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Source: *Philosophy & Rhetoric*, Vol. 25, No. 1 (1992), pp. 1-21

Published by: Penn State University Press

Stable URL: <https://www.jstor.org/stable/40238276>

Accessed: 05-09-2018 15:38 UTC

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A Hoot in the Dark: The Evolution of General Rhetoric

George A. Kennedy

After spending much of my professional life teaching rhetoric, I began to wonder what I was talking about. My initial assumption, one generally shared by classicists and students of speech communication, though not by literary theorists, was that rhetoric emerged in Greece as an art of persuasion in public address; once it was formulated as a system of invention, arrangement, and style and widely taught as a useful skill under constitutional governments, it underwent a process of *letteraturizzazione* in which it affected, or if you prefer, infected, all forms of oral and written communication and molded audience expectations of communication. With changing political conditions, rhetoric repeatedly became more associated with matters of style than with argument, and in the sixteenth century Petrus Ramus carried this to the extreme of limiting rhetoric to style and delivery. Bernard Lamy and others in the seventeenth and eighteenth century then inverted the structure of rhetorical teaching to begin with the nature of language as the core of rhetoric and to build around that a theory of literary genres, including but not limited to public address. From these sources, classical and early modern respectively, have developed two contrasting, though sometimes intersecting, modern views of rhetoric: the view of literary theorists that rhetoric is a quality of the use of language and most perfectly seen in the metaphor, and a revived view of rhetoric as a phenomenon of public discourse in which cultural and political values find expression.

The term *rhetoric* has clearly had different meanings in different historical cultures and the phenomena that we call “rhetoric” have been called different things at different times. I suppose rhetoric is not a “substance” in the logical sense, though it does seem to me that there is something found in nature that either resembles rhetoric or possibly constitutes the starting point from which it has culturally evolved. If we could come to some understanding of that starting point we might be able to define a “genus” of which the various historical meanings of rhetoric are “species,” and if we

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could do that we might be on the way to a more general theory of rhetoric that could be useful in studying speech, language, literature, art, religion, and other aspects of human society.

Rhetoric is apparently present in communication, though communication can be within the personality of one individual, as when one tries to “talk” the self into some action or belief about which one has conflicting sentiments. But rhetoric probably should not be identified with communication, since there seem to be various degrees of rhetoric among communications: “zero grade” rhetoric may be approached but never quite achieved. “The window is shut” is a communication. Its rhetorical quality is dependent on its context. It might, for example, be a mild reassurance to a recipient concerned about rain blowing into a room, or an exclamation of frustration by a thief who had planned to climb in. “Shut the window,” even without knowing its context, seems inherently more rhetorically intense. The speaker is expressing an order or wish. The statement carries some authority to make the particular request. The recipient’s responses are limited to executing the order, refusing to execute the order and thus denying the authority of the speaker, or demanding some equality in negotiating the situation. The recipient might say “Shut it yourself.” Or “Why? It’s stuffy in here.” If the first speaker adds a reason, and thus creates an enthymeme (“Shut the window because the wind is blowing the papers off the desk”), the rhetorical energy is somewhat reduced. Authority is less obvious, appeal to the judgment of the recipient is implied. There is recognition of the possibility for deliberation. I would provisionally describe the rhetoric of these sentences as a matter of their energy level. It is easy to see that they might be expressed in different degrees of shrillness or calmness of voice. Thus they also involve different degrees of expenditure of physical energy in their utterance. Rhetoric in the most general sense may perhaps be identified with the energy inherent in communication: the emotional energy that impels the speaker to speak, the physical energy expended in the utterance, the energy level coded in the message, and the energy experienced by the recipient in decoding the message. In theory, one might even seek to identify some quantitative unit of rhetorical energy—call it the “rheme”—analogous to an erg or volt, by which rhetorical energy could be measured. I leave that to the experimentalists.

Tropes and figures of speech in literature are often described as

rhetorical devices. When the text of the *Gilgamesh* says that the hero is a “goring wild bull,” we note a metaphor, an assertion, and the presence of energy in the text. In metaphor, energy is expended by the author in defamiliarizing the language and by the reader in mentally experiencing the presence of a force affecting the meaning. Whether or not there is an actual displacement of one term by another in the text of the ancient Mesopotamian epic is open to debate; the identification of human beings with animals is literally believed in some cultures. But Shakespeare presumably did not believe that music is, literally, “the food of love,” only that it resembles food in that it nurtures passion. There is, however, energy in the poet’s composition, energy in the actor’s utterance of the line, energy implied in the character as represented on stage, and energy experienced in the minds of the audience by the emotionally charged words. Even in figures of speech like anaphora there is an expression of energy. The Beatitudes, for example, have been worked or figured to begin with the repeated phrase “Blessed are. . . .” Some energy has been expended in making a series of assertions and arranging them into parallels, emotionally laden words are used, and emotion is experienced by the reader. A reader may then subject the assertions to reasoned analysis, even denying their validity. That requires mental effort and the expenditure of energy. Rhetorical assertion conveys energy and can spark reaction in another energy source. Rhetoric is least effective when either speaker or audience is tired, for the physical energy required on both sides is lacking.

Umberto Eco offered a theoretical account of rhetoric into which the more impressionistic description just given can be fitted.¹ He speaks of rhetoric as the “labor” performed in order to overcode and to switch codes. Rhetoric is “overcoding” in that it is the activation within a message of a preexisting code of devices of invention, arrangement, and style, with their own rules, that makes up “a semiotics of conversational interaction” (278). “Overcoding” is perhaps an unfortunate term in that it may imply something that is arbitrarily added, such as an ornament, to a semantic base—a common view of rhetoric. To me, it is the other way around: semantics is one vehicle of rhetoric. One of the goals of this paper is to try to identify some universal rules of the rhetorical code.

It seems clear, however, that rhetorical energy is not found only

in language. It is present also in physical actions, facial expressions, gestures, and signs generally. The axiom that rhetoric is a form of energy leads to the first of several theses about rhetoric:

Thesis I. Rhetoric is prior to speech.

By "prior" I mean that rhetoric, as energy, has to exist in the speaker before speech can take place. It is prior in biological evolution and prior psychologically in any specific instance.² Speech cannot take place without some force or motivation to articulate an utterance. The originator of a communication has to experience an exigence. But I also mean that rhetoric is prior to speech historically and in biological evolution. Speech would not have evolved among human beings unless rhetoric already existed. In fact, rhetoric is manifest in all animal life and existed long before the evolution of human beings. Nature has favored the development of communication skills;³ although they have some energy cost, they are less costly than physical motion, such as flight or fight.

Let me give a couple of easy examples of animal rhetoric in case what I am saying is not immediately clear. Imagine a pack of animals, such as lions or wolves, who constitute a small society. There will be some kind of hierarchy among them based on sex and age. Among some species there may be one animal who is on watch. An intruder is noticed and a cry given indicating a possible enemy or possible prey. The other animals receive the message and react in an appropriate way. Energy has been transmitted by a sign. If another animal of the same species is approaching, the leader of the pack will experience this as a threat to his position, perhaps an effort to replace him in his relationship to the females or to secure his food supply. What then takes place is rarely an immediate fight. There is a more or less extended period of attempts on each side to intimidate the other with growls, physical movements such as circling or pacing up and down, and other signs of intent. Michael Bright's description of encounters between male red deer stags during the rutting season is an excellent example.⁴ Their encounter involves a great deal of expenditure of physical and emotional energy, and the ability of a particular animal to keep it up forcefully and for an extended period of time is crucial to his success. The stag that can roar the loudest and longest wins. This strength is in fact a measure of his likelihood of success in actual fight if it does take place and is apparently so regarded by

the stags. They rarely actually fight. One outroars the other and the latter leaves. This seems to me comparable to the rhetorical ultimata exchanged between hostile states and to constitute a kind of deliberation in which evidence of the power of each side is used to convince the other to give way. Within a group of animals, there can also be something like a judicial situation when two animals of lesser rank engage in a quarrel and an animal of senior rank “judges” it, often without physical intervention but by a roar of authority that means something like “Stop it!” Or the animal in authority may run off one of the participants, as it were imposing a judgment of exile.

There is also quite a lot of epideictic rhetoric among animals. By this I mean a kind of ritualized socializing that involves reassuring “contact calls” within the group. In the fall, I have witnessed convocations of crows on my university campus. To me, as an uninformed spectator interested in rhetoric, it looked as though they had gathered to debate some important issue. There was much cawing. Some of the crows seemed to become disgusted with the proceedings and flew off; some turned their backs on the center of the group as if to vote “no.” Brief research on the habits of the crow (*corvus brachyrhynchus*) revealed that they were probably not engaged in deliberation on any of the three subjects that most interest them (territorial control, mating, and feeding). There was no food supply at the site of the conference, it was not the mating season, and they had temporarily abandoned their territorial instincts to come together. Our local crows do not migrate, and they usually live in pairs or small families with distinct territories, but occasionally they assemble into large flocks. Zoologists have identified among crows what is known as an “assembly call,” which consists of a succession of long raucous cries. This brings other crows together. Another kind of utterance is the “contact call,” which consists of a series of short caws spaced into groups of two.⁵ This is probably a way of establishing a relationship to others in the flock. The assembly and the vocalization thus perform something like the reaffirmation of group identity in ceremonial oratory on public occasions. Birds are the most vocal of all animals and vocal rhetoric is more highly developed among them than in any species except human beings. It is perhaps not a coincidence that the Greeks gave the name *Corax*, or “crow,” to the “inventor” of rhetoric.

For the last year or two I have been reading research on animal

communication, a subdivision of social biology, or the more exotic field of zoo-semiotics, a subdivision of linguistics. I have yet to encounter the term "rhetoric" in social biology, though often that seems to me to be what is under discussion. Whether animals can be said to have languages is controversial, even among scientists, who sometimes stress the discontinuity of evolution⁶ or the dangers of anthropomorphizing animals,⁷ and more among those humanists who react against any apparent threat to the uniqueness of human beings. Lorenz argues that both the reductionist and the uniqueness schools fail to understand "creative evolution."⁸ *Language* is an emotionally laden word and even if taken as a metaphor, "animals have languages" has a relatively high degree of rhetorical energy. But there is no room for doubt that animals communicate among their own species and with other species; what is in doubt is the extent of their intentionality and consciousness of sending and receiving messages and the resulting question of whether some animals have a sense of self and of mental individuality. Darwin was inclined to think they do,⁹ with which Lorenz seems to agree,¹⁰ others are very doubtful.¹¹ Chomsky argued that human language is not a higher stage of evolution of animal communication but a result of a specific type of mental organization lacking in animals.¹² He does not mention rhetoric, but rhetoric seems to me exactly what animal and human communication, as he describes them, have in common. Animals, whether for physical or mental reasons, do not naturally employ human language, though some birds can learn to do so for limited purposes, and conversely human beings are inept in employing most systems of animal communication. We can, however, by observation learn to understand animal rhetoric and many animals can understand some features of human rhetoric that they share with us, such as gestures or sounds that express anger or friendliness or commands. We share a "deep" universal rhetoric.

Animals communicate by a complex code of signs. What seem to be undifferentiated chirps or grunts to a casual observer often turn out on spectrographic analysis of recordings to have clearly differentiated meanings and can indicate a particular class of predator or the imminence or distance of a perceived threat. The capacity to use and recognize a particular code of signs is innate in each species, including human beings, and thus genetically transmitted; among animals, some of the simplest signs are apparently also innate, and some animals, even some mammals, never advance

beyond this, but among others, for example primates, and especially birds, many of the “words” or “phrases” in the code are learned from others by experiments in imitation. If birds, at least of many species, are deafened or are brought up in isolation from others of their own kind, they do not learn to use their native “language.” It is largely culturally transmitted and subject to selective variation. Groups of birds living apart from others of their species develop local “dialects” and individuals introduce new vocalizations by combining segments of song, rather like phonemes, into new utterances, rather like sentences. Whether or not animals have a sense of self, many clearly can recognize other individuals of their own species and some animals can apparently recognize what individuals belong to what family groups.¹³ Some animals can use or can learn to use symbols. Chimpanzees can be taught a rudimentary form of sign language. Although some would-be defenders of the superiority of the human species would say that the ability to lie and deceive is a unique human trait,¹⁴ they seem to overlook the fact that animals are perfectly adept at lying and deceiving, not only in hiding food or themselves under a bush, but even in using vocalization to deceive, as when a bird gives different calls from different places in its territory with the result that a potential intruder concludes that the area is occupied and flies away.¹⁵

What is the meaning of a particular communication by an animal? Since conscious intent cannot be assumed in the case of most animal communication, the answer is that the “meaning” is the interpretation given to the communication by another animal. Vocalized communication usually produces an instinctive reaction, such as flight, but response is contextual and thus interpreted.¹⁶ Occasionally an animal seems confused by a message, or may ignore it. Parents often ignore erroneous vocalizations by young offspring. This implies a second thesis:

Thesis II: The receiver’s interpretation of a communication is prior to the speaker’s intent in determining the meaning.

More specifically, in nature the meaning is what the receiver does as a result of receiving the message, which should be some comfort to the pragmatist school of philosophers. If the receiver does nothing, the message has no meaning. The receiver’s interpretation is “prior” in the sense that what the receiver is already

conditioned to do on receipt of a certain message—the receiver’s knowledge of the rhetorical code—determines what the receiver does when the message arrives. This is consistent with those schools of modern literary interpretation that look to reader reception rather than to authorial intent as determinative of meaning. It runs somewhat counter to the claim of Aristotle (*Rhetoric* 1.1.14) and his successors that the function of rhetoric is not persuasion but observing the available means of persuasion. A speech may not succeed, but in Aristotle’s view may still be the best possible speech and demonstrate the speaker’s rhetorical skill. Of course a speech, though ineffective with an audience, may successfully fulfill the speaker’s need to speak—to put himself “on record” as it were; a bird that gives a cry indicating a predator fulfills a need to express that, even if the bird is mistaken or ignored by others. A speech that is not successful at the moment may affect future conditions indirectly. Aristotle’s position is a result of a more reflective society that separates function from art and can judge both from some distance. It remains the case that audience reception is a more primitive and a more basic criterion of meaning than is authorial intent. A good indication of this is that in nature a single vocalization can perform two different functions for two different audiences at the same time. The song of a male bird is thought, at one and the same time, both to inform other male birds that a territory is occupied (thus to warn them off) and to inform a female of the male’s readiness to mate (and arouse her mating instincts).¹⁷ This should raise problems for speech act theorists, who apparently unanimously assume that intentionality is essential in illocutionary speech acts, such as giving a warning.¹⁸ But even in the case of human communication, an utterance can carry a warning without being intended by the utterer. I can interpret as a warning the chance remark of another that my *bête noire* John is coming to a party, though the speaker may have been expressing pleasure at the thought. Rhetoric allows, in Eco’s terminology, a “switch” in the code, in this case a reversal of the message.

In human society, rhetoric is, however, usually given some direction and form by varying degrees of intentionality on the part of a speaker, some conscious, some not fully conscious. Intentional rhetoric invokes a network of beliefs and beliefs about beliefs, both about one’s own and those of others, for example, the belief that the audience addressed believes that action should be based on reason. In animal communication at the lowest levels, there is

what Dennett¹⁹ calls “zero order” intentionality on the part of the organism, which gives off a sign, such as a change in coloration or shape, in response to a stimulus without making a conscious decision. But there is evidence that some species of higher animals have “first order” intentionality in that they are capable of choosing whether or not to respond to an exigence depending on their personal situation. A response, for example, might attract the attention of a predator or conversely might attract help from others of its own species. There is also some evidence that primates may have a “second order” of intentionality that involves a conception of their own and another animal’s beliefs. A vervet monkey, for example, may give a leopard alarm not only because it believes that a leopard is nearby but because it wants others to believe it, too.²⁰ At least some scientists believe that chimpanzees understand each other’s goals and motives.²¹ At what stage in the evolution of intentionality among species does rhetoric appear? I am inclined to say that the ability to give a sign, even without intent or belief, is basic to rhetoric, and thus I advance a third thesis:

Thesis III: Rhetoric is prior to intentionality or to any belief on the part of a speaker about the meaning of a sign or its effect on others.

There are a number of features of animal communication that resemble features of rhetoric as it has been formulated in Western society. We are not, of course, descended from any surviving species of animals, but we do have an ultimate common origin. Rhetorical characteristics of animal communication are analogies to what has developed in different species, indications of some possible parameters of rhetoric, of what nature has favored in particular environments, and perhaps of some of its basic features of communication. They deserve comparative study in an attempt to understand rhetoric and the forms it takes. I do not deny that human evolution is complex and that human capabilities far exceed what can be seen among animals. Merlin Donald has recently advanced a cognitive theory of human evolution that both preserves the link with animal communication and differentiates it from the human condition. He argues that the cognitive culture of social animals is “episodic”: “Their lives are lived entirely in the present, as a series of concrete episodes, and the highest element in their system of memory representation seems to be at the level of event representa-

tion.”²² Later stages of evolution of the brain and culture are first “mimetic,” then “mythic,” then “theoretic.” But these represent new layers of the mind, not the substitution of a later stage for an earlier one. Episodic culture, and thus its rhetoric, continues to exist among human beings.

Actually there is even a kind of rhetoric among plants. Though clearly lacking in conscious intent, it is essential for the survival of the species. The term *colors of rhetoric* was frequently used in the past to describe figures of speech. The colors of flowers attract insects and birds and facilitate pollination. Plants also use odors to attract or repel animals. Coloration and scent are each a kind of rhetoric and the creation and perception of each involves the use of energy. This is purposive in nature, though not purposeful. Taking living things as a whole, I state two more theses:

Thesis IV: The function of rhetoric is the survival of the fittest.

Thesis V: The rhetorical code evolves by selective variation.

Rhetoric acts as a mechanism for survival by facilitating successful adaptation of an organism to environmental change. Genetic mutation benefits the species by providing increased options for adaptation, but does little or nothing for the progenitive organism; within animal cultures, however, including human culture, rhetoric is a powerful force for the survival and well-being of the individual, the family, and the social group as these exist at any given moment. It secures or benefits the human individual every day in courts of law and the individual nonhuman animal in the jungle. Among the latter, it facilitates securing territory, thus a food supply to provide energy, and a mate, thus survival of its genes, and as we have seen it protects the individual or the group from hostile intruders or predators. It has secured and benefited culture generally, as well as smaller units within cultures, throughout the history of the evolution of social animals and human society. Stripped to its bare minimum, rhetoric is a defense mechanism (although a good offense is often the best defense).

The acquisition of the ability to move themselves and the evolution of sexual reproduction were early stages in individuation of living creatures. The faculty of rhetoric, more than anything else in nature, is probably responsible for the development of individual personality, and thus in the highest forms of animal life, of a sense of selfhood. The basic reason for this is that rhetoric is expressive

of the integrity of the individual, thus in higher animals the emotions, and thus distinctive personality, and among animals of the same species there often are strong individual personalities. Even if animals are to a large extent behaviorally conditioned, each is a unique entity with some unique features, however small. All animals manifest anger; many manifest love, at least mothers for their offspring; some show signs of loneliness and depression; and biologists frequently describe some animals as demonstrating "altruism," meaning a concern for others expressed through protecting them at their own risk, grooming them, or assisting them in gaining food.²³ Variation among individual animals produces more or less successful rhetorical skills. Nature selects for survival those individuals whose skills are most adaptive to their environment. Selective variation in rhetoric probably originates in small "mistakes" in using either a nonhuman or human code, in novel combinations of its conventional elements, or chance experimentation or play that proves more effective than what has traditionally been done and is imitated. At some point in history, some human being hit upon the novelty of giving a reason for a command, and kept on doing it when a rational audience responded well. Among higher animals, rhetorical skills are transmitted culturally by imitation and learning, not genetically.

Some caution is needed in statements about the relationship of emotion to rhetorical expression in nature. Bird lovers and romantics often believe that birds sing for joy (as in Shelley's "To a Skylark" or Keat's "Ode to a Nightingale") or in sadness (the myth of the "swan song" persists). There is no scientific evidence that bird song is expressive of joy or sorrow, though it can express a biological mating instinct and stimulate the physical ability to mate in females. Most singing birds are males, and after mating they often reduce their song. All bird song and all bird calls are thought to be strictly functional, related primarily to territoriality, location of a food supply, defense against predators, mating, or cohesion between mates, families, or flocks. A complicated song, analogous to the rhetorical display of the stags mentioned earlier, communicates the energy, maturity, and fitness of a male for mating purposes. Mammals, however, do express pleasure, either by body language as in the wagging of dogs' tails, or in sound, as in the purring of cats and some other animals. Some animals have a sense of humor. Man is not the only animal that laughs: some monkeys make the facial gestures and

sounds of laughter. In a still-authoritative work, Darwin traced a continuum between facial gesture in animals and in human beings and showed how facial gestures are derived from functional muscular actions: for example, the snarl of a dog or a man from the instinct to bite.²⁴ But human gestures involving coordinated use of other parts of the body are cultural symbols and vary widely.²⁵

The young of birds and mammals engage in play, and some animals carry this on throughout life. Play among animals is important in developing their muscles, in practicing the skills of catching prey, and in learning the communication code and rhetoric of the species. Play is physically and socially educational for animals²⁶ and for human beings, as reflected in the Greeks' basic division of education into gymnastics and music. Play is very important in the development of both rhetoric and literature. Traditional education has practiced students in mock speeches, such as the deliberative and judicial declamations of the classical rhetorical schools, resumed in the Renaissance. The student learns the rhetorical code, strategies of attack and defense, arrangement of material, skills at amplification and ornamentation, and the conventional values of the society. Young animals learn comparable things useful in their societies.

Since play is in large part action, this brings me to another thesis:

Thesis VI: Among the traditional parts of rhetoric (invention, arrangement, style, memory, and delivery), delivery is prior to the others.

“Delivery” in traditional rhetoric includes facial expression, gesture, and tonal inflection. In Latin, the term *actio* was often used instead, and it is action, not subtleties of vocalization, to which I refer here. Physical motion in response to some exigence occurs in the earliest and most primitive forms of life, as when an amoeba moves toward a food supply or away from some noxious stimulus. A kind of proto-rhetoric can be said to exist in those creatures that can react to a challenge by change of color or shape or by spewing out some substance as does an octopus. Some action produces sound, which other creatures can perceive although the originator of the sound may not. Many insects create sound instrumentally, by sawing a part of the anatomy on another. A rattlesnake's rhetoric consists of coiling or uncoiling itself, threatening to strike, and rattling its tail, which other creatures hear, even though a rattle-

snake is itself deaf. There is an evolutionary chain from the most primitive defensive or offensive actions to the complex system of rhetorical delivery described in John Bulwer's *Chirologia* and *Chironomia* in the eighteenth century. The dance of bees in the hive shows how complex systems of gesture can be. Dance is also one of the earliest forms of expression and communication developed among human beings. This leads to another thesis:

Thesis VII: Writing is prior to speech but not prior to rhetoric.

Writing, or "Grammatology" as described by Derrida,²⁷ is prior to speech in that a kind of marking is prior in evolutionary development and a necessary condition for all communication, although oral communication existed in human societies before the invention of historical writing systems. These systems represent a conceptualization and organization of written symbols to represent utterances, but they were preceded by picturing, which goes far back to cave painting in Cro-Magnon times and which directly represents action, not speech about action. Writing or marking, however, is much earlier and more primitive than even that. It survives in many animals today who "mark" their territory with urine or bodily scent, as well as in animals that have little or no ability to generate sounds but do so by their movements. Vocalization is, in fact, a form of marking, in that to communicate, it must distinguish sounds by moments of silence, often producing rhythm, or by changes of pitch or volume. As in the telegraph, a very simple pattern is one of spacing of long or short units. But marking does not seem to be prior to rhetoric among living creatures in that the impulse and the expenditure of energy required in marking necessarily must exist before the marking, or "writing," can take place. Both are mechanisms for survival, and the most primitive form of marking is a vehicle for rhetoric. Marking is, perhaps, a kind of metaphor, that is, something transferred to the condition of life from the inanimate world where there is also a kind of marking. The entity of any body of matter is based on a binary distinction between what is and what is not; this is what limits its mass. In speaking of rhetoric, I have defined it as an energy existing in life. But energy exists apart from living organisms and the energy of the life force, and thus rhetoric is perhaps a special case of the energy of all physics as known from subatomic particles. Since matter can be converted into energy and energy into matter,

and since in the origin of the universe we do not know which existed first, I leave open the question of the ultimate sources of the qualities of being that made possible the evolution of both rhetoric and marking. They may be two aspects of the same thing.

Returning to our world of animal life, let me identify some features of invention, arrangement, and style that can be illustrated from nonhuman rhetoric for purposes of comparison with human rhetoric. These may constitute the fundamental rules of the universal rhetorical code. Of the other two parts of traditional rhetoric, delivery has been briefly discussed and I bracket memory, the fourth traditional part, as a subject of less interest to modern rhetoricians, important as it may be, and as too complex for discussion here, except to note that it is an aid to survival and requires some kind of marking system in the mind. (In traditional rhetoric, the art of memory is based on the substitution of a sequence of visual images for sound patterns "written" in the mind.) Since memory exists in creatures that do not have speech, like all parts of rhetoric it is clearly prior to speech. Using the traditional parts of rhetoric as a basis for discussion may be objected to by some as analogous to ethnocentrism in anthropology, the imposition of a later, and Western, structural scheme on phenomena that in their natural state might be related in different ways. My response to this criticism is to agree that the categories of traditional rhetoric may not be a satisfactory basis to describe animal communication and I do not use them for that purpose. What I am looking for are features of animal communication that resemble categories of traditional rhetoric and that therefore suggest that these categories, though conditioned by cultural conventions, represent the survival of certain natural phenomena.

Thesis VIII: Rhetorical invention, arrangement, style, memory, and delivery are phenomena of nature and prior to speech.

It does not seem possible for speech to have developed without the prior existence of the faculties represented in the traditional parts of rhetoric. The need for memory and delivery has already been noted. Equally needed would have been something to say, some order in the saying, and some manner of saying it. All these faculties exist in varying degrees among animals and thus they are likely to have existed in some form in the direct ancestors of man.

“Invention” in rhetoric corresponds in a general way to “information” in animal communication. Two kinds of information are conveyed by animal sounds:²⁸ the presence of an animal in a territory and the internal state of the animal making the sound. “Presence” includes individuation, the individual personality of the animal in so far as this has developed in the species and can be perceived by another animal. “The internal state” includes the animal’s physical and emotional reaction to the immediate environment and the message about it that may be of use to another animal. As interpreted by a receiver and recast in anthropomorphic terms, the information conveys something like “Blackie, a known and usually reliable member of our community, is warning that he has observed a stranger who may constitute a danger to any of us.” I would describe this as deliberative rhetoric in that in a particular social context it implies advice about future action—be wary, or flee—and the receiver needs to make a judgment. I would also suggest that elements of ethos, pathos, and logos are inherent in it. The originator of the communication, whether consciously or not, has given a sign of his credibility and good will (ethos), has expressed with more or less emphasis his alarm and produced a message that can awaken alarm in his audience (pathos), and has indicated why he feels alarm by giving the call that denotes a predator (logos). It should be noted that the translation of the message into human language requires the statement of propositions; the message has semantic content. Propositions are, I believe, implicit in animal communication, though no student of semantics to the best of my knowledge has ever entertained the possibility. The ethos is likely to reflect hierarchy or “pecking order” in the society; in many groups, especially of mammals, certain members have greater authority than others. It could, perhaps, be argued that hierarchy among animals represents an incipient distinction between office and individual office holder, a distinction often made in political rhetoric in historical times when a speaker stresses respect for an office, such as the presidency of the United States, and a belief that the incumbent is unworthy of it. This distinction is found in human tribal societies as well.²⁹ Among animals, the position of authority exists and is respected, but the incumbent is regularly challenged by the younger and stronger. “Debate” exists in the animal world, as in the meeting of rutting stags described above. The issue there is largely one of hierarchy

and what is “proved” is the superior stamina and thus superior rights of one animal in comparison with another for a particular position.

As in human deliberation, an animal communication may turn out to be an overreaction, an underreaction, or reflect the judgment of a mature and experienced observer. As an animal learns the rhetorical code of its species, there is a kind of “oscillation” between overstatement (hyperbole) and understatement (meiosis).³⁰ Gradually the maturing animal develops a “pattern” of observation against which a particular event can be tested and evaluated. Lorenz (113–20) regarded this as an ability of abstracting the general from the particular and saw in evolution the integration of a number of separate cognitive functions, many existing in rudimentary form in nonhuman animals. These include a faculty of abstract thought (which produces language), an ability to accumulate supra-individual knowledge, the power to foresee consequences of an action (which produces moral responsibility), the ability to make voluntary movements, and imitation (which Lorenz regarded as the basis of learning verbal language and thus of the faculty of passing on objective knowledge independently of the presence of the object). To abstract the general from the particular is a rudimentary form of induction; once a pattern has been established in the mind, to apply it to a particular situation is deduction.

Overstatement in oscillation seems to perform a rhetorical function beyond its role in the learning process. It gets the attention of an audience and, helped by features of style and delivery, stands out against the “noise” of the environment. In the jungle, in the seas, and in human assemblies, background noise is an obstacle to communication. Noise is also overcome by redundancy in the message. The primary cognitive device of animal rhetoric is repetition of the same statement several times in the same form.³¹ This remains a feature of human rhetoric (“Tell them what you are going to say, then say it, then tell them what you have said”), though with a sophisticated audience it is often best to convey the same message in different words, whereas in animal rhetoric, with its limited vocabulary, this is impossible or would be confusing. “Amplification,” however, is manifested in some animal rhetoric, and performs some cognitive function, but, as in traditional rhetoric, it is more a device of style than invention and can be left for discussion below.

The history of the evolution of rhetorical invention is the history of the diffusion of energy and the growth of information in communication. In a primordial cry of "Help!" there is the greatest energy and the least information. Animal communication requires less energy than does physical confrontation and conveys more useful information, including some quite specific information useful for survival, which is probably why it has been favored in evolution. Human rhetoric, with its conceptualization of rational argument, its ability to give a narrative picture of previous or possible future events, and its great creativity, conveys the greatest amount of information, but reduces the emotional energy.³²

A number of features of "arrangement" are to be found in the rhetorical codes of the animal world. Bird songs have a syntax in their arrangement of phoneme-like sound segments; differently arranged they convey different messages. The most highly developed forms of bird songs have something like an exordium, which announces the bird's presence and calls attention to its message, then a main body of song, divided into segments, often with repeated elements, and a terminal flourish or epilogue.³³ From my reading overall, however, I conclude that whereas the presence of an exordium is not uncommon both among birds and mammals, the presence of an epilogue is unusual and when it exists it is a simple flourish, not a recapitulation of the message in brief. This resembles some non-Western music that often has some initial introductory passage to strike up the tune, but ends abruptly without a coda. The artistic need for an epilogue is characteristic of Western speech, Western literature, and Western music, carried to its fullest formal development in traditional perorations and in the concluding sections of the sonata form. Western society has sought closure.

Arrangement is crucial in the process of ritualization, a common feature of primitive societies and a continuing vehicle of religious cohesion, thus an epideictic rather than deliberative use of rhetoric. The right utterances have to be said in the right order, or the ceremony is often invalid. Ritualization is a feature of animal communication also. Its simpler form can be seen in the mating displays of some birds. One of its most elaborate forms is the spectacular morning duet of mated pileated gibbons. The female gives a soft "hoo-hoo-hoo" as an exordium. The male and female then join in a rhythmic "ooh-a-ooh-a-ooh-a." "Eventually, the female utters some short 'hoos' that tell the male to be quiet; this is the

signal that she wants to sing the long series of whoops of the spectacular ‘great call’—a kind of south-east Asian yodel. At the climax, male and female swing around in the tops of the trees, making a considerable commotion—it is a period of intense excitement.”³⁴ Since the performance is very loud, it is thought to function to defend territory, but it is also important in the cohesion of the pair, who mate for life and achieve increased coordination in the ritual over time. In some species of birds, the male sings and the female repeats his song. Ritualization, dialogue, and antiphonal singing among animals is perhaps analogous to the early stages of poetry, drama, and literature among human beings and may point to some of its rhetorical functions which include territorial interests (strong in the *Iliad*, for example) and family integrity (strong in the *Odyssey*, for example).

This mention of the possible “literary” quality of communication among animals leads me to a short digression on textuality among animals, relevant to later rhetoric in that it may have something to do with the development of aesthetic sensibilities. There is almost no scientific evidence that nonhuman animals have any perception of beauty; what they seem to have instead is a sense of fitness. A bird builds a nest to fit an innate mental pattern of what constitutes a nest. This is primarily a matter of the arrangement of the material, which is woven together in a structure conventional to the species. I recently observed cardinals building a nest. The male brought twigs of various lengths, which the female worked into the fabric. Sometimes she rejected a particular piece and even seemed to be trying to explain to her mate what she needed, which he learned by experiment. Sometimes birds will abandon a particular nest half-built, usually because the location is unsuitable or dangerous, sometimes perhaps because they have made a mistake in laying the foundations. Some birds seem to build a series of nests without intending to use them, possibly as decoys to the final, more hidden nest. In any event, the nest must fulfill the animal’s sense of what constitutes a proper nest in the proper place. “Propriety” is an important quality in traditional rhetoric. The behavior of birds also seems to me to indicate an incipient aesthetic sense. The Greek word *kosmos* means “order,” or what is set in order. It came to mean the seemingly orderly arrangement of the stars in the heavens, but also ornament and jewelry, thus something that is beautiful. When I said that there is “almost no scientific evidence that nonhuman animals have any perception of beauty,” the excep-

tion I had in mind was the degree to which some birds—magpies, for example—are attracted by bright-colored objects, which they sometimes build into a nest. This may suggest an inclination to ornamentation in nature, present also in bird song, though most artifacts created by nonhuman animals are entirely functional. When traps were set to reduce the beaver population in my town, the beavers responded by building the traps into their dams, thus strengthening them. This is what is called in French *bricolage*, a subject much developed in the writings of the anthropologist Claude Lévi-Straus. It is somewhat analogous to catachresis in rhetoric, the use of a metaphor when there is no proper word available. Modern discussions of metaphor suffer from their failure to consider comparative evidence of how metaphor may have evolved, both in terms of function and in terms of ornamentation.

This has already led us into discussion of style. Most of the important features of style in nature have already been mentioned: individual birds, at least of some species, have recognizable individual styles within rather limited parameters. Each species has its own style. Especially in singing to attract mates, birds amplify their song; this helps the message to stand out against background noise, but also conveys the strength, maturity, and suitability of the bird as a mate. Something similar exists among mammals, though in less intricate fashion. Some birds—mocking birds, for example—imitate the song of other birds, thus amplifying and ornamenting their song by intertextual allusion. The commonest figure of speech among animals is probably anaphora: beginning a series of phrases with the same sounds. But homoeoteleuton occurs, too, when successive segments end with the same pattern. Animal communication is usually rhythmical: the metrical pattern is a key to the meaning. An inclination to hyperbole exists among animals; they overreact as do human speakers. Vocal signs made by animals are arbitrary symbols of mental perceptions, as are the words in human languages. There is often a kind of synecdoche in that the symbol represents a class of objects rather than a particular one: a large bird rather than specifically an eagle. Proportional metaphor based on similarity of appearance or function does not seem present in animal vocalizations, though catechresis occurs in animal behavior, as mentioned earlier. Though I have not noted the use of metonymy in vocal communication among animals, some animals easily understand metonymy: though none of my dogs has ever brought me his

leash to suggest going on a walk, when I take the leash in hand, they become excited and know exactly what it signifies.

This brief discussion is intended to direct attention to animal communication as a way of understanding some basic features of rhetoric that might be restated as general rules. I must emphasize again that what is seen among animals is only analogous to features of human rhetoric, not its direct sources. These are behaviors that have been developed in separate species in accord with their biological characteristics. The potentialities in each species are limited by physical characteristics, including brain size and structure and the nature of the organs of vocalization. There do, however, appear to be some features of communication in common among many species, including human beings, apparently favored by natural selection in evolution from the earliest forms of life. These various features are vehicles, techniques, or rules of rhetoric, which itself is a form of energy driven by a basic instinct to survive. Research on the forms of rhetoric in nature can be a first step toward a theory of general rhetoric and a comprehensive history of its development. The study of rhetoric is essentially distinct from the study of speech or language, which rhetoric has however exploited. A second logical step is further research in rhetoric as it can be seen in tribal societies living in primitive conditions and studied by anthropologists (with the warning, however, that even the most primitive society of modern times is the result of thousands of years of cultural evolution), and of the earliest stages of historical societies in urban culture. Diachronic research, including observation of discontinuities, is a needed complement to the synchronic research on communication and rhetoric which today dominates the field.³⁵

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Notes

1. *A Theory of Semiotics* (Bloomington IN: Indiana University Press, 1979), 276–88.

2. “Prior” in this discussion should generally be taken to mean prior in biological evolution and a necessary condition for whatever is “posterior.” I shall, however, explain the usage of the term as applied in some contexts below. The complex question of why and how speech developed among human beings is not a necessary part of the argument of this paper.

3. See Peter H. Klopfer and Jeremy J. Hatch, "Experimental Considerations," in *Animal Communication: Techniques of Study and Results*, ed. Thomas A. Sebeok (Bloomington IN: Indiana University Press, 1968), 31.
4. *Animal Language* (Ithaca NY: Cornell University Press, 1985), 204.
5. See Derek Goodwin, *Crows of the World* (London: British Museum, 1981), 84–88.
6. E.g., Eric H. Linneberg, "Language in the Light of Evolution," and Gregory Bateson, "Redundancy and Coding," in Sebeok, *Animal Communication*, 592–613 and 614–26 respectively.
7. See Lord Zucherman, "Apes Я Not Us," *New York Review of Books* 38, no. 10 (1991), 43–9.
8. Konrad Lorenz, *Behind the Mirror: A Search for a Natural History of Human Knowledge*, tr. Ronald Taylor (New York: Harcourt-Brace-Jovanovich, 1977), 167–8.
9. Charles Darwin, *The Expression of the Emotions in Man and Animals* (Chicago: University of Chicago Press, 1965), 118.
10. Konrad Lorenz, *Behind the Mirror*, 40.
11. E.g., Leslie Dewart, *Evolution and Consciousness: The Role of Speech in the Origin and Development of Human Nature* (Toronto: University of Toronto Press, 1989), 159.
12. Noam Chomsky, *Language and Mind* (New York: Harcourt-Brace-Jovanovich, 1972), 66–71.
13. Michael Bright, *Animal Language*, 229.
14. E.g., Leslie Dewart, *Evolution and Consciousness*, 104–5.
15. Michael Bright, *Animal Language*, 12, 82.
16. J. P. Scott, "Observation," in Sebeok, *Animal Communication*, 28.
17. Michael Bright, *Animal Language*, 73.
18. E.g., John R. Searle, "What is a Speech Act," in *Philosophy in America*, ed. Max Black (Ithaca NY: Cornell University Press, 1965), 221–39.
19. D. C. Dennett, *The Intentional Stance* (Cambridge MA: MIT/Bradford), 246.
20. Dorothy L. Cheney and Robert M. Seyfarth, *How Monkeys See the World: Inside the Mind of Another Species* (Chicago: University of Chicago Press, 1990), 143.
21. *Ibid.*, 254.
22. Merlin Donald, *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition* (Cambridge MA: Harvard University Press, 1991), 149.
23. See Edward O. Wilson, *On Human Nature* (Cambridge MA: Harvard University Press, 1978), 149–67.
24. Charles Darwin, *The Expression of the Emotions in Man and Animals*.
25. See James L. Peacock and A. Thomas Kirsch, *The Human Direction: An Evolutionary Approach to Social and Cultural Anthropology* (New York: Appleton-Century-Crofts, 1970), 8.
26. See Konrad Lorenz, *Behind the Mirror*, 145–7.
27. Jacques Derrida, *Of Grammatology*, tr. Gayatri Chakravorty Spivak (Baltimore MD: Johns Hopkins University Press, 1976).
28. See René Busnel, "Acoustic Communication," in Sebeok, *Animal Communication*, 139.
29. See John Comaroff, "Talking Politics: Oratory and Authority in a Tswana Chiefdom," in *Political Language and Oratory in Traditional Society*, ed. Maurice Bloch (London: Academic Press, 1975), 144.
30. See Konrad Lorenz, *Behind the Mirror*, 237–42.
31. See Michael Bright, *Animal Language*, 74.
32. See Leslie Dewart, *Evolution and Consciousness*, 233.
33. See Barbara A. Hooker, "Birds," in Sebeok, *Animal Communication*, 318.
34. Michael Bright, *Animal Language*, 217.
35. I am grateful to the National Endowment for the Humanities for awarding me a Summer Stipend for a project of which this paper is a part, and to my colleague, Professor J. Robert Cox, for valuable suggestions.