

Bidirectionality and Metaphor: An Introduction

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Abstract The authors first present the interaction theory of metaphor, emphasizing its notion of bidirectionality. They then discuss the relationship between bidirectionality and blending, making explicit the different expectations regarding bidirectionality deriving from interaction theory and blending theory. With this as a suitable background for this special issue on bidirectionality in metaphor, the authors then provide a brief introduction to each of the essays that appear in the issue.

Keywords interaction theory, gestalt, blending, tension, cognition

The Interaction Theory of Metaphor

It is not inconsequential that in developing his interaction theory of metaphor, Max Black uses the metaphor “man is a wolf,” a metaphor that is incompatible and even grotesque in its juxtaposition of man and animal. As we shall argue in our own essay in this issue, the grotesqueness of this

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image is a key to understanding what we shall term a potential for “bidirectionality” in metaphor comprehension. Let us, however, develop this claim in stages. Max Black (1962: 41) writes:

The effect . . . of (metaphorically) calling a man a “wolf” is to evoke the wolf-system of related commonplaces. If the man is a wolf, he preys upon other animals, is fierce, hungry, engaged in constant struggle, a scavenger, and so on. . . . The wolf-metaphor suppresses some details, emphasizes others—in short, *organizes* our view of man. . . . We can say that the principal subject is “seen through” the metaphorical expression—or, if we prefer, that the principal subject is “projected upon” the field of the subsidiary subject (emphasis original).

If, at this preliminary stage, we look at the nominative “A is a B” metaphor, then following Black, we can attempt to visualize the process of metaphor comprehension (How is A a B?) by means of Figure 1.

Much has been written on the analysis of such a nominative metaphor (e.g., Chiappe, Kennedy, and Chiappe 2003; Chiappe, Kennedy, and Smykowski 2003; Gentner et al. 2001; Glucksberg and Keysar 1990), yet little of it has explicitly adopted Black’s way of seeing the principal subject A (the tenor,

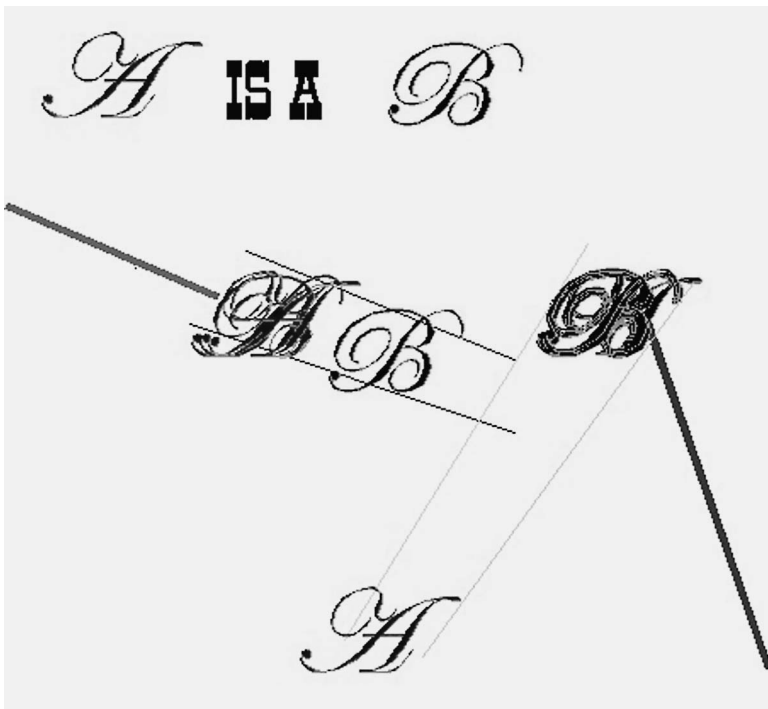


Figure 1 Visualizing the process of metaphor comprehension

topic, target, primary subject) through the lens of the subsidiary subject B (the vehicle, source, secondary subject), or of “project[ing]” A “upon” the field of B. We have tried to capture this projection in Figure 1. As A is seen through the lens of B, A becomes much more similar to B than it previously was. This is a process, and not a static comparison. As Roger Tourangeau and Robert Sternberg (1982: 212–13) write, “Interaction theorists argue that the vehicle of a metaphor is a template for seeing the tenor in a new way. . . . In Black’s view . . . interpretation involves not so much comparing tenor and vehicle for existing similarities, as construing them in a new way so as to create similarity between them.”

Black (1962: 44) continues, “If to call a man a wolf is to put him in a special light, we must not forget that the metaphor makes the wolf seem more human than he otherwise would.” In our understanding, and again with reference to Figure 1, it is true that, in the first stage of comprehending “A is a B,” A becomes much more similar to B than it previously was. But now B is “projected upon” the field of A, which has already undergone transformation in the first stage. So we have a new A and a new B, and these two are in juxtaposition in stage 2 of the process. Again, to cite Tourangeau and Sternberg (1982: 214), “metaphors generally involve seeing something (men) in one domain in terms of something (wolves) in a second domain, with a resulting change in our view of both domains.” And as Raymond Gibbs (1994: 238) stresses, “the whole point of interactionism is that *both* terms affect the meaning of the other. The ‘seeing as’ often associated with metaphor is multidirectional. If man is seen as wolf, so too is wolf seen as man in ‘Man is a wolf’ (Black, 1979, emphasis original).”

This, then, is the interaction theory of Max Black, which is actually a theory about the process of metaphor comprehension. There are various stages in this process: in the first, A is seen through the lens of B; in the second, B is seen through the lens of an already transformed A; in the third, a transformed A is now seen through the lens of a transformed B, as well as a transformed B being seen through the lens of a transformed A. Clearly, then, A and B are shifting percepts or concepts within a dynamic, interactive process. Bidirectionality is an integral part of this interactive process because, while A is seen through the lens of B, B is also seen through the lens of an already transformed A. As Bipin Indurkha has noted, in “the interaction, the target is structured in terms of the source, as much as this can be done because the target has its own attributes, which constrain how it can be structured, so that the resulting organization is influenced both by the source and the target” (2006: 144).

Is there a resolution to this iterative process of metaphor comprehension? To address this question, we turn to Heinz Werner and Bernard Kaplan (1963: 21–22) who write:

Here we come to an important tenet of organismic theory of symbol formation: the act of denotative reference does not merely, or mainly, operate with *already formed* expressive similarities between entities. Through its productive nature, it brings to the fore latent expressive qualities in both vehicular material and referent that will allow the *establishment of semantic correspondence* between the two entities. It is precisely this productive nature of the denotative act that renders possible a symbolic relation between any entity and another. Such a possibility could never be realized if one were dealing with *static* entities, namely, the symbolic vehicle as an end product and the referent as a preformed “thing out there.” It is only realized because it rests on *twin form-building processes*, one directed towards the establishment of meaningful objects (referents), the other directed towards the articulation of patterns expressive of meaning (vehicles) (emphasis original).

As they insist, this is a dynamic, interactive, developmental process. Indeed, we suggest that if this process of metaphor comprehension is developmental in nature, then in line with Werner’s exposition of a general principle of development (1978: 108–9), such development “proceeds from a state of relative globality and lack of differentiation to a state of increasing differentiation, articulation, and hierarchic integration.” Specifically, the process of metaphor comprehension entails the differentiation and articulation of two unidirectional readings, namely, A is seen through the lens of B, and/or B is seen through the lens of A or, as we suggest, of an already transformed A. In addition, there is the possibility of their integration (what Werner terms “hierarchic integration”) that results in a higher-order gestalt. Indeed, as we have previously argued, metaphor is a gestalt (Glicksohn and Goodblatt 1993)—to which we now add that the process of metaphor comprehension might eventually lead to a higher-order gestalt, wherein the bidirectional readings are integrated. This, we stress, is a goal that is not necessarily achieved by readers of a text when interpreting poetic metaphor.

Bidirectionality and Blending

At this critical point in our presentation, it is necessary to distinguish this concept of bidirectionality from that of blending. To do so, we will first elaborate on the history of those theories of metaphor that are relevant for a discussion of both interaction and blending theories. Max Black’s interaction theory was heavily influenced by Ivor A. Richards’s proposal that “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” (1936: 93). Prior to Richards, there is a whole philosophical enterprise, including such scholars as Gustav Gerber (1820–1901), Philipp Wegener (1848–1916), Alfred Biese (1856–1930), and Karl Bühler (1879–1963), paving the way for such a view of the *interactive* nature of metaphor (Nerlich and Clarke 2000, 2001). But it is Black (1962, 1979) who is credited with this notion of bidirectionality and of this explicit interaction theory. Yet George Lakoff and Mark Turner (1989: 131–32), in presenting their conceptual metaphor theory (CMT) as applied to poetic metaphor, were very thorough in their categorical dismissal of bidirectionality. They write:

Unfortunately, this very real phenomenon has been analyzed incorrectly as follows: the target domain is described as “suffusing” the source domain, and it is claimed that the metaphor is bidirectional—from target to source as well as from source to target. Indeed, according to this theory, there is no source or target. There is only a connection across domains, with one concept seen through the filter of the other. Here’s what is wrong with such an analysis.

When we understand that life is a journey we structure life in terms of a journey, and map onto the domain of life the inferential structure associated with journeys. But we do not map onto the domain of journeys the inferential structure associated with the domain of life. . . . We map one way only, from the source domain of journey onto the target domain of life.

Yet even while interaction theory and its concept of bidirectionality is attacked, Black himself is not really mentioned; as Ray Jackendoff and David Aaron (1991: 322) note in their review of Lakoff and Turner’s book, “only in the appendix is Max Black cited as an adherent of this approach [interaction theory].”

One plausible reason for ignoring Black is that he himself (1981) had reviewed the book *Metaphors We Live By* (1980), in which Lakoff and Mark Johnson first presented their conceptual metaphor theory, and was not forthcoming with praise. He writes, “Their exposition is endemically slipshod [and] the copious literature on metaphor is almost completely ignored” (1981: 210). Lakoff notes in an interview regarding his subsequent dismissal of Black, “I had read Black and I had no interest in what Black was doing. . . . What influenced me was the discovery that ordinary, everyday thought and language, and specially ordinary everyday thought, is structured metaphorically” (1998: 89).

Subsequently, the line of scholarship developing prior to Richards (Nerlich and Clarke 2000, 2001) and then continuing from Richards and Black (Goodblatt and Glicksohn 2003, 2010) has been virtually sidestepped. CMT was

presented as a new theory of metaphor, which dismisses the claims (or misunderstandings) of interaction theory (see, for example, Gibbs 1994: 238; Lakoff and Turner 1989: 133). CMT has itself been replaced by conceptual integration theory, or blending theory, wherein the interactive nature of metaphor has resurfaced as a “new” finding, demanding the modification of CMT, and indeed its evolution into blending theory. As Charles Forceville (2004: 86) notes in his review of this theory developed by Gilles Fauconnier and Mark Turner (2002),

one of the alleged assets of blending theory that is repeatedly emphasized by Fauconnier and Turner is that it can explain emergent structure. Inasmuch as the blended space generates aspects of meaning that inheres in neither of the input spaces, conceptual integration yields something more than the sum of the component parts and hence clearly has a creative dimension. That is correct but, again, the notion of novel, emergent features has its roots in metaphor theory—not so much in the book on literary metaphor Turner himself coauthored with George Lakoff, *More than Cool Reason* (1989), but rather in Max Black’s “More about Metaphor” (1977/1979).

Even now, this version of events is being revised, with Scarlet Marquette writing in a footnote that blending theory “is deeply indebted to Max Black, as well as to Black’s predecessors in the formulation of metaphor theory, I. A. Richards and Paul Ricoeur” (2007: 698).

We propose that blending theory, with its emphasis on a process model for metaphor comprehension, has supplanted CMT, for essentially two reasons: the limitations of CMT’s concept of a unidirectional mapping, and the inability of CMT to convincingly address the emergent structure underlying poetic metaphor. As two of the major proponents of blending theory, Fauconnier and Turner (1998: 133–38) write:

Conceptual integration—“blending”—is a general cognitive operation on a pair with analogy, recursion, mental modeling, conceptual categorization, and framing. It serves a variety of cognitive purposes. It is dynamic, supple, and active in the moment of thinking. . . . In blending, structure from input mental spaces is projected to a separate, “blended” mental space. . . . The blend contains emergent structures not in the inputs.

Furthermore, as elaborated by Joseph Grady, Todd Oakley, and Seana Coulson, “material is projected from both the source and target spaces to the blend. This arrangement contrasts with the simple, unidirectional projection posited by CMT, in which mappings are from source to target” (1999: 103). Thus, blending theory is quite sympathetic to the concept of bidirectionality. Even so, Lakoff (2014: 8), in discussing the recent work on bidirectionality in social cognition (Lee and Schwarz 2012), has recently cautioned

that “bidirectionality of experimental effect may or may not mean bidirectionality of the metaphorical mapping.” Be that as it may, we propose that while blending theory—with its emphasis on emergent structure and, further, of bidirectionality—might well contrast with CMT, it still presents a different theoretical position to metaphor comprehension in comparison with interaction theory. For while blending theory predicts the complete fusion of the two domains, we rather predict a continued potentiality for—and tension among—possible readings (Goodblatt and Glicksohn 2016a, 2016b), as we address in the next section.

Bidirectionality and Metaphor

The first point to note concerns the tension between the primary subject and the secondary subject of the metaphor. As Eva Kittay (1987: 184) has stressed,

if we want to preserve the tension, we cannot give an account of interaction which neutralizes all tension between vehicle and topic . . . Unless this tension is preserved, the “suppress[ion of] some details” and emphasis of others does not really *organize* our view of man, for unless the categories of man and wolf remain distinct we cannot use one distinct entity—with its systematic interconnections—to reconceive the other (emphasis original).

This is the same point stressed by Richards (1936)—there is an inherent tension between the tenor and the vehicle of the metaphor. In other words, there cannot in principle be a total fusion of the two concepts; hence their blending can only be a potential that is not usually realized. Ray Jackendoff and David Aaron (1991: 334), in their review of Lakoff and Turner (1989), provide their own take on this interactive nature of metaphor:

What is the outcome of creating a relationship between the incommensurable source and target domains? [Lakoff and Turner] claim that it is an understanding of the target domain in terms of the source domain. We suspect there is more, something like a “fusion” or “superimposition” of the source and target domains. . . . This hypothesis sharply differentiates metaphor from simile, where the source and target domains are merely compared, not superimposed. . . . According to this approach, the mental representation evoked by a metaphor, as well as its affective power, are the result of superimposing the meaning of the source and target domains. Fine details of a source image that do not find precise correlates in the target domain still contribute to the meaning and affect of the composite. Hence the proliferation of image detail in poetic metaphor is motivated: it contributes to the richness of the interpretation.

Their comments on the inherent tension between the two subjects of the metaphor should be highlighted. They continue:

In addition, the superimposition operation itself has important effects. The most obvious is the affect contributed by using one entity as a symbol for another. . . . A second effect of the superimposition operation is the sense of tension conveyed by incongruously fusing two disparate domains. The interpreter seeks to resolve this tension by finding points of contact or structural similarity between the two domains, so that they become point-by-point more congruent — this is the mapping process described by [Lakoff and Turner]. Yet this in turn can lead to a third effect, the production of further tension, as the domains themselves are refocused and restructured in order to bring about greater congruence — this is the “interaction” described by Black (1979). . . . (1991: 335)

The second point, one that was raised by Forceville, is that “the ‘oscillation’ between the subjects may go on and lead to further elaborations of the metaphor” (1996: 21). In other words, as we have stressed here, we are referring to a process of metaphor comprehension, wherein one unidirectional reading may move into a second unidirectional reading, without necessarily achieving some form of resolution of the problem of how to reconcile one reading with the other. It is interesting to consider how such “oscillation” presents itself with respect to “man is a wolf.” As part of our own research, presented in this issue (Goodblatt and Glicksohn 2016b), we asked our participants to consider this metaphor prior to the reading of a poetic text. Table 1 presents two protocols as examples of such readings. Reader S5.S1 presents a unidirectional reading of man as wolf, first looking at physical similarity, but then refers to the wolf as “someone” who is “predatory like a person is predatory.” Reader S4.S1 sees them as echoing each other, with the “dehumanizing of the man” echoing “the personification of the wolf.” This is a fine bidirectional reading of the metaphor, and it echoes Black’s insight that

Table 1 Protocols for the metaphor “man is a wolf”

Reader S5.S1 Man as Wolf	Reader S4.S1 Man as Wolf/Wolf as Man
<p>If man is a wolf then maybe looking like a wolf? Hair of a wolf, the eyes the ears and maybe the character of a wolf? A wolf is someone, a predator, sneaky, suspicious, but also loving and caring . . . a wolf is part of something like a man is part of something . . . predatory like a person is predatory . . . man is like a wolf in his character, his personality, but also can be in the notion of the man as a wolf, in the social notion.</p>	<p>Because I see them [man, wolf], it’s like they echo each other. The dehumanizing of the man echoes the personification of the wolf.</p>

if “to call a man a wolf is to put him in a special light, we must not forget that the metaphor makes the wolf seem more human than he otherwise would” (1962: 44).

We further claim that bidirectionality in a metaphor is sustained in two primary ways: a clash of sharp visual images and a use of the grotesque. If Gibbs (1994: 133) is correct in his assertion, that “imagery provides a means by which two previously dissimilar domains can be incorporated into one concept, because the task of comprehending metaphor presumably involves fusing two such domains,” then a clash of sharp visual images will prevent such fusion or blending. Furthermore, the emphasis here is on *sharp* because fuzzy images might be blended. The use of the grotesque, itself potentially involving such a clash of visual images (Harpham 1982: 11; Thomson 1972: 27), is a particularly interesting case, and we discuss this in our article in this special issue (Goodblatt and Glicksohn 2016b).

This Special Issue on Bidirectionality

The essays that we have commissioned for this special issue of *Poetics Today* bear on one or another aspect of bidirectionality in metaphor. We have ordered these essays such that a certain degree of balance is achieved both with respect to the disciplines represented and with respect to the claims made about bidirectionality in metaphor.

In the first essay, the semiotician Marcel Danesi presents an overview of various theories of metaphor, suggesting that those implicating the interaction theory of metaphor, as explicated above, invoke notions of interaction, projection, and blending. And yet, as he writes,

each model can be described as a “unidirectional” one, since it posits essentially that metaphor is the result of enlisting concrete vehicles in order to shed light on (and even construct) abstract topics. By and large, these models have not entertained the possibility that metaphor is actually a “bidirectional” process, whereby not only does it involve enlisting concrete vehicles to guide abstract conceptualization, but also the reverse — namely, that abstract topics allow us to understand the vehicles. In other words, the parts of a metaphor implicate each other in tandem.

In their essay, the psycholinguists Albert N. Katz and Hamad Al-Azary suggest that three properties of semantic space “provide boundary conditions that invite uni- or bidirectionality when concepts are juxtaposed as in metaphor.” These properties are: (1) the distance of concepts A and B in this space; (2) the density of semantic space in which A and B reside; and (3) the semantic richness of this space for concrete and abstract concepts.

They argue that “bidirectionality is more likely to be found when topic and vehicle come from semantically distant categories, in part because with distant categories there are fewer features that can be found relevant to both topic and vehicle.”

Moving to linguistics, Roy Porat and Yeshayahu Shen address verbal metaphors and comparisons, and argue that the relation between the same two concepts/domains can, in principle, be either bidirectional or unidirectional. They suggest that bidirectionality is, in fact, “more basic than the unidirectional, in that it can be triggered by the mere presence of the two stimuli; in contrast, the unidirectional process requires an additional mechanism for it to be fully realized.” This additional mechanism is the linguistic structure of the verbal metaphor. For as they write: “In a sentence, the grammatical subject and the predicate typically tend to encode the target and the source, respectively.” Hence, unidirectionality stems from the structure of the metaphorical phrase.

The cognitive psychologists David Anaki and Avishai Henik address the parallel between bidirectionality in metaphor and in synesthesia. They argue that while discussions of metaphors have suggested that metaphors are unidirectional and in particular move from the concrete to the abstract, current research has suggested that metaphors might work in the other direction also, namely, from abstract to concrete. Similarly, while most studies of synesthesia have documented its unidirectional nature, current research has provided evidence that synesthesia might be bidirectional. They address the question whether these similarities between synesthesia and metaphors are just superficial, or whether they tell us something about our cognitive mechanisms.

The computer scientists Bipin Indurkha and Amitash Ojha address advertisements in their essay, noting that while in “verbal metaphor, the target and the source domains can usually be distinguished clearly, and some features of the source domain are mapped to the target domain, and not vice versa,” this is far from clear in visual metaphor. They argue that “visual metaphors can appear to be symmetric more often than the verbal metaphors, because the lack of copula can turn the focus on the comparison between the source and the target, instead of the target itself.”

The literary critic Margaret Freeman focuses in her essay on both Black’s Interaction Theory and Fauconnier and Turner’s Blending Theory. She concludes “that not only is metaphorical bidirectionality possible, it explains how the arts enable us to iconically connect with the world through our embodied cognition, not as objective observers in the Western classical sense, but as participatory sharers of that world.” Her examples range from a detailed exposition of “Man is a wolf,” discussed above, to the analysis of both advertisements and poetic texts.

In the final essay, Chanita Goodblatt (a literary critic) and Joseph Glicksohn (a cognitive psychologist) discuss the grotesque nature of John Donne's poetic imagery, which constitutes "a clash of incompatibles, generated by the great distance between the two semantic fields." We argue that it is this clash that sustains bidirectionality in a metaphor, by preserving the tension between its two subjects, while allowing each to alternatively become the focus of one's attention while reading. Through both a cognitive-literary and an empirical study of the metaphors in Donne's poems "The Bait" and "The Flea," we show how these metaphors enable both embodied simulation and bodily feeling in the reader. We argue that Donne is, in fact, an early advocate of embodied cognition.

The reader will thus find in this special issue an up-to-date assessment of the study of bidirectionality in metaphor. Our primary objectives are five-fold. First, we set out the intellectual history focused on the concept of bidirectionality, which is particularly evident in this "Introduction" and in the essay by Marcel Danesi. As these essays argue, the two major theories that promote the concept of bidirectionality in metaphor, the Interaction Theory of Metaphor and Blending Theory, both derive from a rich interdisciplinary heritage; we hope our readers will appreciate both the similarity—and especially the dissimilarity—between these two theories, and their predictions regarding bidirectionality. Secondly, as this special issue demonstrates, the interdisciplinary aspect of this intellectual history continues in current scholarship and research in metaphor. The essays in this issue present points of view from semiotics, psycholinguistics, linguistics, cognitive psychology, computer science and literary criticism, even while ultimately downplaying such disciplinary distinctions. Thus, for example, the next two essays are not entrenched in their respective disciplines of psycholinguistics (Katz and Al-Azary) and linguistics (Porat and Shen), but rather bear as much relevance for the fields of cognitive psychology and for literary criticism as they do for the study of verbal metaphor on which the authors focus. Our third objective in editing this special issue is to highlight different methods of research: theoretical analyses, empirical studies, and textual analysis appear in various essays, and sometimes all within the same essay. This is clearly the case for the final three essays in this issue (Indurkha and Ojha; Freeman; Goodblatt and Glicksohn); both theorists and those conducting empirical research in this domain should benefit from seeing how each type of scholarship can inform the other. Fourthly, visual metaphor, verbal metaphor and adjacent phenomena such as simile, synesthesia, and analogy, are all analyzed and demonstrated in the various essays. Thus, bidirectionality is not analyzed solely with respect to conceptual metaphor, and in turn with respect to Blending Theory, but also with respect to a wider frame of reference.

What is more, researchers studying bidirectionality in metaphor should be acquainted with bidirectionality in synesthesia, as presented in the sixth essay in this issue (Anaki and Henik). At the same time, researchers studying synesthesia will now be able to view their work within this wider context of interest. Finally, our fifth goal in editing this special issue was to chart out paths for future research based on the scholarship presented here. Various ideas might come to mind on reading these essays: Can synesthetic metaphor inform our understanding of bidirectionality? If unidirectionality is a linguistic constraint of verbal metaphor, is bidirectionality encouraged by visual metaphor? What are the implications for the study of bidirectionality in metaphor for a specific poetic text—and a specific literary tradition? If our readers come away with an appreciation of the importance of bidirectionality in metaphor, as well as with questions they would like to investigate in their own work, then our objectives will have been fulfilled.

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