Does Object Visualization Affect Classifier Choice?
Findings from Phrase-based and Picture-based Ratings

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In Mandarin, unlike mensural classifiers, which are used to quantify an object noun, sortal classifiers are used to reveal the essential semantic features of an object noun (Chen & Her 2020). Since an object noun can have several prominent inherent features, it can be highlighted by different sortal classifiers. For instance, the sortal classifiers 尾 *wěi* and 隻 *zhī* can both co-occur with 魚 *yú* 'fish'. The former profiles the tail as a part of fish's body, while the latter denotes the characteristic of the animal (Her 2012). In addition, 尾 *wěi* is a well-defined classifier for this noun, given its characteristics that is shared by all objects (i.e., fish). On the other hand, 隻 *zhī* is an arbitrary classifier, since it lacks specific defining attributes and fails to evoke a sense of unity (Gao & Malt 2009). Such a pairing between nouns and classifiers is in fact associated with human cognitive bases (Tai 1994; Her et al. 2022). Therefore, we hypothesize that language users tend to choose the classifier that most closely matches the prominent feature in their mental picture of the object noun. Accordingly, ten groups of nouns and their arbitrary classifiers and well-defined classifiers were pre-selected based on the norming studies (i.e., a survey and a semantic feature generation task). We then created four sets of questionnaires using an online software *Psytoolkit* (Stoet 2010, 2017). Each questionnaire contained two tasks (i.e., picture and phrase-based classifier ratings). Taiwan Mandarin native speakers (n = 83) were randomly distributed one of the questionnaires and were asked to rate the stimuli (n = 20) using the five-point Likert scale. We used the repeated measures ANOVA and the paired samples t-test to analyze the results. The results corroborate our hypothesis. The mean score is higher when the nouns are paired with their well-defined classifiers, compared to that with arbitrary classifiers. Moreover, the difference between the two types of classifiers is highly significant (F (1,79) = 12.835, p < .001). Thus, native speakers choose the classifier based on the prominent feature, when more than one sortal classifier is available among the options. This study not only confirms existing cognitive accounts of classifier selection, but also contributes new psycholinguistic evidence by experimentally demonstrating how feature salience influences classifier choice. By grounding typological and semantic distinction in behavioral data, our findings extend current theoretical frameworks and open avenues for further processing-oriented research on classifier system.

Word counts: 400

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