

What sound change, phonotactics and aglossic speech reveal about the essence of speech communication

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Speech communication involves an exchange of elements between speaker and hearer. I argue that those elements – the ‘coin’ as it were – are acoustic modulations of the carrier signal. In support of this view I examine three domains. First, sound change should be examined for what does *not* change. For example, the reflexes of PIE *ekwos, “horse”: Latin *equus*, Greek *hippos* give evidence that what did not change in the medial stop was transitions having low F1 and F2. Second, common cross-language phonotactics show that robust acoustic modulations are characteristic of those sequences that are common and persist (e.g., ta, twa, sta, etc.) whereas weak modulation are characteristic of those that are absent or rare (e.g., wu, ji, bw-, etc.). Third, studies going back to 1630 of aglossic speech (speech without a tongue) testify that speech produced without this organ is quite intelligible. Although the articulations in such cases may not resemble those in intact speakers, the sounds produced are similar enough to be recognizable. The listener is an equal partner in the exchange of these basic elements of speech and attends particularly to moments in the speech signal where there are rapid modulations in any of several acoustic parameters: voicing, amplitude, periodicity, spectrum.