

## A study towards multilingual singable song

### 多言語で歌唱可能な楽曲に関する研究

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This study proposes a method of singing a song in multiple languages simultaneously by applying the phenomenon of soramimi. So far, there have been songs that incorporate soramimi in their lyrics and research that automatically generates soramimi, but there has been no idea or actual example of singing a song in multiple languages by applying soramimi phenomenon.

The Japanese lyrics of Kyu Sakamoto's "上を向いて歩こう" were converted into English soramimi lyrics using Web Speech API Speech Recognition. International students, whose Japanese is not good, evaluated these soramimi lyrics and confirmed that they sounded original lyrics to some extent, and the results were used to determine the soramimi lyrics to be sung in the next experiment. In the next experiment, participants compare to sing the Japanese lyrics written in romaji and the soramimi lyrics, and the ease of singing the soramimi lyrics was investigated. In the final experiment, soramimi lyrics were created for Chinese and Russian using the same method. Participants who can speak Japanese, English, Russian, and Chinese sang the song "上を向いて歩こう" simultaneously with the soramimi lyrics in each language, and their singing experience was evaluated, thus the possibility of singing a song simultaneously in multiple languages were presented.

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