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## A PLEA FOR A UNIFIED COGNITIVE-SEMIOTIC APPROACH TO THE ANALYSIS OF VERBAL AND VISUAL REPRESENTATIONS

The purpose of the paper is to postulate a closer collaboration between the researchers in cognitive linguistics and the semioticians analyzing visual images. The cognitive linguistics enterprise has opened the way, perhaps for the first time ever, for the representatives of both disciplines to meet on a common ground. They may now begin their study at a common point of departure – the laws and mechanisms of perception, cognition, and mental construal, which determine the form of both visual and verbal realizations. If one takes this vantage point, one may expect to find that the differences between images and texts are largely superficial, resulting mainly from the properties of their material substance, and that they are constructed on similar principles. The paper mentions some parallels of organization between pictorial images and texts – both icons of what may be called “the syntax of perception”, and points to the essential visuocentrism of the cognitive framework, which should enable a unified analysis of both of these forms of representation.

Teachers and researchers on various topics that involve the analysis of mixed-media/multimodal materials – as in advertising, the media (the press, TV, the Internet), film, cartoons and comics etc., have often encountered a very practical problem: the need to find a descriptive framework that could accommodate both texts and visuals, so that they could be discussed together at least at some (preferably not too general) level. This is as pressing in modern times as it is difficult, not least because of the lamentable lack of co-operation between linguists and pictorial semioticians.

That this lack of co-operation is particularly evident in current research is implicit e.g. in the remark of one of the leading authors on pictorial semiotics, Göran Sonesson (2005: 30), who observes that

The issue of verbal/visual interactions can [be] formulated in terms of ... whether our interpretation of pictures is always mediated by our linguistic competence, or the reverse. The first thesis was defended by the French structuralists; **the opposite conception, which is actually somewhat more reasonable, has so far, I believe, never been formulated** (emphasis AK).

Though Sonesson wrote these words several years ago, not much has changed. Despite his intuition that “the opposite conception” (I take this to mean “the

thesis that our interpretation of language is mediated by our pictorial [visual competence]), is “somewhat more reasonable”, neither he himself nor any other semiotician has as yet pointed out that a similar thesis underlies the whole cognitive linguistics enterprise. It is based on the assumption of the perceptual foundations that visual and verbal representations have in common.

In the present paper I would thus like to argue for the approach to the analysis of verbal and pictorial representations bringing together cognitively-oriented linguistics and (similarly cognitively-based) pictorial semiotics. I believe that the two approaches to signification cohere and could be seen as complementary or compatible – based on similar assumptions, and driven by similar concerns.

If my main focus in this paper is on a linguistic theory, this is only because I am a linguist, not because I am a believer in adopting linguistics as a model for analyzing images. On the contrary – I am convinced that trying to impose the categories of verbal language on pictures is misguided, to say the least. Yet in fact these attempts have been one of the two predominant tendencies in recent semiotics. At least since the 1960s, many scholars have taken this path with more or less determination, some just making vague postulates or borrowing some rather general terminology from linguistics. Talking about “visual language”, “the rhetoric of the image” (Barthes 1964/1977); “reading images” “the syntax of pictures” “visual texts” and even “visual speakers” (Saint-Martin 1987) is clearly indicative of this tendency. The semioticians who tried to show that pictures were structured just like verbal language include Roland Barthes, René Lindemans (1976) and Umberto Eco (1976). The philosopher Nelson Goodman argued for the similarity from a different angle, claiming in his *Languages of Art* (1968: 5) that pictorial representations are ultimately as symbolic as linguistic descriptions: “a picture, to represent an object, must be a symbol for it... A picture that represents – like a passage that describes – an object, refers to it and more particularly, denotes it. Denotation is the core of representation and is independent of resemblance”. Barthes (1965/1968) explicitly postulated a program whose point was “to draw analytical concepts from linguistics which we think a priori are sufficiently general to permit semiological research to be initiated”. The broad interdisciplinary group of researchers gathered around Algirdas Greimas is also representative of this orientation in semiotics. The projects of those influential scholars seem ambitious, but many of them have not really gone beyond debating the question of whether pictures have an equivalent of linguistic double articulation or duality of patterning (the debate so far seems to be inconclusive). Generally, despite so many whole-hearted attempts to answer what the art historian Ernst Gombrich described (1960:7) as an urgent need to create a “linguistics of the visual image”, fifty years later it has not yet been worked out in any depth. Dillon (1999), posing the characteristically phrased question: “How language-like are the images?” goes on to admit that “at present we have

more questions than answers”. It is certainly time to admit that there may be something wrong with the whole idea of such a direction of analysis.

Sonesson (2005: 35) points out that scholars have adopted the linguistic model for two kinds of reasons: either ontological – genuine belief that all meaning is similar to the linguistic kind (e.g. the Greimas school), or epistemological (e.g. Barthes) – the implicit belief that visual semiotic systems are inaccessible to analysis directly, only through the more logical and organized verbal language. Thus applying the linguistic apparatus to the analysis of visual works may seem a potentially better descriptive choice. I believe another background reason might be the traditional positive cultural bias towards the verbal language, going as far back as the Biblical statement “In the beginning was the word” (John 1:1). For ages the verbal medium was thus seen as being more “spiritual” than the more vulgar depiction. This can be seen very clearly in the religiously motivated use of the word *writing* to describe the making of Greek Orthodox icons. One can also observe a somehow related long-standing tendency to approach the two so-called “sister arts” (i.e. painting and poetry) in this manner. Literature has been regarded as the superior, more noble “sister”, commanding more respect than visual arts. Even far into the 20<sup>th</sup> century, this approach is evident in the book by the critic and literary scholar Mario Praz (1970) *Mnemosyne. The Parallels between Literature and Visual Arts* (note the first place of literature in the title).

This stubbornness with which semioticians have tried to use language as a descriptive model for analysing visual representations seems the more surprising when we consider that throughout much of the history of the arts, and certainly in the case of modern(ist) art, the direction of influence was actually from visual to verbal arts. Most of the new currents, new ideas and new techniques were initiated by visual artists, only then to be taken over by poets and novelists. One might point e.g. to Cubism, with its fragmentation of forms, loose structure, and non-linear treatment of time inspiring James Joyce, Wallace Stevens (whose poems were even called “Cubist pictures in words”), and scores of other writers; many other tendencies in visual arts have triggered all kinds of exploration and experiments in literature (see e.g. Kwiatkowska and Jarniewicz 1999). This seniority and dominance of visual arts is clearly evident in and evidenced by numerous metaphorical expressions realizing the WRITER IS PAINTER metaphor naturally predominant in our thinking.

The verbocentrism of the structuralist researchers is thus problematic, and indeed it has already been criticized from various positions (see Sonesson 2005, 2010 for an overview). Sonesson even implies that the failure of this enterprise may have something to do with the fact that “most semioticians are really too ignorant of the concepts of linguistics to be able to apply its model” (which is probably true, as I have already pointed out in the beginning of this paper, but it is not the whole story). Sonesson himself suggests that instead of looking for analogies and similarities between verbal and visual representations, it would

be more sensible to pinpoint “the specificity of pictorial meaning, and thus to elucidate the manner in which meaning is conveyed by pictures, as opposed to the more familiar way in which it is transmitted by verbal language” (2005: 36). Other authors who argued that pictures have their own specific “language” (despite the claim of non-similarity, those authors still use the linguistic terms) include notably Saint-Martin (1987/1990), Kress and Van Leeuwen (1996), and Damisch (1979). Saint-Martin goes as far as to postulate a visual alphabet, consisting of “coloremes” – the smallest elements within a direct or mediated image that can be focused within the foveal field of the retinas.

The view that because of the different medium in which they are realized the two forms of representation are hardly comparable and should be approached in different ways, in fact dates at least as far back as the ideas of Gottfried Lessing put forward in his book *Laocoon: An Essay on the Limits of Painting and Poetry*, first published in 1766. According to Lessing, literature and painting cannot be regarded as analogous, because of their different semiotic vehicles (the former uses sounds extended in time; the latter shapes and colours extended in space). Similar assumption of specificity (although somewhat differently motivated) is made closer to our time by the authors of the generativist orientation. Jerry Fodor (1983) has argued for the notion that the mind is composed of modules – innate structures with their specific evolutionarily developed operational procedures and products, dissimilar and unconnected. Thus linguistic and visual representations are a separate matter. Metaphorically speaking, those scholars close their eyes when they speak and fall speechless when they look at a picture. Yet this has also been an influential approach to the question of the visual/verbal relations.

The constraints of space do not allow me to discuss in detail the disadvantages of those two positions. But the main reasons why neither the verbocentric nor the contrastive approach appear convincing to me as a cognitively based linguist can be summed up briefly. In the case of the linguistic model, it seems that the whole problem lies in the **direction** of the attempted analysis: for various important reasons (developmental, psychological etc.) it is unnatural to consider visual representations as analogous to language – since it is language that is predated and motivated by the visual experience. The second position is lacking too, for a related reason: it is unnatural to ignore the fundamental connection and the common conceptual basis of linguistic and visual representation.

The cognitivist model, whose potential for semiotics remains as yet largely undiscovered<sup>1</sup> (thanks to the joint non-efforts of the semioticians and the linguists alike) goes against both of the approaches mentioned above, at the same time preserving their best insights. Unlike the contrastive view, it assumes an underlying similarity/connection between the processes/structures in language and

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<sup>1</sup> Except perhaps for the interest of the scholars representing the Centre for Cognitive Semiotics in Aarhus, who, however, have yet to zoom in on the topic.

in visual perception (and consequently visual representation). Unlike the verbo-centric approach, rather than trying to employ linguistic categories in analyzing pictures, it assumes the visual basis for linguistic structure, and thus in fact adopting a visuocentric stance.

Cognitive linguistics lays emphasis on semantics, equated with conceptualizations, and it studies linguistic constructions as a direct reflection of those conceptualizations. The idea that language reflects thinking is not that original, but it becomes interesting in the context of the present discussion when one notes the view of thinking the cognitivists share with the perceptual psychologist Rudolf Arnheim (1969), assuming that thinking is essentially visual (as opposed to propositional) in nature. Generally, cognitive linguistics is based on the assumption that language and its structure ultimately reflect our perceptual experience (i.e. mainly visual experience, as vision is the dominant sense in humans). The syntax of sentences and texts is largely motivated by the laws of visual organization – the same ones that are reflected more basically and directly in visual representations. This kind of linguistics, based on a theory of perception, is an ideal candidate for becoming part of a unified semiotics able to talk productively about **both** linguistic and visual signs by naturally drawing analytical concepts primarily from the visual, rather than the linguistic domain.

The cognitivist use of visual terminology indeed consistently follows this line of thought. Ronald Langacker (1987, 1991, 1995, 2000) uses the term *observer* and sometimes even *viewer* to refer to the conceptualizer – the person constructing the mental image of a situation, which will then be realized as an utterance. In describing aspects of grammar, he uses many other terms from the domain of vision, such as *viewpoint*, *perspective*, *focus*, *zooming in/out* etc. His article “Viewing in cognition and grammar” (1995) makes one realize that he employs those terms not (or at least not only) in a metaphorical sense. Another cognitivist, Leonard Talmy, has observed that “grammatically specified structuring appears to correspond, in certain of its functions and characteristics, to the structuring in other cognitive domains, such as that of visual perception” (1988: 195), an idea that would have been considered a heresy by more orthodox grammarians. Talmy’s articles include the ones on “The relation of grammar to cognition” (1988), “Figure and Ground in Language” (2000), “The fundamental system of spatial schemas in language” (2006), and he is now preparing a book on *The Attention System of Language*. His interest in the attention processes is characteristic of the general interest of the cognitivists in the ideas of the Gestalt and constructivist theories of perception, which emphasize the share of the beholder in constructing meaning.

Although cognitive linguists in fact have not talked explicitly about non-verbal signification, in principle they should be easily able to bridge the gap between the study of linguistic meaning and other brands of meaning since, to quote Langacker (1987: 13),

Language is an integral part of human cognition. An account of linguistic structure should therefore articulate what is known about cognitive processing in general ... we have no valid reason to anticipate a sharp dichotomy between linguistic ability and other aspects of cognitive processing. Instead of grasping at any apparent rationale for asserting the uniqueness and insularity of language, we should try more seriously to integrate the findings of linguistics and cognitive psychology.

Claiming that every utterance results directly from the conceptualization of the given scene in the mind of the observer, Langacker (1987) at the same time points out that in each case there are at least several possible ways of mentally arranging the same scene, and the conceptualizer construing the mental image must take some decisions concerning the “dimensions of imagery”, i.e. decisions about:

- selection of material (what will be included in the frame; *mise en scene*);
- level of abstraction/specificity of the representation;
- division into figure and ground: what should become the focus of attention;
- what Langacker calls profiling (the imposition of profile on a base), which is roughly the idea that you have to have some context for the elements of the representation to be correctly interpreted;
- perspective from which the scene will be viewed (in the sense of vantage point, viewpoint, orientation).

While he lists those as the decisions made by the potential speakers, it is obvious that exactly the same decisions must also (or primarily) be taken by the potential creator of a pictorial representation. One can easily see the essentially visual grounding of those concepts. The cognitivists do use the word “imagery” quite deliberately, and in a rather literal sense; as I have already noted, this essentially visual way of thinking about semantics and conceptualizations is implicit in the cognitivist model.

One must note many correlations/parallels between the pictorial and the verbal products of such conceptualizations. Varying levels of abstraction are common in pictorial representation and equally common in the verbal medium (talking about the level of specificity in language, Langacker sometimes uses the word *grain*, a photographic term – one can represent a scene with *coarser grain* or *finer grain*). Any kind of picture, description, or narration can be made more or less detailed, with its producer increasing or decreasing its informational content. Those choices are obviously very much context-dependent.

While prototypical pictures and texts represent a scene as seen through the eyes of the observer (which Langacker calls “subjectification”), as in *There is a vase of flowers on the table*, the observer may also decide to put himself in the scene, more marginally (e.g. as hands holding a pencil, in a familiar drawing by M. C. Escher or the phrase *the book in front of me*, where he is represented by the pronoun *me*, etc.), or else fully (the painter putting himself in the scene, the

sentence *I am writing this letter to you...etc.*). Both painters and speakers may choose to represent the scene from a distance or in a close-up (this is obviously correlated with the level of specificity). The perspective may be that of a real-time observer (with his rather narrow visual field) or it might be the broad perspective reflected in the sentence *There's a long road stretching between San Diego and LA* (one would only be able to know this fact either from the repeated experience of driving on this road, or having seen it represented visually on a map). In parallel to painters playing with perspective (as e.g. in the picture by M. C. Escher which adopts the perspective of both the external and internal observers, or the Cubist pictures which represent the object from several perspectives at once), some contemporary writers have performed similar feats with words (consider e.g. the line from a poem by Robert Creeley *I walked away from myself*, where he is trying both to adopt an egocentric point of view, and to view himself objectively).<sup>2</sup>

The division of the perceived or pictorially rendered scene into figure and ground has to do with the focusing of attention: the element in focus, receiving all the interest of the viewer, is seen more clearly, while the rest of the scene remains at the periphery of the visual field. Linguistically the figure is typically thematized, i.e. put in the beginning of the descriptive sentence, with the rest of the scene – the ground – following as the rheme, or Langacker's "landmark" (Talmy 1988, 2000). In the case of a painterly representation, it will be likely mentioned in the title of the painting. In both of those positions it also receives natural attention. More generally, one may point out the evident correlation between the attention patterns in visual perception and the ordering of linguistic elements. It could be claimed that the verbal descriptions of visually perceived scenes are diagrammatic icons of 'the syntax of perception'. Though the research into those patterns is in its beginning stages (one might mention Holšanova's *Picture viewing and picture description: two windows on the mind* from 2001; cf. also Kwiatkowska forthcoming), there are enough indications that the organization of the linguistic material in a descriptive sentence or text mirrors the organization of the process of viewing. The order of the linguistic elements typically reflects the chronology of attention-focusing (and so indirectly the segregation into figure and ground). Thus one might say that descriptions iconically represent the levels of salience of the elements of a visual scene. In addition, descriptions reflect the perceptual strategy called Global Precedence that is our tendency to first perceive an object holistically, as a gestalt, and only then return to analyze its fine details (Navon 1977). The ordering of elements in a text also reflects the direction in which we scan the scene (both actual and represented): most naturally, if no other motivational factors intervene, we scan it from left to

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<sup>2</sup> This is not to say that such constructions occur only in literature; consider such common cases as "I washed myself".

right, from top to bottom, and from front to back (i.e. foreground to background). The observers scan the scene or picture in portions, attending first to the visual figures in each of them (see e.g. Armeeva 1997).

Thus the number of the possible ways of describing a still life is restricted by the laws of visual perception. One can either produce the simple global-to-local, left-to-right, top-to-bottom, figure-and-ground description, or perhaps begin with the central element, if it is perceptually prominent in any way (being e.g. vertically oriented, taller than the others), and then return to the regular order of mention. Those patterns may be subject to predictable change due to the anthropocentric orientation of human perception, which overrides many other factors. While in the case of the scenes containing inanimate objects the order of description is guided by purely perceptual strategies, the presence of people in the scene tends to shift the main focus of attention to them, and they acquire figural qualities wherever they are positioned.<sup>3</sup> This psychologically motivated tendency to perceive people as the most salient elements of a scene is also reflected in many other linguistic decisions taken by the speakers. Its most basic and most common manifestation is the absolute predominance, in all languages, of sentences with human subjects, and the Subject Verb Object (i.e. Actor Action Recipient) ordering (the actors are usually humans and the recipients are usually inanimate objects).

All of those notions – of the level of abstraction, of perspective, of figure/ground segregation, along with the dimensions of selection and profiling seem very natural in talking about both texts and pictures and very helpful in discussing the structure of both kinds of representations especially in terms of the hierarchies of importance. It is truly surprising when Sonesson claims that “pictorial representations lack systematic means for rendering what Halliday has termed ‘information structure’. ... we have reason to posit an impossibility (or at least a difficulty) in imposing an ordering according to prominence” (2005: 41). In the light of what has been said above, one should rather argue for the contrary view – that the information structure of verbal descriptions is iconic of the natural prominence hierarchies in the visual or pictorially represented scenes.

The semiotic question of iconicity is important in cognitive linguistics, which is another factor bringing it closer to the concerns of visual analysts. The iconicity of linguistic constructions, discussed by many cognitively oriented authors (see especially Haiman 1985, Nänny and Fischer 1999), is of course of the diagrammatic kind (unless we consider the case of concrete poetry), but it still preserves the structure of reality. It has been described as governed by three principles related to the Gestalt principles accounting for visual organization:

– the principle of sequential order, which has already been evoked above. The order of mention reflects not only the chronology of events, but also the

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<sup>3</sup> This effect was also fully confirmed in the series of simple experiments involving open description of different types of scenes conducted by my student, Agata Skrętowska, for her MA thesis (2000).

chronology of attention focusing, which accounts for the choice of the perceptual figures in descriptions;

- the principle of quantity, stating that more of linguistic code (repetition/reduplication) reflects more concretely the plurality of entities and more figuratively emphasis or temporal prolongation;

- the principle of proximity, stating that conceptual units that belong together are closely integrated at the level of language structure.

The limited space of this paper does not allow for a more detailed discussion of the issues only hinted at above, but as the closing note, consider the remark of Talmy (not dated), who offers a detailed discussion of what he calls the overlap of structural properties between language and visual perception. As he has put it, “since the language system evolved later [than the visual system/thinking], much of its closed-class subsystem apparently tapped into or duplicated much of the neural mechanism for schematic structure that the visual system already either tapped into or had within itself”.

Besides the structural parallelism one should also obviously mention another kind of parallelism between the verbal and visual representations – having to do with the figurative meanings produced at the level of conceptualization. Conceptual metaphors, metonymies, similes, hyperboles may obviously find realization in both mediums. The cognitivists have long taken for granted that basically the same mechanisms are at work in both cases; this approach is a great help in analyzing multi-modal messages. There has been some research on visual and multimodal metaphors (Forceville 1998, 2009) and metonymy (e.g. Kwiatkowska 2007), and the number of such publications is growing.

As this paper has hopefully signaled, the cognitivist enterprise takes for granted that visual and verbal representations both rely on the same or similar conceptual processes and mechanisms in rendering the perceived reality. It would thus be natural and productive to try to study them together or side by side and focus on their similarities rather than their differences. Let us hope that the postulate of a closer collaboration between cognitive linguistics – in many ways a truly “semiotic” linguistics – and visual semiotics will find support and realization, as a blend of the two approaches to signification could become a truly useful integrated framework which may stand up to the challenge of today’s interpretative needs.

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