Competing grammatical constructions: questioning No Synonymy

Benedikt Szmrecsanyi, Matt Hunt Gardner[2] & Thomas Van Hoey[3]
[1]KU Leuven, benszm@kuleuven.be [2] Oxford University, [3] KU Leuven

Keywords: variation, dysfluencies, grammar, No Synonymy

The principle of No Synonymy, foundational in CxG, conjectures that "[i]f two constructions are syntactically distinct, they must be semantically or pragmatically distinct" (Goldberg 1995: 67; see also Haiman 1980). If two constructions happen to be synonymous – consider e.g. the alternation, in the grammar of English, between *Tom picked up the book* versus *Tom picked the book up* – then this synonymy is often thought to be exceptional, and/or short-lived diachronically, and/or generally suboptimal for language users. Exceptionality is debatable, given the sizable literature on the existence, ubiquity, and systematicity of grammatical variation; it is also demonstrably not the case that grammatical alternations are necessarily short-lived (De Smet et al. 2018). But what about suboptimality?

It is of course at first glance not implausible that grammatical variation should be suboptimal. This is because grammatical variation (as opposed to e.g., lexical variation) is typically conditioned probabilistically by any number of contextual constraints. Even before language users can make a choice as a function of the naturalness of a grammatical variant in a specific linguistic context, they need to check that linguistic context for the various constraints that regulate the variation at hand. It follows that this extra cognitive work must increase cognitive load. Or does it?

Conveniently, corpora do provide us with a way to measure suboptimality along these lines. The idea is that if No Synonymy à la Goldberg (1995: 67) is a design feature of human languages, then in usage data variation contexts should attract production difficulties. Against this backdrop, we report on the extension of a study (Gardner et al. 2021) that explores the link between production difficulty/suboptimality and grammatical variability using a corpus-based research design. Specifically, we investigate the well-known Switchboard Corpus of American English (542 speakers, 240 hours of recording), which covers telephone conversations. On a turn-by-turn basis, our analysis checks if the presence of variable contexts correlates with two metrics of production difficulty, namely filled pauses (*um* and *uh*) and unfilled pauses (speech planning time). We cover 20 different grammatical alternations in the grammar of English, which create a total of N = 57,660 choice contexts in the corpus materials. Consider the conversational turn in (1):

(1) Well, um, um, um, I think that uh once we get the house refinanced, we're gonna probably try to take our free tickets and either go to Cancun or do the little uh trip to Ca- Southern California and then on up to (592ms) Utah (F/SM/born 1961)

(1) exemplifies a turn that features 5 filled pauses, 1 unfilled pause lasting 592ms, and a total of 3 grammatical variation contexts (*I think that once* vs. *I think ___ once*; *we're gonna* vs. *we will*; *try to take* vs *try taking*). Do turns that contain more choice contexts also tend to feature more dysfluencies? Multivariate modeling (regression and conditional random forests) including various controls shows that choice contexts do not actually correlate with measurable production difficulties. These results challenge the view that grammatical variability is somehow suboptimal for speakers.

To conclude, we knew before that grammatical variation is neither exceptional nor short-lived diachronically. We now also know that grammatical variation is not in any measurable way suboptimal in language production. We will argue that it is therefore time to ask if dogmas such as the principle of No Synonymy belong in the Usage-Based Model.

References

De Smet, Hendrik, Frauke D'hoedt, Lauren Fonteyn & Kristel Van Goethem. 2018. The changing functions of competing forms. *Cognitive Linguistics* 29(2). 197–234. https://doi.org/10.1515/cog-2016-0025.

Gardner, Matt Hunt, Eva Uffing, Nicholas Van Vaeck & Benedikt Szmrecsanyi. 2021. Variation isn't that hard: Morphosyntactic choice does not predict production difficulty. (Ed.) Stefan Th. Gries. *PLOS ONE* 16(6). e0252602. https://doi.org/10.1371/journal.pone.0252602.

Goldberg, Adele E. 1995. *Constructions.* Chicago: University of Chicago Press.

Haiman, John. 1980. The Iconicity of Grammar: Isomorphism and Motivation. *Language* 56(3). 515. https://doi.org/10.2307/414448.