# Laws of Sound

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# Abstract:

Language is a medium for human communication. Different linguists offered different laws of sounds. Basically the laws of sound deal with the sound changes in the history of language. Language is changeable. Many linguists termed the language change in different linguistic processes. The sound change process includes different elements. In this paper the sound laws presented by different linguists will be enlightened. For this discussion historical linguistic method will be used.

Keywords: Sound laws, Grimm's Law, Grassmann's law, Verner's law, Dahl's law, Fortunatov's law, Language change.

#### **0.0 INTRODUCTION**

Sound laws basically describe the sound changes in the history of a language. It refers to the rules of regular change or a series of related changes in the phonology of a language. Sound change refers to any process of language change that affects pronunciation (phonetic change) or sound system structures (phonological change). Sound change can consist of:

- The replacement of one speech sound by another
- The complete loss of the affected sound or
- The introduction of a new sound in a place where there had been none.

Neo grammarian introduced sound Laws to track the sound changes. It first arose towards the end of the 18th century. As the Proto-Indo-European language (PIE) broke up, its sound system diverged as well, as evidenced in various sound laws associated with the daughter Indo-European languages. The sound laws are:

- ▼ Grimm's law
- ▼ Grassmann's law
- ▼ Verner's law
- Dahl's law
- Fortunatov's law

#### 1.1 Grimm's Law

• Grimm's Law is about a set of sound change describing the PIE stops as they came to exist in Proto-Germanic.

• It establishes a set of regular correspondences between early Germanic stops and fricatives and the stop consonants of some other centum Indo-European languages (such as Latin and Greek).

• So, Grimm's Law refers to the systematic study and categorization of the consonant shifts that occurred between PIE and Proto-Germanic and eventually in English.

• As it is presently formulated, Grimm's Law consists of three parts, which must be thought of as the three consecutive phases with regard to a chain- shift.

1. PIE voiceless stops change into voiceless fricatives.

voiceless stops (p, t, k) > voiceless fricatives (f, q,h(x))

2. PIE voiced stops become voiceless stops.

voiced stops (b, d, g) > voiceless stops (p, t, k)

**3.** PIE voiced aspirated stops become voiced stops.

voiced aspirated stops (bh, dh, gh) > voiced plain stops

(b,d,g).

- In most Germanic languages the voiced fricatives become voiced stops.
- The chain shift can be abstractly represented as:
- $\label{eq:bharder} \square \qquad b^h \mathop{\rightarrow} b \mathop{\rightarrow} p \mathop{\rightarrow} f$
- $\Box \qquad d^h \to d \to t \to \theta$
- $\label{eq:gham} \Box \qquad g^h \mathop{\rightarrow} g \mathop{\rightarrow} k \mathop{\rightarrow} x$
- In the first stage
- ✓ /p/ (voiceless bilabial stop) became /f/ (voiceless labio-dental fricative)
- $\checkmark$  /t/ (voicless alveolar stop) became /q/ (voiceless interdental fricative)
- $\checkmark$  /k/ (voicless velar stop) became /h/ (voiceless velar fricative)
- In the second stage
- $\checkmark$  /b/ (voiced bilabial stop) became /p/ (voiceless bilabial stop)
- $\checkmark$  /ð/ (voiced alveolar stop) became /t/ (voiceless alveolar stop)
- $\checkmark$  /g/ (voiced velar stop) became /k/ (voiceless velar stop)
- In the third stage
- ✓ /bh/ (voiced bilabial aspirate) became /b/ (voiced bilabial stop)

- $\checkmark$  /dh/ (voiced alveolar aspirate) became /ð/ (voiced interdental stop)
- $\checkmark$  /gh/ (voiced velar aspirate) became /g/ (voiced velar stop)

## Places where Grimm's Law does not apply:

Direct borrowing of words after the consonant shift occurred:

- pedestrian, from Latin pedes, pronounced pedestrian, not fedestrian
- tenuous, from Latin tenuis, pronounced tenuous, not thenuous
- kanal, from Latin kanalis, pronounced kanal, not hanal.

# 1.2 Grassman's Law

- Grassmann's Law, named after its discoverer Hermann Grassmann, is a dissimilatory phonological process in Ancient Greek and Sanskrit which states that if an *aspirated consonant is followed by another aspirated consonant in the next syllable, the first one loses the aspiration.* For example:
- Sanskrit bhabhuva \* >babhuva\* 'became'
- Greek phéphuka\* >péphuka 'converted'

## 1.3 Verner's Law

- Verner's Law, in 1875, described a historical sound change that helped to account for the irregularities that are noticed in applying Grimm's Law.
- When Grimm's Law was applied as a rule for sound change, a strange irregularity was spotted in its operation.
- It describes a historical sound change in the Proto-Germanic language whereby voiceless fricatives \*f, \*p, \*s, \*h,  $*h^w$ , when immediately following an unstressed syllable in the same word, underwent voicing and became the fricatives  $*\beta$ ,  $*\delta$ , \*z,  $*\chi$ ,  $*\chi^w$  respectively.
- He observed that the voicing of voiceless stops and fricatives occurred when they were non-word-initial and when the vowel preceding them carried no stress in PIE. In general, his law claims that:
- /f/ (voiceless labiodental fricative) became /b/ (voiced bilabial stop)
- \* /q/ (voiceless interdental fricative) became /d/ (voiced alveolar stop)
- \* /h/ (voiceless velar fricative) became /g/ (voiced velar stop)
- \* /s/ (voiceless alveolar stop) became /r/ (alveolar trill)

PIE	*р		*t		*k		*k <sup>w</sup>		*s	
Grimm	*ф		*θ		*х		*x <sup>w</sup>			
Verner	*ф	*β	*θ	*ð	*х	*¥	*x <sup>w</sup>	*¥w	*s	*z

# JLIK

• One classic example of PIE \*t >PGmc \*d is the word for 'father'. PIE \*phater>PGmc \*fader (instead of expected \*faqer). The structurally similar family term \*b<sup>h</sup>rater 'brother' did indeed develop as predicted by Grimm's Law (Gmc. \*broqer).

#### 1.4 Dahl's Law

- Dahl's law is a sound rule in some of the Northeast Bantu languages, a case of voicing dissimilation.
- In the history of these languages, a voiceless stop, such as /p t k/, became voiced (/b d g/) when immediately followed by a syllable with another voiceless stop.
- For example, Nyamwezi has -datu "three" where Swahili, a Bantu language that did not undergo Dahl's law, has -tatu, and Shambala has mgate "bread" where Swahili has mkate.
- The law was named in 1903 by Carl Meinhof after the missionary Edmund Dahl, who had discovered it.

## **1.5 Fortunatov's law**

- F.F. Fortunatov (1848-1914), leader of the old Moscow school of linguists, had a share in the law which more normally bears only Saussure's name.
- He was, however, the first to enunciate another regularity of shift- this time in the sector of Old Indic consonantism.
- According to the law, when an '\*1' precedes {t, d, n} in a cluster, the two consonants merge and become a retroflex.
- Thus \*-lt- would become -t-, \*-ld- would become -d- and \*-ln- would become -n-.
- The PIE liquid ('l)'+dentals (t, th, d, dh)= cerebrals (t, th, d, dh) in combination with 'l' liquid become cerebrals(t, th, d, dh) in Sanskrit 'l' disappeared and the dental is changed into cerebrals but in the group 'r'+dental= dental remained and unchanged(l+t=t).
- Fortunatov's has taken into account the comparison between the Sanskrit word 'pata' (cloth) old slavonic 'palatino', Russion- 'polotno' (lines cloth). This comparison would bring back PIE form 'palta'. Palta= liquid +dental =cerebral 'pata' in Sanskrit. A few more illustrations are as follows:

PIE	Sanskrit			
paltos	pa ṭas			
kulth	kuṭhars			
palnis	pānis			
Lals	laşhmi			

#### 2.0 Conclusions

• Most of linguistics changes are so gradual that even the speakers are not conscious of the change when they take place. Even those changes that are the result of conscious innovations must be the result of some natural tendency, as otherwise they would not be adopted by the majority of these speakers of that language. Moreover, if one speaker modifies the language differently, the change will not be intelligible to others and hence will not be accepted and adopted by the society. Thus linguistics changes are, on the whole, regular. Therefore it is only by comparative and historical study of the languages that the formulation of definite laws of linguistics change comes into being and thereafter the explanations of the variations found in the dialects and cognate language is rendered.

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