iliescu 1973) and two documentary films, for a total of 18 speakers. The corpus for the Friulian speaking communities in Argentina is formed by a series of audiovisual recordings, for a total of 16 speakers. The interviews with three more speakers that appeared in the documentary film were not included in the corpus because, although they made an effort to speak Friulian, the result was very far from a native-like proficiency.

5 The difference between native Italian words and foreign words used in Italian is intuitively clear to speakers of Italian (and also to Friulian-Italian bilinguals), because Italian native nouns and adjectives must end in a vowel, whereas the majority of foreign words used in Italian end in a consonant.

6 The interviews with three more speakers that appeared in the documentary film were not included in the corpus because, although they made an effort to speak Friulian, the result was very far from a native-like proficiency.
5 Background information about LVG Friulian and Italian

The following pages contain, in summary, the information about LVG Friulian and Italian that is necessary to interpret the data collected during this research. In particular I will describe phonological and morphological features that will be referred to in the following. Finally, I will point out the differences between invariant plurals in the two languages.

5.1 Relevant phonological features of LVG Friulian

Like several other varieties of Friulian, the LVG dialect has a distinction between phonologically short stressed vowels and long stressed vowels (e.g. /ˈmil/ → ['mil] ‘thousand’ vs. /ˈmiːl/ → [ˈmiːl] ‘honey’); unstressed vowels are always short. Long vowels can also derive from a phonological process connected with the devoicing of final consonants. In fact, non-sonorant voiced consonants in word-final position are devoiced and, if the word-final consonant forms a simple coda and is preceded by a phonologically short stressed vowel, its devoicing is accompanied by the lengthening of the stressed vowel. This means that the word Sud (‘South’, from Italian Sud) can be pronounced both [ˈsut] and [ˈsud]. The second pronunciation is the same as in the donor language (see Canepari 2008).

The rule of devoicing is always active in native words, but not always in the case of borrowings, as already observed by Lamuela (1987: 22, 23). This means that the word Sud (‘South’, from Italian Sud) can be pronounced both [ˈsut] and [ˈsud]. The second pronunciation is the same as in the donor language (see Canepari 2008).

For the purposes of this study, it should also be noted that LVG Friulian preserves the phonological distinction between alveolar and postalveolar fricatives (e.g. /ɾoˈzada/ → [ɾoˈzada] ‘dew’ vs. /ɾoˈʒada/ → [ɾoˈʒada] ‘flowered’, /paˈsin/ → [paˈsin] ‘let’s pass’ vs. /paˈʃin/ → [paˈʃin] ‘let’s feed’). As we will see in the next section, this distinction also has a morphological significance. Central Friulian is innovative with regard to such fricatives in the sense that, depending on location,

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7 The literature on this characteristic of Friulian is abundant (see, i.a., Vanelli 1979; Baroni and Vanelli 2000; Finco 2005; Hualde 1990; Prieto 1992; Iosad 2010; Torres Tamarit to appear).
8 For a description of the phonological integration of Italian loanwords in Friulian, see Vanelli 1986.
it has replaced or is replacing the postalveolar fricatives with the corresponding alveolar fricatives\(^9\) (Frau 1984: 57; Finco 2005: 77).

### 5.2 Relevant LVG Friulian morphological features: the formation of the plural

Friulian has two productive plural morphemes: /+s/ (which gives rise to the so-called sigmatic plural) and /+i/ (which gives rise to the so-called vocalic plural or plural by palatalization). The first morpheme is unmarked and applies to all feminine nouns and adjectives and most masculine nouns and adjectives, that altogether form Class I (see Table 1). The phonetic outcome of the addition of /+s/ is /+_s/, except when the final element of the word is a sibilant fricative. In such cases, the stem-final sibilant is apparently elided, while the sibilant of the plural morpheme is preserved (as in the last four rows of Table 1). Although the literature agrees in describing this process simply as elision (Frau 1984: 67; Heinemann 2007: 85; Rizzolatti 1981: 173), the study of the formation of the plural of borrowed nouns will lead us to suggest another explanation (which is proposed in Section 6.3.3).

The second plural morpheme used in Friulian is /+i/, which is marked in the sense that it applies only to masculine nouns and adjectives ending in conso-

| Table 1: Sigmatic plurals of native nouns and adjectives of Class I in LVG Friulian |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| V# or C# | phonetic result of /+_s/ | feminine nous and adjectives | masculine nous and adjectives |
| vowel | /V+s/ → [Vs] | /'papa+s/ → ['papas] 'popes' | /'papa+s/ → ['papas] 'popes' |
| generic C | /C+s/ → [Cs] | /'bolp+s/ → ['bolps] 'foxes' | /'lop+s/ → ['lops] 'crab apples' |
| alveolar sibilant | /s+s/ → [s] | /'tos+s/ → ['tos] 'coughs' (belonging to Class II or III) | not existing in LVG Friulian (belonging to Class II or III) |
| postalveolar sibilant | /ʃ+s/ → [ʃ] | not existing in LVG Friulian | /'peʃ+s/ → ['pes] 'fishes' |
| | /ʒ+s/ → [ʒ] | /'peʒ+s/ → ['peːs] 'pitches' | /'grʒ+s/ → ['grːs] 'grey' |

\(^9\) The loss of the postalveolar fricative phonemes induces some morphological transformations. Since LVG Friulian does not display this phonological loss, the morphological innovation it entails is not relevant to the present study.
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10 Following Halle (1992), I use the [anterior] feature only for coronals.

The phonetic result of the addition of this morpheme is the palatalization of the stem-final consonant (see Table 2). For a comprehensive discussion of this topic see Benincà and Vanelli (1978, 2005) and Vanelli (2005). For the purposes of the considerations that will be developed in the following paragraphs we only need to recall that in LVG Friulian Class II includes:

a. all masculine nouns ending in /s/ or /z/. The phonetic outcome of /s+i/ and /z+i/ is [j].

b. all masculine nouns ending in /l/. The phonetic outcome of /l+i/ is [j].

c. all masculine nouns ending in /ʃt/. The phonetic outcome of /ʃt+i/ is [ʃ].

d. a closed and limited set of about ten masculine nouns and adjectives ending in /Vt/, /Vnt/, and /Vnd/. Among these we can mention /ˈdut+i/ → [ˈduc] ‘all’, /ˈdint+i/ → [ˈdipʃ] ‘teeth’, /ˈgrand+i/ → [ˈgraɲc] ‘big’. The morpheme /+i/ is applied also to one noun and to one adjective ending in coronal nasal: /ˈan+i/ → [ˈaɲc] ‘years’, /ˈbon+i/ → [ˈboɲc] ‘good’, where the final [c] is epenthetic (see Francescato 1966: 63–65).

In Friulian there is also a third morphological class for the formation of plural, which emerges only in varieties that preserve the distinction between alveolar and postalveolar fricatives, like LVG Friulian. Class III includes four names of the days of the week ending in /s/ that remain invariant in the plural (i.e. /ˈlunis/ ‘Monday’, /ˈmaris/ ‘Tuesday’, /ˈmjɛɾkus/ ‘Wednesday’ and /ˈvineɾs/ ‘Friday’; the names of the other days of the week are feminine, end in /a/, and have sigmatic plural forms). For the purposes of this study, it is crucial to underline that these four nouns are the only native Friulian paroxytone masculine nouns ending in an alveolar sibilant, as all other masculine nouns ending with

Table 2: Vocalic plurals of native nouns and adjectives of Class II in LVG Friulian

<table>
<thead>
<tr>
<th>final consonant or cluster</th>
<th>phonetic result of /C+i/</th>
<th>masculine nouns and adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>lateral</td>
<td>/l+i/ → [j]</td>
<td>/ˈbal+i/ → [ˈbaj] ‘dances’ /ˈmaːl+i/ → [ˈmaʃ] ‘diseases’</td>
</tr>
<tr>
<td>/ʃt/</td>
<td>/ʃt+i/ → [ʃ]</td>
<td>/ˈtriʃt+i/ → [ˈtriʃ] ‘bad’</td>
</tr>
</tbody>
</table>
those consonants are oxytone (and belong to Class II). This means that, regardless of the diachronic explanation for their being invariant,\textsuperscript{11} there seems to be a synchronical rule according to which all paroxytone masculine nouns ending in an alveolar sibilant have invariant plural. In LVG Friulian this rule is fully active, since none of the interviewees has built the plural of these four nouns according to the rules of Class II (in fact, all 46 speakers produced invariant plurals for the items /ˈlunis/ and /ˈviners/, which were included in the questionnaire). The results I will present in Table 21 (specifically in cells 10, 11 and 12) confirm that this rule is fully active.

The only exception to this division in three classes is the word /ˈpaːɾ/ ‘pair, even’ which in LVG Friulian shows an idiolectic alternation of sigmatic and invariant plural forms. In fact, while 37 of the 46 speakers interviewed for this research produced an invariant plural for /ˈpaːɾ/, 9 of them (mostly belonging to the younger generations) produced sigmatic plurals.\textsuperscript{12}

The three classes correspond to different levels of markedness. Class I is unmarked, in the sense that a word does not need to have any specific characteristic to form part of it. Class II has an intermediate level of markedness, since a word of Class II needs to be marked both for gender (only masculine) and for the final consonantal element ([Coronal] [+anterior] [−rhotic]). Class III has the highest degree of markedness insofar as its elements are marked for gender (only masculine), final consonant (alveolar sibilant) and accent position (non-oxytone).

\textsuperscript{11} According to a commonly accepted reconstruction, these plurals are invariant because the final sibilant is not stem-final, in the sense that it is the rest of the ending of the Latin genitive (Iliescu 1970: 48; Frau 1984: 64–65). This holds true also for other Romance languages where the names of the days ending in <s> are invariant, like in Spanish, Catalan or Occitan.

\textsuperscript{12} It is possible that ancient Friulian had also a morphological Class IV, characterized by invariant plural (or maybe by two plural markers as in Old French, Skårup 1994: 107). The members of this class, unlike those from Classes II and III, do not seem to have any shared phonological features, but instead common semantic characteristics. They were, in fact, names of units of measurement and of account, like solt ‘soldo’ (unit of account), står ‘bushel’ (unit of measurement) and pår ‘pair, even’ (unit of account). These nouns had both invariant and sigmatic plural forms in Medieval Friulian (Vicario 2007–2011). In later centuries, sigmatic plural forms eventually prevailed (Pirona et al. 1935: 698, 1066, 1111; Faggin 1985: 908, 1316, 1365). At present, all items of ancient Class IV have been attracted into the unmarked Class I in most dialects of Friulian. The alternation of the two plural forms of /ˈpaːɾ/ in the conservative variety spoken in the LVG could be a remainder of this class. No other word displays a similar pattern in this dialect, since no informant knew the disused word solt and only three of them knew the obsolete term /ʃtaːɾ/ (and produced a sigmatic plural of it).
5.3 The formation of the plural of borrowed nouns in Italian

In Italian, which is the language in contact with LVG Friulian, borrowed nouns are never inflected for number (Sensini 1990: 103; Setti 2002; Repetti 2006: 211–218, among others). Following Acquaviva (2009), one can say that borrowed nouns are integrated in a native morphological class, which is usually called Class VI. Class VI differs from all other five native classes because it lacks the abstract morpheme Φ that copies the gender and number of a morphosyntactic word into a fused morpheme at its edge. As a result, whereas nouns and adjectives belonging to the first five classes have vocalic plurals, the elements that are included in Class VI have invariant plurals.

There is no phonological restriction that prevents words from belonging to Class VI, which can include nouns ending in any vowel or consonant. Class VI, thus, contains both native nouns and adjectives (like città, pari) and borrowed nouns and adjectives (like panda, sport, guru, blu).

As suggested by Acquaviva (2009: 60), in the following I will indicate to the lack of the abstract morpheme by means of the label [−Φ]. I chose to indicate all vocalic plural markers of the first five classes of Italian by means of a generic /+V/ label, which is sufficient for the purposes of this paper.

5.4 Invariant plurals in LVG Friulian and in Italian

According to the descriptions presented in Sections 5.2 and 5.3, both LVG Friulian and Italian have phonetically invariant plurals. For the discussion of the results that will be developed in Section 8, it is crucial to notice that, in spite of this coincidence at the phonetic level, the two languages differ at a deeper morphological level.

The first difference lies in the morphemes that give way to phonetically invariant plurals. Whereas in Friulian they can be explained by means of a null morpheme /+Ø/, the structure of the Italian declension system requires these plurals to be explained by means of the abstract morpheme Φ.

The second difference consists in the rules of class assignment. Whereas in Friulian a word can belong to Class III only if it satisfies three conditions (of gender, final consonant and accent position), in Italian there is no phonological restriction that prevents a noun from belonging to Class VI.

In the following sections, whenever an invariant plural can be explained only by means of the Friulian null morpheme, I will mark it with /+Ø/. If an invariant plural can be explained only by means of the Italian abstract morpheme Φ, I will mark it with [−Φ]. If an invariant plural could be the result either of /+Ø/ or of
[−Φ], as a precaution I will mark it provisionally with <inv> and leave the discussion of these cases for Section 7.

6 Presentation of the results

In the following three sections, I will present the data collected by means of the questionnaire and through the analysis of existing corpora. In Section 6.1 I will discuss the plural forms of firsthand borrowings from Italian in LVG Friulian. Section 6.2 will deal with firsthand borrowings form languages other than Italian, both in LVG Friulian and in the varieties spoken in migrant communities. In Section 6.3 I will describe the formation of the plural form of secondhand borrowings from Italian in LVG Friulian and I will make some remarks on the plural of the same kind of loanwords in other varieties spoken in Friuli.

6.1 Firsthand borrowings from Italian

Due to the sociolinguistic situation of Friulian described in Section 3, all the varieties of this language spoken in Friuli have borrowed a number of words from Italian. The questionnaire I submitted to LVG speakers included 9 items of this kind, which are presented in Table 3. The table shows the frequency of the plural morphemes used by the interviewees. Morphemes /+s/, /+i/ are those that characterize Friulian classes I, II. As mentioned above, the label <inv> indicates invariant plurals, which could correspond either to Friulian Class III or to Italian Class VI. The notation /+V/ stands for the different vocalic plural morphemes of Italian. In Tables 3 and 4 I present in separate columns the cases in which informants gave two answers. To make the tables easier to read, I have chosen to leave blank the cells with values of zero. For each target word, the statistical mode has been highlighted in bold.

The first important fact one can observe in Table 3 is that these firsthand borrowings from Italian never take the /+i/ Friulian plural morpheme. This patterning is unsurprising since the borrowings do not have the necessary phonological characteristics to be included in Class II. They are never invariant, as one might expect, because they do not display Φ in Italian, and they do not meet the requirements to be included in Friulian Class III either. As a consequence, they are included (only or mainly) in the unmarked Class I. The Italian vocalic plural markers /+V/ appear only marginally (less than 1% of valid answers), and they are limited to lesser used loanwords. In fact, the last items in the table show both the highest number of /+V/ plurals and the highest number of non-response
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which means that they are of less frequent use than the rest). It seems therefore legitimate to assume, as Poplack et al. (1988) observed for Québec French, that there is a relationship between the low frequency of use of a term and the way its plural is formed. In addition to this, it is evident that since /+V/ plurals do not exist in Friulian, they are xenomorphological. Since all informants are bilingual, plurals of this type can be interpreted as cases of insertional codeswitching.

### 6.2 Firsthand borrowings form languages other than Italian

#### 6.2.1 Firsthand borrowings form languages other than Italian in LVG Friulian

As mentioned in Section 3, Italian is currently the only language with which Friulian speakers living in Friuli are in direct and significant contact. This is also true for LVG Friulian speakers, of course. The most recent lexical borrowings in LVG

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13 Nine informants, all of them younger, used the word *aereos* (the plural form of the loanword *aereo*), which is acceptable but, being different from the expected form, has been counted as a missing answer.

14 Five subjects used the native Friulian generic ethnonym *sclâfs* ‘Slaves’, which is acceptable but, being different from the expected form, has been counted as a missing answer.
Friulian from languages other than Italian go back to past generations. During the Modern Age one can single out three languages that LVG Friulian has borrowed lexical items from: Ecclesiastical Latin (that was the language of liturgy till 1968), Venetian (that was the lingua franca in the Upper Adriatic area during the Modern Age) and German. Rizzolatti (1981) suggests that the last wave of borrowings from German in the Valley of Gorto corresponded with the migration flows towards Austria and Germany that started in the 16th century, which experienced a growth in the late 19th century and finally disappeared with World War I.

The questionnaire administered to LVG speakers included 4 items that LVG Friulian borrowed directly from Ecclesiastical Latin with no Italian intermediation (Table 4). We can exclude the intermediation of Italian because the borrowings are the names of hymns that are chanted in Aquileiese melodies in the LVG area, which have been passed down orally starting well before the 16th century. The 16th century is a *terminus ante quem* for these loans because the Aquileiese rite and chant were abolished in 1591. Aquileiese chants survived only in some conservative areas of the Patriarchate of Aquileia, where they persisted despite ecclesiastic authorities burning Aquileiese missals and graduals (Ernetti 1979; Starec 1994; Cargnello 2000).

![Table 4: Plurals of firsthand borrowings from Ecclesiastical Latin](image)

<table>
<thead>
<tr>
<th></th>
<th>/+Ø/</th>
<th>/+s/</th>
<th>/+i/</th>
<th>/+s/, /+i/</th>
<th>/+Ø/, /+s/</th>
<th>/+Ø/, /+i/</th>
<th>NR</th>
<th>Tot.</th>
</tr>
</thead>
<tbody>
<tr>
<td>conitebor</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>46</td>
</tr>
<tr>
<td>miserere</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>46</td>
</tr>
<tr>
<td>missus</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>46</td>
</tr>
<tr>
<td>sanctus</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>46</td>
</tr>
</tbody>
</table>

None of these four words form the plural as in the donor language. The words *conitebor* and *miserere* always form the plural with /+s/, as in Class I. The words *missus* and *sanctus*, on the other hand, meet all the requirements to be included in Class III (i.e. being masculine, paroxytone and ending with an alveolar sibilant) and thus, as expected for that Class, have invariant plurals ([‘misus], [‘santus]). I have been able to find only one occurrence of loanword from Latin integrated in Class II: the informant from Naiaretto gave, instead of the expected singular form [‘misus], the form [misu’zeʃt], which is a variant of the noun *Missus* deriving from the first two words of the hymn (*Missus est*). Since it is masculine and it ends in [ʃt], it is eligible to be integrated in Class II. And indeed, the informant provided
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A form pluralized by palatalization (i.e. [misu’zeʃc]), as expected. The conclusion one can draw from these data is that ancient loanwords borrowed from Ecclesiastical Latin are fully integrated in the Friulian oikomorphological classes, according to their morphophonemic characteristics.

By means of the questionnaire, I also collected data about plural formation of 4 words that Friulian borrowed from Veneto during the Modern Age. The words have been selected from the lists provided by Pirona (1871: xliii–xliv), Marchetti (1985: 60–63), Faggin (1997: 314–315) and Vicario (2005: 74). One should remember that Venetian has vocalic plural markers similar to Italian, that in Table 5 are indicated by means of /+V/.

Ancient firsthand loanwords from Venetian are fully integrated in the Friulian oikomorphological classes, according to their phonological characteristics. This means that nouns ending with a vowel ([ˈveco] and [ˈmajo]) or with a postalveolar fricative ([salîs]) are integrated in Class I and have sigmatic plurals, whereas nouns ending in a lateral consonant are integrated in Class II and form the plural by palatalization (/seˈcɛl+i/ → [seˈceʃ]). No noun borrowed from Venetian has an invariant plural, because none of them has the phonological characteristics necessary to be included in Class III. One should also note that none of the loanwords contained in Table 5 has a xenomorphological plural, which is probably related to the fact that none of the informants speaks Venetian.

The questionnaire also included 4 firsthand loanwords of a more recent origin, all of them borrowed from German in the 19th century at the latest. Table 6 contains the plural forms collected for these items (the column headed by “German plural markers” would contain the plural forms built according to German morphology). Note that in this table the total number of responses for each item is not always 46. This is due to the fact that in LVG Friulian there are four synonyms for the word ‘backpack’, all borrowed from German: persac, pinchil, poc and sac in poc. The last two are typical of the jargon of lumberjacks, and none of the speakers used it during the interviews. Persac ‘backpack’ is in use in the southern and western villages of the LVG, whereas the form pinchil — though

<table>
<thead>
<tr>
<th>Table 5: Plurals of firsthand borrowings from Venetian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>vecjo</td>
</tr>
<tr>
<td>mascjo</td>
</tr>
<tr>
<td>salîs</td>
</tr>
<tr>
<td>secjel</td>
</tr>
</tbody>
</table>
known and used throughout the LVG area – was produced only by the informants of the 4 western villages (Avausa, Pradumbli, Prato and Sostasio), whose sub-varieties are slightly more conservative than the rest.

As is evident from Table 6, no noun borrowed from German has xenomorphic plural. This is probably due to the fact that none of the informants speaks German. None of the nouns has invariant plural, because none of them has the phonological characteristics needed to be included in Class III. Three of the loanwords (cartufula ‘potato’ from German Kartoffel, persac ‘backpack’ from German Bergsack and spič ‘point, tip’ from German Spitz) are fully integrated in the Friulian oikomorphological Class I, as expected basing on their phonological characteristics. The loanword pinchil (‘backpack’, from German Bündel) displays interesting variation. Based on its phonological characteristics, one would expect it to be integrated into Class II. However, while three informants gave the vocalic plural [ˈpiŋki], the subject from Pradumbli built the plural sigmatically, like for nouns of the unmarked Class I [ˈpiŋkils]. This seems to suggest that firsthand loanwords from German can be integrated in the unmarked Class I, even if they have the phonological features that would allow them to enter the marked Class II (which would be an allomorphological solution in the sense that the plural is formed with a native morpheme that is applied according to rules that are different from those used in the case of native nouns). In order to test this hypothesis, we would need more examples of loanwords from German that have the characteristics needed to be integrated in Class II and that are used by the majority of the speakers of LVG Friulian. Unfortunately, I have not been able to find any noun having both these characteristics. Nevertheless, the case-study of a single LVG family might help to shed some light. The elder members of the family in question, all deceased now, had lived in Austria (first in Carinthia from 1903 to 1912, then in Salzburg from 1912 to 1918) and came back to Friuli at the end of World

Table 6: Plurals of firsthand borrowings from German

<table>
<thead>
<tr>
<th></th>
<th>/+Ø/</th>
<th>/+s/</th>
<th>/+i/</th>
<th>German plural markers</th>
<th>NR</th>
<th>Tot.</th>
</tr>
</thead>
<tbody>
<tr>
<td>cartufula</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>persac</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>spič</td>
<td>38</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>pinchil</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
War I. As a consequence of their time spent in Austria, a small number of loanwords from German entered into the family’s vocabulary without the intermediation of Italian, and were handed down to the following generations. In 1993, as part of a separate study, I interviewed an informant from this family (born in 1914 – died 1998) who produced the word [kiˈnegils] as the sigmatic plural of [kiˈnegil]. This term is an adaptation of the Central Bavarian term Knédl ‘bread dumpling’ and, similarly to pinchil, would be expected to form the plural by palatalization (Class II). Between 2011 and 2012, I also interviewed this informant’s daughter (born 1938), son (born 1946) and grandson (born 1980), all of them native speakers of LVG Friulian. These interviews allowed me to determine that the vocabulary of the family included three more German loanwords dating back to the times of emigration to Austria (crichil [ˈkrikil] ‘beer mug’ from Southern Bavarian Kriegl or Krügl, nos [ˈnɔʃ] ‘pig, in child-directed speech’ from Southern Bavarian Nåtsch, and smorm [ˈʒmɔɾm] ‘Keiserschmarren’ from Central Bavarian Schmårrn). In addition to this, I noted one firsthand loanword from Russian, dating back to 1943–1945 when LVG was occupied by Cossacks (mamalica [mamaˈlika] ‘soft cornmeal pudding’ from Russian Мамалыга).

As Table 7 demonstrates, no noun borrowed directly from German or Russian has xenomorphological plural forms. This is probably due to the fact that none of the informants speak the above-mentioned languages. The words smorm, nos and mamalika always have sigmatic plurals, as expected basing on their phonological features. The words chinegil and crichil, which one would expect to be pluralized through palatalization (Class II), do so in the majority of cases, but have sigmatic

<table>
<thead>
<tr>
<th>Singular</th>
<th>Plural by speaker’s year of birth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>191415</td>
</tr>
<tr>
<td>[kiˈnegil]</td>
<td>[kiˈnegils]</td>
</tr>
<tr>
<td>[ˈkrikil]</td>
<td>?</td>
</tr>
<tr>
<td>[ˈʒmɔɾm]</td>
<td>?</td>
</tr>
<tr>
<td>[ˈnɔʃ]</td>
<td>?</td>
</tr>
<tr>
<td>[mamaˈlika]</td>
<td>?</td>
</tr>
</tbody>
</table>

15 The question marks in this column indicate that, since this informant died in 1998, it has not been possible to interview her again and ask for the plural forms of the majority of items.
plurals in two cases. Both unexpected sigmatic plurals were produced by elder family members, whereas the younger subjects produced palatalized plurals for these items. On one hand, this fact confirms the idea that firsthand loanwords from German can be integrated into the unmarked Class I, even if they have the phonological features that would allow them to enter the marked Class II, as in the case of [ˈpɪŋkɪls] I have discussed above. On the other hand, the differences between speakers seem to suggest that the passing of time and generations produces a shift, for the same borrowed nouns, from an allomorphological to an oikomorphological solution.

6.2.2 Firsthand borrowings form languages other than Italian in Friulian communities abroad

Outside the borders of Friuli, Friulian is still spoken by some first, second and third generation Friulian migrants in several parts of the world. In these communities, as mentioned previously, contact with Italian has been lost or dramatically reduced. The local languages have therefore become the sources where speakers of Friulian borrow lexical items from. In the following pages I will discuss the examples of plural forms of borrowed nouns that emerge in some corpora.

The Friulian varieties spoken in Romania were the object of an in-depth research by Iliescu (1968, 1970, 1973), who published also the phonetic transcription\(^{16}\) of a selection of spontaneous narrative oral texts produced by 13 Friulian speakers (Iliescu 1973: 237–256). More texts of the same kind, produced by a single informant, were collected and published by Vrabie (1970: 103–112). In addition to these sources, I considered the short interviews with 4 second and third generation Friulians living in Romania contained in the documentary films Furlans di Romania (Fachin 2006) and Là vie dilà, Furlans dal Est Europe.\(^{17}\) These materials represent, to the best of my knowledge, all the published sources for the Friulian varieties spoken in that country.

Iliescu (1973: 229) discusses explicitly the morphological adaptation of nouns borrowed from Romanian, presenting five masculine examples: ([tɾakˈtoɾs] ‘tractors’ from tractor, [koŋkaˈsɔrʃ] ‘crushing mills’ from concasor, [riˈnikʃ] ‘kidneys’ from rinichi, [tɾandaˈiɾs] ‘roses’ from trandafir and [puˈjet ͡ s] ‘seedlings’ from puiet) and three feminine examples ([ˈdʒenis] ‘eyelashes’ from geană, [ˈikras] ‘fish eggs’

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16 I adapted Iliescu’s (1973) and Vrabie’s (1970) transcription to the IPA alphabet.
17 Available online at http://www.youtube.com/watch?v=ds3TW6HBcaE, last accessed on 05.03.2012.
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From *icre*, [ˈkleʃtis] ‘tongs’ from *cleşte*). In the short interviews contained in Fachin (2006), I found one plural form of a noun borrowed from the superstrate language ([roˈmaŋs] ‘Romanians’ from *român*). All the aforementioned loanwords have the morphophonemic characteristics required to be included in Class I and, consequently, present a sigmatic plural. None of them has the morphophonemic requirements to be integrated in Class II. Invariant plural forms are not present, either. One instance of xenomorphological plural is attested in another section of Iliescu’s book (1972: 253): [ˈjezi] ‘kids’ is in fact the Romanian native (vocalic) plural form of *ied* ‘kid’.

One of the most important Friulian communities abroad resides in Colonia Caroya (Argentina). The members of that community are exposed to extensive contact with Spanish, whose only plural morpheme is /+s/, which is also the unmarked option in Friulian. However, while in Friulian this morpheme is realized as [+s], its usual phonetic realization in Argentinian Spanish, as in some Andalusian varieties, is either aspiration or, if /+s/ is followed by an occlusive, the gemination of the occlusive (Romera Barrios 1990: 217–227). This difference is crucial because it allows distinguishing between oikomorphological and xenomorphological plurals of loanwords in the items of this corpus: if a word presents an aspiration or a geminated occlusive I will consider the plural xenomorphological; if it has a [+s] mark I will take it as oikomorphological.

I have analyzed recordings of interviews with 16 native Friulian speakers from Argentina, most of them second and third generation migrants. All materials are available online. The audiovisual files have been converted wav files by means of Format Factory 2.90 and have been submitted to spectrographic analysis by means of Praat 5.3.08 (Boersma and Weenink 2012).

The analysis of this corpus provided 6 examples of loanwords in their plural form. In 5 cases the plural is oikomorphological, that means it is built either according to Class I (as in [ˈproˈbemas] ‘problems’ from Spanish *problema*, [ˈsekis] from *caler*).

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18 In these examples, the plural of words ending in [ʃ] is sigmatic, because some varieties of Friulian have substituted [s] with [ʃ] as marker of masculine items of Class I (Heinemann 2007: 85).

19 The documentary film *Diari di Viaç: Colonia Caroya* (http://www.dailymotion.com/video/x10xwn_diari-di-viac-colonia-caroya_school) represents the most important collection of materials. Another source of information is the 78 episodes of the radio show *Fuarce Furlans*, broadcasted by *FM Comunicar*, a local radio station of Colonia Caroya (http://www.ustream.tv/channel/fm-comunicar/videos). A few more video interviews have been included in the corpus: *Paulino Roya* (http://www.dailymotion.com/video/x1txnf_paulino-roya_people), *Gnovis di Colonia Caroya* (http://www.dailymotion.com/video/x1yoym_gnovis-di-colonia-caroya_news), *Emilio Crozzolo – Buenos Aires* (http://www.dailymotion.com/video/x1zpi7_emilio-crozollo-buenos-aires-argjen_news). All these websites were last visited on 05.03.2012.
‘dry periods’ from sequía, [bru’talis] ‘huge’ from brutal, [‘brutos] ‘dirty’ from bruto, [ka’motis] ‘sweet potatoes’ from camote, [‘puβliks] ‘public’ from público) or to Class II (as in [‘tunej] ‘tunnels’ from Spanish tunel). One instance of xenomorphological plural was found, that is the first word of the group [seɾ’bisjoŋ ‘puβliks], which contains a xenomorphological plural ([seɾ’bisjoŋ] ‘services’ from Spanish servicio) followed by an oikomorphological form ([‘puβliks] ‘public’ from público).

I also analyzed 3 interviews with Friulian speakers living in Canada that are available online.20 From this analysis emerged two examples of plural forms of borrowed nouns (members and workshops). The only observation of note here is that in neither case the plural is invariant. Unfortunately, it is not possible to determine whether these two /+s/ plurals are oikomorphological or xenomorphological, since both Friulian and English have sigmatic plural marks.

6.2.3 Interim discussion of the results

As an interim discussion of the data presented in this section, we can observe that ancient loans (e.g. from Latin and Venetian) are always integrated morphologically in one of the three Friulian oikomorphological classes and that they are assigned to one of these classes according to the same morphophonological requirements that are valid for native nouns. In addition, more recent loans (e.g. from German and Italian) are integrated in one of the three Friulian oikomorphological classes, but the rules for assigning them to one of the classes are different from those that are valid for native nouns. One difference is that some nouns that have the morphophonological characteristics that would require assigning them to the marked Class II are unexpectedly integrated into the unmarked Class I (e.g. [‘piŋkils]). Basing on this observation, one can hypothesize that the unmarked /+s/ morpheme is the native strategy of building the plural of words perceived as foreign and that it can be applied to all nouns, irrespective of their morphophonological characteristics. Xenomorphological plural marking has been found only for recent loanwords from languages the speakers know (Spanish, Romanian, Italian), whereas it never occurs for loanwords from languages the speakers do not know (Latin, German, Russian). It is also crucial to underline that the invariant plural is found only for loanwords that fulfill the requirements of native nouns belonging to Class III (that is /+Ø/) and never applies to nouns that have the characteristics needed to be integrated in Class I or in Class II.

20 http://www.mandifriul.com/, last accessed 05.03.2012.
6.3 Secondhand borrowings from Italian in LVG Friulian

The questionnaire administered in LVG included 46 secondhand borrowings from Italian that can be grouped according to the morphophonemic criteria described in Section 5.2 for native nouns and adjectives, namely:

1. masculine nouns and adjectives ending in a generic consonant, \( /+s/ \) plural morpheme is foreseen (Class I),
2. feminine nouns and adjectives, for which the use of \( /+s/ \) plural morpheme is foreseen (Class I),
3. masculine nouns and adjectives ending in \(/f/ o /3/\), for which the use of \( /+s/ \) plural morpheme is foreseen (Class I),
4. masculine nouns and adjectives ending in \(/l/\), for which the use of \( /+i/ \) plural morpheme is foreseen (Class II),
5. masculine nouns and adjectives ending in \(/j\)/, for which the use of \( /+i/ \) plural morpheme is foreseen (Class II),
6. oxytone masculine nouns and adjectives ending in \(/s/ o /z/\), for which the use of \( /+i/ \) plural morpheme is foreseen (Class II),
7. paroxytone and proparoxytone masculine nouns and adjectives ending in \(/s/ o /z/\), for which the invariant plural is foreseen (Class III).

It is important to remember that foreign nouns and adjectives in Italian have invariant plural.

6.3.1 Masculine nouns and adjectives ending in a generic consonant

The questionnaire included 6 masculine nouns ending in a vowel or a generic consonant. Table 8 illustrates the results obtained for this type of word.

The data in Table 8 show that most of the informants provided sigmatic plurals for the words of this category and, in few cases, invariant plurals. The nouns of this class never form the plural by palatalization, which is also impossible the native words with the same endings.

As far as the distribution of \( /+s/ \) and \(<\text{INV}> \) plurals is concerned, it has to be noted that the word computer and airbag represent opposite cases. In fact, computer almost always takes the sigmatic plural form computers, whereas the plural

---

21 As in other descriptive studies of Friulian morphology, the label ‘generic consonant’ is used here as a shortcut to indicate all stem-final consonants and consonant clusters that automatically prevent masculine nouns and adjectives to be assigned to Class II. In other words, ‘generic consonants’ are all consonants but \(/l/, /s/, /z/\) and \(/j/\).
of the word airbag appears 10 times as invariant. It is likely that this difference is related to different frequencies of use these words.

### 6.3.2 Feminine nouns and adjectives

Among feminine secondhand borrowings, some subcategories can be singled out. The first subcategory is formed by nouns and adjectives ending in a vowel (Table 9). Although Friulian has borrowed many words with this feature from Italian, I decided to include only two examples in the questionnaire. The reason for this choice was the prediction, confirmed by the data, that these nouns always form the plural by means of /+s/. This morpheme is applied both to commonly used and old loanwords such as biro, and to recent and lesser used loans as vodka.

The second subgroup is formed by two feminine nouns ending in a non-sibilant consonant (Table 10). Both of them usually form the plural by means of

| Table 8: Plurals of masculine secondhand borrowings ending in a generic consonant |
|-----------------|---|---|---|---|---|---|---|
|                | 〈INV〉 | /+s/ | /+i/ | /+s/, /+i/ | /+s/, /+i/ | NR | Tot. |
| computer       | 1   | 43  |     |            |            | 1  | 45  |
| nord           |     | 36  |     |            |            | 10 | 46  |
| sud            | 1   | 7   |     |            |            | 38 | 46  |
| bouquet        | 3   | 32  | 2   |            |            | 9  | 46  |
| referendum     | 3   | 20  |     |            |            | 23 | 46  |
| airbag         | 10  | 28  |     |            |            | 8  | 46  |

| Table 9: Plurals of feminine secondhand borrowings ending in a vowel |
|-----------------|---|---|---|---|---|---|---|
|                | 〈INV〉 | /+s/ | /+i/ | /+s/, /+i/ | /+s/, /+i/ | NR | Tot. |
| biro           |     | 45  |     |            |            | 1  | 46  |
| vodka          |     | 41  |     |            |            | 5  | 46  |
Can morphological borrowing be an effect?

Although these data represent a limited number of items and responses, we can cautiously hypothesize that the invariant plural is more frequent for less commonly used words.

The other two subgroups include borrowed feminine nouns and adjectives ending in a sibilant fricative, either alveolar or postalveolar.

The subgroup containing feminine nouns ending in an alveolar sibilant consists of three items. In all three cases, from a phonetic point of view the plural is always identical to the singular. However, it is phonetically impossible to determine whether the morpheme /+s/ is added or if they should be labeled as <inv>. For this reason, despite the fact that /+s/ is more likely by analogy with all other feminine nouns, in the case of the nouns in Table 11 it is impossible to determine with certainty what the morpheme underlying the phonetic forms that have been produced by the speakers is.\(^{22}\)

The case of feminine nouns ending with the sibilant alveolar [ʃ] is more interesting (Table 12). The invariant plural seems to be the most frequent for this

22 In Section 6.3.3, based on the observation of the plural nouns ending in a sibilant, I will suggest that these plurals could be considered sigmatic and I will propose a set of linear phonological rules that govern the formation of the sigmatic plural of native feminine nouns ending in sibilants.

---

**Table 10**: Plurals of feminine secondhand borrowings ending in non-sibilant consonant

<table>
<thead>
<tr>
<th></th>
<th>&lt;inv&gt;</th>
<th>/+s/</th>
<th>/+i/</th>
<th>/+s/, /+i/</th>
<th>&lt;inv&gt;, /+s/</th>
<th>&lt;inv&gt;, /+i/</th>
<th>NR</th>
<th>Tot.</th>
</tr>
</thead>
<tbody>
<tr>
<td>email</td>
<td>2</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>sex symbol</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>42</td>
<td>46</td>
</tr>
</tbody>
</table>

**Table 11**: Plurals of feminine secondhand borrowings ending in /s/ or /z/

<table>
<thead>
<tr>
<th></th>
<th>&lt;inv&gt;</th>
<th>/+s/</th>
<th>/+i/</th>
<th>/+s/, /+i/</th>
<th>&lt;inv&gt;, /+s/</th>
<th>&lt;inv&gt;, /+i/</th>
<th>NR</th>
<th>Tot.</th>
</tr>
</thead>
<tbody>
<tr>
<td>hostess</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>46</td>
</tr>
<tr>
<td>ananas</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>gauloise</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>43</td>
<td>46</td>
</tr>
</tbody>
</table>
subgroup. Not surprisingly, it can be observed that the number of sigmatic plurals increases when the number of missing answers decreases. Once again, therefore, the lower frequency of use of a term goes along with a significant number of invariant plural forms. In addition to this, it is interesting to note that in native feminine nouns the final [ʃ] is always the realization of /ʒ/, never of /ʃ/, while this restriction is not found in borrowed feminine nouns (see Table 1).

### 6.3.3 Masculine nouns and adjectives ending in a postalveolar fricative

The third category is that of masculine nouns and adjectives ending in /ʃ/ and /ʒ/ (Table 13). The loans in this group never form the plural by palatalization, a characteristic they share with the native nouns that end with the same consonants.

Within the group, it is possible to identify two subgroups. The nouns *gas* and *garage* are part of the first, where the sigmatic plural prevails. The second group

| Table 12: Plurals of feminine secondhand borrowings ending in /ʃ/ or /ʒ/ |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| brioche        | 27    | 17    |      |          |            |            | 2  | 46  |
| manche         | 31    | 8     |      | 1        |            |            | 6  | 46  |
| fiche          | 35    | 1     |      | 2        |            |            | 8  | 46  |

| Table 13: Plurals of masculine secondhand borrowings ending in /ʃ/ or /ʒ/ |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| gas            | 8     | 28    |      |          |            |            | 2  | 38  |
| garage         | 14    | 30    |      | 1        |            |            | 1  | 46  |
| flash          | 29    | 14    |      | 3        |            |            | 46 |
| peluche        | 27    | 15    |      | 3        |            |            | 1  | 46  |
| reportage      | 30    | 2     |      |          |            |            | 14 | 46  |
| collage        | 29    | 2     |      |          |            |            | 15 | 46  |
includes the remaining four terms, for which the invariant plural prevails. Note that the last two items in the table show both the highest number of invariant plurals and the highest number of non-response. This means that the last two items of the table are of less frequent use than the rest. It seems therefore legitimate to assume, as observed by Poplack et al. (1988) for Québec French, that there is a relationship between the low frequency of use of a term and the way its plural is formed.

The cases of *garage*, *reportage*, and *collage* deserve to be discussed in more detail, because they shed some light on a neglected aspect of Friulian morphophonemics. The singular form of *garage*, in fact, was realized as [gaˈɾaʃ] by 6 informants and as [gaˈɾaʒ] by 39 informants. The second realization violates the rule of devoicing of final non-sonorant consonants, which is always active in Friulian native words but not always in the case of loans (Lamuela 1987: 22, 23).

Under this rule, all native words ending in /ʃ/ and /ʒ/ are phonetically realized with a final [ʃ]. When the morpheme /+s/ is added to such native words, the phonetic result is an [s]. Thus we have, for example, /ˈpeʒ+s/ → [ˈpeːs] ‘pitches’ and /ˈpeʃ+s/ → [ˈpes] ‘fishes’.

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The studies published to date that focus on the morphophonemics of native words seem to agree in describing the disappearance of /ʃ/ and /ʒ/ and the surfacing of [s] as the effect of the elision of the stem-final postalveolar sibilant (Frau 1984: 67; Heinemann 2007: 85; Rizzolatti 1981: 173). The process suggested by these authors can be represented by means of the rule in (a).

\[
\begin{bmatrix}
-\text{sonorant} \\
+\text{continuant} \\
-\text{anterior}
\end{bmatrix} \rightarrow \emptyset / ___ + \begin{bmatrix}
-\text{sonorant} \\
+\text{continuant} \\
+\text{anterior}
\end{bmatrix}
\]

The data collected during this research, however, challenge this interpretation. In fact, 29 out of the 39 informants who had produced the singular form [gaˈɾaʒ] have then produced the plural form [gaˈɾaʃ], which cannot be but sigmatic. If the elision rule mentioned above were the only rule to be applied, the only sigmatic plural form of a loan as [gaˈɾaʒ] could be [gaˈɾaːs] and the plural form [gaˈɾaːz],

---

23 In LVG Friulian the masculine noun *gas* can have two forms in idiolectic alternation: [ˈgaːs] and [ˈgaʃ]. For this reason the term reappears in Table 19 and the total number of responses is different from 45. The number of non-response was distributed between the two variants of the term in proportion to the number of valid responses provided for each. A similar count was made for the nouns *ananas* and *email* (see below).
which is the most frequent in our data, would not be possible. I posit that the presence of the final [z] in [gaˈɾaːz] can be explained as the result of the implementation of an assimilation rule (b) before a slightly different elision rule (c). According to rule (b), the final sibilant of the stem transmits its [α voice] feature to the sibilant of the morpheme /+s/.

\[
\begin{array}{c}
\text{sonorant} \\
+\text{continuant} \\
+\text{anterior}
\end{array} \rightarrow [\alpha \text{ voice}] / \\
\begin{array}{c}
+\text{consonant} \\
\alpha \text{ voice}
\end{array} + ___
\]

Rule (c) would provide for the elision of the first of the two sibilants that are in contact.

\[
\begin{array}{c}
\text{sonorant} \\
+\text{continuant} \\
\text{Coronal}
\end{array} \rightarrow \emptyset / ___ + \\
\begin{array}{c}
-\text{sonorant} \\
+\text{continuant} \\
+\text{anterior}
\end{array}
\]

In addition to rules (b) and (c), the rules of vowel lengthening (d) and final consonant devoicing (e) – adapted from Baroni and Vanelli (2000: 27) – also apply in this context. Notably, though, rule (e) does not necessarily apply to loanwords (see Section 5.1). Finally, if the word ends with two sonorant voiced segments, rule (f) – which is similar to the regressive assimilation rule found in Slavic languages (Castellví i Vives 1998: 66) – accounts for the devoicing of both of them.

\[
\begin{array}{c}
-\text{sonorant} \\
+\text{voice}
\end{array} #
\]

\[
\begin{array}{c}
-\text{sonorant} \\
-\text{voice}
\end{array} #
\]

\[
\begin{array}{c}
-\text{sonorant} \\
-\alpha \text{ voice}
\end{array} #
\]

When taken with the suffixation rule accounting for the sigmatic plural, rules (b), (c), (d) and (e) account for the phonetic form of both native and borrowed sigmatic plural nouns ending in an alveolar or postalveolar fricative. Table 14 illustrates the order of rule implementation for some nouns (two of which are feminine and have been discussed in Section 6.3.2).
Can morphological borrowing be an effect?

6.3.3.1 Masculine nouns and adjectives ending in a coronal affricate

LVG Friulian has a considerable number of native nouns ending in /tʃ/ (e.g. /ˈpetʃ/ ‘spruce’), a handful ending in /dʒ/ (e.g. /ˈledʒ/ ‘law’, /ˈmjedʒ/ ‘half’, /ʃtɾaˈmjedʒ/ ‘partition wall’, /ˈvjadʒ/ ‘trip’), and none ending in /dz/ or /ts/26. These nouns belong to Class I and the phonetic result of adding /+s/ is in all cases [t ͡ s]. The data collected for this study include the plural forms of one borrowed noun ending in a coronal affricate (Table 15).

24 Rule (d) does not apply (d.n.a.) to /ˈpeʃ/, /ˈtos/ and /ˈfif/ because the stem-final consonant is unvoiced.
25 Rule (e) applies vacuously to /ˈpeʃ/ and /ˈtos/ because the stem-final consonant is unvoiced. It needs not apply (n.n.a.) to /gaˈɾaːz/ and /goˈlwaz/ because they are loanwords, though is some cases it does, as mentioned before. In the case of the loanword /ˈfif/, it needs not apply and, if it does, its application is vacuous.
26 There is one apparent exception, which is the word fonts [ˈfonʦ] ‘bottom’, that in the singular form ends with the affricate [ʦ]. The final affricate, nevertheless, does not fully belong to the stem. In fact, the derived forms like the diminutive fondut [fonˈdut] (formed with the suffix /+ˈut/) or the pejorative fondat [fonˈdat] (formed with the suffix /+ˈat/) reveal that the stem is /fond/, that ends with a stop. Forms like *[fonˈdʒut] or *[fonˈdʒat] are not correct, although they do not violate any phonological constraint of Friulian. Consequently, this word belongs to Class I and forms the plural accordingly: /ˈfond+s/ → [ˈfonʦ]. The presence of the final non-stem [s] in the singular form fonts [ˈfonʦ] is explained as a relic of the Protoromance nominative masculine singular suffix -s (Cadorini 1997).

Table 14: Plurals of native and borrowed nouns and adjectives ending in a sibilant fricative

<table>
<thead>
<tr>
<th>underlying forms</th>
<th>native nouns</th>
<th>borrowed nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ˈpeʒ/</td>
<td>/ˈpeʃ/</td>
<td>/ˈtos/</td>
</tr>
<tr>
<td>1) rule (d)24</td>
<td>‘peːʒ’</td>
<td>d.n.a.</td>
</tr>
<tr>
<td>2) /+s/ suffixation</td>
<td>‘peːʒs’</td>
<td>‘peʃs’</td>
</tr>
<tr>
<td>3) rule (b)</td>
<td>‘peːʒz’</td>
<td>‘peʃs’</td>
</tr>
<tr>
<td>4) rule (c)</td>
<td>‘peːz’</td>
<td>‘pes’</td>
</tr>
<tr>
<td>5) rule (e)25</td>
<td>‘peːs’</td>
<td>‘pes’</td>
</tr>
</tbody>
</table>


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Download Date | 2/13/13 10:34 AM
The few plurals collected for badge seem to follow the same pattern mentioned for garage in Section 6.3.3. Two informants, in fact, have produced the sigmatic plural form [ˈbedz] and one has produced the form [ˈbetʃ], which is also sigmatic. This suggests that the rules shown in Table 14, as well as rule (f), could also explain the pluralization of nouns ending in coronal africates, provided one accepts that in LVG Friulian they can be considered biphonematic in stem-final position.\(^\text{27}\) Table 16 illustrates the implementation of the rules to some native nouns and some loanwords.

### 6.3.4 Masculine nouns and adjectives ending in a lateral

The fourth category includes 14 masculine nouns and adjectives ending in /l/, which is the only lateral in Friulian (Table 17). It should be noted that two of the

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\(^\text{27}\) The phonological representation of africates in different languages is a classical problem in the phonological theory that has given way to decade-long discussions (see, for example, Badia i Cardús 2000 for Catalan and Griffen 1981 for German). Establishing the phonological status of africates in LVG Friulian exceeds by far the purposes of this paper and requires further investigation. For the purposes of this section of this paper, one should bear in mind Friulian phonetic africates are traditionally represented as monophonematic, at least in the descriptions based on Central Friulian (Finco 2005: 90–95, i.a.). If in LVG Friulian they were phonemes in all contexts, the rule of vowel lengthening should apply to words ending in /dʒ/. Nevertheless, in LVG Friulian rule (d) never applies to words with this ending (e.g. /ˈledʒ/ → [ˈletʃ] ‘law’, /aˈɾedʒ/ → [aˈɾetʃ] ‘she rules’). If africates were underlyingly biphonematic, at least in stem-final position, one could explain why rule (d) does not apply to these words. If africates cannot be considered biphonematic, the phonetic result of ‘africate /+s/’ requires first of all to change rule (d) so that it does not apply to words ending in an africate (I would call this new rule d’). Secondly, since rule (c) cannot apply to africates, one should also introduce a rule (c’) that explains the transformation dʒ+z → dz in terms of coalescence.
Can morphological borrowing be an effect?

words (email and sex symbol) also appear in Table 10 because they can be both masculine and feminine, both in Italian and Friulian.

As mentioned previously, native masculine nouns and adjectives ending in /l/ can form the plural only by palatalization (/l+i/ → [j]), never by means of the morpheme /+s/. The data contained in Table 17 show that, in contrast to native nouns, masculine loanwords ending in /l/ can also form the plural with /+s/. The only two loanwords for which the morpheme /+i/ is the most used are goal and hotel, both fairly commonly used terms. A second group of words, much larger than the first, shows a prevalence of sigmatic plural forms along with a smaller number of vocalic plurals (tunnel, aerosol, cocktail, autogrill, festival). The third

Table 16: Plurals of native and borrowed nouns and adjectives ending in a coronal affricate

<table>
<thead>
<tr>
<th>underlying forms</th>
<th>native nouns</th>
<th>borrowed nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) rule (d)²⁸</td>
<td>d.n.a.</td>
<td>d.n.a.</td>
</tr>
<tr>
<td>2) /+s/ suffixation</td>
<td>'ledʒs</td>
<td>'petʃs</td>
</tr>
<tr>
<td>3) rule (b)</td>
<td>'ledʒz</td>
<td>'petʃs</td>
</tr>
<tr>
<td>4) rule (c)</td>
<td>'ledʒ</td>
<td>'petʃ</td>
</tr>
<tr>
<td>5) rule (e)²⁹</td>
<td>'ledʒs</td>
<td>'petʃ</td>
</tr>
<tr>
<td>6) rule (f)</td>
<td>'ledʒs</td>
<td>'petʃ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>phonetic forms</th>
<th>native nouns</th>
<th>borrowed nouns</th>
</tr>
</thead>
</table>

²⁸ It has not been possible to find any native or borrowed noun having all conditions needed for rule (d) to be applied (see Section 3.3). In spite of its redundancy for the examples presented here, I maintained it in this table because it is a high-ranking rule of Friulian phonology. In the examples in this table, rule (d) does not apply to /ˈpetʃ+s/ because its coda is unvoiced. The reason why it does not apply to /ˈledʒ+s/ and /ˈbedʒ+s/ is that affricates in stem-final position are considered biphonematic (if they are not, another rule (d’) applies, as mentioned in the previous footnote).

²⁹ Rule (e) applies vacuously to /ˈpetʃ/ because its stem-final consonants is unvoiced. It needs not apply (n.n.a.) to /ˈbedʒ/ because it is a loanword, although one of the informants of our research did apply it.

³⁰ The assignment of grammatical gender to nouns borrowed from Italian is not a topic of interest, because both languages have two genders (masculine and feminine) and the gender of borrowed nouns is maintained in the target language.
Table 17: Plurals of masculine secondhand borrowings ending in /l/

<table>
<thead>
<tr>
<th></th>
<th>&lt;INV&gt;</th>
<th>/+s/</th>
<th>/+i/</th>
<th>/+s/, /+i/</th>
<th>&lt;INV&gt;, /+s/</th>
<th>&lt;INV&gt;, /+i/</th>
<th>NR</th>
<th>Tot.</th>
</tr>
</thead>
<tbody>
<tr>
<td>goal</td>
<td></td>
<td>11</td>
<td>31</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>hotel</td>
<td>1</td>
<td>12</td>
<td>26</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>strudel</td>
<td>4</td>
<td>20</td>
<td>19</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>tunnel</td>
<td>2</td>
<td>26</td>
<td>13</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>aerosol</td>
<td>10</td>
<td>16</td>
<td>13</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>cocktail</td>
<td>4</td>
<td>30</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>autogrill</td>
<td>11</td>
<td>25</td>
<td>9</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>festival</td>
<td>12</td>
<td>25</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>email</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>noglobal</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>single</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>sex symbol</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>exit poll</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
<tr>
<td>pixel</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46</td>
</tr>
</tbody>
</table>

and last group consists of words that virtually never form the plural by palatalization, but either form it with the morpheme /+s/ or remain invariant (email, noglobal, single, sex symbol, exit poll, pixel). It is significant that the words of the last group are characterized also by the highest number of missing responses, which suggests that the way they form the plural has to be related with their low frequency of use, as seen previously.

6.3.5 Masculine nouns and adjectives ending in /ʃt/

The fifth group includes three nouns ending in /ʃt/ (Table 18) that, according to the rules valid for native nouns, should be assigned to Class II and, consequently, would be expected to form the plural by palatalization (/ʃt+i/ → [ʃt]).
Can morphological borrowing be an effect?

Similarly to what has been seen in relation to masculine nouns ending in /l/, the data show that while native nouns in /ʃt/ cannot form the plural by means of the morpheme /+s/, borrowed nouns having the same ending can.

The morpheme /+i/ is the most used in the cases of two commonly used nouns (test and toast), but is completely replaced by /+s/ in the case of a rarely used word as panzerfaust. Once again, therefore, the choice of the plural morpheme seems to depend on the frequency of the use of a term.

6.3.6 Oxytone masculine nouns and adjectives ending in an alveolar fricative

The sixth category includes the 4 oxytone masculine nouns ending in /s/ or /z/ (Table 19). At first sight one might think that this set of nouns and adjectives is characterized by invariant plural. Although the invariant plural is the most frequent, one should note that /+i/ – that is the morpheme one would expect basing on oikomorphology – is also present. This means that the words belonging to this subgroup are susceptible to being integrated into Class II, as native words having the same morphophonological characteristics. They remain invariant most of the time likely due to the growing influence of the standard-like Central variety of

| Table 18: Plurals of masculine secondhand borrowings ending in /ʃt/ |
|---------------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|---------------|
|                     | <INV> | /+s/ | /+i/ | /+s/, /+i/ | <INV>, /+s/ | <INV>, /+i/ | NR | Tot.  |
| test                | 3     | 6    | 26   | 1            |             |             | 10 | 46   |
| toast               | 5     | 9    | 27   | 2            |             |             | 3  | 46   |
| panzerfaust         | 4     |      |      |              |             |             | 42 | 45   |

| Table 19: Plurals of oxytone masculine secondhand borrowings ending in /s/ or /z/ |
|---------------------|-----------------|-----------------|------------------|-----------------|-----------------|---------------|
|                     | <INV> | /+s/ | /+i/ | /+s/, /+i/ | <INV>, /+s/ | <INV>, /+i/ | NR | Tot.  |
| boss                | 38    | 6    |      |              |             |             | 2  | 46   |
| bus                 | 38    |      |      |              |             |             | 1  | 46   |
| gas                 | 6     | 2    |      |              |             |             | 7  | 46   |
| bypass              | 41    |      |      |              |             |             | 8  | 46   |
Friulian, which has substituted alveolar fricatives for postalveolar fricatives and, consequently, displays invariant plural for nouns ending in an alveolar fricative.

### 6.3.7 Paroxytone and proparoxytone masculine nouns and adjectives ending in an alveolar fricative

The last category includes the 5 paroxytone and proparoxytone masculine nouns ending in /s/ or /z/ (Table 20). It should be noted that one of them (*ananas*) can be either masculine or feminine, both in Italian and Friulian. For this reason it also appears in Table 11.

#### Table 20: Plurals of paroxytone and proparoxytone masculine nouns and adjectives ending in /s/ or /z/

<table>
<thead>
<tr>
<th></th>
<th>&lt;INV&gt;</th>
<th>/+s/</th>
<th>/+i/</th>
<th>&lt;INV&gt;, /+s/ /+i/</th>
<th>&lt;INV&gt;, /+s/ /+i/</th>
<th>NR</th>
<th>Tot.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>paroxytone</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>blocnotes</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>46</td>
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<tr>
<td>cordless</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>46</td>
</tr>
<tr>
<td>ictus</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>46</td>
</tr>
<tr>
<td><strong>proparoxytone</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ananas</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>34</td>
</tr>
<tr>
<td>autobus</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>46</td>
</tr>
</tbody>
</table>

To interpret the data presented in Table 20, it is useful to remember that Class III, for which invariant plural is foreseen, includes only four native non-oxytone masculine nouns ending in /z/ or /s/. This class is therefore closed as far as native nouns are concerned, but it seems that it could have been revitalized by the introduction of ecclesiastical Latin lexical items in the past centuries (Section 6.2.1) and, more recently, by the integration of secondhand loans like those mentioned in this section.

### 6.4 Secondhand borrowings from Italian in other varieties of Friulian

It would be interesting to compare these data with similar data from Central Friulian, which is less conservative than the LVG variety. In the absence of research of this kind, some interesting points can be drawn from the analysis of written cor-
Can morphological borrowing be an effect?

To this end I chose two lexicographical tools available on the Internet: the Grant dizionari bilengâl italian-furlan (hereinafter GDBTF) and the Formari. The GDBTF is a bilingual Italian-Friulian dictionary, which should be the Friulian reference dictionary. The Formari represents a software offering the inflected forms of several thousand Friulian words. The GDBTF provides definitions and a phraseology in Friulian for most of the entries. Definitions and phraseology contain, in some cases, the plural forms of secondhand borrowings. I identified 46 sentences containing loans of this kind in their plural forms. 28 cases out of 46 are oikomorphological plurals built with /+s/ or /+i/. In the remaining 18 cases, accounting for 39% of the total, the plural is invariant although the words do not have the characteristics needed to be included in Class III. In the Formari I was able to find 123 borrowed nouns and adjectives. Of these, 6 do not have any plural form (evidently due to a mistake made by the lexicographers), 85 have an oikomorphological plural and the remaining 32 (27%) have invariant plural forms in spite of the fact the words do not have the characteristics needed to be included in Class III.

These data suggest, therefore, that the presence of invariant plural forms for secondhand borrowings from Italian is not limited to the LVG variety.

6.5 Interim discussion of the results

As an interim discussion, we can observe that the data about the plural of secondhand borrowings from Italian confirm most of the results of the analysis of firsthand borrowings (Section 6.2.3). Namely, all loanwords can be integrated in one of the three Friulian oikomorphological classes according to the same morphophonological requirements that are foreseen for native nouns (e.g. hotei). Secondhand borrowings from Italian that meet the requirements for being integrated into the marked Class II can also be integrated in the unmarked Class I (e.g. hotels), like firsthand borrowings from other languages (e.g. pinchils discussed in Section 6.2.1). This observation reinforces the hypothesis that the unmarked /+s/ morpheme represents the native strategy of pluralizing words perceived as foreign, and that /+s/ can be applied to all nouns, irrespective of their morphophonological characteristics.

The most important difference in comparison with firsthand borrowings is that, while in the case of loanwords from other languages (Sections 6.2.1 and 6.2.2) the invariant plural is found only for words that fulfill the requirements of native nouns belonging to Class III, secondhand borrowings from Italian can have invariant plurals even if they do not meet these requirements. This, together with the fact that borrowed nouns are invariant in Italian, suggests that the
presence in Friulian of invariant plural forms like *computer, brioche* or *strudel* could be the result of a xenomorphological formation of plural.

### 7 Testing hypotheses

The description of the formation of plurals of native nouns presented in Section 5.2 and the interim discussions of the results presented in Sections 6.2.3 and 6.5 allow me to put forward some hypotheses about the formation of plurals in Friulian for native nouns, firsthand borrowings from different languages and secondhand borrowings from Italian:

1. An obvious hypothesis is that all native nouns form the plural oikomorphologically, i.e. they are integrated into one of the three native morphological classes according to the morphophonological requirements that are foreseen for that class.

2. Native nouns cannot form the plural allomorphologically, i.e. by means of a native morpheme that is typical of a class different from the one they belong to.

3. Native nouns cannot form the plural xenomorphologically, i.e. by means of a morpheme that is not present in the grammar of the language.

4. Firsthand and secondhand borrowed nouns can form the plural oikomorphologically, i.e. they can be integrated in one of the three Friulian oikomorphological classes according to the same morphophonological requirements that are foreseen for native nouns.

5. Borrowed nouns that meet the requirements for being integrated in the marked Class II (which entails the formation of the plural by palatalization by means of /+i/) can build the plural with the Friulian morpheme /+s/. In other words, the native Friulian allomorphological strategy for building the plural of words perceived as foreign is the unmarked /+s/ morpheme.

6. Borrowed nouns that do not have the characteristics needed to be integrated in one of the Friulian marked Classes (II and III) cannot be integrated in these classes. This means that the marked native morpheme /+i/ cannot apply to nouns that do not meet the requirements to belong to Class II and that invariant plurals are not possible for nouns that do not have the requirements needed to belong to Class III.

7. Borrowed nouns (especially the most recent) from a language the speakers are familiar with (like Italian) can build the plural xenomorphologically. This means that loanwords from Italian can form the plural xenomorphologically, i.e. by means of /+V/ if they display /+V/ in Italian or, if in Italian they are invariant, they remain invariant in Friulian, too.
Hypotheses 6 and 7 contain a contradiction, at least apparently. In fact, if we consider the secondhand borrowing from Italian hotel, according to hypothesis 6 the invariant plural form hotel would not be possible, because the word does not have the requirements to be included in Class III. But according to hypothesis 7, the invariant plural form hotel would be possible because it is invariant in the donor language (i.e. the invariant solution would be xenomorphological).

In order to test these hypothesis and collect elements to explain the contradiction mentioned above, I submitted a grammaticality test to 20 native speakers of LVG Friulian, 10 women and 10 men, aged 20 to 85 years (mean = 54 years of age), all from the village of Agrons. The test included, in addition to 31 fillers, 29 short broad focus statements containing plural forms of native nouns, firsthand borrowings and secondhand borrowings that meet the requirements for being integrated into one of the three Friulian morphological classes. The plurals were built with the Friulian /+s/ and /+i/ morphemes, with xenomorphemes and were left invariant.

The interviewees were asked to tell if the sentences were “right” or “wrong” and, if they considered them wrong, to correct them. The results of the test are presented in Table 21. The cells of the table are numbered from (1) to (36). Each cell contains the phonetic transcription of the target word and, below, the number of speakers that said that the target word was correct (N correct), that it was wrong and suggested a sigmatic plural instead (N → /+s/), that it was wrong and proposed a plural by palatalization (N → /+i/), that it was wrong and suggested an invariant plural (N → <inv>). The total number of answers is some cells is higher than the number of interviewees (20) because some of them gave two answers or hesitated between them. When the phonetic result of the application of two different strategies was the same, I indicated it by means of a reference to the other cell.

Each cell of the last column of the table contains the indication of the xenomorpheme that has been applied. The xenomorpheme for the firsthand borrowing from German is /+n/ (Table 21, cell 20), for the firsthand borrowing from Italian it is /+V/ (cell 16), for the firsthand borrowing from Latin it is /+i/ according to the Latin declension the loanword belongs to (cell 24). Secondhand borrowings from Italian were left invariant, as they are in the donor languages due to the lack of Φ (cells 28, 32, 36). In order to test hypothesis 3, we applied to Friulian native nouns the Italian /+V/ morphemes (cells 4, 8, 12).
### Table 21: Results of the grammaticality test

<table>
<thead>
<tr>
<th></th>
<th>/+s/</th>
<th>/+i/</th>
<th>&lt;INV&gt;</th>
<th>xenomorphemes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Native nouns</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with Class I requirements: ['feːl] (sf)</td>
<td>(1) ['feːls] 20 correct 0 → /+i/ 0 → &lt;INV&gt;</td>
<td>(2) ['feːj] 0 correct 20 → /+s/ 0 → &lt;INV&gt;</td>
<td>(3) ['feːl] 0 correct 20 → /+s/ 0 → /+i/ 0 → &lt;INV&gt;</td>
<td>(4) ['feːle], /+V/ 0 correct 20 → /+s/ 0 → /+i/ 0 → &lt;INV&gt;</td>
</tr>
<tr>
<td>with Class II requirements: ['peːl] (sm)</td>
<td>(5) ['peːls] 0 correct 20 → /+i/ 0 → &lt;INV&gt;</td>
<td>(6) ['peːj] 20 correct 0 → /+s/ 0 → &lt;INV&gt;</td>
<td>(7) ['peːl] 0 correct 0 → /+s/ 20 → /+i/ 0 → &lt;INV&gt;</td>
<td>(8) ['peːle], /+V/ 0 correct 0 → /+s/ 20 → /+i/ 0 → &lt;INV&gt;</td>
</tr>
<tr>
<td>with Class III requirements: ['lunis] (sm)</td>
<td>(9) coincides phonetically with (11) (10) ['luniʃ] 0 correct 20 → &lt;INV&gt;</td>
<td>(11) ['lunis] 20 correct 0 → /+i/</td>
<td>(12) ['lunizil], /+V/ 0 correct 0 → /+s/ 20 → &lt;INV&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Firsthand borrowed nouns</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with Class I requirements: ['sɛɾbo] (sm)</td>
<td>(13) ['sɛɾbos] 20 correct 0 → /+i/ 0 → &lt;INV&gt;</td>
<td>(14) [?]²</td>
<td>(15) ['sɛɾbo] 0 correct 19 → /+s/ 1 → /+i/</td>
<td>(16) ['sɛɾbi], /+V/ 4 correct 18 → /+s/ 0 → /+i/ 0 → &lt;INV&gt;</td>
</tr>
<tr>
<td>with Class II requirements: ['piŋkil] (sm)</td>
<td>(17) ['piŋkils] 19 correct 2 → /+i/ 0 → &lt;INV&gt;</td>
<td>(18) ['piŋki] 15 correct 8 → /+s/ 0 → &lt;INV&gt;</td>
<td>(19) ['piŋkil] 0 correct 11 → /+s/ 10 → /+i/ 0 → &lt;INV&gt;</td>
<td>(20) ['piŋkiln], /+n/ 0 correct 10 → /+s/ 10 → /+i/ 0 → &lt;INV&gt;</td>
</tr>
<tr>
<td>with Class III requirements: ['santus] (sm)</td>
<td>(21) coincides phonetically with (23) (22) ['santuʃ] 0 correct 20 → &lt;INV&gt;</td>
<td>(23) ['santus] 20 correct 0 → /+i/</td>
<td>(24) ['santi], /+i/ 0 correct 0 → /+i/ 20 → &lt;INV&gt;</td>
<td></td>
</tr>
</tbody>
</table>

² It has not been possible to find any firsthand borrowing that has both a) the requirements needed to belong to Class I and b) a consonantal ending that can make palatalization phonetically evident in Friulian ([s], [l] and [st]).
Hypothesis 1 is confirmed by the results shown in cells 1, 6, 11. Hypothesis 2 is demonstrated to be true by the data contained in cells 2, 3, 5, 7 and 10. Hypothesis 3 is confirmed by the results contained in cells 4, 8 and 12. Hypothesis 4 is demonstrated to be true by the data contained in cells 13, 18, 23, 25 and 30 (the content of cell 34 will be discussed later). Hypothesis 5 is confirmed by the results shown in cells 17 and 29. The first part of hypothesis 6 (i.e. that the marked native morpheme /+i/ cannot apply to borrowed nouns that do not have the requirements to belong to Class II) is confirmed by the content of cells 22, 26 and 34. The second part of hypothesis 6 (i.e. that invariant plurals are not possible for borrowed nouns that do not meet the requirements needed to belong to Class III) is fully confirmed for firsthand borrowings from any language (as shown in cells 15 and 19, but the case of secondhand borrowings (cells 27, 31 and 34) necessitates later discussion). Hypothesis 7 is confirmed by the results presented in cells 16, 28, 32 and 36. Finally, the data presented in cells 20 and 24 confirm hypothesis 8.

The results of items 27, 31 and 34 deserve further discussion. There are two possible reasons that the plural form [ˈananas] (cells 34 and 36) was always considered correct: it may have been perceived as a well-formed plural of Class III (/+Ø/), because it meets the formal requirements to be assigned to this class, or it may have been perceived as well-formed xenomorphological plural ([-Φ]). Due to this ambiguity, it does not help solve the apparent contradiction mentioned above. The items in cells 27 and 31, on the contrary, can help to shed some light. And in fact, neither [iˈmejl] nor [oˈtel] meet the requirements to be included in Class III, therefore we have to rule out the possibility that this invariant plural is oikomorphological. It must then be either allomorphological (i.e. built by means of the native /+Ø/ morpheme that is applied according to rules that are different
from the rules that are active in the case of native nouns) or xenomorphological (i.e. as in Italian, due to the lack of the Φ abstract morpheme). The allomorphological interpretation must be discarded for two reasons. Firstly, it has been shown that Friulian disposes of another general allomorphological solution, which is possible for all firsthand and secondhand borrowings, that is the formation of plural by means of the unmarked /+s/ morpheme. Secondly – and crucially – if /+Ø/ were a possible allomorphological solution, it should be applicable to all loanwords, and this is precluded by the results of cells 13, 15, 17, 18 and 19 (as well as by the data presented in Section 6.1), which show that it cannot be applied to nouns borrowed from languages other than Italian, and by the results of cell 16 (as well as by the data presented in Section 6.1), which show that invariant plurals are not possible for firsthand borrowings from Italian. I conclude, therefore, that the invariant plurals of cells 27 and 31 (as well as those that appear in Tables 8, 10, 12, 13, 15, 17, 18 and 19) are xenomorphological, i.e. they are formed according to Italian Class VI, which is characterized by [−Φ].

8 Discussion of the results

In the next pages I will discuss the results of these analyses. First, in Section 8.1, I will make some generalizations about the pluralization of loanwords in Friulian and how it corresponds to the interlinguistic patterns described in Section 8.2. Secondly, in Section 8.2, I will suggest that the choice between the alternative morphological strategies described in the previous section is not random, but that it depends from a series of factors, among which is the degree of bilingualism. Finally, in Section 8.3 I will focus specifically on bilingualism and how it can be related with morphological borrowing.

8.1 The plural of loanwords in Friulian

The most interesting aspect of the pluralization of borrowed nouns in Friulian is exemplified by words like hotel, for which three types of plurals were observed: the vocalic plural [oˈtej], the sigmatic plural [oˈtels], and the invariant plural [oˈtel]. These forms are representative of three different strategies for building the plural of borrowed nouns: the oikomorphological, the allomorphological, and the xenomorphological, which evidently coexist in Friulian.

According to the oikomorphological strategy, borrowed nouns can form the plural with the same morphemes and rules that apply to the native nouns. This
Can morphological borrowing be an effect?

means that feminine borrowed nouns form the plural with the unmarked morpheme \(+s/\) (/biro+s/ → [biros]), which is also used for masculine borrowed nouns that do not end in /s/, /z/, /l/, and /ʃt/ (/ˈtɾɛno+s/ → [ˈtɾenos]) (Class I). Oxytone masculine nouns ending in /s/, /z/, /l/, and /ʃt/ can form the plural with the marked morpheme \(+i/\) (/ˈbɔ+s+i/ → [ˈbɔʃ], /ˈgaz+i/ → [ˈɡaʃ], /ˈɡoːl+i/ → [ˈɡoːʃ], /ˈtɔʃt+i/ → [ˈtɔʃc]) (Class II). Paroxytone and proparoxytone masculine borrowed nouns ending in /s/ or /z/ remain invariant in the plural (/ˈmisus+Ø/ → [ˈmisus], /ˈawtobus+Ø/ → [ˈawtobus]), as do the native nouns with the same characteristics (Class III).

The data collected for this research revealed that Friulian also has an allomorphological strategy for the construction of the plural, which had not been described previously. This strategy consists of using a native morpheme according to different rules from those that apply in the case of native nouns. In this way, the situation is similar to that of Dutch and Egyptian Arabic (see Section 2.2). Allomorphological formation of plurals is evident only in masculine nouns ending in /l/ and /ʃt/. While native nouns featuring the aforementioned endings only form the plural by means of \(+i/\), borrowed masculine nouns ending with these consonants can also form the plural with the morpheme \(+s/\) (e.g. /oˈtel+s/ → [oˈtels], /ˈpiŋkil+s/ → [ˈpiŋkils]). In this sense it seems that there is a tendency to extend the use of the unmarked morpheme, which is applied to words perceived as foreign regardless of their morphophonemic characteristics.

For all categories of nouns described in Section 6, a certain number of invariant plural forms has been found. In the case of the few masculine paroxytone and proparoxytone borrowed nouns ending in /s/ or /z/, the systematic presence of invariant plurals can be considered oikomorphological because it can be explained by their assignment to Class III, according to the same rules that are foreseen for native nouns (e.g. /ˈsantus+Ø/ → [ˈsantus]). Invariant forms of second-hand borrowings from Italian as [oˈtel], on the other hand, are xenomorphological for the reasons explained in Section 7.

Figure 3 shows how we can frame, according to the schema outlined in Section 2.2, the three strategies of building the plural of borrowed nouns of our

![Fig. 3: Strategies for forming the plural of borrowed nouns and adjectives in Friulian](image-url)
corpus. The figure also offers an example of the plural of the noun [oˈtel] (‘hotel’) built according to each strategy.

### 8.2 Factors influencing the choice of the morphological strategy

In previous sections we saw that Friulian makes use of three coexisting strategies for the formation of the plural of borrowed nouns and adjectives. It is individual speakers who select one of these strategies or, in some cases, are unsure which to choose. It is therefore legitimate to ask what the factors are that influence individual speakers in selecting one of the solutions. It is not surprising to find that factors such as the age of the loan, its frequency of use, its language of origin, and the level of bilingualism of the individual speakers have all been shown to be important in the process of borrowing (see Sections 2.1 and 2.2).

These data demonstrate that the plurals of nouns and adjectives that Friulian borrowed earlier in its history are always formed oikomorphologically (see the cases of missus, sanctus, miserere, and confitebor, described in Section 6.2.1). Recently borrowed nouns and adjectives, on the other hand, besides forming the plural oikomorphologically, can also form it allomorphologically and xenomorphologically.

As has been highlighted in the descriptions of the tables in Sections 6.1, 6.2.1 and 6.3, there is a relationship between the frequency of the use of a term (which I consider to be inversely proportional to the number of non-responses) and the way in which its plural is formed: the more frequently a word is used, the higher the percentage of cases in which its plural is formed oikomorphologically. An example of a commonly used borrowed noun is goal, which is used by almost all respondents (44 out of 46, see Table 17). For this word, 31 respondents produced the oikomorphological plural [ˈgoːj], 11 produced the allomorphological plural [ˈgoːls], 2 produced both forms, and nobody produced the xenomorphological plural [ˈgoːl]. The plurals of terms that are not commonly used, in contrast, are formed more often according to xenomorphological and allomorphological strategies. An representative case of this kind is the masculine noun single, (pronounced [ˈsiŋɡol]), known by only 5 out of 46 respondents (Table 17). Of the 5 informants who knew this word, 0 produced the oikomorphological plural [ˈsiŋɡoː], 3 of them produced the allomorphological plural [ˈsiŋɡols], and 2 of them produced the xenomorphological plural [ˈsiŋɡol].

With respect to the role of the language of origin of loanwords, the data collected in Friuli, Argentina, Romania and Canada suggest that speakers of Friulian
can build the plural of a loanword xenomorphologically if they are bilingual, i.e. if they are familiar with the donor language and its morphology. Both in the questionnaire and in the grammaticality test, in fact, there is no example of xenomorphological plural built according to the morphology of a language the speakers are not familiar with. Bilingualism, thus, seems to be a *condicio sine qua non* for the presence of xenomorphological plurals.

The level of bilingualism of individual speakers, in fact, has a clear influence on the choice of strategy for plural formation. During the interviews, I did not ask explicit questions about the level of bilingualism of the respondents, but I did ask for some information that allows us to hypothesize the degree of their exposure to Italian: sex, age, and level of education. A self-assessment of their knowledge of English and German was also asked. In order to assess the impact of these variables, the percentage of xenomorphological plurals was calculated based on the number of valid answers provided by each respondent. The two extremes are represented by a 60-year-old woman with primary school education who produced no xenomorphological plurals and a 35-year-old woman with a college degree who produced xenomorphological plurals in 66% of the cases.

I calculated the average of xenomorphological plurals for secondhand borrowings from Italian by sex, by knowledge of foreign languages, by level of education and decade of birth of the interviewees.

While neither the sex of respondents nor their knowledge of foreign languages seems to have any influence on the choice of plural form, one may note that the percentage of xenomorphological plurals increases with education, with subjects possessing a high school or university education level more prone to using them (Figure 4). Age seems to play an even clearer role, in the sense that younger generations build the plural xenomorphologically much more often than others. The trend that we see is almost linear: each age group produces about 5% more xenomorphological plurals than the next oldest group (Figure 5). Educational level and age, considered as indicators of the degree of exposure to Italian and/or of knowledge of that language, are therefore two variables that contribute significantly in determining the tendency for appealing to xenomorphological solutions.

The fact that invariant plurals built according to the rules of Italian morphology appear also in highly standardized Friulian corpora like the *Grant Dizionari Bilengâl Talian-Furlan* and the *Formari* (Section 6.4) provides further evidence for the pervasiveness of this tendency.

33 Cases like *phenomena* in English might give evidence that this tendency, though general, admits exceptions.
This intergenerational trend I have described is likely to have some long-term effects on Friulian morphological system. In fact, if the tendency to produce more and more invariant plurals for secondhand borrowings from Italian does not revert – which I think is unlikely given the sociolinguistic situation described in Section 3 – it is very probable that in some decades’ time the invariant plural, which in the present historical phase of LVG Friulian has been described as a xenomorphological solution coexisting and alternating with allomorphological
and oikomorphological solutions, might become the only way in which the plural of secondhand borrowings from Italian is formed. That is to say that LVG Friulian speakers would always form these plurals according to Italian Class VI (characterized by [–Φ]), which could eventually be copied into Friulian and form a new stable morphological class. In other words, we would end up having a fully-fledged morphological borrowing. If so, the data collected for this study would represent a snapshot of the initial phase of a linguistic change of some importance.

8.3 Language contact, bilingualism, codeswitching and morphological change

In Section 8.2 I have argued that the tendency to form the plural of loanwords xenomorphologically can give way to morphological borrowing. This relation can be represented symbolically as in (A).

(A) xenomorphological plurals → morphological borrowing

The data collected for this research have also shown that xenomorphological plural forms are produced and considered correct only if the speakers know the donor language and its morphological rules, i.e. if they are bilingual, at least to some extent. In other words, one can say that a specific and intensive form of language contact, bilingualism, is necessary for xenomorphological plural building to take place. But why? If bilingualisms is the necessary condition, what is it exactly that bilinguals do? When a Friulian-Italian bilingual speaker says *In Sappada a son doi hotel* ‘In Sappada there are two hotels’, s/he is inserting in a Friulian sentence an Italian word inflected for number according to the rules of Italian. Therefore I think that what bilinguals do when they build a plural xenomorphologically is a special kind of insertional codeswitching: they insert a foreign word inflected for number according to the rules of the language they switch to. My hypothesis that xenomorphological plurals are nothing else but insertional codeswitchings of inflected words can be represented symbolically as in (B). The fact that a speaker needs to be bilingual in order to produce codeswitching can be formalized as in (C).
The relationships described in (A), (B) and (C) can be summarized in a single chain, as in (D).

\[ \text{(D)} \quad \text{bilingualism} \rightarrow \text{insertional codeswitching of inflected words} \rightarrow \text{morphological borrowing} \]

In Section 2.2 I mentioned that the most widespread point of view in the literature argues that morphological borrowing takes place through lexical borrowing (Haspelmath 2009: 43; Winford 2003: 61; King 2000: 82–84; Moravcsik 1978), while other authors argue that it is codeswitching that leads to various forms of structural borrowing, among which morphological borrowing (Myers-Scotton 1992; Meakins 2011). The data I have presented in this paper seem to confirm both hypotheses, because bilingual speakers of Friulian simultaneously i) take from Italian a word that does not exist in their language (e.g. *computer*), ii) inflect it according to Italian rules, and iii) insert it in a Friulian sentence.

The set of relationships and mechanisms summarized in (D) could prove to be correct for the case-study of Friulian, but comparative research is needed to assess its capability to account for other cases of borrowing of inflectional morphological features. Some evidence comes from Gurindji Kriol, an Australian language where codeswitching has led to morphological borrowing (Meakins 2011), but more studies with a diachronic perspective are needed.
9 Conclusions

This paper brings about contributions at two levels: at the level of the description of Friulian morphology and at the level of understanding how morphological borrowing can take place.

As far as the description of the inflectional morphology of Friulian is concerned, the results of this research have first of all demonstrated the existence of the invariant Class III (and of a possible Class IV) in conservative Friulian varieties, which had not been described previously. Secondly, the analysis of the plural of loanwords has revealed that Friulian has an allomorphological strategy that consists in adding the unmarked */+s/* morpheme to all nouns that are perceived as foreign. Thirdly, the phonetic realization of the plural forms of the loanwords ending in voiced sibilant has allowed improving the description of the morphological processes that determine the plural forms of native nouns ending with a sibilant (Section 6.3.3).

In terms of morphological borrowing, this paper offers a systematization of the strategies that synthetic languages can use to form the plural of borrowed nouns (Section 2.2). The data I collected demonstrates that these three kinds of strategies (that I called oikomorphological, allomorphological and xenomorphological) can coexist and alternate. This paper has also confirmed that factors such as the age of the loan, its frequency of use and the speaker’s degree of bilingualism can influence the selection of one of the possible strategies by the individual speakers. Finally, I suggest that one of the mechanisms that can account for morphological borrowing is that bilingual speakers have the habit of inserting – in sentences uttered in the target language – some loanwords inflected for number according to the rules of the donor language. In other words, bilinguals’ insertional codeswitching of borrowed words inflected for number according to the rules of the donor language could be the “Trojan horse” that makes morphological borrowing possible.

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References


Can morphological borrowing be an effect?


Appendix

The questionnaire included the following 66 borrowings: aerosol, airbag, ananas, apparecchio, arbitro, autobus, autogrill, badge, biro, blocnotes, boss, bouquet, brioche, bus, bypass, cartufula, chirurgo, cocktail, collage, computer, confitebor, cordless, email, exit poll, falciatrice, festival, fiche, flash, fotocopiatrice, garage, gas, gauloise, ghiacciolo, goal, hostess, hotel, ictus, manche, mascjo, miserere, missus, noglobal, Nord, panzerfaust, peluche, persac, pinchil, pixel, referendum, reportage, salis, sanctus, schermo, secjel, serbo, sex symbol, single, spič, strudel, Sud, test, toast, treno, tunnel, vecjo, vodka.

The 5 native nouns included in the questionnaire are: lunis, viners, pâr, solt, stâr.