What's in a word? Cognitive-linguistic, Neuroscientific, AI, Psycholinguistic, and Usage-based perspectives.

What's in a word? Saussure (1916) emphasized <u>signification</u>, Firth (1957) "you shall know a word by the <u>company</u> it keeps", and Wittgenstein (1953) "in most cases meaning is <u>use</u>". Where are these ideas now and what their educational implications?

<u>Signification</u> Saussure encouraged the scientific study of signs as part of social life. Signs are associations (signifier-signified) between words and concepts. Imageable concepts are grounded in perceptual memory systems. Peirce (1991) extended semiotics to emphasize how interpretants can differentially perceive the same environment. Neuroimaging illuminates these lexical semantic associations in the brain, their nomothetic tendencies and their personal idiographies (Huth, de Heer, Griffiths, Theunissen, & Gallant, 2016; Schrimpf, …, & Fedorenko, 2021).

<u>Company</u> Cognitive linguistics explores lexical, collocational, phrasal and syntactic constructions and how they combine to make meaning (e.g., Dabrowska & Divjak, 2015; Robinson & Ellis, 2008). Corpus linguistics shows (1) some constructions are more frequent than others; (2) the phrase is the usual unit of meaning. Psycholinguistics demonstrates how the conspiracy of accumulated usage underpins our language system (Ellis, O'Donnell, & Römer, 2015). Firth's view is supported by (1) AI Large-Language-Models like GPT-3, which know nothing of worldly referents, producing essays that are Turing-test-indistinguishable from human authors', Psycholinguistic demonstrations that inflectional morphology is better provided on words reliably so inflected (Ellis, 2022).

<u>Usage</u> Wittgenstein (1953) analyzed the social negotiations involved in language, hence current transdisciplinary/ emergentist / usage-based perspectives on language acquisition in multilingual societies (Douglas Fir Group, 2016; Ellis, 2019). There are strong parallels between Wittgenstein's Language Game and well-considered L2 vocabulary courses (e.g., Webb & Nation, 2017). We live in a world of words.

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