



## Metaphor, Dictionary, and Encyclopedia

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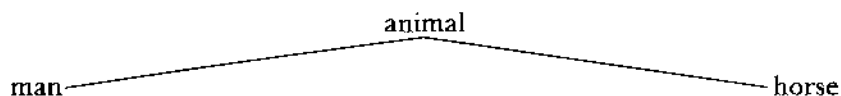
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# Metaphor, Dictionary, and Encyclopedia

Umberto Eco

A SEMIOTIC theory of metaphor, in order to explain how metaphors are both generated and interpreted, requires a componential representation of the content of the linguistic expressions involved. The aim of this article is to show that such a componential representation must be in the format of an encyclopedia, since a representation given in the format of a dictionary cannot explain the metaphorical effect.

The opposition dictionary vs. encyclopedia is largely discussed in the framework of contemporary componential semantics but still remains rather imprecise. Roughly speaking, however, one can say that a dictionarylike representation should concern a merely linguistic competence while an encyclopedialike representation should take into account, as it is commonly said, the whole of our world knowledge.<sup>1</sup> As we shall see, the world knowledge provided by an encyclopedia has nothing to do with our direct, physical, and frequently idiosyncratic experience of the world; it has on the contrary to do with other semiotic phenomena, with intertextual knowledge, with a chain of interpretants.<sup>2</sup> Yet many linguists and philosophers of language assume that such a world knowledge, being potentially infinite, cannot be represented exhaustively. Since my intention is to start from the first and most venerable theory of metaphor, the one proposed by Aristotle, let me assume as a model for a dictionarylike competence an Aristotelian model, as it was outlined definitely by Porphyry in the *Isagoge* and as it was represented over the centuries by the so-called Porphyry's tree: a dictionary where the lower markers entail the upper ones and that, for the sake of the present experiment, can be reduced to an essential schema:



Even though very elementary, this model (which as a matter of fact represents an oversimplification of the classical Porphyry's tree) accounts for all the phenomena that are allegedly explained by a dictionary, namely, antonymy, hyperonymy and hyponymy, redundancy (e.g., *an animal man*), difference between analytic and synthetic truths

(*men are animals* is analytic whereas *men are courageous* is synthetic), contradictoriness (it is analytically false to assert that *men are horses*), entailment (*if man then animal*), and the like. It must be clear that these dictionarylike properties correspond to the  $\Sigma$  properties of the Groupe  $\mu$  (their  $\pi$  properties being encyclopedic properties).

1. Unfortunately, if we analyze the example of metaphors provided by Aristotle, such a dictionary does not explain them. At most it explains the first two types of metaphors of which Aristotle speaks; the only problem is that these two first types are not metaphors at all, but only synecdoches. The first type would be defined as a synecdoche that the Groupe  $\mu$  calls "generalizing synecdoche in  $\Sigma$ ," and consists in the substitution of a species with its upper genus.<sup>3</sup> Aristotle uses this example: *this ship of mine stands there*, since *standing* is the genus which contains among its species *lying at anchor*. A more obvious example, inspired by our model of the dictionary, would be the use of *animal* for *men*, *man* being a species of the genus *animal*. A Porphyry's tree seems to support very well this synecdoche, except that at this point rhetorical knowledge is definitely divorced from logical knowledge. In fact this type of synecdoche presupposes, in order to be accepted, a logical fallacy of this kind:

$$((p \supset q) \cdot q) \supset p$$

The second type of metaphor (indeed, another synecdoche) seems more acceptable from a logical point of view, since it instantiates a case of *modus ponens*:

$$((p \supset q) \cdot p) \supset q$$

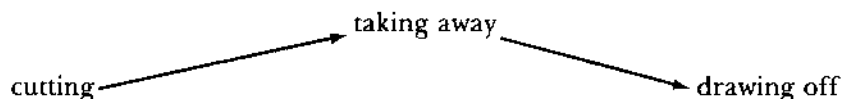
and corresponds to the Groupe  $\mu$ 's particularizing synecdoche in  $\Sigma$ . Aristotle's example is: *indeed ten thousand noble things Odysseus did*. According to Aristotle *ten thousand* stands for *many*, a genus of which it is a species.

The clumsiness of the Aristotelian example is self-evident. In fact, /ten thousand/ is necessarily  $\langle\langle$ much $\rangle\rangle$  only in a Porphyry's tree that is based on a certain scale of quantity. One can well imagine another scale oriented toward astronomic sizes, in which ten thousand, even a hundred thousand, is a rather scarce quantity.

In other words, while it may seem more or less necessary for a man to be an animal, it is not as necessary that ten thousand be a lot. This notwithstanding, *ten thousand* suggests *many* intuitively and with an undeniably hyperbolic tone, while *men* for *animals* would not be intuitively perceived as an interesting figure of speech—even though both examples depend on the same logical scheme. This means that to generate or to interpret a synecdoche of this type, a certain Por-

phyry's tree suffices, but there are some trees that are more satisfactory than others. Probably, according to the code of the Greek language in the fourth century B.C., the expression *ten thousand* was already "overcoded" (as a ready-made syntagm) and was used to designate a great quantity. In other words, Aristotle explains the modes of interpretation of this synecdoche taking as already disambiguated the synecdoche itself. On the other hand, *men* for *animals* would be felt as a preposterous "particularization." The surprising conclusion is that metaphors of the second type (particularizing synecdoches in  $\Sigma$ ) are logically correct but rhetorically insipid, while metaphors of the first type (generalizing synecdoches in  $\Sigma$ ) are rhetorically enlivening but logically unjustifiable.

2. As for the third type, the Aristotelian example is twofold: *Then he drew off his life with the bronze, and then with the bronze cup he cut the water.* They are two examples of a passage from species to species: *drawing off* and *cutting* are considered as two cases of the more general (genus) *taking away*. This third type seems to be a genuine metaphor, since one could say that there is something "similar" between these two actions. The logical movement on a possible Porphyry's tree could thus be represented as follows:



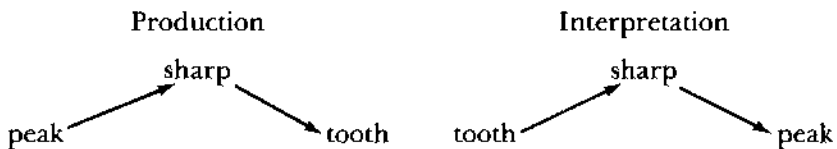
The production of the metaphor involves a passage from a species to its genus (metaphor of the first type) and a further passage from genus to species (metaphor of the second type); the interpretation involves the opposite movement. Thus by crossing two synecdoches, one obtains a metaphor.

Such a model accounts for such expressions as *the tooth of the mountain*, since *peak* and *tooth* partake the genus *sharpened form*, or *she was a birch* as told of a girl, since both *girl* and *birch* partake the genus *flexible body*. These are two examples provided by Groupe  $\mu$ , and many contemporary theories say that, in similar cases, the girl acquires a vegetal property and the birch a human one (theory of transfer features).<sup>4</sup>

However, at this point two problems arise: first of all, the above model accounts for *she was a birch* but not for *he was a horse*, where horse stands for man. On the other hand, we intuitively (or culturally) feel as an acceptable metaphor *he was a lion* (for a courageous man). However, this metaphor works only if one conceives of a Porphyry's tree ranking together man and lion not under the genus *animal* but under the ad hoc genus *fierce or proud creatures*. Once again, one can

generate or interpret the metaphor only if one has arranged a tree working under a certain description. This means that there must be an ad hoc dictionary for each new metaphor!

Likewise, to define which properties survive and which must drop away, we must again construct an ad hoc Porphyry's tree, since this operation must be oriented by a universe of discourse or frame of reference.<sup>5</sup> The second problem is that in this operation of sememic intersection, a phenomenon arises that is new with respect to synecdoches of the first two types. Consider the twofold movement that is at the basis of both the production and the interpretation of *tooth of the mountain*:



In a synecdoche in which a peak were named as *something sharp*, *peak* would lose some of its characteristic properties (that of being mineral, for example) and share instead with the genus to which it is reduced some morphologic properties (in particular, that of being sharp). In a metaphor of the third type, *peak* loses some properties in becoming a sharp thing and regains others in becoming a tooth. While *peak* and *tooth*, however, have in common the property of sharpness, their mutual comparison also focuses on those very properties that stand in opposition. This is so much the case that the phenomenon is referred to as a transfer of properties, as we mentioned above (*peak* becomes more human and organic, *tooth* acquires the property of being mineral). What makes theories of transfer features questionable is always the fact that we cannot tell who gains what and who loses instead something else. More than of a transfer we could speak of a back-and-forth of properties. We shall see that this is a case of condensation. Moreover, the third type of metaphor is, in effect, a metaphor of a fourth type because it sets in motion not three but four terms, whether these are expressed or not in the linguistic manifestation: girl stands to the rigidity of a male body as birch stands to the rigidity of an oak tree—otherwise one could not understand with respect to what a birch and a girl are flexible. At any rate, what likens the metaphor of the third type to the fourth type is that mere identifications or absorptions (from species to genus) are no longer the rules of the game: now it is both similarity and opposition, or identity and difference, that are in question.

3. The metaphor by analogy or by proportion is a metaphor with four terms, which are no longer  $A/B = C/D$  (e.g., *peak* is to the genus

of sharp things in the same way as *tooth*) but  $A/B = C/D$ . The term *cup* has the same relation to the term *Dionysus* as has the term *shield* to the term *Ares*. In this way, the shield can be defined as *the cup of Ares* or the cup as *the shield of Dionysus*. Again, old age is to life as sunset is to day, and thus old age can be defined as *the sunset of life* and the evening as *day's old age*.

Aristotle's definition has always seemed superb for its concision and clarity. In fact it is; and undoubtedly the idea of finding a sort of propositional function, in which infinite concrete instances can be inserted, represented a stroke of genius. Moreover, this proportional formula permits the representation of even those cases of strict catachresis where the vehicle stands for a tenor that, lexically speaking, does not exist:  $A/B = x/C$ . Aristotle provides his own, linguistically complex example, but we can also turn to two familiar catachreses, *the leg of the table* and *the neck of the bottle*. A leg is to a body as an unnamed object is to be body of a table.

It becomes clear right away that the way leg is related to body is not the same way in which neck is to body. The leg of a table resembles a human leg provided we have a frame of reference that puts into relief the property of "support," while the neck of a bottle is not exactly the support of a cork nor, on the other hand, of the entire container. It seems that the analogy on leg plays on functional properties at the expense of morphologic similarities (themselves reduced to very abstract equivalences, and quantity having been put aside as nonpertinent), while the analogy on neck drops the functionally pertinent features and insists on those that are morphological. Which is to say that, yet again, different criteria for constructing different Porphyry's trees are in question—if it were even still possible, though, to speak of Porphyry's tree *tout court*. But our present objection is more radical: as a matter of fact the metaphor of the fourth type does not accommodate into any Porphyrian tree.

To begin with, the relation *cup/Dionysus*, according to the criteria of the later theories of rhetoric, is of a metonymic type. Cup and Dionysus are commonly associated by contiguity, through the relation subject/instrument, through a cultural habit (without which cup could "stand for" many other objects). This relation is not at all amenable to being expressed by Porphyry's tree, unless we want to draw broadly inclusive equivalences (of the type: cup belongs to the class of things characterizing Dionysus, or alternatively, Dionysus belongs to the class of all beings that use cups). And the same goes for the relation *shield/Ares*. In other words, it is very difficult to recognize in this relation a case of embedding of genus within species.

The case of *man/animal* presents us with an analytic relation, while that of *cup/Dionysus* presents us with a synthetic relation. Man is

animal in virtue of the definition of the term *man*, while cup does not necessarily refer to Dionysus except in a very restricted cotextual situation in which the various pagan gods are listed iconographically along with their characteristic attributes. Panofsky and Caravaggio would both hold that *if Dionysus, then cup*; but they themselves would agree that while it is not possible to think of a man who is not animal, it is always possible to think of Dionysus without thinking of cup. Moreover, why should Dionysus be placed in a relation with Ares and not, for example, with Ceres, Athena, or Vulcan?

It is pretty intuitive that Aristotle himself would find it difficult to name the spear of Athena as the cup of Athena and the wheaten sheaves of Ceres as the shield of Ceres (even if baroque contexts where that is possible are not excluded). Intuition says that shield and cup can entertain a relation because both are *round* and *concave* (round and concave in different ways, yes, but therein is the metaphor's cleverness, in making us see a certain resemblance between different things). But what matches Dionysus and Ares? In the pantheon of pagan gods it is their diversity that unites them (strange oxymoron). Dionysus the god of joy and of the peaceful rites, Ares the god of death and war: a play of similarities, then, mingling with dissimilarities. Cup and shield become similar because of their roundness, dissimilar because of their functions; Ares and Dionysus are similar because both are gods, dissimilar because of their respective domain of action.

4. The metaphor with four terms does not set into play verbal substances alone. No sooner has the proportion been established than it is impossible to see, as something incongruous, Dionysus actually drinking out of a shield or Ares defending himself with a cup. In the first two types of metaphor, the metaphorizing term absorbs (or confuses itself with) the metaphorized term, much as a figure enters a multitude—or leaves—without our cognitive habits coming into question. At best the result is something impoverished, both conceptually and perceptually. In the third type of metaphor, instead, a superimposition of plant and girl is created that is almost visual, as in the fourth type.

Albeit confusedly, Aristotle realizes that by naming one thing with something else's name, one denies the first thing those qualities proper to it. Ares' shield could also be called *cup without wine*. As the metaphor starts to be understood, the shield becomes a cup, even as this cup, while remaining round and concave (though in a different way from the shield), loses the property of being full of wine. Or, in reverse, one forms an image wherein Ares possesses a shield that acquires the property of brimming with wine. In other words, two

images are conflated, two things become different from themselves and yet remain recognizable, and there is born a visual (as well as conceptual) hybrid. Couldn't it be said that we have before us a kind of oneiric image?

The effect of such a proportion is quite like what Freud called "condensation," where noncoincident features can be dropped while those in common are reinforced.

What is finally more important, the metaphor of the fourth type, in order to be understood, clearly needs encyclopedic properties, such as round and concave, war and peace, life and death. Even though each of these pairs of properties can be arranged into *one* Porphyrian tree, all together cannot and *more* trees are required at the same time.

5. A componential representation in the form of an encyclopedia, however, is potentially infinite and assumes the form of Model "Q"<sup>6</sup>—that is to say, of a polydimensional network of properties, in which some properties are the interpretants of others. In the absence of such a network, none of these properties can attain the rank of being a metalinguistic construction or a unit belonging to a privileged set of semantic universals. In a model dominated by the concept of unlimited semiosis, every sign (linguistic and nonlinguistic) is defined by other terms assumed as interpretants, with the advantage that an encyclopedic representation (even if ideal), based on the principle of unlimited interpretation, is capable of explaining in purely semiotic terms the concept of "similarity" between properties.

By similarity between two semes or semantic properties, we mean the fact that in a given system of content those properties are named by the same interpretant, whether it be verbal or not, and independently of the fact that the objects or things for the designation of which that interpretant is customarily used may manifest perceptual "similarities." In other words, the teeth of the maiden in the Song of Solomon are like the sheep if and only if in that given culture the interpretant *white* is used to designate both the color of teeth and that of sheep's fleece. But metaphors set up not only similarities, but also oppositions. A cup and a shield are alike in their form (round and concave) but opposite in their function (peace vs. war), just as Ares and Dionysus are alike insofar as they are gods, but opposite with regard to the ends they pursue and to the instruments they use. To account for these phenomena, an encyclopedic representation has to assume the form of a case grammar, which should recognize therefore the Subject Agent, the Object on whom the agent executes his action, the Counter Agent who may possibly oppose himself to that



doche in  $\Sigma$  can be set forth. Thus  $x$  will name all the  $P$ , or  $P$  will name  $x$ . Supposing that  $x$  corresponds to *house* and that this word is represented, for the sake of economy, as

$$/house/ \rightarrow F_{\text{with roof}} \quad A_{\text{culture}} \quad M_{\text{bricks}} \quad P_{\text{shelter}}$$

If one decides to consider a house from the point of view of its function, the property of being a shelter becomes a  $\Sigma$  property, and it will then be possible to name a house as a shelter, or every shelter as a house. The same would happen if the house were described from the point of view of its shape: one can name a house as one's own roof.

It is worth noticing that *house* for *shelter* (and vice versa) traditionally has been considered a case of metonymy (object for function and vice versa), while *house* for *roof* or vice versa has been traditionally considered a case of synecdoche (*pars pro toto*, a synecdoche in  $\pi$ ).

This difference, between metonymy and synecdoche in  $\pi$ , becomes absolutely irrelevant in the present framework. The only case of synecdochic movement seems to be in the  $\Sigma$  mode, produced by a contextual decision, and consisting in the transformation of a property into a genus. All the other cases of substitution of a sememe with a seme and vice versa can be called metonymy. Naturally, in our framework the difference between synecdoche and metonymy has nothing to do with the concrete relations between a "thing" and its parts or other contiguous "things": the difference lies purely within formal bases.

As a matter of fact, the traditional rhetoric has never satisfactorily explained why a substitution genus/species ( $\Sigma$ ) and a substitution *pars/totum* ( $\pi$ ) are both synecdoches, while all the other kinds of substitution (object/purpose, container/content, cause/effect, material/object, and so on) are called metonymies. In the present framework both a *pars pro toto* and a cause/effect substitution can work on  $\pi$  properties.

The explanation of this ambiguity in the tradition must be made in historical and phenomenological terms. According to many time-honored theories of knowledge, things are first perceived and recognized according to their formal (morphological) characteristics: a body is round or heavy, a sound is loud or deep, a tactile sensation is hot or rough, and so on. These morphological properties in our model are recorded under  $F$ . Instead, always according to traditional theories of knowledge, to establish that a thing has a cause  $A$ , that it is made of a certain material  $M$ , or that it has a function  $P$  seems to depend on further inferences—by a sort of shifting from a simple act of apprehension to an act of judgment. It is evident, then, why  $F$

properties enjoyed a privileged status and were ranked as synecdoches along with the  $\Sigma$  relations (genus/species). To perceive and to recognize the formal characteristics of a thing meant to grasp its “universal” essence, to recognize that thing as the individual of a species related to a genus.

Obviously, such an assumption does not capture the complexity of a perceptual experience, where frequently an object, to be recognized and classified, requires a complex inferential labor, dealing with its functional, material, and causal aspects as well. Our model eliminates the effects of all these implicit philosophical assumptions. All properties must be considered encyclopedic and must allow for metonymical substitution—except when a property is transformed into a genus (substitution in  $\Sigma$ ) because for cotextual reasons a given semantic item has to be considered under a certain “generic” description.

6. Let’s take two elementary, even crude, examples, two Icelandic riddles (*kenningar*) mentioned by Borges: *the tree for sitting* or  $\langle\langle$ bench $\rangle\rangle$ , and *the house of the birds* or  $\langle\langle$ the sky $\rangle\rangle$ .<sup>7</sup> In the former example, the first term (*tree*) contains no ambiguity. Let’s construct a componential spectrum:

/tree/ →	F <sub>trunk</sub>	A <sub>nature</sub>	M <sub>natural</sub>	P <sub>fruits</sub>
	branches		wood	...
	...			
	(vertical)			

As is clear in this first stage, we don’t yet know which are the semes that must be kept in mind contextually. The encyclopedia (a potential reserve of information) would permit filling in this representation indefinitely. But the context gives as well the indication *for sitting*. The expression as a whole is ambiguous. One does not sit on trees, or alternatively, one can sit on every branch of every tree, but then it’s hard to understand why the definite article *the* is used (which, according to Brooke-Rose, is an indicator of metaphorical usage).<sup>8</sup> This tree, then, is not a tree. Something must be found that has some of a tree’s properties but not others, obliging the tree to have properties that it normally does not have. We are faced with a task of abduction (a *kennning* is a riddle based on a “difficult” metaphor). A series of hypotheses leads us to single out in the tree trunk the element of verticality, so as to look for something that is also wooden but horizontal. We try a representation of *to sit*. We look among those Objects on which an Agent sits for those that have the seme of “horizontal.” A primitive Icelander, or someone who knows that the expression must bear a relation with the code of primitive Icelandic



and the sky (open). At this point we can try to represent *sky*, keeping in mind, obviously, its possible differences and similarities with *house*:

$$/sky/ \rightarrow \begin{matrix} F_{\text{formless}} \\ \text{open} \end{matrix} \quad A_{\text{nature}} \quad M_{\text{air}} \quad P_{\text{nonshelter}}$$

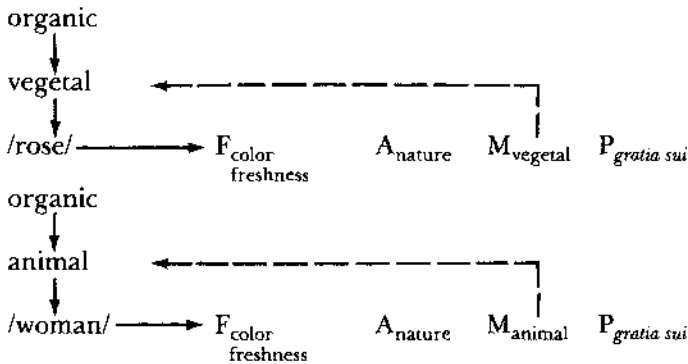
Clearly, among the ends or functions of *sky*, only "nonshelter" has been identified, since the seme "shelter" exists in *house*. At this point, though, it seems as though all the semes in the comparison *house/sky* are in opposition. What is there that is similar? If we try a Porphyry's tree on the opposition air/earth we discover that these two units find a common node in the property "element."

The interpreter is led, then, to draw inferences concerning those semes that have been singled out. He is led, in other words, to take the various semes as the starting points for new semantic representations or compositional analyses. The domain of the encyclopedia is widened: What is the territory of men, and what is the territory of birds? Men live in closed (or enclosed) territories, and birds in open territories. What for man is something from which he must shelter himself is the natural shelter for birds. New Porphyry's trees are tried out: closed dwelling or territory vs. open dwelling or territory. Birds "live," so to speak, in the skies. It is this "so to speak" that creates the condensation. Frames or settings are superimposed. If a man is menaced, what does he do? He takes refuge in his house. If a bird is menaced, it takes refuge in the skies. Therefore, enclosed refuge vs. open refuge. But then the skies that seemed a place of danger (producing wind, rain, storm) for some beings become a place of refuge for others. This is a case, then, of a metaphor that is "good" or "poetic" or "difficult" or "open," since it is possible here to continue the process of semiosis indefinitely and to find conjunctions or contiguities at one node of a given Porphyry's tree and dissimilarities at lower nodes, just as an entire slew of dissimilarities and oppositions are found in the encyclopedic semes. That metaphor is "good" which does not allow the work of interpretation to grind to a halt (as occurred with the example of the bench), but which permits inspections that are diverse, complementary, and contradictory—which does not appear to be different from the criterion of pleasure cited by Freud to define a good joke: thrift and economy, to be sure, but such that a shortcut is traced through the encyclopedic network, a labyrinth which would take away too much time if it were to be explored in all its polydimensional complexity.

The problem now is to see whether this model of metaphorical production and interpretation holds true for other metaphorical expressions, for the most exaggerated catachreses and for the most

delicate poetic inventions alike. We will start by putting ourselves in the position of someone who has to disambiguate *the leg of the table* for the first time. In the beginning, it must have been a *kenning*, an enigma. One must know first, though, what a table and a leg are. One finds in a (human) leg a function *P* of sustaining or holding up a body. In the formal description *F* of /table/ one finds the instruction that it is held up by four unnamed elements. One hypothesizes a third term, /body/, and finds that in *F* it is held up by two legs. The semes for verticality may be found both in leg and in the object *x* holding up the table. One also finds differences and oppositions between semes, such as "nature" vs. "culture," "organic" vs. "inorganic." Table and body are joined under a Porphyry's tree that considers articulated structures: we find that body and table meet at the higher node and are distinguished from each other at the lower nodes (e.g., organic articulated structures vs. inorganic articulated structures). In the end, we might well ask if the catachresis is "good." We don't know; it is too familiar; we will never again regain the innocence of first invention. By now it is a ready-made syntagm, an element in the code, a catachresis in the strict sense and not an inventive metaphor.

7. Let's try out, then, two indisputably genuine metaphors: *she was a rose*, and from Malherbe's "Stances à M. du Périer," *Et rose elle a vécu ce qui vivent les roses, L'espace d'un matin*. The first metaphor right away says contextually what the metaphorizing term (or vehicle) is and who the metaphorized term (or tenor) is. *She* cannot be anything other than a human being of the female sex. One proceeds thus to the comparison of *woman* and *rose*. But the operation can never be so completely ingenuous. The interpreter's intertextual competence is already rich with ready-made expressions, with already familiar frames. One already knows which semes to bring into focus and which to drop:



The comparison is of unsettling simplicity. The greater part of the

encyclopedic semes are similar; there is opposition only on the vegetal/animal axis. The Porphyry's tree is built on that opposition, and we find that, despite opposition at the lower nodes, there is a conjunction at the higher node (organic). But in order to arrive there it was necessary, obviously, to know already that when a woman is compared to a flower, it is in terms of a woman-object, which, like the flowers, lives for its own sake, purely as an ornament to the world. And finally the question of the similarity or dissimilarity between properties becomes clear: it is neither perceptual nor ontological, but rather semiotic. Language (the figurative tradition) must already have understood freshness and color as interpretants both of the healthy condition of a human body and of the healthy condition of a flower, even if from a physical perspective the rosiness of a woman's cheek rarely has the same spectral frequency as the red color of a flower. There is a difference in millimicrons, but culture has blurred the distinction, naming two shades of color with the same word or representing them visually with the same pigment.

This is a poor metaphor, then, scarcely cognitive, saying something that is already known. However, no metaphor is absolutely "closed"; its closure is pragmatic. If we imagine an ingenuous user of language who encounters *she is a rose* for the first time, we will see him caught in a game of trial and error, like the person who was to disambiguate for the first time *the house of the birds*. There is no metaphor that is absolutely unpoetic; such metaphors exist only in particular socio-cultural situations.

Malherbe's metaphor apparently demands the same work of comparison as did the preceding example. The problem of *space* is already resolved: tradition has already made it a metaphor of the passage of time. Tradition has already secured the metaphorical use of *life* for the duration of nonanimal entities. The relations between duration, young girl, rose, and morning must be inspected, then. The seme of "fleetingness" (already intertextually codified) will be recognized as particularly pertinent to *rose* (the rose opens at dawn and closes at sunset; it lasts for a very short time). All the other similarities between girl and rose will already have been reviewed and taken as intertextually correct. As far as morning is concerned, it has the property of being the most beautiful, delicate, and active hour of the day. Naturally, then, a maiden, fair as a rose, has lived a fleeting life, and has lived only that part of it that, albeit brief, is the best (Aristotle moreover had already said: the morning of life is youth). Thus we find identity and dissimilarity between encyclopedic markers, conjunction at a high node of the Porphyry's tree (organic, or living) and difference at the low nodes (animal vs. vegetal). Thenceforth all the con-

densations in this example, of maiden and flower, of vegetal life-pulse becoming carnal life-pulse, of dew turning into moist eyes, of petals assuming the shape of mouths, follow; the encyclopedia allows the imagination (even the visual) to gallop ahead, and the continuous web of semiosis becomes animate with alliances and incompatibilities. But some ambiguities remain. The rose lives one morning and it closes at night, but only to see the light again the next day. The maiden dies, instead, and is not reborn. Must one review then what is known about death for human beings? Is there rebirth? Or must one review what is known about the death of flowers? Is the rose that is reborn tomorrow the same as yesterday's, or is yesterday's that which was not picked? The effect of the condensation is unstable; underneath the cadaveral stiffening of the maiden the long pulsation of the rose continues. Who wins, the life of the rose or the death of the maiden? Obviously, there isn't an answer; the metaphor is, in point of fact, open—even if it is sustained by a play of intertextually familiar overcodings that verges on the manneristic.

8. No algorithm exists for the metaphor, nor can a metaphor be produced by means of a computer's precise instructions, no matter what the volume of organized information to be fed in. The success of a metaphor is a function of the sociocultural format of the interpreting subjects' encyclopedia. In this perspective, metaphors are produced solely on the basis of a rich cultural framework, on the basis, that is, of a universe of content that is already organized into networks of interpretants, which decide (semiotically) upon the identities and differences of properties. At the same time, this content universe, whose format postulates itself not as rigidly hierarchized but rather according to Model Q, alone derives from the metaphorical production and interpretation the opportunity to restructure itself into new nodes of similarity and dissimilarity.

But this situation of unlimited semiosis does not exclude the existence of first tropes—of “new” metaphors, in other words, never before heard of, or at least experienced as though they were never before heard. The conditions of occurrence for such tropes, which we might term metaphorically “auroral,” are multiple: (1) There always exists a context that is capable of reproposing as new a codified catachresis or dead metaphor. One can imagine a text of the *école du regard* in which, by means of an obsessive description of our perceptual activity, the force and vividness of such an expression as *the neck of the bottle* is rediscovered. (2) In shifting from one semiotic system to another, a dead metaphor becomes an inventive one anew. Think of Modigliani female portraits, which visually reinvent (but also oblige us to think again conceptually and even verbally) a worn-out expres-

sion such as *neck of a swan*. (3) The context with an aesthetic function can always posit its own tropes as they were first tropes (in the Viconian sense); insofar as it obliges one to see in a new manner and arranges a quantity of correlations between the various levels of the text, so as to permit an ever new interpretation even of ready-made syntagms. (4) The "deadest" trope can work "like new" for the "virgin" subject, approaching for the first time the complexity of the semiosis. Both restricted and elaborate codes exist. Imagine a subject who has never heard of comparing a girl to a rose, who ignores the intertextual institutionalizations, and who responds even to the most worn-out metaphors as though discovering for the first time the relations between a woman's face and a flower. (5) There are privileged cases, finally, in which the subject "sees" for the first time a rose, notices its freshness, its petals pearly with dew—because previously the rose for him had only been a word, or an object espied in the windows of a florist. In such cases the subject reconstructs, so to speak, his own sememe, enriching it with properties, not all verbalized or verbalizable, some interpretable and interpreted by other visual or tactile experiences. In this process various synaesthetic phenomena compete in constituting networks of semiotic relations. These reinvented metaphors are born out of the very same reason that one tells one's own symptoms to a doctor in an improper manner ("my chest is burning; I feel pins and needles in my arms"). In this way a metaphor is reinvented through ignorance of the lexicon as well.

And yet these first tropes themselves arise because every time there is an underlying semiotic network. Vico would remind us that men know how to speak like heroes because they already know how to speak like men. Even the most ingenuous metaphors are made from the detritus of other metaphors—language speaking itself, then—and the line between first and last tropes is very thin, not so much a question of semantics as of the pragmatics of interpretation. At any rate, for too long it has been thought that in order to understand metaphors it is necessary to know the code (or the encyclopedia). The truth is that the metaphor is the tool that permits us to understand the encyclopedia better. This is the type of knowledge that the metaphor stakes out for us.

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#### NOTES

1 See, for the state of the art, John Haimann, "Dictionary vs Encyclopedia," *Lingua*, 50 (1980), 329–57.

- 2 See my *Theory of Semiotics* (Bloomington, 1976) and my *Role of the Reader* (Bloomington, 1979).
- 3 Groupe  $\mu$ , *Rhétorique générale* (Paris, 1970), pp. 97–101, 108–11.
- 4 Uriel Weinreich, *Explorations in Semantic Theory* (The Hague, 1972), pp. 61–65.
- 5 For one of the first assertions of this principle, see Max Black, "Metaphor," *Proceedings of the Aristotelian Society*, 55 (1955), 273–94.
- 6 Eco, *A Theory of Semiotics*, pp. 121–25.
- 7 Jorge Luis Borges, *Historia de la Eternidad* (Buenos Aires, 1936).
- 8 Christine Brooke-Rose, *A grammar of metaphor* (London, 1958).