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Glottochronology

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Glottochronology

Sprachen verändern sich im Lauf der Zeit, Wörter verschwinden oder ändern ihre Bedeutung und neue Begriffe kommen hinzu. Die Glottochronologie untersucht den Verfall der Sprachen, der sich ähnlich verhält, wie der radioaktiver Substanzen.

Cultural change is an *odd* thing. It always turns off in unexpected ways. Who in the 1930s would've thought that the continuing evolution of the automobile would *veer* away from *increasing* speed and toward *issues* of safety, comfort and reliability?

Try something much closer to the bone than even our cars. Try language. Languages steadily *mutate*, and where they go is as *unpredictable* as the automobile. The rate of mutation is just slow enough to be unnoticed. But leave a group of *articulate* young students and go home to watch a movie from the 1930s on TV. Then you can hear the change. You recognize the words, but many are no longer used in the same way. And *pronunciations* have changed.

The *common wisdom* says languages lose about one word in five every thousand years. But it's more than just words. Take a line of English verse that sounded like this in 14th century England:

Who so attendeth to that song
And leaveth the first, then doth he wrong.
Here's how that might come out in modern

English:

Whoever listens to that song,
And is first to leave, then he does wrong.

When I write the words, you *recognize* all of them – even the *archaic* ones. But I *doubt* that many listeners understood me when I spoke them as they were spoken centuries ago.

A linguist named Swadesh looked at this process of change in the early '50s, and he invented the new *term* glottochronology – literally, the timetable of *tongues*. He realized that the *decay* of any given language is like the decay of *carbon 14*. The replacement of words during, say, a century is proportional to the number of original words that'd *survived* up to that century. This doesn't include questions of pronunciation. We still count the German word *Kuh* and the English word *cow* as the same word.

Look what became of Julius Caesar's Latin. During two millennia it *evolved* into languages like Rumanian, Italian, French and Spanish. Portuguese is close to Spanish only because it's had less time to grow apart.

	<i>sporadic</i>
<i>strange</i>	<i>seriously</i>
<i>turn ... rising</i>	
<i>subjects</i>	<i>conclude</i>
<i>change...unforeseeable</i>	<i>structure</i>
	<i>*see list</i>
<i>eloquent</i>	
	<i>*see list</i>
<i>articulations</i>	
<i>normal sense</i>	
<i>know</i>	
<i>old-fashioned ... question</i>	
<i>word</i>	
<i>languages</i>	
<i>degeneration</i>	
<i>*see list</i>	
<i>remained</i>	
<i>developed</i>	

Anglo-Saxon English didn't change much right after the Battle of Hastings. The French kept speaking French in England while the English spoke their tongue. It was a century or so later before the French in England had learned the local tongue. That's when they began mixing the *occasional* French word into Anglo-Saxon, and our English began evolving *in earnest*.

Glottochronology is the mathematical study of these changes. The Battle of Hastings was certainly a turning point. And a linguist might *infer* that event from today's languages without ever having read about it. That's what linguists are doing today with Native-American languages. By comparing languages, they're trying to determine the *patterns* and dates of Native-American *migrations*.

All that leaves me to wonder if we might not one day be able to infer the arrival of the internal *combustion* engine by comparing today's cars with airplanes. ■

Prof. Dr. John Lienhard, University of Houston

<i>archaic</i>	<i>altertümlich, veraltet</i>
<i>articulate</i>	<i>gut verständlich</i>
<i>carbon</i>	<i>Kohlenstoff</i>
<i>combustion</i>	<i>Verbrennung</i>
<i>common</i>	<i>allgemein, normal</i>
<i>decay</i>	<i>Zerfall, Abklingen</i>
<i>doubt, to</i>	<i>bezweifeln</i>
<i>evolve, to</i>	<i>sich entwickeln, entstehen</i>
<i>in earnest</i>	<i>im Ernst, in der Tat</i>
<i>increase, to</i>	<i>steigern, erhöhen</i>
<i>infer from sth., to</i>	<i>aus etw. folgern, schließen</i>
<i>issue</i>	<i>Angelegenheit</i>
<i>migration</i>	<i>(Völker-) Wanderung</i>
<i>mutate, to</i>	<i>sich wandeln</i>
<i>occasional</i>	<i>gelegentlich</i>
<i>odd</i>	<i>seltsam</i>
<i>pattern</i>	<i>Muster, Struktur</i>
<i>pronunciation</i>	<i>Aussprache</i>
<i>recognize, to</i>	<i>erkennen</i>
<i>survive, to</i>	<i>überleben, sich halten</i>
<i>term</i>	<i>Ausdruck, Begriff</i>
<i>tongue</i>	<i>hier: Sprache</i>

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