

THE RELATIONSHIP
BETWEEN
THOUGHT AND REALITY
IN
COGNITIVE SEMANTICS

An Essay by
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This essay examines the relationship between thought and reality as it is treated in cognitive semantics and two questions that come to mind immediately are: how can “thought” possibly be the subject of an essay on linguistics? Why does it not examine the relationship between *language* and reality? In cognitive semantics, however, the distinction between thought and language and the relationship between both is extremely important. This is the case precisely because the way we characterize this relationship has an enormous effect on our understanding of language and of the way it is organized. The distinction between thought and language and the focus on cognition has led cognitive semantics, among many other things, to a new understanding of the structure of categories in language and of the role of metaphor. I want to follow this development by starting with the question: What is thought?

Michael Devitt and Kim Sterelny describe thoughts as “inner states”, internal attitudes to a certain content and “inner representations (and misrepresentations) of the external world”.¹ The last definition of thoughts as “inner representations” is the one which is most important for cognitive semantics.

The obvious question to ask next is: what is the form of these inner representations? Do they, for example, depend on language? Steven Pinker suggests that thought and language cannot be strictly identified.² He refers to the common experience that “sometimes it is not easy to find *any* words that properly convey a thought” (Pinker, 1994, 58), gives evidence for visual, i.e. non-verbal, thinking (Pinker, 1994, 73) and describes instances where thought and language do not match completely. A strong case in point is his example of co-reference. In three consecutive sentences a speaker can use the expressions “the tall blond man with one black shoe”, “the man” and “him” to refer to the same person. Pinker concludes: “Something in the brain must treat them [the expressions] as the same thing, English doesn’t.” (Pinker, 1994, 79-80) He therefore suggests that “people

¹Michael Devitt and Kim Sterelny, *Language and Reality: An Introduction to the Philosophy of Language*, (Blackwell: Oxford, 1987), p. 115

²Steven Pinker, *The Language Instinct: How the Mind Creates Language*, (William Morrow and Company, Inc.: New York, 1994), p. 57

do not think in English or Chinese ... they think in a language of thought.” (Pinker, 1994, 81) Pinker calls this language of thought “mentalese”. Like a spoken language it might have symbols for concepts and arrangements of symbols that represent the connection of concepts. But “compared with any given language, mentalese must be richer in some ways and simpler in others.” (Pinker, 1994, 81) Since human beings share the same mental processes “mentalese” is assumed to be universal. (Pinker, 1994, 82)

Why is this distinction between language and thought so important? First of all, it offers an alternative to linguistic determinism and linguistic relativity. Linguistic determinism claims that our thoughts are determined by lexicalized concepts, i.e. vocabulary, and language structures, i.e. grammar, while linguistic relativity proposes that differences among languages cause differences in the thoughts of their speakers. (Pinker, 1994, 57) Both theories are based on the assumption that language and thought are more or less the same thing with the important emphasis that language somehow exists first and determines or at least influences thought and via thought perception.

Cognitive scientists argue the other way round. Thought does not equal language, therefore neither thought nor perception are determined by language. Instead, language is influenced by perception and thought. As George Lakoff expresses it: “Language is ... based on cognition.”³

So far I have examined the relationship between thought and language and have tried to show that in cognitive semantics thought is distinguished from language and not influenced by it. On the contrary, thought influences language. But what about the relationship between thought and reality?

George Lakoff states that “there is no unbridgeable gulf between language and thought on one hand and the world on the other. Language and thought are meaningful because they are motivated by our functioning in the world.” (Lakoff, 1987, 292) Again, this statement opposes linguistic determinism by stressing that our perception and categorization of the world is not determined by our language. Rather, thought influences languages and both is motivated by “our functioning in the world.” This “functioning” consists of several factors. First of all it includes our basic physical experience as bodies in a certain environment, for example the perception of our bodies as containers, as whole entities that consist of parts, and our upright body position in a gravitational field. This “experience is structured in a significant way prior to, and independent of, any concepts.” (Lakoff, 1987, 271) This means that we form basic conceptual structures because of and based on our physical experience of being and acting in the world. These conceptual structures are then used to organize thought. Our “functioning” also involves the physical basis of our perception, for example the way in which our visual perception works. And last but not least it includes a “conceptualizing

³George Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*, (University of Chicago Press: Chicago, 1987), p. 291

capacity”. This is the ability to form symbolic structures, i.e. concepts, that correlate with preconceptual structures, the ability to project metaphorically from structures in the physical domain to structures in abstract domains and finally the ability to form complex concepts and general categories. (Lakoff, 1987, 281) This description of our “functioning in the world” which motivates thought and language leads to what Lakoff calls “experiential realism”. The conceptual structures we develop arise from and depend on our preconceptual bodily experiences. (Lakoff, 1987, 267) They are therefore in accordance with reality, but, and this is important, with reality as we perceive it. In this way “experiential realism” is opposed to “objective realism”. Both theories claim that there is something like “reality”, but contrary to “objective realism” “experiential realism” makes no statement about the reality outside of human experience, since it assumes that we have no access to it.⁴ Not all cognitive scientists share this view. Steven Pinker, for example, speaks of the “harmony between the mind of the child, the mind of the adult, and the texture of reality” (Pinker, 1994, 157) and proposes the view that “there really are things . . . out there in the world, and our mind is designed to find them and to label them with words.” (Pinker, 1994, 154) An “experiential realist” could not talk about things “out there in the world”. In his or her opinion we do not label objects out there because “objects and the signs are alike internal to the scheme of description” (Lakoff, 1987, 262). According to this theory human beings cannot step outside of reality and point to it. No matter what they do they are always part of it and therefore inside of this reality.

An illustration of this view are colour categories. Lakoff reminds us that physicists have shown that colour categories “do not reside objectively in the world external to human beings”⁵. John Taylor also notes that “there is no physical basis for the demarcation of discrete colour categories.”⁶ Instead, the colour spectrum is a continuum in the wavelength of light. And yet colour categories are not arbitrary conventions. The important point is that they are not based on a physical reality somewhere outside of the human mind but on human colour perception. Human beings do not perceive the colour spectrum as a continuum. As Taylor points out: “From a perceptual point of view, it certainly does make sense to speak of an optimum red . . . light of a wavelength which produces a maximum rate of firing in those cells which are responsive to light in the red region.” (Taylor, 1989, 14) Therefore, Lakoff can say that “colorcategories are real categories of the mind” (Lakoff, 1988, 132) By using the word “real” he expresses that they are not arbitrary but motivated, motivated by “real” perception, which, in Lakoff’s opinion, is the only reality we can talk about.

⁴John I. Saeed, *Semantics*, (Blackwell: Oxford, Malden, 1997), p. 301

⁵George Lakoff, ‘Cognitive Semantics’, in *Meaning and Mental Representation*, edited by Umberto Eco, Marco Santambrogio, Patrizia Violi, (Indiana University Press: Indianapolis, 1988) pp. 119-154, (p. 131)

⁶John Taylor, *Linguistic Categorization: Prototypes in Linguistic Theory*, (Clarendon Press: Oxford, 1989), p. 3

From the outlined relationships between thought and reality and thought and language follows the role cognitive semantics assigns to language. In this view, “linguistic knowledge is part of general cognition” which means that the difference between language and other mental processes is only one of degree and not one of kind (Saeed, 1997, 299). The conclusion that can be drawn from this view has two aspects: On one hand, knowledge about general cognitive principles is needed to describe language, and on the other hand, language has to be described in accordance with these cognitive principles. This attitude towards language might sound obvious and self-evident but John Taylor shows that this is not the case.

More or less everybody agrees that language is, in some way, a system of symbols related to entities in the world (as they are represented mentally) and to the connections between them. Our cognition develops concepts based on our pre-conceptual experience and our language refers to these cognitive concepts which are our mental representation of the world. These concepts surface in language as categories. An important question in this context is: how do we describe these categories? In his book on *Linguistic Categorization* Taylor notes that traditionally, that is since Aristotle, “categories are defined in terms of a conjunction of necessary and sufficient features.” (Taylor, 1987, 23). It is assumed that they have clear boundaries without space for ambiguity. The notion of a “degree of membership”, of better or worse members of a category, is not possible. (Taylor, 1987, 23-24) Experiments, however, have shown that our cognition does not work with such categories. There is for example no clear dividing line between the categories *cup* and *bowl*. “Rather, the one category merges gradually into the other.” (Taylor, 1987, 40) Other experiments give evidence that there are, in fact, better and not so good examples of categories like “chair” or “furniture” or “bird”. There are even better and worse examples for the categories of odd and even numbers. Taylor therefore concludes that “entities are categorized on the basis of their attributes. These attributes are not binary constructs of the classical approach”. (Taylor, 1987, 41) Obviously, we do not ask ourselves whether an entity possesses an attribute or not, but how closely the attributes of an entity match the characterizing attributes we have in mind for a certain category or concept. The mental representation of this concept is a prototype. It consists of visual, tangible, functional and interactional properties we assign to a category and also contains culture-specific information. Important is that the characteristics with which cognitive semantics describes the prototype structure of categories are based on the way our cognition works. The prototype structure of categories is, as Taylor says, a “psychological reality”. (Taylor, 1987, 51) The fact that cognitive semantics takes this psychological or mental reality into account leads it to a new characterization of categories. This characterization in turn influences our understanding of language and meaning. We can no longer say that something is a chair or is not a chair. Instead, it is possible to describe something as more or less a chair. In fact, our language offers a range of resources that enable the speaker to express a degree of category membership. Expressions

like *par excellence*, *technically*, *strictly speaking* or *loosely speaking* allow speakers to comment on the degree of membership of an entity to a category. The pope, for example, is *strictly speaking* a bachelor, but by no means a bachelor *par excellence*. *Technically* the number 453 is as much an odd number as 3, but *loosely speaking* 3 is the better example of an odd number. Lakoff calls expressions like this hedges and Taylor notes that hedges are evidence “from within the language itself . . . that category boundaries are flexible” (Taylor, 1987, 80). Categories can be redefined by the use of hedges since hedges cause a selection and re-weighting of attributes. Although it is odd to call the pope a bachelor because, although unmarried, he would never consider marrying, we lift the weight of this attribute by the hedge *strictly speaking*. On the other hand, the pope could never be called a *real bachelor* since *real* highlights precisely all the attributes apart from “not married”. Interesting enough, a nun could be called a *real spinster*, although, like the pope, she does not belong to the “marriage market” any longer. This can be explained by the fact that the category *spinster* implies other attributes than the category *bachelor*. *Spinster*, for example, implies sexual unattractiveness while *bachelor* implies nothing like this. For Taylor, this is evidence that componential analysis is missing the point when it assumes that the difference between *bachelor* and *spinster* is merely characterized by the presence or absence of the feature *male* or *female*. (Taylor, 1987, 95-97) The rejection of componential analysis is one of the consequences of the changing of the concept of categories from a traditional to a prototype structure. And the changing of the concept of categories is in turn a consequence of the approach that language is based on and arises from our general cognition.

Another consequence of this approach is the new understanding of metaphor that is proposed by cognitive semantics. In *Metaphors We Live By*⁷ Lakoff and Johnson explain that traditionally metaphor is seen as “a device of the poetic imagination . . . a matter of extraordinary rather than ordinary language. Moreover, metaphor is typically viewed as characteristic of language alone, a matter of words rather than thought or action.” Motivated by the above outlined relationship between thought and reality and thought and language Lakoff and Johnson “have found, on the contrary, that metaphor is everyday life, not just in language but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature.” (Lakoff and Johnson, 1980, 3) Metaphors, therefore, appear in language precisely because we use them in the conceptual system of our general cognition. They have a central role in thought and consequently in language and certainly do not exist solely in poetry or similar instances of extraordinary language.

What makes metaphors so useful for our cognition is the fact that they allow us to understand and experience one kind of thing in terms of another (Lakoff and Johnson, 1980, 5) by transferring the properties of one concept to the other.

⁷G. Lakoff and M. Johnson, *Metaphors We Live By*, (Cambridge University Press: Cambridge, 1980)

Typically, a metaphor uses a more concrete source to describe a more abstract target, the abstract is therefore seen through the concrete and this is, according to Lakoff and Johnson, exactly the way our cognition works. Since we experience the world through a body we also form our central concepts according to the terms in which our bodies function, that is through bodily experience (Lakoff and Johnson, 1980, 57-58).

One example for this is the CONTAINER concept. It is based on the experience of our bodies both as containers and as entities in containers. The CONTAINER concept, therefore, “is inherently meaningful to people by virtue of their bodily experience.” (Lakoff, 1987, 273) From the physical and concrete sphere we transfer the CONTAINER concept to abstract spheres and describe them, accordingly, in CONTAINER terms. We, for instance, understand our visual field as a container so that things can *come into sight* and *get out of sight* again. Personal relationships are also understood in terms of containers and this makes it possible that we can say *Mary is trapped in her marriage* or *Susan wants to get out of her relationship with John*. (Lakoff, 1987, 272) In all these instances we use the CONTAINER concept metaphorically by transferring its features from the concrete to the more abstract sphere.

Another example for this process is the PART-WHOLE concept. Lakoff and Johnson argue that one of our fundamental experiences is the awareness of our body as a whole with parts. We are also aware of the PART-WHOLE structure of other entities in the world. This concrete, physical concept is then transferred to more abstract domains, for example social organizations that we also conceive as wholes consisting of parts. A family for example is a whole entity with parts and a marriage builds a whole out of two parts. Our physical experience tells us that concrete whole entities can break or split apart. The same property is transferred to more abstract whole entities and this surfaces in expressions like *their relationship broke up*. (Lakoff, 1987, 273)

A more complex but equally ubiquitous example for metaphorical language is the SOURCE-PATH-GOAL concept. The physical basis of this concept is our bodily experience that every time we move anywhere there is a place we start from, a sequence of locations connecting the starting and ending points, and a direction. Again, this concrete concept is used to understand abstract developments. Purposes are understood in terms of destinations, and achieving a purpose is understood as passing along a path from a starting point to an endpoint. Thus, we use expressions like *I went a long a way toward achieving my purposes*, *I got sidetracked* or *this is getting in my way*. (Lakoff, 1987, 275)

We use these metaphors, these transferences of properties from a concrete source domain to a more abstract target domain, to make sense of experiences that are not so sharply delineated and because we perceive correlations between our sensory-motor and our more abstract experiences. (Lakoff and Johnson, 1980, 58) Since this metaphorical use of language is so natural for us we often do not conceive it as metaphorical. But, as Lakoff argues, there is no fundamental difference between this use of language and metaphors that appear, for example, in

poetry. John Taylor describes the use of metaphors as motivated by a search for understanding. It gives us the possibility to conceptualize “ever more abstract and intangible areas of experience . . . in terms of the familiar and concrete.” (Taylor, 1989, 132) Taylor notes that, from this point of view, it is hardly surprising that we notice an increased use of unfamiliar metaphors “precisely in those kinds of discourse where writers are grappling with the expression of concepts for which no ready-made linguistic formulae are available.” (Taylor, 1989, 133)

The outlined treatment of categories and metaphors has attempted to give evidence that the relationship between thought and reality is indeed fundamental for cognitive semantics. Proceeding from the assumptions that thoughts are the mental representation of reality and that language is shaped by this mental representation, the description of language and meaning cognitive semantics offers is in accordance with the ways our cognition, i.e. our mental representation, works. This approach leads to the view that categories cannot consist of a combination of necessary and sufficient conditions but have a prototype structure, and to the opinion that metaphors are not extraordinary figures of speech or even, as generative grammar says, a “violation of selection restrictions” (Taylor, 1989, 131), but a regular and important tool for the conceptualization of the whole range of our experience.

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