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# Buy a Relation, Get the Role Half Off: Instantiating Event Representations for Novel Denominal Verbs

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An important ability of our linguistic and conceptual system is the production and comprehension of novel referring expressions. A very common form of novel referring expressions is the novel use of a noun as a verb, i.e. a novel denominal verb. Clark and Clark (1970) analyze the range of potential meanings for novel denominal verbs, but do not conduct any empirical investigations into the nature of the representations instantiated by interpreting these novel verbs. This is the goal of the current study.

The conceptual representations underlying nouns and verbs differ formally. Typically, the nouns that get turned into verbs refer to objects, e.g. Paula *hairpinned* the lock open. These objects can be represented by unstructured feature sets. On the other hand, verbs refer to events, which are defined by relations among objects (Gentner 1981). We aim to show the consequences of transforming a feature-based object representation into a relational event representation.

While many nouns refer to feature-based object concepts, many refer to the roles participants play in events, e.g. *thief* is the agent of *stealing* events (Markman and Stilwell 2001). Typical agents are activated as part of the representations of verbs (Ferretti, McRae & Hatherall 2001). A potential result of interpreting novel denominal verbs is the creation a novel agent concept. This study demonstrates this result by showing the reduced processing time of subsequent novel agent terms, e.g. the *hairpinner*.

## Methods and Results

Participants read five-sentence long passages, 27 of which contained novel agent terms in the final sentence. 1/3 presented a novel denominal verb in the second sentence, 1/3 paraphrased the novel verbs and 1/3 used novel adjectives (see fig. 1). No subject saw any one item in more than one passage type, items counterbalanced across participants. The inclusion of the adjective condition was to ensure the effect is specific to novel verbs, and not just to any novel word. The first four sentences are presented in their entirety, while the last is presented a word at a time in

the self paced reading time method A verb always followed the novel agent term.

**Novel Verb (NV):** Paula hairpinned the lock open.  
**No NV:** Paula used a hairpin to jiggle the lock open.  
**Adjective:** Paula used a hairpintastic method to jiggle the lock open.  
**Agent:** After getting inside, the hairpinner found her spare key.

Figure 1: Different Types of Critical Sentences

In the self-paced reading method, effects typically show up at either the critical word, or the following region. Figure 2. shows the effect revealed at the verb following the agent term. NV vs No NV:  $t(74) = 3.1$  by subjects,  $t(26) = 2.7$  by items. NV vs Adj:  $t(74) = 3.16$  by subjects,  $t(26) = 2.59$  by items, all  $p$ 's < .05

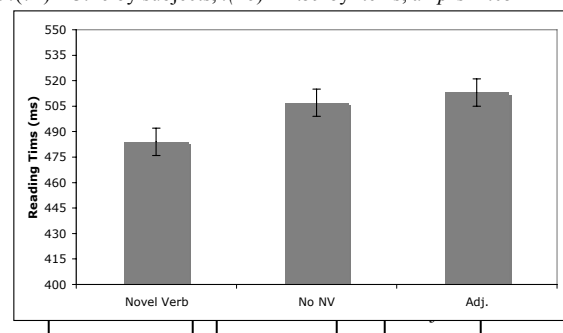


Figure 2: Means and SE's at the verb following the novel agent term.

This study advances our understanding of the language-conceptualization interface by shedding light on the nature of the representations instantiated after interpreting novel denominal verbs.

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