

## **Comprehension of Mandarin Headless and Headed Relative Clauses**

Yowyu Lin & Susan M. Garnsey

University of Illinois at Urbana-Champaign

Speakers of both English and Japanese generally find object relative clauses harder to understand than subject relatives (though the evidence has recently become mixed for Japanese; Ishizuka, Nakatani, & Gibson, 2006). Although these two languages differ in many ways (e.g., default word order, whether relative clauses follow or precede the head nouns they modify, etc.), they have in common the property that subject relatives more closely approximate the default clausal word order pattern than object relatives do. In contrast, in Mandarin it is object relatives that more closely approximate the default word order pattern, which is one of several factors leading Hsiao and Gibson (2003) to predict that object relatives should be easier than subject relatives in Mandarin. They collected reading time data providing some support for their prediction, but the results were not strong, and other researchers have argued that other kinds of differences between subject and object relative clauses lead to the prediction that subject relatives should be easier to process in all languages, and have found evidence in support of that prediction for Mandarin (Lin & Bever, 2006).

In two reading time studies of Mandarin native speakers, we found that object relatives were generally read more quickly than subject relatives, supporting Hsiao and Gibson's prediction. In addition, we took advantage of the fact that it is possible to drop the head noun in Mandarin relative clauses, in order to create additional temporary structural ambiguity in our sentences. We manipulated the animacy of a noun whose position in the sentence suggested it was the head noun of a relative clause, but which turned out not to play that role, as a way to investigate the role of plausibility in the resolution of temporary ambiguity in Mandarin. We found that Mandarin speakers were able to use animacy information immediately to rule out some of the possible interpretations of a temporary ambiguity. We also found that differences between subject and object relatives continued throughout the sentences when the nouns in the sentence were more potentially confusable with one another (i.e., because they were all animate), but disappeared after the relative clause when they were less confusable (because some were animate and some inanimate). This is consistent with claims about the role of similarity-based interference during sentence comprehension (Gordon, Hendrick, & Johnson, 2001, 2004; Warren & Gibson, 2002; Lewis, Vasishth, & Van Dyke, 2006).