Typological and social constraints on language contact: Amerindian languages in contact with Spanish

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Chapter 11

Comparative analysis: grammatical borrowing

This chapter deals with Spanish grammatical borrowing in Quichua, Guaraní and Otomí. It focuses on the borrowing of items of non-open classes such as conjunctions, adpositions and determiners. Unlike major parts of speech, non-open classes form sets of comparatively few elements. The analysis of statistic and examples from the corpus is based on the borrowing hypotheses.

The first section describes the morpho-phonological integration of grammatical borrowings. The second section presents an overview of the distribution of grammatical borrowings per recipient language and parts of speech. The third section is composed of five subsections: three of them describe the borrowing of different function words according to their special frequency in each language (Spanish conjunctions in Quichua, Spanish articles in Guaraní, and Spanish prepositions in Otomí); another subsection deals with discourse markers; and another one takes care of other parts of speech marginally represented in the corpora (e.g. pronouns, quantifiers and auxiliaries). The fourth section of this chapter analyzes the distribution and use of grammatical borrowings across dialects. The fifth section describes the influence of bilingual performance on the distribution and use of grammatical borrowings. Finally, the sixth section provides a summary of findings.

11.1 Morpho-phonological adaptation of grammatical borrowings

The morpho-phonological adaptation of grammatical elements, regardless of their native or foreign origin, is determined by the degree of grammaticalization, which makes grammatical items less salient in speech and particularly prone to simplification or fusion. The same morpho-phonological processes described for lexical borrowings are valid for grammatical borrowings. The raising of Spanish medial vowels (e>i, o>u) in Quichua also affects grammatical loanwords involving these sounds: e.g. the conjunction sino [sino] ‘but’ becomes [sinu] and the subordinator porque [porkē] becomes [pûrki], with stress on the penultimate syllable. Similarly, consonant changes and nasalization spreading occur on Spanish function words in Guaraní: e.g. the preposition desde [desde] ‘from’ becomes [dehde] (glottal fricativization), and the conjunction entonces [entõnsẽ] ‘then’ is realized as [ntõnsẽ] (onset elision, nasalization). In Otomí, syllable and consonant changes alongside with nasalization spreading are common in Spanish function words: e.g. the conjunction apenas [apenas] ‘just’ becomes [penã] and the preposition desde [desde] ‘from’ turns into [ndezde] or [ndezũ]. Apart from these
and other processes of morpho-phonological adaptation, two additional changes involving Spanish function words are: the fusion with neighboring elements in collocations form the source language; and the affixation of native grammatical elements. Like the morpho-phonological integration of lexical items, the adaptation of grammatical items depends on the speaker’s degree of bilingualism and the age of the function word in question. Depending on these factors, grammatical items may occur also as non-adapted forms both in phrasal borrowings and within code switches. In the following I describe the most important process of morpho-phonological adaptation of Spanish function words in Quichua, Guarani and Otomi.

11.1.1 Morpho-phonological adaptation of function words in Quichua

Because Spanish prepositions occur only in phrasal borrowings in Quichua, their only phonological change is the merger with immediate constituents. On the contrary, the morpho-phonological adaptation of Spanish conjuncts is a more extensive process because these function words make the largest class of grammatical borrowings in the corpus. Spanish conjunctions occur as phrasal connectors or discourse markers. When used within phrases, the morpho-phonological shape of Spanish conjunctions undergoes several changes. In contrast, when used outside sentence boundaries, no major changes are noticed. In general, the extensive use of Spanish conjunctions in Quichua activates several processes of accommodation which are absent in ‘normal’ lexical borrowing. The nature of these processes and their outcomes are described in this section.

Table 11.1 lists all the Spanish conjunctions in the Quichua corpus, including simple and complex ones. The adapted form of each item appears on the first column, with the original Spanish form on the second column. Notice the difficulty of identifying one single phonological realization for each item due to the influence of the level of bilingualism, which also determined the degree of the morphosyntactic integration.

<table>
<thead>
<tr>
<th>Phonologically adapted</th>
<th>Original Spanish</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>[tonsis] [tonses]</td>
<td>entonces</td>
<td>then</td>
</tr>
<tr>
<td>[anki] [anke]</td>
<td>aunque</td>
<td>although</td>
</tr>
<tr>
<td>[sinu] [sino]</td>
<td>Sino</td>
<td>but</td>
</tr>
<tr>
<td>[peru] [pero]</td>
<td>Pero</td>
<td>but</td>
</tr>
<tr>
<td>[purki] [purke]</td>
<td>porque</td>
<td>because</td>
</tr>
<tr>
<td>[dinu] [dino]</td>
<td>de no</td>
<td>if not, unless</td>
</tr>
<tr>
<td>[máski] [máske]</td>
<td>más que</td>
<td>even if</td>
</tr>
<tr>
<td>[osea] [osiáke]</td>
<td>o sea que</td>
<td>that means</td>
</tr>
<tr>
<td>[siéske]</td>
<td>si es que</td>
<td>provided that</td>
</tr>
<tr>
<td>[subrísso]</td>
<td>sobre eso</td>
<td>moreover</td>
</tr>
</tbody>
</table>
Comparative Analysis: Grammatical Borrowing

The main phonological changes involving Spanish conjunctions are (1) the raising of medial vowels; (2) monophthongization; (3) first-syllable elision; and, most frequently, (4) the merger of individual words in collocations. All of these processes have been described elsewhere (cf. section 10.1) Nevertheless, some remarks are necessary in relation to complex borrowings used as conjuncts. First, the meaning of a complex borrowing in the recipient language usually is the same as in the source language (e.g. sieske ‘provided that’) or can be inferred from its constituents in this language (e.g. subriso ‘moreover’, lit. ‘on top of that’). In other cases the original meaning is replaced by that of a similar construction in the recipient language (e.g. dinu ‘lest, for fear that’). Other complex conjuncts contain finite verb forms, e.g. osiakhe ‘that means’ (in explicative subordinate clauses) and sieske ‘provided that’ (in conditional subordinate clauses). The frequency and use of simple and complex conjuncts from Spanish are analyzed in section 11.3.2.

11.1.2 Morpho-phonological adaptation of function words in Guaraní

None of the Spanish conjunctions in the Guaraní corpus has undergone morpho-phonological changes similar to those described above for Quichua. The reason lies on the bilingualism of Guaraní speakers, which disfavors the morpho-phonological integration of loanwords in general. The only noticeable change in the phonological form of grammatical borrowings involves entonse, from Spanish entonces ‘then’, where the final sibilant is dropped. Notice that the elision of sibilants in word-final position occurs also in the Spanish of Paraguay and Rio de la Plata (cf. Table 5.3). Some phonological changes in Spanish conjunctions are not motivated by Guaraní phonology but result from dialectal peculiarities of the input. A detailed description of the types and use of conjunctions is given in section 11.3.2. Here I focus on the morpho-phonological adaptation of the Spanish article.

Paraguayan Guaraní has borrowed two forms of the Spanish article: la and lo. Although speakers use these forms extensively in colloquial speech, their function is not always equivalent to the Spanish article (cf. section 11.3.3). The form la corresponds to the feminine definite article. The form lo has two possible origins: either it comes from the neuter definite article los or it results from the masculine plural definite article los, which is realized as [loh] in Paraguayan Spanish. Because the aspiration and eventual elision of the sibilant in word-final position is a common phenomenon in Paraguayan Spanish but also because the frequency of occurrence of the neuter singular article is low, it is more likely that the form lo has the latter origin.

Not a single instance of the masculine singular form el occurs in the corpus - which could be expected for reasons of frequency and paradigmatic consistency with the feminine singular form. According to Gregores and Suarez (1967: 133), one instance of this form occurs merged with the noun [ete] ‘East’ in the frozen form
lété ‘the East wind’. Similarly, all the instances of the form lo occur in frozen borrowings with Spanish or native nouns (e.g. lomítã ‘the people’; lomimo ‘the same’). Only the form la does not occur in frozen borrowings, with the sole exception of lamítã ‘the children’.

Functionally, the form la is used in Guaraní as a determiner and a pro-form with deictic function. When used as a determiner, la usually shares the same intonation contour of the content word it precedes. When used as a pro-form, it is realized as an individual phonological word. The use of the Spanish article in Guaraní is explored in section 11.3.3.

11.1.3 Morpho-phonological adaptation of prepositions and conjunctions in Otomí

An extensive study of the morphological and phonological processes involved in the accommodation of Spanish loanwords in Otomí is Hekking (1995). The main results from this study are summarized here for the two classes of grammatical items of most frequent occurrence in the corpus: prepositions and conjunctions. The findings of Hekking’s study are directly applicable to the corpus collected for this investigation because his study is based also on the Otomí variety of Santiago Mexquititlán.

Otomí has borrowed twenty-four types of prepositions from Spanish (Hekking 1995: 151). Six of them have undergone certain degree of phonological accommodation; eleven have been subject to phonological and morphological changes including their fusion with native grammatical elements; and six have not changed their phonological form. The semantic equivalences of the Spanish prepositions in Otomí (Hekking 1995: 151f) suggest that they have not been subject to semantic changes. In general, Spanish prepositions replace Otomí morphemes or co-occur with them depending on the level of bilingualism of the speaker.

Spanish conjunctions borrowed by Otomí correspond to twenty-eight different types. Eleven of them have been phonologically adapted to the Otomí matrix; seven have been subject to phonological and morphological processes; and ten have not been accommodated at all. Semantic changes are not attested in any of the Spanish conjunctions.1 The extensive use of prepositions and conjuncts in Otomí leads to expect a far-reaching adaptation indicative of their grammaticalized status in the

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1 The only exception seems to be the temporal conjunction kwando ‘when’. According to Hekking (1995: 144), kwando was formerly used with temporal and conditional meanings, but nowadays its meaning is only temporal. Notice that cuando ‘when’ in Spanish basically has a temporal meaning, although it is used also as a conditional. Arguably, Otomí originally borrowed both meanings but collapse them to one because of the simultaneous borrowing of the conditional Spanish conjunction si ‘if’.
language. Table 11.2 lists assimilated and non-assimilated prepositions and conjunctions Otomí.

Table 11.2 Assimilated & non-assimilated prepositions and conjuncts in Otomí

<table>
<thead>
<tr>
<th>Class</th>
<th>Prep</th>
<th>MP-A</th>
<th>N-A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[ista] &lt; hasta ‘until’</td>
<td>[komongu] &lt; como ‘like’</td>
<td>[sobre] &lt; sobre ‘upon’</td>
</tr>
<tr>
<td></td>
<td>[ko] &lt; con ‘with’</td>
<td>[serka dige] &lt; cerca ‘near to’</td>
<td>[según] &lt; según ‘as’</td>
</tr>
<tr>
<td></td>
<td>[pa] &lt; para ‘for’</td>
<td>[ndez] &lt; desde ‘from’</td>
<td>[entre] &lt; entre ‘between’</td>
</tr>
<tr>
<td>Conj</td>
<td>[penã] &lt; apenas ‘hardly’</td>
<td>[komongu’bu] &lt; como ‘like’</td>
<td>[i] &lt; y ‘and’</td>
</tr>
<tr>
<td></td>
<td>[mente] &lt; mientras ‘while’</td>
<td>[yage] &lt; ya que ‘since’</td>
<td>[o] &lt; o ‘or’</td>
</tr>
<tr>
<td></td>
<td>[por] &lt; porke ‘so that’</td>
<td>[sinku] &lt; sin que ‘without that’</td>
<td>[pero] &lt; pero ‘but’</td>
</tr>
</tbody>
</table>

This table includes cases of monophthongization (e.g. [mente] < mientras [myentras]); nasalization of the syllable nucleus after the elision of the word-final sibilant (e.g. [penã] < apenas [apenas]); and the elision of the final consonant in monosyllabic forms (e.g. [ko] < con [kon]. The shortening of para ‘for’ in [pa] is not exclusive of Otomí but occurs in many Spanish dialects in the Americas. Similarly, the shortening of the instrumental preposition con is reported in other Amerindian languages (e.g. Sia Pedee, Chocoan). The shortening of Spanish prepositions in Otomí indicates an advanced stage of grammaticalization as a result of their extensive use in everyday speech. Other cases of accommodation are:

a) The Spanish phasal adverb ya ‘already’ and the subordinator ke ‘that’ occur as one phonological word: e.g. [yage] < ya que ‘since’.

b) The Spanish place adverb serka ‘near’ forms a complex construction with the Otomí connective dige ‘on, from, of’: e.g. [serka dige] < cerca ‘near to’.

c) The Spanish preposition komo ‘as’ forms a doubled construction with the equivalent Otomí suffix -ngu ‘like’: e.g. [komongu] < como ‘like’. (cf. Hekking 1995: 166ff).

A further case of morphological assimilation is the fusion of the definite singular proclitic after a preposition. This assimilation often occurs with native items and is indicative of the advanced integration of Spanish prepositions in the morphosyntactic matrix of the language. Compare (1), where the Spanish preposition is fused with the definite singular proclitic, and (2), where the fusion involves an Otomí connective:

1) \(\text{Ar}=\text{tsah} \quad \text{yots’} \quad \text{komo=r} \quad \text{nhñe} \)

\(\text{DEF.S=star} \quad \text{shine} \quad \text{as(Sp)=DEF.S} \quad \text{mirror}\)

‘The star shines like a mirror’
Otomí is the language that shows the most extensive process of morpho-
phonological assimilation of the three languages. This assimilation corresponds to
the high frequency of grammatical borrowings in Otomí and the incipient
bilingualism of its speakers.

11.2 The amount of grammatical borrowings in the corpora

This section presents the corpus-based statistics from grammatical borrowing in
cross-linguistic and language-specific perspectives. It pays special attention to the
types of grammatical categories borrowed from Spanish. The following table gives
the overall figures of grammatical borrowing in the three languages.

<table>
<thead>
<tr>
<th>Grammatical Borrowings</th>
<th>Quichua (EQ)</th>
<th>Guarani (PG)</th>
<th>Otomí (O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tokens</td>
<td>2842 (18.8%)</td>
<td>3634 (36.1%)</td>
<td>8165 (52.5%)</td>
</tr>
<tr>
<td>Types</td>
<td>580 (15.4%)</td>
<td>518 (19.3%)</td>
<td>853 (37.4%)</td>
</tr>
</tbody>
</table>

The data unveil a clear tendency: a substantial increase in grammatical borrowing
from Quichua to Otomí. Throughout this book I have stressed the remarkable
contribution of structural borrowing in Otomí as compared to Guarani and Quichua.
In addition, I noted that each language has a differential composition of bilingual
speech: a predominance of lexical borrowing over codeswitching in Quichua; a
predominance of codeswitching over lexical and grammatical borrowing in Guarani;
and a predominance of grammatical borrowing over codeswitching in Otomí.
Linguistic and nonlinguistic factors underlie these distributions. The influence of
each factor on lexical borrowing was discussed in Chapter 10. Here I deal with the
influence of typology and bilingualism on grammatical borrowing.

I begin the analysis of typological factors by identifying the types of
grammatical borrowings in the corpora. These types and their frequencies are linked
to typological factors later in this chapter. Table 11.4 below includes the percentages
of Spanish function words ordered by categories. Percentages represent the
contribution of categories to the overall amount of borrowing in the corpus of each
dialect.

As regards the borrowing categories, Spanish conjunctions have been split into
coordinators and subordinators; Spanish prepositions, both grammatical and lexical,
have been classified under the general heading of ‘adpositions’; Spanish adverbs
other than those expressing manner (cf. Chapter 10) have been grouped under the general heading of ‘adverbs’; finally, the category ‘pronouns’ contains also demonstrative pronouns.

Table 11.4 Grammatical borrowings (tokens) per category

<table>
<thead>
<tr>
<th></th>
<th>Quichua %</th>
<th>Guarani %</th>
<th>Otomí %</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>22.5%</td>
<td>11.3%</td>
<td></td>
<td>16.9%</td>
</tr>
<tr>
<td>Coordinators</td>
<td>8.5%</td>
<td>15.6%</td>
<td>5.5%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Adpositions</td>
<td>0.6%</td>
<td>0.7%</td>
<td>0.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Subordinators</td>
<td>1.3%</td>
<td>2.0%</td>
<td>3.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Disc. Markers</td>
<td>0.3%</td>
<td>5.4%</td>
<td>1.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Adverbs (other)</td>
<td>2.9%</td>
<td>2.8%</td>
<td>2.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Numerals</td>
<td>1.2%</td>
<td>0.6%</td>
<td>1.7%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Auxiliaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronouns</td>
<td>0.1%</td>
<td>0.4%</td>
<td>0.1%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

IQ: Imbabura Quichua; BQ: Bolivar Quichua; UG: Urban Guarani; RG: Rural Guarani; S: Santiago Otomí; T: Tolimán Otomí

In terms of frequency, the first three categories in the table make a difference from the remaining five. In all, articles, coordinators and adpositions represent over two thirds of the Spanish grammatical borrowings. The category of articles (16.9%), reported only for Guarani, is the largest of all grammatical classes. Spanish coordinators and subordinators – grouped as conjuncts – are the second most frequent category (10.9%). Spanish prepositions (7.6%) occupy the third place on the list of most frequent function words in the corpora. The rest of categories make rather small contributions: discourse markers (3.3%), non-manner adverbs (2.9%), numerals (1.3%), auxiliaries (0.6%) and pronouns (0.5%). These percentages are mapped onto the following scale of borrowing.

Figure 11.1 Borrowing scale of grammatical items according to frequency

In order to compare this scale with the second part of the implicational scale proposed in H.3.2 (cf. section 4.3.3), the above categories are classified in half-open and closed classes. Adpositions make a half-open class in which new elements can be introduced through grammaticalization. Other half-open classes are non-manner adverbs and discourse markers. Both classes are open to the entry of new elements
as a result of language contact or internally motivated changes in discourse. Finally, articles, coordinators, subordinators, pronouns and auxiliaries and numerals\(^2\) belong to truly closed classes.

Borrowing hypothesis H.3.2 predicts that items from half-open classes are borrowed more often than items from closed classes. The average percentage of items from closed classes amounts to 30.2%. The corresponding percentage of items from half-open classes is 13.8%. In other words, tokens from closed classes outnumber items from half-open classes. The difference between types from closed classes and types from half-open classes is virtually non-existing (23.5% vs. 24.1%). In both cases hypothesis H.3.2 is not confirmed.

What about the distribution of lexical classes in each language? For Quichua the token percentages of closed classes and half-open classes are 27.9% versus 12.7%. For Guaraní the gap between both classes is dramatic: 52.0% versus 5.4%. In contrast, the proportion is reversed in Otomí: items from half-open classes are more frequent (65.0%) than items from closed classes (29.3%). The analysis of types shows the same distribution in Quichua and Guaraní. In Otomí types of half-open classes outnumber types of closed classes. Therefore, a language-specific analysis confirms hypothesis H.3.4 only for Otomí.

Differences in the token distribution are due to a predominant grammatical class in each language: conjuncts in Quichua; articles in Guaraní; and adpositions in Otomí. This explains the disproportion between closed classes and half-open classes in Quichua and Guaraní, and the inverse proportion in Otomí. But even if the predominance of conjuncts, articles and adpositions explains the unbalance between classes in each language, we need to explain why they are borrowed with such a frequency. Both linguistic and nonlinguistic factors intervene to shape the distribution of grammatical borrowings in the contact situations analyzed here.

Hypothesis H.3.4 does not make any specific prediction about the relative frequencies of grammatical classes in the borrowing process. However, Muysken formulated (1981: 130) a borrowing continuum predicting the frequencies in the borrowing of grammatical classes (cf. section 3.5). Figure 11.2 maps the distribution of grammatical borrowings in the three languages onto this continuum. To make both distributions comparable the grammatical classes not included in Muysken’s continuum were omitted. These are discourse markers, adverbs and auxiliaries.

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**Figure 11.2** Muysken’s continuum and frequency distribution in the corpora

<table>
<thead>
<tr>
<th>Muysken 1981</th>
<th>Adposition</th>
<th>Coordinator</th>
<th>Numeral</th>
<th>Article</th>
<th>Pronoun</th>
<th>Subordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article</td>
<td>&gt;</td>
<td>&gt;</td>
<td>&gt;</td>
<td>&gt;</td>
<td>&gt;</td>
<td>Subordinator</td>
</tr>
<tr>
<td>Article</td>
<td>Coordinator</td>
<td>Adposition</td>
<td>Subordinator</td>
<td>Numeral</td>
<td>Pronoun</td>
<td></td>
</tr>
</tbody>
</table>

---

\(^2\) Though recursive, numerals are a closed class of items for the limited set of basic numbers.
The distribution of grammatical borrowings in the corpora matches the borrowing continuum only in one category (coordinators). Articles represent the largest mismatch: they rank first in our distribution but fourth in the continuum. The question is whether a language-specific analysis gives similar results. Figure 11.3 compares the distribution of grammatical borrowings in each recipient language with Muysken’s continuum. Matched categories are highlighted. Blank cells correspond to missing categories.

**Figure 11.3 Muysken’s continuum and frequency distribution in each language**

<table>
<thead>
<tr>
<th>M</th>
<th>Adposition</th>
<th>Coordinator</th>
<th>Numeral</th>
<th>Article</th>
<th>Pronoun</th>
<th>Subordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;</td>
<td>&gt;</td>
<td>&gt;</td>
<td>&gt;</td>
<td>&gt;</td>
<td></td>
</tr>
<tr>
<td>Q</td>
<td>Coordinator</td>
<td>Subordinator</td>
<td>Numeral</td>
<td>Adposition</td>
<td>Pronoun</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Article</td>
<td>Coordinator</td>
<td>Subordinator</td>
<td>Numeral</td>
<td>Adposition</td>
<td>Pronoun</td>
</tr>
<tr>
<td>O</td>
<td>Adpositions</td>
<td>Coordinator</td>
<td>Subordinator</td>
<td>Numeral</td>
<td>Pronoun</td>
<td></td>
</tr>
</tbody>
</table>

M=Muysken’s continuum; Q: Quichua; G: Guaraní; O: Otomí

The figure shows that Guaraní is the most deviant from the borrowing continuum, with only one matched category (coordinators). Quichua has two matched categories (numerals and pronouns) and Otomí three matched categories (adpositions, coordinators and pronouns). In all cases, mismatches are too many to allow relevant conclusions. Let us now compare the individual distributions of grammatical borrowings in the three languages. Figure 11.4 includes all grammatical categories in the corpora. Blank cells represent missing categories.

**Figure 11.4 Language-specific distribution of grammatical borrowings**

<table>
<thead>
<tr>
<th>Q</th>
<th>Coord</th>
<th>D. Marker</th>
<th>Adv</th>
<th>Subord</th>
<th>Num</th>
<th>Adp</th>
<th>Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Art</td>
<td>Coord</td>
<td>Subord</td>
<td>Num</td>
<td>Adv</td>
<td>D.Marker</td>
<td>Adp</td>
</tr>
<tr>
<td>O</td>
<td>Adp</td>
<td>Coord</td>
<td>D.Marker</td>
<td>Subord</td>
<td>Adv</td>
<td>Num</td>
<td>Aux</td>
</tr>
</tbody>
</table>

Pronouns are the only matching category for the three languages: they are the least frequent and most difficult to borrow of all grammatical elements. The categories of articles and auxiliaries show no cross-linguistic matches because they occur only in Guaraní and Otomí, respectively. There are three partially matched categories: coordinators in Quichua and Guaraní; subordinators in Quichua and Otomí; and adpositions in Quichua and Guaraní. The different distributions in the three languages seem to exclude cross-linguistic regularities in the borrowing process. However, the same differences confirm the different typological character of each language and therefore demonstrate the influence of this factor on grammatical borrowing. In this perspective, for example, the typological similarity of Quichua
and Guaraní explains one important match between these languages: they borrow only a very small number of prepositions because both are postpositional languages.

11.3 Distribution and use of grammatical borrowings in the corpora

This section presents a cross-linguistic analysis of the most frequent function words borrowed from Spanish: articles; conjuncts; prepositions; and discourse markers. The last part deals with parts of speech that make a marginal contribution to grammatical borrowing.

11.3.1 Articles

Spanish articles are the most frequent class of grammatical borrowings (17%). However, their occurrence is limited to Guaraní, and they represent two thirds of all grammatical borrowings in this language. Neither Quichua nor Otomí show any articles. None of these languages has a proper category of articles, although nominal proclitics in Otomí are similar to them in form and meaning. In the following I describe the distribution and use of Spanish articles in Guaraní and explain their occurrence in terms of typological factors.

Although article borrowing is a widespread phenomenon in Paraguayan Guaraní, the distribution of articles seems influenced by diatopic and diastatic criteria. Articles represent 22.53% of the total borrowings in urban Guaraní but only 11.25% in rural Guaraní. In these terms we may associate a higher frequency of articles with urban lects a lower frequency with rural lects. Since article borrowing requires bilingual proficiency, a higher frequency of articles corresponds to a higher degree of bilingualism.

Article borrowing is a very unusual phenomenon in the literature on contact linguistics. Except for Muysken’s continuum (cf. supra), scales of borrowability do not include articles. Still, loan articles occur in contemporary Guaraní in large numbers. The question is not only how Guaraní use loan articles but also why these are borrowed at all.

Guaraní boasts a complex system of deictics used to mark definiteness, spatial relations and other referential functions (cf. Gregores and Suárez 1967: 141, 144). Spanish articles have added to this system as determiners and pro-forms (Lustig 1996: 10; Gómez Rendón 2007b). The accommodation of Spanish articles to the Guaraní morphosyntactic structure suggests that Guaraní had a place for them in its structure. Of course, structure does not explain by itself why the language borrowed articles at all, especially if there is a complex system of native elements performing the function of articles satisfactorily. Typology is a promoting factor but not a motivation for borrowing. The motivation should be looked for rather in discourse strategies operative at the level of the bilingual speaker in multilingual contexts.
have discussed the issue elsewhere (Gómez Rendón 2007b). Here I focus on the morphosyntactic integration of loan articles.

The Spanish article in Guaraní is used as a determiner cliticized to native or non-native nouns. As explained above, only two forms of the article have been borrowed: the feminine singular *la* and the plural masculine *los* - which dropped the final /s/ to become *lo*. The form *lo* is used quite rarely, and then only with plural nouns. Example (3) below is one of the few instances of *lo* in the corpus. The article is fused with the noun *mitã* and contrasts with *lamitã* in (4).

3) che a-segui va’ekue
   1S 1S-follow PST
   ko educasion rehegua lo-mitã apyté-pe
   DEM education concerning ART-people middle-LOC
   ‘I continued to support people on educational issues’

4) i-porã-iteri la o-ñe-mbo’e la-mitã-me
   3-be-good-very PRO 3-PAS-teach ART-child-OBJ
   ‘It is good that he teaches the children’

Loan articles do not comply with the agreement rules for number and gender which are characteristic of the Spanish article: for example, *la* precedes a plural noun (5) and a masculine loan noun in (6).

5) Ha umiva piko o-torva la mburuvicha-kuéra-pe
   And PRO.DIST EMPH 3-upset DET chief-PL-ACC
   ‘And that upset the chiefs’

6) Upéva o-me’ê la crédito ñemiti-rã
   That 3-give DET credit plantation-PURP
   ‘They gave me the money for the plantation’

These examples show two things: a) the form *la* was not imported along its native categories in Spanish but is fully adapted to the morphosyntax of Guaraní; and b) this morphosyntactic integration confirms that composites of loan articles and loan nouns are not code switches but two independent loans.

Although the article used as a determiner does not receive primary stressed in Guaraní, it does not form one phonological word with the following noun, except for the few cases mentioned above. This feature allows the use of a possessive between the article and the noun head (7), or even between the article and a code switch (8).
7) \( ij\text{-apyte}-pe\text{-kuéra} \) \( o\text{-u} \) \( la \) \( che \) \( tio \)
\( 3\text{.POSS-middle-LOC-PL} \) \( 3\text{S\-come} \) DET \( 1\text{.POSS uncle} \)
\( ha \) \( o\text{-henoi} \) \( la \) \( t\text{iñ-ermano-kuéra} \)
and \( 3\text{-call} \) DET \( 3\text{.POSS-sibling-PL} \)
“My uncle came with them and then called his brothers and sisters”

8) \( upéicha\text{-ma} \) voi \( la \) \( ore \) [situación de pobreza]
like.that\-PRF EMPH DET \( 2\text{PL.POSS situation of poverty} \)
“And our poverty was just like that”

Notice that the order of constituent in the above examples is not Spanish, because articles never precede possessives in this language. In contrast, the sequence determiner\–possessive\–noun is canonical in Guaraní, because possessives do not mark definiteness and thus require the presence of the determiner. Consider the following example:

9) \( nd\text{-ai-kuad-i} \) \( pe \) \( nde \) \( róga \)
\( \text{NEG-1S-know-NEG} \) DEM \( 2\text{.POSS house} \)
‘I don’t know your house’ [lit. I don’t know that your house]

The determiner \( pe \) refers to an object located away from the speaker and near to the addressee. Trinidad Sanabria (2004: 696) classifies \( pe \) as a deictic of visual reference. But this is not the function of \( pe \) in (9). Because an accurate identification of referents in the communicative space is pragmatically relevant in Guaraní and such identification cannot be done by possessives only, demonstratives are used for this purpose, including the Spanish article. Gregores and Suarez (1967: 128) group Spanish articles \( la \) and \( lo \) together with the native demonstrative \( ku \), because the three can make nominalized clauses. Indeed, the form \( la \) co-occurs with one of a set of tense-marked nominalizers, including -\( va \) for present tense, -\( va’ekue \) for past tense, and -\( va’erã \) for future tense. Each of these constructions is exemplified below.

10) \( la \) \( o\text{-ñe-mbo’è-va} \) \( nda-ha’e-i \)
\( \text{DET 3-PAS-teach-NMLZ.PRS NEG-3.be-NEG} \)
[\( \text{la misma cosa} \)]
\( la \) \( o\text{-ñe-ñe’-va} \)
\( \text{DET 3-REFL-speak- NMLZ.PRS} \)
‘What is taught is not the same as what is spoken’

11) \( la \) \( o\text{-u-ypy-va’ekue} \) \( pete’ \) \( tio \)
\( \text{DET 3\-come -first-NMLZ.PST} \) \( \text{one uncle} \)
‘An uncle who came first’
The nominalizer and the article form relative clauses of restrictive (11) and non-restrictive (12) nature. These constructions are used if the nominalized clause is the subject (10) or object (13) of the main clause. To nominalize a clause standing in oblique relation to the main clause, the relativizer *ha* is used instead, without *la*. Notice that relative clauses involve the form *la* only: *lo* never co-occurs with nominalizers.

But these constructions do not exhaust all the possible uses of the Spanish article in Guarani. Other uses include pronominal roles in which *la*—and only *la*—occurs as a freestanding pronoun or relativizer. Freestanding forms can be used in two co-referential functions: cataphoric (14) and anaphoric (15-16).

14) *nda-che-tiempo-i*  
   *la*  
   *a-japo*  
   *hagua*  
   *otra*  
   *cosa*  
   `I don’t have time to do other things’

15) *alguno-ko*  
   *no-ñe’è-i-ete*  
   *la*  
   *kastellano*  
   *ki-ke-rô*  
   *eskuela-pente*  
   *la*  
   *ña-aprende-pa*  
   `Some [of us] don’t speak Spanish, only when we go to school, we learn it’

16) *area-ma*  
   *rei-ko*  
   *nde*  
   *ko*  
   *Hernandarias-pe?*  
   `Do you live long here in Hernandarias? - I live long here where I was born’

In (14) *la* refers forward to the noun phrase *otra cosa* ‘something else’ (possibly a code switch), but in (15) the same form refers back to the noun phrase *la kastellano* ‘the Spanish language’. Accordingly, *la* stands for bare heads and whole phrases, thereby replacing the Guarani demonstrative pronoun *kóva*. Moreover, in (16) *la* refers back to the entire locative phrase *ko Hernandariaspe* ‘here in Hernandarias’.
A similar reading is valid for (17) below, where la refers back to Brasil, thus standing for a noun or an adverb.

17) che nda-se-guasu-i, Brasil-pe la PRO.DEM a-ha
    1S NEG-leave-much-NEG Brazil-LOC PRO.DEM 1S-go

“I don’t leave home too often, to Brazil (there) I have gone”

The productive use of the Spanish article in Guaraní is demonstrated by its ubiquitous occurrence in the corpus and the different functions it plays at the level of the noun phrase and the sentence. However, these uses are not contact-induced innovations: all of them existed in the language before contact, proof of which is the coexistence of the Spanish forms and the native deictics in most varieties of the language.

The morphosyntactic structure of Guaraní enabled the borrowing and productive use of the Spanish article, although the borrowing itself was motivated by external, nonlinguistic factors, including the restructuring of discourse strategies as a result of communicative pressures and the increasing bilingualism of the Guaraní speech community. As shown later in this chapter, a similar argumentation applies for other types of grammatical borrowings in Paraguayan Guaraní.

11.3.2 Conjunctions

By conjunct I mean any connective linking two phrases or clauses. If these phrases or clauses are at the same level, the connective is a coordinating conjunction; if one constituent is subordinate to the other, the connective is a subordinating conjunction. Conjuncts in general are the second most frequent category of function loanwords (11%) after articles, with the difference that conjuncts occur in the three languages, albeit in different numbers as a result of typological factors. Coordinators are two times more numerous than subordinators, but their contribution differs in each language: in Quichua, Spanish coordinators are ten times more frequent than subordinators; in Otomí, coordinators and subordinators are equally represented.

In general, conjuncts are peripheral to syntax, which makes them more salient and accessible in discourse. The assumption is that connectives are located higher on the scale of borrowability than most function words. Both Whitney and Muysken place conjunctions in the second position of their scales, after prepositions. In fact, conjunctions and prepositions are borrowed with particular frequency in situations of intense contact, like that between Spanish and Otomí. The high frequency of these function words is somehow reinforced by the fact that prepositions are used in several cases as conjuncts, just like conjuncts are often used as prepositions, on the basis of their common function of connectivity. In the rest of this section I illustrate the usage of Spanish coordinators and subordinators in each recipient language.
The number of coordinators is different in each language, but their types and usage are strikingly similar. Five simple coordinators occur in the corpora with the following frequency: adversative pero ‘but’; conjunctive y ‘and’; disjunctive o ‘or’; negative conjunctive ni ‘nor’; and contrastive sino ‘but’. This distribution is similar across the three languages. Consider the following instances of adversative pero in each language:

**Quichua:**
18) paramo-ca pertenece-na-mi ñucanchic comunidad Ucscha-pac
   pero parti-ngapac muna-n
   ‘The moor belonged to our community of Ucscha but they want to separate it’

**Guaraní:**
19) o1 heta aranduka castellano-pe jai-poru ara pero
   mba´éicha jai-porú-ta la aranduka castellano-pe?
   ‘There are no books in Guaraní, there are many books in Spanish that we need to use, but how are we going to use the books in Spanish?’

**Otomí:**
20) Nugi hin-di=he ya=`bitu nu=’u
   hewa j=ar hünü pero num=meni hä he
   ‘I don’t wear the clothes they use here in town but my relatives do’

Because the adversative occurs outside clause boundaries in all these examples, phonetic accommodation is not observed in any of the languages. The lack of phonological integration of these connectives contributes to their syntactic saliency. At the same time, the adversative can integrate easily in the structure of the recipient language and such integration does not result in visible morphosyntactic changes in the matrix of the borrowing language. None of the three languages has an adversative conjunct of its own. From a gap-filling perspective, the three languages have borrowed the Spanish adversative to lexicalize this semantic category.

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3 Only seldom pero ‘but’ is shortened to pe in Otomí, depending on the speaker.
4 The closest form is Quichua shinapash or shinallatac, equivalent to ‘however’ or ‘although’.
However, the ultimate motivation for conjunct borrowing is not the linguistic structure but the communicative pressure on minority-language speakers to meet the requirements of the Spanish-dominant discourse in a diglossic context. The argument is valid to the extent that connectives express clause structure and discourse organization. Another discursive motivation for the borrowing of the Spanish adversative might have to do with its function of shifter between code switches. This is illustrated in the following example. Spanish switches appear in square brackets.

21) Upévare che ha’e, ha aguereko heta mba’e ikatúva aguerojera [ para demostrar que realmente si el Guaraní no es la matriz universal de todos los idiomas, es por lo menos la que más fielmente siguió en el tiempo o más ha permanecido con esa fuerza] pero la che ha’eva de-que pe ava ñe’e oguereko petei ñemomarandu. [ un mensaje ]

‘That’s why I say I have many things to show you [to show you that even if the Guaraní language is not the universal matrix of all languages, at least it is the one that has followed this matrix most closely over time and has preserved that strength] but what I say is that Guaraní has a message [ a message ]’

The adversative in this case does not express any opposition from the speaker to his previous statements. Instead, it marks the shift from one switch to another. While I have not exhaustively analyzed this use of the adversative, it is clear that pero may be used in contexts different from those of the source language. Notice, finally, that the adversative often co-occurs with a native conjunct, as illustrated below.

22) y cunan-carin cai CEPCU trabaja-ju-pa-ni
and today-AFF DEM.PROX CEPCU work-DUR-HON-1S
pero shinapash na oficina trabaju-lla ca-pa-n
but however NEG office work-LIM be-HON-3
sino comun-ta ñaupa-man pusha-na yuya-n
but community-ACC front-ALL lead-INF think-3

“And now I am working here at CEPCU, but this is not just office work, I think it is about leading communities to progress”

In this example pero co-occurs with shinapash ‘however’, where the latter is sufficient to convey the intended meaning. Doubled constructions perform more than a simple semantic function. In (22) pero tags the speaker’s level of bilingualism and therefore is not redundant but emblematic. Other cases of double

5 While some authors (e.g. Poplack 1981) would consider pero in (252) a code switch, I consider it a function loanword for reasons of frequency and integration in the Quichua morphosyntax.
marking are explained in similar terms, except when the loanword makes the relation more explicit. In general, the higher frequency of occurrence of *pero* in the corpora is reflected in its varied meanings in bilingual speech.

Another loan conjunct used with adversative meaning is *sino* ‘but’. However, *pero* and *sino* are used differently in the source language: *pero* connects clauses; *sino* connects phrases. As a loan conjunct, *sino* is used as a clausal connective along with *que* ‘that’.

23)  
Hi-mi= tho ya=mgi
NEG-IMPF.3=kill DEF.PL=animal
sinu-ke mi=tuxtho ir-‘rangdi
but IMPF.3=take:LIM to-the.other.side

“They did not kill the animal but take them to the other side”

In a few cases *sino* is used as a clausal connective without *que*. Examples of this usage include (22) in Quichua, (24) in Guaraní, and (25) in Otomí.

24) ko’äga la kuñakarai-kuera la i-memby nd-o-mbohera-ve-i
now DET mother-PL DET 3-child NEG-3-call-more-NEG
pe ñande réra paraguayo-ite sino o-ñeantoja
DEM 1PL.POSS name Paraguayan-very but 3-REFL-like 3-REFL-like
chupe umi Ronal, Jonatan, ha mba’e-ngo o-mbohéra
3.OBJ DEM Ronal Jonatan and thing-AFF 3-name

‘Nowadays women don’t name their children with real Paraguayan names anymore but name them Ronal, Jonatan and the like’

25) Pwes ya=nthäti tönse yá=bestido,
because DEF.PL=bridegroom buy.REFL POSS.3PL=dress
este hingi tgmbyä kostumbre m’me`i
DEM NEG follow:BEN-DAT.PL custom before
sino tgmbyä kostumbre ya=mhg`bya
but follow:BEN-DAT.PL custom DEF.PL=Mestizo-now

‘Because the bride and the bridegroom buy their clothing, eh, they do not follow the customs of the past but they follow the same customs of Mestizos’

The above examples show that *pero* and *sino* have the same adversative meaning irrespective of the phrasal or clausal status of the linked constituents. Nevertheless, the presence of the connective *que* ‘that’ (23) suggests that the coordinating function of the adversative might be used also to subordinate clauses or phrase. The use of this connective is further analyzed in the section of subordinating conjuncts.
Let us focus on the conjunctive Y and the disjunctive O. These connectives have not replaced native forms but co-occur with them in most cases. In the following examples the connectives link both phrases (26, 31) and clauses (27, 28, 29, and 30).

**Quichua**

26) **concierta** huarmi-cuna-man lo-mismo cara-c ca-rca  
    debt-worker woman-PL-DAT the-same give-HAB be-PST  
    rebozo sira-shca-lla-tac, hualica y muchija  
    cloak sew-PTCP-LIM-AFF necklace and hat  
    ‘They gave the same to female debt-workers: sewn cloaks, necklaces and hats’

27) **shina-shpa-ca** quiquin-pac yuyai-lla-chu ri-rca-ngui  
    be.like-GER-TOP 2S -GEN thought-LIM-INT go-PST-2S  
    **or** jinti-cuna-chu quiquin-ta cacha-rca?  
    oj people-PL-INT 2S -ACC send-PST  
    ‘Thus, did you go by your one initiative or did people send you?’

**Guarani**

28) **ýramo ña-mbo’é va’an’o ja-reko va’an’o pete’...**  
    if.not 1PL-teach OBL or 1PL-have OBL one…  
    pete’ currículo o-mbohovái-va kóva-pe  
    one curriculum 3-answer-NMLZ.PRS that-ACC  
    ‘If not, we have to teach or we need to have a curriculum to fight back’

29) **porque heta pira oí nda-i-katu-i-va o-je-cria**  
    because many fish 3.be NEG-be-able-NMLZ.PRS 3-REFL-grow  
    o-mbo’a la y nd-o-syry-i-hape  
    3-lay.eggs PRO.DEM and NEG-3-flow-NEG-there  
    ha entonce o-jagarra hikuai  
    and then 3-catch 3PL.be  
    ‘Since fish cannot grow and lay eggs, water doesn’t flow and they catch them’

**Otomí**

30) ‘bej’o fghts’i ne ‘ñuni ne ja da=yobi  
    before fallow y water y make FUT.3=fold  
    y después ja=da mot’i  
    and afterwards FUT.3=sow  
    ‘First fallow, then water and fold, and then sow’
31) kwando nuCAPEng-thi be DEF:S=work
    abese hũnta ya=no o ya=ŋoho
sometimes gather DEF.PL=husband or DEF.PL=man
‘When there is no work, sometimes husbands or men get together’

Conjunction and disjunction are expressed differently in the three languages. In Otomí the time adverb ne ‘afterwards’ is used as a conjunctive and the particle wa as a disjunctive. Both connectives are widely used in everyday speech. In Guaraní, conjunctive ha and disjunctive terã are used only as connectives, although the frequency of the disjunctive is low in colloquial language. The case of Quichua is unique. On the one hand, this language does not have a disjunctive of its own but uses simple juxtaposition. On the other hand, conjunction is expressed through the additive marker –pash suffixed to each constituent. Since the scope of -pash is limited to phrases, conjunctive clauses in Quichua are traditionally juxtaposed. Comparatively, the linking strategies in Quichua differ more drastically from Spanish than the strategies in Guaraní and Otomí. In these terms, the largest number of conjunctive and disjunctive forms from Spanish is explained as a result of the calquing of the explicit linking mechanisms of this Spanish. Considering that Guaraní has the smallest number of Spanish conjunctives and disjunctives and Otomí a moderate number of these connectives, their frequency is inversely proportional to the use of native connectives. Thus, the language without native connectives for phrasal and clausal conjunction and disjunction (Quichua) is precisely the language that uses loan connectives most frequently. This means that the borrowing of connectives allows speakers with different levels of bilingualism to structure their discourse in more explicit ways as required by the communication frames of the dominant society.

The fact that y ‘and’ and o ‘or’ are the simplest connectives in form and semantics encourages their usage in other functions such as the reinforcement of contrast (32) and the shift between code-switches (33).

32) siquiera rebate-DIM-PL-ACC ask.for-INF-ACC be.able-3 and
    shinallata caru-manda ca-n ni-shca, utiya-lla atindi-n
however far-ABL be-3 say-PRF few-LIM attend-3
‘At least they can ask for some rebates, but since it is far away, they do not go’

33) ko’anga katu Guaraní ųe’ë oí [ como asignatura ]
    now AFF Guaraní language 3.be [ as a subject ]
    [y eso es importante] y ange-pyhare justamente
    [and that is important] and last-night precisely
Another function of the Spanish disjunctive in Guaraní is illustrated by (34). In this case the connective does not express clause disjunction but helps the speaker to reword his statement while keeping the floor.

34) ha a-ñe-moarandu-ramo... o a-ñe-moarandu-hápe a-topa
and 1S-study-if or 1S-study-WHEN 1S-find
heta mba'e [que coincide con los últimos acontecimientos científicos]
many thing [that agree with the last scientific findings]
‘In my study I have found many things that agree with the latest scientific findings’

Because most instances of Spanish conjunctives and disjunctives in Guaraní are similar to those illustrated in (33) and (34), I conclude that the main role of both connectives in this language is to help the speaker control turns between code switches.

The negative conjunctive is the least frequent in the corpora. None of the languages has a negative conjunctive of its own. The negative connective is particularly interesting for its morphosyntactic integration. The form ni ‘nor’ can stand alone within the clause, but more frequently it occurs in pairs or triplets linking several clauses. In the following examples the negative disjunctive coordinates phrases (35, 36) and clauses (37):

**Quichua**

35) ni yachachic-cuna-pash huaquin-pi-ca, ni
nor teacher-PL-ADIT sometimes-LOC-TOP nor
taitamama-cuna-pash paicuna-pash macanaju-shca ca-n
parent-PL-ADIT fight-PTCP be-3
‘Sometimes neither teachers nor parents, they are upset with each other’

**Guaraní**

36) ni Liga-gua ni JAC-gua nd-oi-kuuá-i
neither Liga-ABL nor JAC-about NEG-3-know-NEG
‘I know neither Liga nor JAC’
The integration of the negative conjunctive is facilitated by its peripheral or extra-clausal syntactic position. Interestingly, the negative connective still requires the negation of the predicate in Guaraní, but not in Quichua and Otomí. The negative conjunctive is the most frequent in Otomí, in which language it coordinates multiple phrases, as illustrated below.

8) **Nixi Independensya nixi Reforma, nixi Rebolusyon**

neither Independence nor Reform nor Revolution

bi=nkambyo yá=kostumbre de ya=ñhöñhö

PST.3=change POSS.3=costum of DEF.PL=Otomí

‘Neither the Independence nor the Reform nor the Revolution have changed the customs of the Otomí’

**Subordinators**

Subordinating conjunctions are the second type of conjuncts borrowed from Spanish. As a whole, subordinators are less frequent than coordinators in the three languages, but their distribution is different in each language: loan subordinators are fewer than loan coordinators in Quichua and Guaraní, but both connectives are equally represented in Otomí. In all the cases, Spanish subordinators are expected to influence the morphosyntax of the recipient languages to the extent that these prefer paratactic constructions and other syntactic mechanisms of clause linking: Quichua links clauses through nominalization and juxtaposition (cf. 6.4); clause linking in Guaraní is accomplished through juxtaposition; and Otomí uses verbal suffixes or particles to mark the relations between clauses. These mechanisms have been preserved to different degrees in each language and coexist with Spanish-modeled subordination.

The analysis of loan subordinators shows that not only their phonological form but also their grammatical categorization is matter of borrowing. The categorization features includes the syntactic slot of the function loanword and the matrix of relations between constituents. The data suggest that bilingualism is not a prerequisite for the borrowing of subordinators. Otomí speakers (incipient bilinguals) borrow a much larger number of subordinators than Guarani speakers (compound and coordinate bilinguals). Section 11.5 explores in detail whether a
relation exists between bilingualism and grammatical borrowing on the basis of data from the corpora.

The most frequent subordinators are, in order of frequency, the following: *porque* ‘because’, *que* ‘that’, *como* ‘as’, and *si* ‘if’. They show different distributions depending on the language: subordinator *porque* is the most frequent in Guarani; subordinators *que* and *como* the most frequent in Otomi; finally, *if* is the least frequent of subordinator in the three languages. The following examples of causal *porque* add to many others quoted in previous sections.

**Quichua**

39) *si* tapu-nchik ñukanchik shuk-lla shimi-pi
   if ask-1PL 1PL.POSS one-LIM language-LOC
   *yachakuk-kuna-ta* mana *intindi-nga-chu* mana *ka-n-chu*
   student-PL-ACC NEG understand-3-NEG NEG be-3-NEG
   *porque* paykuna-pa nima
   because 3.PL-DAT nothing

   ‘If you ask students in Quichua, they don’t understand because it means nothing to them’

**Guarani**

40) *n-a-ñe’-guasu-i* pe *Guaraní, sai-voi añe’ê*
   NEG-1S-speak-big-NEG DEM Guaraní bit-early 1S-speak
   *pe* *Guaraní porque* o-je-prohibi voi akue
   DEM Guaraní because 3-MEDP-forbid early PRF
   *ñande* epoca-pe
   1PL.POSS time-LOC

   ‘I don’t speak good Guaraní, only a bit, because it was forbidden in my old times’

**Otomí**

41) *no=r bätsi bi=نزoni*
   DEM=DEF.S child PST.3=cry
   *porke* bi=n-tsát’i na nts’edi-tho
   because PST.3=REFL-burn very strong-LIM

   ‘The child cried, because it burned itself very much’

The Spanish subordinator replaces the postpositions *-manta* in Quichua (39) and *-rupi* in Guarani (40), and the particle *ngetho* in Otomi (41). Still, the integration of the causal subordinator has not resulted in syntactic changes in the recipient languages.
Of similar meaning but less frequent occurrence is the Spanish subordinator *como*, present in the three languages but especially in Otomí. Again, the use of this connective accommodates to the structure of the recipient languages. Consider the following examples.

**Quichua**

42) *chay* *como* *yapa* *alpa-ta* *chari-shpa-ka*

then because too land-ACC have-GER-TOP

*kay-kaman-mi* *ka-shka* *kan* *chay* *shuk* *hacienda*

this-ALL-VAL be-PRF be-3 that one hacienda

‘Because the hacienda had a lot of land, it reached up to this area’

**Guaraní**

43) *como* *la* *campesinádo-gui* *n-o-nohê-mo’ã-i*

as DET peasantry-ABL NEG-get-COND-NEG

*respuesta* *kastelláno-pe*

answer Spanish-LOC

*ha’ekuéra* *tres* *meses-pe* *o-ñe’ê-kuaa* *porã-iterei*

3PL three month:PL-LOC 3-speak-know good-very.much

‘As peasants don’t answer in Spanish, they learn to speak Guaraní in three months’

**Otomí**

44) *komu* *hin-te* *bí=si-jê, hin-te di=pädi*

as NEG-thing PST.3=say-EXCL.PL NEG-thing PRS.1=know

‘As they didn’t tell me, I don’t know’

Otomí has adapted the loanword by rising /o/ to /u/. The same adaptation was expected for Quichua but it is reported. Notice that Quichua uses *como* along with the conditional gerund for coreferential subjects - *shpa*. Traditionally, the gerund is sufficient for expressing conditional meaning. Double marking is common in subordinating constructions on the model of Spanish. An analysis of the three corpora suggests that *como* is used mainly with causal meaning. In a few cases, however, the subordinator is used in comparisons (44). In this Otomí example *como* occurs in double-marked constructions along with *jangu* ‘like’.

6 The Spanish conjunct have two distinct syntactic functions: it is an adverb of comparison and a casual conjunction. As it seems, the loanword is borrowed with both functions in the three languages.
The use of these loan subordinators has not produced syntactic changes in the clause structure of the recipient languages. On the contrary, the use of conditional *si* ‘if’ seems quite disturbing. An example of this conjunct in Quichua is (39) above. There the conditional not only replaces the Quichua postposition -*cpi* but causes the reversal of word order from SOV to SVO. In fact, changes are more drastic for Quichua morphosyntax and lead to the occasional loss of coreferentiality in the use of conditional gerunds (-*cpi*, for non-coreferential subjects; -*shpa* for coreferential subjects). The speaker of (46) below is indecisive in the use of the appropriate form of the conditional gerund and repeats the connective in both clauses. Notice that the subject of the last conditional clause is not correfential with the subject of the following clause.

46)  

\[
\text{si yayamama mana yacha-cpi si mama mana yacha-shpa}
\]

if parents NEG know-if if mother NEG know-if

\[
\text{ñuca huahua-cuna-ta-ca imashina mana yanapa-i-ta yachani}
\]

1S child-PL-ACC-TOP how NEG help-INF-ACC know-1S

‘If parents don’t know, if mothers don’t know, I don’t know how to help children’

The conditional subordinator co-occurs also with the conjunctive, if the speaker intends to reinforce the meaning of the conditional clause. The following example illustrates such use.

47)  

\[
\text{chai faltan ashata, gulpi llancana nachu,}
\]

DEM.DIST be.missing-3 much jointly work-INF NEG.INT

\[
y \text{ si gulpi llanca-nchic;}
\]

and if jointly work-1PL.PRS

\[
gulpi ñaupac-man apa-i-ta usha-nchic
\]

jointly front-ALL carry-INF-ACC be.able-1PL.PRS

‘What is missing is joint work, and if we work jointly, we can progress’

The conditional subordinator occurs in the speech of speakers across generations and levels of bilingualism. However, I notice that the co-occurrence of Spanish conjunctions and native suffixes is characteristic of conservative dialects, while more hispanicized varieties have finite verbs to indicate coreferentiality and Spanish subordinators to head conditional clauses. From this perspective, the loss of the
native strategies for clause linking is a gradual process, the stages of which occur in
different idiolects of the same speech community.

While the effects of the integration of conditional subordinators are visible in
Quichua, they cannot be tested in Guaraní and Otomí, because both languages do not
have fixed word order\(^7\). It is probable that the relatively loose order of elements in
Guaraní and Otomí allows an easier integration of loan subordinators. Consider the
following examples.

48) o-ñe’ê la Guaraní-me
   3-speak ART Guaraní-LOC
   si ha’e-kuéra oi-pota la kampesino vöto
   if 3-PL 3-want DET peasant vote
   ‘They speak in Guaraní if they want to get peasant’s vote’

49) si ’nar=tajä da=du, nãñã-r
   if INDEF.S=godfather 3.FUT=die DEM-DEF.S
   ’ræts’i tyene-ke da=dam-bu ’nar
   godchild has.to 3.FUT=buy-BEN INDEF.S
   ‘If the godfather dies, his godchild has to buy it’

While the Spanish subordinator has replaced the Guaraní postposition -ramo in (48)
and the Otomí particle nu’bu in (49), no further changes have occurred in both cases.
Compare this with the far-reaching effects of the subordinator que ‘that’, present in
the three languages but particularly frequent in Otomí. In Quichua this subordinator
normally occurs after finite forms of *verba dicendi*. If one of these forms is the
reportative, it should be considered a finite verb like in following example

50) pero nin ca-rama que San-Juan chaya-na-pi-ca
    but REP be-PST that San-Juan come-INF-LOC-TOP
    quimsa punlla-ta mana mica-na cara-rama-chic
    three day-LOC NEG eat-INF give-PST-1PL
    ni-shpa parla-ria-n shuc abuelo-cuna
    say-GER talk-DUR-3 some grandfather-PL
    ‘But it is said that before San Juan we didn’t eat for three days, some elders said’

\(^7\) Contemporary Guaraní shows a preference for SVO constructions, which is probably a
result of contact with Spanish. Classical Otomí is known to have a relatively fixed VOS order.
VOS word order is still present in contemporary Otomí, although a marked shift to SVO
constructions is attested. From contemporary descriptions of the language we cannot
determine the approximate period of time when SVO has come to prevail over VOS.
Therefore, we cannot assume that the borrowing of the connective is directly linked to this
shift. Further study is required on this issue.
In (50) subordinator que\(^8\) heads the complement clause of the finite verb nin ‘say.3.PRS\(^9\)’, with the linking verb carca ‘be.3.PST’ in between. The lexicalization of the reportative may be due to its semantic bleaching in the context of a new information structure that gives less emphasis to evidential values, on the model of Spanish discourse. Notice in (50) the occurrence of the gerund nishpa ‘saying’, which functions as a true evidential in opposition to parlana ‘tell’. Notwithstanding these changes, the subordinated clause preserves Quichua word order (SOV).

Elsewhere (Gómez Rendón 2007a) I have demonstrated that syntactic changes resulting from the introduction of Spanish subordinators are underway in contemporary Quichua. The above example could therefore represent an unfinished stage of this ongoing change. Nevertheless, further study is required to establish the scope of changes caused by loan subordinators in Quichua.

The occurrence of subordinator que is prolific in Paraguayan Guaraní. The subordinator occurs in four different constructions: after certain Spanish prepositions used as conjunctions (51); in indirect quotations, with or without verba diciendi (52); in temporal expressions, to link the adverbial to the clause (53); and in adjective and adverb comparison, to link the terms compared (54).

\[51) \text{durante ke ha’e o-u, n-o-pená-i ore-rehé} \]
\[\text{during that 3S 3-come NEG-3-worry-NEG 2PL-about} \]

‘During the Father’s visit, nobody worry about us’

\[52) \text{pe ka’aru katu o-u jevy-ma sitasión ke karai Isaac t-o-hóje t-o-ñe-presenta-mi} \]
\[\text{DEM afternoon well 3-come again-PRF notice that mister Isaac, IMP-3-go IMP-3-REFL-report-MIT} \]

‘That afternoon a notice came that Isaac had to report’

\[53) \text{el dia ke pe jevy pende rape vaí-gui} \]
\[\text{DET day that DEM again 2PL.POSS way bad-ABL} \]

‘On the day you change your bad habits’

\[54) \text{i-kuenta-vé-ta ña-ñe’è ingléš ke la Guaraní} \]
\[\text{3.be-count-more-FUT 1PL-speak English than DET Guaraní} \]

‘The fact that we speak English will count more than we speak Guaraní’

\(^8\) It is important not to mistake subordinator que for the homophonous relative pronoun que. Instances of this pronoun have not been found in the Quichua corpus, although the compound pronominal loque ‘that which’ is definitely used in contemporary Quichua.

\(^9\) Notice that Quichua traditionally places the evidential nin at the end of the clause without a copula.
Example (51) illustrates one of few Spanish prepositions in Guaraní, which link two independent verbal phrases with the help of the subordinator. Example (52) is calqued from Spanish constructions in which the subordinator heads the quotation after the noun phrase. The Spanish subordinator occurs very often in indirect speech after *ha'e* ‘say’ and reportative *ndaje* ‘say’. Traditionally, *ha'e* precedes the complement while *ndaje* occurs in clause-initial or clause-final position. When the subordinator is used with the reportative, *ndaje* occurs only clause-initially. In example (53) the Spanish subordinator links the adverbial expression *el día* ‘the day’ to the main clause. I have analyzed adverbial constructions linked through the subordinator *que* as complex borrowings on account of their frequency and morphosyntactic integration, even though some authors might consider them code switches. Finally, in (54) the subordinator links both terms of a comparison, with important consequences for Guaraní morphosyntax: the drop of the ablative marker on the second term of the comparison and the obligatory position of the second term immediately after the subordinator. In this case the effects of subordination on clause linking are much more disturbing.

Otomí borrows the subordinator *que* with particular frequency, and the effects on Otomí structure are no less disturbing. This language has borrowed *que* in four different contexts: 1) in complex conjuncts (e.g. *sin-ke, mas-ke*) where it is merged with another element forming one phonological word; 2) at the beginning of indirect speech; 3) after verbs of volition such as ‘want’ or ‘think’; and 4) before the reference of a comparison. Complex conjuncts with *que* are discussed at the end of this section. The following examples illustrate the subordinator linking the clause of indirect speech to *verba dicendi* (55, 57), the subordinate clause to a verb of volition (56), and the compared element to the reference of a comparison (58).

55) Māng=ya jā'i ke 'bu ar=t'ete
   say=DEF.PL people that be DEF.PL=sorcery
   ‘People say it is sorcery’

56) nuya ya=xömbate bilingwe
   1PL DEF.PL=teacher bilingual
   ne ke da=sifī när hnini
   want that FUT.3=say DEM.S where
   ha 'bu ya=indijena ko ňañho embede Otomí
   and be DEF.PL=Indian with ňañhi instead.of Otomí
   ‘We bilingual teachers want Indians to be named ňañho instead of Otomí’

---

10 *Durante que* is ungrammatical in Spanish. To coordinate two simultaneous clauses, the conjunction *mientras* is used instead, with or without *que*. Clearly, *durante* is used as equivalent of *mientras* on the basis of the common semantics of both connectives.

11 Traditionally the second term may somewhere else provide it takes the comparative marker.
Indirect speech is not marked but simply juxtaposed in classical Otomí. Juxtaposition is used also to link the subordinate clause of a volition verb. Only comparative constructions are marked, with the focus particle dige. In contrast to classical Otomí, where syntactic relations remain implicit in the semantic content of the verb, modern Otomí marks syntactic relations between clauses with the Spanish subordinator que in an explicit way.

The Spanish subordinator exerts a similar influence on the native structures of the recipient languages, but the degree of such influence varies according to the way each language marks relations between clauses and the preferred linking mechanism. The examples presented in this section make it clear that Quichua is the language most syntactically affected because of the rigidity of its word order. On the contrary, the structural changes in Guaraní are less visible because of codeswitching and syntactic calquing from Spanish. Otomí is the other side of the coin: despite the prolific use of the subordinator, the only change observed is the replacement of the focus particle in comparative constructions while syntactic relations are not affected because many of them were implicit so far.

To round off the discussion of conjuncts, I analyze now complex conjunctions. The number of complex conjuncts borrowed from Spanish is not trivial. They occur in the three languages but especially in Quichua. Complex conjuncts result from the fusion of various constituents in one phonological word: e.g. *o si no* ‘or else’ > [osinó]; *o sea que* ‘that means’ > [oseáke]; *más que* ‘though’ [máske] etc. The most frequent of complex conjuncts in the corpora is the explicative *oseake*, from *o sea que* ‘that means’. It occurs in assimilated and non-assimilated forms, with or without the subordinator que. In the latter case, the conjunct can be analyzed alternatively as a discourse marker equivalent to ‘I mean.’ Another complex conjunct of widespread use is *máske*. The semantics of this conjunct is equally complex as its form. Consider the following examples.

57) $ya=xita \quad j=ar \quad \hbox{hnimi \ pede \ ke} \quad 'megt'o'byu$

DEF.PL=grandfather LOC=DEF.SG town tell that before

$más \quad mar=ntse \quad ke \quad digem'bya$

more PRF.3=cold that nowadays

‘Elders say in town that it was colder in the past than nowadays’

58) $máske \quad ñuka \ ashta \ yapa-ta-lla \ wasi-pi \ rima-kpi-pash,$

however.much 1S too much-ACC-LIM house-LOC speak-GER-ADIT

$ñuka \ mama \ wasi-pi \ solo \ kichwa \ rima-n$

1S.POSS mother house-LOC only Quichua speak-3

‘However much I speak [Spanish], at my mother’s place they speak only Quichua’
59) **máke**  **kambými-re**  **ha’e**  **oi-kové-va’ekue**

though  milk-DIM-with  3S  3-survive-PRF

‘He survived only with a bit of milk’

60) **ya=’be**  **hña**  **mi=yod=ya**  **wa**,

DEF.PL=woman  PRF.3=walk-DEF.PL  foot

**mäske**  **mi=jar**  **tse**

though  PRF.3=happen-DEF.S  cold

‘Women walked barefoot although it was cold’

The phonetic form of this conjunct is different in each language: unassimilated in Quichua; nasalized in Otomí; and shortened in Guaraní. In Spanish, *más que* has a concessive meaning, but only Quichua and Otomí use it with such meaning. Instead, Guaraní uses it with a limitingative meaning, even though a concessive use is not excluded. Notice that concession is expressed differently in the three languages: Otomí simply uses juxtaposition; Guaraní uses modal particles; and Quichua marks the subordinate predicate with either of two conditional gerunds -kpi or -shpa plus the additive marker -pash. From the examples it is clear that syntactic structures are not compromised in any of the languages.

In addition to the aforementioned conjuncts, Otomí makes frequent use of the complex conjunction *para que*, which is difficult to classify because of its morpho-phonological assimilation. The conjunct may occur both in full and shortened forms. An example of the shortened form (without the subordinator) is the following.

61) **nesesita**  **da ...**  **nuya**  **jä’i**  **da=hñunta**

need  FUT.3  DEM.PL  person  FUT.3=get together

**pa**  **da=hoku**  ‘nar=me=he’

for  FUT.3=build  INDEF.S=well

‘These people need to get together in order to build a well’

The form *pa* occurs 697 times in the corpus and represents a significant percentage of the grammatical borrowings in Otomí. But what is the origin of *pa*? A shortened preposition? The shortened form of a complex conjunction? There is no way to know the origin of this borrowing with certainty. The present analysis preferred to classify *pa* according to the function it performs in Otomí. Therefore, those instances used as clausal connectives were considered shortened forms of the

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12 The Spanish subordinator may co-occur with the gerund -kpi and the additive, as illustrated in (288).
complex conjunct *para que* while those instances used as phrasal connectives were considered prepositions. The prepositional use of *pa* is discussed in the next section.

According to Hekking (1995: 173), Otomí borrows more subordinators than coordinators from Spanish and this frequency is explained by “a need of accuracy”: Spanish conjunctions express more economically and accurately what Otomí expresses with complex periphrastic constructions. Hekking is right about the “need of accuracy” but this is not sufficient explanation. As mentioned above, the ultimate motivation for borrowing must be looked for in sociohistorical and sociolinguistic factors. This implies that the explanation of a linguistic fact (e.g. the borrowing of conjunctions) cannot be based on linguistic facts exclusively. In this perspective, Quichua and Otomí borrow conjunctions *not only* because they do not have equivalent grammatical elements for clause linking but also because the Spanish dominant discourse imposes a frame of thought and communication – including accuracy and economy, as mentioned by Hekking – where the explicitness of relations between propositions becomes a must for multicultural understanding. Therefore, the borrowing of discourse-sensitive items such as conjunctions or prepositions is less a need of accuracy motivated by a structural shortcoming than the capacity of a language to adapt to new communicative circumstances with a strong linguistic loyalty to the mother tongue where others have shifted to the dominant language.

### 11.3.3 Prepositions

Prepositions rank third in frequency according to Table 11.4. The overwhelming majority of prepositions occur in Otomí (21.8%). There are few Spanish prepositions in Quichua (0.66%) and still fewer in Guaraní (0.44%). Prepositional phrases were not analyzed as grammatical borrowings but as frozen lexical borrowings (cf. 10.3.5 and 10.4.5).

The low frequency of Spanish prepositions in Quichua and Guaraní is not surprising given the postpositional character of both languages. Moreover, hypothesis H.3.2 predicts that Quichua and Guaraní will not borrow prepositions at all. But they do, and the few cases reported need some explanation. Furthermore, for Otomí this explanation should describe typological changes, if any, in the structure of the recipient language.

**Spanish prepositions in Quichua**

The most frequent prepositions in the Quichua corpus are *como* ‘like’ and *según* ‘according to’. Both occur also as conjunctions in the syntactic periphery of clauses (cf. section 11.3.2). In the terminology of Bakker (2002) and Dikker (2005: 42f) both prepositions are “lexical predicative prepositions”, because they link two constituents, one of which is the predicate of the other. The use of *como* and *según* is
illustrated below. Notice that loan nouns follow the prepositions in all the cases, which might be interpreted as a distributional constraint on the latter’s occurrence.

62) *chay* timpu-pi-lla-ta jazinda
   DEM.DIST time-LOC-LIM-EMPH estate
   *Ugsha* jinti-ta-ca *como* isclabu chari-shca nin-ca
   Ugsha people-ACC-TOP like slave have-PRF REP-TOP
   ‘It is said that at that time they treated people from Ugsha like slaves’

63) *chashna* porti tanda-ta-mi rura-shpa cara-c ca-rca,
   so size bread-ACC-FOC do-PRF give-HAB be-PST
   *chai* tanda-ca *según* maitra
   DEM.DIST bread-TOP according.to trainer
   *según* masadora-cuna ca-shpa-chari
   according.to kneader-PL be-GER-DUB
   ‘They used to make pieces of bread this big, the pieces were of different sizes if they were made by trainers or expert kneaders’

64) *familia-cuna-ca shamu-c ca-rca según familia*
   family-PL-TOP come-HAB be-PST according.to family
   *huaquin* taza sara-huan, *huaquin-ca* costal sara-huan,
   some bowl maize-with some-TOP sack maize-with
   *huaquin-ca* carga sara-huan, *cashna* apamu-shpa
   some-TOP load maize-with so bring-GER
   ‘Each family used to bring something, some came with bowls of maize, others with sacks of maize, and still others with full loads of maize’

In (62) *como* links the noun *isclabu* ‘slave’ in its quality of predicate to the noun phrase *Ugsha jintica* ‘people from Ugsha’. In (63) *según* links the clause *chai tandaca* ‘those pieces of bread’ to the nouns *maitra* ‘trainer’ and *masadorencuna* ‘expert kneaders’ in their quality of predicates. The same preposition in (64) links the noun *familiacunaca* ‘families’ to the phrases *huaquin taza sarahuan, huaquin costal sarahuan, huaquinca carga sarahuan* ‘some came with bowls of maize, others with sacks of maize, and still others with full loads of maize’. In both cases Quichua verb-final order is preserved and topic markers occur exactly in the expected position. That no syntactic change is motivated by both prepositions is due to their peripheral position in the sentence. Finally, as mentioned above, *según* functions also as a conjunct, which is illustrated in (65).
In (295) *según* subordinates the clause *cai uchilaguca* ‘if they are little children’ to the sentence *iscuilata tucushi-shpa riparca* ‘they started school’. The use of *según* as a clausal connective is not unknown in Spanish provided it is accompanied by the subordinators *que* ‘that’ or *si* ‘if’. However, there is no evidence that *según* in (295) is a shortened form of the complex junction *según si* ‘it depends on whether’. It is more likely that the preposition acquired a connective use with an equivalent meaning. The structural changes become clear when (295) is compared with the following sentence:

66) 

\[
\text{cai} \quad \text{uchilla-gu} \quad \text{ca-shpa-ca} \\
\text{DEM.PROX} \quad \text{little-DIM} \quad \text{be-GER-TOP} \\
\text{cai-manda-ca} \quad \text{iscuila-ta} \quad \text{tucuchi-shpa} \quad \text{ri-pa-rca} \\
\text{DEM.PROX-ABL-TOP} \quad \text{school-ACC} \quad \text{start-GER} \quad \text{go-HON-PST} \\
\text{‘When they are little children, they start going to school’}
\]

In (66) the loan preposition has induced two changes: 1) the co-referential gerund indicating conditionality has been elided; 2), as a result of this elision, the topic marker *-ca* has shifted backwards to its nearby constituent.

Cases have been observed in which conditional *si* ‘if’ – equivalent in meaning to *según* in (66) – co-occurs with the Quichua gerund provided that the subjects of the subordinate and the main clause are not coreferential (cf. section 11.3.2). In these cases, the semantics of the recipient language co-determine the use of grammatical borrowings beyond the syntax of the source language. Semantic constraints are particularly strong if a function loanword does not convey all the semantic features of its native counterpart (e.g. coreferentiality) and therefore does not mark those syntactic relations which are obligatory in the recipient language. Double marking seems the best solution. The next examples illustrate prepositions in double-marked constructions. Notice again the occurrence of loan nouns after the prepositions.

67) 

\[
\text{paycuna} \quad \text{apusta-rca} \quad \text{chashna} \quad \text{entre} \quad \text{haciendero-pura-cuna} \\
\text{3PL} \quad \text{bet-PST} \quad \text{so} \quad \text{among} \quad \text{estate.owner-among-PL} \\
\text{‘They bet among estate owners only’}
\]

68) 

\[
\text{chaica} \quad \text{vacaloca} \quad \text{ri-naju-na,} \quad \text{vacaloca-ca} \quad \text{hasta} \quad \text{punta-pi} \\
\text{then} \quad \text{vacaloca} \quad \text{go-RCP-INF} \quad \text{vacaloca-TOP} \quad \text{up.to} \quad \text{end-LOC}
\]
The postpositions -pura and -pi in the above examples co-occur with the Spanish prepositions entre ‘among’ and hasta ‘up to’, respectively. The reason for doubling is basically semantic. Entre means both ‘between’ and ‘among’ – irrespective of number – while Quichua -pura denotes always more than two elements. The number of hacendados in (67) is plural, not dual. Therefore, the sole use of the Spanish preposition would cause ambiguity. Similarly, hasta means ‘up to’ without including the end point. The Quichua postposition -pi does include the end point. Thus, the sole use of the Spanish preposition would result in an ambiguous sentence – because the speaker wants to emphasize that players got to the end point of the pole and won the prize for that. These few examples confirm that loan prepositions are not always semantically more specific than the original element, as Bakker and Hekking (1999: 3) suggest for Spanish prepositions in Otomi.13

Summing up, the integration of prepositions in Quichua left the morphosyntactic matrix largely intact. The reasons for such preservation are various. First, the majority of loan prepositions are predicative in nature, i.e. they only mark the equative case. Second, some loan prepositions have extended their original function to become phrasal and clausal connectives. Third, Spanish prepositions find fewer restrictions for syntactic integration on account of their peripheral position (cf. section 11.3.2.). And fourth, if a Spanish preposition causes ambiguity, the easiest solution involves the additional use of an equivalent marker. For a complementary evaluation of loan prepositions in Quichua, the correlation between their usage and the level of bilingualism of speakers is tested in section 11.5.

Spanish prepositions in Guaraní

Like Quichua, Paraguayan Guaraní is a postpositional language, and preposition borrowing is therefore not expected. Still, the corpus contains quite a few prepositions. Most of these prepositions are instances of como ‘like’, as illustrated in (69) and (70) below. Once again, the prepositions are followed by Spanish loans, thereby leaving the door open to the characterization of both constituents as code switches. Nevertheless, I have decided to analyze these cases as combinations of grammatical and lexical borrowings.

An alternative reading is that semantic specialization implies the adoption of only one subset of the source-language meanings and not the specialization of the semantics itself (Bakker, p.c.).
69) ha upéi a-je-recibi universidad-pe como abogado
and then 1S-graduate university-LOC as lawyer
‘Afterwards I graduated from the University as a lawyer’

70) o-corre o-hó-vo la tiempo ha peicha
3-run 3-pass-DUR DET time and thus
hágui-nte la presidente ha che a-mba’apo
NMLZ.PST-very DET president and 1S 1S-work
como secretario hendive
as secretario 3.COM
‘Time passed swiftly and he became president and I worked as his secretary’

For Quichua I characterized como ‘like’ as a predicative preposition, because one of the linked constituents is predicate of the other. The same analysis is applicable here: como links the (implicit) first-person singular subject to abogado ‘lawyer’ in (69), and the verbal predicate to secretario ‘secretary’ in (70). Because Guaraní does not have a fixed word order – as opposed to Quichua – syntactic changes resulting from the use of prepositions are not visible at the level of the clause. Still, a comparison with the Spanish expression recibirse como ‘to graduate as’ suggests that (69) is a syntactic calque. Calquing from Spanish is frequent in Paraguayan Guaraní and increases with higher levels of bilingualism. In this context, the use of the preposition results from the phrasing of Spanish expressions through native and borrowed items and the preservation of morphosyntactic structures. Of course, it is pertinent to ask ourselves to what extent sentences like (69) continue to be Guaraní, if everything in them is Spanish except verbal and case morphology. In my opinion, the preservation of native morphology makes these cases instances of Guaraní, but certainly quite different from traditional Guaraní.

The second most frequent Spanish preposition in the Guaraní corpus is entre ‘between, among’. Unlike the examples of entre in Quichua, the instances of this preposition in Guaraní have either a plural or dual meaning depending on the context. In the following examples the preposition occurs together with loan nouns:

71) entre seis roi-me, ha’ekuéra entre compañero
among six 2.PL-be 3.PL among fellow
o-ñe’-ve solo Guaraní-me
3-speak-more only Guaraní-LOC
‘Among six people, they speak only Guaraní among friends’

72) entre brasilero ha paraguayo che a-topa
between Brazilian and Paraguayan 1S 1S-find
hetu ha’ekuéra oí diferencia
many 3PL 3.be difference
‘I find there are many differences between Brazilians and Paraguayans’
The above examples illustrate different uses of the Spanish preposition. In (71) we find two instances of *entre*, each with its own (Spanish) argument: *seis* ‘six’ and *compañero* ‘fellow’. It has been suggested that the sequences of loan preposition and loan noun like *entre seis* and *entre compañero* in (71) are code switches. However, if this analysis is valid for the first of the phrases, it cannot be maintained for the second, which is ungrammatical in Spanish for the lack of number marking on the loan noun. In (72) *entre* ‘between’ links two arguments with the addition of the Guaraní connective *ha* ‘and’, which excludes a classification of the sequence as a code switch. Finally, in (73) *entre* functions like a conjunctive, even though the original meaning is preserved and indicates the intermediate space between two objects. This innovative use of the prepositions reveals the reinterpretation of its original syntactic and semantic functions.

Another Spanish preposition in Guaraní is *hasta* ‘up to’. Its use is illustrated with the following examples.

In both examples *hasta* indicates the end point of the action described in the first sentence. Yet, there is a crucial difference between them: *hasta* is not accompanied by Guaraní morphology in (74) but co-occurs with two instances of postposition -peve ‘until’ and an explanatory code switch in the middle in (75). It is not unlikely that the code switch motivates the occurrence of the Spanish preposition in an otherwise monolingual utterance. Notice that the complex connective *hasta que* is
used with the same meaning of hasta in the previous examples. It is likely that hasta is a shortened form of the complex connective.

The use of según ‘according to’ in Guaraní is equivalent to the use attested in Quichua: the Spanish preposition serves as a clausal connective expressing conformity to something. In example (76) below según heads a reportative clause confirming the proposition of the first sentence. In (77) it heads an embedded clause evaluating the next statement according to the speaker’s opinion.

76) i-mitã-re o-ho [la guerra del Chaco]
   3.POSS-child-for 3-pass [the Chaco War]
   según ha’e o-mbe’u oreve
   according.to 3-tell 1PL.EXCL.OBJ
   ‘They went to the Chaco War for their children, as we were told’

77) che según a-topa, oî heta teta ambué-re,
   1S according.to 1S-find 3.be many country other-for
   o-ñe-mbo’e-ha universidad tuicha-há-re
   3-REFL-teach-NMLZ university big-NMLZ-for
   ‘According to me, there are many other countries where it is taught at university’

Contra ‘against’ in (78) is case of a pseudo-preposition in Guaraní:

78) che na-ñe’ê-i rapicha côutra-pe
   1S NEG-speak-NEG people against-LOC
   ‘I do not speak against people’

At first sight the loanword in (78) seems to be the preposition contra ‘against’. However, contra is the argument of the locative postposition –pe. This leads to interpret contra rather as the loan noun contra ‘opposition’, which forms the complex preposition en contra de ‘against’. Accordingly, côutra is calqued from Spanish en contra de ‘against’ but used as postpositional phrase.

A number of Spanish prepositions in the Guaraní corpus occur in syntactic calques from Spanish. These calques are not unexpected, given the bilingualism of most Guaraní speakers. Prepositions in calques follow the Spanish syntax, although their constituents take Guaraní morphology. In general, loan prepositions have not caused major changes in Guaraní, perhaps because many structures of pre-contact Guaraní have changed already.
Spanish prepositions in Otomí

If the finding of loan prepositions in a postpositional language is unusual, the finding of a large number of them in a language without adpositions is even more puzzling. One explanation given to this phenomenon is gap filling, according to which the recipient language would cover a structural deficiency. The pros and cons of this explanation were discussed in section 3.1.4. I recommended caution when using the idea of ‘structural gaps’ for explaining language contact phenomena because the very idea of ‘gap’ is relative in itself and could evoke euro-centrist interpretations of language ‘evolution’ and hierarchies of thought. Furthermore, I demonstrated that the idea of gap filling must be relativized by considering the respective positions of the languages in contact. For Otomí in contact with Spanish, Bakker and Hekking (2007) have suggested that Amerindian languages borrow Spanish prepositions precisely to fill a gap in its structure. While their arguments are well substantiated, they require the consideration of various other factors.

Gap filling is, in my view, only part of the explanation. Gap filling per se does not motivate a language without adpositions to borrow prepositions. According to my model of contact-induced language change through borrowing, the ultimate motivation of any contact outcome is nonlinguistic: social, geographical or communicative. In this perspective, gap filling is just one link of the chain of language contact. If structural gaps in Otomí are considered a linguistic factor modeling the borrowability of prepositions, it is wise to find the ultimate cause of preposition borrowing in the sociocultural and communicative circumstances in which contact takes place for this particular language. These circumstances are outlined in the following.

In so far as Otomí speakers find themselves in a diglossic situation with respect to Spanish speakers, they experience ongoing pressures to shift their native language to the dominant language (Spanish). The pressures promote a) an increasing bilingualism in the Otomí speech community, and b) an increase in the degree of language mixing in the speech of speakers in closer contact with the Spanish-speaking society. This mixing behavior takes two shapes: on the one hand, speakers borrow lexical and grammatical elements; on the other, they code switch between languages. In previous sections I showed that the contribution of codeswitching to Otomí bilingual speech is minimal (1.7% of the total corpus) while the contribution of lexical borrowing is moderate and the contribution of grammatical borrowing very important. Furthermore, I attested an inverse proportion between borrowing and codeswitching, on the one hand, and between lexical borrowing and grammatical borrowing, on the other. In these terms, the extensive borrowing of grammatical elements in Otomí should be considered a language-specific answer to the pressures of contact. The specific situation of Otomí-Spanish contact is primarily determined by socio-communicative conditions and modeled by structural factors.
such as the typological distance between both languages. The socio-communicative conditions are embodied by the relative position of the dominant language (Spanish) with respect to the minority language (Otomí). As a result, the discursive and communicative strategies of the dominant language are imposed to the dominated language. In this context, Otomí is expected to borrow all those elements, both lexical and grammatical, which enable its speakers to reproduce the discursive and communicative structure of Spanish monolingual speakers. Since one of the major typological differences between Spanish and Otomí lies on the marking of syntactic and semantic relations (implicit or paratactic in Otomí; explicit or hypotactic in Spanish), it follows that Otomí will borrow a large number of Spanish connectives (prepositions and conjunctions), even if loan prepositions are not used as they are in Spanish. In fact, the data show that loan prepositions are used within the Otomí matrix, and their use cannot be explained in terms of Spanish morphosyntax.

Hekking (1995:150) identified twenty-four different prepositions in Querétaro Otomí. I have found the same number in the Otomí corpus of this investigation, except for the complex preposition *mparte* < Spanish *en parte* ‘in part’. A crucial difference exists, however, between the present analysis and the analysis conducted by Hekking (1995), which has to do with the coding of grammatical category and the assignment of function. In this study I identify prepositions on the basis of their classification in the source language, thus following formal criteria. Hekking (1995), on the contrary, assigned to the category ‘preposition’ the forms classified as prepositions in the source language as well as those which function like prepositions in Otomí, even if they belong to other categories (e.g. adverbs). For example, Hekking (1995) classifies the adverbs *después* ‘afterwards’ and *antes* ‘before’ as prepositions along with their assimilated equivalents *después dige* and *ante dige*.15

Differently, I analyzed simple prepositions as distinct from complex prepositions and included adverbs of time and place in the broader category of adverbs, regardless of their function in the recipient language and their combination with other parts of speech (e.g. *después de*). Nevertheless, the number of basic prepositions identified in both studies matches perfectly. The eight most frequent Spanish prepositions in the corpus are, in this order, the following: *con* ‘with’; *para* ‘to, for’, *de* ‘of’, *hasta* ‘to, up to’; *sin* ‘without’; *desde* ‘from’; *por* ‘by’; and *como* ‘as, like’. These prepositions have different realizations according to their level of morpho-phonological adaptation to Otomí. Thus, *desde* ‘from’ has eight different

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14 In situations of widespread bilingualism the mechanism to bridge the gap between the communicative strategies of both languages is codeswitching. In the case of Otomí and Spanish, however, codeswitching is not viable because the Mexican society is largely monolingual.

15 Hekking’s method is justified inasmuch as there are many forms which function either as prepositions or conjuncts in Otomí, although their phonological shape brings them closer to prepositions.
phonetic realizations, but *de* ‘of’ and *por* ‘for’ have only two. Excluding *hasta*, which occurs in Guaraní and Quichua, all the other prepositions do not occur in these languages. I illustrate the typical usage of loan prepositions from the most frequent to the least common. Consider the following examples of *con* ‘with’.

79) \(Ar=jä'i\quad bi=dâk=ar\quad k'eñä\quad kon\quad minge\)
   DEF.S=man 3.PST=attack=DEF.S snake with pickaxe
   ‘The man attacked the snake with the pickaxe’

80) \(mande\quad ngi=ô'o-hu\quad ko\quad hêu\quad ya=nxutsi\)
   Yesterday 2.IMPF=walk-INCL.PL with three DEF.PL=girl
   ‘Yesterday you walked with three girls’

The preposition *ko* (*kon, konge*) is used mostly to mark the instrumental (79) and comitative cases (80). In the first example the preposition replaces the native particle *ir nge*. In the second it co-occurs with the plural inclusive marker which marks also the comitative case in traditional Otomí. According to Hekking (1995: 157), the co-occurrence of loan prepositions and native particles or suffixes performing the same function is not uncommon. But *ko* indicates also the substance of something, as illustrated in (81), where the preposition merges with the nominal proclitic to form one phonological word.

81) \(Ya=tsita\quad Nî'gwä\quad xi=thoki\quad ko=r\quad yeso\)
   DEF.PL=saint San.Ildefonso PRF.3=made with=INDEF.S gypsum
   ‘The saints from San Ildefonso are made of gypsum’

The second most frequent preposition in the corpus is *para*. It generally occurs in the shortened form *pa*. It serves to mark the benefactive case, as shown in (82), where the preposition and its immediate constituent merge in one phonological word, following the rules of Otomí morphophonemics.

82) \(Nâ=r\quad hyokunguu\quad bi=hyok-wu\quad 'nar=nguu\)
   DEM=DEF.S architect PST.3=build-BEN INDEF.S=house
   \(pa=r\quad ts'i'ubi\)
   For=DEF.S governor
   ‘The architect built a house for the governor’

Classical Otomí uses the verbal suffixes *-pi* or *-wi* to mark the benefactive case. In modern Otomí these suffixes normally co-occur with the Spanish. *Para* serves also to mark the purpose of the action in the main clause (83), which was unmarked in Classical Otomí.
83) thoku 'nar=pont’i  zaa  pa  da=t’exu  j=ar  'met’e
        make  INDEF.S=cross  wood  for  FUT.3=put.on  LOC=DEF.S  roof
     ‘They make a wooden cross to put it on the roof’

In (83), however, pa functions rather as a connective linking the main clause to the subordinate clause. These cases have been classified as instances of Spanish prepositions used as conjuncts in the recipient language.

The usage of the preposition de ‘of’ covers a wide range of meanings including possession (84), source (85), partitive (86), material (87), and reference (88).

84) Nixi independensya  nixi  reformanixi  rebolusyoon
    neither  Independence  nor  Reform  Revolution
    bi=nkambyo  yá=kostumbre  de  ya=ñhōñhō
    PST.3=change  POSS.3=habit  of  DEF.PL=Otomí
     ‘Neither Independence nor Reform or Revolution changed the habits of the Otomí’

85) Ya  dá=pengi  de  Jalpa
    already  PST.1=come.back from  Jalpan
     ‘I already came back from Jalpan’

86) ‘na  de  ge’u  i=ndude  kaha
    One  of  DEM.3  PRS.3=carry  box
     ‘One of them carries the box’

87) hoku ‘nar=krusi  de  ‘nar=xithe
    make  INDEF.S=cross  REF  INDEF.S=wood
     ‘He makes a cross of wood’

88) di=ñä-jwi  de  byaje  pa  Maxei
    PRS.1=speak-INCL.DU  REF  trip  to  Querétaro
     ‘We talk about the trip to Querétaro’

While possession is expressed by juxtaposition (possessed-possessor) in classical Otomí, the other syntactic functions performed by de were traditionally unmarked. Therefore, the borrowing of this preposition results in the explicit marking of syntactic relations and a consequent structural similarity between Otomí and Spanish.

The preposition hasta, of low frequency in the corpus, serves to mark the allative case or the end of an action. In the second case it occurs as a clause connective. The following example illustrates the first function:
Prepositions *sin* ‘without’ and *desde* ‘from’ have specialized in the marking of privative and ablative cases, as illustrated below:

89) \[ \begin{array}{lllll}
\text{bi=} & \text{dexu} & \text{asta} & \text{mñà} & \text{dige} \\
PST.3= & \text{climb} & \text{till} & \text{on.the.top} & \text{REF} \\
\end{array} \]
\[ \begin{array}{lllll}
\text{zàa} & \text{LOC=} & \text{DEF.S} & \text{tree} \\
\end{array} \]

‘He climbed to the top of the tree’

*Sinke* in (90) is a merger of the preposition *sin* ‘without’ and the subordinator *que* ‘that’. *Sinke* (privative) is not a clause connective in (90) but remains a true preposition. In (91) *desde* (temporal reference) accommodates phonologically and morphologically to Otomí by merging with the nominal proclitic in one phonological word. Traditionally, Otomí expresses the privative meaning through the verb *otho* ‘there is no’, and marks temporal and spatial reference with the particle *dege*. However, the Spanish prepositions in the above examples do not co-occur with their native counterparts.

The last two prepositions of the most frequent in the corpus are *por* ‘for, by’ and *como* ‘as’. Both loanwords have specialized in marking specific semantic relations: *por* indicates cause or reason (92) whereas *como* links two predicates in an equation (93).

90) \[ \begin{array}{lllll}
\text{ya=} & \text{nxutsi} & \text{xi=} & \text{mboni} & \text{sinke} \\
\text{DEF.PL=} & \text{girl} & \text{PRF=} & \text{leave} & \text{without} \\
\text{ar=} & \text{nànà} & \text{DEF.S=} & \text{mother} \\
\end{array} \]

‘The girls have gone without their mother’

91) \[ \begin{array}{llllllllll}
\text{ndezu=} & \text{r} & \text{jey-a} & \text{hi} & \text{mi} & \text{nànìfo} & \text{yà=txi=} & \text{jëi} \\
\text{from-DEF.S} & \text{year-EMPH} & \text{NEG-IMPF Spanish} & \text{DEF.PL=} & \text{DEM=} & \text{person} \\
\end{array} \]

‘Since that year Indians do not speak Spanish’

92) \[ \begin{array}{llllllllll}
\text{pwede} & \text{ke} & \text{da=du} & \text{nar=jëi} & \text{por} & \text{t’ete} \\
\text{possible} & \text{that} & \text{FUT.3}= & \text{die} & \text{INDEF.S=} & \text{person} & \text{by} & \text{sorcery} \\
\end{array} \]

‘A person can die by sorcery’

93) \[ \begin{array}{llllllllll}
\text{xi} & \text{mi=} & \text{txinga} & \text{mi=} & \text{mpëfi} & \text{komongu} & \text{nar=} & \text{mëti} \\
\text{PST.3=} & \text{work.to.death} & \text{PST.3=} & \text{work like} & \text{INDEF.S=} & \text{animal} \\
\end{array} \]

‘They worked themselves to death working like an animal’

The preposition in (92) marks the arguments of the verb which indicates the origin or cause of dying. Traditionally, Otomí does not mark this relation. Equative constructions, on the contrary, are marked with particle *ngu*, the same particle which occurs merged with the Spanish preposition in (93).
To conclude this section, let us briefly discuss the use of Spanish complex prepositions in Otomí. Example (94) illustrates the use of *embesde* from Spanish *en vez de* ‘instead of’. Notice the merger of the preposition and the enclitic *ar*.

94) \textit{embesde} = \begin{align*}
k'ani & \text{ vegetable} \\
nu'bya & \text{ now} \\
t'am-\text{bya} & \text{ buy-ACT} \\
t'afi, & \text{ sweet} \\
y=\text{gayeta} & \text{ 'neh=ya} \\
\text{DEF.SG} & \text{ biscuit=DEF.S} \\
& \text{ soft drink} \\
\end{align*}

‘Instead of vegetables they buy now sweets, biscuits and also soft drinks’

From the preceding examples it is clear that prepositions are deeply entrenched in Otomí grammar. In fact, Otomí is different from Quichua and Guaraní in the frequency and morphosyntactic integration of prepositions. The great majority of these prepositions specialize in the marking of grammatical relations. At the same time, Otomí, like Guaraní and Quichua, uses certain prepositions as clausal connectives. The usage of prepositions as connectives is based on their formal similarity to conjunctions in Spanish, but also on the linking role played by both function words at different levels of linguistic structure.

11.3.4 Discourse Markers

The contribution of Spanish discourse markers is different in each language. Otomí is the language with the largest number of Spanish discourse markers, followed by Quichua and Guaraní. Based on the principle of functional explanation, hypothesis H1.1 predicts that discourse markers will be borrowed more easily than non-discourse markers. The data do not confirm this prediction. Discourse markers make only a marginal contribution to linguistic borrowing in the three languages, including Otomí, where this class of items represents hardly 6.9% of the total borrowings. A few remarks are necessary, however.

On the one hand, discourse markers in any contact situation are always outnumbered by content words because the ultimate motivation for borrowing is the increase of the referential capacity of a language. Therefore, we cannot expect that discourse markers be more numerous than non discourse markers. In these terms, the prediction from hypothesis H1.1 must be reformulated in the sense that discourse markers will be the largest class of grammatical borrowings. Still, the data disconfirm this prediction as well: discourse markers are a marginal category within grammatical borrowing. On the other hand, the low frequency of discourse markers in borrowing is determined by the small number of their types, their use only in specific positions in discourse, and the lack of morphological means to mark discourse functions in Spanish, most of which are fulfilled by syntax and intonation. In these terms, it is expected that the languages in contact with Spanish borrow
syntactic structures and intonation patterns from this language instead of morphological or lexical items performing discursive functions. An analysis of the Spanish influence at these levels has been carried out elsewhere (Gómez Rendón, 2007a). In the following I discuss the use of discourse markers borrowed from Spanish in the three languages.

The first thing to notice is that the number and types of discourse markers are different in each language. The Guaraní corpus contains nine types but the Quichua corpus only five. In contrast, Otomí has seventeen types of discourse markers, including simple and complex forms. Only two discourse markers are common to the three languages: *bueno* ‘well’ and its phonetic variants [gweno] or [jweno]; and *entonces* ‘then’, with its phonetic variants [tonses], [ntonse] and [ntonses].16 The analysis suggests that most of these discourse markers are used differently by speakers depending on their level of bilingualism.

The following examples illustrate the resumptive function of *bueno* in Quichua and Guaraní. Because the understanding of discourse markers requires contextualized speech, the following examples are framed in larger conversational exchanges. The English translation is not literal but conveys the overall meaning.

**Quichua**

95) A: Ña ima huatacunapi tac iscuelapi caparcangui  
B: Ñucaca chai edad de ocho añoscumí escuelapi capashcani, ajá  
A: Nachu huatatata yuyaripangui  
B: Na huatatata, huatatata na yuyaripanica (.) *bueno*, cai Ucshaca Topoman pertenechshca nin, nachu, shina caparca punctacuma.

A: In what year did you go to the school?  
B: I went to school when I was eight years old, yes  
A: You don’t remember the year  
B. No, I don’t remember the year (.) anyway, they say Ucsha belonged to Topo, right, it did since a long time ago.

**Guaraní**

96) A: ndahasyí, umí he’íva Guaraní hasy ha cheveroguararo ojejav. Ndo hemoaranduinte la Guaraníme, ndoeudtiai la Guaraní, ha

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16 It is important not to confuse these discourse markers with the adjective *bueno* and the time adverb *entonces*. Because of the lack of a specialized class of discourse markers in Spanish, many of them belong to other lexical and grammatical classes: adjectives (e.g. *bueno, claro*), adverbs (*entonces*), demonstratives (e.g. *este*), nouns (e.g. *verdad*), and conjunctions (e.g. *pues*). The use of these forms as discourse markers is an extension of their original meanings. This criterion is important in the analysis of Spanish discourse markers.
A: ‘It is not difficult, some people say that Guaraní is difficult, but according to me they are wrong. They don’t even study Guaraní, they don’t study Guaraní, because if they studied, they would see that it is not difficult, Guaraní, Spanish is more difficult’
B: ‘More difficult than Spanish?’
A: ‘More difficult than Spanish’
B: ‘More difficult than Spanish, ok’

Bueno performs a number of pragmatic functions in Spanish. One of them is to refer to previous moves made by the same or other speaker. This resumptive function is one of the most frequent in Spanish and is present in the target languages. This function also implies the positive or negative evaluation of the propositions of previous moves. In (95) bueno signals the point at which speaker (B) resumes his line of argumentation after he was interrupted two times by speaker (A), who was looking for additional evidence in support of B’s argument. The argument is concisely summarized in the last part of B’s move. Speaker B admits that he does not remember the exact date. After a short pause, he insists that dates are unimportant and back up his statement on reported information. To downplay his failed supply of information, speaker B uses the Spanish discourse marker, translated here as ‘anyway’. Although Quichua has the equivalent form shinallatac ‘however, despite’, the broad semantics of this elements may have encouraged speakers to use the Spanish discourse marker for accuracy. In (96) bueno serves a similar evaluation of previous statements. The example shows two adjacency pairs containing contradictory opinions: speaker A presents a statement in the first move; speaker B asks A to revise his statement because he thinks it is wrong; speaker A formulates his statement in exactly the same terms; finally, speaker B repeats A’s statement and closes his turn with bueno. The Spanish discourse marker signals the willingness of B to accept A’s argument, even if he does not fully agree with him. In this sense, bueno represents an agreement between A and B and the invitation for A to resume his argument.

Another function of bueno is illustrated in the following examples from Guaraní:

97) A: nde nemohu la kuarahy...pe tupaópe
B: el ocho guare la rokaipaite, ko kuarahyetépe romba’apo...
In both examples bueno anticipates the end of the conversation. In (97), after an additional piece of information provided by B in relation to the comment made by A in the preceding turn, A declares his intention to terminate the exchange and leave the place: the Spanish discourse marker serves to flag A’s intention. Similarly, the speaker in (98) rounds off the exchange with a comment and signals the end of the conversation with bueno. The co-occurrence of Guaraní oima ‘that’s it’ and the Spanish discourse marker reinforces the pragmatic meaning of the utterance.

Just like bueno marks the end point of a conversation or the speaker’s intention to terminate the exchange, it marks the start of a speaker’s turn. In example (99) from Quichua, speaker B marks the start of his turn and his willingness to answer A’s questions.

Given the various roles of this marker, it is not uncommon to find several instances of it in the same move. In the following Quichua example, bueno occurs two times in one turn.
The first *bueno* in (100) marks the beginning of B’s turn and shows his willingness to answer A’s question. The question refers to a delicate issue concerning B’s leadership. The answer to the question is, therefore, extremely important for the course of the conversation. Speaker B is aware of it and hesitates for a moment because he knows his answer does not match A’s expectations. It is precisely at this moment of hesitation and after a short pause that B uses *bueno* for a second time.

The second *bueno* serves purely phatic purposes and helps B formulate his answer in the best terms possible for A to understand his position. A similar analysis is valid for the Otomi example in (101): in this case the speaker uses *weno* (a phonologically assimilated form) to gain time in processing his argument.

101)  
A: Xu gi pädi ha gi ha ska 'yode t'ot'yar ʰykw ... ʰykw ya ʰete nwa t'ot'yar t'etewar jar hni? Ah hâ, mângya jâ'i mi 'bu ya jâ'i ot'ar t'ete, pero hâdi komo kasi hinti di nûgô. Wenu nu ya jâ'i di okô hni embi 'yor ...  
B: Have you heard what they do here...are there sorcerers here in the village? Oh yes, people say there are people who did sorcery, but since I hardly see them, well, I hear these people tell…

A similar function of *bueno* is illustrated in (102), where the Spanish discourse marker gives B time enough to process the intended meaning of the ambiguous question posed by A while keeping the floor.

102)  
A: Quiquinpac causaica ima shinatac callarishcanca?  
B: Nuca (.) bueno, ʰuca causaina uchilla pacha cai comunidad Gradas Chicopi huacharishcani  
A: How were the first years of your life? (lit. how did your life start)?  
B. I (.) well, I was born in this community of Gradas Chico  

The second discourse marker common to the three languages is *entonces* ‘then’, although this does not serve various purposes as *bueno*. The function of *entonces* in Spanish consists in marking narrative sequences and resuming a sequence of events after a digression. The examples show that *entonces* plays the same role in Quichua (103), Guaraní (104) and Otomí (105).

103)  
A: chaicuna yalisheca yuyarini, ʰuca yuyarishcatalla parlani, *entonces*, chai tiempoca fiestata yalîc cashca nin  
B: ’I don’t remember the details well, I am just telling you from what I remember, thus, at that time it is said that there were many festivals’
In the Quichua example (103) entonces plays a resumptive function similar to the function of bueno in (105), i.e. it helps the speaker continue with his story. The same use is attested by the Otomí example (105). Differently, entonces marks a narrative sequence in the Guaraní example (104): it links the preceding clauses (the cause) to the following ones (the effect) and signals a cause-effect relation. Although both functions of entonces are attested in the three languages, the preference for one function is likely determined by the use of the marker in local Spanish.

Other Spanish discourse markers occur in only two languages. For example, claro ‘of course’ occurs both in Quichua and Guaraní, but not in Otomí. The markers este ‘this’ and pues ‘well’ occur in Guaraní and Otomí, but not in Quichua. It is evident that the occurrence of certain markers in one language is a result of their use in local Spanish, that is, the distribution is determined by the input. The following examples illustrate several instances of claro in Guaraní (106) and Quichua (107, 108).

106) A: La Guaraní ñande paraguayo la Guaraní la ñande jurupe nunca ndofaluarai oíméhape ani
   B: claro, chengo la Guaraní la che jurüpe henyhête voi
   A: ‘The Guaraní language, for us Paraguayans, will never be absent from our mouths’
   B: ‘Of course, our mouths will be full of Guaraní’

17 The functional similarity of discourse markers and clause linkers brings the former closer to connectives.
A: Ñuca juisu apashcamandaca, ñucaca ña cuarenta y tres añosta charini, chaimandaca escuela tiyarcami shuclla, claro, tiyana chai escuelapica tucui gradota

A: As far as I remember, I am now forty-three years old, at that time there was only one school, of course, the school had all grades.

A: shinallata, yuyaicunapash osea, ashata shuc diferente can, tandanajuyucunapi ricushpapash shuc can, osea, yachajuna importanciacunapi ricushpapash shuc can nachu, o-sea, claro, runacunallata canchic, pero shinapash ashata diferenciami tiyan...

A: however, also ideas, I mean, some ideas are different, you see it during meetings, I mean, you see it in important things that should be known, I mean, yeah, we are all Indians, but there are lots of differences.

The main function of claro is to signal the speaker’s agreement with the content expressed by his interlocutor. Notice that claro as a discourse marker is different from the homonym adjective. This marker typically occurs at the beginning of a conversational turn (106), between clauses (107) or between connectives and clauses (108). The syntax of this discourse marker confirms its functional similarity to connectives, as typical of Spanish.

While este and pues occur both in Guaraní and Otomí, their frequency is visibly higher in Otomí thanks to the widespread occurrence of these discourse markers in Mexican Spanish. Consider the following examples:

A: Ha upei ambo’e la centro-regionálpe, heta ambo’e ha siempre la...este... ndahejai la purahéi, siempre la che mbarakami che pope,

A: And then I work at Centro Regional, I worked there a lot and always the...este...I don’t quit singing, I am always with my guitar

A: Ar Xuwa bi...este ...bi hũuxy 'nar he’mi pa bi mândawi ár mpädi Enrike

A: John wr...uu...wrote a letter in order to send it to his friend Henry

Este comes from a demonstrative form but has no semantic, pragmatic or discursive meaning of its own. The function of this marker is to help the speaker keep the floor when he cannot retrieve information easily and needs time to formulate his utterance. This use is clear in (110), where the speaker hesitates in the formulation of his utterance and uses the marker to fill the pause. For the same reason este is expected to occur in long pauses. The phatic function of this marker enables the speaker to use it anywhere in the utterance and along with other loan markers such as entonces, as shown in examples (111) from Otomí and (112) from Guaraní.
111) A: pero himbi thogi ... himbi tho hñäto mpa mi mängar mbõho njə'by pwes ge bi ndåthi ya tsi boi, i entonces este ge'ñä ... ge'ñä mi t'embar hñeni fyebre-аftosa njə'by mi mä'ñu ya mbõho jänge mbi ndåthi ya meți bi mända nu'by ra ...  
A: But just eight days ago…the Mestizo said so, eh that oxen got sick and then…eh…this sickness was called foot-and-mouth disease, so said the Mestizos, therefore when the animals were sick, they ordered…

112) A: ha eremina cheve Julian este entonce nde ere la icuenta ha la oñembo’e la Guaraní la escuela universidakuera harupi ajea?  
A: and tell me Julian, este, then, tell me, in your opinion, it’s good that Guaraní be taught in schools and universities, don’t you think so?

*Pues* plays an important role in Otomí pragmatics. This role is reflected not only in the high frequency of this marker but also in the functions involved, which are the same as in Spanish: emphasis (113), code switches (113), contrast (114) and resumption.

113) A: *pwes* ya nubya bi wadi di mpe ya tsi jài to ya tsi bojâ *bos* yo por-mi-partė di enga  
A: well, nowadays Indians work with tractors, well, I say as far as I am concerned

114) A: temu gi mâ-nge?  
B: *pwes* nuga di mâ-ngá gatho ar zá  
A: What do you think?  
B: Well, I think everything is okay.

The first *pues* in (113) is emphatic while the second signals the beginning of a code switch. The same marker has two phonetic realizations: [pwes] and [bos]. In all, there are five different pronunciations of this marker in Otomí, each associated with a different discursive function. It is clear that the frequency and the use of this marker in Otomí are correlated with the high frequency and the varied use of it in Mexican Spanish. The premise underlying this correlation is that grammatical borrowing implies not only the integration of phonological forms but also the copying of their functions, which is self evident in the case of discourse markers, the borrowing of which is the calquing of discourse structures of the dominant language.

The frequency of Spanish discourse markers in the corpora does not confirm hypothesis H1.1 in terms of frequency. Still, a different interpretation of this hypothesis predicts that discourse markers are borrowed early on in the process while their actual frequency eventually depends on two factors: the predominance of
content words over discourse elements; the small set of lexical discourse markers in Spanish, most of which belong to different parts of speech. It is remarkable that even though discourse markers are borrowed by the three languages, the frequency and type of borrowed forms are different in each language depending on their frequency and types in the local varieties of Spanish. How decisive the input of borrowing may be is illustrated by Mexican Spanish in contact with Otomí, where the usage of *pues* has been copied into this language almost with the same frequency and function as in local Spanish.

### 11.3.5 Other parts of speech

This section analyzes those parts of speech which make a marginal contribution to grammatical borrowing. I focus on four classes, namely: pronouns; numerals, non-manner adverbs and auxiliaries. Pronouns and auxiliaries are traditionally classified as part of grammar, while non-manner adverbs are usually considered part of the lexicon. I decided to include non-manner adverbs in this section because they belong to a closed class of elements. Non-manner adverbs include place adverbs, time adverbs and phasal adverbs. Non-manner adverbs, numerals and pronouns occur in the three languages, whereas auxiliaries are reported only for Otomí.

**Pronouns**

Pronoun borrowing appears in the literature on language contact only rarely. Pronouns are considered the prototype of hard-to-borrow linguistic units and thus placed last on borrowing scales (cf. section 11.2). Nevertheless, pronoun borrowing is far from extraordinary in situations of long-term intense language contact. The corpora of this investigation contain several cases of loan pronouns, including personal, relative, interrogative and indefinite pronouns. The label ‘pronouns’ as used here includes, therefore, all those pro-forms which stand for other linguistic units.

Compared to other lexical or grammatical classes, the contribution of loan pronouns is minimal. Pronouns are the least frequent of all grammatical categories in the three languages: 0.5% in Quichua, 0.8% in Guaraní and 1.1% in Otomí. The differences are not significant to indicate the possible influence of typology on pronoun borrowing. Still, the use of pronoun types in each language sheds light on several typological issues.
Spanish pronouns in Quichua

The only type of pronoun borrowed from Spanish in the Quichua involves the complex pronoun *lo-que*. The use of this pronoun has induced the gradual loss of nominalization in Quichua (cf. section 6.3). The same effects on nominalization have been confirmed for Spanish subordinators (Gómez Rendón 2007a). Although Quichua has not borrowed the relative pronoun *que*, it uses a phrasal structure which consists of the neuter article *lo* and the subordinator *que*. The use of this complex borrowing is not uncommon in Quichua, especially in Imbabura and in coordinate bilinguals. The following example shows how this pronoun changes the Quichua morphosyntactic matrix on the model of Spanish.

115) pai-cuna-lla chaya-shpa pai-cuna apa-shca-n
3-PL-LIM arrive-GER 3-PL take-PRF-3
\[lo-que\] muna-shca-n
that-which want-PRF-3

‘Upon their arrival they took what they wanted’

Compare the above example with its nominalized equivalent in (116) below. In this case the subordinate clause of (115) is embedded as a noun phrase which is the object of the predicate *apashcan* ‘they wanted’.

116) pai-kuna-lla chaya-shpa pai-kuna muna-shka-ta apa-shka-n
3-PL-LIM arrive-GER 3-PL want-NMLZR-ACC take-PRF-3

‘Upon their arrival, they took what they wanted’

A morphosyntactic comparison of both examples gives the following differences:

<table>
<thead>
<tr>
<th>Subordination (345)</th>
<th>Nominalization (346)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Predicate <em>munashcata</em> subordinated in main clause</td>
<td>Predicate <em>munashcata</em> embedded in main clause</td>
</tr>
<tr>
<td>2. Finite verb form in subordinate predicate position</td>
<td>Non-finite verb from in embedded predicate position</td>
</tr>
<tr>
<td>3. No case marking of the subordinated predicate</td>
<td>Case marking (accusative -<em>ta</em>) of the embedded predicate</td>
</tr>
<tr>
<td>4. SVO</td>
<td>SOV</td>
</tr>
</tbody>
</table>

A pronominal loan blend is also reported. It involves interrogative pronoun *imauras* ‘when, at what time’, which consists of the loan noun *ura(s)* ‘hour(s)’ and the interrogative marker *ima* ‘what’. The loan blend is used as a relative pronoun in indirect questions as the following:

ñakutin arma-ngapa-pash pai-kuna-ka yacha-n imauras-mi yaku-ka
then bathe-PURP-ADIT 3-PL-TOP know-3 when-VAL water-TOP
chiri chiri ka-shka-ta-pash imauras-mi yaku-ka kunuc-lla ka-n
cold cold be-PTCP-ACC-ADIT when-VAL water-TOP warm-LIM be-3

‘If they have a shower, they know when the water is very cold and when it is warm’

The use of *imauras* is widespread across dialects, leading to assume an early introduction.
The most important of these effects on the morphosyntax of Quichua are the loss of case marking and the change in word order, i.e. the same effects produced by the borrowing of Spanish subordinators (cf. supra). As an extreme case of Spanish pronoun borrowing in Quichua we can quote the replacement of the entire paradigm of personal pronouns in the Media Lengua spoken in Imbabura (Gomez Rendón 2005). In this language a similar complex pronominal is used for relativization and question formation. The fact that other dialects report cases of pronoun borrowing suggests the influence of structural factors.

Spanish pronouns in Guaraní

Instead of relative pronouns, Guaraní has borrowed the pronominals alguno ‘somebody’, otro ‘other’, and the loan blend nipete ‘nobody’. The same forms can be used as referential phrase modifiers. That one form (i.e. alguno) is not an adjective in the source language but a indefinite pronoun is a convincing piece of evidence that the adjectival use of alguno, otro and pete is only an extension of their pronominal use. Noun heads modified by these forms can be Guaraní native lexemes or Spanish loan nouns. In the latter case the co-occurrence of the adjective and the noun, both from Spanish, is not an instance of codeswitching because both forms do not agree with each other in gender and number. The pronominal and adjectival use of the aforementioned forms is illustrated in these examples.

117) alguno o-manaja-ve ko situación,
some 3-control-more DEM situation

‘Some controlled this situation better’

118) oĩ-ko alguno líder o-gusta-háicha
3-be some leader 3-like-so

“There were some leaders that liked it that way”

119) che a-hecha-háicha pe Chaco-pe oĩ pe jopara castellano
1S 1S-see-as DEM Chaco-LOC 3-be jopara Spanish
ha Guaraní oñondive heta mba’e castellano-pe,
and Guaraní with.each.other many things Spanish-LOC
pete o-jeipuru castellano-gui ha otro o-jeipuru Guaraníme
one 3-use Spanish-ABL and other 3-use Guaraní-LOC

‘From what I saw in the Chaco there is mixed Spanish, and Guaraní with many things from Spanish and some speak Spanish while others speak Guaraní’

120) Piribeýí o-je-aparta-ité-voi ha o-moĩ otro téra
Piribeýí 3-REFL-apart-very-AFF and 3-put other name

‘Piribeýí separated and adopted other name’
121) *nipetei*  na-i-ñapyszê-i  *ore*  rendá-pe,
nobody  NEG-3-appear-NEG  2PL.POSS  house-LOC
‘Nobody showed up by our house’

122) che  *nipetei*  parte  nd-a-juhú-i  i-vai-ha
1S  no  part  NEG-1S-find-NEG  3.be-bad-NMLZ
‘I found that no part was bad’

All these forms are used both as pronouns and adjectives. However, *alguno* is used only for people, while *otro* and *nipetei* are used for people and things indistinctively. In the above examples none of these forms is marked for number, although the can refer equally to singular or plural entities. Because sibilants in word-final position are usually dropped on Spanish loanwords in Guaraní, it is not unlikely that *alguno* and *otro* derive from the plural forms *algunos* and *otros*. Considering that these pronominals coexist with native forms, they are largely used with contrastive purposes. In (119), compare the consecutive use of the Guaraní pronoun *pete* in the first sentence and Spanish *otro* in the second. The use of native and loan forms contrastively for rhetoric purposes is known also in Quichua (Gómez Rendón 2007a).

Spanish pronominals in Guaraní are much more frequent than the Spanish relative pronoun in Quichua. Despite the frequency of loan pronouns, no syntactic changes are reported in Guaraní: loan pronouns simply coexist with native forms; they do not make a novel class of elements nor create a new grammatical category.

*Spanish pronouns in Otomí*

Otomí is the language with the largest number of pronoun types and the most extensive usage of these grammatical elements. Spanish pronouns in Otomí include the following:

- Relative pronoun *ke*
- Complex relative pronoun *lo-que*;
- Relative pronouns *donde* ‘where’ and *kwanto* ‘how much’;
- Indefinite pronouns: *algo* ‘something’; *ni’na* ‘none’; *kadu’na* ‘each’; *kwalkyera* ‘anyone’, *kada kyen* ‘everyone’; *nada* ‘nothing’; *ningunä* ‘nobody’; *todo* ‘all’;
- Interrogative pronouns: *porke* ‘why’, *pake* ‘what for’, *komo* ‘how’, *ketanto* ‘how much’;
- Emphatic pronoun *mismo* ‘self’.

Of this gamut of pronominal forms, the relative pronoun *ke* ‘that’ is the most interesting for a cross-linguistic study because it occurs also in Quichua and
involves the replacement nominalized constructions with subordinate clauses. In Otomí, the relative clause is juxtaposed to the main clause without any type of connection other than agreement markers in both clauses. Known as the gap strategy (Comrie: 1989: 147f), this mechanism continues to be used for clause relativization in Otomí (Hekking 1995: 176). Nevertheless, other, contact-induced strategies for relativization coexist in contemporary Otomí: a) the use of deictic markers in the relative clause to refer to the antecedent in the main clause; b) the use of the Otomí interrogative pronoun to 'who'; and c) the use of the Spanish relative pronoun ke. The following examples illustrate the last mechanism.

123) När=tsudi  tsa  ya=mansana
    DEF.S=pig  eat  DEF.PL=apple
    ya   ke
    DEF.PL  PRO.REL
    ya       tō-gi          de   ar=boy
    DEF.PL  fall-EMPH     of   DEF.S=tree
    ‘The pigs eat the apples that fall from the trees’

124) nuya  dänxu  ke
    DEM old.woman  PRO.REL
    bi=ñohtí
    PRS=cross.oneself
    tuhu  a  xâdi
    sing  and  pray
    ‘The women who cross themselves sign and pray...’

In Otomí virtually any element in the clause can be relativized: the subject, the direct object, the indirect object, the accompaniment, the instrument and the locative. To relativize the accompaniment and the instrument, modern Otomí makes use of Spanish ke and preposition con ‘with’, as shown below. Notice the clusivity marker on the verb of the relative clause; this marker signals the accompaniment in traditional Otomí.

125) nu  m-pädi-gö  kon  ke
    DEM. POSS.1-friend-EMPH.1  with  PRO.REL
    ndi=ñoje
    IMPF.1=walk-EXCL.PL
    Otomí
    mi=ńä=r
    IMPF.3=speak=DEF.S
    Otomí
    ‘The friends with whom I walked used to speak Otomí’

Consider now the complex relative pronoun lo-ke. While this form was reported also for Quichua, its frequency in Otomí is much lower. The following example is taken from the Otomí corpus.

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If we compare the use of the complex relative in Quichua and Otomí, it becomes evident that the impact on the syntax of Otomí is minimal as compared to the impact in Quichua: in the case of Otomí, word order and case marking are largely preserved. But what about the impact of the relative ke? According to Hekking (1995: 181) the integration of ke does not counter Otomí syntactic rules. This author states that the relative pronoun can easily accommodate to Otomí syntax because the language has a syntactic position for it, which is occupied by the proclitics of deictic reference nä’ä or nu’u. Indeed, the pronoun may co-occur with these proclitics in relative clauses, as illustrated in the following example:

127) ja ‘bu=ar sei ke nä’ä ngi=ödi
   be be:LOC=DEF.S pulque that that IMPF.2=ask
   ‘Here is the pulque you asked for’
   (Hekking 1995: 179)

Although the co-occurrence of the loan pronoun and the deictic proclitics does not necessarily imply that the former occupies the same syntactic slot as the latter, Hekking’s explanation is still convincing. For a more accurate assessment of the effects of pronoun borrowing in Otomí, however, it is necessary to conduct an extensive survey about the frequency of each relativization mechanism across different groups of ages and levels of bilingualism. This task goes beyond the scope of this book but should be considered for future research.

Comparatively, the occurrence of lo-ke in Quichua and Otomí and the absence of relative ke in Quichua suggests the older age of the complex pronoun. From a diachronic perspective the borrowing of lo-ke is the first step in the shift from nominalization to subordination. Thus, the borrowing of ke by Quichua is expected in later stages of contact, although it may well occur in highly hispanicized idiolects.

Pronouns are a marginal category in borrowing, but the sole fact of their occurrence leads to consider them vectors of contact-induced language changes. These change are all the more disruptive if the syntactic order of the recipient language is fixed and involves constructions like nominalization radically different from those of the source language.

Numerals

Spanish numerals are ubiquitous in Amerindian languages. The languages of this investigation are no exception. In terms of frequency, Otomí uses more Spanish
numerals than Quichua and Guaraní, although the differences are not significant. The following examples contain loan numerals in Quichua (128), Guaraní (129) and Otomi (130).

128) iscuela-manda-ca llucshi-hua-rka ña tresé añu-mi
   school-ABL-TOP leave-1S-PST already thirteen year-FOC
   llucshi-rca-ni, kai kuartu gradu-manda ñaka-ka
   leave-PST-1 DEM fourth grade-ABL 1S-TOP
   ‘I quit school when I was thirteen, I went to school since fourth grade’

129) che a-reko once familia,
   1S 1-have eleven family
   ochò kuimba’è ha tres kuña
   eight man and three woman
   ‘I have eleven children, eight boys and three girls’

130) ar=primero ar=rerno ge nu ya=dängo ‘na’yo njgya
   DEF.S=first DEF.S=January N.PRED DEM DEF.PL=feast new year
   ‘The festival of New Year is on the first of January’

In the corpora the majority of loan numerals refer to times and dates (128, 130) and fewer to people (359). In the first case it is usual to find numerals modifying loanwords referring to periods of time such as añu ‘year’, mes ‘month’ or día ‘day’. Spanish numerals show no combinatory restrictions: they modify loanwords and native items alike. Notice tresé ‘thirteen’ modifying a loan noun in (128) and ochò ‘eight’ modifying a Guaraní lexeme in (129). Ordinal numerals in the corpora are few. Ordinals kuartu in (128) and primero in (130) refer to specific collocations expressing concepts of the Spanish-speaking society. While the occurrence of these numeral in specific collocations suggest their probable status of code switches, their phonological and morphosyntactic integration to their respective languages makes them clear instances of borrowings. Spanish numerals in the corpora are either modifiers or heads of referential phrases. However, considering the closedness of the class, they are considered function words rather than lexical borrowings (cf. section 11.2).

Spanish numerals have not influenced the morphosyntax of the recipient languages, but numeral borrowing has ultimately restructured the native numerical systems. Each language has its own original numerical system: decimal in Quichua; vigesimal in Otomi; and pentavalent in Guaraní.

Quichua numerals are increasingly less frequent in colloquial language: some speakers may count up to one hundred in Quichua, but most actually use native numbers only up to ten. Moreover, Spanish numerals coexist from five to ten with
Quichua numerals. Also, Quichua ordinal numbers, obtained by adding the suffix -niki to the cardinals, have been almost completely replaced by Spanish ordinals in modern Quichua. The situation of Guaraní numerals is not very different. In hispanicized urban sociolects, the vernacular number system has been almost completely replaced by Spanish. In rural sociolects, less immersed in a market economy, the native number system is still used extensively, although it coexists with Spanish for higher numbers. Efforts have been made since the last century to expand the Guaraní system on the basis of neologisms, but their actual use by the speech community is reduced to writing. This is valid for cardinals and ordinals. Finally, the situation of Otomí makes no difference from the previous ones: Spanish numbers are present in all dialects. They have replaced most vernacular numbers. In other words, the three languages show the relexification of their numeral systems on the basis of Spanish.

**Auxiliaries**

Spanish auxiliaries are borrowed only in Otomí in very small numbers. They are a unique borrowing phenomenon and deserve some discussion. Recall that Spanish auxiliaries in Otomí were not analyzed as loan verbs and therefore not included in lexical borrowing. The main reason is that loan auxiliaries do not take verbal proclitics. Instead, they occur always in the form of the third-person singular present. The semantics of loan auxiliaries do not necessarily match their meanings in Spanish, although most retain the essential semantics of the Spanish verb form. The case of necesita is illustrative in this respect.

131) necesita da... nuya jā’ui da=hñunta

need FUT.3 DEM.PL person FUT.3=get.together

pa da=hoku ‘nar=me

for FUT.3=build INDEF.S=well

‘These people need to get together in order to build a well’

The example contains the loan verbs hñunta ‘get together’ and necesita ‘need.PRS.3’, but only the first one is a loan verb in narrow terms. Nesesita is a Spanish verb form borrowed as an auxiliary. Spanish auxiliaries in Otomí have the status of modal particles which have grammaticalized from a Spanish verb form. Nesesita is a modal auxiliary of necessity. It comes from the periphrastic construction necesitar + V ‘need to + V’. Spanish auxiliaries in Otomí occur as bare forms, i.e. not preceded by proclitics of person and tense. Other Spanish modals used in periphrastic constructions are pwede ‘can’, tyene-ke ‘have to’, pares-ke ‘it seems that’, kreo-ke ‘I think that’ and as-kwenta ‘suppose that’. With the exception of nesesita and pwede – the most frequent of all auxiliaries in the corpus – the other
are complex forms resulting from the fusion of two immediate constituents, one of
them a finite verb. Most auxiliaries replace equivalent Otomí forms: e.g. *necesita*
replaces *mahyoni* ‘be necessary’, and *pwede* replaces ‘*ar tsa*’ ‘be possible’. The
Otomí forms are part of serial verb constructions. Here are more examples of
Spanish auxiliaries in Otomí.

132) *ya mi=pwede nda=mags'i j=ar batha*
   already IMPF.3=be.able FUT.3=help LOC=DEF.S field
   ‘They could already help in the field’

133) *pero tyene-ke nda=mpefi*
   but have-to FUT.3=work
   ‘But they had to work’

134) *kreo-ke bi ordenâ pa nda eh-ya sundado*
   think-that PST.3 order for FUT.3 come-DEF.PL soldier
   *nda=xih=ya jä'i nda=zix=ya nda=tho*
   FUT.3=say=DEF-PL people FUT.3=take=DEF.PL FUT.3=kill
   *meti pa ma*
   animal for go
   ‘I think they ordered soldiers to tell people to take the animals to kill them’

135) *pares-ke 'bu 'ra ja ya=txi=thuxi*
   seems-that be some be DEF.PL=DIM=flute
   ‘It seems that there are some little flutes’

Because complex auxiliary forms carry Spanish verbal morphology (e.g. */-o*/
1S.PRS, in *kreo-ke*) and are followed by the subordinator *ke*, they could be
interpreted as code switches. The following arguments can be provided against this
interpretation. First, complex auxiliary forms correspond to fixed expressions in
colloquial Spanish which have been integrated as phrasal borrowings. Second,
complex auxiliary forms have their own intonation contours, i.e. they are
pronounced as one phonological word and experience phonetic assimilation
including vowel elision, e.g. *kreo-ke* → *kre-ke*, and *parese-ke* → *pares-ke*. Third,
complex auxiliary forms cannot be modified by manner adverbs or adverbial
periphrases. These facts suggest that complex auxiliary forms result from frozen
borrowing and specialize in the expression of epistemic modality. This is also valid
for auxiliaries *es-ke* and *as-kwenta* in the following examples.

136) *Dar=tsö gi=pede 'naxtui dige ar=mpöti*
   FUT.3=possibility PRS.2=tell something as.for DEF.S=change
Bi=thogi  ar=jeya,  es-ke  bi=thogi  nar=thoboi
PST.3=happen DEF.S=year is.that PST.3=happen INDEF.S=ox.slaughter
‘Can you tell us something about a slaughter of oxen that happened that year?’

137) hinti  bi=kanta pa  'nar=hñäñhä   puru=r
nothing PRS.3=sing for INDEF.S=Otomí  pure=DEF.S
ya=thuhu   mi=as-kwenta  ra   ya=kasteyano
DEF.PL=song IMPF.3=assume-that some  DEF.PL=Spanish
‘The did not sing anything in Otomi, only some songs like as if in Spanish’

These complex forms are different from the other auxiliaries in that they play the role of linking verbs: es-ke links two consecutive clauses in (136); as-kwenta links the main clause to a subordinate clause in (137).

Loan auxiliaries make a new word class in Otomí. They are the result of a process of grammaticalization which makes them different from common loan verbs. Most members of this new class specialize in the expression of epistemic modality, while a few others play the role of linking verbs. It is not unlikely that loan auxiliary be further grammaticalized in the future as markers of evidentiality or mirativity. The question remains however why Guaraní and Quichua have not borrowed auxiliary verbs from Spanish. A tentative answer lies on the type of verbal morphology of each language: Guaraní and Quichua have a set of marker of tense, aspect and mood, whereas none of the Otomí proclitics expresses mood.

Non-manner Adverbs

The contribution of manner adverbs is small in comparison to other lexical classes. In addition to manner adverbs, other subclasses of adverbs include time, place and phasal adverbs. I decided to label these adverbs ‘non-manner adverbs’ in order to distinguish them from the lexical class of manner adverbs. Non-manner adverbs are different from manner adverbs in one crucial way: they form a closed class composed of a limited number of elements. To this extent loan non-manner adverbs belong to grammatical borrowing, and I have consider them as grammatical elements even though non-manner adverbs can generally modified like other lexical elements. The great majority of non-manner adverbs in the corpora are time adverbs. In fact, time adverbs are the most frequent of all adverbial types. The number of loan non-manner adverbs is closely similar to the number of manner adverbs in Quichua and Guaraní, but not in Otomí, where non-manner adverbs are eight times more frequent than manner adverbs. The variety of time adverbs in Otomí is also greater: there are eight different types of time adverbs in Quichua, nine in Guaraní and sixteen in Otomí. The most frequent of time adverbs are the semantic pair *siempre*
'always' and *nunca* ‘never’. Here are some examples in Quichua (138, 139) and Guaraní (140, 141).

138) *chayka chay ladu-kuna-man-lla-mi*

thus that side-PL-ALL-LIM-VAL

*ashtaka siympre chiri-chiri ka-na-ta yacha-n*

much always cold-cold be-INF-ACC know-3

‘So it is always very cold around those places’

139) *cay Ilumán, Quinchuqui, Peguche chay-cuna-ta,*

DEM.PROX Ilumán Quinchuqui Peguche DEM.DIST-PL-ACC

*nunca na tarpu-na-chu punda tiempo-ca*

never NEG sow-HAB.PST-NEG before time-TOP

‘Ilumán, Quinchuquí, Peguche, they never sowed in these places in the past’

140) *año ochentaídos rupi ro-temina la colegio*

year eighty.two around 1PL.excl.-finish DET high-school

*ha ro-continua la amista ko’agã peve,*

and 1PL.continue DET friendship now till

**siempre ro-jotopa oñondive,**

always 1PL.excl.-meet with.each.other

‘In eighty-two we finished high school and continued to be friends till now, we always meet with each other’

141) [*había sido*] *i-japyte-pe-kuéra paraguayo o-studiá-va*

[it was that] 3-among-LOC-PL Paraguayan 3-study-NMLZ.PRS

*ha nunca nde-ir-i-va ha’ekuera paraguayo-ha*

and never NEG-say-NEG-NMLZ.PRS 3PL Paraguayan-NMLZ

‘A Paraguayan was among them and he never told them he was a Paraguayan’

From the examples it is clear Spanish time adverbs are easily adapted to Quichua and Guaraní phonology and syntax. **Siempre** is assimilated as **siympre** (vowel rising) in Quichua, but the same adverb occurs unassimilated in Guaraní. Time adverbs can also modify clauses and sentences. This is the case of **siympre** in (139) and **nunca** in (141), the scope of which is broader than the predicate phrase. Notice that the native adverbial forms equivalent to **siempre** and **nunca** are preserved in many idiolects: Quichua uses the periphrastic forms **ima pachapi** ‘at all times’ and **mana ima pachapi** ‘not at all times’; Guaraní uses the lexical forms **meme** ‘always’ and **máramo** ‘nunca’. Given the availability of these forms, no gap filling can be invoked. Instead, it seems that the discourse of the dominant language and the high frequency of these time adverbs in Spanish influence decisively their borrowing.
Further time adverbs in the corpora are ahora ‘now’, antes ‘before’ and luego ‘afterwards’. Example (142) illustrates the use of the time adverb antes in Quichua.

142) ñucanchic tarpu-shca-nchic sólo hortaliza-ta, cai
iPL cultivate-PRF-IPL only vegetable-ACC DEM.PROX
ucu-pi antes-carin cabildu ucu-manta caramu-shca
inside-LOC before-CONT council inside-ABL give.away-PRF
‘Here we cultivated only vegetables, in the past the council gave us vegetables’

The next example contains the assimilated form of the time adverb ahora in Quichua. Of the three meanings of this adverb in Spanish (i.e. ‘now’, ‘today’ and ‘nowadays’), only one (‘today’) is preserved in the loanword; the others are expressed by Quichua kunan.

143) aura-pi-mari nachu fishta-kuna-pi-ka nachu
today-LOC-AFF NEG.INT festival-PL-LOC-TOP NEG.INT
chay kuitis-shina-llo rucu-ta ninanta reventa-chi-n
that rocket-like-LIM old-ACC much explode-CAUS-3
‘Nowadays, they have lots of those old fireworks in the festivals’

The time adverbs aura and antes may co-occur with Quichua markers, including the locative -pi and the affirmatives -mari and -carin (143).

Of special interest for the analysis is the case of the time adverb luego. The frequency of this adverb in Otomí is the highest of the three languages and corresponds to the same frequency of the adverb in Mexican Spanish as compared to Ecuadorian Spanish and Paraguayan Spanish. Consider the following example:

144) m-tada-ga penä bi=xokar goxthi,
POSS.1-father-EMPH.1 hardly PST.3=open-DEF-S door
lwego bi=umb=ar ndutse
afterwards PST.3=give=DEF-S shiver
‘Immediately after my father opened the door, he caught a shiver’

The cases of the time adverb luego and the discourse marker pues (cf. supra) are examples of how the frequency of an item in the input models the borrowing outcome.

Phasal adverbs make another subclass of non-manner adverbs. Phasal adverbs indicate aspect and their scope of modification is the predicate phrase. Two phasal adverbs occur in the corpora: ya ‘already’ and todavía ‘still’. The first form indicates an accomplished state of affairs, as shown in the following Guaraní example:

145) kova ko masāna ya hi’ayupa-mā
PRO DEM apple already 3.ripe-completely-PRF
‘This apple is already completely ripe’
The phasal verb in (145) co-occurs with the perfective marker mà, which results in a double-marked construction. Actually, Spanish phasal adverbs do not occur by themselves in Guaraní. The phasal adverb todavía ‘still’ is especially frequent in Otomí. Example (146) shows two instances of this adverb, assimilated as tobe in Otomí.

146) Hin-di pà-ka'a in-xka o-ka'a
    NEG-1.PRS know-EMPH.1-EMPH.3 NEG-1.PRF hear-EMPH.1-EMPH.3
    nuga tobe ndì=bàtsiga tobe
    1S.PRO still IMPF.1=child-EMPH.1 still
dì=mukà'a el año cincuenta-y-seis
    PRS.1=live-EMPH.1-EMPH.3 DET year fifty-six
‘I don’t know I haven’t heard, I was still a child, I was born in fifty-six’

Spanish place adverbs in the corpora are only few, including cerca ‘near’, adelante ‘ahead’, atrás ‘behind’ and the complex form en frente ‘in front’. The following example shows the place adverb cerca ‘near’ as occurs in Otomí.

147) Nu=r n'tots'i 'bui serka dige nu=r
    DEM=DEF.S bed be close as.for DEM=DEF.S
    bentana 'ne=r goxthi
    window also-DEF.S door
‘The bed is close to the window and the door’

Spanish adverbs in the corpora include several subclasses. A sizeable number of non-manner adverbs occur adapted phonologically and morphologically to the recipient languages suggest the productivity of this class, particularly in Otomí, and especially time adverbs. The distribution of non-manner adverbs in the corpora is largely influenced by their frequency in Spanish, where they are used also as discourse markers (cf. supra). Typological factors seem to play no role in this case. Nonlinguistic factors such as changes in the social organization of the speech community definitely induce the borrowing of time adverbs, but this borrowing induces, in turn, changes in the organization of discourse.

11.4. Dialectal variation in the distribution of grammatical borrowings

Section 10.6 showed how the distribution of lexical borrowings is influenced by dialectal variation. The frequency and usage of lexical borrowings corpus showed that Quichua dialects diverge from each other more than Otomí dialects while the differences between Guaraní sociolects are base on distinct levels of bilingualism. This section explores differences in the distribution of grammatical borrowings as
determined by dialectal variation. Table 11.5 contains percentages for grammatical category and dialect.

<table>
<thead>
<tr>
<th>Table 11.5 Percentage of grammatical borrowings per categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Coordinators</td>
</tr>
<tr>
<td>Adpositions</td>
</tr>
<tr>
<td>Subordinators</td>
</tr>
<tr>
<td>Disc. Markers</td>
</tr>
<tr>
<td>Adverbs (other)</td>
</tr>
<tr>
<td>Numerals</td>
</tr>
<tr>
<td>Auxiliaries</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

The data show differences in the distribution of grammatical borrowings only in the dialects of Quichua and Guaraní. Otomí dialects show similar percentages. In the case of Quichua, the percentage of grammatical borrowings is twice higher in Bolivar. But this difference cannot be explained on the basis of dialectal divergence because both dialects are typologically similar. Neither can the differences be explained by the sociolinguistic factor of bilingualism, because the larger number of grammatical borrowings is present in Bolivar, where bilingualism levels are generally lower. My preliminary conclusion is that neither typology nor bilingualism play a direct role in Spanish grammatical borrowing in Quichua. Nevertheless, it is not unlikely the stability of the bilingual situation in each speech community could account for the distribution of grammatical borrowings in Table 11.5. The speech community of Bolivar is known to have a more extensive degree of Hispanicization in contrast to the speech community of Imbabura, where an increasing bilingualism is accompanied by the maintenance of the native language. I consider that the shift-maintenance relation marks a fundamental difference in the linguistic behavior of both communities. In this perspective, Bolivar Quichua speakers are more innovative than Imbabura Quichua speakers, and this innovative character leads them to adopt more grammatical elements from the language to which they are shifting. In turn, Imbabura Quichua speakers tend to preserve the grammatical structure of their native language even though they borrow large numbers of lexical

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20 Notice in addition that most of the Bolivar Quichua speakers are compound bilinguals, and it was noticed that compound bilinguals were characterized as ‘typical borrowers’. Accordingly, it is evident that Bolivar speakers show themselves the most innovative in grammatical borrowing. The relation between bilingualism and grammatical borrowing is explored in the next section.
elements. The correlation between shift and grammatical borrowing is assumed for sociolects of the same speech community depending on their levels of bilingualism, and the degrees of maintenance or shift.\textsuperscript{21}

On the basis of Thomason’s scale, borrowing can be characterized as a three-stage process: the first stage involves nouns and discourse markers; the second stage, nouns, verbs and a large number of grammatical elements; finally, the third stage involves the preferential borrowing of verbs and nouns and less grammatical elements. Borrowing in Bolivar Quichua and Imbabura Quichua correspond to the second and third stages, respectively. One major issue remains without explanation however: if higher levels of bilingualism are a pre-requisite of grammatical borrowing as generally assumed, why Imbabura speakers (most of them coordinate bilinguals) are precisely those who borrow less grammatical elements. This could be explain, I maintain, if coordinate bilingualism is assumed to inhibit grammatical borrowing and privilege code switching, as seems to be demonstrated by the data on lexical borrowing (cf. 10.6). This hypothesis is tested on the borrowing data of three groups of Quichua-Spanish bilinguals in the next section.

Guaraní sociolects shows differences and similarities to Quichua dialects in the overall distribution of grammatical borrowings. On the one hand, urban varieties (Jopara) have two times more grammatical borrowings than rural varieties (Guaraníete). I showed that Jopara remains basically congruent with Guaraníete in typological terms but also shows a number of innovative morphosyntactic features. The innovative character of Jopara is confirmed also for grammatical borrowing. This demonstrates that the preference for grammatical borrowing in Jopara is motivated by the typological character of this variety. As a whole, the borrowing data corroborate the existence of recycling circle in which the innovative typology of Jopara motivates more grammatical borrowing, and this borrowing causes further typological changes in this variety. In turn, the typological differences between Jopara and Guaraníete reflect and are reflected in the bilingualism of their speakers, with Jopara speakers displaying higher levels of bilingualism.

Differently from Quichua and Guaraní varieties, the dialects of Otomí show remarkable similarities in grammatical borrowing. As explained in Chapter 8, Santiago and Tolimán belong to one dialectal group (Querétaro Otomí) with the same typological profile. In this sense, the typological similarity of both Otomí dialects is one of the causes of their similarity in grammatical borrowing. The other cause is sociolinguistic: the low-moderate levels of bilingualism in both speech communities accompanied by a steady process of shift towards Spanish make Otomí speakers more innovative in their borrowing behavior (‘typical borrowers’). Notice

\textsuperscript{21} A similar process has been reported for other Amerindian languages experiencing strong pressures to language shift. The case of Nahuatl in contact with Spanish in Mexico is perhaps the best documented (Hill and Hill 1986: 233ff).
that a similar tendency was attested among Bolivar Quichua speakers, where medium levels of bilingualism and a rapid process of language shift induced higher degrees of grammatical borrowing.

The foregoing discussion has made several references to the correlation between bilingualism and grammatical borrowing. This correlation, already demonstrated for lexical borrowing, is tested in the following section for grammatical borrowing in three groups of Quichua-Spanish bilinguals.

11.5. Bilingual performance in the distribution of grammatical borrowings

The analysis of the influence of bilingual performance on lexical borrowing found positive evidence that flexibility in the use of loanwords decreases gradually as one goes from incipient to coordinate bilingualism. This section explores if a similar correlation exists between the distribution and use of grammatical borrowings and the type of bilingualism. I analyze the borrowing data of three groups of Quichua speakers with different levels of bilingualism: incipient (7 speakers); compound (9 speakers); and coordinate (4 speakers). The criteria used for the grouping of the speakers are discussed in section 10.6. Table 11.67 below contains the borrowing data of each group, including the type of grammatical items and the number of speakers who use items of each class. The last row includes the totals of grammatical borrowing for each group. Articles and auxiliaries were not included because neither class occurs in Quichua.

Table 11.6 Percentages of grammatical borrowings per level of bilingualism

<table>
<thead>
<tr>
<th>Group 1 (incipient)</th>
<th>Group 2 (compound)</th>
<th>Group 3 (coordinate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tokens</td>
<td>Nsp</td>
<td>Types</td>
</tr>
<tr>
<td>Coordinators</td>
<td>4.0%</td>
<td>7</td>
</tr>
<tr>
<td>Adpositions</td>
<td>0.5%</td>
<td>5</td>
</tr>
<tr>
<td>Subordinators</td>
<td>1.1%</td>
<td>7</td>
</tr>
<tr>
<td>Disc. Markers</td>
<td>0.4%</td>
<td>2</td>
</tr>
<tr>
<td>Non-manner Adv.</td>
<td>0.9%</td>
<td>3</td>
</tr>
<tr>
<td>Numerals</td>
<td>1.3%</td>
<td>5</td>
</tr>
<tr>
<td>Pronouns</td>
<td>0.2%</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7.1%</td>
<td>8.9%</td>
</tr>
</tbody>
</table>

The data show a clear tendency. The number of grammatical borrowings increases gradually as one goes up the scale of bilingualism: from 7.1% in incipient bilinguals to 11.6% in compound bilinguals and 23.3% in coordinate bilinguals. That is, the number of grammatical borrowings in the group of coordinate bilinguals is three times larger than the number of these borrowings in the group of incipient
bilinguals. An analysis of types confirms the increase from incipient bilinguals to compound bilinguals, but not from compound to coordinate bilinguals. In fact, compound bilinguals use a wider variety of grammatical borrowings. Put differently, the use of grammatical borrowings by coordinate bilinguals is more productive while the same use by compound bilinguals is more varied. The same tendency was attested in the analysis of lexical borrowing. In my view, this is explained by the position of compound bilinguals in the scale of bilingualism: compound bilinguals are the speakers who feel the strongest pressure to borrowing from the dominant language by virtue of their sociolinguistic condition of halfway shifters. As a result, compound bilinguals are the most innovative speakers, i.e. those who use a wider variety of grammatical types, often in contexts which are ungrammatical for other bilinguals.

These remarks are necessarily tentative because of the small size of the samples. Moreover, the differences may be not statistically significant as there is much more chance that compound bilinguals produce grammatical borrowings than coordinate bilinguals because the former are more numerous. It is therefore necessary to test the correlation between bilingualism and grammatical borrowing on firmer grounds.

The analysis of borrowings per grammatical class provides an additional insight into bilingual performance. On the one hand, the most frequent class in the three groups are coordinators, whose number increases four times from incipient bilinguals to coordinate bilinguals. On the other hand, subordinators and pronouns are missing in the group of incipient bilinguals but occur in small numbers among compound and coordinate bilinguals. Notice that subordinators and pronouns are precisely the grammatical borrowings which induce major changes in the morphosyntactic matrix of Quichua, for which reason they are associated with more innovative varieties, hence their absence from the speech of incipient bilinguals. Finally, the analysis of types corroborate the profile of compound bilinguals as ‘typical borrowers’: they show more types of grammatical borrowings than coordinate bilinguals in all the categories except non-manner adverbs. Coordinate bilinguals are therefore the less innovative in grammatical borrowing. It is likely that coordinate speakers have reached their highest point possible in the borrowing process after exhausting the borrowing potential of grammatical classes because of the small number of items available.

The analysis shows that productivity does not correspond to innovation in grammatical borrowing, and that speakers with medium levels of bilingualism make use of more grammatical elements. This tendency is confirmed if the tokens and types of grammatical borrowings in Otomí and Guaraní are compared: Otomí speakers borrow many more grammatical elements from Spanish than Guaraní speakers, even if the levels of bilingualism of Otomí speakers are lower. The data suggest that moderate levels of bilingualism are especially sensible to borrowing, and thus compound bilinguals become the main vectors of contact-induced language
change. The distribution of complex borrowings, many of which perform grammatical relations, provides further confirmation of this statement.

Table 11.7 Percentages of complex borrowings per level of bilingualism

<table>
<thead>
<tr>
<th></th>
<th>Group I (incipient)</th>
<th>Group 2 (compound)</th>
<th>Group 3 (coordinate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tokens Nsp (7) Types</td>
<td>Tokens Nsp (9) Types</td>
<td>Tokens Nsp (4) Types</td>
</tr>
<tr>
<td>Frozen borrowings</td>
<td>1.0% 3 2.2%</td>
<td>0.8% 6 2.2%</td>
<td>2.9% 3 1.4%</td>
</tr>
<tr>
<td>Noun phrases</td>
<td>1.5% 4 2.2%</td>
<td>0.8% 6 1.7%</td>
<td>0.2% 2 0.6%</td>
</tr>
<tr>
<td>Prep. Phrases</td>
<td>0.1% 1 0.1%</td>
<td>1.1% 8 2.8%</td>
<td>0.8% 3 1.7%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2.6% 4.5% 2.7%</td>
<td>6.7% 3.9% 3.7%</td>
<td></td>
</tr>
</tbody>
</table>

The data show the same tendency observed before: a small though steady increase in the number of complex borrowings as one goes up the scale of bilingualism. Thus, the number of complex types is the largest in compound bilinguals and the smallest in coordinate bilinguals. The analysis of grammatical categories shows differences however: noun phrases are the largest category of complex borrowings in the group of incipient bilinguals but the smallest in the group of coordinated bilinguals. This is clearly related to the status of nouns as the most borrowable of all linguistic items, clearly an advantage in situations of incipient bilingualism.

Summing up, the data suggest a correlation between grammatical borrowing and bilingualism such that the more bilingual the speaker, the more he uses grammatical borrowings. This correlation is not attested for types, however. In this case the greatest number concentrates in the group of compound bilinguals. This tendency is explained by the innovative character of compound bilinguals as motivated by a) their halfway position on the scale of bilingualism, and b) the resulting pressure on them to become coordinate bilinguals and complete the shift to the dominant language.

11.6 Summary

This chapter analyzed grammatical borrowing from different perspectives: the overall contribution of grammatical borrowings; the classification of grammatical borrowings in half-open and closed classes; the use of grammatical borrowings; the distribution of grammatical borrowings in dialects; and the influence of bilingual performance on the outcomes of grammatical borrowing. The discussion was developed in the theoretical framework of the scales of borrowability presented in section 3.5. The following summary is an overview of findings. For the sake of
clarity, the findings are presented according to the borrowing hypotheses discussed in Chapter 4.

**Borrowing hypotheses from the Principle of Functional Explanation**

H1. Pragmatic elements > Semantic elements > Syntactic-Morphological-Phonological Elements. The data do not confirm the primacy of pragmatic elements (discourse markers) if this is interpreted in terms of frequency instead of precedence in time. Discourse markers make a marginal contribution in the three languages if compared to other word classes, and no cross-linguistic tendency could be drawn from the data. Otomí is the language with the largest number of Spanish discourse markers, followed by Quichua and Guaraní. The contribution of discourse markers to grammatical borrowing differs across dialects. I explained the marginal contribution of Spanish discourse markers by the characteristics of the input (Spanish) in which discourse functions are marked basically by syntactic devices.

**Borrowing hypotheses from the Principle of System Compatibility**

H2. Free morpheme > clitic > bound morpheme. The data confirm this scale of borrowability. Spanish bound morphemes are not borrowed productively in the three languages, except for the occasional occurrence of diminutive and plural endings in frozen borrowings. Spanish clitics are borrowed only in Guaraní in the form of definite articles or pronominal proclitics. Free morphemes, including roots in the case of loan verbs, are borrowed in the three languages. The findings also confirm the prediction from the Principle of System Compatibility, according to which both agglutinating-synthetic languages (Guaraní, Quichua) and analytic languages (Otomí) will borrow independent words and roots, while only agglutinating-synthetic languages (Guaraní, Quichua) will borrow clitics.

**Borrowing hypotheses from the Scales of Borrowability**

H3.1 Open class > half-open class > closed class. The data discussed in Chapters 10 and 11 confirm this scale only partially: lexical borrowings (open classes) are more numerous than grammatical borrowings (half-open classes) in Quichua and Guaraní but not in Otomí. At the same time, the higher frequency of half-open classes in relation to closed classes is not confirmed for all grammatical classes (cf. infra).

H3.2 Adposition > Coordinator > Numeral > Article > Pronoun > Subordinator. Although the data confirm that borrowings from open classes are more numerous than those from half-open and closed classes, they do not confirm that all borrowings from half-open classes are more numerous than borrowings from closed classes. Articles in Guaraní are the clearest counterexample: they are the most frequent grammatical class not only in the Guaraní corpus but in the three corpora as
a whole. A comparison of Muysken’s borrowing scale with the overall frequency of grammatical borrowings gives only one match: coordinators. The same comparison on a language-specific basis gives one match in Guaraní (coordinators); two matches in Quichua (numerals and pronouns); and three matches in Otomí (adpositions, coordinators and pronouns). Therefore, the borrowing scale is confirmed only for certain classes of grammatical items. I interpret this as a result of typological differences in the recipient languages. The role of typology is the most visible in Otomí: this language lacks adpositions but borrows a large number of Spanish prepositions, under the pressure of dominant discourse strategies, with the effect of a more explicit marking of syntactic relations in the phrase and the clause. On the other hand, Guaraní and Quichua are postpositional languages and borrow only a small number of prepositions, most of them in phrasal borrowings and syntactic calque from Spanish.