Language Standardization and Linguistic Change:

A Pilot Study of Swabian Palatalization

Karen V. Beaman

Georgetown University

Paper presented at Twentieth Southeastern Conference on Linguistics (SECOL). Published in Conference Proceedings by Memphis State University. March 1980.

1.0 Introduction

In southwestern Germany the relationship between regional dialects and the standard language demonstrates an example of diglossia: a situation in which distant language varieties are restricted to specific domains in communicative interaction (Ferguson 1959).[1] The regional dialect has traditionally been the first language learned by the children and the means of communication for intimate relationships, informal gatherings, and situations evoking regional and/or cultural identity. The standard language is acquired later and is reserved for formal education and more socially prestigious situations.

However, an instability in the traditional diglossic situation is being generated by various changing social forces, such as increased social and geographic mobility, industrialization, urbanization, post-war resettlements, and the reinforcement of the notion of New High German (NHG) as the prestige variety and the "standard of correctness." As a result, the standard is "leaking" into the domain of the dialect. This intrusion of the standard language into the realm of "normal" dialect usage is causing a gradual assimilation of language varieties and thus creating a reduction in overall dialect diversity. In his article, "The decline of German dialects" (1968), Werner Leopold suggests, "… dialects [are] receding at a surprisingly fast rate before the standard language…. [This]

---

[1] This paper was presented at the Twentieth Southeastern Conference on Linguistics (SECOL) at Memphis State University, Memphis, Tennessee, March 1980. I would like to extend my deepest thanks to Greg Guy at the University of Pennsylvania for help with the data analysis, suggestions for further thought and research, and patience with my endless questioning. I am also indebted to Ralph Fasold and Deborah Tannen at Georgetown University and Tucker Childs at the University of California, Berkeley for recommendations on earlier drafts of this paper and for the encouragement without which it would never have been written. But, of course, any deficiencies remaining are my own and should not be attributed to any of the above named individuals.

strengthening of the standard language is the most important linguistic development in the German-speaking lands today" (p. 360).

A process of "informal standardization," that is, "a certain amount of normalization of language behavior in the direction of some linguistic usage with high social prestige" (Stewart 1968:534), is affecting the Swabian dialect of southwestern Germany. This shift toward the standard language brought about by "more or less automatic, unconscious adjustments" (Stewart 1968:534) toward the prestige norm, can be measured through the speaker's choice of particular language features on both the linguistic and social levels of interaction.

Based on the results of a pilot study, this paper presents some preliminary findings on the nature and degree of this standardization effort. The linguistic analysis is based on the quantitative paradigm for determining language variation developed by W. Labov, G. Sankoff, H. Cedergren, and D. Sankoff.

The social analysis is based on the ethnolinguistic interpretation of the communicative repertoire as put forth in Blom and Gumprez (1972): the social setting, situation, and event of the interaction significantly influence the choice of linguistics variants. The major findings indicate that linguistic variants are influenced by interlocutors in the conversation. This social force can be so powerful as to inhibit the application of a linguistic rule and retard language change.

2.0 The Pilot Study

The pilot study was conducted on a native Swabian speaker. The subject, a 22-year old male from Ludwigsburg, a student from the University of Tübingen, was an exchange

student at Georgetown University. The data consisted of a two-hour tape-recording of an informal dinner gathering. The familiarity of the participants and the informality of the situation created the naturalness and spontaneity of the conversation: the style of language used during the interaction was "casual."

Three native speakers of German, close friends of the subject, were present. H (female), also from the University of Tübingen, has lived in Swabia most of her life but is not a native speaker of the dialect although she exhibits many common Swabian features in her casual style. P (male) and B (female) are students from the University of Trier in middle Germany. Also present were two American female students, K and L, non-native speakers of German.

The Swabian feature chosen for linguistics analysis was the palatalization of s when followed by t in morpheme final position. For example, the standard German sentence, du mußt, sounds like [du muš] in the dialect.[2] Out of a total of 174 observed instances of this variable in the conversation, 90 were palatalized. This shows an overall "input probability rate" for palatalization of .48; that is, the tendency for the palatalization rule to apply in the absence of all constraints.

Note that palatalization of s before t in morpheme initial position is a categorical feature of New High German, for example, Stadt [štat] and bestimmt [be + štimt]. The Swabian

[2]The subsequent variable deletion of final t I assume to be a purely low level phonological rule probably similar to the final consonant cluster simplification and deletion rules found in numerous language varieties. I assume final t-deletion to be independent of palatalization except as an underlying trigger for the rule, and thus not relevant to the present discussion.

process of extending the standard German palatalization rule to final environments is subject to a variety of systematic linguistic and social constraints.[3]

2.1 Methodology.

The quantitative paradigm used for analyzing linguistic variation assumes that variation in language is rule-governed and can be explained by a probabilistic or variable rule component in the grammar. The Cedergren-Sankoff VARBRUL 2 Program (1974) provides a useful heuristic tool for analyzing the s-š variation in the Swabian dialect. The program operates under the assumption that constraints affecting a rule act independently of each other.

Specifically, VARBRUL 2 utilizes the maximum likelihood procedure to analyze the actual occurrences of a particular feature out of the total number of possible occurrences of that feature in a specific environment (linguistic and extra-linguistic). It then determines the probability values for certain constraints on the feature. The probability values vary between 0 and 1 such that a value of more than .5 favor the feature's occurrence and a value of less than .5 inhibits the feature's occurrence, with values around .5 itself being neutral or having no effect.

The data presented here were analyzed with the VAR25 program at the University of Pennsylvania, a version of VARBRUL 2 which incorporates the use of the log likelihood test as a measure of statistical significance for constraint groupings (Rousseau and Sankoff

[3] I assume that Swabian palatalization of morpheme final st co-occurs with other dialect features, so that any instance of it provides an indicator that the subject is speaking "dialect."

1978). With this program the most significant constraints affecting Swabian palatalization were determined.

2.2 The Linguistic Constraints

Two linguistic constraints were analyzed: the phonetic nature of the preceding segment and the presence or absence of a preceding morpheme boundary. Below is the variable rule for Swabian Palatalization (SP) for this subject.

$$\begin{bmatrix} -\text{nuc} \\ +\text{ant} \\ +\text{cor} \\ -\text{voi} \\ +\text{cont} \\ +\text{strid} \end{bmatrix} \longrightarrow (\,[\,-\text{ant}\,]\,) \;/\; \begin{bmatrix} +\text{nuc} \\ +\text{high} \end{bmatrix} [\,+\text{seg}\,] \;\_\_\; \begin{bmatrix} -\text{nuc} \\ +\text{ant} \\ +\text{cor} \\ -\text{voi} \\ -\text{cont} \\ -\text{strid} \end{bmatrix} [\,+\text{seg}\,]$$

Swabian Palatalization Rule (SP).

The underlying probability values, a set of quantitative relationships associated with the application of SP for this speaker, are shown in Tables 1 and 2.

	p	n
[+ nuc + high]	.74	(107)
[– voc + cons]	.55	(36)
[+ nuc – high]	.22	(31)
		(174)

Table 1. Probability values for SP application with respect to the phonetic nature of the preceding segment.

Table 1 shows that a preceding high vowel, as in [du muš], is the first-order or most powerful constraint favoring palatalization at .74. A preceding non-high vowel, as in [du hast] actually disfavors SP at .22. This is an expected result considering the tremendous effect of assimilation processes on language variability. A preceding consonant at .55 is neutral or has no effect on the rule's application.

In the initial analysis, preceding uvular stops and fricatives, in words such as nächst and kriegst, were separated from other consonants under the assumption that their non-anterior nature would favor SP. This hypothesis was confirmed with .72 probability favoring palatalization with non-anterior consonants in comparison to .54 for other consonants and .25 for non-consonants. However, due to the fact that there were only seven token of –st# for this environment in the corpus, further analysis is needed to confirm these results. It is possible, however, that given a larger corpus of data, preceding uvulars would be a

powerful favoring constraint for palatalization in terms of assimilation of articulatory processes.

The presence of a preceding morpheme boundary in words such as kann#st, läuf#st, and jüng#st, is the second-order constraint showing a slight favoring for palatalization at .66 (Table 2).

	p	n
+ morpheme boundary	.66	(37)
- morpheme boundary	.34	(137)
		(174)

Table 2. Probability values for SP application with respect to preceding morpheme boundary.

Verbs such as müssen-mußt, heissen-heißt, wissen-wußt, and essen-ißt, were initially analyzed separately in order to determine whether the morpheme boundary lies between or after the double s (i.e., -s#st or -ss#t) (Guy, personal communication). Because these verbs show a .25 probability for palatalization and exhibit no statistically significant difference with the log likelihood test from words without an immediately preceding morpheme boundary, they were included in the no morpheme boundary category in the final analysis.

However, there is reason the believe that the large number of unpalatalized forms of du heißt [du hays] in the corpus may have contributed to this low probability and distorted the results because forms like [du hoyš] are indeed very common in Swabian. This may suggest that "co-occurrence restrictions," such as the raising of the diphthong ay to oy

preceding s, may be important factors on SP. However, an analysis of Swabian diphthongization and its influence on SP must await further investigation.

2.3 The Social Constraints

In addition to the linguistic constraints, one social constraint, Interlocutor, was analyzed with the VAR25 program. Table shows the subject's probability values associated with SP for each of the five participants in the conversation. The log likelihood test shows no statistically significant difference between speakers B and H or P and KL, thus, Interlocutor distribution is reduced to two groups I1 and I2, respectively. It is clear, however, that I1 is a favoring constraint for SP while I2 is a disfavoring one. What are the factors causing these probability values to cluster into two distinct groups?

	p	n		p	n
B	.65	(15)			
H	.64	(77)	→ I1	.65	(92)
P	.40	(43)			
KL	.31	(39)	→ I2	.35	(82)
		(174)			(174)

Table 3. Probability values for SP application with respect to the Interlocutor.

Unlike linguistic constraints which are directly interpretable from the surrounding phonetic environment, social constraints are the result of a complex interaction of

extralinguistic factors embedded in the social context. The subject's tendency to favor palatalization with I1 (i.e., B and H) can be explained by his close friendship with B and H and the casualness of the situation. They are both females and, presumably, do not present the subject with a "threatening" situation. He may be less concerned with how they judge his language (and hence his intellect and capabilities) and more concerned with how they "like" him (Tannen, personal communication).

Likewise, easily explainable is the disfavoring of palatalization with Interlocutor KL.[4] Because K and L are non-native speakers of German, the subject can reasonably assume that they would experience difficulty in understanding his dialect and consequently switches to a more careful style. This switch is seen several times in the conversation; for example, when the subject directed a question in dialect to L, she responded with "Bitte?" (Pardon?) or "Was?" (What?). The subject then repeated the question in standard German and the conversation continued.

What is not so readily explainable is the low probability for palatalization with Interlocutor P. P is of comparable age, place of origin, social standing, and personal relationship to the subject as B; yet, the subject's tendency to palatalize is markedly different for each (i.e., favoring palatalization with B (.65) but disfavoring it with P (.40)). The only salient difference between the two is gender: P is male, while B is female.

I hypothesize that there is some informal standardization process taking place causing the subject to shift to the more standard, prestige variety with P. That this shift is not completely unconscious was evidenced when I later asked the subject why he does not

[4] K and L are treated as one interlocutor because they show comparable social characteristics, share a similar relationship to the subject, and exhibit little interaction with the subject in the conversation.

speak dialect to P. He responded that because P is from the North and speaks "a very good German," he is encouraged to speak "better" German.[5] However, B is from the North also.

Because P is compatible with B in all social characteristics, except with regard to gender, it seems reasonable to assume that P's maleness is a contributing factor in his position of power and prestige over B. It seems that the subject is more concerned with how P judges his intelligence and capabilities (revealed in his language), rather than showing warm, empathic feelings toward him. Empirical support for this hypothesis that P represents a "standard of correctness" for the subject is seen in the statistical evidence for the inhibition of the SP rule with P.

The inhibition of the palatalization rule with I2 shows that an individual's choice of linguistic variants is constrained by social norms – for this situation, by the notion of an external prestige variety embodied in a participant in the conversation. This phenomenon can be considered a type of "situational switching," "where alternation between varieties redefines a situation, being a change in governing norms" (Blom and Gumprez 1972:409). The metacommunicative message reveals the subject's conception of the differing social relationship between I1 and I2: I1 indicates "normal" dialect usage for informal gatherings and casual conversation, i.e., "non-threatening" situations; I2 represents the more standard variety – the language of the educated and prestigious. The subject's metaphorical switch to the I2 variety with P, when the I1 variety is expected, is seen as a desire to associate

[5] Other evidence for the lack of prestige attributed to the dialect comes from own personal experience in Swabia. When trying to learn the dialect, I was told repeatedly that I should speak standard German and not Swabian because the dialect was "bad" or schlechtes Deutsch.

himself with P as a social equal. To use I1 style would lower himself in the eyes of P on both the social and educational levels.

3.0 Implications for the Theory of Linguistic Change.

Evidence from the history of the German language shows that s-palatalization is a fairly recent innovation in the New High German period. Table 4 shows an idealized scheme for the spread of palatalized s in st clusters.

Time / Environ.	OHG	*	NHG	Swabian	*
	Ti	Tii	Tiii	Tiv	Tv
Morpheme Initial	#st-	<#st-> <#št->	#št-	#št-	#št-
Morpheme Final	-st#	-st#	-st#	<-st#> <-št#>	-št#

Table 4. The spread of s-palatalization in st clusters.
* denotes hypothetical stages.

The boxes with bracketed variants indicate that palatalization is variable at that stage. This hypothesis is in conformity with the Bailey Wave Model (1973) of linguistic change: a change begins variably in a specific environment (Tii), spreading variably to newer environments (Tiv), and becoming categorical in the oldest environments first (Tiii). Thus, the change is variable in morpheme final environments in Swabian, being most progressed by a preceding high vowel (Table 1). Tv represents the hypothetical stage that the change will reach upon completion: categorical palatalization of st in all environments.

However, this theory does not explain the full picture of the s → š change. The inhibition of the change in certain situations is the result of an informal standardization

process caused by the notion of a prestige norm – standard German. Such social forces can be so powerful that they cause a linguistic rule to stagnate. Though the pattern of development is not disturbed by the rule-inhibition, the change may become frozen and remain static for years (Bailey 1973:84).

This pilot study has brought to light only some of the general processes underlying the diglossic situation in Swabia. Further investigation of the myriad of social constraints, such as gender, age, and social class, within the speech community and analysis of other linguistic features affected can reveal a fuller picture of the extent of language standardization and linguistic change happening in Swabia.

Bibliography.

Bailey, C.-J. N. 1973. Variation and linguistic theory. Washington, D.C.: Center for Applied Linguistics.

Blom, J. and J. J. Gumprez. 1972. Social meaning in linguistic structure: Code-switching in Norway. In: Gumprez and Hymes (eds.) Directions in sociolinguistics: the ethnography of communication. New York: Holt, Reinhart and Winston, Inc.

Cedergren, H. and D. Sankoff. 1974. Variable rules: performance as a statistical reflection of competence. Language. 50:333-355.

Chen, M. and W. Wang. 1975. Sound change: actuation and implementation. Language. 51:255-281.

Ferguson, C. 1959. Diglossia. Word. 15:325-340.

Guy, G. 1975. Variation in the group and the individual: the case of final stop deletion. Pennsylvania Working Papers on Linguistic Change and Variation. I (4). Philadelphia: U.S. Regional Survey.

Labov, W. 1969. Contraction, deletion, and inherent variability of the English copula. Language. 45:715-762.

Leopold, W. 1968. The decline of German dialects. In: J. Fishman (ed.) Readings in the sociology of language. The Hague: Mouton Publishers. 340-364.

Rahn, R. 1962. Der schwäbische Mensch und seine Mundart. Stuttgart: Hans E. Günther Verlag

Rousseau, R. and D. Sankoff. 1978. Advances in variable rule methodology. In: D. Sankoff (ed.) Linguistic variation: models and methods. New York: Academic Press.

Sankoff, D. and W. Labov. 1979. On the uses of variable rules. Language in Society. 8:189-221.

Sankoff, G. 1974. A quantitative paradigm for the study of communicative competence. In: R. Baumann and J. Sherzer (eds.) Explorations in the ethnography of speaking. Cambridge University Press. 18-49.

Stewart, W. 1968. A sociolinguistic typology for describing national multilingualism. In: J. Fishman (ed.) Readings in the sociology of language. The Hague: Mouton Publishers. 531-545.