An experiment on 'cute' vowels in Japanese: The Babyishness Hypothesis

Introduction: Cuteness is a research topic that is actively investigated not only in psychology and sociology but also in linguistics. Recently, there is a growing body of studies showing what is in cute name (e.g. Jang 2025; Kumagai 2022; Motoki et al. 2025). These studies have addressed this question from the perspective of sound symbolism, or a phenomenon in which a sound conveys a particular meaning (Hinton et al. 1994).

A previous experimental study with German speakers has revealed that /a, i/ can be associated with cuteness (Schmitz et al. 2023). However, no research has targeted other language speakers, such as Japanese. The present study aims to fill this gap.

Methodology: To examine what vowel can be associated with cuteness in Japanese, the present experiment compared /a, i/ with /u, e, o/ and /a/ with /i/. The two questions addressed in this study are presented in (1):

(1) a. Which vowel group is associated more with cuteness, /a, i/ or /u, e, o/?
     b. Which vowel is associated more with cuteness, /a/ or /i/?

The task was that, given a pair of two nonce words, participants were asked which name sounds cuter than the other. This experiment presented 16 pairs of stimuli for each question (e.g. *minari* vs. *monere* for (1a); *manara* vs. *miniri* for (1b)). Additionally, this experiment examined whether consonants that surround vowels affect cuteness judgment. In particular, it compared sonorants (son) with voiceless obstruents (obs). A total of 150 native speakers of Japanese completed the task online.

Results: The rates for the target stimuli (e.g. /a, i/ for (1a); /a/ for (1b)) were as follows: 0.552 (son) and 0.688 (obs) in (1a), and 0.462 (son) and 0.524 (obs) in (1b). The results showed that, for Set 1, the participants tended to select /a, i/-containing words at the rate above the chance level (=0.5) as cuter names. Additionally, /a, i/-containing words were perceived as cuter names when they contained voiceless obstruents than when they contained sonorants. For Set 2, /a/-containing words were considered cuter names in the voiceless obstruent condition, while /i/-containing words were considered cuter names in the sonorant condition. Statistically, however, this difference was not credible.

Discussion: The present experiment suggests that /a, i/ can be associated more with cuteness in Japanese, which is consistent with the result of Schmitz et al. (2023). The present results can be explained by the Babyishness Hypothesis, which refers to the early-acquired sounds are associated with images of babies or cuteness. There are universally fixed orders in language acquisition (Jakobson 1968). For vowel acquisition, first, the wide vowel is opposed to a narrower vowel (*a* vs. *i*), and then the third vowel emerges. Considering this, /a, i/ are considered as early-acquired sounds, which can be associated with the image of babies or cuteness. Whether this hypothesis holds across languages should be tested as future research.