# Factors affecting voice onset time in English stops <br> English proficiency，gender，place of articulation，and vowel context ［影響英語塞音嗓音起始時間的因素： <br> 英語程度，性別，發音位置和元音特性］ 

Chun－yin Doris Chen［陳純音］，
Wei－yun Winona Liu［劉偉昀］and
Tzu－Fen Nellie Yeh［葉慈芬］
National Taiwan Normal University［國立臺灣師範大學］

This study investigates the voice onset time（VOT）of L2 English stops produced by native speakers of Chinese at different L2 proficiency levels．Four factors were examined：English proficiency， gender，place of articulation，and vowel context．High and low achievers of English were recruited as the experimental groups and native speakers of English as the control group．Each group consisted of 16 participants， 8 males and 8 females．Each participant took part in a read－aloud task，in which the target words were presented in an embedded sentence．The results showed that the effects of L2 proficiency were significant in that high achievers outperformed low achievers who were affected by L1 negative transfer more seriously when producing native－like English stops．Additionally，when producing English stops，velar stops had significantly greater VOT values than either bilabial or alveolar ones．However，no significant gender differences were found．Male and female participants produced similar VOT values in English stops．Last，the vowel context was also a significant factor． The VOT lengths differed according to the context of a following vowels．More specifically，the VOT of a stop is significantly longer when followed by a tense vowel．

Keywords：English stops，VOT，English proficiency，gender，place of articulation，vowel context關鍵詞：英語塞音，嗓音起始時間，英語程度，性別，發音位置，元音特性
https：／／www．jbe－platform．com／content／journals／10．1075／consl．22040．che
https：／／doi．org／10．1075／consl．22040．che Concentric 49：2（2023），pp．316－349．ISSN 1810－7478｜
E－ISSN 2589－5230 © 2023 Department of English，National Taiwan Normal University

