LIMITED PREDICTION IN SENTENCE COMPREHENSION OF A VERB-FIRST LANGUAGE: THE CASE OF TAGALOG

Most of our scientific knowledge about how humans process language comes from psycholinguistic experiments on major world languages like English. A large body of evidence suggests that comprehenders interpret an incoming sentence incrementally and predictively. They may make incorrect predictions about a sentence's meaning based on partial input and thus have to revise as new evidence arrives. An important question is how comprehenders adapt to this situation and balance incrementality and uncertainty; and particularly, how they use grammatical knowledge to do so. This study examines this question with respect to verbal agreement in Tagalog, a Philippine language. It has features that differ from those of the languages most often studied in psycholinguistics: (1) the word order is verb-first, Verb-Subject-Object or Verb-Object-Subject; (2) the verb (e.g., "kain" eat) can agree either with its subject ("kUMain") or its object ("kINain"). This study asks whether UM and IN facilitate comprehension by allowing speakers to refine their predictions about the incoming input. To answer this, we compare the time course of how speakers comprehended sentences with UM/IN and those without. Experiments 1 and 2, which isolated the contributions of UM and IN, respectively, crossed Agreement (Present, Absent) and Plausibility (Plaus, Implaus), and used the Stops-Making-Sense paradigm, a self-paced reading task in which subjects view a sentence one phrase at a time. They can abandon the sentence at any time if it "stops making sense." Sentences were designed to be nonsensical in a way that is only apparent when subjects have parsed enough of a sentence. When they indicate that the sentence stops making sense, we can infer they have comprehended as much of the sentence as has been presented. In experiment 1, subjects were better at rejecting implausible sentences when the verb had UM than when it did not. This is evidence that UM facilitates comprehension. In experiment 2, there was no evidence that IN did. Subjects reserved rejection until direct evidence confirmed its implausibility. Reading times analyses, however, suggest that they were at least sensitive to the implausibility. We argue that UM and IN do guide the comprehenders' predictions but their effect is mediated by other factors, like the availability of alternative parses. Agreement cues strongly constrain interpretation in Tagalog, so a remaining question is why its effects were relatively attenuated. We conjecture that comprehenders are less aggressively predictive because of its verb-first word order.