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Facilitating effect of finger movements on artificially generated front vowels

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Abstract

Previous studies have found that front vowels facilitate finger movement better than back vowels. The previous experiments were conducted with human voices. The aim of this preregistered experiment was to see if the same results as in the previous studies could be achieved with artificially generated vowels. In the experiment, the task was to press the key on the keyboard that corresponded to the vowel sound heard. The results showed that there was no difference in the percentage of correct responses, but the response times were relatively short for the front vowels (especially for /i/), compared with the back vowels (i.e., /u/ and /o/). Even when we conducted another experiment in which we used long vowels to make pronunciation clearer, we also obtained the similar results. The results suggest that artificially generated voices can facilitate finger movements similar to listening to human voices.

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