Vehicle-based inferences in metaphor interpretation: a CODA approach

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Psycholinguistic research demonstrates that words with concrete referents tend to be processed more quickly and with clearer mental representations than those with abstract referents (Solovyev 2020; Mkrtychian et al. 2019; Fliessbach et al. 2006; de Groot 1989). This phenomenon known as 'concreteness effects' has many interesting implications for metaphor comprehension research. However, it has been a subject of increasing nuance and scepticism in recent years (Reijnierse et a. 2019; Pollock 2018; Dunn 2015), despite abstraction being foundational to Analogical Structure Mapping Theory (Gentner 1983; Gentner and Toupin 1986; Falkenheiner et al. 1989) and its implementations into investigating metaphor processing. Taking a Cognitive Discourse Analysis approach (Tenbrink 2020) in dissecting metaphor interpretations, my aim is to explore the relationship between abstractness of Topics and Vehicles and the type and diversity of information which people construe from them out of context based on patterns observed by Goatly (1997). I present two studies, the first in which I asked 47 English-speaking participants to openly interpret contextless nominal copula metaphors while controlling for different degrees of Topic abstractness (low-order (ex. *school*), mid-order (ex. *town*), high-order (ex. *mind*)). Participants also rated how difficult the metaphors were to interpret using a Likert scale (1 easy – 5 difficult). Employing consistently concrete Vehicles (*ex. prison, beast, maze, rollercoaster)*, I was able to analyse how many distinct data-emergent attributes of the Vehicle were incorporated into participants' characterizations of the Topics. Results showed a weak correlation $(r(45) = .1304, p = . 382)$ between higher topic abstractness and greater multiplicity of Vehicle-originated attributes (threshold at 40% of participants having mentioned), however a moderately strong negative relationship $(r(45) = (-).4894, p = .000)$ existed between lower interpretive difficulty ratings and higher multiplicity of Vehicle-originated attributes. Two possible interfering variables were lexicalization of certain metaphors (e.g. *rollercoaster*) as well as non-standardized criteria for abstractness in linguistic stimuli. Study 2 instead uses WordNorm concreteness ratings (Brysbaert et al. 2014) for selecting Topics and Vehicles. Like the first study, 75 participants were presented contextless nominal copular metaphors, this time controlling abstractness for Vehicles as well as measuring interpretive difficulty ratings. We carried out a predicate analysis of the linguistic data dividing predicates into either relational (2 or more arguments) or attributional (1 argument). Full results are in preparation. The discussion further explores whether abstractness is an informative measure in characterizing the structure and cognition of metaphor and how factors outside of analogy, like context simulation, metonymy, and surface similarity shapes interpretation in creative ways.