

Flexibility of vowel categorisation in newly learned words

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Listeners can accommodate variation from a range of speakers and contexts to decode the speech signal. Theories differ regarding whether this variation is removed early in processing (e.g. McClelland & Elman, 1986) or coded into lexical representations (e.g. Goldinger, 1998), and whether prior exposure to variation improves future comprehension (e.g. Cooper & Cooper, 2023). These questions are particularly relevant in word learning; new lexical representations may be based on experience from a single context or speaker, thus formed with minimal variation.

This study examined how listeners from monodialectal backgrounds would identify variants of newly learned monosyllabic words that differed in their central vowel. A group of Standard Southern British English (SSBE) speakers and a group of New Zealand English (NZE) speakers were taught new words containing DRESS and LOT vowels from their respective native varieties. Another SSBE-speaking group learned the words in both varieties simultaneously. In the test phase, participants were then asked whether vowel variants of these words were correct pronunciations.

Acceptance and response time results indicate that participants were able to accept substantial variation in vowels, with minimal processing costs, even in words learned with strict vowel uniformity. This supports the argument that vowel perception is uniquely flexible (Cooper & Cooper, 2023; Shaw et al., 2018). However, the group who heard the unfamiliar NZE dialect during training accepted NZE variants at a near-native level. This suggests that speech perception can readily handle some variation, but prior exposure facilitates this further. Hybrid theories of speech perception (e.g. Goldinger, 2007) are therefore supported.

References

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