

Language is a Virus

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Abstract How do we make sense of a bare equation like “language is a virus”? Frequently, a bare equation can be understood as expressing a conventional basic metaphor which we already know as part of our everyday linguistic competence. For example, “this job is a detour” can be understood as expressing the basic metaphor LIFE IS A JOURNEY. In such a case, the basic metaphor provides most of the interpretation. But when a bare equation is not recognized as an instance of a conventional basic metaphor, then it must be understood through different conceptual instruments. This article discusses some of those conceptual instruments, especially the Invariance Principle and the commonplace notion of The Nature of Things.

“Language is a virus” is a strange metaphor. The particular aspect of its strangeness that I want to talk about is neither its venturing into biochemistry nor its loony conjunction of incompatible registers, but its mere unconventionality: it lies outside the stock of common conceptual metaphors that speakers of English are expected to know. How do we understand such unconventional metaphors?

Bare equations or similarities, such as “kingdoms are clay,” “inactivity is death,” and “gifts are like hooks,” tell us pretty much nothing about how to attribute meaning to them. They explicitly indicate only that some relation holds between two conceptual domains, but we are not told what relation. The same is true of such bare instantiations as “time is a physician,” “Chicago is a dungheap,” “memory is a net,” “flattery is a juggler,” “plain dealing is a jewel,” and “love is a razor.” How do we understand such bare expressions?

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Some bare equations express conventional basic metaphors that we already know as part of our everyday competence—as when “this job is a detour” expresses the basic metaphor LIFE IS A JOURNEY. For such cases, activating the basic metaphor gives us most of the meaning. To activate the basic metaphor is to recognize the expression as metaphoric, to locate the source and the target, and to be in possession of the mapping between them (see Lakoff and Johnson 1980). But when a bare equation or instantiation cannot be taken as an expression of a conventional basic metaphor, we must use other principles to understand it. I will discuss some of these principles.

The Nature of Things

The commonplace notion of The Nature of Things rests on the view that being leads to doing: attributes possessed by a form of being lead to the way it behaves. By *doing* I mean not only intentional behavior, but also the way that inanimate and even insubstantial forms of being are thought to function. For example, clay crumbles and washes away because it is an only moderately cohesive material. It deforms readily in response to force because it is malleable. I call this commonplace notion of how clay behaves, and how that behavior derives from its attributes, “The Nature of Clay.” In general, for anything with attributes and behavior, I will refer to the concept of what it does, and how that doing derives from its being, as its “Nature.” For example, it is The Nature of the Fool to behave foolishly because he is foolish: his being leads to his doing; his attributes lead to his behavior. Our sense that it is possible to act in ways untrue to one’s nature rests on the commonplace notion that a person has attributes which lead in the standard case to his behavior.

The commonplace notion of The Nature of Things is part of what George Lakoff and I have called THE GREAT CHAIN METAPHOR (Lakoff and Turner 1989: 160–213). THE GREAT CHAIN METAPHOR is a conceptual complex that we use to understand forms of being at one level metaphorically in terms of forms of being at another level, as when we understand a person metaphorically in terms of an engine, or a sunflower, or a rock. The levels are defined within a second commonplace notion, which I will call The Great Chain Hierarchy. These levels concern human beings, animals, plants, and physical objects. Unconventional metaphors often have a source or a target lying outside The Great Chain Hierarchy, and thus cannot be understood as specific instances of THE GREAT CHAIN METAPHOR. For example, *language* holds no clear place on the Great Chain. Nor does *virus*. What, then, can we use to understand “language is a virus”? What can we use to understand “reactionaries are paper tigers” or “kingdoms are clay”? We attempt to understand bare equations involving concepts that are not conventionally part of The Great Chain Hierarchy by mapping part

of The Nature of the Source onto part of The Nature of the Target. The part that we attempt to map is the image-schematic part, which is governed by what I will call the Invariance Principle.¹ In what follows, I will first introduce the Invariance Principle and then discuss how it can operate on the Natures of the source and target in a metaphoric mapping.

The Invariance Principle

In an earlier article in *Poetics Today*, “Metaphor: Poetry and the Conceptual Context of Invention” (Turner 1990), I explored the Invariance Principle for metaphor, which I summarize here.

The Invariance Principle is a constraint on metaphor which has to do with the forms of our experience and with how these forms structure our thoughts. We experience images in five modalities: a visual image of a road, an auditory image of a scream, a tactile image of a pinch, an olfactory image of the smell of pine, and so on. No rich image is wholly unique; rather, it shares its skeletal structure with other, related images. We have a skeletal image of a scream that inheres within our rich images of particular screams. It is an abstract image that cannot be identified absolutely with any particular scream, yet we know a member of the category *scream* when we hear one, based on our image-schema of *scream*. The same is true of a phoneme: a phoneme is an abstract category of sounds that cannot be identified absolutely with any one of its members. Yet we know a member of the category when we hear one, based on our image-schema of the phoneme. We have a skeletal image of a flat, bounded planar space that inheres within our rich images of individual tables, individual floors, individual plateaus. We have a skeletal image of verticality that inheres within our rich images of individual trees, individual buildings, individual people. Following Mark Johnson, I will use the technical term “image-schema” for such skeletal forms that structure our images.²

1. There are other aspects of our metaphoric understanding that I will not discuss in this article (see chapters 7–9 of Turner 1991: 151–215).

2. An “image-schema,” according to Mark Johnson, “is a recurring, dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience. The VERTICALITY schema, for instance, emerges from our tendency to employ an UP/DOWN orientation in picking out meaningful structures of our experience. We grasp this structure of verticality repeatedly in thousands of perceptions and activities we experience every day, such as perceiving a tree, our felt sense of standing upright, the activity of climbing stairs, forming a mental image of a flagpole, measuring our children’s heights, and experiencing the level of water rising in the bathtub” (Johnson 1987: xiv). Ronald Langacker has since 1974 been articulating the ways in which semantic structure is based on what he calls “images,” which resemble Johnson’s image-schemata (see Langacker 1987, 1988a, 1988b). Technically, Langacker views Johnson’s “image-schemata” as a subset of Langacker’s “images” (personal communication).

As I conceive of them, image-schemas are extremely skeletal images which we use in cognitive operations. Many of our most important and pervasive image-schemas are those underlying our bodily sense of spatiality. They include our image-schema of verticality, of a path leading from a source to a goal, of forward motion, of a container (or, more accurately, of a bounded space with an interior and exterior), of contact, and of such orientations as up/down, front/back, and center/periphery. We have many image-schemas of part/whole relational structure. We also have dynamic image-schemas, such as the image-schema for a rising motion, or a dip, or an expansion, and so on. When we understand a scene, we naturally structure it in terms of such elementary image-schemas.

Let us turn to a first approximation of the Invariance Principle for metaphor by considering how the constraint applies just to images. It appears to be the case that when we map one image metaphorically onto another, we are constrained not to violate the schematic structure of the target image. For example, a verticality schema in the target cannot have mapped onto it its inverse; a bounded interior in the target cannot have mapped onto it both bits of an interior and bits of an exterior; and so on. Consider, for example, Auden's lines, from "1929":

But thinking so I came at once
Where solitary man sat weeping on a bench,
Hanging his head down, with his mouth distorted
Helpless and ugly as an embryo chicken.

(Auden 1976: 50, ll. 9–12)

The hanging head of the solitary man is a bounded interior, with an exterior; it has an internal up/down structure (for example, the top of the head and the bottom of the head); its direction is roughly downward (looking down); its open mouth is a concavity in the boundary; its parts (mouth, eyes, top of head, and so on) have relational structure, such as adjacency. Although our rich image of the hanging head may include all sorts of detail, that detail is structured by these image-schemas. I refer to this structure as the "image-schematic structure" of the target image. We are constrained not to violate it when we map the image of the embryo chicken onto it: the interior of the chicken head maps to the interior of the human head, the boundary to the boundary, the verticality to the verticality, and so on.

The next consideration to bring to bear in formulating this constraint is that many things other than images appear to be structured by image-schemas. Our concepts of time, of events in time, and of causal relations seem to be structured by these image-schemas. We like to think of time, which has no shape, as having a shape, such as linear or circular, and of that shape as having skeletal structure. We like to

think of events in time, which have no shape, as having shape, such as continuity, extension, discreteness, completion, open-endedness, circularity, part/whole relations, and so on. We like to think of causal relations as having such skeletal shapes as links and paths. These shapes, these image-schemas, need not be static. We have a dynamic image-schema of one thing coming out of another, and we use it to structure one of our concepts of causation.

With this addition, we can formulate the Invariance Principle as a constraint on metaphoric invention:

- (1) In metaphor, we are constrained not to violate the image-schematic structure of the target; this entails that we are constrained not to violate whatever image-schematic structure may be possessed by non-image components of the target.

There is a second part to the Invariance Principle, having to do with the distinction between specific-level information and generic-level information in a schema. A schema is a skeletal mental concept that can be instantiated in a number of ways. There are levels of schemas.

A specific-level schema is lower level; a generic-level schema is higher level. To get a feel for the distinction, consider how *DEATH*—which I will offer as an example of a specific-level schema—is an instance of the schema *EVENT*—which I will offer as an example of a generic-level schema. Similarly, *DEPARTURE* is a specific-level instance of the generic-level schema *ACTION*.

A generic-level schema is a schema that consists of certain kinds of parameters. Those parameters can be instantiated by specific-level information. Some of the generic-level parameters that can be instantiated by specific-level information are basic ontological categories (such as entity, state, event, action, and situation); aspects of being (such as attributes and behavior); event shape (such as instantaneous or extended; single or repeated; completed or open-ended; preserving, creating, or destroying entities; cyclic or not, that is, with or without fixed stages that end where they begin); causal relations (such as enabling, resulting in, bringing about, creating, and destroying); image-schemas (such as bounded regions, paths, forces, and links); and modalities (such as ability, necessity, possibility, and obligation).

Each specific-level schema has some such generic-level structure, as well as structure at the lower, specific level. Specific-level detail is, therefore, of two types: first, there is the detail that comes from specifying the generic-level parameters; second, there is lower-level detail. For example, *DEATH* is a specific-level instance of the generic-level schema *EVENT*: it fills out the generic-level structure of *EVENT* further by specifying the values of generic-level parameters. For example, *EVENT* contains a parameter for event shape; the *DEATH* schema specifies the event shape as one in which an entity, over time, *reaches*

a final state, after which it no longer exists. The causal structure of the DEATH schema indicates that the passage of time will eventually result in that final state's being reached.

Image-schematic structure is always generic-level structure. Most generic-level structure (such as event shape, causal shape, and so on) appears to be image-schematic structure. We can now add to the Invariance Principle its second part:

- (2) For those parts of the source and target determined to be involved in the mapping, import to the target as much of the generic-level structure of the source as is consistent with (1).

The combination of (1) and (2) constitutes a version of what George Lakoff and I have called the Invariance Hypothesis (Lakoff and Turner 1989; cf. Turner 1990). When I feel less tentative about it, I call it the Invariance Principle. It is a constraint that applies to all metaphoric connections, conventional or not.

The Nature of Things Combined with the Invariance Principle

Now let us observe how the Invariance Principle works upon the Nature of the Source and the Nature of the Target in a metaphoric mapping. Consider, for example, the bare equation "kingdoms are clay." It expresses no basic metaphor that I know of. It indicates no part of the mapping we are to perform. But we can all easily understand it as implying that kingdoms readily disintegrate or deform, and none of us would understand it as implying that kingdoms, like clay, are to be found in the soil. We arrive at this reading by mapping the image-schematic structure of The Nature of Clay onto The Nature of Kingdoms, according to the Invariance Principle.

Such a mapping might connect one level of attribute and behavior in the source to a different level of attribute and behavior in the target, but this mismatch would not bother us because it would not involve image-schematic structure. For example, in "kingdoms are clay," we are not bothered that the levels of the source and target do not match: *kingdom* is a political entity and *clay* is a physical target; *kingdom* has political causality and *clay* has physical causality; and so on. Since these aspects of information are not image-schematic, their mismatch leaves us undisturbed. We are, however, keenly concerned about causal structure, temporal structure, and event shape in *kingdom* and *clay*. We are concerned that the aspectual shape of the behavior we associate with *clay* be mapped onto the aspectual shape of the behavior of *kingdom* because the aspectual shape of an event is image-schematic structure.

Our commonplace notion of how something in particular behaves, and of how its attributes lead to that behavior, contains both specific-level information and generic-level information. For example, The

Nature of Clay contains specific-level information, such as that clay dissolves to a certain degree in water, and generic-level information, such as that it maintains its structural integrity moderately well, but breaks apart over time under natural forces. This generic-level information is image-schematic information. We can now state the following principle for understanding bare analogies:

We attempt to understand a bare analogy by mapping generic-level structure from The Nature of the Source onto The Nature of the Target in a way consistent with the inherent generic-level structure of the target.

Our preference for mapping the *behavior* of the source onto the target can be seen in the way that we understand many ordinary phrases. When we hear “she’s a witch,” “he’s a fool,” “he’s a fiend,” “he’s like iron,” “he’s a steamroller,” “he’s a machine,” or any similar phrase, we understand it in the default case as prompting us to map The Nature of the Source—its behavior and the way that behavior derives from its attributes—onto The Nature of the Target. We understand “she’s a witch” to mean primarily that the person referred to *behaves* in a witchy way, not that the person referred to, for example, *looks like* a witch. To indicate that someone looks like a witch, we must say explicitly, “She looks like a witch,” or provide some supplementary expression or gesture. In fact, “she looks like a witch” is still ambiguous as to behavior versus appearance: it can mean “from her looks, I guess that she will behave like a witch” as easily as it can mean “she resembles my visual image of a witch.” In such a case, an even stronger cue may be required to direct us to appearance, as in “she looks just like a witch.” But even that cue might fail to override the default expectation.

We understand “he’s a broken record” as prompting us to map the generic-level information in The Nature of the Broken Record—which is to repeat—onto the person who is the target. We understand “he’s like the wind” as prompting us to map generic-level information in The Nature of the Wind, which is to move quickly and apparently effortlessly, onto the person who is the target.

We understand “time is a physician” as prompting us to map onto *time* the generic-level information in The Nature of the Physician—namely, that the physician’s functions lead to healing, mending, and recovery. We understand “religion is a disease” as prompting us to map onto *religion* the generic-level information in The Nature of Disease, namely, that it infects, debilitates, and weakens. We understand “a good face is a letter of recommendation” as prompting us to map onto *a good face* the generic-level information in The Nature of the Letter of Recommendation, namely, that it has a winning effect, opens doors, and so on. We understand “memory is a net” as indicating that The Nature of Memory should be understood in terms of the generic

level of The Nature of the Net—namely, that it catches and contains (some) things. We understand “electricity is like water” as indicating that electricity behaves like water: it “flows” along the “path” of least “resistance”; it can be “stored” in a “container,” from which it can be “released,” and so on.

Let us return to “language is a virus,” an unconventional metaphor that was once the refrain of a not very popular song (allegedly quoting a line in a novel by William Burroughs, “Language is a virus from outer space”). The Nature of the Virus is to move from organism to organism, in a “communicable” fashion, infecting each organism and causing similar symptoms as it moves along. Those who have been infected typically exhibit symptoms and typically transmit the virus to others, who consequently develop the same symptoms. To understand “language is a virus,” we map the generic-level information in The Nature of the Virus onto *language*, to arrive at the interpretation that language is something transmitted from person to person and that those who show the symptoms of “having language” pass language on to others, who consequently develop the same symptoms. It is odd to think of language as a communicable disease, yet we have no difficulty doing so because we possess a conceptual instrument that provides us with the requisite imaginative capacity.

There are other constructions equivalent to such bare expressions of a metaphor. For example, we understand Malcolm X’s metaphor, “You show me a capitalist, I’ll show you a bloodsucker,” as a bare equation that gives us only as much information as we need to recognize it as metaphorical. We are to map onto *capitalist* the generic-level information in The Nature of the Bloodsucker.

So far, we have considered active behavior. The behavior of something is active when we situate causal agency in that entity. For example, if we press down on clay with our thumb and the clay deforms, we situate causal agency in the thumb, which we think of as performing the active behavior of pressing down. Water manifests the active behavior of flowing along the path of least resistance. A bloodsucker manifests the active behavior of obtaining its sustenance by draining it from some vital organism. Our first preference in understanding a bare metaphor is to map the generic level of such an active behavior from the source onto the target, constrained, as always, by the Invariance Principle.

But we also talk about how clay *behaves* under pressure or how it *responds* to pressure. In these cases, we think of the event as actively caused by something outside the clay, and of the clay as possessing some attribute that permits the externally caused event to occur. This attribute is not sufficient for the event to occur, since it requires the active behavior of an agent outside the clay, but this attribute is nec-

essary for this event. Thus, the attributes possessed by a being can determine how it behaves in response to an action from outside. I will call this its *passive* behavior.

Our concepts contain information about the typical passive behavior of such beings, and this passive behavior is just as much a part of The Nature of the Being as its active behavior. For example, our ordinary concept of glass includes the information that it is *fragile* and *brittle* and therefore that it *can be easily broken*. In the case of *glass*, an attribute leads to a certain kind of passive behavior: it is The Nature of Glass that its attributes—fragility and brittleness—lead to its (passive) (un)doing—being broken easily.

Often, our concept of something includes both active and passive behavior. We think of *garbage* as having attributes that lead it to offend and to be discarded. When we say of someone's prose that a certain passage is "garbage," we mean that it stinks, that its worthlessness and foulness make it offensive (which is active) and hence to be thrown out (which is passive).

Consider "good prose is like a windowpane." The Nature of the Windowpane includes the information that its transparency (an attribute) results in an active behavior of transmitting light (and hence images) and a passive behavior of being looked through; its solidity and impermeability lead to its being used at boundary points where light is to be admitted and people are to look out. It is the Nature of the Windowpane to grant us the view of whatever is on its other side. In "good prose is like a windowpane," we are to understand the target, namely, good prose, in terms of the generic level of The Nature of the Windowpane: good prose is "lucid" and presents its meaning to us "clearly." Through good prose we can perceive accurately and without distortion or obscurity that which is "on the other side" of the prose, namely, the meaning. This understanding coheres with an additional metaphor in which words are understood metaphorically as surfaces or containers, and meaning is understood metaphorically as "below" or "on the other side" of such surfaces. In this metaphor, the reader must metaphorically see what is on the other side in order to understand the meaning of the words.

This example raises two points. First, not just any generic-level structure in the source can be mapped onto the target, because the inherent image-schematic structure in the target overrides the metaphoric imposition of conflicting structure from the source. For example, it is The Nature of Good Prose to cohere and not to be hit. But it is The Nature of the Windowpane to shatter when hit. The source structure is not mapped onto the target because it is overridden by the target's inherent image-schematic structure. Second, there are ostensibly different ways to understand "good prose is like a window-

pane” that are nevertheless functionally identical. We could analyze “good prose is like a windowpane” as an expression of the specific-level conceptual metaphor UNDERSTANDING IS SEEING: to understand the meaning of words is metaphorically to see what they have to show. We could also analyze “good prose is like a windowpane” as an expression of THE GREAT CHAIN METAPHOR: in the folk model of the Great Chain, *understanding* is a higher-order cognitive activity, while *seeing* is a lower-order “bodily” activity.

We can take these different approaches because they are functionally the same. To use THE GREAT CHAIN METAPHOR is automatically to use the Invariance Principle and The Nature of Things. UNDERSTANDING IS SEEING—like all specific-level metaphors in which the mind is understood in terms of the body—is just a specific-level instantiation of THE GREAT CHAIN METAPHOR formed on the basis of the Invariance Principle and The Nature of Things.

Consider “all reactionaries are paper tigers.” A paper tiger has, conventionally, both an active and a passive behavior: it appears ferocious and powerful, but it is also easily overcome, incapable as it is of resisting force. We understand “all reactionaries are paper tigers” as mapping the generic level of this active and passive behavior onto *reactionaries*: reactionaries threaten, with ostensible power, but they are effortlessly overcome or dismissed, or even ignored with impunity.

An extremely common and basic source concept can serve as a prototype of a certain generic-level nature. For example, The Nature of Honey is to please us with its extremely pleasant taste; it is pleasant in particular ways that we know very well, but that are difficult to describe in words, a kind of sweetness and purity, with a certain viscosity. When something—say, for example, a voice—is described as being “like honey,” we understand the comparison by mapping onto the voice the generic level of The Nature of Honey: the voice pleases us because we perceive in it the extremely pleasant qualities of sound that we understand at the generic level in terms of the extremely pleasant qualities of taste that we find in honey. It is The Nature of the Flower to live naturally and to please us through its visual, aromatic, and tactile qualities. It is The Nature of the Louse to disgust us with its unsavory physical qualities. It is The Nature of the Hog to take up a great deal of space and use up many resources. “She’s a flower,” “he’s a louse,” and “John is a hog” are each understood by mapping onto the target concept the generic level of The Nature of the Source Concept. Since this process underlies THE GREAT CHAIN METAPHOR, and since *flower*, *louse*, and *hog* are all forms of being on the Great Chain, it follows that these expressions are also specific instances of THE GREAT CHAIN METAPHOR.

Our conventional concept of The Nature of something does not

have to match our scientific knowledge, our experiential knowledge, or our anecdotal knowledge. Having a commonplace notion is not the same as holding a belief, but more like adopting an enabling convention. For example, I possess one anecdotal concept of quicksand as occurring only in the presence of water. In this concept, quicksand is not a special kind of sand, but rather a mixture of water and plain, ordinary sand, which does not swallow large objects quickly and whole. Yet my everyday concept of The Nature of Quicksand is of a special kind of sand that occurs in utterly dry deserts and that swallows large objects whole. I believe that wolves are in fact rather shy; but my concept of The Nature of Wolves includes a ferocity that leads them to attack viciously and cruelly even when unprovoked.

Scientific conceptions are thus irrelevant to our discussion, except to the extent that the scientific conception has influenced our commonplace conception or conversely. This is an extremely important point. If we look at dictionary representations of meaning, we find that the bundle of features intended to represent a concept is usually a list of vaguely scientific or empirical attributes. But our commonplace notions are not required to match our scientific or experiential knowledge. Objects that we categorize as inanimate are not represented scientifically as capable of behavior, no doubt because attributing agency to them is thought to be unscientific, a relic of animism. But we often think of something both as inanimate and as behaving. It is not only beings like people, cats, and frogs that are thought of as behaving, but also things like skies (which rain on us), the sun (which shines), tables (which hold things up), bright colors (which strike our eye and catch our attention), and nets (which catch and contain). Ice, for example, is thought of as having vaguely scientific and empirical attributes: it is a physical object, inanimate, hard, cold, made of water, and so on. But it also displays active and passive behavior: it melts, cools things, clinks in tumblers of liquid that it is cooling, and breaks, chips, and shatters in a brittle fashion.

Conclusion

There is, fortunately, a system to imagination. Communication is possible exactly because writer and reader share certain common conceptual resources—and recognize that they do. The writer writing assumes that the reader reading will proceed by interpreting his words in certain ways. The reader reading assumes that his principal interpretative instruments are not only known to, but actually shared by, the writer as a ground of communication. In the absence of such assumptions, there would be no reason to think that interpretation could be anything but random and idiosyncratic, so the traditional reasons for writing and reading would vanish. True, contemporary critical

theorists of various schools are working hard to persuade writer and reader that indeed there is no stability or reliability in communication, but writers and readers, having literally no use for such theories, go about their lives in productive ignorance of these assertions. In communicating an idiosyncratic metaphor, for example, the writer may give hints in various dimensions or may decide that the bare statement of the metaphor is sufficient. That decision rests upon the reliable assumption that writer and reader share certain conceptual instruments, which the writer can expect the reader to bring competently to bear. Those instruments include the Invariance Principle, the commonplace notion of The Nature of Things, and their combination.

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