Learners of Japanese often have difficulties acquiring the contrast between geminates and non-geminates. This issue is widely discussed and many previous studies have been done from different perspectives. For instance, studies show that in production, learners have difficulties implementing the contrast (Han 1992). In perception, a study shows that contextual variance and learners’ proficiency are relevant: beginning learners have difficulties distinguishing well between singleton and geminate consonants (Hardison and Motohashi-Saigo 2010), suggesting that they have not yet established separate categories. However, one study shows that learning this contrast is possible after training (Tajima et al., 2008). What has not been yet investigated is the degree to which this contrast between geminate and non-geminates is encoded in learners’ lexical representations. The goal of the present research is to investigate the acquisition patterns for geminate vs. non-geminate contrasts from both the categorization and the encoding perspective, in two groups of American English learners of Japanese. Fourteen advanced learners (third and fourth year level or associate instructors), nine beginners (first year level) and eleven native speakers of Japanese as a control were tested. Three different tasks were used: (i) a classical ABX task probing the distinction between geminates and non-geminates, (ii) an ABX task where listeners had to ignore the length distinction (i.e. geminate or non-geminate), and (iii) a lexical decision task examining learners’ lexical representations. Both reaction times (RT) and error rates were measured. In the first ABX task, where listeners had to use length contrasts to perform accurately, the subjects were asked to judge whether the third stimulus was similar to the first or the second one. Test triplets differed only in the length of one consonant (e.g. mete, mette, mette). In the control condition, stimuli triplets differed in vowel quality (e.g. moke, moki, moki). Error rates on the test stimuli were lowest for native speakers (4.2%), followed by beginners (6%) and advanced learners (6.2 %). On the control condition, the groups were similar. The RT patterns show that the advanced learners were faster than the beginners, but were equal to the native speakers. In the second ABX task, listeners were asked to ignore length differences between stimuli while judging similarity (see Dupoux et al., 1997). In this task, triplets differed in length and vowel quality (e.g. kepa, keppo, keppa). In this case, kepa and keppa are similar if the subjects correctly ignore length. If listeners automatically encode length contrasts, performing accurately on this task is very difficult. Hence, we expected higher error rates and RTs for native speakers than for the learners. The task was expected to be easier for learners, for whom length may be an irrelevant dimension of the stimuli. Error rates were higher for the native speakers (12.1%) and beginners (12.5%); advanced learners were more accurate on this task (7.4%). RT data show no drastic difference between the learners and native speakers. In the lexical decision task, listeners had to decide whether the stimulus they hear is a real Japanese word. Nonwords were created based on real words by changing the length of the consonant to either a geminate (e.g. itsu ‘when’ vs. itsu, nonword) or a non-geminate (e.g. yuukkuri ‘slowly’ vs. yukuri, nonword). If there is a degree of lexicalization in accordance with learners’ proficiency, the advanced learners would be more accurate. Results showed that advanced learners made fewer errors than beginners on words (6% vs. 24%: non-geminate, 14.8% vs. 43.1%: geminate), but they were comparable on non-words (54.9% vs. 52.4%: non-geminate, 46% vs. 51.6%: geminate); both learner groups made more errors than native speakers for both words (22% (learners) vs. 4.2% (native speakers) and non-words (51.2% (learners) vs. 13.5% (native speakers)). In conclusion, we observe a clear dissociation between the ability to discriminate geminates from non-geminates - for which all learners performed very well, corroborating previous studies - and the ability to encode this difference in long-term lexical representations - for which all learners had difficulties. In addition, the results suggest that advanced learners of Japanese are in the process of successfully acquiring this contrast.
Selected references


