

Metaphoric Criticism

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Presentation

Defining Metaphor

- A metaphor is one of Burke's rhetorical *tropes* that compares one word or phrase to another concept unlike it in order to draw a comparison (Jasinski 357).
- Metaphoric *criticism* looks at rhetorical artifacts through the use of metaphor.
- "Metaphoric criticism is not a unified method; rather, it is a perspective that places metaphors at the heart of rhetorical action. [...] The metaphoric critics, however, believes metaphors are more than superficial ornamentation: they are the means by which arguments are expressed. Moreover, metaphors may provide insight into a speaker's motives or an audience's social reality. [...] The metaphoric criticism focuses on describing, evaluating, and understanding such metaphors as vital rhetorical phenomena" (RRC 347).

Examples of Metaphor

- Violence/War

"She attacked my argument," "I shot his argument down."

- Medical/Science

"DNA code, "tree of life"

- Technology

"computer bug", "antivirus", "mouse"

- Military

"trenches," "bombs," "territory," "enemies"

Major Rhetorical Scholars

Francis Bacon	Ivor A. Richards	Michael Osborn	Robert Ivie	Michel Le Geurn
Kenneth Burke	Sonja Foss	Mark Johnson	George Lakoff	Michael Butterworth

Major Achievements

- Lakoff: metaphors are primarily a conceptual construction and are central to the development of thought. We don't recognize metaphors because they become "dead" or we just don't see them. Non-metaphorical thought are possible when we talk about

purely physical reality. Our lives are significantly influenced by the central metaphors we use to explain complex phenomena.

- Lakoff and Mark Johnson (1980) in *Metaphor We Live By*: “Human thought processes are largely metaphorical...The human conceptual system is metaphorically structured and defined” (p. 6). Examples: Argument is war / Time is money. Metaphor structures the way we think and act.
- Lakoff: the role that metaphors play in socio-political lives - “an individual's experience and attitude towards sociopolitical issues is influenced by being framed in linguistic constructions. In *Metaphor and War: The Metaphor System Used to Justify War in the Gulf*, he argues that the American involvement in the Gulf war was either obscured or was put a spin on, by the metaphors which were used by the first Bush administration to justify it”.
- In *The Body of in The Mind* (1987) Mark Johnson developed a theory of image schema as basic building blocks in cognitive linguistics for conceptual metaphor, as well as for language. Image schema: are regularly recurring embodied patterns of experience that are acquired during the course of early child development.
- Kenneth Burke: "metaphor allows humans not only to construct the world in which they live, but also to construct the purpose within that world" (RRC, 380)
- I.A. Richards: the old form of rhetoric study was too much about arguments and conflicts. Rhetoric should be a study of the meaning of parts of discourse. He proposes a new rhetoric that would be the "study of misunderstanding and its remedies". How words work is the central question in the order of knowledge.
 - Meaning mediate our experience and mediate among individuals creating common worlds. Meanings are decided by "how words are used in a sentence". Richards thought it was more important to examine how much of a message we understand when we hear it. His new rhetoric focused on comprehension rather than persuasion.
 - Words are arbitrary symbols. Words take the meaning from the context. This suggests that "most words, as they pass from context to context, change their meanings." Context is the key to meaning.
 - Metaphor: "the use of one reference to a group of things that are related in a particular way in order to discover a similar relation in another group. Cognition includes linguistic sorting, categorization, comparison, contrast".
 - *In The Philosophy of Rhetoric* (1937), I.A. Richards described a metaphor as having two parts: the tenor and the vehicle. Tenor referring to the concept, object, or person meant. Vehicle being the image that carries the weight of the comparison.
 - Example: A new crop of students entered the classroom. The teacher planted ideas in their fertile, young minds.
 - Tenor: education, teaching and learning
 - Vehicle: farming
 - Other writers: employ ground and figure to denote the tenor and the vehicle. In cognitive linguistics: target and source are used respectively.

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- Sonja K. Foss outlines four major steps for metaphoric criticism in *Rhetorical Criticism* (1995):
 - Read entire artifact in context.
 - Isolate all metaphors.
 - Sort, then code clusters of metaphor.
 - Analyze clusters.

Capabilities of Work and Limitations

- Capabilities
 - To explain complex or abstract ideas
 - To create impact
 - To make people think outside the box
 - To appeal to the sense of listeners or readers
 - To explain new concepts to a general audience
 - To engage audience: image-based words are stronger than concept-based words
- Limitations
 - Does a metaphor become literal after it is understood? Did Newton's metaphor fall apart when the gravitational force theory that holds the apple to Earth was understood?
 - Can a metaphor be problematic when it becomes a myth? Example: When the scientist resist a paradigm shift. <https://www.baywood.com/intro/337-6.pdf> (page 3)
 - Can a metaphor create communication problems when it is not use consciously? Example: Do scientist have to know how to use metaphor in order to achieve their goal? Teaching metaphor in technical communication classrooms?
 - Francis Bacon: metaphor is not accurate for scientific purposes. Terms should be concrete and measurable.
 - Metaphor can be problematic in teaching:
 - It can create understanding gaps when applied to science/technology.
 - It is considered by some to be "too formulaic" rather than an art form if approached from the wrong direction.
- Issues Under Debate
 - Literal or metaphorical: metaphors only can be defined in terms of and in contrast to the literal?
 - Metaphor is vehicle of style or it possesses conceptual and cognitive significance.
 - Lakoff and Johnson (1980). Cognitive linguists emphasize that metaphors serve to facilitate the understanding of one conceptual domain.

- Meaning and persuasion emerge from a complex interaction of discursive elements. "The challenge posed by recent developments in rhetorical, literary and linguistic theory is to learn how to look at, rather than through the style or texture of a text so as to discover how it works and what it might be doing" (Jasinski, 537)
- Where is metaphor grounded? Is it rooted in the beliefs, practices and intentions of language users?
 - <http://www.textetc.com/theory/metaphor.htm>

Discourse is Relevant to Many Fields

- Science
- Technology
- Psychology
- Literature
- Politics
- Sociology
- Anthropology

Metaphors in Science

- Science uses metaphor to explain theories and models in two ways: to describe new discoveries to other experts in the field and again later to lay audiences who won't understand the technical details:
- The space is time metaphor in molecular biology: millions of years (time) are encoded and contained in DNA (space).
- The machine metaphor: the world is a machine (17 to 19th centuries). Examples: muscles as forced-generating machines, nerves as electronic machines, photosynthesis as solar-powered machine. Lord Kelvin (d. 1907) characterized the universe as a galactic heat engine.
- The computer metaphor: Edward Fredkin characterizes the universe as a cosmological computer. Physicist consider the atom as a web of relations. Biologists describe cells as distributed real-time computers. (More dynamic concept than the static machine).
 - <http://www.fountainmagazine.com/Issue/detail/Metaphors-in-Science>
- Example of how metaphor in Science changes with time:
 - "Metaphors can best be seen in the history of exploring the atom. The atom was conceived first by Democritus (d. c. 370 BCE) as an impenetrable sphere. This analogy was used to explain the behavior of matter until the nineteenth century. Spherical analogy was discarded in favor of Ernest Rutherford's (d. 1937) analogy between the solar system and the hydrogen atom.
 - The following interpretations followed the planetary model: The nucleus is more massive than the electron (just as the sun is more massive than the planet), the nucleus attracts the electron, this plus the mass relation causes the electron to revolve around the nucleus, and so on. Object descriptions are disregarded, for

there is no attempt to match the nucleus with the sun in color, size, or temperature. Then, the atomic nucleus was analogized to a drop of water instead of to a body like the sun.

- Now, in quantum mechanics, every particle is considered to be a probability wave, which is an abstract mathematical quantity. Scientists have not yet been able to put these waves into a metaphorical pictorial model, which makes them difficult to comprehend.”
 - <http://www.fountainmagazine.com/Issue/detail/Metaphors-in-Science>

Discussion Questions

- Metaphor helps to narrow the meaning of a theory/concept/model or the interpretation depends on the audience? Social and cultural issues influence the interpretation of metaphor or metaphor is universal?
- Ivie and Foss describe steps to identify metaphor and to apply metaphoric criticism. Do we need a methodology? Why is this necessary?
- What are the benefits and risks of using metaphors in rhetoric? Ivie: “[...] Cold War “idealist” have attempted to decivilize American’s image rather than the enemy’s. By relying upon metaphorical concepts such as MAD, PATHOLOGY, SICK and FORCE, they have portrayed the United States as the irrational, coercive and aggressive agent of extermination [...]” (RRC, 373).

Activity

“We are fifteen years into this new century. Fifteen years that dawned with terror touching our shores; that unfolded with a new generation fighting two long and costly wars; that saw a vicious recession spread across our nation and the world. It has been, and still is, a hard time for many. But tonight, we turn the page.”

- Identify metaphors.
- Identify patterns within the text.
- Analyze the groups of metaphors.

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- Identify the tenor.
- Identify the vehicle.
- What do the tenor/vehicle tell us about the piece?

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- Identify any clusters. Separate these out.

- Identify patterns in clusters/concepts.

What are the pros and cons of the two approaches? Is there any inherent “right way” to look at metaphor in rhetorical criticism?

Annotated bibliography

- **Lakoff G., Johnson M., *Metaphors We Live By*. Chicago: Univ. of Chicago Press, 1980.**

This book is part of the General Theory of Metaphoric Criticism. Lakoff and Johnson explain their concept of metaphor and its relationship with language and mind. According to the authors, metaphor defines our experiences and it is a fundamental mechanism of the mind. Metaphors are primarily a conceptual construction. Language is full of metaphors and sometimes we do not even noticed them because they are part of our daily experience.

- **Osborn M., Ehninger D., *The Metaphor in Public Address*. *Speech Monographs* 29 (1962): 223-234**

Authors analyze the problems of metaphor in public address and they advise that metaphor occupies a main position in public speeches. In order to contribute to a possible solution, Osborn and Ehninger offer different theoretical approaches. They consider a rhetorical definition of metaphor, the elements, structure and processes that makes metaphor a characteristic of oral rhetoric.

- **Baake, K. *Metaphor and Knowledge: The Challenges of Writing Science*. Albany: State University of New York Press, 2003.**

Baake is Assistant Professor of Rhetoric and Technical Communication at Texas Tech University and in this book he analyzes the power of the metaphor and shows the difficulty of writing in Science when the concepts are new or unknown. This book offers a history of rhetoric and metaphor in Science strengthening the idea of how language constitutes knowledge.

- **Daughton, S. *Metaphorical Transcendence: Images of the Holy War in Franklin Roosevelt's First Inaugural*. *Quarterly Journal of Speech* 79 (1993): 427-446.**

This article focuses in the use of metaphors by Franklin Roosevelt in his First Inaugural Address in order to overcome a rhetorical problem. Daughton shows how Roosevelt merge religious and military metaphors and creates an image of “Holy War” in order to calm and then activate American people.

- **Bacon, Francis. “On Rhetoric and the Art of Eloquence.” *The Advancement of Learning*. 1605.**

This essay focuses on the “science” of rhetorical practice. He disagrees with Plato’s argument that rhetoric is an art but rather something that could be mastered methodologically. According to Bacon, the point of rhetoric is to “apply Reason to Imagination” to move the speech’s listeners to action.

- **Ceccarelli, Leah. *On the Frontier of Science: An American Rhetoric of Exploration and Exploitation (Rhetoric & Public Affairs)*. Michigan State University Press: East Lansing, MI, 2013.**

Ceccarelli explores the use of the “frontier” metaphor in science and technology. She begins her evaluation by analyzing the use of the “pioneer” in Francis Bacon’s *The Advancement of Learning* (see above), which creates a separation between two groups of people: pioneers (those who advance science) and smiths (non-scientists using well-understood, applied methodology). Ceccarelli follows the look on Bacon with a further analysis of biologist Edward O. Wilson’s *Consilience: The Unity of Knowledge*.

- **Foss, Sonja K. *Rhetorical Criticism*. Waveland Press: Long Grove, IL, 1998.**

Sonja K. Foss outlines a rigid process for applying metaphorical criticism: identifying metaphors, coding metaphors to find clusters or patterns, and analyzing the clusters or patterns. Foss has been criticized for applying too rigid a methodology and killing the “art” behind rhetorical criticism.

- **Paradis, James. “Bacon, Linnaeus, and Lavoisier: Early Language Reform in the Sciences.” *New Essays in Technical and Scientific Communication: Research, Theory, and Practice*. Ed. Anderson, P.V., J. Brockman, and C. R. Miller: 200-224. Farmingdale, NY.**

Paradis analyzes the changes that took place with scientific writing in the 17th century forward. According to Paradis, until Bacon, there was a lot of flowery, descriptive, *subjective* writing in the sciences. Bacon established a more rigid, objective, utilitarian language to describe language free of metaphor. Linnaeus added on to Bacon’s methodology by creating what eventually became the current scientific taxonomy we use (e.g., genus, species).

- **Johnson, Mark. *The Body in the Mind*. University of Chicago Press: Chicago, 1990.**

Johnson is a cognitive linguist who tackles the concept of creating images (metaphors) for conceptual ideas. He argues that humans create image schemas to use language and understand abstract concepts. These patterns are recurring and can be coded by categories, which are used from early childhood in order to link physical things we understand to more abstract things we’re trying to understand.

- **Richards, Ivor Armstrong. *The philosophy of rhetoric*. Ed. John Constable. Vol. 94. New York: Oxford University Press, 1965.**

Richards proposes a new rhetoric that would be the “study of misunderstanding and its remedies”. How words work is the central question in the order of knowledge. In *The*

Philosophy of Rhetoric (1937), I.A. Richards described a metaphor as having two parts: the tenor and the vehicle. Tenor referring to the concept, object, or person meant. Vehicle being the image that carries the weight of the comparison.

- Colburn, Timothy R., and Gary M. Shute. "Metaphor in computer science." *Journal of Applied Logic* 6.4 (2008): 526-533.

Computer science is full of metaphors. Computer users have incorporated *folders, directories, files, pages, and trash cans* into their language. This article explores how metaphors in computer science are both different from and similar to traditional metaphors. This article borrows from general theories of metaphor while also looking at the unique role of computer science metaphors in learning, design, and scientific analysis.

- De Mille, James. *The Elements of Rhetoric*. Harper, 1882

De Mille was a professor of rhetoric. In *The Elements of Rhetoric*, he defines metaphor as "an implied comparison between two things of unlike nature, for example, 'The colorful display was a magnet for anybody in the room.'"

- Ziemkiewicz, Caroline, and Robert Kosara. "The shaping of information by visual metaphors." *Visualization and Computer Graphics, IEEE Transactions on* 14.6 (2008): 1269-1276.

The process of understanding a visualization involves an interaction between external visual metaphors and the user's internal knowledge of the representations. In this article, the authors conducted an experiment to test the effects of visual and verbal metaphors on the understanding of tree visualizations. The results suggested that the visual metaphors affect how a user processes information.

Reading assignment

Ceccarelli, Leah. 2013. *On the Frontier of Science: An American Rhetoric of Exploration and Exploitation*. East Lansing, MI: Michigan State University Press. Chapter 2: "The Frontier Metaphor in Public Speeches by American Scientists," pp. 53–70.

Writing assignment

E.O. Wilson: "Advice to young scientists"

http://www.ted.com/talks/e_o_wilson_advice_to_young_scientists/transcript?language=en
(transcript and video)

Metaphoric Criticism is one school of rhetorical analysis and speech communication studies. Scholars analyze text by locating metaphors within the text and evaluating those metaphors in effort to better understand ways in which authors appeal to their audiences. "Metaphoric criticism is not a unified method; rather it is a perspective [...] The metaphoric criticism focuses on describing, evaluating, and understanding such metaphors as vital rhetorical phenomena" (RRC, 347).

E.O. Wilson, American biologist and researcher, is speaking to future scientist in the context of a TED talk and previewing his book "Letters to a young scientist". During the exercise you can analyze his speech using the script or the script and the video, trying to locate the metaphors and apply a metaphoric criticism approach. What is his purpose? What kind of metaphors is he using and why? What are the ideas/concepts under the metaphor? Which is the context? Who is his audience is?

During the analysis you can also use Robert Ives's five steps to identify key metaphors, I.A. Richards concepts of "tenor" and "vehicle" and/or Sonja Foss four steps to apply metaphoric criticism.

E.O. Wilson web site: <http://eowilsonfoundation.org/e-o-wilson/>
<http://www.britannica.com/EBchecked/topic/644678/Edward-O-Wilson>