METAPHOR AND THE RESHAPING OF OUR COGNITIVE FABRIC

by Betty J. Birner

Abstract.   Mary Gerhart and Allan Russell view our world of meanings as a fabric of concepts and relations. Metaphor bends this fabric, superimposing one concept on another. While Gerhart and Russell are right to view metaphor as a cognitive rather than a purely linguistic phenomenon, their model misses the danger inherent in a cognitive restructuring that leaves some features of a concept highlighted and others backgrounded. When the bending of the conceptual fabric becomes permanent, the essential metaphorical insight is lost, leaving a skewed understanding of reality. We have a tendency to retain the metaphorically altered cognitive topography while forgetting its nonliteral genesis. Thus, the metaphoric process is one from which proceeds not only insight but also, necessarily, misconception.

Keywords: cognition; cognitive science; epistemology; language; linguistics; metaphor; nonliteral language; ontology; religion; science; theology.

Mary Gerhart and Allan Russell (1984; 2001) propose an analysis of metaphor which is itself a metaphor. Borrowing imagery from cognitive science, particularly the connectionist camp, they view knowledge structures as complex nets woven of concepts (the junctions) and relations (the strands that connect them). The resulting fabric is subject to bending and reshaping, and therein lies the metaphor: Cognitive structures are viewed as woven fabrics that can be folded over to bring distant areas closer together. This makes for a model that is interestingly self-referential and, hence, subject to evaluation by the same criteria by which Gerhart and Russell suggest that metaphors in general be evaluated, namely, the extent to which they result in new insights and improved understandings.

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In a similar way, in discussing the relationship between science and religion, Gerhart and Russell again make use of metaphor at two levels. On one hand, they argue that science and religion share a common way of coming to truth—via the operation of metaphor; on the other hand, they propose a metaphorical equating of science and religion for the purpose of shedding light on both. Again, these claims can be evaluated on the grounds of their efficacy in bringing us to truth. Thus, there are two aspects of their approach to investigate: first, whether it indeed leads us to a more accurate or helpful understanding of metaphor, science, and religion; and second, what the nature of the truth is that we are hoping to attain. I argue that while Gerhart and Russell are right to view metaphor as a cognitive rather than a purely linguistic phenomenon, their model misses an important property of metaphor and therefore also misses the danger inherent in metaphorical understandings.

GERHART AND RUSSELL'S FRAMEWORK

Gerhart and Russell have been conducting a quarter-century–long bidisciplinary dialogue on theology and natural science, and they have come to believe that the two fields are more alike than different in the ways in which new understandings are developed. In both fields, understanding is mediated by theory. Contrary to the naive but commonly held notion that science derives its understandings from direct experience while religion derives its understandings from the internal and the subjective, Gerhart and Russell make a compelling case that the scientific worldview, too, is made up of second-order, mediated understandings—mediated both by instrumentation and by existing theoretical commitments. We do not understand atoms to exist because we experience them directly but because our instruments and our calculations tell us they must. Analogously, our religious views are shaped by experience, but again, this experience is not immediate but rather mediated by theory—that is, by our preexisting religious forms and understandings. Thus, Gerhart and Russell point out (1984, 55), the original meanings in Christology were mediated by the Hebraic understanding of the Messiah and by the related beliefs and institutions of the time.

Because both religious and scientific views are mediated by theory, and because they often come to us as ontological flashes that carry with them a sense of certain correctness, both genres give rise to understandings that prevail in the face of contrary experience and evidence. Both genres share the goal of seeking truth, and both share knowledge-in-process as the method of approaching that truth. It is the process of coming to know— change in meaning as opposed to permanence of meaning—that they take as the starting point of their analysis, and the problem becomes one of "accounting for the ways in which meanings constitute an affirmed reality

at any given moment in history" (1984, 62). This is where metaphor comes in; in Gerhart and Russell's account, metaphor plays a privileged role in generating new meanings and understandings. It is the metaphoric process, they argue, that takes us from experience to theory.

LINGUISTIC AND COGNITIVE VIEWS OF METAPHOR

The view that we do not understand the world directly but only as mediated through our metaphors is one that has been widely adopted within linguistics, due most prominently to the influence of George Lakoff and Mark Johnson (1980). Not all linguistic schools of thought take this approach; for example, John Searle (1982) and A. P. Martinich (1984) tackle metaphor as a purely linguistic phenomenon. A metaphor is seen as an utterance that strictly speaking is false, and its blatant and mutually recognized falsity sets the stage for the hearer's calculation of the speaker's likely intended meaning. Under this view, a speaker's utterance of "Mary's a peach" does not reflect a cognitive structure in which Mary and her properties are mapped onto and understood in terms of a peach and its properties but rather invites the hearer to recognize the blatant falsity of the statement and to calculate that, because the speaker did not intend to assert that Mary is literally a peach, he or she must instead have intended to convey that Mary has some property or properties that are characteristic of a peach, such as sweetness—with the exact property intended to be inferred via its relevance in the context of utterance.

Thus, there are two ways to approach metaphor: as a linguistic phenomenon and as an issue of cognitive structure. For Lakoff and Johnson, metaphor is "primarily a matter of thought and action and only derivatively a matter of language" (1984, 153). That is, our metaphors show up in language only as a reflection of their existence in our patterns of thought. For Lakoff and Johnson, our way of understanding the world is fundamentally metaphorical; we come to new knowledge in one of two ways— either through direct physical experience with our environment or (more commonly) derivatively, through metaphorical understandings built upon some initial direct physical experience. For example, we have a direct physical experience of the concept *up* and a metaphorical understanding of happiness via the metaphor *happy is up*; this metaphorical understanding is reflected linguistically in expressions such as *I'm feeling up today, My spirits are rising,* and *I'm high as a kite,* as contrasted with *I'm feeling down, I'm mighty low,* and *I'm down in the dumps.*

These two perspectives—viewing metaphor as a linguistic phenomenon and seeing it as an issue of cognitive structure—are not necessarily incompatible but do reflect a difference in degree. On the linguistic view, the mapping of two elements is both a transient and a local phenomenon, an equation asserted for the purpose of drawing attention to a single point of

similarity in a single spatiotemporal context. On the cognitive view, the mapping is more stable and results in a change in conceptual structure that is both lasting and pervasive, a "bending" of worldview that is more or less permanent and does not simply draw together the two elements at a single point of comparison (as with Mary and a peach both being sweet) but more broadly maps one whole system of concepts onto another. There are, then, two continua at work, one of duration and the other of extent. However, there is no necessary dividing line between the two ends of either continuum, and it is possible that the nonce metaphor is simply a more narrow and fleeting case of the same phenomenon of which the dead metaphor is the most entrenched case and of which the mapping of an entire conceptual structure is the most comprehensive. Even in the case of the nonce metaphor, the linguistic utterance reflects a cognitive mapping, however fleeting. For Gerhart and Russell, however, as for Lakoff and Johnson, the metaphors of interest are those that bring about a stable and comprehensive change in our reality.

In Gerhart and Russell's metaphor for metaphor, our world of meanings is a fabric of concepts and relations. Metaphor bends this fabric, superimposing one concept on another, hence bringing the concept/relation fabric of the first in parallel with that of the second. This metaphor of world bending echoes Lakoff and Johnson's discussion of metaphorical imagination as "a crucial skill in creating rapport and in communicating the nature of unshared experience . . . [a skill that] consists, in large measure, of the ability to bend your world view and adjust the way you categorize your experience" (1980, 231). The two views, therefore, have a great deal in common. In fact, to some extent the difference is one of emphasis: Gerhart and Russell are much less interested in the already-established metaphors by which we live and much more interested in the metaphoric process itself as it distorts and changes one's field of meanings.

There is another important difference, however. Gerhart and Russell present metaphor as essentially a bidirectional, symmetrical mapping: the cognitive bending brings together two things that are already known, and the resulting topography favors neither of them. In Lakoff and Johnson's view, however, metaphor is directional. More abstract concepts are metaphorized and understood in terms of less abstract ones. In a framework that symmetrically equates A and B, the metaphor "love is madness" would entail an equivalent metaphor "madness is love," but of course the two do not suggest the same thing at all. Indeed, Lakoff and Johnson argue that an abstract concept such as love has no independent structure outside of that provided by metaphor. Thus, for Lakoff and Johnson, directionality is inherent in metaphor: one concept in a metaphorical pairing is always conceptually better delineated and typically more concrete than the other, and the result of the metaphoric process is that we understand the latter in terms of the former. Nonetheless, both pairs of authors

would agree that the cognition bending entailed by a given metaphorical understanding both affects and effects our view of reality and our external behaviors in a pervasive and lasting way.

THE PROBLEM WITH PERMANENCE

Gerhart and Russell take the constructing of metaphors to be a marker of a "higher level understanding," in contrast to the "naïve understanding" of most persons (1984, 147). Indeed, they posit four kinds of persons, culminating in "the person who reaches a point of vantage from which it becomes possible to reshape the world of meanings by metaphoric distortion," who "transcends the level of second naïveté and the world of meanings itself" (1984, 151).

There are two erroneous assumptions here. The first is that metaphor construction is an activity open to a cognitively advanced minority. On the contrary, Lakoff and Johnson, along with many other writers on metaphor, show that metaphor construction is a basic method (Lakoff and Johnson would say *the* basic method) by which each of us comes to understand our world. The second assumption is that this more or less permanent bending of the cognitive fabric standardly results in an improved understanding of reality. Indeed, their evidence of a metaphor's validity is its ability to take hold and last:

The insights that come at this highest level are not rational. . . . Verification must wait on the gradual assimilation of the new understanding on the part of the community addressed. . . . Those addressed listen, question, examine, experiment and finally either accept or reject. If the result is acceptance, the metaphoric distortion becomes *de rigeur* and the community accepts the new theoretical reality at the level of second naïveté. The metaphor dies. (Gerhart and Russell 1984, 147–48)

This success, resulting in the death of the metaphor (its metaphoricity fading as the community comes to take it as a literal representation of reality), is the result of the metaphor rendering the world more understandable, as evidenced by community acceptance and/or by an "ontological flash" of insight. If the world is better understood, the metaphoric process has succeeded, "the world of meanings assumes its new topography, and the metaphor begins to die" (Gerhart and Russell 2001, 20), with the new topography constituting an improved construction of what we already know (2001, 52).

But how do we know that the new understanding of reality is in fact better than the old? Many authors have shown that the metaphorical bending of reality is almost by definition partially inaccurate. A metaphorical understanding highlights some aspects of a concept (those that map onto the metaphorically equated concept) at the expense of others (those that don't). Gerhart and Russell acknowledge that the metaphoric process twists the world of meanings "such that some meanings formerly distant, become close, and some previously close are now displaced to a distance"

(2001, 18), but they fail to adequately address the danger inherent in a metaphoric process that results in a lasting restructuring of a concept such that some of its features are left permanently foregrounded and others permanently backgrounded.

Michael Reddy, in his influential article on the Conduit Metaphor (Reddy 1979), argues that speakers of English conceive of ideas metaphorically as concrete objects that can be placed into words (metaphorized as containers) and literally "conveyed" to the hearer—a metaphorical conception reflected in dozens of locutions such as *I'm having trouble grasping your ideas, Try putting your thoughts into words, He conveys his ideas well,* and *I didn't quite get your meaning.* Reddy argues that, because we view ideas as objects that can be literally, physically conveyed to another person, we are apt to expect communication to be successful and blame our hearer when he or she fails to "get" our message. (After all, it's "right there" in the words.) In reality, communication is a process of one person attempting to reconstruct another's intended meanings on the basis of little more than a pattern of disruption in the air stream or a pattern of ink blotches on paper. Meaning, he observes, does not lie in the words but only in the minds of speakers and hearers as they work to reconstruct each other's intentions. Communication, then, is an effortful process, and miscommunication is the norm, not the exception. The danger in the metaphoric understanding lies in our assumption that miscommunication is the exception and that when it occurs someone must be at fault. In this case, the metaphor, though accepted by the community, does not result in an improved understanding of reality; on the contrary, Reddy shows that the new understanding of reality is ultimately destructive.

Susan Sontag makes a similar point with respect to an even more important field of meanings in her books *Illness as Metaphor* (1979) and *AIDS and Its Metaphors* (1988). Sontag argues that our view of illnesses such as cancer and AIDS is structured in terms of a military metaphor that stigmatizes both the illness and the person who is ill. We think in terms of invading organisms, aggressive treatments, and immunological defenses. And, like Reddy, Sontag finds that these metaphorical conceptions "have very real consequences: they inhibit people from seeking treatment early enough, or from making a greater effort to get competent treatment" (1988, 14). These metaphors, she argues, kill. The foregrounding of one set of conceptions of disease to the exclusion of others correspondingly highlights certain approaches to dealing with it to the exclusion of others. Much better, she argues, to "regard cancer as if it were just a disease—a very serious one, but just a disease. Not a curse, not a punishment, not an embarrassment. Without 'meaning'" (1988, 14).

Thus, while a metaphorical concept may bring to light new and insightful ways of seeing a concept, it simultaneously hides from our view those aspects of the concept that are inconsistent with the metaphor (Lakoff and

Johnson 1980, 10). Gerhart and Russell themselves provide an example of this phenomenon in the patriarchalism that has resulted from the death of the metaphor "God the father" (1984, 166–67). The concept of a metaphor's death, however, is itself one that bears examination. Philip Eubanks (2000) challenges the idea that metaphors have a predictable life span and that metaphorical "death" is a cohesive notion. While a metaphor may become frozen in a conventional locution, leaving primarily literal reference, it may in other ways remain metaphorically resonant, as Eubanks argues is the case for the metaphor of a "trade war" (2000, 69). Thus, he maintains, it is not always clear whether a metaphor is alive or dead, and literalization does not always entail loss of metaphoricity. In short, conventionalization into the lexicon does not always correlate with loss of metaphorical force, although it does correlate with the stability and pervasiveness that are characteristic of the metaphors Reddy and Sontag warn against. It is in this stability and pervasiveness—the relative permanence that comes with the lexicalization of the metaphor—that the danger resides. When the bending of the conceptual fabric becomes permanent (as assumed by Gerhart and Russell), the essential metaphorical insight is lost, leaving an inaccurate view of reality that is no longer recognized as inaccurate. The metaphor has foregrounded some aspects of the concept while hiding others, but with the lexical stabilizing of the metaphor, the fact of this foregrounding becomes lost. The skewed understanding of the world is taken to be a literal understanding. The metaphoric process is one from which proceeds not only insight but also, necessarily, misconception.

For this reason, perhaps the most crucial component of a reliable metaphorical insight is the eventual cognitive decoupling of the concepts being metaphorically aligned—a point made by Richard Tony Thompson in his paper "Metaphertigo" (2002). Thompson shows that the moment of insight comes not so much in the metaphorical bringing together of two elements as in their ultimately breaking apart again. If A and B are equated permanently, we are left only with the mistaken understanding that they are the same—a misunderstanding with consequences that range from misleading to devastating, as shown by Reddy, Sontag, and others. These are the metaphors sometimes described as dead, those metaphors that have so completely reshaped our conceptual fabric that we no longer recognize their nonliteral nature. On the other end of the continuum is the nonce metaphor, in which A and B are brought together for a moment and then, crucially, decoupled—and, Thompson argues, it is in the decoupling, the recognition that A isn't B after all, that the insight occurs. To put it in terms of Gerhart and Russell's metaphor, we fold the cognitive fabric just long enough to take note of the correspondences, but then we must unfold it again. Our conceptual frameworks are altered by the metaphor in that we do change our understanding of A by virtue of having brought it into alignment with B, but, crucially, we are not left with the misperception

that A *is* B, with the attendant foregrounding and backgrounding of information that can lead us into a permanent misunderstanding of the nature of our reality.

REALITY AND RELATIVITY IN SCIENCE AND THEOLOGY

Gerhart and Russell's assumption that a successful metaphor is one that helps us to better understand reality presupposes that it is possible for us to know reality and hence to recognize what constitutes a better or worse understanding of it—a notion that they, again following Lakoff and Johnson, disavow. Lakoff and Johnson argue that what is real for an individual is largely a product of the individual's metaphorical understandings. There is no objective truth; truth, for Lakoff and Johnson, "is always relative to a conceptual system that is defined in large part by metaphor" (1980, 159). Similarly, Gerhart and Russell argue that "there is no objectivity except in relation to subjectivity" (1984, 31), that notions of truth and falsity must be postponed in favor of issues of epistemology (1984, 10). They view an individual's reality (and likewise a community's reality) as being constituted largely by theory. Gone, they say, is the concept of eternal truth; instead, knowledge evolves. Knowledge-in-process has replaced immutable truth (1984, 178).

How, then, can we recognize when we have attained a more accurate understanding of truth? Perhaps they would say that this is an inappropriate phrasing of the question; one should ask not whether the metaphorically induced understanding is more accurate but only whether it is a more effective way of interacting with the world. But Reddy and Sontag would counter with cases in which a well-entrenched, socially accepted and conventionalized metaphor has in fact resulted in a decreased understanding, a less effective way of interacting with the world. Gerhart and Russell acknowledge the danger in "a false understanding increasing the intelligibility of the world merely because the understanding is commonly held" (1984, 168), but if truth is relative to theory, the falsity of our understanding cannot become apparent to us. Ineffective and damaging worldviews become "true" to the extent that our metaphoric conceptions support them. It is indisputably the case that we can never attain a perfect understanding of reality, that in this sense there is no absolute truth. But there is, as Lakoff and Johnson acknowledge, reality, a reality that is independent of our beliefs about it and worth attempting to approximate, even if we can never accurately gauge our success. Gerhart and Russell see theology and science as diverging in this sense; in their view, "when the last human being to verify a theological proposition dies, the theological truth of that proposition dies. The natural sciences also change, but not in this way. The laws of physics, according to the theory of relativity, are time and space invariant" (2001, 159). I disagree. The goal of developing a set of

conceptions that ever more closely approximates reality—an actual reality independent of our verification of it—is what science and theology share: not so much a search for truth, if truth is defined only relative to our own theories, but the hope of attaining a truth that in fact mirrors reality, even if the success of that mirroring cannot be definitively ascertained.

Gerhart and Russell are right to observe that science and theology share significant epistemological and ontological concerns (1984, 107) and also right to note that in both fields knowledge-in-process is filtered through theory; our metaphors, the folds in our cognitive fabric, affect the way we are willing to conceive and reconceive reality. This fact exposes the falsity of the traditional view of science as objective and religion as subjective. As Lakoff and Johnson note (1980, 227), a scientific theory, like any other metaphor, may hide as much as it highlights. This is not to say that there is no difference in method between science and religion; Gerhart and Russell note that although neither field can boast of attaining certainty (due in part, in the case of science, to the necessarily imprecise nature of real-world measurements), science operates via the empirical verification of falsifiable claims, whereas theology is based primarily on "lived experience" (2001, 159). Thus, the two fields both overlap and differ significantly in the nature of the questions they seek to answer.

This, then, is where the second level of Gerhart and Russell's discussion of metaphor comes in. Having set forth a metaphor for how metaphor works in both science and theology, they then apply it to these objects, proposing a metaphorical equating of science and theology, a bending of the conceptual network that foregrounds their similarities and backgrounds their differences. Once again, the test of the metaphor is its apparent effectiveness in improving our understanding of the two fields. And the metaphor does prove productive; for example, Gerhart and Russell provide compelling arguments that both fields rely on theory while both nonetheless also rely on faith. That both rely on theory is seen in the fact that in both science and religion new viewpoints that contradict the prevailing wisdom of the time are routinely suppressed and their proponents ostracized. That both rely on faith is seen in the fact that major scientific theories and religious doctrines (the theological equivalent of theories) are often maintained even in the face of significant evidence to the contrary. This certainty in the face of contradiction may be based on an "ontological flash," or it may be based on the theory's internal elegance and beauty; the beauty of a theory, Gerhart and Russell observe, is persuasive of its truth (1984, 77). There is thus significant insight to be gained by Gerhart and Russell's metaphorizing of science and theology as the same. But again, the insight remains only so long as we are aware of the transience, the incompleteness, of the metaphorical mapping—only so long as we remember that science and theology are, ultimately, distinct.

CONCLUSION

Gerhart and Russell note that scientific discoveries delimit what it is possible to believe. Metaphor has the same effect, but it is less testable and therefore less reliable. They present a model in which a successful metaphoric process results in a lasting distortion of the individual's fields of meaning; this forced change in cognitive topography demands that other meanings and understandings be changed in the wake of the metaphor (1984, 119). These new understandings, resulting from the equating of two things that are not, in reality, the same, necessarily include both the true and the false, the helpful and the unhelpful. There is no doubt that such metaphoric processes occur with great regularity, and they do impact and restructure our cognitive frameworks. We understand reality metaphorically, at least to some extent (and perhaps, according to some viewpoints, to a very great extent). The value in a given metaphor lies in the extent to which we are able to glean what insight we can find in the mapping while discarding what is destructive. We have a tendency to retain the cognitive topography in which the mapping remains in its entirety and to forget its nonliteral genesis. Such retention of metaphorical mappings has as its endpoint the literalization of the metaphor, with both its insights and its deceptions. In the marketplace of ideas, as elsewhere, let the buyer beware*.*

NOTE

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