

# Better entrenched, more easily retrieved: evidence for analogy in individual variation

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While analogy is often invoked as a motivation for language change (Aaron 2016; Fischer 2007), analogy-based explanations of change are regularly criticized for being post-hoc and lacking predictive power (Bauer 2001; Behrens 2017). Lass (1998), for instance, objects to analogy since it can only be recognized in hindsight: it can hence not be proved that analogy influenced the linguistic representations in speakers' minds at the time of change. In this paper, we look for independent evidence of analogy by investigating whether speakers with better entrenched analogical models are more likely to adopt the analogical innovation. Proving that entrenchment enhances analogical innovation would indicate that analogy is not as unpredictable as often claimed.

In analogy, characteristics of the model are extended onto a target, allowing the target to be used in new ways (Gentner 1983). Key to analogy is retrieval, "by which, while thinking about a topic or scenario, people are reminded of a similar past experience" (Gentner & Maravilla 2018: 193–4). It follows that analogy should be facilitated under conditions that improve retrievability, such as entrenchment. Entrenchment captures the idea that the more frequently a construction is encountered, the stronger this construction is mentally represented (Langacker 1987; Schmid 2020). If the analogical model is more firmly entrenched, retrieval should be easier and the model will be more likely to project its properties onto the target, resulting in an innovation.

In order to test the effects of entrenchment on analogy, we study patterns of individual variation in the emergence of the adnumeral marker *around*, as in (1). Originally a locative preposition, *around* developed adnumeral uses from the early 20th century onwards, entering an established paradigm of adnumerals derived from prepositions, such as *about* in (2). If *around* was analogically attracted to this paradigm, it is predicted that speakers who make extensive use of these deprepositional adnumerals are more likely to use the innovative adnumeral *around*. In contrast, speakers who clearly prefer less-closely related adnumeral markers, such as some in (3), are not more likely to pick up the innovation. In other words, speakers who have better entrenched deprepositional adnumerals should make the analogy more readily and use the innovative deprepositional adnumeral more easily.

- (1) *around* 7 million householders receive help
- (2) *about* 8,000 medals had been distributed
- (3) *some* 5,000 men came from Buckinghamshire

To collect individual user profiles, we draw on the Hansard Corpus (1803–2005), which contains speeches and debates from British Parliament. Assuming that entrenchment patterns are reflected in usage patterns (Schmid & Mantlik 2015: 604), usage profiles for the most prolific speakers are created, consisting of their use of *around*, other deprepositional adnumerals, and adnumeral markers not deriving from a preposition. A linear regression model shows that the frequency of use for deprepositional adnumerals has a positive effect on a speaker's usage frequency of adnumeral *around*, whereas a higher use of non-deprepositional markers has a negative effect. This model turns out to be rather robust, despite the presence of some diagnostic issues and stubborn outliers.

As such, this study not only provides evidence for analogy by demonstrating that entrenchment of the base improves its retrievability, but also contributes to the growing body of research exploring individual variation in language change.

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