

Re: Are Linguistic Changes Accelerated by...

Source: <http://sci.tech--archive.net/Archive/sci.lang/2005-11/msg00170.html>

- *From:* "Douglas G. Kilday" <fufluns@xxxxxxxxxxx>
 - *Date:* Sat, 5 Nov 2005 02:08:30 -0000
-

"Nathan Sanders" <nsanders.DIE.SPAM@xxxxxxxxxxxxxx> wrote ...

- > "Darkstar" <darkstar100@xxxxxxxxxx> wrote:
 - >
 - >> Nathan Sanders wrote:
 - >>
 - >>> Two reasons that languages might change are to increase the perceptual
 - >>> distinctiveness of acoustically similar sounds and to decrease the
 - >>> articulatory difficulty of particular sounds or sequences of sounds.
 - >>>
 - >> Okay, but this model predicts that all languages would finally come to
 - >> rest after achieving 'perfection'?...
 - >
 - > Absolutely not---it makes exactly the opposite prediction, because
 - > perceptual distinctiveness and articulatory ease are in direct
 - > conflict, since making sounds more acoustically distinct almost always
 - > requires extra articulatory effort (more extreme articulations, more
 - > precisely controlled articulations, or usually both).
 - >
 - > For example, in order to keep their vowels distinct, languages with
 - > lots of vowels have to make use of the periphery of the vowel space
 - > (which requires more extreme articulation: tighter lip rounding,
 - > higher high vowels, etc.) and keep their vowels in smaller portions of
 - > the vowel space (which requires more precise control over the
 - > articulation to prevent them from bleeding over into neighboring
 - > vowels).
 - >
 - > In contrast, languages with smaller vowel inventories can use more
 - > centralized realizations (away from the articulatory extremes,
 - > allowing for less intense rounding or vowel heights) and allow for
 - > wider variation in the pronunciation of a given vowel (since there is
 - > less crowding of the perceptual space).
 - >
 - > (Compare the pronunciations of /i u a/ in French and German to the
 - > pronunciations in Arabic, for example.)
 - >
 - > You might then wonder why languages don't eventually settle on the
 - > smallest inventory possible (say, just /@/). Then the language runs

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- > into another conflict: with only one vowel, words will either be
- > longer or the language will have an inordinate amount of homophones.
- > Either way, the overall system would still be suboptimal, just in a
- > new way.
- >
- > And so it goes, cycling endlessly: the language is suboptimal, but the
- > only way to correct that is to make it suboptimal in some other
- > dimension.

Thanks for the clear exposition of Optimality Theory. As a non-member of the Pollyanna Leibniz club, however, I must look with some suspicion on the use of optimality to generate real-world models. I suggest instead Pessimality Theory as a first approximation to the mechanism of linguistic change. A given language acts spontaneously to maximize its capacity for ambiguity and miscommunication. A certain amount of ambiguity is tolerated, but when the ambiguity of a particular class of utterances becomes too great, individual speakers are forced to fumble with makeshift provisions to resolve the ambiguity. At some point, a particular solution to a particular ambiguity will be adopted by a speaker's immediate circle, and if other speakers find the solution convenient, it will spread to the wider community. On the other hand, the spread of a particular solution can be blocked when it runs into a rival solution spreading from a different center. With many ambiguities resolved by different solutions in different areas, eventually we have dialects. And new ambiguities continue to arise spontaneously, requiring new solutions, increasing the differences between dialects. At any given time, the overall ambiguity of a particular dialect is just barely tolerable to its speakers, and any additional ambiguity will precipitate further change.

- >> Or do you suppose they are too
- >> far from equilibrium to ever get there?...
- >
- > Given how drastically languages can change in just a matter of a few
- > hundred years, if there were any possible equilibrium points, we'd
- > have already reached them a long time ago.

Jespersen, as you must know, was a simplistic stadialist who thought that all languages were "progressing" toward a final optimized state of isolating monosyllables. (I wonder whether LSD has stumbled across him yet.) In reality, the notion of linguistic equilibrium is meaningless. Pessimality Theory offers the alternative of critical ambiguity, which is where real languages sit: their amount of ambiguity is barely tolerable.

- > Arguably, the true linguistic universals (having nouns and verbs,
- > having a way to express tense, having consonants and vowels, etc.)
- > *are* the equilibrium points, and we likely achieved them almost
- > immediately (in the grand scheme of things). Everything else lies at
- > the middle of a tug of war among multiple conflicting drives to
- > optimize. As long as our physiology remains roughly the same, we
- > won't achieve any new equilibrium points because there will always be
- > optimizing forces with suboptimal results.

In Pessimality Theory, the one fundamental drive is human laziness: the principle of least effort (so perhaps I am not so far from Leibniz and other extremists). The conflict arises because laziness operates on different scales. On the scale of the large community, laziness produces the spontaneous changes which act continually to increase ambiguity: merging of phonemes, reduction and loss of unstressed syllables, syncretism, polysemy, etc. On the scale of the individual speaker's immediate circle, laziness produces the conventional solutions to ambiguity which the speaker either invents or adopts, since it is tiresome to produce makeshift solutions to the same ambiguity every time. The tug of war is between macro-laziness and micro-laziness.

The outline of Pessimality Theory above is the simplest possible. In particular, it assumes no movement of people. In the real world, of course, people do move about, and this tends to reduce linguistic diversity. But this effect is still (pardon the expression) laziness at work.

• *Follow-Ups:*

- ◆ *Re: Are Linguistic Changes Accelerated by...*
◇ *From:* Nathan Sanders
- ◆ *Re: Are Linguistic Changes Accelerated by...*
◇ *From:* Brian M. Scott

• *References:*

- ◆ *Re: Are Linguistic Changes Accelerated by...*
◇ *From:* Darkstar
- ◆ *Re: Are Linguistic Changes Accelerated by...*
◇ *From:* Darkstar
- ◆ *Re: Are Linguistic Changes Accelerated by...*
◇ *From:* Herman Rubin
- ◆ *Re: Are Linguistic Changes Accelerated by...*
◇ *From:* Darkstar
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