

The pronunciation of loanwords in German

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ABSTRACT

The pronunciation of foreign words offers a specific problem if these words contain sounds uncommon to the sound system of the borrowing language. Different strategies of adaptation of these words are possible. In an experimental setup, 60 native speakers of German were recorded to evaluate performance on nasal vowels in words of French origin and with the voiced palato-alveolar affricate in English words. The retainment and replacement of these sounds showed a significant difference with regard to 3 factors: origin of the words, age and educational background of the German speakers.

1. INTRODUCTION

Over the centuries loanwords from different languages have been incorporated into German with varying effects. Quite a lot of words of the lexicon of modern Standard High German can be traced back to words borrowed from Ancient Greek, Latin, French and English.

The process of incorporation of foreign words into the lexicon of another language has been investigated quite thoroughly by linguists. Generally it is assumed that if a foreign word enters another language it undergoes a process of increasing assimilation to the structure of the new language and after some time (which may last years, decades or even centuries) its foreign origin is no longer detectable. Whether this continuous process can be divided into phases and how these should be termed and defined is a matter of debate.

Two stages of this process are generally assumed for Standard High German. In this case, the lexicon is divided into native words, loanwords and foreign words. The distinction between loanwords and foreign words is based on the degree to which the word borrowed from another language is orthographically, phonologically or grammatically integrated into German.

Other methods of lexicon division with respect to origin of words are entirely based on phonetic or phonological criteria. One of these can be found in the German pronunciation dictionary “GWdA” [4]. This dictionary distinguishes between German, phonetically germanized, and foreign words. This means that (etymologically speaking) loanwords such as <Pflanze>, <Turm>, <Wein> are treated as German words. Germanized words are all foreign words which are pronounced according to the rules

of the standard pronunciation of German. For the remaining foreign words this pronunciation dictionary postulates that they should not be pronounced as in their original foreign way as this would cause too great a deviation from the sounds in the words surrounding it in an utterance. These words however contain sounds which are not part of the sound system of German.

2. LOANWORDS IN PRONUNCIATION DICTIONARIES

In this investigation we focus on two of these foreign sound (classes), namely the nasal vowels in loanwords from French and the voiced palato-alveolar affricate in English words. Before studying how they are actually pronounced we will focus on how they should be pronounced according to the German pronunciation dictionaries.

There are four main dictionaries of this kind. For a long time, pronouncing standards were set by the “Siebs” pronunciation dictionary with several editions from 1898 onwards [1]. In the early decades of its existence it competed with the pronunciation dictionary of Viëtor [2], while in the last decade there were two new dictionaries: “Wörterbuch der deutschen Aussprache” (WdA) and the “Duden” pronunciation dictionary [3]. Recent publications of the “Siebs” are merely reprints of the 19th edition from 1969.

The pronouncing prescriptions in the WdA were much more empirically orientated and tried to establish a standard that actually approximated the pronunciation of educated persons from Northern Germany in formal style. It was re-edited as “Großes Wörterbuch der deutschen Aussprache” (GWdA) [4] in 1982. Today all the pronouncing dictionaries are out of print except for the “Duden”, which therefore sets the actual standards.

Another standardisation force may be attributed to the pronouncing database of the German public television and radio “ARD-Aussprachedatenbank” (ADB). This database serves as an online accessible database for news speakers of the public television and radio in Germany, Austria and Switzerland and is consulted by the announcers mainly in case of foreign names (persons and places). The standards of this database prescribe the original pronunciation for English and French words [5].

Table 1 shows the forms prescribed for two words containing a French nasal vowel. The pronunciation of the “ADB” represents the original form from Warnant’s French pronunciation dictionary [6].

	ed.	year	<Balkon>	<Chance>
Duden	3	1990	balkɔŋ balkõ: balko:n	ʃã:sə ʃã:s ʃaŋs(ə)
Siebs	19	1969	balkɔ̃ balko:n	ʃã:s(ə)
GWdA	1	1982	balkɔŋ balko:n	ʃaŋsə ʃã:sə
Viëtor	1	1912	balkõ: balko:n	ʃã:sə
ADB	*	2003	balkɔ̃	ʃã:s(ə)

Table 1: Prescribed pronunciation of two loanwords from French in the most recent editions of the pronouncing dictionaries and guidelines of German: “Duden-Aussprachwörterbuch” [3], “Siebs” [1], “(Großes) Wörterbuch der Deutschen Aussprache (GwdA)” [4], “Viëtor” [2] and “ARD-Aussprachedatenbank (ADB)” [5].

The prescribed pronunciation of these loanwords differ from one pronunciation dictionary to the next. Variants with and without nasal vowel are listed for most words.

Table 2 shows the prescribed forms for three English loanwords containing the palato-alveolar affricate. This table reflects the ongoing adaptation process. All of the words of this table are not listed in the oldest pronouncing dictionary from 1912. <Job> is the most strongly germanized word of the three since it appears with final obstruent devoicing (compulsory in German) in current dictionaries. It is followed by <Jeans>, while <jogging> appears in the most recent dictionary only.

	ed.	year	<Job>	<Jeans>	<jogging>
Duden	1	1962	dʒɔb	dʒi:nz	-
	3	1990	dʒɔp	dʒi:nz	dʒɔgɪŋ
Siebs	19	1969	dʒɔb	-	-
WdA	1	1964	dʒɔp	-	-
GWdA	1	1982	dʒɔp	dʒi:nz	-
Viëtor	1	1912	-	-	-
ADB	*	2003	dʒɔb	dʒi:nz	dʒɔgɪŋ

Table 2: Prescribed pronunciation of 3 loanwords from English in the pronouncing dictionaries and guidelines of German (see Table 1).

The pronunciation of “ADB” is again based on the pronunciation dictionaries of English [7,8].

3. EXPERIMENTAL SETUP

Physically speaking, foreign words are not adopted by languages but by speakers of these languages. This leads to the question: How do speakers perform in adopting these

words? Two ways of contact with a new foreign word may be distinguished formally: auditory (by hearing it from a native speaker) and visually (by seeing it written in a text). So reflexes of these two ways of access could be expected in the samples.

The investigation of the actual performance of speakers of Standard High German in pronouncing the loanwords in question was based on a corpus of German speech samples. For this investigation a list of 232 words containing the loanwords in question was read by 60 native speakers of German. The speakers differed in sex, age (ranging from 15 to 88 years) and social or educational background (ranging from university students to handcraft workers). Most of them were living in the federal state of Northrhine-Westphalia in Germany.

The words were recorded, digitized and transcribed regarding the sounds in question. The speakers were divided into four age groups: 15-24, 25-34, 35-49 and greater than 50 years. Another classification was based on their different social or educational background. Speakers with undergraduate school knowledge were assigned to the “lower class” whilst speakers who attended a graduate school were allocated to the “middle class”.

4. RESULTS

4.1 Nasal vowels from French

To cope with nasal vowels, speakers employed different strategies. For example for the original French word <Saison> [sɛzɔ̃], some speakers used the original nasal vowel [zɛzɔ̃], some used the combination of oral vowel and velar nasal [zɛzɔŋ], whilst the rest pronounced the words with a dental nasal according to orthography [zɛzo:n].

	Nasal vowel	velar nasal	dental nasal
<Chance>	58 %	42 %	-
<Saison>	53 %	44 %	3 %
<Restaurant>	53 %	32 %	15 %
<Bonbon>	46 %	49 %	5 %
<Balkon>	10 %	35 %	55 %
<Pension>	5 %	64 %	31 %

Tab. 3: Sounds employed for the nasal vowel in French loanwords

Table 3 shows the distribution of pronunciation variations

for the six words tested. Note the difference between the first four and the last two words.

Obviously the words exhibit different degrees of assimilation to the German sound system. The reason for this fact can not be attributed to the quality of the nasal vowel (same for <Balkon> and <Bonbon>) or its position in the word (same for <Chance> and <Pension>).

From a rule governed linguistic point of view, one would expect that should a speaker be able to produce a nasal vowel, he will employ it in every word. To test this hypothesis we take the first four words in table 3, and ask how many of the speakers use the nasal vowel every time, in three or two cases, once or never. Table 4 shows the results.

Nasal vowel employed in <Bonbon, Restaurant, Chance, Saison>	Number of speakers (%)
4 times	20 %
3 times	29 %
2 times	14 %
1 times	17 %
0 times	20 %

Tab. 4: Extent of usage of nasal vowels by speakers

Only about 20% of speakers used the nasal vowel in each case and another 20% not at all. One might thus argue that only 20% of German speakers are unable to produce a nasal vowel.

Examining the speakers who employed the nasal vowel 3 times (second row in table 4), mispronunciation of the fourth word was divided into following pattern: <Bonbon> (40%), <Chance> (30%) and <Saison> (30%). Only in <Restaurant> a nasal vowel was always pronounced.

Therefore, if a speaker uses nasal vowels not always but very frequently, it becomes impossible to predict the mispronounced word. Speakers of German obviously do not use rules for pronouncing words with nasal vowels.

Number of nasal vowel use (max. 4)	Age			
	15 – 24	25 – 34	35 – 49	> 50
3 or 4	55 %	59 %	50 %	44 %
1 or 2	33 %	33 %	38 %	12 %
Never	12 %	8 %	12 %	44 %
SUM	100 %	100 %	100 %	100 %

Tab. 5: Age-specific usage of the nasal vowels in the first four words of table 3.

Finally, we observe the interdependency of frequency of use of nasal vowels and age followed by social background. Only the first 4 words of table 3 are taken into account.

While there doesn't seem to be an age specific use of the nasal vowel, table 6 shows a strong dependency on "class" membership. The more educated a speaker, the more he will employ nasal vowels.

Number of nasal vowel use (max. 4)	class	
	"middle class"	"lower class"
3 or 4	66 %	18 %
1 or 2	26 %	37 %
Never	8 %	45 %
SUM	100 %	100 %

Tab. 6: Class-specific usage of the nasal vowels in the first four words in table 3.

4.2 Voiced palato-alveolar affricate from English

Although the words were read from a list (randomly mixed with native German words), English loanwords (e.g. <Job> [dʒɔb]) were pronounced by speakers in every case with final devoicing (e.g. [dʒɔp]). Here the voiced palato-alveolar affricate [dʒ] was used more often (82%) than the nasal vowels (53% for the first four). Where the former was replaced, a voiced [ʒ] (e.g. [ʒɔp]) or voiceless [ʃ] (e.g. [ʃɔp]) (post)alveolar fricative or even a voiced palatal fricative or approximant [j] (e.g. [jɔp] according to German orthographic rules) were substituted.

	Affricate	Fricative	Approx.
<Jazz>	92 %	3 %	5 %
<Jeans>	87 %	13 %	-
<Job>	78 %	17 %	5 %
<Jogging>	72 %	15 %	13 %

Tab. 7: Sounds employed for the palato-alveolar affricate in words of English origin

Again we may look at the individual usage of palato-alveolar affricate. Speakers who use this sound very often but not always (i.e. in 3 of the 4 words in table 7), the word spoken without affricate varies: <Jazz> (14%),

<Jeans> (14%), <Job> (29%), <Jogging> (43%). This implies: If a speaker fails to use the affricate in every case, pronunciation of the four words will vary.

Table 8 and 9 display the frequency of usage of voiced palato-alveolar affricates according to social class and age of speakers.

Number of affricate use (max. 4)	Class	
	“middle class”	“lower class”
3 or 4	85 %	82 %
1 or 2	11 %	9 %
Never	3 %	9 %
SUM	100 %	100 %

Tab. 8: Class-specific usage of the voiced palato-alveolar affricate

It appears to be no class difference in the use of the voiced affricate in English loan words.

Number of affricate use (max. 4)	age			
	15 – 24	25 – 34	35 – 49	> 50
3 or 4 times	100 %	92 %	100 %	29 %
1 or 2 times	-	8 %	-	42 %
Never	-	-	-	29 %
SUM	100 %	100 %	100 %	100 %

Tab. 9: Age-specific usage of the voiced palato-alveolar affricate

As Tab. 9 shows, there is a significant deviation in the use of the affricate with respect to age. The voiced palato-alveolar affricate seems to be integrated into German phonology – but only for persons younger than 50 years.

5. CONCLUSIONS

- The words under investigation are not pronounced as foreign words, i.e. words of English origin undergo at least the process of final devoicing for every speaker.
- The degree of adaptation to German phonology is different even for words with similar sound structure

- The observable adaptation to German phonology may be stronger or less strong than predicted by the German pronunciation dictionaries or regulations.

- The process of germanization of a loanword is not homogeneous with regard to a specific speaker. He may pronounce words with the same (empirical) degree of adaptation to German phonology differently.

- There is a weak interdependency of pronunciation of loanwords and speaker-specific factors ‘age’ and ‘social class’. This interdependency correlates to origin of the loanwords. French nasal vowels are more often preserved by educated persons while younger persons adopt the voiced palato-alveolar affricate together with the English loanword.

Interdependency	Age	Class
Nasal vowels (French)	-	+
Affricate (English)	+	-

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