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Associative learning of new word forms in a first language and gustatory stimuli

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Abstract

This study investigated the effect of gustatory stimuli on the associative learning of new (meaningless) word forms in a first language. Japanese native speakers performed the following tasks: (1) subjective evaluations of gustatory stimuli; (2) learning tasks of associative pairs of a new word form and gustatory stimulus (G) or only new word forms (W); (3) recognition memory tasks associated with the G/W condition; (4) free recall task for the G/W conditions. The accuracy rates of W were highest, whereas there was no significant difference between free recall scores. Subjective evaluations of gustatory stimuli negatively correlated with the free recall performance of word forms associated with the gustatory stimuli, while accuracy rates of the recognition and free recall tasks of G were positively correlated. Accordingly, learning new word forms on their own is more effective than associative learning of new word forms and gustatory stimuli in one day of learning.