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## **TRANSPARENCY ACROSS SEMIOTIC MODES: AN ECOLOGICAL STANCE**

### **1. Introduction**

The word *transparency* conflates disparate notions, such as a property of a substance, a behavioural characteristic of a person, a quality of a phenomenal state, a feature of an organization, a trait of a work of art, etc. Accordingly, discussions of transparency range through science, engineering, business, and humanities (Art-Azbuka 2005; Brin 1998; Florenskij 1993; Metzinger 2003; Podoroga 1995; Rowe and Slutsky 1982; Vattimo 1992, etc.). Therefore, the notion of transparency can surely claim a transdisciplinary status.

Is it only the shared vocabulary that marks connections between various displays of transparency in disparate spheres? Are there any general statements that one can make about ‘semiotic modes’<sup>1</sup> of transparency in terms of cognitive processes? In search of answers to these questions, I focus here on three areas in which the term ‘transparent’ is used more often: natural sciences, visual arts, and linguistics. Exploring the ways we think about transparency in these spheres, I take an ‘ecological stance’, seeking, in particular, to enhance the potential of the ecological view of cognition. According to the latter, mental entities (meanings, concepts, images, aesthetic experiences, etc.) are viewed as dynamic, embodied, situationally embedded, and distributed. The ecological view of cognition stands in contrast to a more familiar assumption of present-day semantics according to which conceptual entities are discrete ‘chunks’ of knowledge stored in memory and activated in discourse.

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<sup>1</sup> The term ‘mode’ is taken here to refer to a set of socially and culturally shaped resources for making meaning, such as writing and still image on the page, sound and moving image on the screen, speech, gesture, gaze, posture in embodied interaction, etc. (“Mode”2012, IS).

The basic premise of this research is that similar cognitive mechanisms are at work both when one perceives transparency of material substances in the natural world and when one deals with its manifestations in visual and verbal semiotic modes. Such an approach proceeds from the presumption that both vision and language are inherently rooted in the human body, or embodied (Clark 2008; Kiverstein and Clark 2009). In consonance with the postulates of embodied dynamicism (Varela, Thompson and Rosch 1991), visual images and linguistic units are regarded here as processes grounded in bodily actions, and not as static end products of the workings of human brain. These processes are immersed in their environment (*ibid.*), or situationally embedded, and may require some technological devices for their realization, i.e. may be distributed (Hutchins 1995). Thus my focus is on how transparency is perceived visually, enacted cognitively, re-enacted symbolically, and instantiated discursively to establish particular effects.

This chapter falls into six sections. Section 2, which follows the Introduction, lays the groundwork for research by providing the definitions for the terms ‘visual perception’ and ‘transparency’ that are basic for this study as well as bringing to light some features of transparent substances which are perceived by observers and, being found relevant, are entrenched in language. Section 3 traces recent paradigm shifts in cognitive semantics and aesthetics with the aim to provide an adequate explanatory framework for investigating transparency displays in visual and verbal semiotic modes. This sets the stage for considering in Section 4 how the transparency effect is achieved in painting, and in Section 5 – in verbal communication. Finally, Section 6 offers some concluding remarks on why the analysis of transparency manifestations in dissimilar modes should be underpinned with an ecological view on semiosis.

## **2. Laying the groundwork**

This section considers those visually perceived characteristics of transparent substances in the physical world which are rendered in painting with the help of certain techniques and are laid down in the English language. This raises the issue of finding an adequate framework within which instantiations of transparency in different semiotic modes could be explained.

Vision is a neurocognitive process that takes the light in our eye as input, the output being the object we see:

It is a complex yet fast process that organizes meaningless patches of light on the retina into objects we perceive, that is, objects with potentially meaningful properties such as shape and spatial arrangement of parts. (van der Helm 2014: 1)

In other words, when a living being sees an object, physical stimulations provided by one of the senses – sight – are transduced into neural signals which travel to the brain where they become sensations. Further interpreted by making connections with images (which are a variety of knowledge formats), sensations become perceptions (Goldstein 2009: 6). A similar cognitive process operates on information taken in through language, though in this case other kinds of knowledge are involved – concepts, emotions, etc.

Visual perception of transparent entities is inherently ‘viewpointed’ for it is hardly possible to speak of transparency of an object irrespective of its observer. A proof to that can be found in a dictionary definition of the word *transparent* which reflects the naïve idea of transparency shared by native speakers: “having the property of transmitting light without appreciable scattering so that bodies lying behind are clearly seen” (“Transparent” 2015b, IS). From this definition it follows that transparency is regarded not only as an intrinsic property of certain substances (“transmitting light without appreciable scattering”); it also relates to some possibilities that transparent substances offer their observers (“so that bodies lying behind are clearly seen”). Incorporation of the observer’s viewpoint into the meaning of the word *transparent* can be traced as far back as its Latin origin: *transparere* comes from *trans* – ‘through’ and *parere* – ‘appear’ (“Transparent” 2015a, IS).

Thus the property of being transparent is regarded by speakers of English, on the one hand, as a material (objective) characteristic of certain things and media, and on the other hand, as a phenomenal (cognitive, subjective) condition of being perceived by an observer. Put another way, the word *transparent* contains information both on the intrinsic properties of transparent objects and on their extrinsic characteristics, or affordances.

The term ‘affordance’ originated in the work of James J. Gibson on perception and action (Gibson 1979), which marks a turning point from the then widespread view that ideas of what the world is like are stable entities stored in the mind as mental representations. Working in the interactionist context, Gibson argues that the observer’s idea of a situation emerges in the course of perceiving it. Gibson defines affordances as what the environment *offers* the observer, what it *provides* or *furnishes* (ibid.: 285). Thus affordances refer to the ‘action possibilities’ of objects in their environments, e.g., a ledge affords sitting, air affords breathing or flying, and water affords drinking, bathing, or swimming. Environmentally embedded objects offer their observers stimuli for acting, as if “inviting” them to act upon the objects (Scorolli and Borghi 2008: 11). Potential uses of objects arise from their properties as

perceived by the observer and as conditioned by his/her needs and capabilities since perception is always selective (“Affordance”2012, IS).

The term ‘affordance’ can be applied not only to physical actions, but to acts of perception as well, since cognition is viewed by present-day scholars as internalized movement (Llinas 2001: ix ff.), i.e. a variety of action. Besides, visual perception, in particular, involves an active observer who is moving his/her eyes, head and body relative to the environment; this movement results in a constantly changing image on the retina (Goldstein 1981: 191). The treatment of transparency as an affordance implies the rejection the idea of visual perception as something passive, something that *happens* to us:

Traditional approaches to vision have tended to suppose that vision happens to us. It is a phenomenon on the retina and structures in the brain [...]. I want to point out what ought to be entirely obvious anyway, namely that seeing is, in many ways, a bodily activity. Seeing involves moving the eyes and head and body. More important, movements of your eyes or your head or your body actively produce changes in sensory stimulation to your eyes. Or, put differently, how things look depends, in subtle and fine-grained ways, on what you do. Approach an object, and it looms in your visual field. Now turn away: it leaves your field of view. Now shut your eyes: it is gone. Walk around the object and its profile changes. In these and many other ways, there are patterns of dependence between simple sensory stimulation on the one hand and your own bodily movement on the other. It should be clear that a central task for any perceiving organism is to master these dynamic patterns of sensory stimulation and movement. (Nöe 2009: 59-60)

Thus, being dependent on active interaction between our body, a transparent substance and the environment, transparency is done, or enacted by observers, not just perceived passively by them.

The ‘alluring’ capacity of transparent substances is somewhat different from the affordances of things like a ledge; when one perceives a transparent object or medium, one interacts with it visually, piercing it with one’s glance, observing things that are behind it. Since in a standard situation a living being with normal eyesight is sure to see through a transparent substance, its respective affordance is rather strong. Transparent substances might have negative affordances as well, e.g., one cannot touch objects visible through a glass surface or smell objects through a layer of water.

Remaining invariant in most situations, the property of being transparent is not a fixed characteristic of a certain substance, but a variable one: like all affordances, it depends upon the environment (Gibson 1979: 201). Transparency of an object or a medium may vary with the change of situational parameters, such as the angle of observation, illumination, thickness of the transparent layer, etc. For instance, a body of clear water looks transparent only in broad daylight, when viewed at the right angle to the surface, and when the layer of water is not very thick. When observed in darkness or at an acute angle, or from a boat which is out in the open sea, the body of water loses its capacity of being penetrated by the eye.

For different bodies of water the degree of transparency is not the same, which generates the need for measuring it objectively, e.g., with the help of a Secchi disk lowered into water on a line. The distance at which the disk cannot be seen any longer is taken as a measure of transparency of water – the Secchi depth. The measurements are to be taken in a situation constrained by such parameters as daytime, absence of wind, etc. Measuring transparency with the help of instruments is a way of transforming ‘nature’ (perception of a transparent substance) into ‘culture’ (scientific capturing).

Situational variability of transparency is marked lexically in a number of English adjectives which are grouped according to the scale “transparent – semi-transparent – non-transparent”, e.g., *transparent/pellucid/limpid/clear/see-through/diaphanous* – *semi-transparent/translucent/cloudy/muddy/turbid* – *non-transparent/opaque/lightproof*. Scalarity of transparency is also grammaticalized in the degrees of comparison of adjectives, e.g., *transparent: more transparent – the most transparent*.

An object or a medium can be made penetrable to the human eye technologically, with the help of night observation devices, radars and periscopes, probes and sensors, X-ray, ultrasonic scanning, magnetic resonance imaging, etc. The number and penetration capacity of such devices grow exponentially, entailing a host of ethical issues. Availability of ‘amplifiers’ of natural vision brings up linguistic points as well, for example, whether the word *transparent* is applicable in respective contexts. According to our data, it can be used in such contexts only metaphorically. Yet the very possibility of ‘technological amplification’ of the observer’s visual capacity makes the case for using the distributed cognition framework in substantiating the theoretical foundations for the study of transparency across semiotic modes.

In order to accommodate the extrinsic, observer-dependent properties of transparent substances (reliance on the neuro-cognitive processes in the brain of the observer and on his/her viewpoint, or embodiment; dependence on the movement of the observation point, or dynamism; relatedness to environmental factors, or situatedness; the possibility of being technologically amplified, or its distributed nature), one needs a methodological framework that will enable researchers to bring to light the cognitive mechanisms at work behind the displays of transparency in different semiotic modes. Such a framework can be provided by ‘enactivism’, which regards cognition as a product of dynamic interaction between an agent and its environment. The section that follows aims to explicate the idea of enactivism through paradigm shifts in semantics and aesthetic thought as well as to outline an explanatory framework for studying manifestations of transparency in disparate semiotic modes.

### **3. Paradigm shifts in cognitive semantics and aesthetics: moving toward enactivism**

Since transparency is a cognitive entity that emerges in the interaction of the observer with the thing observed and the environment, it can be regarded as a variety of meaning in a broader sense. The problem of meaning is a perennial one for philosophy, linguistics, and other humanities. Each new paradigm suggests a new solution to it, depending on how it views language, its correlation with thought and the world around, the nature of mind and cognition, and ultimately, human nature itself.

Structural linguistics reduces the meaning of a linguistic sign to its value in the language system (de Saussure 1916/2011). Logical semantics equates meaning with truth and reference (Barwise and Perry 1999; Montague 1974). In contrast to them, cognitive semantics presumes that meaning is a cognitive phenomenon and thus cannot be reduced to the correlation of a linguistic expression with other signs or its reference to the world. What we call ‘reality’ is not something objectively given to us, but rather a function of our cognition (Lakoff 1977; Lakoff and Thompson 1975; Langacker 1978; Talmy 1975, 1978).

Though cognitive semantics in all its versions takes the conceptualizer’s view into account, it does not offer a uniform solution to the problem of meaning. Such strains as early cognitivism, connectionism, embodied dynamicism, and enactivism vary significantly in their approach to meaning.

Cognitivists of the 1970s (Fodor 1975; [Pylyshyn 1980](#)) base their views on the presumption that meanings are stable self-contained mental entities which reflect the world. They are stored in memory and verbalized in language. To explain the workings of the mind, the proponents of this approach tend to adopt the computational metaphor.

Connectionists, who represent the cognitive science of the 1980s (McClelland, Rumelhart 1986), consider meaning to be an emergent entity construed in a situational setting, i.e. created and re-created anew in each new context. For connectionists, meaning is not a mental representation, but a process, a mental act. The computational metaphor of the mind makes room for the metaphor of an emergent dynamic system embedded into the situation (cf. van Gelder and Port 1995).

In the cognitive semantics of the 1990s (Varela *et al.* 1991), meaning is regarded as embodied, i.e. intrinsically linked to the human body. This trend of cognitive semantics imbues the presumptions of embedded dynamicism with those of embodiment.

In the 21<sup>st</sup> century, within the embodied/embedded dynamicist paradigm there emerges the enactivist strain of thought, which regards cognition as a situated activity that spans a systemic totality embracing the human conceptualizer's brain, body, and the world (Clark 2005; 2008). From the enactivist perspective, sense-making is 'enactment' of the conceptualizer in the environment, where the latter is understood broadly, as the whole world. In Andy Clark's parlance, cognition leaks out into the body and the world (Clark 2008: xxviii).

All this brings enactivism closer to the 'distributed cognition approach' (Hutchins 1995) whose proponents claim that mental processes can depend on activity beyond the immediate locus of the individual brain (Pepperell 2001: 120). Yet enactivism and the distributed cognition approach should not, as Julian Kiverstein and Andy Clark maintain, be considered as "one church" (Kiverstein and Clark 2009). They could be seen as complementary rather than conflicting, which holds promise of grafting them together within a broader 'ecological framework' which relates language to the environment it is practiced in, thus focusing on the study of plant-animal-human-culture formations (Fill and Steffenson 2014: 3).

The ecological approach is transdisciplinary: beside cognitive linguistics, discussions of ecologism range through philosophy, psychology, biology, etc. (ibid.: 1). Looking across disciplinary waters to the arts, one can see that in recent decades the ideas of dynamism and distribution of cognitive processes across internal (within the bounds of the human body) and external (within the environment understood broadly) structures, which are fundamental for ecologism, started to penetrate into the sphere of aesthetics (Gaut 1997; Pepperell 2011).

The issue of where artistic experience is located evokes a long-running debate of objectivists and subjectivists. The position of the latter is summed up in the "beauty is in the eye of the beholder" maxim which implies that perception of beauty is subjective. The idea dates back to ancient times and does not seem to have a recorded origin. Yet a number of outstanding thinkers have expressed much the same thought – that qualities like beauty reside not in objects being contemplated, but in the subjective experience of the contemplator (John Lyly, *Euphues and his England* (1868); William Shakespeare, *Love's Labour's Lost* (1773); David Hume, *Essays, Moral and Political* (1875); etc.).

Viewing aesthetic experience as a mental phenomenon, present-day neuroaestheticians endeavour to explain the impact of artistic forms by turning to neural processes. They look for the brain to account for subjective qualities in the visual arts, music, etc. (Zeki 1999). Yet factors that bear on how artworks operate also include social, cultural, economic, historic and

other kinds of influences. Therefore, rapidly gaining in popularity today is an approach according to which aesthetic experience is not located in the mind (see also the distributed cognition approach) but extends much beyond. Its basic presumptions are best summed up by Robert Pepperell, who presents a view of thinking about aesthetic experience which he terms ‘extensionism’:

The experience of looking at a work of art, as described here, does not assume an essential division between the external object and the internal subjective mind of the viewer. Rather, one extends to the other, forming a continuum in which the mind reaches out to the work as much as the work reaches into the mind. In this way the mind, the works, and indeed the artist, become fused. The depth and richness of this fusion – what we might call the level of aesthetic experience – is determined by the skill and intelligence invested by the artist in the artwork and the receptivity of the viewer in interpreting that skill and intelligence. This fusion and all the mental properties that go to make it up have no simple location, to use Whitehead’s phrase. They are distributed in time and space, woven at every level into myriad other objects and events; they are functions of minds that extend far beyond space of any brain or any immediate present. (Pepperell 2001: 120-121)

Extensionism emphasizes continuities between objects and events rather than distinctions, thus denying an impermeable boundary between a work of art and its experiencer:

[...] in a certain sense to be conscious of something *is to be that something*; the mind extends to all the things we are mindful of. (ibid.: 121)

Extensionism is grounded in the idea that objects have extended dimensions, what Pepperell refers to as dependent, or secondary, properties (ibid.: 116) (cf. Gibson’s affordances). These secondary properties are treated as a proper part of an art object.

Thus, the dynamics of views on the nature of aesthetic experience look similar to the evolution of approaches to the nature of meaning: from objectivism – through embodiment/embeddedness – to enactivism/extensionism. This is not surprising since both aesthetic experience and senses which emerge in verbal communication are mental phenomena and therefore their scientific descriptions evolve in line with the general tendency towards ecologism which is traced in the humanities. Given that, one may regard ‘ecological cognitivism’ as a general principle which presents itself under different names (‘enactivism’, ‘distributed cognition’, ‘extensionism’) in diverse spheres. It can provide a necessary basis for interpreting manifestations of transparency in the visual arts (namely, in painting) and in verbal communication against some shared theoretical background.

#### **4. Artistic representation of transparent substances**

Of our particular interest in this section are the means of representing transparent substances



in painting. Drawing a distinction between transparent media (air, water) and transparent objects (a glass, a crystal), we focus on the ways of depicting transparent air as the medium through which people visually perceive objects. Since air is the main living environment for people, its transparency is a precondition for visual perception of the material world around.

Artistic methods of representing transparent air are usually classified in compliance with two psychological theories of space perception – the ‘air theory’ and the ‘ground theory’ (Goldstein 1981: 191).

According to the former, visual space is delineated by the information contained in an object or an array of objects in the air, known as ‘depth cues’ such as interposition, relative size, etc. (ibid.). This psychological ‘air theory’ underpins the theory of perspective, which distinguishes between linear and aerial perspectives in painting. The linear perspective has to do with how the size of an object seems to diminish with the increase of distance from which it is viewed. Also, one of the main indicators of distance is that the farther away an object is, the closer seem to be the elements of its texture (Demidov 1987: 53). This phenomenon is well known to professional military men who are specially trained to estimate distance visually by texture indicators. They know, for instance, that when buttons on the enemy’s uniform can be seen, they are 200 m away, and when the enemy’s eyes are discernible, they are 50 meters away (ibid.). This property is exploited by painters who apply the principle of linear perspective in their work. The aerial perspective concerns the way colours pale the farther away they are from the eye of the observer. Hence, in painting objects ought to be finished less carefully the farther away they are from the viewer. Jointly, the two perspectives create a convincing illusion of depth and distance, of three dimensions on a two-dimensional plane, or in our case, of a body of transparent air which lies between the object and the observer, separating and at the same time uniting them.

According to the ‘ground theory’ of space perception (Gibson 1979), visual space is defined by the ground – a continuous surface or array of adjoining surfaces, and not by objects in the air, as the ‘air theory’ presumes. A well-known example of this ground-based information is the texture gradient (a geometrical correlate of physical distance).

If one sees something atmospherically homogeneous and there are no textures in the field of vision, the brain gets deprived of an important indicator which helps a person find his/her bearings in space. This may result in all kinds of optical illusions. One of the oldest and the most spectacular ones is the ‘moon illusion’, when the moon looks bigger when it is close to the horizon. The illusion can be dispelled by holding a coin up to the moon as it rises in the sky; the coin serves as a point of reference allowing one to see that the moon remains

the same size both at the horizon and in zenith (Demidov 1987: 59). Though there is no universally accepted explanation of the ‘moon illusion’, most researchers nowadays agree that the reason why the moon looks bigger at the horizon is cognitive by nature (Kaufman 2000: 500). The illusion occurs because in the night air there are no textures, and the mind of an observer focuses on the earth’s textures, the horizon in particular. Since we know from experience that an object which is close to the horizon is very far away, we deduce that it should look smaller than it actually is. Respectively, the moon should have been smaller when close to the horizon, so we endow it with huge dimensions (ibid.).

The ‘ground theory’ of visual perception helps to explain, for instance, the effect achieved in the surrealist painting by Salvador Dali in his “Dream Caused by the Flight of a Bee Around a Pomegranate a Second Before Awakening”, which depicts a reclining nude hovering in her sleep above a tiny flat island in a boundless sea. She is threatened by a flying monster of a fish and two giant tigers which emerge from a pomegranate hanging in transparent air close to the horizon. Such location of the pomegranate endows it and the ferocious creatures respectively with huge dimensions (cf. Fig. 1):



Figure 1. Salvador Dali, “Dream Caused by the Flight of a Bee Around a Pomegranate a Second Before Awakening” (1944)

Shrinking and blurring distant shapes, together with weakening the tones, are not the only way of creating perspective, in particular, when depicting masses of transparent air. An effective technique of rendering transparent air on canvas was suggested by George Seurat. It can be seen in his best-known painting “A Sunday Afternoon on the Island of La Grande

Jatte” that depicts people relaxing in a suburban park on an island in the Seine River (cf. Fig. 2):

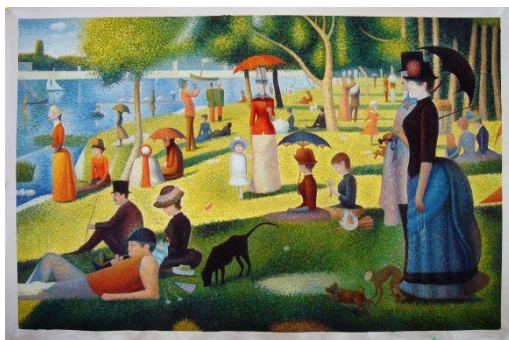


Figure 2. George Seurat, “A Sunday Afternoon on the Island of La Grande Jatte” (1884)

The artist draws multitudes of small dots, in complementary colours, which, when viewed from a distance, create an illusion of luminous objects. Due to this technique, masses of air seem to become translucent. An artistic description of the impact such a technique, called ‘pointillism’, produces on the viewer is given in the following extract from Irving Stone’s “Lust for Life”:

(1) “If you’ll sit on this stool, Monsieur Van Gogh.”

Vincent climbed up on the stool and looked at the canvas spread out before him. It was like nothing he had ever seen before, either in art or life. The scene represented the Island of the Grande Jatte. Architectural human beings, made out of infinitely graduated points of colour, stood up like poles in a Gothic cathedral. The grass, the river, the boats, the trees, all were vague and abstract masses of dotted light. The canvas was done in all the brightest shades of the palette, lighter than those Manet or Degas or even Gauguin dared to use. The picture was a withdrawal into a region of almost abstract harmony. If it was alive, it was not with the life of nature. The air was filled with glittering luminosity, but there was not a breath to be found anywhere. It was a still life of vibrant life, from which movement had been forever banished.

Gauguin stood at Vincent’s side and laughed at the expression on his face.

“It’s all right, Vincent, Georges’s canvases strike everyone that way the first time they look at them. Out with it! What do you think?” (Stone 1984: 286, emphasis mine. – O.M.)

The expressions *The grass, the river, the boats, the trees, all were vague and abstract masses of dotted light* and *The air was filled with glittering luminosity* are metaphorical since the paint on the canvas does not irradiate light, neither is it luminous or pellucid. Such metaphors are widespread in art criticism since they capture aesthetic qualities of an artwork, not factual, material ones (Gaut 1997: 230). The metaphorical expressions above depict the effect which Seurat’s painting produces on its viewer, bringing together a motley bunch of its factual properties, such as extreme contrasts of saturation and hue, diminished objects, superimposition of shapes, etc. In a similar way, describing the air in a painting as transparent is also a metaphor since the word does not refer to factual properties of the canvas, but to the

way the viewer perceives shapes and colours in it.

The ‘transparency’ metaphor in aesthetics has its counterpart in verbal communication. This issue is addressed in the following section.

## 5. Manipulating transparency effect in verbal communication

The ‘transparency’ metaphor is deeply ingrained in the cognitive system of English speakers. According to George Lakoff and Mark Johnson, the conceptual metaphor UNDERSTANDING IS SEEING is pervasive in English (Lakoff and Johnson 1980: 48). It forms the basis for such linguistic expressions as *I see what you’re saying. It looks different from my point of view*, etc. (ibid.). This metaphor has an obvious extension (Kövecses 2010: 53) UNDERSTANDING IS SEEING THROUGH A TRANSPARENT SUBSTANCE, as the following utterances illustrate: *The argument is clear. It was a murky discussion. Could you elucidate your remarks? It’s a transparent argument. The discussion was opaque*. (Lakoff, Johnson 1980: 48). Furthermore, the already extended conceptual metaphor can be further extended into UNDERSTANDING IS SEEING THROUGH A TRANSPARENT LINGUISTIC EXPRESSION by embedding the metaphor LINGUISTIC EXPRESSION IS A TRANSPARENT SUBSTANCE.

The naïve view of how understanding is achieved in communication agrees with the ideas of the first generation of cognitive scientists, yet it runs counter to the views of those cognitive linguists who adhere to the enactivist conception, where meanings are regarded as enacted, or construed in a broader context. Hence, from the enactivist (or ecological) perspective it makes no sense speaking of transparency as a property of linguistic expressions, which agrees with poetic intuitions of Fyodor I. Tyutchev, a 19<sup>th</sup>-c. Russian poet, who wrote in his poem "Silentium!" *A thought once uttered is untrue* (Rus. *Мысль изреченная есть ложь*). This line can be interpreted in such a way: the linguistic expression into which the speaker’s thoughts are enveloped is not capable of conveying them in all their complexity. Thus any linguistic sign *a priori* simplifies the state of things since it cannot embrace all the wealth of thoughts and feelings of the addresser; moreover, the addressee shall also interpret the content of the sign according to his/her own experience.

As it has been shown in Section 3, meaning does not reside in linguistic expressions, neither is it contained in the minds of language users. Meaning construction is an on-line mental activity whereby speech participants jointly create meanings on the basis of underspecified linguistic units. This agrees with the contemporary vision of speech communication, summed up by a communication theorist John D. Peters: representing one’s interiority via signs is not possible in a direct way; meaning is an incomplete project; a sign

surrenders to the interpreter the right of completing determination (Peters 1999: 265). By characterizing communication as the meeting of minds, Peters emphasized that body also counts (ibid.: 269).

In agreement with contemporary views on human communication, we argue here that transparency of a linguistic expression is always relative, yet it is taken to be absolute in a normative case of communication. Thus not much can actually be said about transparency as a property of a linguistic sign if it is just a background element in the overall ‘picture’ observed by communicants. It is as if when we are looking through a window pane, we see the street, people, cars passing by, etc. We just do not notice the window pane. But if we redirect our eyes onto the latter, the view of the street dissolves as if by magic; instead, we see tiny specs and scratches on the glass which a moment ago we took to be perfectly transparent. Similarly, in our analysis of transparency of verbal expressions we shall proceed from deviant cases, namely those when transparency of the conductive medium (verbal expressions) varies from slightly vague through obscure to opaque.

Let us consider a case of deviant communication where the content of the utterance is factually false, yet with the help of this utterance the addresser manages to create a true, though simplified, picture of the real state of things:

(2) *“Beauregard!” Drummond cried.*  
*“You mean the dog?” After Charlie left home, Drummond took in two retired dog track greyhounds, John-Paul Jones, who lived two or three years, and Beauregard, who lasted about a year longer.*  
*“We forgot to get someone to look after him while we’re away!”*  
*“No, no, it’s fine. Beauregard is—” Charlie stopped short of saying, “dead,” seeking to soften it. He was clumsy with euphemisms. “Beauregard’s with Mom.”*  
*Drummond’s face twisted in mystification. “Now how would Beauregard have gotten all the way down to Monroeville?”*  
*It sounded awfully Alzheimer’s-y. (Thomson 2010: 92)*

Unwilling to upset his elderly father who has Alzheimer disease, Charlie, the main character of Keith Thomson’s novel *Once a Spy*, leads him into error by making him believe that his dog (Beauregard) is safe with his wife, Charlie’s mother, whom he believes to be dead, but his father does not. Factually, he tells a lie, since he knows that the dog has died, but with this lie Charlie manages to evoke in his father the truest image of himself, that of a caring son. Thus, the expression *with Mom*, though not prototypically transparent in this context, can be qualified as slightly vague.

The extract below illustrates the opposite case, when a factually true utterance attempts to mislead the addressee as to the true state of things:

(3) *“Monna Agnese,” said Salimbeni, unstirred, “will not live beyond this month. She lies abed at Rocca di Tentennano and takes no nourishment.”*  
*“It is hard,” mumbled one of the Biccherna magistrates, “to eat, when you are not fed!”* (Fortier 2011: 240)

The extract from Anne Fortier’s novel *Juliet* contains two replicas – the first one, uttered by one of the characters, a villain (Salimbieni), is addressed collectively to magistrates, the other, by one of the magistrates – to no one in particular. In respect to the first replica, the second one serves as a frame that reconstructs the true state of things and allows one to see that the first replica is not transparent. The first replica, which contains the predicate *takes no nourishment*, distorts the true state of things: the villain intends to starve Monna Agnese to death but makes believe that she does not take food of her own accord. He attempts to deceive the addressees by failing to provide some highly relevant information (<I don’t give her any food>), thus generating a false presupposition <She takes no food of her own accord> that is prototypical for the expression *take no food*. Being factually true, this utterance does not represent the speaker authentically, thus it is not transparent to addressees, i.e. obscure.

The case of opaqueness as partial transparency is illustrated by code words, like *battery* instead of *body*, in the following extract:

(4) *Watching from the driver’s seat of the Caprice, Mortimer dialed a local number. One ring and a man answered, “Road service and towing.”*  
*“Hi, I’ve got a dead battery.” Mortimer said.*  
*“No problem, man. Where are you at?”*  
*“Montclair, at the library.”*  
*“I got a guy I can get there in fifteen, twenty minutes.”*  
*“Great, thank you.” Mortimer hung up. (Thomson 2010: 105)*

This exchange takes place between the killer (Mortimer) and his accomplices. Since it is not safe to announce over the phone that there is a dead body in the car, the killer resorts to a code which is based on reframing the meaning of the word *dead*: it means ‘not living’ when combined with *body* (the hidden meaning of the exchange) and ‘flat’ in a context with ‘battery’ (the overt meaning for an accidental eavesdropper).

The examples given above present an illustration of the fact recognized in all strains of cognitive linguistics (save the early cognitivism of the 1970s) that the meaning of linguistic units is negotiated in discourse by its participants, in other words, it is construed in discourse, but not projected into it. The process of meaning negotiation, as the following extract from the same novel demonstrates, can be rather long and the participants may exchange their roles (the addresser – the addressee) repeatedly:

(5) *Drummond remained in his seat. “Why don’t we drive?”*  
*There were too many bullet holes in the truck to count — the light streaming through them and into the cab resembled pickup sticks in mid-toss. Much of what had been the windows lay in fragments on streets between Fillmore and here. The rear tires were ribbons. Hurrying around the hood, Charlie left it at, “The truck’s hot.”*  
*“I meant why don’t we get a car,” Drummond said.*  
*“There’s about a zero chance of even seeing a taxi around here now.” His patience evaporating, Charlie yanked open Drummond’s door.*  
*“Our own car, I mean.”*  
*Charlie took Drummond by the elbow to help him from the truck. Or pull him if need be. “You really think it would be a good idea to go back to Prospect Place right now and get your Oldsmobile?”*  
*“No, hot-wire a car here.” (Thomson 2010: 78)*

This dialogue between Charlie and his father, Drummond, who have barely managed to escape from a hot pursuit in a truck, comes down to how they could continue their trip. On hearing his father’s suggestion to resume driving, Charlie assumes that he means using their truck again, which is not possible since its engine is hot and the truck itself is badly damaged. Specifying that he means a car, not just their truck, Drummond leads his son to believe that he has a taxi in mind, yet even this conjecture turns out to be wrong – Charlie’s father means ‘his own car’. The third attempt to interpret the ‘driving’ situation that Drummond has in mind is also a failure. ‘His own car’ is not his ‘father’s Oldsmobile’ and it turns out that the old man suggests stealing a car, as the bottom line of their conversation proves (*No, hot-wire a car here*). Projecting the psychological theories of space perception considered in Section 4 onto examining communicative transparency/opacity shows that the ‘air theory’ seems a better fit for construing a trajectory of how sense-making might be negotiated. Here, by filling in the contours of the ‘driving’ situation with more and more specific details, Charlie’s father finally manages to convey his message.

## 6. Concluding remarks

Approaching transparency not as an objective characteristic of particular things or media, but as an affordance offered by them to their observers in certain situational environments, extends the limits of transparency from the mind into the body, and further, beyond the boundaries of the body into the environment.

The phenomenon of transparency demonstrates quite a few functional similarities across its manifestations in various spheres, particularly, in the material/physical world, in painting, and in everyday communication. The divergences are conditioned by the resources available within a respective semiotic mode. Unlike physical transparency, manifestations of imaginary transparency in the visual arts and everyday communication give rise to meaning and crystallize the sense of a work of art or verbal exchange in the process of interpretation.

The nature of this process is best captured by the enactivist approach, which proves to be deeply ecological.

## References

### Literary Sources

Fortier, Anne. (2010). *Juliet*. New York: Harper-Collins E-Books.

Stone, Irving. (1984). *Lust for Life*. London: Arrow.

Thomson, Keith. (2010). *Once a Spy*. New York: Doubleday. Ebook4Kindle.

### Critical Literature

Barwise, Jon and John Perry. (1999). *Situations and Attitudes*. Stanford, CA: CSLI Publications.

Beer, Ronald D. (2000). "Dynamical Approaches to Cognitive Science". *Trends in Cognitive Sciences* 4(3): 91-99.

Brin, David. (1998). *The Transparent Society: Will Technology Force Us to Choose Between Privacy and Freedom?* Reading, MA: Addison-Wesley.

Clark, Andy. (2008). *Supersizing the Mind. Embodiment, Action and Cognitive Extension*. Oxford: Oxford University Press.

Demidov, Vyacheslav Ye. (1987). *Kak my vidim to, chto my vidim* [The way we see those things that we see]. Moscow: Znanije.

Fill, Alvin and Sune Vork Steffensen. (2014). "Editorial: The Ecology of Language and the Ecology of Science". *Language Sciences* 41: 1-5.

Florenskij, Pavel A. (1993). *Analiz prostranstvennosti i vremeni d hudozhestvenno-izobrazitel'nyh proizvedenijah* [Analysis of spatiality and time in artistic-fictional works]. Moscow: Progress.

Fodor, Jerry Alan. (1975). *The Language of Thought*. Cambridge, MA: Harvard University Press.

Gaut, Beryl. (1997). "Metaphor and the Understanding of Art". *Proceedings of the Aristotelian Society* 97: 223-241.

Gibson, James J. (1979). *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.

Goldstein, E. Bruce. (1981). "The Ecology of J.J. Gibson's Perception". *Leonardo* 14 (3): 191-195.

Goldstein, E. Bruce. (2009). *Sensation and Perception*. Belmont, CA: Cengage Learning.



- Goodwin, Charles. (2013). "The Co-operative, Transformative Organization of Human Action and Knowledge". *Journal of Pragmatics* 46: 8-23.
- Hume, David. (1875). *Essays, Moral and Political*. In two volumes. Vol.1. London: Longmans, Green and Co.
- Hutchins, Edwin. (1995). *Cognition in the Wild*. Cambridge, MA: The MIT Press.
- Kaufman, Lloyd and James H. Kaufman. (2000). "Explaining the Moon Illusion". *Proceedings of the National Academy of Sciences of the United States of America* 97(1): 500-505.
- Kiverstein, Julian and Andy Clark. (2009). "Introduction: Mind Embodied, Embedded, Enacted: One Church or Many?" *Topoi* 28: 1-7.
- Kövecses, Zoltán. (2010). *Metaphor: A Practical Introduction*. Oxford: Oxford University Press.
- Lakoff, George. (1977). "Linguistic Gestalts". *Proceedings of the Chicago Linguistic Society* 13: 236-287.
- Lakoff, George and Mark Johnson. (1980). *Metaphors We Live By*. Chicago, London: University of Chicago Press.
- Lakoff, George and Henry Thompson. (1975). "Introducing Cognitive Grammar". *Proceedings of the First Annual Meeting of the Berkeley Linguistics Society* 1: 295-313.
- Langacker, Ronald W. (1978). "The Form and Meaning of the English Auxiliary". *Language* 54: 853-882.
- Llinas, Rodolfo R. (2001). *I of the Vortex: From Neurons to Self*. Cambridge, MA: The MIT Press.
- Lyly, John. (1868). "Euphues and his England". In: Lyly, John, *Euphues. The Anatomy of Wit. Euphues and His England*. London: Lex Murray and Son. 209-477.
- McClelland, James L. and David E. Rumelhart. (1986). *Parallel Distributed Processing: Explorations in the Microstructure of Cognition*. Vol. 2: *Psychological and Biological Models*. Cambridge, MA: The MIT Press.
- Metzinger, Thomas. (2003). "Phenomenal Transparency and Cognitive Self-reference". *Phenomenology and the Cognitive Science* 2: 353-393.
- Montague, Richard. (1974). *Formal Philosophy*. New Haven: Yale University Press.
- Nöe, Alva. (2009). *Out of Our Heads: Why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness*. New York: Hill and Wang.
- Pepperell, Robert. (2011). "Art and Extensionism". In: Manzotti, Riccardo (ed.), *Situated*

- Aesthetics: Art Beyond the Skin*. Exeter: Imprint Academic. 107-122.
- Peters, John Durham. (1999). *Speaking into the Air: A History of the Idea of Communication*. Chicago, London: University of Chicago Press.
- Podoroga, Valeriy A. (1995). "Eros and fizika 'prozrachnosti'" [Eros and the physics of 'transparency']. In: Podoroga, Valerij A., *Fenomenologija tela: Vvedenije v filozofskuju antropologiju: Materialy lektcionnyh kursov 1992-1994* [Phenomenology of the Body: Introduction to Philosophic Anthropology: Materials for the Lecture Courses 1992-1994]. Moscow: Ad Marginem. 156-180.
- Pylyshyn, Zenon. (1980). "Computation and Cognition: Issues in the Foundations of Cognitive Science". *The Behavioural and Brain Science* 3: 11-169.
- Rowe, Colin and Robert Slutzky. (1982). "Transparency: Literal and Phenomenal". In: Rowe, Colin, *The Mathematics of the Ideal Villa and Other Essays*. Cambridge, MA: MIT Press. 160-183.
- Saussure, Ferdinand (de). (1016/2011). *Course in General Linguistics*. New York: Columbia University Press.
- Scorolli, Claudia and Anna Borghi (2008). "Language and Embodiment". *Anthropology and Philosophy* 9 (1-2): 7-23.
- Stewart, John. (2010). "Foundational Issues in Enaction as a Paradigm for Cognitive Science: From the Origin of Life to Consciousness and Writing". In: Stewart, John, Gapenne, Olivier, and Ezequiel Di Paolo (eds), *Enaction: Toward a New Paradigm for Cognitive Science*. Cambridge, MA: The MIT Press. 1-32.
- Talmy, Leonard. (1978). "Figure and Ground in Complex Sentences". In: Greenberg, Joseph H, Ferguson, Charles A. and Edith A. Moravcsik (eds.), *Universals of Human Language*, Vol. 4. *Syntax*. Stanford: Stanford University Press. 221-242.
- van der Helm, Peter. (2014). *Simplicity in Vision: A Multidisciplinary Account of Perceptual Organization*. Cambridge: Cambridge University Press.
- van Gelder, Timothy and Robert F. Port. (1995). "It's About Time: An Overview of the Dynamical Approach to Cognition". In: Port, Robert F. and Timothy van Gelder (eds.), *Mind as Motion: Explorations in the Dynamics of Cognition*. Cambridge, MA: The MIT Press. 1-43.
- Varela, Francisco J., Thompson, Evan and Eleanor Rosch. (1991). *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, MA: The MIT Press.
- Vattimo, Gianni. (1992). *The Transparent Society*. Baltimore: John Hopkins University Press.

Wheeler, Michael. (2005). *Reconstructing the Cognitive World: The Next Step*. Cambridge, MA: The MIT Press.

Zeki, Semir. (1999). *Inner Vision*. Oxford, etc.: Oxford University Press.

### Internet Sources

Art-Azbuka Gif.Ru. (2005). “O prozrachnom” [About transparent things].  
<https://azbuka.gif.ru/authors/prozrachnost> (Accessed 01 May 2015).

“Affordance”. (2012). In: *Glossary of Multimodal Terms*.  
<https://multimodalityglossary.wordpress.com/> (Accessed 08 August 2015).

Dali, Salvador. (1944). “Dream Caused by the Flight of a Bee Around a Pomegranate a Second Before Awakening”. <http://www.dalipaintings.net/dream-caused-by-the-flight-of-a-bee-around-a-pomegranate-one-second-before-awakening.jsp> (Accessed 09 March 2016).

“Mode”. (2012). In: *Glossary of Multimodal Terms*.  
<https://multimodalityglossary.wordpress.com/> (Accessed 08 August 2015).

Seurat, George. (1884). “A Sunday Afternoon on the Island of La Grande Jatte”.  
[http://www.artble.com/artists/georges\\_seurat/paintings/a\\_sunday\\_afternoon\\_on\\_the\\_island\\_of\\_la\\_grande\\_jatte](http://www.artble.com/artists/georges_seurat/paintings/a_sunday_afternoon_on_the_island_of_la_grande_jatte) (Accessed 09 March 2016).

Shakespeare, William. (1773). *Love’s Labour’s Lost*. <http://www.shakespeare-online.com/plays/LLLscenes.html>. (Accessed 07 January 2016).

“Transparent”. (2015a). In: *Oxford Dictionaries*.  
<http://www.oxforddictionaries.com/definition/english/transparent>. (Accessed 02 April 2015).

“Transparent”. (2015b). In: *Merriam-Webster*. <http://www.merriam-webster.com/dictionary/transparent> (Accessed 02 April 2015).