Experimental Syntax: What does it get you?
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The past decade has seen an increase in syntactic work involving formal judgment collection – what has become known as ‘experimental syntax’ (Schutze 1996, Bard et al 1996, Cowart 1997, Keller 2000, Featherston 2005, and many others). The question often faced by the field of experimental syntax is “What does it get you?” and the answer is often “new/better data.” There are many ways, however, in which such an answer is less than ideal. If the data contradicts previous findings, or demonstrates the inadequacies of informal methods, than it becomes support for those who argue that judgments are too unstable and too easily influenced by non-syntactic factors to form an empirical foundation for linguistics (e.g. Edelman and Christiansen 2003, Bresnan 2005). If the data corroborates previous findings, demonstrating that judgments are robust and stable, then there will be no justification for the added time and expense of formal experiments (e.g. Phillips and Wagers 2006). Two series of studies are presented that argue that experimental syntax can actually satisfy both masters: the fine-grained data obtained by formal experiments reveal that judgments are i) more stable, and ii) more sensitive than previous informal methods have suggested. These findings suggest that the true answer to the title question is a research program that is complementary to theoretical syntax, not merely a footnote to it.

The first study focuses on the source of an instability in judgments reported by informal methods and early experimental studies – the ameliorating effect of repetition on judgments of ungrammatical sentences, often called ‘syntactic satiation’ (Snyder 2000). A series of 7 magnitude estimation experiments indicate that the means and variances of judgments of syntactic island violations are statistically stable over as many as 14 repetitions. A follow-up series of 3 yes/no tasks suggest that the actual instability is due to the category threshold between yes and no: self-reported confidence in yes/no judgments decreases in as little as 5 repetitions, and this decrease is a strong predictor of satiation. Thus formal experimentation reveals stability where informal methods and early experimental studies reported instability.

The second study takes advantage of the active filler strategy (Frazier and Flores d’Arcais 1989) to investigate the sensitivity of judgments to the temporary representations created prior to the final, grammatical representation. The results reveal an interesting asymmetry: the temporary syntactically illicit representations created by the filled-gap effect (Stowe 1986) do affect judgments, but the temporary semantically illicit representations created by the plausibility manipulation (Garnsey et al 1989, Tanenhaus et al 1989), and the temporary grammatical but incorrect representations created by positing a gap at a transitive/intransitive ambiguous verb do not. Thus judgments are calibrated such that temporary syntactic violations affect judgments in a qualitatively different way than temporary semantic violations and temporary parsing mistakes. The fact that formal experiments can be used to distinguish among acceptable sentences opens the door for establishing convergences and divergences with established processing effects, and investigating research questions that have remained beyond the reach of traditional theoretical syntax.

References