

SOME CONSIDERATIONS CONCERNING BIORHETORICS

CÂTEVA CONSIDERAȚII PRIVIND BIORETORICA

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Abstract. *In the present work the author aims to emphasise the possibility to look at living systems as bioethical systems, pointing out the differences between the rhetorics of biology and biorhetorics. For a better understanding of these aspects the author makes a brief historical overview of the concept and theory of rhetorics -- considered art and science -- rhetoric being described as a persuasive way in which one relates a theme or idea in an effort to convince. Rhetorics of biology, which studies the rhetorics of biological discourse is distinguishable from biorhetorics, which analyses the behaviour of organisms in terms of primordial rhetorics. Such an approach is possible due to the development of a new rhetorics in the years 60's -70's of the 20th century, and due to the biosemiotic study applied to living systems.*

Rezumat. *În lucrarea de față, autoarea își propune să evidențieze posibilitatea cercetării sistemelor vii ca sisteme bioetice, subliniind diferențierile dintre retorica biologiei și bioetică. Pentru a înțelege mai bine aceste aspecte, autoarea face o scurtă incursiune în istoria și teoria retoricii, considerată artă și știință a elaborării discursului în general, având funcție primordială persuasivă. Retorica biologiei, care studiază retorica discursului biologic, se deosebește de bioetică, care urmărește să analizeze comportamentul expresiv al organismelor vii în termenii retoricii primordiale. O astfel de abordare este posibilă ca urmare a apariției noii retorici în anii '60-'70 ai secolului al XX-lea în ceea ce privește aspectele legate de conținutul comunicării-pe de o parte, și datorită cercetării sistemelor vii din perspectivă biosemiotică pe de altă parte.*

Key words: *classical rhetorics, rhetorics of biology, biorhetorics, biosemiotics, biotrope, biocommunication*

Rhetorics –the art of persuasion, of expression – is an old discipline, dealing with the intentional aspect of communication, the language force, the effort of a message. Persuasion is a communication intended to convince. It includes not only all arguments, but also refers to non-argumentative forms of communication, such as advertising, threats, appeals to the emotions etc. Persuasion, according to its standard definition, is the process of consciously attempting to change attitudes through the transmission of some message.

The crucial question of biological sign systems –on which depends whether biosemiotics can be a true part of semiotics –deals with choosing between two alternatives: is biocommunication nothing more than signals, releasers, etc., absolutely unintentionally released and transferred, or an active process – the process of interpretation that transforms behaviour into signs. Since the latter has become a more viable view in current biosemiotics, it also opens a gate for the intentional aspects of biocommunication, i.e., to biorhetorics.

When speaking of biorhetorics, we need firstly to distinguish rhetorics of biology and biorhetorics. These aspects have been analysed by several representative researchers and biosemioticians such as Kalevi Kull (2001), David Depew, Celeste M., Richard Doyle, Leah Ceccarelli (2001), Stephen Pain (2002) and others. In order to define biorhetorics, it is necessary to look at the meanings and boundaries of rhetorics itself.

MATERIAL AND METHODS

Rhetorics is one of the three original liberal arts or trivium (the other members are dialectic and grammar) in Western culture. In ancient and medieval times, both rhetorics and dialectic were understood to aim at being persuasive. The concept of rhetorics has shifted from time to time during its 2500-year history. Today rhetorics is generally described as the art of persuasion through language.

Western thinking about rhetorics grew out of the public and political life of Ancient Greece, much of which revolved around the use of oratory as the medium through which philosophical ideas were developed and disseminated. Rhetorics thus evolved as an important art, one that provided the orator with the forms, means and strategies of persuading an audience of the correctness of the orator's arguments.

Today the term rhetoric can be used at times to refer only to the form of argumentation, often with the pejorative connotation that rhetorics is a means of obscuring the truth. Classical philosophers believed quite the contrary: the skilled use of rhetorics was essential to the discovery of truths, because it provided the means of ordering and clarifying arguments. Organized thought about rhetorics began in Ancient Greece. Rhetorics was popularized in the 5th century BC by itinerant teachers known as sophists, the best known of whom were Protagoras, Gorgias and Isocrates. Plato (424-347 BC) has outlined the differences between true and false rhetorics. His student Aristotle (384-322 BC) has even more famously set forth an extended treatise on rhetorics that still repays careful study today. Aristotle's treatise on rhetorics is an attempt to systematically describe civic rhetorics as a human art or skill. He identifies three different types of rhetorical proof: *ethos* –how the character and credibility of a speaker influence an audience to consider him to be believable; *pathos* –the use of emotional appeals and *logos* – the use of language in constructing an argument.

The Romans, for whom oration was an important part of public life, saw much value in Aristotle's rhetorics. Cicero, Quintilian were chief among Roman rhetoricians, and their work is an extension of Aristotle's. After the Roman Empire the study of rhetorics continued to be central to the study of the verbal arts; but the study of the verbal arts went into decline for several centuries, followed by a gradual rise in formal education, culminating in the rise of medieval universities. But rhetorics transmuted during this period in the arts of letter writing and writing sermons.

At the turn of the twentieth century, there was a revival of rhetorical study manifested in the establishment of departments of rhetorics and speech at academic institutions, as well as the formation of national and international professional organizations. Theorists generally agree that a significant reason for the revival of the study of rhetoric was the renewed importance of language and persuasion in the increasingly mediated environment of the 20th century.

Rhetorical theory today is as much influenced by the research results and research methods of the behavioral sciences and by theories of literary criticism as by ancient rhetorical theory. Early rhetorical theorists attempted to turn the study of rhetoric into a social science that allowed predictive analyses of human behaviour. Interdisciplinary scholars of symbol systems influenced a new generation of rhetorical scholars who drew from various disciplines to more fully comprehend the phenomenon of human communication in all its aspects. While ancient rhetorical scholarship had focused primarily on rhetoric as oral speech, contemporary rhetorical theorists are interested in the panoply of human symbolic behaviour—both the spoken and written word.

Rhetoric extends far beyond speech. Rhetoric has been found in image (Barthes 1977), in material culture (Grier 1997), in action (Peshkov 1998). In a way, rhetoric deals with innate needs or wants that are expressed with consideration of the audience.

Thus, asking about the limits of rhetorics, one may notice that rhetorical behaviour is possible also in non-linguistic sign systems. Furthermore, we may notice that rhetorical turns are not always consciously planned—they may appear on the basis of various desires, and the form they take at the level of linguistic expression may be entirely involuntary. If the rhetorical types take their origin on a prelinguistic level, then it infers that the language ability may not be required at all, at least for certain types of rhetorical behaviour.

In order to discover the seeds of rhetorics in biology, new rhetorics had to arise. While classical rhetorics emphasised style, delivery, and arrangement, new rhetorics focuses on knowledge-making techniques.

According to new rhetorics, language is seen as the medium for all knowledge-making. Correspondingly, if we assume that living organisms may possess knowledge-like qualities—an experience, a habit—then it should also require sign systems, a semiosphere. In this way we approach a topic analogous to rhetorics in the biological domain.

In comparative rhetorics, it has been possible to speak about rhetorics in animals. According to George A. Kennedy's approach (Kennedy 1998) to general rhetorics, rhetorics exists among social animals. Moreover, he states that humans and animals share a deep universal rhetorics and he also argues that plants share a rhetorics (Kennedy, 1992). However, he distinguishes between plant or animal rhetorics as purposive and unconscious, and the human one as purposeful and intentional. Therefore, biorhetorics works on the level of unconscious persuasion, although one may also notice that biosemiotics can be defined as the linguistics of unconscious.

RESULTS AND DISCUSSIONS

Rhetorics of biology concern the ways biologists express their intentions in their writings or presentations; it is a study of rhetorics in biology. It is currently a rapidly developing field. We can see this, for instance, from a recent book published by Leah Ceccarelli (2001), from the online *Poroi Journal* published in 2001 and edited by David Depew, which is topically devoted to rhetorics of biology.; in addition, a recent meeting of the International Society for History, Philosophy, and Social Studies of Biology included a session *Rhetorics and Biology: The Strategy of Communication in Modern Biological Thought*.

The relationships between biological rhetorics and academic biology are controversial. On one hand, applied rhetorics is used in order to teach scientific writing to biology students. On the other hand, a knowledge of rhetorics is required in order to see behind the curtains set by the contemporary science writers, those who play a more important role in contemporary science than ever before.

Biorhetorics is a view on, and a study of living systems as rhetoric devices. This means that living systems are interpreted as analogical to parole, and not so much as langue. If a living organism is an entity that expresses and intends, then rhetoric is due. Because living organisms have needs, they cannot but express them, and accordingly affect the whole communication between organisms. Biological needs start from the recognition of absence. A result of the recognition of absence is expressed in searching behaviour. The ways an organism expresses its needs and desires can be turned into signs recognisable by other organisms of the community. Thus, we may consider evolution as the history of inventing new (bio) rhetoric figures, in order to persuade the surroundings to fulfil the organism's needs. The latter being able to grow in a semiotic chain, maintaining certain relationships to the biological needs without even knowing of them—as in the series of need, craving, want, wish. (Young P.Th. 1936)

If rhetorics has some relevance to biology, one may also ask about the situation with its sister discipline—stylistics. Indeed, the possibility and role of stylistics in biological systems has been pointed out by Sergey Meyen, for instance when he wrote about refrains in biological taxa. Thus, it may become possible to speak on an area that should be called biostylistics.

Taking into account the differences between rhetorics and biorhetorics, it is quite improbable that the classical notions of rhetorics are of much use in a biological realm. However, it is reasonable to assume that there exists a certain diversity among biorhetorical figures, or biotropes. Biotropes can be defined as trope-like figures used in biological communication both by animals and plants. We can find and define among the biotropes: biohyperbole, bio-onomatopoeia, warning coloration and alarm signals used by the animals.

A more proper candidate for a biotrope can be found in mimicry. A semiotic classification of mimicry types (Maran T. 2001) may thus serve as a more detailed distinction of biotropes. Mimicry-like phenomena have been described both in the evolutionary and individual level of biosemiotic level. Mimicry occurring in evolutionary time-scale is usually described as biological phenomena by terms of Batesian, aggressive mimicry and others. Whereas deceptive behaviour arising from activity of the individuals is often regarded belonging to the sphere of human culture. Both mimicry (evolutionary level) and mimesis (individual level) may be considered as two possible semiotic deceptive systems or as two different ways of functioning these systems. Comparing mimicry and mimesis shows characteristic features of both. Common to both systems, mimicry and mimesis increase complexity of the semiosphere via cyclical communication and selective feedback –the trait that may be considered as the common feature to all mimicry-like systems.

CONCLUSIONS

From the aspects presented above we may conclude the following:

- 1) biorhetorics is present in all living systems
- 2) rhetorical behaviour is possible in non-linguistic sign systems
- 3) rhetorical types take their origin on a prelinguistic level.
- 4) rhetorics exists among social animals and even plants
- 5) plant and animal rhetorics is purposive and unconscious while human rhetorics is purposeful and intentional

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