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The Hidden Mechanisms of Language Change

Language is both mental and social in nature, involving a language system in the mind of the individual speaker and as well as language norms of the speech community. Although one must assume an innate language faculty which makes the language systems in individual minds possible, it is clear that the words and their meanings in each language are supplied by the specific speech community, and so are the language-specific choices determining the details of the sound system and the grammar of the language in question. As each language is being passed on to the next generation, the child has to construct his own language system based not directly on the actual language system of his models, but indirectly, via the output of that system, namely actual utterances. In trying to replicate the language system of his models, the child acquiring it must rely heavily on the unreliable but very common kind of reasoning called abduction (Andersen 1973). In abduction, a result, in this case the particulars of the language output, is given, and the way that output comes about, here the language system, has to be guessed. In the earliest phase of language acquisition, children take the language of their caregivers as a model, but as they grow older, they try to imitate kids who are a bit older than they are, at least in modern cities of the Western world. At adolescence, crucial core aspects of the language system are frozen. Thus, basic parameters of syntactic structure such as basic word order are fixed, and adult learners cannot learn to speak new languages without accent.

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A basic outlook of the kind just sketched, and widely but not universally accepted, allows us to single out crucial social factors of language change, which constitute mechanisms largely hidden from the view of the historical linguist. When analysing the mechanisms of such change, it is crucial to distinguish the two phenomena that I will call *innovation* and *diffusion*. Put in its simplest terms, innovation is the spontaneous emergence of a novel language feature that was absent in the previous generation. Keeping in mind the transitory nature of child language, what is of primary importance to the historical linguist is those novel features which remain in the fully developed language system of an adult speaker. Diffusion, on the other hand, involves speakers imitating a novel language feature (an innovation) from another speaker. With regard to the interaction between innovation and diffusion, one should keep in mind that the same innovation may emerge spontaneously in many speakers at the same time, so that less diffusion is required.

When taking stock of the potential for language change, it is useful to start by distinguishing between what is constant and what is variable in the language transmission process. The most basic fact is that *change is never necessary for purely system-internal reasons*. Any language that is spoken and has been acquired by children has thus proved that it is functional. Thus, there are certain boundary conditions for the mental language system which all languages must respect. More interestingly, however, the language system also has some inherent preferences, as some features are more "natural" than others. The concept of *naturalness* is a complex and problematic one, but it is commonly assumed that natural features are the most compatible with the general design of the mental language system and that of the articulatory and auditory organs. Many scholars also assume that such features are the ones best suited for actual language use. As a consequence of their naturalness, such language features are supposed to be easier for a child to acquire and thus tend to be acquired early. An additional common assumption is that natural features should be more resistant to change, and changes should tend to increase naturalness in some way. As naturalness must be assumed to be *local* (determined with respect to a limited part of the language system), naturalness conflicts may emerge when increased naturalness in one respect leads to decreased naturalness in other respects. An example of the disappearance of a rather unnatural feature is the merger of the *tje*-sound [ç] (not found in English) and the *sje*-sound [ʃ] (similar to *sh* in *ship*) in post-World War II Norwegian. It is an indication that *tje* is a rather unnatural sound that the contrast *tje / sje* is the last one to be mastered by Norwegian children. However, getting rid of the unnatural sound increases homophony, which is commonly assumed to decrease naturalness, as for instance *kitt* 'putty' (with the *tje*-sound) and *skitt* 'shit' become indistinguishable. Assuming that a clearly unnatural feature of a language is inherently unstable, any slight change in the external conditions of the language, such as the transmission situation, may easily lead to the demise of such a feature. It must be admitted, however, that many linguistic changes are at best neutral with respect to naturalness (Lass 1997), a point that we will return to later.

While the mental, ultimately inherent and biological, basis of language is constant, the social aspects of a language may vary in a number of ways. Language change can be influenced by changes in the social environment of the language, in various indirect ways, but also more directly by social evaluation of specific features of language. On the most general level, one cannot exclude the possibility that general weakening of the language norms as a social institution, in times of cultural and social instability, in itself accelerates language change. In such times, children acquiring the language may be less inclined to follow to the full extent the conventions of the earlier generation. This may be sufficient for an unnatural feature to disappear, without any preceding reduction in the frequency of that feature in the language output available to the child. However, it is probable that the conditions for language acquisition more specifically also tend to change in such periods.

One of the more specific external social factors of change in language transmission (Ottósson 1992:24f) is *a shift in the sample of the target language available to the average child acquiring his language*. Depending on the structure of the society, children may to varying degrees learn their language from their parents' (and grandparents') generation or from their peers. In the

normal language acquisition process, children go through several stages, and forms and constructions deviating from the target language constantly arise, as they gradually approximate that target. These deviating variants are usually abandoned as the child gets full command of his language. In situations where children learn their language mostly from other children rather than from speakers with a fully developed language, those language features which are acquired late are particularly endangered. Linguistically immature peers then spread their deviating variants to younger children, and language change may be faster than in other cases. In the Norwegian case just discussed, one may wonder whether Norwegian children after World War II started learning their language less from their parents than earlier, and more from (older) children whose sound system was not yet fully developed. In cases like this, nothing new arises in child language, and the innovation involves the promotion of an already existing language feature to the fully developed language system.

Under a second scenario for language change, the (type of) sampling of the target language available to the child remains constant, but there is *a marked shift in adult speech and other language models for the learner.* The Primary Linguistic Data on the basis of which the average language learner abduces his language system may be changed so much with respect to a particular language feature, that a different specification of that feature becomes natural. A type of change of this nature which has received some attention in the literature involves the frequency in use of optional elements, in particular what may be called stylistic rules. Such a change in frequency, in turn, may ultimately have sociological causes which call for elucidation. A potential example involves the interaction of basic word order and "Extraposition" of heavy syntactic constituents, leading to a shift from the order Subject – Object – Verb (SOV) to Subject – Verb – Object (SVO). The basic word order of a SOV language is as in (1a), but in (1b), a heavy object has been moved, "extraposed", from the underlined position to the end of the sentence.

(1) a John Mary kissed
b John _ kissed [the young blonde woman with the funny hat]

If such extraposition gains in frequency, it may become natural for the child to reanalyse the SVO order found in such cases as basic rather than derived by movement. In cases of this kind, the innovation happens in the acquisition process, but is triggered by a change in adult language.

A third basic cause of language change is *imperfect learning* with both the target language and the sample of its output available to the child remaining constant. It is important to realise that many more innovations of this origin are retained in the speech of some adults than those that have a breakthrough by diffusion. In addition to physiologically determined speech errors, such as lisping, speakers may retain idiosyncratic features in their vocabulary or grammar from their childhood into their adult life. It has been claimed, however, that the mistakes children make are rather different from language changes (e.g. Croft 2000), but even if only a relatively minor part of children's mistakes survives this constitutes a significant factor. Crucially, however, if the other two factors just discussed remain constant, one would expect all such deviances to remain

sporadic. An additional factor, however, may lend momentum to the diffusion of such idiosyncratic innovations, namely (positive) social evaluation.

Innovations (as well as pre-existing variants) may acquire some *social value* which motivates people to adopt them more or less by conscious choice. In that case, the social factors are not only a part of the embedding of the language system, but exert their influence in a much more direct and active fashion. Thus, a linguistic feature becomes a marker of prestigious social status or of solidarity within a social group. If these groups are defined by socio-economic factors, we are dealing with sociolects, whereas dialects are defined by a specific geographical area. A well-known example of such social evaluation is the centralisation of *(aw)*, the diphthong in *town*, on Martha's Vineyard, signalling allegiance to the island community. The need to mark oneself off from members of other groups may lead to the exaggeration of already existing differences or active search for variants which might be used for this purpose. Idiolectal variants arising by imperfect learning, as discussed above, may also be used for this purpose, provided their bearers happen to be looked up to for other reasons. It should be obvious that a great number of microscopic social contingencies may be involved in the process by which a linguistic variant acquires such a positive social evaluation, such as the concrete social networks in a particular school or neighbourhood. In spite of the extensive research of Labov and his associates into ongoing change in American cities (e.g. Labov 1994–2001), we know little about the very inception of language change in contemporary settings, where we may in principle have access to all potentially intervening factors. When analysing changes in past centuries, such detailed data about micro-level social factors is simply not available, and much of our limited comparative knowledge from contemporary sources is from societies quite different from earlier ones.

In social evaluation the naturalness of the feature is not crucial. The above-mentioned centralisation of *(aw)* on Martha's Vineyard, for example, is arguably not a natural change. What is most important for such social markers is their salience. The sounds of the language are quite effective in this respect by virtue of their frequency, not least vowels and diphthongs which in addition are rather easy to manipulate.

The preceding discussion, although sketchy and simplified, hopefully shows how difficult it is for a historical linguist to find the social mechanisms which trigger diffusion of a language feature at a particular point in time. In spite of the limitations of linguistic naturalness as an explanation of change, it is bound to keep its place in historical linguistics, although more attention should be given to the salience of linguistic features.

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