Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

SHAN LUO

MA (Nankai University, 2010)
BA (Nankai University, 2007)

“Gestural overlap across word boundaries: Evidence from English and Mandarin speakers”

Department of Linguistics

January 14, 2016
10:00 A.M.
David Turpin Building
Room A140

Supervisory Committee:
Dr. Hua Lin, Department of Linguistics, University of Victoria (Co-Supervisor)
Dr. Sonya Bird, Department of Linguistics, University of Victoria (Co-Supervisor)
Dr. John Esling, Department of Linguistics, UVic (Member)
Dr. Tsung Cheng Lin, Department of Pacific & Asian Studies, UVic (Outside Member)

External Examiner:
Dr. Alexei Kochetov, Department of Linguistics, University of Toronto

Chair of Oral Examination:
Dr. Micaela Serra, Department of Computer Science, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies
Abstract

This research examines how competing factors determine the articulation of English stop-stop sequences across word boundaries in both native (L1) and nonnative (L2) speech. The two general questions that drive this research are 1) how is consonantal coordination implemented across English words? And 2) is this implementation different in L1 versus L2 speech?

A group of 15 native English (NE) speakers and a group of 25 native Mandarin speakers (NM) who use English as a foreign language (ESL) participated in this study. The stimuli employed in this research were designed along four major parameters: 1), place of articulation; 2), lexical frequency; 3), stress; 4), speech rate. The release percentages and closure duration ratios produced by English and Mandarin speakers were measured.

The results showed that place of articulation had different effects on English and Mandarin speakers in their English stop-stop coarticulation, especially in heterorganic clusters. Specifically, a place order effect (i.e., more releases and more overlap in front-back clusters than in back-front clusters; POE) was only partially supported in native speech but not shown at all in nonnative speech in the current research. The results also confirmed a gradient lexical frequency effect, finding a significant correlation between self-rated frequency and overlap. A group difference was observed in the interaction between the effects of place of articulation and categorical frequency (real words vs. nonwords). In addition, the results showed, unexpectedly, a stronger stress effect for the NM group rather than for the NE group. Further analyses showed that increased speech rate did not systematically induce increased temporal overlap, because speakers from both groups varied in their behavior, having either more or less overlap at the fast speech rate than at the slow rate. Lastly, the analyses found no correlation between closure duration ratio and perceived accent in L2 speech. This finding was not predicted, given that timing features had always been considered critical to foreign accent perception.