

On Cognition and the Tension of Live Metaphors

Patrick F. Bloniasz
Bowdoin College

Abstract

'Live', or novel, metaphors continue to occupy an interesting space in both the philosophical and cognitive sphere. One metaphorical theory, offered by French philosopher Paul Ricœur, is thoroughly fleshed out in relation to other dominant linguistic accounts of metaphor. Ricœur's theory is underrepresented in much of contemporary neurolinguistic literature even though it bears great resemblance to many features of modern theories in cognitive science; as such, the current article attempts to establish a clear connection between Ricœur's work and the cognitive sciences without collapsing into 'psychological associationism'. The present article offers this connection to re-establish the value of philosophy and hermeneutics to the scientific enterprise by embracing interdisciplinary study.

Keywords: live metaphor, Neurolinguistics, cognition, metaphor, Paul Ricœur, hermeneutics, linguistic tension

Live metaphors continue to occupy an interesting space in both the philosophical and cognitive sphere. The progression of philosophical thought on the matter can be understood as residing in one of three distinct layers of theoretical inquiry, of which I will call, in descending order, 1) "semantic operation", 2) "scope of meaning", and 3) "solution type". One metaphorical theory, presented by French philosopher Paul Ricœur, will be followed through each layer, as the theory bears great resemblance to modern theories in cognitive science, but requires explication to establish the connection. As such, this article intends to draw, and flesh out, parallels between Ricœur's exploration of metaphor as either predication or naming on the one end and recent advances in the cognitive sciences on the other; this is in an effort to characterize the

extra-linguistic realism found in the tensional aspects of live metaphors and give incite to the cognition of language. I will go on to show that this parallelism is distinct from the ‘psychological associationism’ that Ricœur critiques, but rather addresses the “boundary between semantic theory of metaphor and a psychological theory of imagination and feeling” (Ricœur 1978, 143).¹

1. Linguistic Traditions of Metaphor

When considering what metaphor is, one ought to distinguish between two basic semantic operations a given assertion can take on: the lexical and figurative. Purely lexical accounts, typically called ‘brute-force’ or lexical substitution accounts, hold that there is nothing being said beyond the literal sense of the words present. On these views, when one says “their smile is a fine wine”, she is uttering a false assertion—a smile is not fine wine in an ordinary sense. These views typically take metaphor to operate similarly to a dream or that of a work of art, where seeming resemblances between terms allows for the substitution of one word in for another to produce a clearer understanding. As Moran puts it, this substitution “frames” some literal, primary word with some other secondary word through juxtaposition; this drives one to see the framed word in a new way, though in a way already contained within the word itself. The framing forces a listener to mentally paraphrase anew what is intended in the lexical content.² In essence, metaphor merely produces a rhetorical or decorative effect.

Contrary to these accounts are those who believe that something new is being said with metaphorical content. More specifically, such content is not explicitly expressed through the lexical content of a sentence, but rather at some non-lexical level. Like substitution accounts, resemblance still plays a crucial role in the meaning of the metaphor. For Ricœur, “resemblance is no less required in a tension theory, for the semantic innovation through which a previously unnoticed ‘proximity’ of two ideas is perceived despite their logical distance must in fact be related to the work of resemblance”

(Ricœur 2004, 4). The difference remains that those resemblances operate outside of constrained lexicality.

While providing an argument for either side of this dichotomy is beyond the scope of this paper, Ricœur naturally finds himself in the non-lexical camp in terms of what drives the creation of metaphorical content, as he thinks it is a mistake to concede that “words have a permanent meaning by which they designate some referents and not others” like the semanticist or structuralist believes (Ricœur 2004, 130). As such, “let us call any ‘shift from literal to figurative sense’ a metaphor...any lexical value whatsoever is a literal meaning; thus, the metaphorical meaning is non-lexical: it is a value created by the context” (Ricœur 2004, 188). This non-lexical value is the ‘figure’ of one’s speech. Now situated within the realm of non-lexical accounts, we are pushed into the second layer of inquiry to understand the scope of the newly created meaning.

There are two main approaches³ one might have about the scope within which the metaphorical content can be found: at the level of the word, word-metaphor, or at the level of the sentence, sentence-metaphor. Metaphorical content at the level of the word does not mean that meaning needs to collapse merely into lexical content. Rather, the content is produced via the basic procession of words presented in a sentence latching on to “the framework of a semiotics for which all the units of language are varieties of the sign”, which is reference to those that believe in the homogeneity of words as signifiers (Ricœur 2004, 158). As such, in this view sentences are merely derived from lexemes, while metaphorical meaning is contingent on the severity of deviant denomination (i.e., how strange the substitution of one word in for another is). The difficulty⁴ for many of these formulations is that “one really has to return to contextual uses to define the diverse acceptations of one and the same word, whether they be usual or unusual acceptations; so these [words] are actually nothing but the contextual variations that can be classed according to their families of occurrence” (Ricœur 2004, 145). In short, accounts that have this character appear to privilege the status of a word as having metaphorical content, even though that content is being created at the level or structure of the sentence.

This points to the other approach that is the sentence-metaphor, which is offered by Max Black and related thinkers. Black's interactionist theory, for our purposes, is the clearest. As he writes in his landmark text *Models and Metaphor*, "when we use a metaphor we have two thoughts of different things active together and supported by a single word or phrase, whose meaning is a resultant of their interaction" (Black 1962, 38). This interaction arises from the 'focus' and the 'frame', where the focus is the word or phrase being used metaphorically, whereas the rest of the literal sentence is the frame which props-up the metaphorical content; this, again, is in direct contrast of one word replacing another for what is driving metaphor, with the rest of the sentence being neutral in the act. Ricœur believes that such theories can more adequately address difficulties raised by thinkers like Donald Davidson, who generally push back on the possibility of any meaning beyond predicate logic within semantics.⁵

Here, we see Ricœur shifting away from a linguistics of language to a linguistics of discourse—a distinction borrowed from linguist and philosopher Émile Benveniste. A linguistics of language, which centers around a sign as the linguistic basic unit (i.e., semiology), quickly collapses back into what Ricœur calls the "new rhetoric"—what essentially led directly to the aforementioned "brute-force" accounts of metaphor. A linguistics of discourse, which uses "the sentence [as] the basic unit of discourse", allows for the introduction of cognition into language (Ricœur 1973, 92); in particular, it allows for a speaker and meta-realistic⁶ imagination to enter into the sphere of meaning. In this way, a linguistics of discourse can be thought to absorb some of the components of semiology, while still pushing beyond the formal system of signs. As such, metaphorical content exists in the form or space of a 'tensional' event between the order of language and an always new situation of cognitive (imaginative) context experienced by the audience. For the order of language, the 'tension' is the impertinent predication of two typically unrelated words or concepts in the context of a sentence or extended discourse. For the cognitive context, the 'tension' results from a previously unformed association between concepts in reality, driven by an uncomfortable confusion or enigma based

proportionally on the logical distance between two concepts. This pushes Ricœur into the third level of analysis, where he challenges how metaphor is understood or ‘solved’, as he claims theories like Black’s do not solve the problem of “innovation” of meaning beyond the structure of a logical subject and predicate—though more on this in a moment.

Thus far we have investigated briefly the range of metaphorical theories and their most basic differences. It is here where I want to flesh out what Ricœur is actually proposing in his ‘tensional’ theory. In the most basic sense, Ricœur wants to draw a distinction between live metaphors and dead metaphors. In short:

there are no metaphors in the dictionary; even though polysemy is lexicalized, metaphor, at least newly created metaphor, is not; and when it does become lexicalized, it means that the metaphor in common use has become part of polysemy. (Ricœur 2004, 190)

In offering his theory, he is trying to avoid the consideration of phrases like “the hands of the clock” or the “body of an essay” which, due to popular use or common understanding, have been collapsed into a purely lexical status for meaning. The “hands of a clock”, while metaphorical properly speaking, does not pick out the semantic twist Ricœur is after. Once the phrase entered common use for a given agent, there became no logical distance to produce “a sensed deviation” where one word was filled with a new meaning (Ricœur 2004, 190). Rather, a phrase in common use picks out in the imagination exactly what the meaning was intended to, just as “hands of a person” picks out what the speaker intended to without any newly created meaning.

When a novel metaphor is presented, it offers a paradox of meaning in the ‘figure’ of the speech. We are confronted with something being, and not being, the case (e.g., “Prithvi is a porcupine” asserts that Pirthvi is a porcupine, though we know it is, of course, not the case). Ricœur holds that something new is being said, as it is not merely that one is drawing a connection between two things that are logically distant and calling attention to that deviation. Rather, the speaker, “from an inconsistent utterance for a literal interpretation, draws a significant utterance for a new interpretation which deserves to

be called metaphorical because it generates the metaphor not only as deviant but as acceptable” (Ricœur 1978, 146). When considering resemblance establishing a new predicative meaning, which is akin to quantifying over more basic predicates, cognitive imagination is required. Often, imagination is mistaken as a process that happens after semantic prediction occurs instead of being “immanent” to the prediction itself; this takes form through several mechanisms.

The first step, Ricœur says, is *seeing A as B*, which is the restructuring of semantic fields, while “still homogeneous to discourse itself”, via establishing a direct connection between distant logical categories (Ricœur 1978, 147). The connection is not one-to-one, but rather understanding the set of combinatory possibilities, both in scope and proportionality, between A and B. Ricœur calls this *predicative assimilation*, which is distinct from psychological associationism, in that, it is not merely that a speaker is noticing associated characteristics, but rather *ascribing* or *making* A and B similar through semantic proximity. Putting this in context of Black’s aforementioned theory, the first dimension is to understand the contextual scope of the focus-frame set up.

This leads to what Ricœur describes as the *pictorial* dimension of metaphor, which shows “the way in which a semantic innovation is not only schematized but pictured” (Ricœur 1978, 149). To be clear, this is merely a quasi-optic dimension and is not some remnant of faded sense impressions discussed by those like David Hume. Rather,

[t]o imagine...is not to have a mental picture of something but to display relations in a depicting mode. Whether this depiction concerns unsaid and unheard similarities or refers to qualities, structures, localizations, situations, attitudes, or feelings, each time the new intended connection is grasped as what the icon describes or depicts (Ricœur 1978, 150).

This is the operation of imagination and meaning that extends to touch the edge of psychology, the realm that has been deemed semantically irrelevant by the classic Frege sense-representation distinction. The theory at hand does not extend into psychology, but rests on the edge of semantics and psychology by focusing on “association” of concepts in reality

grounded in linguistic convention. This is because the pictorial dimension is generated and controlled exclusively by schematization. The ‘control’ is the third step where meaning undergoes a “suspension”, or negative phase, where the ultimate effect of the peripheral subject on the primary subject is realized. This is to say the metaphor’s meaning is ‘solved’ via what Frege calls “sense”; the referent is not something that physically exists, but rather a potentiality of a given state of affairs and properly expands what characterizes a referent. In Ricœur’s words,

“the possibility that metaphorical discourse says something about reality collides with the apparent constitution of poetic discourse, which seems to be essentially non-referential and centered on itself. To this non-referential conception of poetic discourse I oppose the idea that the suspension of literal reference is the condition for the release of a power of second-degree reference, which is properly poetic reference. Thus, to use an expression borrowed from Jakobson, one must not speak only of split sense but of ‘*split reference*’ as well” (Ricœur 2004, 5, emphasis added)

This power of second-degree reference is not as far-fetched and decorative as many make it out to be, as it is at not only the conceptual core of much of science, but is absorbed directly into theory itself. For instance, Albert Einstein’s famous text *The Foundation of The General Theory of Relativity* does not mention curvature, the fabric of spacetime, or any other metaphor of the sort. He presents his theory in mathematical language that is clear within the realm of ordinary calculus. This is drastically different from how we describe relativity today in a proper scientific concept, particularly in that scientists are trained to not think of gravity “like” curvature, but rather there *is* curvature when $R^{\rho}_{\sigma\mu\nu}$ is not zero; such curvature *is* gravity, which is what physicist Sean Carroll offers in his 2004 textbook *Spacetime and Geometry* in his chapter on *Curvature*. In short, the metaphor has become part of theories in physics—theories that are falsifiable, even though the metaphor was linguistically prior to these observations and the metaphor was made up in popularized science to make the theory understandable.

To reiterate in regard to reference, “to ask *about what* a metaphorical statement is, is something other and something

more than to ask *what* it says” and *what* it says is to project “new possibilities of redescribing the world” (Ricœur 1978, 152; 154). This is not to say that metaphor and “poetic language is no less about reality than any other use of language but refers to it by the means of a complex strategy which implies, as an essential component, a suspension and seemingly an abolition of the ordinary reference attached to descriptive language” (Ricœur 1978, 153). As such, metaphorical language is ambiguous, allowing for the expansion of ordinary descriptive language. Metaphors can be “solved” for meaning, insofar as imagination creates a fiction to be considered and ascribed to reality, but there is no single meaning that can be deduced—only constrained potentialities.

Ricœur’s theory of metaphor seriously undercuts the continental structuralist project and potentially provides a clear counterexample to positivists like Rudolf Carnap. Metaphor, in Ricœur’s view, is a phenomenon that has properties that can escape a semantic formal system (e.g., it is an instance of a meaningful ‘external’ statement to Carnap’s internal-external distinction) while still being guarded from subjectivism or relativism through a clear semantic grounding. Most interestingly, there is a growing body of theory and evidence from the cognitive sciences providing empirical support for metaphor as being “tensional” in character.

2. Cognition and Metaphor

In a broad sense, one’s actions in the world are based on her cognitive structure. A cognitive structure is merely a construct that “provides meaning and organization to experiences and guides both the processing of new information and the retrieval of stored information” (Seel 2012a, 619). This structure is constituted by *schema* and *mental models*, which draw on cognizable and non-cognizable phenomena (e.g., memory processes and mechanistic movement patterns, respectively). A schema (i.e., ‘shape’ or ‘plan’) is the abstract or generic knowledge one acquires through their individual experiences with “objects, people, situations, and events” (Seel 2012c, 2933). This is essentially the permanent scope of

assumptions one continually builds and revamps through time, but doesn't necessarily question at every, or any, given moment. Items making the core of a schema could be the effects of gravity on your body and how you move through space, the feeling of air rushing through your nose as you breathe, and so forth. These components can change in how they are assumed and inform experience in one's life (e.g., if one becomes paralyzed from the waist down, her body will feel drastically different and will alter that person's standard kinesthetic sense). Typically, though, a schema is not being constantly collapsed and restructured during each chronological experience, but rather is restructured at a higher logical level through the interaction and interpretation of those chronological experiences. Think of this as information that generalizes to what "tends to be the case" loosely speaking.

Fitting within a schema are mental models. Mental models are "internal representations containing meaningful declarative and procedural knowledge that people use to understand specific phenomena" (Al-Diban 2012, 2200). Both theorists and scientists tend to use mental models to notate the process of practical rationalization of momentary events, where new information is processed in relation to schema. In particular, "in order to create situation-specific plausibility, one individual constructs a model that integrates the relevant semantic knowledge and meets the requirements of the situation to be mastered...[via] perception, imagination and knowledge, and the comprehension of discourse" (Al-Diban 2012, 2200).

When acting as an agent in the world, our understanding, decisions, experience, and general discourse are reliant on how well the information we receive fits our schema. Otherwise, there is no basis to even begin to create an understanding of what is happening. Returning to metaphor, consider m_1 , "Prithvi is a porcupine", m_2 , "Prithvi est un porc-épic", and m_3 , "プリスヴィはヤマアラシです", where each is a lexical translation of m_1 into French and Katakana (Japanese), respectively. For people in the English-speaking world, given that Prithvi is a person, m_1 fits partially within their schema: m_1 is in a language they understand with conventional syntax. What is being said or semantically communicated is a puzzle

that does not exactly fit with their typical schema, as the literal interpretation is logically absurd or associately novel; two familiar things that do not normally go together calls for a mental model that draws from one's "perception, imagination[,] and knowledge" coupled with "relevant semantics" to create a new meaning. In short, the prediction of a live metaphor, perhaps examples more novel than those I have offered, delivers information to a listener that is to be understood but creates confusion (i.e., metaphorical tension).

3. The untranslatability of "Working" Metaphorical Solutions

One curious aspect of Ricœur's theory is that metaphorical meaning has "untranslatable information" (Ricœur 1978, 143). Given the basic components of mental models, it is clear to see why. Consider the relationship between m_1 and m_2 , and m_1 and m_3 . These are both proper translations of the original sentence lexically, both into a language with linguistic tones, French, and one without, Japanese. In this sense, they are clearly translatable in a brute-lexical way, but not in the way that is relevant to one's understanding of meaning.

Given our move beyond the lexical, it is natural to then point to the difficulty at hand being described not via the transfer of lexical structure across languages, but rather between speakers and their respective prototypical associations. In this view, a sentence has some meaning (i.e., purely lexical), in virtue of its structure alone, but metaphor moves proper or 'charitable' meaning to the edge of the semantic and cognitive. We cannot assume that our interlocutor is saying something absurd when asserting something lexically false, so we invoke the *Principle of Charity*⁷, which requires that we interpret our interlocutor to be saying what we take to be the most rational sentence, perhaps by paraphrasing their intended meaning in some long-form discourse or description.

Continuing with such an account, what we could see as a difference between each set of lexical translations between m_1 and m_2 , and m_1 and m_3 is that a "porcupine" serves as a different

prototype in the geographical regions each language is typically spoken. A prototype is the “most typical or representative member of a category”, but “none of [the prototypes are] necessary or sufficient for category membership” (Seel 2012b, 2714). Applied to language, a prototype is the most proper meaning of a word (i.e., something found in a dictionary), but it is not necessary or sufficient for this entire meaning to be contained within a deviant usage. In the porcupine case, there are *Hystricidae* and *Erethizontidae* porcupines (i.e., old world ‘OW’ and new world ‘NW’ porcupines, respectively). OW porcupines are from southern Europe, Asia, and most of Africa, whereas NW porcupines are only in north and south America. OW porcupines are known to be very large and exclusively nocturnal, whereas NW porcupines are much smaller and can be seen roaming around either during day or night. Most people in the respective schema might have one assumption over the other, if any at all, but it is solely based on the individual’s accumulation of knowledge and basic assumptions over time and is not contained in the word porcupine properly.

As I intend to show, metaphorical meaning goes much deeper than just the aforementioned “prototypical member of a category” account. Rather, it draws on how categories (i.e., components of a cognitive schema) are related and evoked during the use of a metaphor. Ricœur, and related thinkers, still hold that metaphor is on the edge of the semantic and cognitive, but they push back on the cause of untranslatability being a difference in signs or prototypic alterations. In particular, “the metaphor is more than a mere substitution for another literal word which an exhausting paraphrase could reconstitute at the same place” for, if this was the case, nothing new would be said (Ricœur 1974, 101). The untranslatability comes from, in Black’s words, “interaction-metaphors [being] not expandable ... this use of a subsidiary subject to foster insight into a principal subject is a distinctive intellectual operation”; in other words, metaphor cannot be translated via traditional semantics without “a loss in cognitive content” (Black 1962, 46). Regardless of exactly what the person saying the metaphor meant or what the listener interpreted, the metaphor itself does not have one and the same meaning from

either of the interpreters, nor one in the same meaning each time a speaker considers the metaphor them self—though more on that in a moment. The metaphor is ambiguous, as each person is only trying to approach their interlocutor in understanding without ever quite getting there. As such, mistranslations occur irrespective of the language used and happen all the time within the very same language; that is to say the closer one’s schema is to another, the closer the approximation of meanings without actual equivalence.⁸

For instance, suppose I turn to my friend Tugi and say “Prithvi is a porcupine”, with Prithvi being someone we are both close to and have similar shared experiences with since we met him at roughly the same time. Tugi’s response will undoubtedly be one of momentary confusion followed by an extension to the discourse. He might affirm that my assertion is true or might say, to the contrary, “Prithvi is more of a(n) ①”, where ① is some framing predicate. This signals a sense of created understanding. Tugi would not say that “Prithvi”, which quantifies over a certain set of logical predicates, and “porcupine”, which quantifies over a different set of logical predicates, perhaps with some overlap, are not numerically or qualitatively identical and therefore the assertion is false. We are charitable beings. Tugi would try to resolve the ambiguous puzzle by drawing on the semantic context I have provided and the imagination and knowledge (i.e., context) he is bringing to the discourse. He would not leave the conversation with the charge of me being absurd, but would try to translate what I have said to him into something he can understand as best he can. We do not have to be completely certain via a perfect logical translation to understand what is being said, just as we do not have to have logical certainty from scientific induction to be sure that the chair beneath me will not collapse the next time I sit on it.

The difficulty consistency of meaning for a metaphor at some time t_1 and a later time t_2 comes from the categories being engaged in the discourse. When we offer something like “Prithvi” and “porcupine”, we are not merely referencing two specific beings, but also evoking meta-categories that ascribe properties to those subcategories implicitly, with “meta-

categories” being inter-related abstractions of a higher logical formed from experience. For instance, Prithvi not only refers to a man, but men more generally, the human animal, and so forth. If, given the proper context, Prithvi as a man could also get at more distant and abstract categories like mortality, fallibility, humility, fragility, and so forth. Similarly, porcupines could draw from categories like rodent, animal, or the wilderness. In a more distant and abstract way, it could get at purity, bravery, innocence, love, and so forth. When a live, or novel, metaphor is presented, all of those abstract and non-abstract categories are potentialities of meaning that could interact and drive forward some potential ‘solution’ to the metaphorical puzzle. What we see in the transition from live to dead metaphors is merely that we are closing out the higher-order logical categories and assume a pre-established connection. Why would we do this? Language is a pragmatic enterprise—we *need* to kill metaphors. If for every conversation we needed to pull in essentially infinite context by going up into a higher predicate level, you wouldn’t be able to act. For instance, if I use the metaphor “I spent time at work today”, we just assume that I went to work today and not that I ‘withdrew’ from some bank-account containing the hours of my life, or that my time is a type of spendable currency, or that work is transactional, or anything of the sorts. Such interpretations in meaning are possible, but would not traditionally be pointed at for pragmatic reasons. Further, this picture shows that the live and dead metaphor distinction is not a binary criterion, but moves in a gradient or in degrees.

4. Cognitive and Semantic Confusion: a Split-tension

What needs to be emphasized is that the aforementioned “confusion” that Tugi feels when I give a cryptic metaphor *is* the cognitive-side of tension for Ricoeur, which goes hand-in-hand with impertinent predication (semantic tension) at the level of language. The more bizarre or logically distant two concepts are from each other, the more tension the receiver of a metaphor undergoes. We are meaningful beings and, to some degree, narrative-based beings; when we engage in

conversation, listen to discourse, or interact with a text, we struggle to make sense of language in order to make sense of another. There are two clear driving forces in this area. The first is that to understand another is to have social capital, in that, it is a useful behavior for survival.⁹ On the other hand, there is an actual discomfort that linguistic confusion causes when we do not understand (i.e., the discomfort and intrigue of an enigma). For Ricœur, “the tension and contradiction [of metaphor] point only to the form of the problem within the enigma, what one could call the semantic challenge or, in Jean Cohen’s terms, the ‘semantic impertinence’” (Ricœur 2004, 229). In other words, we attempt to understand the enigma or semantic challenge put in front of us.

Through this attempted understanding, we are *making* two things that are dissimilar, similar by establishing new connections between distant ideas (i.e., redescribing reality in a new way). These new connections are initially in only a mental model and, if too dissimilar to our schema, we can either fully reject the metaphor or omit its meaning altogether. On the other hand, if the metaphor is not strange enough (i.e., their resemblance has died or collapsed into polysemy), no twist in meaning happens at all. When the association is finally made between dissimilar ideas, we can feel a rush of pleasure as we have a working definition of meaning. What is important to note is that, as mentioned before, to make this association does not mean the resolution *is* the meaning of the metaphor, it is merely what the meaning is taken to be.

The tension caused by trying to associate two drastically dissimilar ideas is something we see some evidence for in the cognitive sciences. When literal sentences, conventional metaphors, and novel metaphors are compared, there are degrees to the amount of the brain that is activated and where that activation occurs. Take the following study results. Conventional metaphors show slightly more activation in the right inferior temporal gyrus compared to the literal condition; anomalous (novel) metaphors compared to the literal shows much greater activation bilaterally in the frontal and temporal gyri; anomalous metaphor compared to conventional metaphor “shows bilateral activation in the middle frontal gyrus and the

precentral gyrus, and right-hemisphere activation in the superior frontal gyrus” (Ahrens et al. 2007). For context:

The left hemisphere activation in the frontal and temporal gyri point to the recruitment of traditional language-based areas for anomalous metaphor sentences, while the right-hemisphere activation found suggests that remote associations are being formed (Ahrens et al. 2007).

While it is important in cognitive science, and neuroscience for that matter, to never overstate the interpretation of fMRI results—particularly to say that certain activation *really* points to a specific, clearly defined behavioral meaning—I reference this study and allude to many others like it because we empirically see that there is something qualitatively and quantitatively different about novel metaphors compared to everyday language use. This result drastically contrasts many accounts that discount metaphor as being integral to the study of language.

5. Conclusion

As the cognitive sciences continue to develop and draw on philosophy for theoretical and normative guidance, I attempted to show that Paul Ricœur’s conception of metaphor provides critical insights to the nature of language that might aid in that enterprise. There is still much work to do regarding what drives the difference between novel metaphors and standard language. I have tried to show that the tensional aspect of metaphor appears to play an important role in understanding meaning in discourse and that such tension challenges us to push beyond constrained formalistic systems of language, especially as it relates to the cognitive sciences. This account also raises questions in the field of education—particularly when considering the parallels between “killing” a metaphor and what we tend to think of as “learned knowledge”. At the very least, the connection between Ricœur’s metaphorical theory and cognition shows that many dominant understandings of language are almost certainly incomplete.

NOTES

¹ I thank the two anonymous reviewers for their helpful comments on earlier drafts of this manuscript. Also, I offer a special thanks to Fernando Nascimento, Ph.D. for both his outstanding mentorship and friendship, as well as to Bowdoin College for allowing me the opportunity for this scholarship.

² See (Davidson 1978); (Moran 1989); (Rorty 1989) for positive accounts. See Reimer (1996, 2001, 2004) and (Black 1979) for critical responses.

³ There are many other accounts at this level that have not been referenced for simplicity sake, as they are not relevant to the thesis of the article.

⁴ See study four “Metaphor and the semantics of the word” in (Ricœur 2004) for full critique.

⁵ See (Ayoub 2007) for a simplified dialogue between Davidson and Black regarding the status of meaning for sentence-metaphor.

⁶ By “meta-realistic imagination”, I refer to the idea that we can imagine real objects taking on roles that we have never experientially encountered. In doing so, we can alter our immediate understanding of reality as it relates to linguistics. This is essentially deviant predication, where to say X is Y is to produce a dialectical between one’s prototypical understanding of X and of Y. This can create a new understanding that comes from the tension of “(X and Y) and (X and not Y)”.

⁷ “We make maximum sense of the words and thoughts of others when we interpret in a way that optimises agreement” (Davidson 1973, 19).

⁸ While the non-translatability of metaphorical language faces sharp criticisms from thinkers both in and out of the continental tradition, a full reconstruction of Ricœur’s argument is beyond the scope of this paper. See (Davidson 1973), (Quine 1969) for examples of criticisms of untranslatability as it relates to both trivial and sophisticated accounts of relativism and non-relativism.

⁹ I am not alluding to any form of naturalized epistemology like W.V.O Quine or the “Darwinian Dilemma” offered by Sharon Street. I am merely stating that, in terms of social beings operating in everyday hierarchies, communication makes it easier to live a prolonged life, whether it is for prevention of mental illness, access to resources, or procreation (i.e., avoiding any social *faux pas*).

REFERENCES

Ahrens, Kathleen et al. 2007. “Functional MRI of Conventional and Anomalous Metaphors in Mandarin Chinese.” *Brain and Language* 100 (2): 163–71.

- Al-Diban, Sabine. 2012. "Mental Models." In *Encyclopedia of the Sciences of Learning*, edited by Norbert M. Seel, 2200–2204. Boston, MA: Springer US.
- Ayoob, Emily. 2007. "Black & Davidson on Metaphor." *Macalester Journal of Philosophy* 16 (1): 6.
- Black, Max. 1962. *Studies in Language and Philosophy*. Cornell University Press.
- . 1979. "How Metaphors Work: A Reply to Donald Davidson." *Critical Inquiry* 6(1): 131–43.
- Carroll, Sean M. 2019. "Curvature." In *Spacetime and Geometry: An Introduction to General Relativity*, 93–150. Cambridge University Press.
- Davidson, Donald. 1973. "On the Very Idea of a Conceptual Scheme." *Proceedings and Addresses of the American Philosophical Association* 47: 5–20.
- . 1978. "What Metaphors Mean." *Critical Inquiry* 5 (1): 31–47.
- . 1979. "The Inscrutability of Reference." *The Southwestern Journal of Philosophy* 10 (2): 7–19.
- Einstein, A. n.d. "English Translation of 'The Foundation of the General Theory of Relativity.'" *The Road to Relativity*. doi:10.2307/j.ctt1vwmgv8.14.
- Moran, Richard. 1989. "Seeing and Believing: Metaphor, Image, and Force." *Critical Inquiry* 16(1): 87–112.
- Quine, W. V. 1969. *Ontological Relativity & Other Essays*. Columbia University Press.
- Reimer, Marga. 1996. "The Problem of Dead Metaphors." *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 82(1): 13–25.
- . 2001. "Davidson on Metaphor." *Midwest Studies in Philosophy* 25 (1): 142–55.
- . 2004. "What Malapropisms Mean: A Reply to Donald Davidson." *Erkenntnis. An International Journal of Analytic Philosophy* 60(3): 317–34.

Ricoeur, Paul. 1974. "Metaphor and the Main Problem of Hermeneutics." *New Literary History* 6(1): 95–110.

_____. 1978. "The Metaphorical Process as Cognition, Imagination, and Feeling." *Critical Inquiry* 5(1): 143–59.

_____. 2004. *The Rule of Metaphor: The Creation of Meaning in Language*. Routledge.

Rorty, Richard. 1989. *Contingency, Irony, and Solidarity*. Later Printing edition. Cambridge University Press.

Seel, Norbert M. (ed.). 2012a. "Cognitive Structure." In *Encyclopedia of the Sciences of Learning*, 619–619. Boston, MA: Springer US.

_____. (ed.). 2012b. "Prototype." In *Encyclopedia of the Sciences of Learning*, 2714–2714. Boston (MA): Springer US.

_____. 2012c. "Schema(s)." In *Encyclopedia of the Sciences of Learning*, edited by Norbert M. Seel, 2933–36. Boston, MA: Springer US.

Patrick F. Bloniasz is an aspiring researcher in the cognitive sciences and education, frequently writing about philosophical 'Personal Identity', neurolinguistics, reflexive biological processes, and educational assessment theory. Bloniasz is the Director of Education at Aeon for Ocean and is a contracted research consultant for the US State of Maine in Public Policy. He has recently worked as a Neuroscience and Mathematics Research Fellow at Bowdoin College. He has authored several state and national reports centered around educational policy and recently gave a TEDx talk titled "The Skewed Value Hypothesis" (2019). He is currently researching ergodicity in educational assessment theory and the symbolic character of grading.

Address:

Patrick F. Bloniasz
452 Smith Union
Bowdoin College
Brunswick, Maine, USA, 04011
Email: patrick.bloniasz@gmail.com
Website: www.patrickbloniasz.com