Chapter 14 Psycholinguistics
John W. Schwieter

"Delving Deeper"

Main clause strategy

Besides the minimal attachment and late closure parsing strategies we spoke about in 14.2.3, there is another strategy worth mentioning called the **main clause strategy**. This strategy states that the first NP + V combination in a sentence is parsed as the main clause of the sentence unless the verb is marked as subordinate.

According to the main clause strategy, there are two stages that occur in processing sentences. The first stage will conform to working memory limitations and thus will attempt to process the first five or six words. During this analysis, the parser is trying to assign categories to the words seen and also "bundle" them together as syntactic constituents. The second stage takes these bundles and builds an entire sentence that conforms to the syntactic rules of the language.

Context and pragmatic considerations in language processing

In the chapter, you have read about language processing at the sound, word, and sentence level. But you may be wondering about how discourse and information higher than the sentence level is processed (i.e., things like pragmatics and contextual appropriateness). Although much less work has been done in this area, some interesting findings have been uncovered.

A recent study by Kourilova-Urbanczik (2012) sought to compare the pragmatic and discourse patterns between non-native speakers of English and native speakers. They focused their study on scientific papers in academic journals, which they note are written by non-native English speakers at least 50% of the time. Kourilova-Urbanczik hypothesized that "misinterpretation of messages is to a great extent due to the non-native speaker's pragmatic failure, i.e. lack of ability to grasp how resources of a language code are put to use in the production of scientific discourse" (p. 105).

In her analysis of published scientific papers written by non-native speakers, Kourilova-Urbanczik identified several deficiencies that typically were not due to grammatical errors but rather to pragmatic processing problems. She states: "the shortcomings are frequently caused by the non-native speakers' pragmalinguistic and sociocultural failure to master the organizational conventions of discourse processing and the broad repertoire of devices" (pp. 14-15).

Modelling and predicting accuracy of reading aloud

As early as the 1970s and informed by dual-route processing views model attempted to explain reading aloud. Based on decades of research, Coltheart et al.'s (2001) Dual-Route Cascaded Model might be the most comprehensive explanation to outline this procedure among both monolinguals and bilinguals.

Work by Coltheart et al. (2001) and Castles, Bates, and Coltheart (2006) has shown strong support for a computational formula which allows one to predict the reading accuracy of an individual. The prediction is based on how well the participant performs on reading lists of real and non-real words. The Dual-Route Cascaded Model is highly reliable in simulating both lexical decision and sentence processing while reading aloud. These simulations have been supported among distinct populations, including young normal readers, children with developmental dyslexia, stroke patients with brain damage, and patients with acquired alexia. To read more about language disorders and the brain, see Chapter 15 Neurolinguistics.

Psycholinguistic aspects of speech-language pathology

Students in introductory linguistics courses often enjoy reading about the study of speech-language pathology. Conversely, clinical programs in speech-language pathology may require students being admitted to their program to have completed an undergraduate-level course in phonetics and/or linguistics. There is without a doubt an important relationship between linguistics and speech-language pathology. One important paper recognizing this relationship is by Baker et al. (2001) who state that psycholinguistic approaches "explicate the way in which children process speech and language at a cognitive or psychological level and thus aim to formulate hypotheses about the psychological processes or components that may be impaired" (p. 686). Baker et al. (2001) review important psycholinguistic models of speech development. The authors draw on these models to make predictions for clinical practice. For example, they argue that speech-language pathologists could be explicitly taught about how psycholinguistic approaches can benefit assessment and treatment of language disorders.

References

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