

What is “Good-Enough” about the processing of garden-path sentences in Czech

Jan Chromý (Charles University, Faculty of Arts)

The paper is concerned with the idea of Good-Enough processing of garden-path sentences (GPs) which was first presented by Christianson et al. (2001). In that study, participants were shown GPs like *While Anna dressed the baby that was small and cute spit up on the bed* and were asked questions like *Did Anna dress the baby?* 65.6% participants answered the question incorrectly whereas only 12.5% participants gave the wrong answer on the same question after a control sentence with a different clause-order. The authors argue that the participants create a “good-enough” representation of these sentences.

The paper aims to analyze what is “good-enough” on these representations. I ran two self-paced reading experiments using GPs in Czech (1a) and control non-GPs (1b).

(1a) *Kluci honili psa a kočku v podkroví znepokojovali šediví hlodavci.* (‘Kids chased a dog, and grey rodents in the attic worried a cat.’)

(1b) *Kluci honili psa a kočka v podkroví znepokojovala šedivé hlodavce.* (‘Kids chased a dog, and a cat in the attic worried grey rodents.’)

These sentences differed so that a garden-path effect was possible in (1a) (noun *kočku* could have been analyzed as an object of verb *honili* at first) but not in (1b) (noun *kočka* is a nominative and hence it cannot be an object in Czech – it is a subject of the second clause).

In Exp1, I used the self-paced reading. After reading each sentence, I asked either a question (2a) *Did the kids chase a cat?* or (2b) *Did the rodents worry the cat?* (2a) asked whether the original GP interpretation lingered and (2b) asked whether participants formed a correct interpretation of the second clause. Similarly to Christianson et al. (2001), participants answered questions (2a) incorrectly significantly more after reading sentences (1a) than after reading (1b). However, participants responded questions (2b) incorrectly more often after the GPs than after control sentences. The analysis showed no difference in RTs between correctly and incorrectly answered GPs; there is thus no evidence for heuristics (“fast and frugal processing”) which is a key feature of Good-Enough processing.

Exp2 used two more questions: (2c) *Did the kids chase a dog?* (asking on the correct analysis of the main clause) and (2d) *Did the rodents worry the dog?* (asking on an analysis which should not emerge during processing). Exp2 replicated the findings of Exp1 concerning RTs and answers on questions (2a) and (2b). Moreover, questions (2c) and (2d) were answered incorrectly significantly more after GPs than after non-GPs which suggest a more general problem of processing GPs.

The results indicate that the processing of GPs is often just erroneous rather than Good-Enough. We found no evidence for heuristics in RTs. Also, higher rate of incorrect answers on (2b, 2c, 2d) after GPs suggests that speakers often do not form a coherent representation, and that they just tried to answer the question based on the scarce information they actually retrieved.

References: Christianson, K., Hollingworth, A., Halliwell, J. F., & Ferreira, F. (2001). Thematic Roles Assigned along the Garden Path Linger. *Cognitive Psychology*, 42(4), 368–407.

[Word count: 481]