Metaphor and the Scientific Method: Why Lacan's Perspective isn't Helpful Yet

Paul H. Thibodeau (paul.thibodeau@oberlin.edu)

Department of Psychology, Oberlin College

April 2, 2022

Acknowledgements

The author would like to thank Stephen Flusberg for helpful feedback on a draft of this commentary.

Abstract

Keefer argues that theoretical commitments to Conceptual Metaphor Theory (CMT) impede research on metaphor in psychology. To jumpstart the field, he suggests adopting Lacan's perspective. I disagree with this argument for a few reasons. First, CMT has a much more nuanced place in current research on metaphor than it would seem from the target article. Second, the field does engage with the hypotheses enumerated by Keefer: that metaphors emerge from a complex web of associations, have unconscious influence, and reflect deep-seated motivations. I review how contemporary research has approached these questions and show how the constraints cited in the target article stem from the field's commitments to the scientific method and the computational theory of mind, rather than CMT. Finally, contrary to how they are framed in the target article, I argue that these constraints have enabled scientific progress to date and limit the impact of Lacan's perspective moving forward.

Keywords: Metaphor, conceptual metaphor theory, scientific method, Lacan

Metaphor and the Scientific Method: Why Lacan's Perspective isn't Helpful Yet

Keefer argues that research on metaphor in psychology has been overly reliant on Lakoff and Johnson's (1980) Conceptual Metaphor Theory (CMT), and that the field would benefit from adopting Lacan's perspective. Here, I explain why I disagree.

The Misattribution of Conceptual Metaphor Theory

One weakness of Keefer's argument is that it misunderstands the place of CMT in contemporary metaphor research. Though I agree that Lakoff and Johnson's work has been very influential, its status in contemporary cognitive science is nuanced. On the one hand, Lakoff and Johnson (1980) successfully document the prevalence of specific metaphor patterns in English, and this has been taken as a major contribution to the field. On the other hand, CMT has not been very successful as a psychological theory *per se*. One reason is that it was never specified in enough detail to serve as a testable psychological model; another is that it makes significant psychological claims without supporting them with psychological evidence. As a result, the field has been critical of CMT and has developed alternative theories to explain the role of metaphor in psychology at a more mechanistic level.

As Gibbs (2017) explains in his book *Metaphor Wars*, "Despite its influence and popularity, there have been major criticisms of CMT beginning with the publication of *Metaphors We Live By*, and continuing to this day. These negative reactions to the 'metaphor in thought' thesis have led to a series of battles among metaphor scholars, both within and across academic disciplines, which together constitute the metaphor wars that are the subject of this book" (p. 7).

As I show in the following sections of this commentary, Keefer's critique actually highlights limitations of the scientific method and the field's commitment to a computational (information processing) theory of mind. These methodological and theoretical commitments generally pre-date CMT and should be taken independently of CMT. Contrary to how they are framed in the target article, it is exactly these constraints that have enabled scientific progress to date and that limit the impact of the Lacanian perspective moving forward.

Metaphor as a Complex Web of Associations

Keefer argues that "the cognitivist approach to studying metaphor has failed to sufficiently grapple with metaphor 1) as a more complex web of associations than the cognitivist framework considers" (p. 3). This concern reflects a fundamental question in cognitive science: What is the format of conceptual knowledge? Keefer correctly points out that the answer to this question has significant downstream consequences for theories of metaphor in psychology. However, his argument fails to acknowledge that it is an active topic of research, and that the field has advanced several different candidate answers to the question.

A classic idea is that concepts are stored as propositions (e.g., Collins & Quillian, 1969). Figure 1 illustrates this perspective for two concepts: LIFE and JOURNEY. According to the diagram, one proposition that partially defines semantic knowledge of LIFE is that it, "starts at birth."

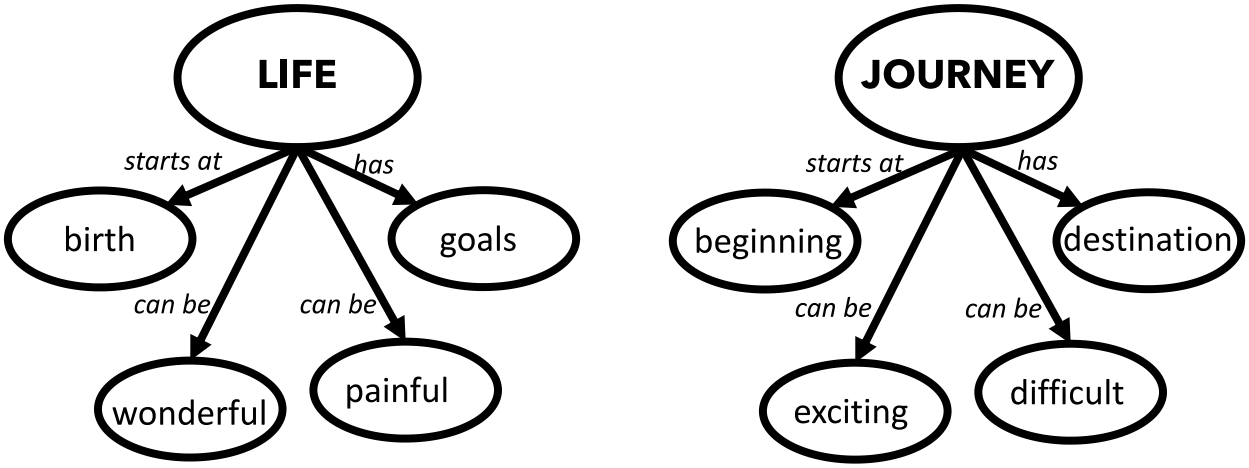

Figure 1. An illustration of one model of conceptual knowledge in cognitive science. Here, semantic knowledge of the concepts LIFE and JOURNEY are represented in propositional networks of *relations* (e.g., "starts at," "has," "can be") and *features* (e.g., "birth," "beginning").

Early work in cognitive science used versions of this model of mental representation for concrete theorizing about complex cognitive processes like memory retrieval and language comprehension. It is easy to critique these models as limited and incomplete, as Keefer does, because they are. But all models are limited and incomplete. What's important to researchers is that these models have been useful. They've helped generate falsifiable hypotheses to test in carefully designed experiments, and the results of these experiments have helped refine theories. Through this iterative process, the field has accumulated a better (albeit still limited) understanding of human cognition.

It's also easy to see how these models of conceptual representation encourage metaphor researchers to think that there must be some sort of "mapping" mechanism in the mind that helps people understand metaphoric language. If knowledge of the concept of LIFE is stored in one set of propositions and the concept of JOURNEY is stored in another, then understanding the metaphor, "Life is a journey," would seem to require a mechanism tailored to finding correspondences between two disjoint propositional representations.

More recently though, cognitive scientists have advanced alternative theories of mental representation, which have given rise to alternative theories of metaphor. For example, a more contemporary perspective treats conceptual representations as vectors in a high-dimensional semantic space (e.g., Landauer & Dumais, 1997; Rogers & McClelland, 2004). On this view, semantic knowledge is distributed and overlapping, rather than symbolic and disjoint. This perspective raises questions about the need for a metaphor-specific "mapping" mechanism. It

encourages researchers to think about metaphors as emerging from a more complex web of associations (e.g., Flusberg, Thibodeau, Sternberg, & Glick, 2010; Kintsch, 2000).

To be clear, I'm not saying that current models of metaphor in psychology have captured the Lacanian perspective. But I do think that contemporary models of metaphor could provide a foundation for a more concrete articulation of Lacan's claims, and I do think it is necessary for these claims to be articulated more concretely if they are to have any real impact on our scientific understanding of metaphor.

Metaphor as an Unconscious Process

Keefer argues that "the cognitivist approach to studying metaphor has failed to sufficiently grapple with metaphor… 2) as an unconscious process" (p. 3). This is incorrect. There have been many high-profile investigations of metaphor as a potential source of unconscious influence; a few of these studies are acknowledged in Keefer's review (e.g., Williams & Bargh, 2008). Is it true that these studies "have largely been dismissed" (p. 20) by mainstream cognitive science? Quite the opposite. Williams and Bargh (2008) was published in *Science*, and it has been cited almost 2000 times as of April of 2022. It, and studies like is, are the subject of a recent book by Yale University psychology professor John Bargh, *Before You Know It: The Unconscious Reasons We do What We Do*. These ideas also feature prominently in one of the most influential recent books on cognitive science*, Thinking, Fast and Slow*, which was written by Nobel prizing winning psychologist Daniel Kahneman in 2011.

I do, however, agree with Keefer that, "These studies have failed to replicate despite many attempts" (p. 20). What should we make of this fact? For empirically minded scholars, it *should* lead to doubts about the underlying hypothesis. This is because, at its core, the scientific method is a means of figuring out which ideas are wrong. For Keefer's argument, however, these replication failures are evidence that the field has conducted the wrong studies. That might be true. If so, there's nothing stopping him (or anyone else) from designing and running the right ones. As long as these studies adhere to principles of the scientific method, the field will take them seriously and subject them to scrutiny, and this is exactly what we should want from a field of scientific inquiry.

My sense is that Lacan does offer compelling observations of the human condition that go beyond current research in cognitive science. But the currency of science is prediction. What new predictions does Lacan make? How can they be tested? If Lacan's theory doesn't make any new predictions, if it is only a tool for post-hoc speculation and criticism, then it really doesn't have much to offer researchers actively working to develop a better scientific understanding of metaphor.

Metaphor as a Motivated Feature of Language

Finally, Keefer argues that "the cognitivist approach to studying metaphor has failed to sufficiently grapple with metaphor… 3) as a motivated feature of language" (p. 3). This too is

incorrect. Deliberate Metaphor Theory (DMT; Steen, 2015) does exactly this. In the target article, DMT is mischaracterized as being, "premised on the idea that metaphor selection is a conscious active choice" (p. 25). In fact, Steen (2015) is careful to say that "even though attention and comparison are here intentional in that they construct an appropriate meaning for the utterance, this does not imply that attention and comparison are conscious. It does not imply that they require deliberation either ... deliberate metaphor is not the same as deliberative metaphor" (p. 69).

I must admit that I have also struggled to grok Steen's distinction between deliberate metaphor and deliberative metaphor (Thibodeau, 2017). And I agree with Keefer (p. 25) that it is hard to see metaphor production as a "steady stream of strategic choices in the dynamic flow of real discourse." We differ in our assessment of whether these concerns also apply to Lacan's perspective. I think that they do.

I also think Lacan's perspective raises additional concerns. Namely, how do we measure unconscious desires? Psychoanalytic theories are notoriously difficult to pin down on this point (Stanovich, 2013). By appealing to nebulous mental constructs, they seem to be able to explain everything. It is tempting to see this as a virtue of psychoanalytic theories, but it's actually a problem. Until we have valid and reliable methods for measuring the unconscious motivational forces, I don't see how Lacan's perspective can contribute to a scientific explanation of metaphor in psychology.

Cognitive Theories: Grand or Narrow?

Keefer's three-pronged critique of current metaphor research raises a fourth substantive issue for me, which relates to the specificity of theories in cognitive science. Take, for example, Glucksberg and Keysar's (1990) model of metaphor that is discussed in the target article. It was designed to explain how people *comprehend* a very specific class of metaphoric language – namely, nominal metaphors that take the form, X is Y, as in "Life is a journey." Keefer argues that this theory fails to explain interesting phenomena related to metaphor *production*. This is true, but it misses the bigger picture.

Cognitive scientific research on metaphor, like most scientific research, is reductionist. The field offers a toolbox of specialized models tailored to specific theoretical questions, rather than grand unifying theories. One set of models seeks to explain metaphor *comprehension*; another seeks to explain metaphor *production*. My point here is that it is crucial to keep in mind the explicit goals of a tool when evaluating it. In the same way, it's not wrong to observe that hammers make terrible saws; but such an observation doesn't mean that saws don't exist.

I do think that Lacan's perspective on metaphor could make a contribution to our scientific understanding of metaphor and that it is worth trying to rethink conceptual metaphor in Lacanian terms. To my eye, the path forward requires deeper engagement with current research and a rigorous effort to express Lacan's insights as testable hypotheses.

References

Bargh, J. (2017). *Before You Know It: The Unconscious Reasons We Do What We Do*. New York: Simon and Schuster.

Collins, A. M., & Quillian, M. R. (1969). Retrieval time from semantic memory. *Journal of Verbal Learning and Verbal Behavior*, *8*(2), 240-247.

Flusberg, S. J., Thibodeau, P. H., Sternberg, D. A., & Glick, J. J. (2010). A connectionist approach to embodied conceptual metaphor. *Frontiers in Psychology, 1,* 197.

Gibbs, R. W. (2017). *Metaphor Wars*. Cambridge: Cambridge University Press.

Glucksberg, S., & Keysar, B. (1990). Understanding metaphorical comparisons: Beyond similarity. *Psychological Review, 97*, 3–18.

Kahneman, D. (2011). *Thinking, Fast and Slow*. New York: Macmillan.

Kintsch, W. (2000). Metaphor comprehension: A computational theory. *Psychonomic Bulletin & Review, 7*(2), 257-266.

Lakoff, G., & Johnson, M. (1980). *Metaphors We Live By.* Chicago: Chicago University Press.

Landauer, T. K., & Dumais, S. T. (1997). A solution to Plato's problem: The latent semantic analysis theory of acquisition, induction, and representation of knowledge. *Psychological Review*, *104*(2), 211.

Rogers, T. T., & McClelland, J. L. (2004). *Semantic Cognition: A Parallel Distributed Processing Approach*. Cambridge, MA: MIT press.

Stanovich, K. E. (2013). *How to Think Straight about Psychology* (10th ed). Boston: Pearson, Inc.

Steen, G. J. (2015). Developing, testing and interpreting Deliberate Metaphor Theory. *Journal of Pragmatics*, 90, 67–72.

Thibodeau, P. (2017). The function of metaphor framing, deliberate or otherwise, in a social world. *Metaphor and the Social World*, *7*(2), 270-290.

Williams, L. E., & Bargh, J. A. (2008). Experiencing physical warmth promotes interpersonal warmth. *Science*, *322*(5901), 606-607.