How classifiers facilitate processing in L2 Chinese

Theres Grüter¹, Elaine Lau² & Wenyi Ling¹

¹University of Hawaii at Manoa, ²The Chinese University of Hong Kong

L2 processing has been argued to rely more on lexico-semantic and less on grammatical information than L1 processing (FelserEtAl2003, VanPatten2004). Chinese classifiers provide a unique opportunity to test this claim. Shape classifiers (e.g., ‘long/narrow’) generally co-occur with nouns denoting objects with the relevant shape properties (e.g., ‘rope’). Yet most classifier classes also contain nouns not obviously matching these features (e.g., ‘dog’; in ‘long/narrow’ class); for these, classifier-noun co-occurrence constraints are largely agreement-like (similar to Det-N gender-agreement). Using the visual-world paradigm, Tsang and Chambers (2011; ‘T&C’) investigated to what extent native Cantonese listeners derive predictions from semantic vs. grammatical/form-class constraints on classifier-noun co-occurrence. They found classifiers facilitated Cantonese speakers’ processing “primarily through their grammatical constraints”, with little distraction from competitors matching the classifier only in semantics but not form-class (e.g., ‘wristwatch’, which is long/narrow, but cannot co-occur with ‘long/narrow”). If semantics plays a stronger role in L2 processing, we predict larger competition effects from such competitors among L2 listeners.

We test this prediction in a Mandarin adaptation of T&C’s experiment. Participants listened to questions (1) while viewing scenes containing a (non-prototypical) target (e.g., ‘dog’), competitor and distractor (Fig1). Competitors differed by condition, representing either a member of the target classifier class (‘rope’; G+S+), a member of a different class with some of the target class’ semantic properties (‘wristwatch’; G-S+), or an entirely unrelated noun (‘apple’; G-S). In the L1 group (n=24), eye-gaze patterns (Fig2) in the G-S+ and G-S- conditions align, indicating no influence of classifier-semantics from class-inconsistent competitors. In the L2 group (19 L1-English advanced learners; data-collection on-going), the G-S+ and G+S+ conditions align, suggesting L2ers are influenced by classifier-semantics regardless of grammatical noun-class constraints. These patterns (supported by mixed-effect regression models) provide support for greater reliance on lexico-semantics in L2 vs L1 predictive processing.
(1)  Nǎ yī tiáo shì gǒu?
Which one  CL_{LONG-THING} is dog?
‘Which one is a/the dog?’

Fig 1. Visual scenes

Fig 2. Difference in proportion fixations to target vs competitor, by Condition and Group. (A positive value indicates more looks to the target than to the competitor, a negative value indicates more looks to the competitor; zero indicates an equal proportion of looks to the target and the competitor.)
References