

The Metaphorical Horizon: Between Facts and Fictions

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Abstract: What is a metaphor? Is it simply “what we say when we don’t mean what we say”? Do metaphors express deeper truths about our relationship to the world? From Aristotle to Max Black, Freud to Lakoff, current critical understanding of metaphor has developed in fits and starts, rendering different depictions of its function and significance at different historical moments. Is metaphor a trope, a process, or a framework? At times, metaphor has been considered a literary flourish, at others, it is described as the cornerstone of truth and understanding. The theory of metaphor is as wide-ranging as it is mystifying in its conclusions. This essay compares philosophical attitudes towards metaphor to the cognitive research on interacting mind maps and mental processing, stimulating questions concerning the frontiers of logic, meaning, and perception. Our interdisciplinary approach will briefly highlight several critical perspectives on metaphor, and then compare these perspectives to studies of synesthesia. It will be argued that metaphor cannot be reduced to either brain processes or linguistic formulas, but that it occurs as a complex negotiation between an individual’s perspective and the categories of understanding. Thus, metaphors help navigate between “facts” and “fictions”.

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OUR ARGUMENT CONCERNING metaphor as a process can be summarized briefly. The significance of metaphor to human thought cannot be reduced to the relationship between two linguistic signifiers, nor is it best explained with recourse to sweeping descriptions of “cognitive realities” or “sub-structures”. Instead, metaphor is best described as the negotiation between the world of “facts” (relatively timeless category terms, ideas, etc) and the singular perspective of an individual (sense datum and personal perspective). For the most part, a metaphor is the attempt to define new a horizon of meaning by creating a unique relationship between ideas and experienced objects. Examples of this can be listed: our love is a wild ride, my mind is a blank screen, the politics were hurtful, etc. In other words, if there is a world of “ideas” and a world of “sense datum,” then what we call metaphor is often simply the process of reconciling the abstract to the more concrete or singular. In this reconciliation, new horizons of meaning are displayed. These horizons define new possibilities. The possibilities presented cannot be reduced to a description of either a “mere abstraction” or “a strange brain process” -- they are something between.

Described in this light, metaphor is very like “thought itself”-- the process of reconciling human experiences to ideas or category terms. In other words, metaphor mediates between empirical or inductively-discovered datum and categories of understanding. It is a particular process, which defies definition precisely because it is itself a defining of unique meaning. This description of metaphor is distinct from the linguistic-reductive (fictional) account and the cognitive-inclusive (factual) account of metaphorical processing. In order to help explain this perspective, we will first briefly describe the philosophical-historical conceptions of

metaphor, and compare these to the cognitive views, which find their most current manifestation in studies of synesthesia. It is no accident that the human brain and human words are studied separately. When metaphor is seen as a brain process, it is described as “real”, whereas in theories of philosophy it is often considered to be “fictive” or “abstract”. We argue that metaphors cannot be reduced to either brain reactions or systems of symbols, precisely because metaphor “happens” as a conversation between ideas and experiences -- metaphysics and physics. Less is known of this negotiation than might be supposed.

A Brief History of Metaphor

Whereas theories of metaphor in the classical age describe both the practical application as well as the formal aspects of metaphor, many Enlightenment philosophers focus solely on practical injunctions. John Locke, for example, concerns himself with a proper representation of reality based on empirical observation. Thus, “all the artificial and figurative application of Words Eloquence hath invented, are for nothing else but to insinuate wrong Ideas, move the Passions, and thereby mislead the Judgment.” To understand the “true ideas upon which the inference depends” one should “strip ... superfluous ideas” evoked by metaphors, and “lay the naked Ideas on which the force of the argumentation depends, in their due order.” Thomas Hobbes regards metaphors with even more suspicion: “Metaphors ... are like ignes fatui; and, reasoning upon them, is wandering among innumerable absurdities.”

Many prominent Enlightenment philosophers warn against any conclusions about the nature of the world that might be drawn from metaphorical arguments. This particular stance belies specific ontologicolinguistic commitments about a static, object-filled experienced reality, which language is meant to accurately describe. Anything beyond this usage of language is “fictive” or impractical. For this reason, we have deemed these thinkers “fiction theorists.” Fiction theorists argue that metaphors belong to the world of imagination, and have no place in empirical reasoning.

At least one notable exception to our generalization about the Enlightenment exists. Giambattista Vico (1668-1744) articulates a three-part model of the mind, consisting of the “ingegno,” ingenuity or invention, the “fantasia,” imagination, and the “memoria,” memory. Together, these three constituent functions create consciousness. The interaction of all three is metaphor. Vico contends that these three functions are the elements of metaphorical thinking. By entertaining past experiences before the mind (memoria), then rearranging and changing them (fantasia) in innovative and new ways (ingegno), the mind is able to create new thoughts and images. This process -- creation of the new by rearranging the already known -- is metaphor, or as Marcel Danesi has termed it, “the Metaphoricity Hypothesis.”

Whereas Aristotle and many thinkers after him have focused on metaphorical expressions, their practical application, and their formal structure, Vico theorizes metaphor as a dynamic cognitive process by which metaphorical expressions are generated. He further postulates that the human mind uses this process to organize and develop itself. This process uses association to organize raw sensations into percepts, discreet organized sensations; it then generates concepts from those percepts, and finally generates abstract, super-order concepts.

The Romantics were heavily influenced by, if not direct descendants of, Vico’s Metaphoricity Hypothesis. Coleridge distinguishes between “imagination,” the innovative process by which humans create new ideas, and “fancy,” the process by which we entertain and rearrange new ideas. Rousseau was thinking along similar lines when he wrote in the “Essay on the

Origins of Language” that “man’s first language had to be figural,” and that “figural language predates literal meaning.”

Many Romantic thinkers thought of metaphor as a dynamic process, which refines experiences into facts about the world. For this reason, we will refer to those who ascribe to this conception of metaphor as fact-theorists. Fact theorists believe that metaphor is the process of fact-creation or reality-making. Metaphors comprise a reality. Another Romantic era thinker who falls into this camp (with a few complications) is Friedrich Nietzsche. As Nietzsche states in his essay, “On Truth and Lying in an Extramoral Sense,” all language is derived from metaphor. He argues that every particular thing is an individual, incomparable to any other. For example, every individual snowflake is unique. In order to create the category “snowflake,” we must intentionally forget the differences between the individual snowflakes. Any category term, in fact any word at all, while based on a real experience, is the result of a metaphor: this symbolic word is that particular object. To believe that one leaf, for example, is like all other leaves, we must associate it with a category term. Thus, language, and even “truth itself” is based on metaphors.

Fiction-theorists generally argue, in contrast, that metaphorical expressions are ornamental and non-physical literary devices. Metaphorical utterances only express meaningful truths if they can be paraphrased into conventional language. Fact-theorists, on the other hand, point to the understandability and profundity of metaphors to show that they are meaningful and somehow “more true than logical truth” or the “precursor to language.” The tensions between the Enlightenment and Romantic camps are paralleled in the 20th century by the tension between certain analytic thinkers and cognitive theorists.

The Wittgenstein of the *Tractatus*, one of the fathers of analytic philosophy, exemplifies the 20th century fiction theory of metaphor, and the Positivism it inspired. Wittgenstein’s picture theory of language holds that a particular expression is a picture of the world, which either “agrees with reality or not; it is right or wrong, true or false.” However, metaphors do not “agree or disagree” this simplistically. Consider for instance Wittgenstein’s own metaphor: “language is pictorial.” One of the most prominent characteristics of metaphorical expressions is that they cannot easily be assigned a truth-value; their value is determined independently by each interpreter, by social convention, or by associative complexes. Analytic philosophers often argue that metaphors are not false; rather they cannot be assigned any truth-value at all, since they are “figurative.”

Such was the Positivist stance. More recently, however, analytic thinkers have become interested in explaining metaphorical expressions rather than explaining them away. Within this tradition, the debate surrounding metaphorical expressions hinges on whether or not metaphors convey meaning differently than conventional expressions.

20th and 21st century cognitivists believe that metaphor is a foundational cognitive system or sub-structure. For example, in their work *Metaphors We Live By*, Lakoff and Johnson write that “the human conceptual system is metaphorically structured and defined.” The cognitive faculty responsible for metaphoric has been dubbed “projection” (Turner), “conceptual blending” (Fauconnier), “mapping” (Lakoff and Johnson), among other terms.

Another way of describing this system is by maintaining the supremacy of “conceptual metaphors” as a sublated system. According to Lakoff and Johnson, conceptual metaphors are rarely, if ever, spoken, but are presupposed by a number of other utterances within a particular speech community. Some examples of fundamental phenomenal experiences common to all human beings are directions such as up/down, left/right, in/out. Conceptual

metaphors are grounded in experiences and universal human facts like gravity and extension in space. Lakoff and Johnson offer the examples MORE IS UP and LESS IS DOWN, because when there is more of something in a pile, the pile gets higher. When there is less, the pile gets lower. By virtue of metaphor, we can project the physical experience of seeing the pile rise when more is added into the utterance “The numbers are rising/falling.” In our opinion, this is a very good description of metaphor, but it is incomplete: it fails to describe poetic metaphors like “love is a rose” or “my mind is a blank page,” since it assumes that metaphors are already-determined systems of thought, rather than dynamic, personal processes of association.

One of the problems with metaphor, from a linguistic perspective, is the semantic variability and simultaneous syntactic consistency of most metaphorical expressions. However, this consistency does not warrant the assumption of a substructure or static system that can be mapped by theory. Often the only criteria we have for determining the difference between a metaphor and a logical proposition is contextual or subjective. There is something uncomfortable about this position. On the one hand, a metaphor only “works” if it conveys some sort of meaning or truth to individuals within a community. On the other hand, it’s only a metaphor if it is “wrong” by what we would call logical or systematic standards. Further, a new metaphor can be described at any time. We may never have a complete map of all possible metaphors, and yet we seem to be able to identify good and bad metaphors when we see them. Perhaps this is the reason most theorists have erred either on the side of noticing metaphor’s “strangeness” or on the side of noticing its “systematic meaning.” We suggest that this polarity is unnecessary, and may simply be derivative of our philosophical heritage, which insists on subject object dualism, rather than dynamic negotiations between language and individual reality.

Why Metaphor and Synesthesia?

Why should the reality of synesthesia give the fiction theorist pause? Simply because synesthesia is an example of the literal, physical association of unlike categories; it is an instance where two unlike things actually are one, and this “oneness” constitutes a unique reality. In other words, synesthesia is neither universal nor purely imaginative. The link between synesthesia and metaphor forces the philosopher to ask different questions: for example: how does our physical experience inform our conceptual categories, or *visa versa*? What schemes organize the linking of concepts and physical experiences? After recounting the differences and similarities between synesthesia and metaphor, we will describe aspects of the phenomena that expose the weakness of the dichotomous fact/fiction paradigms in theories of metaphor.

The physician Georg Sachs is cited as publishing the first study of colored hearing in 1812. At the time of publication, the medical community considered synesthesia to be a pathology. In the 1920s, clinical case studies and lab experiments of synesthesia became more common, and a thesis concerning the unity of the senses emerged from the work of Gestalt theorists like Erich von Hornbostel and Heinz Werner. After World War Two, there was a decrease in the number of publications on synesthesia, which “may be explained by the fact that synesthesia was no longer considered an isolated phenomenon but as a type of metaphor... The confusion of synesthesia with metaphor elicited the realization that research should be redirected toward purely synesthetic phenomena.” By defining synesthesia against metaphor in the 1980s, synesthesia emerged as a “serious” scientific topic once more, under-

taken this time by neurologists and neuropsychologists rather than by physicians. Perhaps because metaphor was seen as philosophically inferior to logic during the birthing years of behavioral psychology and analytic philosophy, synesthesia scholars at first made a case for the phenomenon as “legitimate” by differentiating it against metaphor.

As late as 2001, V. S. Ramachandran and E. M. Hubbard, two leading theorists on studies of synesthesia, wrote: “Since our understanding of the neural representation of metaphor is still in its infancy, explaining synaesthesia as mere metaphor is unlikely to be a fruitful strategy. Indeed, our results suggest that we can turn the problem on its head and argue that understanding synaesthesia (a concrete perceptual effect the anatomical locus of which can be potentially pinned down) can provide an experimental lever for understanding the neural basis of metaphors.” The focus on “concrete” perception, as opposed to “abstract” description underscores the assumption that metaphors are always “abstract”.

Synesthesia or Metaphor: What’s the Difference?

Doctors Richard E. Cytowic and David M. Eagleman argue that “synesthesia is about identity rather than associations.” Metaphor belongs to “the world of the imagination” or “the land of the abstract,” whereas synesthesia is physiological. In other words, when the certified synesthete Michael Watson says that a particular meal is sexy, he means that a particular meal consistently arouses him physiologically. When Gina P. says that “A woman I’ve known 10 years always talks like peanut butter” she is describing a consistent perceptual reality for her. The neurologist knows that in both cases, this consistent reality is mirrored by the synesthete’s unusual brain activity, as well as their ability to prove statistically that they are not lying. When Gina P.’s friend talks, Gina P. tastes peanut butter. When a non-synesthete says “Gina P.’s friend’s voice sounds like peanut butter,” she does not experience this consciously and is speaking metaphorically. From this perspective, a metaphor is simply something that is “non-perceptual” or “abstract,” whereas synesthesia is perceptual. The notion that a metaphor is non-physical is shared with fiction theorists. Of course, from a neurological perspective, unconscious perception is possible, which might cause problems for this criteria of distinction.

Because it is not perceptual, metaphor does not rely on identity, but on abstract association and convention. Synesthesia can be thought of as part of the “early developmental” stage of the brain -- a mode of processing that simply does not distinguish between two “unlike” categories. It identifies one entity as the other. From this perspective, metaphor is the more “undeveloped” association of unlike sensations -- an association that relies on the mature understanding that the two entities are not identical, but can be strongly associated as hypothetically identical nonetheless.

Synesthetic experiences have been recorded as a result of drug-induced hallucinations, strokes, seizures, and sensory deprivation or loss, while metaphor is thought to be processed conceptually, in the same area of the brain responsible for higher-order mathematics. Generally, synesthesia is described in scientific writing as the involuntary pairing of sensory experiences, whereas metaphor is the reflective, intentional, hypothetical and associative identification of two unlike conceptual categories.

Synesthesia: Common and Uncommon Experiences

An estimated 1 in 23 people experience some form of pronounced synesthesia. There are dozens of forms of synesthesia recorded. The most common type of synesthesia is experiencing colors for days of the week, and synesthesia is more common in children than adults. Latent synesthesia is prevalent in a conservatively estimated 90 percent of the population. "The difference between synesthetic and nonsynesthetic brains is not whether cross talk exists" Cytowic writes, "but rather its degree."

Distinguishing between strong synesthesia and weak synesthesia is one way of separating the strange, perceptually tenacious and unique associations of synesthetes from the average, shared, or contextual associations of non-synesthetes. In addition to "weak synesthesia," there are ways in which non-synesthetic adults experience "early-developmental" synesthesia, for instance, in the normal cross-sensory perceptions that occur routinely in olfaction. Cytowic and Eagleman write: "In a technical sense, we might say that everyone is synesthetic. For example, certain odors such as vanilla are consistently said to smell sweet, even though sweetness belongs to the domain of taste. In fact, "sweet" is the most common description of odor." Certain relationships, such as the association of "darker, and less saturated colors [which are] associated with negative emotions, whereas lighter and more saturated colors are associated with positive ones" are universal, even for people who lack pronounced synesthesia.

Not only is pronounced synesthesia evidenced with surprising frequency in the population at large, but it is evidenced in all infants during the first weeks of life. Children are born into the world as "synesthetic knots." Their original perceptual experience is one of overwhelming perceptual unity, a unity that is slowly parsed into fixed associations and differentiation. Daphne Maurer writes: "the synesthetic confusion of those sensory signals does not confuse [the infant] as it would confuse us: since he does not know that voices do not have odors -- or that voices even exist apart from himself -- he is not confused when he smells a voice. Indeed, in the newborn's naive state, his synesthesia simultaneously confuses his world and simplifies it. It causes him to perceive the world not as an ordered set of discrete objects but as a single, multi various set of sensations -- a melange of sensations affecting every part of his body."

How, then, does the world of ideas emerge? How does an infant escape synesthetic solipsism and confusion? By associating groups of actions and objects. Somewhat paradoxically, association is both the original perceptual position, and the method by which humans develop a meaningful, ordered conception of reality. Infants associate like objects and sensational pairings, and these associations become fixed neurologically; in the process, the original synesthetic world becomes largely sublated or "lost" to consciousness. Fixed association, then, is the raw precursor to reason and mind, in the most general sense. If one cannot say that two things are consistently and reliably the same, one cannot know that any pairing of objects can be predicted. Once causality is fixed through permanent associations, infants become curious about the world as distinct from themselves. "This is the time a baby begins to walk around the house asking 'Wat'iss? Wat'iss?" The infant uses language to associate words with groups of objects (Nietzsche's "self-deception"). "Now, one chair resembles another chair, and one dog another; they do not look entirely different. An eight- to twelve-month-old can even lump together objects by their quantity, provided there are no more than four: he has a rudiment of the understanding of number." Evidently, language tells us what

to associate, though this fixing of association excludes other possibilities. The question is - what is the significance of these alternative options? Are they “just as real”? Could these “extra” options -- sensed but not consciously recorded -- account for metaphorical consistency?

Is Synesthesia the Basis of Metaphor?

It has recently been suggested that some metaphors are abstract associations, based on prerequisite subconscious associations or even sublated synesthetic perceptions (latent synesthesia). In fact, some forms of metaphor might be the “normal” or commonly shared representation of synesthesia. In other words, since neurology can explain synesthesia, it can also account for metaphors as “biologically factual”. Different brain regions talk to one another, and make metaphors. For example, Hubbard and Ramachandran argue: “We all speak of certain smells -- like [perfume] -- being sweet, even though we have never tasted them. This might involve close neural links and cross-activations between smell and taste, which can be thought of as a form of synaesthesia that exists in all our brains.” Neurologists now suggest that synesthesia is the early experience of the world, and that metaphor develops as an abstract version of this early experience of perceptual blending. Martino and Marks argue that metaphor is technically “latent synesthesia” -- not conscious perceptual pairings, but abstract representations of common associations, and that it must rely on some similar neurological. However, it is still unclear just how abstract these associations are. Further, our definition of synesthesia relies on the assumption that senses are in some sense “already separate” -- which is itself debatable.

Cytowic writes: “A recurrent criticism of skeptics is that synesthetes are simply speaking metaphorically, the way someone might speak of a ‘loud tie’. But think a minute -- isn’t a tie visual instead of auditory? And why do people use a taste adjective to describe a person, as in ‘she’s so sweet’? What is going on with terms like ‘sharp-cheese’ and ‘cool jazz’? There is a circular logic in saying synesthetes are just being metaphoric. Rather, the argument should perhaps go the other way around: perhaps common metaphors stem from synesthesia.” In other words, the concrete experience of two senses as-one is the basis for abstract expressions comparing two unlike things.

The suggestion that synesthesia is the basis of metaphor is supported by other similarities between synesthesia and metaphor. For instance, both are largely unidirectional. We say “man is a beast” but not “beast is a man.” Likewise, cross-sensory pairings are directional: one is more likely to have grapheme-color synesthesia, not color-grapheme synesthesia; that is, it is only by paying attention to the number that the color appears. The shared constants of metaphors, as described for instance by Lakoff and Johnson, would thus be a type of “synesthetic reasoning,” perhaps the same or similar to the type of reasoning “through” synesthesia that is practiced by grapheme-color synesthetes -- pairing colors and numbers to help with mathematic equations, for instance.

A cognitive continuum might also help explain the overlaps between metaphor and synesthesia -- overlaps that destroy the concrete/abstract dualism that was initially presupposed. Cytowic and Eagleman write: “In our view cross-modal metaphor is an abstract derivative of synesthetic experience, thus the continuum going from perception-> synesthesia -> metaphor -> language.” Our initial “blended perceptions” emerge as certain equivalencies, some of them fixed and normative -- like smell and taste, or sight and shape, others “peri-

pheral” or less useful. Metaphorical identities might then emerge as “hypothetical” or abstract renditions of these peripheral options. This is represented abstractly, and is not perceived - - whether the mind blocks out its actual possibility, or the possibility is no longer part of our perceptual reality. Nevertheless, the abstract expression of a metaphor relies, at base, on the perception of two sense datum as-one.

However, this continuum still fails to describe metaphors that negotiate the world of ideas and empirical experience: for example, a continuum cannot hope to explain the metaphor “love is a rose”, since there can be no particular sense datum for “love.” Thus, this metaphor could not possibly be based on an experience of two sense datum. Rather, it is the negotiation between a category and an object. We imagine the experience of the object “rose,” and project the category term “love” onto this imagined empirical data. The point we take from the studies of synesthesia is simply that metaphors are not merely abstract. They may involve sensory or pseudo-sensory relationships. To fully deal with this possibility, we would need to reevaluate philosophies of mind; what is the relationship, in this case, between the mind and the brain? How do we distinguish between what we call abstract concepts, real perception, and evoked experience? An FMRI scan or an analysis of a sentence cannot hope to give us answers to these questions.

Evidence seems to support the intimate link between metaphor and synesthesia. This new way of looking at metaphor complicates conceptual-perceptual distinctions. For instance, synesthesia is understood to be perceptually involuntary, but studies of adult synesthetes suggest that attention and the conceptual import of perceptual categories affect the vividness of a synesthetic experience. Lexeme-color synesthetes as well as lexeme-gustatory synesthetes seem to be affected by the meaning of the word as well as the written or illocutionary presence of the word. Reasoning and visual perception are intimately connected for the synesthete. Cutsforth writes that “synaesthesia ... is quite as conceptual as it is perceptual. It pervades the subject’s entire mental life.” What these studies consistently undermine is the notion that concepts and experiences are mutually exclusive. Rather, there is an immediate link between abstract and perceptual association.

Conclusion

A continuum does not fully explain the complex negotiation of experience and ideas: one study found that “the most experienced meditators report concept-based or categorical-sensory amalgamations. That is, cognition such as ‘emotions, thoughts, and images’ are experienced in sensual terms such as sound, taste, or touch.” Thus, in order to fully appreciate the synesthetic basis of metaphors like “love is sweet”, rather than merely perceptual-type metaphors like “perfume is sweet”, one must concede that ideas and perception are not pre-determinately separate from one another. Rather, concepts and experiences (lived or remembered) are in constant conversation. Metaphors witness to this conversation. Metaphors are not “simply abstract” since they may in fact be based on synesthetic experience, nor are they “simply sublated perceptions” since they often rely heavily on abstraction and category terms, numbers, or concepts.

When studying synesthesia and metaphor, it is evident that there are problems with the simplistic, though useful distinction between abstract association (fiction) and physical association (fact), since the two inform one another. We suggest that metaphor is in fact the complex negotiation of ideas and experience. From both a philosophical and a scientific

standpoint, regardless of whether it's considered fact or fiction, the nature of metaphorical processing is as-yet largely undefined. What is the purpose of associating unlike things -- symbols and senses? What horizons does this process make possible?

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