LANGUAGE SHIFT AND SPANISH CONTENT AND FUNCTION WORDS IN OTOMI

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Abstract: This paper discusses a number of lexical borrowings from Spanish in Otomí, an Otomanguean language of Central Mexico. After a brief historical and sociological sketch of the Otomí community, we give a survey of the two corpora on the Otomí language that we collected. We then discuss a number of borrowings, both lexical and grammatical, that we found in our corpora. We provide some explanations, mainly structural and pragmatic, for the fact that Otomí seems to include Spanish adjectives, and also grammatical material, such as prepositions and conjunctions so easily, while they are rare in Classical Otomí.

1 INTRODUCTION

In this paper we discuss the borrowing of Spanish content and function words in the Mesoamerican language Otomí, spoken in Santiago Mexquititlán, an Indian village 125 miles to the north of Mexico City. Our data show that the influence of Spanish in Santiago is increasing, both sociologically and linguistically. This has several effects on the Otomí language, running from the introduction of content words in the language of the older speakers to the insertion or replacement of grammatical material, mainly conjunctions, prepositions and adverbials, in that of the younger Otomís. Although there exist considerable structural differences between the autochtonous languages of Mexico, Spanish function words are adopted by many of them. This could suggest that we have to do with an areal phenomenon. However, in the borrowing process of grammatical words in the Mexican area no regular pattern is found. We will try to show that for Otomí the structure of the language should at least partially explain this phenomenon. This loan process may eventually lead to language shift.

This paper is structured as follows. In section 2 we give a short outline of the structure of Otomí and an historical and sociological description of its speakers and their relation to the Spanish speaking society. In section 3 we propose a hypothesis concerning the fact that Otomí adopts such a striking amount of Spanish function words. In section 4 we discuss the methodology of our

investigation. In section 5 we sketch the sociological background of the process of language shift by determining how often both languages are used by the respective social groups within the community of Santiago M. Finally, in section 6 we give a description of the changes in the lexicon and the grammar of Otomí under the influence of Spanish. We will attempt to explain these phenomena on the basis of structural and pragmatic factors of the languages involved.

2. OTOMÍ, THE LANGUAGE AND ITS SPEAKERS

Otomí is the most important language of the Otopame group in terms of actual speakers. According to Ruhlen (1987: 204) there were 220.000 in 1987. The six Otopame languages - which in addition to Otomí are Mazahua, Pame, Chichimeca, Ocuilteca and Matlatzinca - form the most northern subgroup of the Otomangue family, which includes 17 languages and has a total of 1,7 million speakers. Otomí has nine dialects according to the Ethnologue (Grimes 1997), but four according to Bartholomew (1993).

Below we will give a short description of the grammar of contemporary Otomí, in particular of the dialect spoken in Santiago M. We will have a special look at those aspects that are relevant for the rest of this paper. Next, we will pay attention to the Otomís themselves, the speakers of the language, and to the role of the Spanish language within their community. For more details about the Otomí spoken in Santiago M., see Hekking and Andrés de Jesús (1984; 1989) and Hekking (1995). For more information on other Otomí dialects see Hess (1968) and Lastra de Suarez (1989; 1997).

2.1 Some aspects of Otomí grammar

Like all Otomangue languages, Otomí is a tone language. It has an analytical structure on the sentence level, but at the same time it has a rather complicated synthetic structure on the lower syntactic levels, in particular within the noun phrase (NP) and the verb phrase (VP). As shown in example (1a), tense, aspect and person are marked by means of prefixes, and plural, inclusivity and exclusivity are expressed by means of suffixes. The inclusivity suffix can also express accompaniment (see example 1b). Compare[1].

(1)   a. Honja gi tsö/hu?
         how Prs2 feel/PlInc
         'How do you feel?'

         G/ya ñäñho/hu wa g/ya mengu/hu M'onda?
         Prs2/DPl Otomí/PlInc or Prs2/DPl citizen/PlInc Mexico
         'Are you Otomís or Mexicans?'

         Nugu/je d/ya ñäñho/he
         Prs1/PlExc Prs1/DPl Otomí/PlExc

         hin/di tsö/he di tx'ulo/he dige ya mboho,
         Ng/Prs1 feel/PlExc Prs1 small/PlExc than DPl Mestizo

         getho di ñä/he yoho ya hñä.
         because Prs1 speak/PlExc two DPl language
         'We, Otomís, do not feel less than the Mestizos,
          because we speak two languages.'

      b. Ya nxutsi ntsö/hu yá idä.
        Dpl girl fight/PlInc PosPl brother
        'The girls fight with their brothers.'

The verb may be accompanied by other kinds of suffixes, such as those that mark the direct or indirect object, or express emphasis, limitation, reflexivity, and time and place. The suffixes of emphasis, limitation, reflexivity, time and place may also be added to the nominal head of a NP. This head may be a simple or a compound noun, a proper noun, and a personal, interrogative or indefinite pronoun. The noun and the proper noun are always preceded by an article or a possessive. The adjective in its adnominal function is placed immediately before the noun. Nevertheless, if a numeral or a demonstrative precede the noun, they are separated from it by a definite article or by a possessive. See the examples (1a), and (2) below.

(2)   ¡Gi 'ra/ki nu/yu̲   ya dätä nanxa!
        Prs2 give/IO1 Dem/Pl3Rs DPl big orange
        'Give me those big oranges there!'

In terms of the typology in Hengeveld (1992: 47f), we present, in table 1 below, the 10 part of speech types that may be found as head of the clause in Otomí.

Table 1 Clausal heads in Otomí

(1) Verb	*'yo* 'walk'
(2) Numeral	*goho* 'four'
(3) Indefinite Numeral	*ndunthe* 'many'
(4) Noun	*hmu* 'boss'
(5) Adjective with "ar"	ar *gogu* 'deaf'
(6) Adjective with "xi"	xi *ma* 'long'
(7) Past Participle	xi *mfe* 'stolen' (*pe* 'steal')
(8) Personal Pronoun	*geki* 'I'
(9) Interrogative Pronoun	*togo* 'who'
(10) Indefinite Pronoun	*hinto* nobody

In non-verbal predications no copulas are used. The demonstratives *ge'ä, ge'u̲,* or *ge* and the particle *go* are frequently used as non-verbal copulas. In the same table we see that the definite numerals (2) and indefinite numerals (3) often function morphologically and distributionally as intransitive verbs (*yoho* 'to be two', *hñu* 'to be three', etc.) and as such they are conjugated. In other contexts numerals function as nouns (cf. *ar hñu ar hulyo* 'the third of july').[2]

Table 1 also shows that there are two types of adjectives in Otomí. The adjectives of type (5) are preceded by the prefix *ar-,* and behave like nouns morphologically. When conjugated, persons are marked by means of prefixes. This is shown in example (1), and in (3) below.

(3)   Hin/gi pädi hogem'bu̲ 'bu̲i ar nijä?
        Ng/Prs2 know where be   DSg church

        G/ar   'ra'yo nuwa?
        Prs2/DSg new   here
        'Don't you know where the church is? Are you new here?'

The adjectives of type (6) are preceded by *xi-* and are similar to verbs in their morphological behaviour. The prefix *xi-* is similar to the verbal prefix for perfect third person. When these adjectives are conjugated, persons are expressed through suffixes that actually are verbal suffixes for marking the direct or indirect object. Past participles (7), and the pronouns (8), (9) and (10) behave in the same way. Example (4) below makes this clear.

(4)   Ja ma ngú/he
             Loc Pos1 home/PlExc

             di götho/he xi na nts'u̱tu̱/gö/he.
             prs1 all/PlExc Prf3 Sup slim/DO1/PlExc
             'At our home we are all very slim.'

Several words, more particularly *döthi* 'ill', *txu̱tx'u̱lo* 'small', and *johya* 'content, happy', behave like verbs in some contexts and nouns in others.

Just as the other Otomangue languages, the basic constituent order in Otomí clauses is VOS, with SVO as a frequently used alternative (cf. Suárez 1983; Yasugi 1995; Lastra de Suárez 1994; Hekking 1995). Otomí has only a small set of particles, that resemble prepositions in their formal and functional behaviour. Some particles may also be used to mark semantic relations, such as locative (*ja*), and instrumental and causative (*ir nge*). Their precise interpretation often depends on the context. See the use of the particle *dige* in (5a-c):

(5)   a. Di ñä/he   dige ma bo̱ni/he pa Maxei.
           Prs1 speak/PlExc about Pos1 trip/PlExc to Querétaro
           'We speak about our trip to Querétaro.'

        b. 'Nar jä'i pwede da du dige/r t'ete.
           IndSg person may Fut3 die by/Dsg witchcraft
           'A human being may die by witchcraft.'

        c. Tengu t'/uni dige/r fani?
           how-much Vi/give for/Dsg horse
           'How much do they give for the horse?'

Although particles may be used to some extent to mark relations, the juxtaposition of constituents without explicit markers of the semantic or syntactic relation is very often observed in Otomí. See example (6).

(6)   Nu'bya di ne ga tso̱ni Nxu̱ni.
             today Prs1 want Fut1 arrive Morelia
             'Today I want to arrive at Morelia.'

In such cases the meaning is deduced from the context or is implied in the meaning of the main verb. Another possibility is that the relations between the predicate and the other parts of the sentence are marked by means of verbal suffixes, such as the suffixes that express accompaniment, or that refer to the indirect object, as in example (1b) above, and in examples (7) and (8) below.

(7)   Ar Xuwa mi ñä/wi   ár to.
             DSg John Cprt3 speak/DuInc PosSg3 mother-in-law
             'John spoke with his mother-in-law.'

(8)   Ar hyo̱ngú   bí hyo̱m/bi ar ngú ar möjä.
             DSg constr.wrk. Prt3 build/Cind3 DSg house DSg priest
             'The construction worker built the house for the priest.'

Classical Otomí has at its disposal only a restricted set of coordinators and subordinators. They consist mainly of the following: *ne* 'and', *'nehe* 'also', 'moreover', *wa* 'or', *jange* 'therefore', *ngetho* 'because', *ngu* 'as', and *nu'bu̱* 'if', 'when'. To join two or more clauses in a compound clause, generally just juxtaposition is used. For example, clauses expressing indirect discourse are placed asyndetically after the main clause. Causal relations are also often expressed only by juxtaposition. In order to express a relation of time between a subordinate clause and a main clause, Otomí may use special verbal prefixes in the subordinate clause, such as *mbi* in example (9):

(9)   Mbi nja/r   hñäki,
               Pdep3 occur/DSg problem,

               ya zubi   bí zo   ya asyenda.
               DPl Spaniard Prt3 abandon DPl hacienda
               'During the Revolution the Spaniards abandoned the haciendas.'

Furthermore, the relation between a main clause and an infinite subordinate clause is expressed by means of *ma*, a (irregular) form of the verb *pa* 'go', possibly a residue of a serial verb construction.[3] See example (10).

(10)   Ngötho/r pa po̱ng/ar Xuwa ma bi öx/ya   jwä.
             whole/DSg day go-out/DSg John to Prs3 catch/DPl fish
             'John goes out the whole day to fish.'

In Classical Otomí a relative clause generally is attached to a main clause without any form of connection. This is illustrated in example (11).

(11)   'Bu̱i xingu ya ngú
             be   many DPl house

             hin/ti   pe̱ts'i ya nsogi pa/r dehe.
             Neg/something have   DPl key   for/DSg water
             'There are many houses that have no tap.'

An analysis of both our corpus of Santiago M. and the Otomí examples in the (not yet published) dictionary of the Otomí of the Valle del Mezquital compiled by Donald Sinclair Crawford shows that relative clauses in Otomí are always in a postnominal position. The main predicate in these relative clauses may be verbal, nominal or adjectival. If the predicate is verbal, it may take the form of the passive impersonal voice, which may be translated into Spanish as a past participle. Both the corpus of Santiago M. and the examples from the Valle de Mezquital dictionnary show that it is possible to relativize virtually any nominal constituent of the relative clause, that is to say not only the subject, the direct object, the indirect object, and the possessor in a possessive construction, but also the comitative, the instrumental and the locative. Thus, the full range of Comrie's (1996: 138f) hierarchy is covered.

2.1 Sociolinguistic aspects

The Otomís possibly are the descendants of the most ancient inhabitants of the high plateau of Mexico, who probably entered that region about 12.000 years ago (cf. Stringer and Mckie 1996)[4]. They played an important role in the era of the Toltec culture (1000-1200 AD). Later they were humiliated both by the Aztecs and the Spaniards. The present-day Otomís form an ethnolinguistic group with a low socio-economical and historical position. The Otomís of Santiago M. are poor peasants with small plots. Because of the shortage of water and the rapid growth of the population, they very often are forced to leave for the big cities where Spanish is spoken. There they offer their services as construction workers, or as servant-girls. Or they sell their crafts, chewing gum, etc. in the streets.

The native tongue of the Otomís is not written by the speakers and stigmatized by the mestizos. As a consequence, the Otomís do not have written sources in which they have recorded their own culture and history. Since the colonial times especially Spanish missionaries and foreign linguists have described the Otomí language and have developed some orthographies, which, however, were never adopted by the Otomís themselves.

Santiago M. is situated at about 2.200 meters above sea level on the high plateau of Mexico. The village belongs to Amealco, the southernmost municipality of the state of Querétaro, and it has about 15.000 inhabitants, almost all of them Indians who speak Otomí as their first language. In some surrounding villages Otomí is spoken, but in most of these Spanish is spoken as well. The same situation is found in the small neighbouring towns of Amealco and Temazcalcingo, where the Otomís of Santiago M. very frequently go in order to sell their products, to go shopping or to fulfill bureaucratic formalities. In the more remote big cities, such as Querétaro and Mexico, Spanish is the only language spoken.

Until recently the Otomís of Santiago M. had only limited contact with the world of the Mestizos, not even with the Otomís from other villages, and used to speak Otomí as their first language in almost all the domains of their culture. All Otomís used to participate in the cultural and religious events of their community. Because of the construction of the paved road to the Spanish speaking world in 1978, the enormous migration of recent years, the influence of the mass media and the lack of any form of institutional support, the language and culture of this ethnolinguistic group are replaced by the Spanish language and the values of the Spanish-speaking world.

3. LANGUAGE CHANGE IN OTOMI: A HYPOTHESIS

Over the last years we have studied the influence of Spanish on Otomí in Santiago M. Apart from many nouns, we found a very high amount of Spanish function words, a lot of Spanish numerals, but a rather low number of Spanish adjectives in the indigenous language. Given these observations, we will now see whether this contrast might be explained on the basis of social, areal, and pragmatic factors, or may be due to the specific structural and functional aspects of the two languages in contact.

The huge number of Spanish prepositions and conjunctions found in Otomí has already been noticed by Zimmermann (1992). He observes that both in ancient Otomí texts and in the Otomí variant spoken in the Valle de Mezquital there figure many grammatical borrowings from Spanish and he tries to give an explanation of this phenomenon. According to Zimmermann, the Otomís would have liked to imitate the Otomí of the Spanish missionaries, which, no doubt, was full of Spanish words. However, according to us, this hypothesis is not very satisfactory. We find it rather unlikely that Otomís would copy Spanish function words from the faulty Otomí of the missionaries if these would not have been accepted yet in a bilingual situation, precisely since the other language, Spanish, was completely unknown to the Otomí hearer.

On the other hand, Spanish function words are adopted by many of the indigenous languages of Mexico, even though there are important structural differences between these languages. This could suggest that we have to do with a phenomenon characteristic of the Mesoamerican area.[5] However, since we have not discovered a regular pattern in the adoption process of the grammatical borrowings in the Mesoamerican area (cf. Hekking and Muysken 1995), it is not yet clear to us to what extent borrowing caused by the contact with Spanish takes place according to an areally determined pattern. Therefore, we are in search for other explanations.

A possibility is that these borrowings could be explained on the basis of pragmatic criteria, as was pointed out by Stolz and Stolz (1996). For example, the borrowed numerals in (12a), the discourse particles and adverbials in (12b) and the double, partially Spanish forms in (12c) give status and

cohesion to the discourse.[6]

(12)   a. Hä, dá po̱n/gö   ndezu̱ ma *sesenta*.
          Yes Prt1 leaveEmph1 from Tpa sixty
          'Yes, I started leaving in the sixties.'

    b. *Pwes* ¿nu/yá   'be̱fi ya jä'i/wa   ja/r hnini'?,
       well Dem/PosPl3 work DPl person/LcRh Lc/DSg village

       prinsipalmente nu/ya 'be̱hñä hok/ya muñeka,
       especially   Dem/DPl woman make/DPl doll

       'we̱tya 'mants'u̱hme, ...
       sew/DPl napkin
       'Well, the crafts of the people here in the village?
        especially women make dolls, they sew napkins, ...'

    c. Ya tso̱ho̱ jwe̱i   *komo*/ngu 'nar nhñe.
       DPl star glitter like/like IndSg mirror
       'The stars glitter like mirrors.'

We suppose that pragmatic factors play a substantial role in the adoption process of many Spanish function words in Otomí and other indigenous languages of Mesoamerica, Latin America and Austronesia. Nevertheless, we will try to show below that the borrowing of certain grammatical words in Otomí may well be related to specific features of the grammar of Classical Otomí. Furthermore, we will suggest that the fact that so few Spanish adjectives are borrowed by Otomí can be explained on the basis of structural and functional aspects as well. Therefore, we will see to what extent Muysken's (1996) division of borrowings into insertion and alternation works for our case. Finally, we will test Poplack's (1980) rule, expanded by Appel and Muysken (1987), that borrowings may not violate syntactic rules of the grammars involved.

4. RESEARCH METHOD

In order to collect data on the process of language shift, we interviewed 122 Otomí speakers with a sociolinguistic questionnaire based on the ideas of Fishman (1965; 1966; 1971) (henceforth sample S122). The informants were randomly selected among the Santiago M. community. The questionnaire was composed of 81 closed questions about language use, language acquisition, language ability and language attitudes. Demographic data were also collected. During the interviews exclusively Otomí was spoken; the help of Severiano Andrés de Jesús, an Otomí teacher from Santiago M., was indispensable in this process. The results of these sessions were coded and analyzed by computer with the help of the system described in Bakker (1994).[7] Table 2 gives a panorama of the distribution of the respondents over some demographic dimensions.

Table 2 Distribution over the demographic categories
[sample S122]

age	commuters		noncommuters		total
	—	—	—	—	
1 (0-12)	6	4	7	7	24
2 (13-18)	7	6	5	6	24
3 (19-30)	6	4	5	4	19
4 (31-50)	9	3	5	7	24
5 (> 50)	5	4	13	9	31
total	33	21	35	33	122

In order to get data about the way in which Otomí is influenced lexically and grammatically by Spanish, we constructed a questionnaire with 22 questions about the sociolinguistic situation of the community, 20 questions about topics such as the construction of houses, clothing, hunting, fishing, food, money, wedding ceremonies, witchcraft, religious festivities, music and singing, the epidemic of the foot-and-mouth-disease in 1947, toponomies, the way of greeting, and the use of the vigesimal system. Furthermore, we added 88 Spanish sentences to be translated into Otomí. These contained various classes of prepositions, conjunctions and relative pronouns. The interviews were carried out, taped and transcribed by native speakers who were familiar to the respondents. In this way we collected 31 interviews, henceforth sample S31. Many attempts were made to let the respondents of S31 coincide with those of S122. This was not always possible, since several respondents of S122 were not available any more during the second stage of the fieldwork. What we did do, however, was stratifying the S31 according to the five parameters of the S122 sample mentioned above. The resulting corpus provided us with about 65,000 tokens of spoken Otomí. The distribution of the respondents of S31 over the demographic dimensions is found in table 3.

Table 3 Distribution over the demographic categories
[sample S31]

age	commuters		non commuters		total
	--	—	—	—	
1 (12-25)	1	2	4	4	11
2 (26-47)	2	2	4	3	11
3 (>47)	4	0	3	2	9
total	7	4	11	9	31

The overall distribution of the figures in table 3 corresponds roughtly to that of table 2. In section 5 we will have a closer look at sample S122. Section 6 will analyze the data of sample S31.

5. LANGUAGE SHIFT WITHIN THE SOCIAL GROUPS: THE S122 CORPUS

As a consequence of practical circumstances - not all subgroups of the Otomí community turned

out to be equally accessible - the S122 is slightly biased in relation to the overall distribution of the population. Men are overrepresented: 56% of the respondents were men. According to a census of 1986 there were 5.438 male residents and 7.327 female residents in Santiago M. The distribution over the five age groups - (9-12, 13-18, 19-30, 31-50 years, and older than 50) - is more or less uniform, which means an overrepresentation of the youngest groups in relation to the community as a whole. Two thirds of the respondents were born in an Otomí neighbourhood, the rest in a Mestizo neighbourhood. According to the census of 1986 6.414 of the 12.765 Otomís were residents of a Mestizo neighbourhood. 33% of the respondents work in the field; 30% are housewives/housemen, and 31% are at school. 38% of the respondents - particularly women - state that they never leave the community or only go to the neighbouring villages. The rest - 65% of the men and 43% of the women - travel also to the larger and more remote cities, where Spanish prevails. Men, youngsters and the inhabitants of Otomí neighbourhoods have received more education than their respective counterparts.

In the same way as Rubin (1968) did in Paraguay, we asked our respondents about their preferred language - i.e. Otomí or Spanish - in a number of formal and informal situations. We introduced three types of situations:

I. Informal: with parents, sons and daughters, brothers and sisters, husband and wife, godparents.

II. Neither informal nor formal: in the 'cantina' (saloon), with their friends, during neighbourhood meetings, during religious festivities, with the priest, the quack, the 'subdelegados' and the 'delegado' (i.e. local Otomí representatives)

III. Formal: with the teacher, the doctor, the protestant minister, in the church, in the towns and in the cities.

We found the distributions given in table 4.[8]

Table 4 Selection of one of the languages
according to the discourse situation

	spanish	spanish + otomi	otomi
I. informal	6%	18%	76%
II. neither formal nor informal	14%	40%	46%
III. formal	63%	24%	13%

Table 4 clearly shows that in more informal and intimate situations Otomí in general is the preferred language. Spanish is the language of power and of the political authorities. Spanish is also the language of the official religion (catholicism), the school and the non-indigenous doctor. The data contain also indications that Spanish will replace Otomí little by little, also in more informal situations. For almost all the investigated situations the three younger categories of speakers (9-30 years) significantly more often state that they use Spanish than the two older groups. These young people are in general more educated and leave the community more often than the older respondents.

All respondents, also those who master the art of reading and writing in Spanish, stated to be illiterate in Otomí. Most respondents answered that they did not know how to count in Otomí, i.e. in the vigesimal system. Finally, most young people expressed the opinion that the Otomí spoken by the older Otomís was better than theirs. It is striking that many respondents considered the Otomí

of Santiago M. to be better than that of the other Otomí speaking villages. As Hill and Hill (1980) already observed, this 'purist' attitude may be a threat to the chances on survival of the language as a whole. About 90% reacted positively when asked about their opinion with respect to the need and importance of improving the official status of Otomí in education, the mass media and in publications.

6. LINGUISTIC CHANGES IN OTOMI: THE S31 CORPUS

In the S31 corpus we found 10.710 Spanish borrowings, which is around 17% of the total text. Spanish tokens are distributed over 1.272 types, which gives us a type-token ratio of 0.12.[9]. Table 5 presents the distribution of these loanwords in terms of the parts of speech they have in Spanish (compare Whitney 1881; Haugen 1950; Singh 1981; Muysken 1981; Van Hout and Muysken 1994).

Table 5 Amounts of Spanish borrowings according to category

	types	tokens
nouns	649 (51.0%)	4911 (45.9%)
verbs	130 (10.2%)	717 (6.7%)
conjunctions	108 (8.5%)	1904 (17.8%)
prepositions	73 (5.7%)	1153 (10.8%)
adverbs	56 (4.4%)	539 (5.0%)
adjectives	39 (3.1%)	155 (1.4%)
numerals	32 (2.5%)	202 (1.9%)
interjections	25 (2.0%)	792 (7.4%)
indefinites	13 (1.0%)	39 (0.4%)
interrogatives	6 (0.5%)	13 (0.1%)
relatives	4 (0.3%)	43 (0.4%)
articles	3 (0.2%)	11 (0.1%)
demonstratives	2 (0.2%)	3 (0.0%)
possessives	1 (0.1%)	3 (0.0%)
total	1272	10710

Of the 14 categories that we found, 5 were lexical (i.e. nouns, adjectives, verbs, adverbs and numerals), 8 grammatical and one, interjections, is a category at the discourse level. Thus, content words comprise 71% of the types, but only 61% of the tokens. Nominal borrowings hold pride of place: around 50% of both types and tokens. Also Spanish numerals are frequent. However, the position of the adjectives is relatively low: 3% of the types, and under 1.5% of the tokens. Such grammatical categories as conjunctions and prepositions are very frequently found in texts: together they make for almost 30% of the tokens. The number of borrowed relative pronouns is also considerable: 43 tokens. Almost all of the - relatively rare - cases in which articles, demonstratives and possessives are borrowed, turn out to be cases of a type of code switching called 'emblematic' by Poplack (1980). Examples of this type of code switching are NP's that are frequently adopted from Spanish, such as 'hasta la fecha', 'a los quince días', 'la mera verdad', etcetera.

We found a positive correlation between the proportion of the function words among the Spanish borrowings on the one hand and the extent to which the speaker is exposed to Spanish, either by migration or by education. This gives some support to the hypothesis, suggested by Thomason and Kaufman (1988), that bilingualism enhances the introduction of functional loans.

It is interesting to compare our figures with the results of other language contact studies. In table 6 it is striking that Quechua borrows more loanwords for the categories of verbs and adjectives than Otomí but relatively few numerals, prepositions, conjunctions and pronouns.[10]

Table 6 Comparison between Spanish loans in
Otomí and Quechua

Otomí	types	Quechua	types
nouns	51.0%	nouns	52.4%
verbs	10.2%	verbs	23.1%
conjunctions	8.5%	adjectives	10.8%
prepositions	5.7%	adverbs	5.4%
adverbs	4.4%	prepositions	2.0%
adjectives	3.1%	conjunctions	2.0%
numerals	2.5%	interjections	2.0%
interjections	2%	articles	0.9%
indefinites	1%	negations	0.6%
interrogatives	0.5%	pronouns	0.6%
relatives	0.3%	numerals	0.3%

In table 7 below we see that, in Ottawa French, English function words are almost completely absent: very few conjunctions (1.5%) and no prepositions at all. On the other hand, the introduction of English content words in Ottawa French is much more frequent than the use of Spanish content words in Otomí. Especially the high percentage of English adjectives in Ottawa French catches the eye. Besides, Poplack et al (1988) do not make any mention of English numerals in Ottawa French. In Ottawa French there are also more English interjections than the amount of Spanish interjections that figure in Otomí.

Table 7 shows a striking contrast between two ways in which a socially and politically subordinate language borrows words from a more prestigious language. However, in table 6 we see a much less striking contrast between the types and amounts of categories borrowed from Spanish by Quechua and the categories borrowed by Otomí from the same prestigious language. This may be caused by the fact that the contact situation between Otomí and Spanish is rather similar to that between Quechua and Spanish. We see, among other things, that Otomí and Quechua both adopt function words, a phenomenon not found in Ottawa French. This has been observed frequently in Mesoamerican languages (cf. Stolz and Stolz 1996). We suppose that the adoption of so many Spanish function words may partially be an areal phenomenon. It might be a characteristic of the Mesoamerican area, or even of the whole Latin American and Austronesian area (cf. Stolz and Stolz to appear). Nevertheless, since we have not found sufficient regularity in borrowing processes in Mexican language contact studies to warrant an important role for areal effects, and since the presumed high prestige of Spanish is a clincher anyway, we focus our attention on the structural and pragmatic aspects of this type of loan.

Table 7 Comparison with Poplack's (1985) data
on contact between French and English

Santiago M.	types	Ottawa	types
nouns	51.0%	nouns	64.0%
verbs	10.2%	verbs	14.0%
conjunctions	8.5%	interjections	12.0%
prepositions	5.7%	adjectives	8.0%
adverbs	4.4%	conjunctions	1.5%
adjectives	3.1%		
numerals	2.5%		
interjections	2.0%		
indefinites	1.0%		
interrogatives	0.5%		
relatives	0.3%		

Basing our case on Appel and Muysken's (1987) hypothesis we assume that Otomí adopts few Spanish adjectives because of structural factors. An Otomí adjective in its adnominal function is always placed immediately in front of the noun, while in Spanish an adjective in that function generally comes after the noun. This stance gets further support from the fact that many borrowed adjectives in our corpus are used predicatively, where it occupies the same syntactic position as in Spanish. Interestingly, in her analysis of the contact situation between Spanish and English, Poplack (1980: 41) also concludes that large part (in her corpus 88%) of the adjectives - which are used in code-switching or as a borrowing between Spanish and English - are used predicatively. In predicative use, Otomí adjectives carry the prefix *ar-* or *ya-*, as shown in example (13).

(13)   Nä'ä/r   nxutsi dá   mɇ/gö/'be   mde,
         DemRdSg3/DSg girl   Prs1 go/Emph1/DuExc yesterday

         ar na *inteligente*.
         DSg Sp intelligent
         'That girl with whom I walked yesterday, is very intelligent.'

Otomí has less adjectives at its disposal than Spanish. On top of that, the adjectival status of many presumed adjectives in Otomí can be questioned. Maybe this category does not form part of the grammar of Classical Otomí at all, as is the case for such divergent languages as Haussa, Navaho, Thai and West Greenlandic (cf. Hengeveld 1992: 69f). This explains why borrowed adjectives such as *mbibo, flako, triste* and *mpobre* figure in verbal contexts quite regularly, which makes their introduction easier. See example (14) below.

(14)   No/r   txi t'ṵlo txi boi ya   da 'yot'i,
         Dem/DSg Dim little Dim calf already Fut3 dry out

         xta 'yo/tho   da *mflako/*'bya.
         when dry_out/Lim Fut3 loose_weight/Act
         'The little female calf will dry out
         and when drying out, it will loose weight.'

Otomí borrows numerals easily and in larger amounts than adjectives. Our assumption is that this is the case because of both pragmatic and structural motives. Firstly, there is the introduction of the decimal system, that in daily life is playing an increasingly more important role than the traditional vigesimal system (time, dates, measures, weights, distances, sums of money, etc.). Secondly, numerals in Otomí are not adjectival, but verbal or nominal, and they have a more independent position in the sentence for precisely that reason. Spanish derived cardinal numerals such as *dose*, *kinse*, *beyntisinko*, *otxo* and ordinal numerals such as *primero* are not placed in an adnominal position in Otomí, but are separated from the noun by a definite article and therefore may be introduced with more ease. See examples (15a-b).

(15)   a. Ar *dose* ar disyembre, ar *kinse* r/mäyo,
           DSg twelve DSg December   DSg fifteen DSg/May

           ar *beyntisinko* ar hulyo, ar *otxo* ar septyembre,
           DSg twentyfive DSg July DSg eight DSg September

           honse'u.
           only/EmphPl3
           'The twelfth of December, the fifteenth of May,
            the twenty-fifth of July, the eighth of September,
            only those dates.'

        b. Ar *primero* renero   ge nuya dängo 'na'yo njeya.
           DSg first   DSg/January Dem DemDPl Feast new   year
           'The first of January is New Year's Feast.'

In Otomí many Spanish prepositions are adopted. The prepositions *ko* 'with' and *pa* 'for' are used most frequently. Not only pragmatic, but also functional and structural factors may explain their massive use in Otomí. A general assumption about borrowing is that it may take place on all levels of linguistic description, but that borrowing passes off smoothlier to the extent that the receiving language has a relevant functional gap (cf. Aitchison 1981; Thomason and Kaufmann 1988; see Campbell 1993 for a critique on such universals of grammatical borrowing). This now seems to be the case for prepositions. Otomí has a limited number of particles and affixes at its disposal to express the relation between the constituents of the sentence. These forms have a very wide application scope, generally wider than those of Spanish prepositions. Furthermore, in Otomí many grammatical relations are expressed implicitly, and through the semantics of the verb. Our hypothesis, borne out by the data of S31, is that Spanish prepositions are learned by the Otomís in only one of their functions, and that in that function they will enter the Otomí grammar. When Spanish forms are inserted in Otomí, they can eliminate Otomí elements as well. The three sentences of examples (16a-c) all figure in S31 as a translation of the same Spanish sentence, produced by three different speakers.

(16)   a. Ya meni   ot'u/wu 'nar mixa yá   hwekute.
           DPl relative make/Ben IndSg mass PosPl3 ancestor

        b. Nu/ya meni   ot'u/wu 'nar mixa *pa* ya hwekute.
           Dem/RhPl relative make/Ben IndSg mass for DPl ancestor

        c. Ya meni   ot'u 'nar mixa *pa* nu/ya   hwekute.
           DPl relative make IndSg mass for Dem/RhPl ancestor
           'The family celebrates a mass for the ancestors.'

In (16a) only the Otomí form is used to express the Beneficiary relation: the suffix -*wu* on the verb. (16b) shows a mixed form, adding the Spanish preposition *pa*. This reminds us of the double forms mentioned by Muysken (to appear) and Stolz and Stolz (1996), i.e. introduction by alternation

rather than by insertion. In (16c) we find only the Spanish form. We suppose that the borrowed preposition expresses more precisely the relation than the Otomí suffix, which is not only used to mark the beneficiary, but also the comitative. We find *pa*, which is multifunctional in Spanish, only in this precise function in Otomí contexts.

Another condition that facilitates the integration of Spanish prepositions is that the Otomí grammar rules are not violated. Often, borrowed prepositions are located in a position where in a pure Otomí construction a particle would be found, that could functionally be interpreted as a preposition. In other cases, when the syntactic relation in Classical Otomí is marked by way of a verbal suffix, the use of the borrowed preposition does not change the word order of Otomí either. In this connection it is interesting to observe that Otomí, a VO language, admits prepositions rather easily, while Quechua, an OV language, only admits them to a very limited degree.[11]

For the category of the conjunctions a reasoning similar to that given for prepositions can be adduced: sometimes they complete an Otomí particle or affix, sometimes they express a relation more precisely than the corresponding Otomí form. They are not in disharmony with Otomí syntax. The subjunction of purpose *pa* and the causal forms *porke* and *komo* are frequent loanwords. For temporal relations Spanish subjunctions are adopted quite often as well. They seem to express the relations between the main clause and the subordinate clause more precisely than the verbal prefixes of Classical Otomí; see example (17).

(17)   *Ndezu* mbi t/ho   ya tsi meti,
         since Pdep3 Vi/kill Dpl Dim animal,

         ja   mi   usa/'bya nuya   fani.
         make Cprt3 use/Act Dem/RhPl3 horse
         'Since the animals were killed, we use horses.

Possibly, temporal subjunctions have been the first subjunctions to be inserted in Otomí. We lack, however, sufficient diachronic material to prove this.

In Otomí parataxis is the usual way to relate a relative clause to the main clause. Another very common way is by means of morphemes with a deictic character. In the S31 corpus 10 informants (32%) produced relative clauses that start with the borrowed relative pronoun *ke*, and 8 informants (26%) used the Otomí interrogative pronoun *to* in this position. This is exemplified in (18a-d).

(18)   a. Nä/r   jä'i [xi xiku̱/gö/nu̱], m/tiyo/gö.
            Dem/RdSg3/DSg person Prf3 say/DO1/RsSg3, Pos1/uncle/Emph1

         b. Ar jä'i [nä'ä   bí xiku̱/gö nuna],
            DSg person Dem/RdSg3 Prs3 say/DO1 Dem/RhSg3,

            ge m/tiyo/gö.
            Dem Pos1/uncle/Emph1

         c. Nä/r   jä'i [*ke* xka xi/ki],
            Dem/RdSg3/DSg person who Prf3 say/DO1,

            ge m/tiyo/gö/nu̱.
            Dem Pos1/uncle/Emph1/EmphRsSg3

         d. Nä'ä/r   jä'i [*to* bí xiku̱/gö],
            Dem/RdSg3/DSg person who Prs3 say/DO1,

            nä'ä   ma tiyo/gö/'ä.
            Dem/RdSg3 Pos1 uncle/Emph1/EmphRdSg3

'The person who has told me this is my uncle.'

In example (18a) we find the classical relative clause in juxtaposition, without any marking. (18b) employs a demonstrative pronoun as a relativizer. In (18c) we find the Spanish relative pronoun *ke*. (18d) exemplifies the use of the Otomí pronoun *to*, an interrogative. The adoption of the Spanish relative pronoun *ke* - and by implication the use of the morpheme *to* - may be motivated by functional and structural factors. Because of the contact with Spanish the form *ke* is introduced, a form that expresses more explicitly the relation than the (optional) deictic particle of Otomí, a development equivalent to the introduction of Spanish prepositions in Otomí, and a (diachronic) step further on the relative clause hierarchy proposed in Comrie (1996: 138f). This introduction is followed in its turn by a 'loanshift' by means of the Otomí interrogative *to*. It gets the function of a relative pronoun by analogy with *ke*, which also in Spanish can fulfill the function of an interrogative. In this way a new category, the relative pronoun, has been introduced through contact with Spanish. In its turn, this category was adopted without many problems, because the constituent order of Otomí was not violated. Besides, the road was already paved by the optional presence of the deictic particle in the relevant constructions.[12]

7. CONCLUSIONS

Otomí is a language that with its respective dialects is still spoken by a rather large group of native speakers in Central Mexico. Until recently, as a consequence of its geographic and social isolation, Otomí could survive relatively well. However, through the political, social, economical, cultural and technological changes of these last decades the influence of Spanish in the Otomí community has increased dramatically.

This has several consequences for the Otomí language. Firstly, Otomí has adopted a considerable amount of content words from Spanish, mainly nouns and verbs. It also incorporated discourse particles from the majority language, although we only have found a very limited set of types among these. Striking is the fact that Otomí does not easily adopt adjectives from Spanish. Their integration even seems to be more difficult than that of Spanish numerals. The large amount of functional borrowings in Otomí is surprising as well. It concerns both conjunctions, prepositions, adverbials and relative pronouns.

If we relate these borrowings and other observations about our corpus not discussed here, to the five point scale for borrowing given by Thomason and Kaufmann (1988: 74), which runs from 1 'the exclusive adoption of content borrowings' to 5 'the adoption of very transcendental grammatical borrowings', then it is probable that the current status of Otomí is somewhere between category 2 and category 3. This situation is characterized by a rather intensive contact between the two languages concerned, and is accompanied by the following phenomena. To category 2 pertain the adoption of a rather large amount of content words, of conjunctions and adverbial particles. Moreover, new functions such as relative pronouns may well be introduced. All these conditions have been fulfilled. Borrowing of category 3 is at hand if also adpositions and numerals are adopted, the latter in particular for the lower values. In our corpus we find many examples of these. With category 3 also affixes of inflexion and derivations may be adopted. This hardly occurs in our corpus. To a certain extent we have to do with slight adaptations to Spanish syntax. Furthermore, pronouns are adopted, in particular indefinite and interrogative ones. In the case of stage 2 and 3 we will find a certain amount of phonological and prosodic borrowings, and also changes in the syllable structure. These dimensions have not been taken into consideration here. The change of the basic order VOS to SVO, mentioned in section 2.1, seems to indicate that we are approaching stage 4. However, not enough is known about the basic order of Classical Otomí to warrant this as a clear case of change.[13]

These examples of borrowing from Spanish are particularly strong in the language of the male

population and of those who frequently leave the village. Among older speakers we observe a large amount of content borrowings. Among younger speakers, who have more formal education, especially functional borrowings are observed, in particular prepositions and conjunctions. As predicted by Poplack's (1980) theory, we still have to do with borrowings that are not in conflict with the rules of Classical Otomí, i.e. with elements that fill up a semantic gap, or that replace a more ambiguous classical element without violating the syntax. Nevertheless, the first symptoms of changes on a syntactic level may be witnessed.

There are many indications that the role of Spanish is increasing, and not only as far as its influence on Otomí is concerned, but also as a medium of communication in its own right. Every time more Otomí children acquire Spanish as their first language. If this continues without obstacles, we foresee a growing process of language shift and a progressive adoption of loans, which over a few generations may turn into language change and the disappearance of yet another language. For the meantime, we foresee the appearance of a Spanish ethnolect characterized by morphological forms and syntactic structures derived from the indigenous language. At the same time, however, there are strong indications that among the Otomís the respect for their own language is growing. This is a necessary, however not a sufficient condition for the survival of the language.

GLOSSES

In the glosses, the following abbreviations are used. A space indicates a word boundary; a / marks a morpheme boundary.

1	first person	Sg	singular
2	second person	Sup	superlative
3	third person	Vi	passive impersonal voice
Act	present time		
Ben	beneficiary		
Caus	causative		
Cprt	'copretérito' (past tense)		
D	definite		
Dem	demonstrative		
Dim	diminutive		
DO	direct object		
Du	dual		
Emph	emphasis		
Exc	exclusivity		
Fut	future		
Inc	inclusivity		
Ind	indefinite article		
IO	indirect object		
Lim	limitative		
Loc	locative		
Neg	negation		
Pdep	past in dependent clauses		
Pl	plural		
Pos	possessive		
Prs	present		
Prf	perfect		
Prt	'pretérito' (past tense)		
Rfl	reflexivity		
Rd	reference distance		
Rh	reference hearer		
Rs	reference speaker		

NOTES

1. Abbreviations used in the glosses may be found above.

2. Sinclair (1987) also catalogues numerals as verbs or nouns, and never as adjectives.

3. See Lord (1993) for a diachronic scenario within the context of serial verbs where verbs end up as prepositions.

4. Other sources, such as Berdichewsky (1985), give a considerably older date: as far as 30,000 years ago.

5. In a not yet published article, Van der Auwera, following Campbell et al. (1986), argues that Central America should be considered a linguistic area. Among the 17 languages that score 50% or more on the 13 linguistic parameters singled out in his article to function as Meso-Americanisms, there are three Otomangue languages: Chinantec, Mazatec and Mixtec. Otomí is not among the languages in the Van der Auwera's sample. In this connection it is important to point out here that the Otomís who used to live in the region that nowadays is formed by the states of Hidalgo and Querétaro, and also a part of the Mazahuas and the Chichimecas, didn't belong fully to the Mesoamerican area, while the Otomís from the region that is now formed by the State of Mexico, and also the Matlatzincas and the Ocuiltecas, culturally were fully Mesoamericans (cf. Lagarrita Attias 1978, 35-6). According to Carrasco Pizana (1950) the first Otomís probably came from the southern part of the High Plateau, maybe from a place close to Oaxaca. Of course, both Otomí groups are linguistically related, and Otomí has several characteristics that coincide with the linguistic parameters mentioned by Van der Auwera, and thought crucial by Campbell et al., such as nominal possessors on the head, a vigesimal system, a VOS order, locatives derived from body parts, no plural markers on nouns, suffixes of inclusivity and exclusivity with pronouns, and pronominal copula constructions with affixes. On the other hand, Stolz and Stolz (to appear) indicate that Spanish function words are not only frequently used in the indigenous languages of Mesoamerica, but also in the other indigenous languages of Latin America and in the indigenous languages of Austronesia. They suggest that this phenomenon is characteristic of the whole area colonized by Spain.

6. See de Rooij (1996: 123-171) for more examples of this phenomenon, in this case as loans from French to Swahili.

7. Details on the respective calculations may be found in Hekking (1995).

8. The percentages are averages of the scores for the subcategories of the formality categories I, II and III.

9. Phonological variants were considered to be representing one type.

10. The figures for Quechua were based on a count of Spanish loans in a collection of stories in Potosí Quechua compiled by Federico Aguiló.

11. Campbell (1993) provides a number of counterexamples to proposed universals of borrowing such as the 'readiness' of languages to accept certain phenomena because of structural gaps, without, however, rejecting these as tendencies. He suggests (p. 96) that the adoption of Spanish prepositions in Pipil - a case very similar to the one discussed above - 'is totally at odds with the (Pipil) system ... and is not structurally compatible with the grain of the langugage'. No concrete arguments, however, are provided for this position. In the example discussed the relational noun *tan* 'under', that is normally prefixed by a (possessive) pronoun, looses its prefix under the influence of Spanish and turns into a preposition. E.g. *i-tan ne kwawi-t* 'its-under the tree' becomes *tan ne kwawi-t* 'under the tree', where *tan* is reinterpreted as a preposition. We think this is a fairly regular scenario for prepositions to come into existence, be it through language contact or grammaticalization.

12. The forms *ke* and *to* are often accompanied by an Otomí deictic morpheme reminding us of the double forms mentioned by Stolz and Stolz and by Muysken. This could be an indication that *ke* and *to* are indeed the most recent forms.

13. One may ask whether the scale of Thomason and Kaufman may be applied with so few nuances to arbitrary language pairs. Several authors have suggested that there are languages which can adopt conjunctions, adverbs and adpositions with some ease, without any linguistic change

whatsoever taking place. It seems that these parameters depend at least partially on the language pair involved. On this see De Rooy (1996), among others.

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