

Klingon sounds evil, Quenya sounds pleasant? Perception of constructed languages among Cantonese, English, Japanese, and Mandarin Chinese native speakers.

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Several studies have shown that human beings associate sounds found in natural languages with sensory experiences, such as brightness, colours, speed, or taste (Lockwood & Dingemanse, 2015), suggesting that the linguistic sign is in fact not entirely arbitrary (de Saussure, 1916). The association between shapes and speech sounds seem to be stable crosslinguistically regardless of cultural background or writing systems (Lockwood & Dingemanse, 2015; Ćwiek et al., 2022), and related to such factors as the vowel height and roundness, the consonant voicing, the vowel to consonant ratio and the frequency of open syllables.

The current experimental study has a twofold aim. Firstly, we investigate whether participants with different L1 (Cantonese, English, Japanese and Mandarin Chinese) rate constructed languages differently on various scales and whether divergences in rating results can be explained through phonological features of the participants' L1. We take into account features such as sonority, based on the sonority index (Fought et al., 2004), the syllable structure, vowel to consonant ratio and the occurrences of certain phonemes, for instance, back vowels (Bloomfield, 1909). Differences in rating results would suggest that the perception of the language aesthetics depends on the linguistic background, in this case, the native tongue.

Secondly, Reiterer et al. (2020) found that familiarity with a language results in its more positive assessment. In our experiment, we reduce the factor of familiarity with a language by using constructed languages, which are less known to the public. Therefore, we are able to concentrate on the effect of the phonological and phonetic resemblances. We assume that the more similar the phonological system of a constructed language is to the participants' native tongue, the more positively that language will be assessed.

For our experiment, we chose three sentences in each of the following 14 constructed languages: Adûnaic, Atlantean, Dothraki, Fjerdan, Horn, Kesh, Khuzdul, Klingon, Na'vi, Orkish, Quenya, Sindarin, Vulcan, and ?Ui?uid. Each of the sentences was recorded by a female and a male speaker spoken in a neutral voice without any emotional involvement. The participants were asked to rate the randomized stimuli on three 7-point Likert scales: good – evil, pleasant – unpleasant, peaceful – aggressive. The experiment was hosted on the browser-based Percy platform (Draxler, 2011).

In total, 158 participants (25 Cantonese, 37 English, 36 Japanese, 63 Mandarin Chinese) completed the online experiment. The ratings given by the four groups of participants demonstrate several differences suggesting that the perception of constructed languages depends on the L1 knowledge. While the English and Japanese speakers found the sound of Quenya most pleasant, Kesh received the most positive ratings from the speakers of Cantonese and Mandarin Chinese. Interestingly, Klingon was rated most negatively by all four groups of participants. To explain the differences in ratings we evaluate the correlations between the rating results and various phonological/phonetic features of the investigated constructed languages and participants' L1. Although the results are not always clearly interpretable, it can be generally stated that it is easier to discern what is considered to sound unpleasant than euphonious.

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