Good vibes: The sounds of a word predict its valence

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Abstract: Language evolved in a dangerous environment with limited resources. Under such conditions, an effective language should exhibit two key properties: (1) it should have distinct sounds indicating dangers and opportunities, and (2) those sounds should be evident immediately. We report a large-scale regression study suggesting that current languages exhibit these two properties. Among 2000 unique English words we found that (1) the phonemes of a word significantly predict its valence, and (2) the initial phoneme fully accounts for this effect. Manner and place of articulation both contribute to this effect, with voiced consonants (e.g., /g/ as in good) and dental consonants (e.g., /t/ as in top) predicting word valence. We also found significant phonetic regularities among 1034 Spanish affective words. Notably, however, the two languages mark valence with different phonemes. These findings indicate that individual phonemes convey affective information, and that the specific affective phonemes vary across languages.