

WHEN IS ZERO MORE THAN ONE? BARE GERMAN PLURALS IN BILINGUAL DISCOURSE

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1. Introduction

The study of language contact has been a primary issue in linguistics as well as in political science, education, and anthropology since at least the 1950s. Linguists have been interested in language contact for its contribution in explaining changes in the forms and meanings of linguistic structures. Sociolinguists in particular have embraced the study of languages in contact. To best describe a language contact situation, the terms *languages in contact* and *bilingualism* must be defined. I follow Weinreich's (1953:1) definition of these terms of language contact:

‘...two or more languages will be said to be *in contact* if they are used alternately by the same persons. The language-using individuals are the locus of the contact.

The practice of alternately using two languages will be called *bilingualism*, and the persons involved, *bilingual*. Those instances of deviation from the norms of either language which occur in the speech of bilinguals as a result of their familiarity with more than one language, i.e. as a result of language contact, will be referred to as *interference* phenomena. It is these phenomena of speech, and their impact on the norms of either language exposed to contact, that invite the interest of the linguist.’

When bilinguals deviate from the norm of either language, it is widely believed that this variance is caused by language contact. Mackey and Ornstein (1979) indicate that “one of the special characteristics of those in daily contact with people speaking another language is that their social, and especially, their language behavior are different from those of unilingual or linguistically isolated populations.”

This paper describes a variationist sociolinguist study of a language contact situation in Canada. The speech of German-English bilinguals residing in Ottawa-Gatineau provides an excellent source for studying the effects of language contact

on linguistic structure ‘interference,’ in particular the claim that the morphology of minority languages simplifies (Appel and Muysken, 1987).

In the informal speech of these German-English bilinguals, nouns that prescriptively require affixed plural marks are sometimes bare. This variability is exemplified in (1) and (2).

(1) Ich mach das- zwanzig *Minute-Ø* mach ich das nicht auf, den Backofen.

(Ursula/40 - 2A)¹

I make that twenty minute-Ø make I that neg. open the oven

'I don't open it during the first twenty minutes, the oven.'

(2) Backofen nicht öffnen für zwanzig *Minute-n*. (Ursula/42 - 2A)

Oven neg. open for twenty *minutes-pl*.

'Don't open the oven for twenty minutes.'

Although there exists a small class of nouns which admit a zero plural marker, an overt mark is prescribed in the vast majority of German nouns (e.g. Buck, 1999; Eisenberg et al. 1998; Engel, 1988; Helbig, 1988; Helbig & Buscha, 1974) similar to the situation in Standard English. Eisenberg et al. (1998) concede that even though variable plural marking usually indicates regional and dialectal variants as well as speech style, some variation is also possible in standard German (i.e., unmarked plurals are sometimes allowed when a suffix is ordinarily required). They also argue that accompanying words, such as determiners or adjectives, may indicate plurality (1998:213). Similarly, Dorian (1978:604), who studied the simplification and confluence in language death of a terminal Scottish Gaelic dialect, indicated that plural marking may be redundant as unmarked plurals are often disambiguated by a plural definite article.

According to Dorian (1978), Appel and Muysken (1987), Thomason and Kaufman (1988), Silva-Corvalan (1991), and Mougeon and Beniak (1991) linguistic consequences of bilingualism may include simplification. Appel and Muysken also assert that ‘the morphology of minority languages is often simplified.’ In their view, this simplification or reduction of the morphological system is a phase of language loss by less proficient speakers.

¹ Speakers are identified by pseudonym, counter number, tape number and side.

The speech of German-English bilingual speakers being studied here is representative of the adult speech community and is not considered to be that of semi-speakers or adolescents. These speakers are in daily contact with English and German, therefore constituting ideal speakers for the study of languages in contact. This study addresses whether languages in contact differ from the non-contact varieties as a result of contact by analyzing the pluralization behaviour of bilingual speakers and that of monolingual German speakers who are not in contact with English.

2. Speakers and data

Eleven bilingual German-English speakers residing in Ottawa, Canada and nine monolingual German speakers residing in Lahr, Germany provided the data on which this study is based. I used social network methodology to gain access to the most natural data possible. All of the bilingual informants for this project are first-generation individuals who speak both German and English on a daily basis. They originate mainly from southwestern parts of Germany. They are between the ages of 40 and 80. Four of these bilinguals arrived in Canada shortly after World War II, the others have been in Canada for at least ten years. The quantitative analysis is based on data that was gathered during informal spontaneous tape-recorded conversations. Language choice was always left to the informants, no preference was indicated from the interviewer. In fact, as I am a member of this same language community, the informants spoke in the bilingual mode typical of our interactions².

As the monolingual speakers of German are living in Germany, they do not have any real contact with English. The age group of the speakers, as well as their social class is similar to that of the speakers from Ottawa-Gatineau.

The conditions under which the monolingual German data was collected were the same as the ones under which the bilingual data was collected, i.e. the informants had the same knowledge about me and my studies.

The data covers a wide range of speech, from the vernacular to more formal language usage as when discussing language, for example. Topics of conversation were of the choice of the speakers, therefore, it was an approximation of the standard sociolinguistic interview.

² Kiesewalter (1994:124) also mentions that community members converse in the usual mix of German and English while newcomers or ‘outsiders’ only speak German.

3. Method

This research is based on the Variationist Theory (Labov, 1971, 1972, 1984; Poplack, 1993; Guy 1993 among others) which investigates the actual usage of spoken language. The goal of this theory is to provide patterns of occurrence of a particular variable and to lay out the hierarchical structure when this variable can occur. Thus, it does not only indicate the occurrence of variants, but also shows the relative frequency of occurrence of each possible variant.

The methodology for this paper is based on a two-way comparison. I use the variationist method coupled with the comparative approach to the analysis of bilingual speech, developed by Poplack and Meechan (1995), by which we here compare and contrast the speech of bilingual German-English speakers with data collected from monolingual German speakers living in Germany. First, the data is compared to an external point of reference, such as standard grammar requirements, in order to establish the patterns of morphological variability; and then the patterns of each community are compared to each other. The use of this external comparison is not intended as a tool for investigating the quality of the speech of these informants. It is a methodological tool for establishing variability in the plural formation of nouns. Thus, the locus of study is not the comparison of the pluralization patterns of bilinguals with standard grammar requirements (i.e., Buck, 1999; Eisenberg et al. 1998; Engel, 1988; Helbig, 1988; Helbig & Buscha, 1974), but rather the comparison of pluralization patterns of bilinguals to that of monolinguals. If the variability exhibited in the pluralization behaviour of the bilinguals is truly an effect of language contact, then detailed comparison of the distribution and the patterns of variability should reveal differences between the two communities. Should they be conditioned by the same factors for both communities, then we will conclude that the bilingual speakers' variable plural marking is not a product of language contact, but rather retention of German language inherent properties.

3.1. Variable context

German with its complex system of plural formation features eight distinct morphological variants, illustrated in Table 1, or five if we take allomorphic variation into account.

Table 1: Plural formation in German

Plural type	Morphological marker	Singular	Plural
1	-e	das Brot (bread)	die Brot -e , die Bröt -er
2	Umlaut + -e	der Balg (brat)	die Bäl g -e , die Bäl g -er
3	-er (sometimes with umlaut)	der Mund (mouth)	die Mü nd -e , die Mu nd -e , die Mü nd-er
4	-en	das Bett (bed)	die Bett -en , die Bett -e
5	-n	der Muskel (muscle)	die Muskel -n , die Muskel -Ø
6	-s	das Wrack (wreck)	die Wrack -s , die Wrack -e
7	Umlaut, no suffix	der Apfel (apple)	die Ä pfel
8	Same form as singular	das Segel (sail)	die Segel

(adapted from Eisenberg et al., 1998)

Even though standard grammar allows mostly only one variant, some nouns allow up to three variants. Table 1 illustrates this variable plural marking. However, Eisenberg et al. (1998:232) indicate that for most nouns that allow more than one variant of plural marking each has its own distinct meaning. The other plural nouns with more than one variant are allocated for regional, dialectal, rare variants or variants that are used for a specific speech style (i.e., humour). Table 1 shows that group 8 categorically allows unmarked plurals, whereas group 5 only sometimes does. This is where we might expect to see most of the zero plurals concentrated, if these bilingual speakers were following the rules of German.

The variable context for this study includes every German noun with plural reference for which plural marking is prescribed, regardless of whether it is marked or unmarked for plural. Overall, 902 German plural nouns were extracted, 570 in bilingual context and 332 in monolingual context. The monolingual context provides the basis against which the bilingual behaviour is compared in order to establish whether the pluralization patterns of the latter are innovations due to contact or whether they have their roots in German.

3.2. Coding

Each noun was then coded for several factors: marked or unmarked for plural, presence or absence of numeric determiner, semantic classification to test pluralization of nouns of weight and measure which may be variably marked

according to standard grammar against regular nouns, nouns referring to time vs. other nouns, marking sequence, gender, and umlaut.

The communities were coded separately in order to compare the patterns of pluralization of the bilingual speakers to the pluralization patterns of the monolingual speakers.

It was noted by Eisenberg et al. that masculine and neuter nouns of weight and measure that are preceded by a numeric determiner may sometimes leave the plural unmarked (1998:216) and sometimes mark the noun for the plural, thus allowing variability in standard grammar. Accordingly, the nouns were coded as to whether they are nouns of weight and measure or not.

Nouns of weight and measure whose gender is feminine in the singular and that are used with a plural reference are prescriptively only permitted in the plural form. Therefore, they were coded for gender.

Eisenberg et al. also point out that a subgroup of nouns of weight and measure, the nouns indicating time, such as *zwei Minuten* ‘two minutes’, *drei Stunden* ‘three hour’, *vier Tage* ‘four days’, etc., must be marked for plural when they are preceded by a numeric determiner. We have seen in (1) that this is not always the case in actual spoken German. Therefore, we will also investigate nouns with reference to time versus other nouns.

As Eisenberg et al. claim that accompanying words such as numeric determiner or other determiners that express plurality such as *five*, *both*, *many*, *some*, and *few* may indicate plurality in noun phrases (1998:213), I test this here as well. Example (3) exemplifies an unmarked plural noun with a preceding determiner, *many*, indicating plurality.

- (3) Sie hat sehr viele Pflanze -Ø. (Andrea/108 - 3B)
 she has intensifier many plant -Ø
 ‘She has many plants.’

The functional hypothesis, that plural marking may be redundant as the unmarked plurals are often disambiguated by a plural definite article (Dorian, 1978:604) was also tested. Example (4) illustrates a noun that indicates plurality within the noun phrase but not in the noun itself. Example (5), on the other hand, shows plurality throughout the noun phrase.

- (4) Die letzten paar Tag-Ø waren wir ... (Else/28 -17A)
 the-pl. last-pl. few-pl. day- Ø were we
 ‘The last few days we were’

- (5) Die hat schon *zwei andere Kind-er* in der Schule. (Sibille/15 - 12B)
 She has already *two-pl. other-pl. child-pl* in the school
 ‘She already has two other children in school.’

Umlaut is the only indicator for plural for nouns of noun type 7. In this data, sometimes the suffixed plural marker is missing when umlaut is present in the noun. Therefore, it was tested whether presence of umlaut is an indication for unmarked plurals. Example (6) illustrates a noun that is umlauted without a suffixed plural marker.

- (6) ... und Einkaufskö**rb** -Ø. (Vera/144 - 20A)
 and shopping basket -Ø.
 ‘..and shopping baskets.’

3.3. Exclusions

All tokens that are ambiguous as to number (i.e., singular or plural) were excluded. For example, neutralization contexts, invariant zero plural forms, lone English nouns³, pluralia tantum, and frozen expressions.

The resulting corpus consists of 902 tokens.

4. Results

4.1. Analysis

The coded nouns were analyzed in two ways. First, overall rates of non-standard marking, here nouns without a plural marker, were obtained. Then, the factor groups are tested for their statistical significance by submitting them to the stepwise multiple regression procedure incorporated in Goldvarb 2001 (Robinson, Lawrence & Tagliamonte, 2001). This is a variable rule application that was adapted for Windows from Goldvarb 2.1 (Rand & Sankoff, 1990). This procedure allows us to determine which factors contribute statistically significant effects to the probability that an application value will obtain in addition to the relative weight of each factor. These features enable us to uncover the grammar that underlies this purported language-contact phenomenon. The variable rule analysis

³ I excluded lone English nouns because their status to whether they are code-switched or borrowed has not been established yet.

does not only reveal which factors are statistically significant, but also whether these factors are in the same order for the two communities.

If factors selected to be significant and the hierarchy for these factors are the same for both communities, then we can conclude that the variable plural marking is not a contact-induced change but rather a feature of German. Should they, however, reveal differences in the hierarchy of the factors within a factor group, for example, then we can conclude that the unmarked plurals of the bilinguals are a contact-induced change.

4.2. Distributional analysis

Table 2 displays the overall distributional analyses for the two speech communities with regard to their rates of plural marking.

Table 2: Overall distribution of plural markers of German nouns

	Bilinguals		Monolinguals	
	%	N	%	N
Plural marked	77	441	46	152
Plural not marked	23	129	54	180
TOTAL N	100	570	100	332

The rate of zero plurals in the bilingual speakers is surprisingly high (23%) and therefore lends itself for speculation of language contact influence. However, when we compare this data to the overall distribution of unmarked plurals of monolingual speakers we can observe that the monolingual speakers' rate of unmarked plurals is more than twice that of the bilinguals, thus weakening the contact explanation.

4.3. Multivariate analysis

Submitting all of the factors to the variable rule analysis Goldvarb 2001 and analyzing them independently for each speech community gave us the contribution of the factors described earlier to the probability of unmarked plurals in the speech of the monolingual and bilingual speech communities. Table 3 illustrates these results.

We can observe that the unmarked plurals are conditioned by two factors for the bilinguals, 1) gender and 2) semantic classification and an additional factor for the

monolingual group, 3) numeric determiner (nouns measuring time, marking sequence, and umlaut were not selected as significant).

It is compelling to note right from the beginning that both speech communities share two of the factor groups selected as significant and, in addition, that both of these factor groups show the same hierarchy of constraints. Moreover, in both communities these two factor groups contribute almost identical effects, as revealed by the range.

Table 3: Two variable rule analyses of the factors selected as significant to the probability of non-standard unmarked plurals of bilingual German-English and monolingual German speakers.

Speakers:	Bilingual German-English			Monolingual German			
Corrected mean:	.132			.459			
Total number:	570			332			
Factor group		%	N		%	N	
GENDER							
Feminine		.71	36	73	.81	77	98
Masculine		.44	15	21	.60	56	52
Neuter		.34	27	35	.13	26	30
Range:		37			68		
SEMANTIC CLASSIFICATION							
Nouns of weight and measure		.77	41	59	.93	92	79
Other nouns		.40	16	70	.30	40	101
Range:		37			63		
NUMERIC DETERMINER							
Numeric determiner present		[.64]	87	102	.73	33	72
Numeric determiner absent		[.41]	37	80	.37	16	57
Range:					36		
Not selected as significant: nouns measuring time, marking sequence, and umlaut. (Factors not selected as significant for bilinguals in square brackets)							

The hierarchy of constraints is as follows: Gender accounts for the largest amount of unmarked plurals with feminine gender contributing the greatest effect, followed by masculine and neuter. For the semantic classification, the factor group

of nouns of weight and measure favours zero plurals the most, followed by other nouns. The effect of numeric determiner is significant only in the monolingual data.

First, we examine the results of the variable rule analysis for gender. The multivariate rule analysis indicates that the feminine gender had a much higher rate of unmarked plurals than masculine and neuter respectively by assigning a probability of .71 for unmarked feminine nouns of bilinguals. Thus, feminine nouns favour zero plurals. The probability for unmarked masculine plurals is .44 and the probability for unmarked neuter nouns is .34. Accordingly, masculine and neuter nouns disfavour unmarked plurals.

Comparing these results to the results of the variable rule analysis to the probability of unmarked plurals for the monolinguals, we observe that feminine nouns also favour unmarked plurals, here with a probability of .81. Masculine nouns favour unmarked plurals with a probability of .60 for the monolingual cohort in addition to the feminine nouns. Only neuter nouns disfavour unmarked plurals. Therefore, feminine nouns strongly favour unmarked plurals for the bilingual speakers as well as for the monolingual speakers. This comparison allows us to conclude that bilinguals are treating the pluralization of nouns with respect to gender in the same fashion as the monolinguals as the direction of effect is the same.

With regard to semantic classification, we again observe that there is a great difference between the two factors' rates of probability of unmarked plurals of bilinguals. The nouns of weight and measure favour unmarked plurals with a probability of .77 whereas the other nouns disfavour unmarked plurals with a probability of .40. When we compare these factor weights to the monolinguals' factor weights, it is apparent that the magnitude of effect once again differs; however, the hierarchy of constraints and the direction of effect are anew the same for both cohorts. Nouns of weight and measure favour unmarked plurals with a probability of .93 and other nouns disfavour unmarked plurals with .30.

The factor group of numeric determiner is only selected to be significant for the monolingual control group. Presence of numeric determiner favours unmarked plurals with a probability of .73 whereas absence of numeric determiner disfavors unmarked plurals with a low probability of .37. Even though this factor group was not selected as significant for the bilinguals, the direction of effect and magnitude of effect of this factor group mirror the effects of the monolingual control group.

Thus, summarizing the results from Table 3, German-English bilingual speakers show parallel treatment in their inflectional variability for plural nouns to that of monolingual German speakers. Feminine gender was selected as the most contributing factor for unmarked plurals for both speech communities. Semantic classification was also selected as a significant factor group for both communities

by the variable rule analysis. Both cohorts exhibit the same conditioning of variables. Given the fact that even standard German grammar allows for variably marked nouns of weight and measure, it is not surprising that nouns of weight and measure exhibit a high magnitude of unmarked plurals.

5. Conclusion

Variability in bilingual discourse has sometimes led researchers to conclude that this variability is a result of language contact. However, the results of this rigorous and scientific analysis of variable plural marking have shown that the German-English bilinguals of Ottawa-Gatineau behave in the same fashion as the German monolinguals from Lahr, Germany with respect to their nominal pluralization patterns.

These results are only possible with systematic evaluation of natural language use and the quantitative comparison of monolingual and bilingual data within the conceptual and analytical framework of variation theory (Poplack and Meechan, 1998). This study is only one of many bilingual studies that utilize this variationist theory to test assumptions about languages in contact (Budzhak-Jones and Poplack, 1997; Eze, 1997; Mustafawi, 2002; Poplack and Meechan, 1995; Poplack and Tagliamonte, 1994; Turpin, 1995; among others). All of these studies have shown that comparison of contact and non-contact languages is important prior to stating that certain variabilities in bilingual speech is a contact-induced change.

In this paper, I wanted to test whether pluralization patterns of German nouns of bilingual German-English speakers are undergoing change as a result of contact with English. As German plural marking has a rich morphology it lends itself well to test whether bilingual speakers' treatment of the complex German pluralization system differs from the monolinguals' treatment as a result of language contact or whether the variable plural marking is language inherent. In order to get valid results, I had to first identify and analyze a variable phenomenon in the bilingual data and then identify and analyze the same variable phenomenon in the monolingual data. For the purpose of this paper, nominal plural marking was studied. Despite the high rate of unmarked plurals for the bilinguals (23%), the monolingual's rate is more than twice that (54%). By looking at the relatively high rate of unmarked plurals of the bilinguals without a control group, one may very well conclude that language contact results in morphological simplification in the speech of these bilinguals if the non-marking of plural nominals is looked upon as regularizing morphology of singular and plural nouns, however, contrasting and comparing the results of the bilinguals with the results of the monolinguals allows the shared patterns of pluralization to surface. Convergence cannot be invoked either as a transfer of grammatical structure from English to German could not

have occurred for the bilinguals in light of the fact that the conditioning of the variable indicates that both speech communities treat nominal pluralization in a very similar fashion.

The detailed comparison of the results of the multivariate analyses revealed that the two communities share the same hierarchy of constraints for conditioning factors selected to be significant for both cohorts. Gender and semantic classification were the best predictors of variable plural marking. Their hierarchies of effect were similar for both communities. As both groups display similar results, it is clear that language contact does not influence the marking of German plural nominals with regard to gender and semantic classification.

Environmental conditioning is one of the pillars of the variationist comparative method. Here, the variable rule analyses revealed that these two groups of speakers pluralize nouns in the same fashion with shared hierarchies of constraints. Also, the distribution and the conditioning of the variables of the shared factor groups are the same across both speech communities studied. Therefore, based on these results, we can conclude that the variable plural marking of German plural nouns of bilingual German-English speakers is not a contact-induced change, but rather a manifestation of variability inherent in German.

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