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Horses for courses: When acceptability judgments are more suitable than structural priming (and vice versa). Reply to Branigan and Pickering (2017).

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Abstract: Although structural priming is often the most suitable paradigm, it sometimes misses effects that are detected by more sensitive acceptability-judgment tasks, hence yielding incorrect conclusions. For example, Branigan & Pickering's claim that "syntactic representations do not contain semantic information", while supported by structural-priming studies of the passive, is undermined by an acceptability-judgment study of this construction.

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I agree with B&P that structural priming is an excellent method for tapping into speakers' linguistic representations. I agree with B&P that "researchers concerned with linguistic representations should not rely solely on [acceptability] judgments". I agree with B&P that frequently "evidence from structural priming will converge with evidence from acceptability judgments, and hence provide strong support for particular representational claims".

I do not agree with B&P that "where acceptability judgment and priming evidence do not converge, evidence from priming should be favoured". Why? The most suitable method for linguistic research depends on exactly what we want to know. Sometimes structural priming is indeed the best choice; for example when we want to know whether particular forms share some underlying representation. Sometimes, forced-choice comprehension is the best choice; for example when we want to know if children understand the meaning of word order or case marking.

And sometimes, an acceptability judgment paradigm is the best choice; for example when we want to know which of two similar forms is more consistent with adult speakers' underlying grammatical representations (e.g., *The funny clown giggled Bart* vs *The funny clown laughed Bart*). This can really only be determined using a Likert-scale type judgment. Structural priming is all but useless here, because no adult native speaker of English is going to produce either sentence, no matter how much you prime her. The broader problem is that structural priming yields a binary outcome measure: you're primed or you're not; you produce the sentence or you don't. In contrast, acceptability judgments, if set up to do so, yield a continuous outcome measure. Crucially, the use of a relatively insensitive binary measure over a much more sensitive continuous measure can lead to erroneous conclusions regarding representation. Here's a case study.

B&P argue that "syntactic representations do not contain semantic information"; that "adults…appear to have abstract syntactic representations that are not specified for lexical or thematic content". A crucial piece of evidence for this claim is a series of structural priming studies (Messenger et al, 2012a, 2012b) in which passives with *agent-patient, theme-experiencer* and *experiencer-theme* verbs (e.g., *The girl is being licked/scared/ignored by the cow*) were equally effective at priming production of other passives. Hence – B&P's argument goes – adults' representation of the passive (a syntactic representation) does not care about the identity of the verb (semantic and/or lexical content), or indeed its thematic content (i.e., the way its syntactic arguments are mapped onto the semantic roles *agent, patient, experiencer* and *theme*).

But this conclusion is incorrect. In one of my own studies (yeah, I know, sorry!), based closely on Messenger et al (2012a), we asked adults to rate these type of sentence on a 5-point scale (Ambridge, Bidgood, Pine, Rowland & Freudenthal, 2016). Passives with *experiencer-theme* verbs (e.g., *ignore*) were rated as less acceptable than passives with *agent-patient* (e.g., *lick*) and *theme-experiencer* verbs (e.g., *scare*); a pattern that did not hold for actives. This suggests that adults' representation of the passive construction is not purely syntactic, but contains lexical/semantic/thematic-role information such that "[B] (mapped onto the surface subject [of a passive]) is in a state or circumstance characterized by [A] (mapped onto the by-object or an understood argument) having acted upon it" (Pinker, Lebeaux & Frost, 1987: 249). In other words, the more the first NP is affected by the action,

the better the passive; which also explains why three hours can't be lasted by a film or five people slept by a tent (c.f., *The film lasted three hours; This tent sleeps five people*).

Why did we find lexical/semantic/thematic-role differences between passive sentences while Messenger et al (2012a) did not? Simple: We used a continuous DV ("How good is this sentence on a 5-point scale?"), while they used a less sensitive binary DV ("Does this sentence prime another passive?). This does not mean that acceptability judgments are *always* a better choice than structural priming; sometimes the reverse is true. Horses for courses.

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