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A cognitive semiotic exploration of metaphors in Greek street art

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Abstract:
Cognitive linguistic and semiotic accounts of metaphor have addressed similar issues such as universality, conventionality, context-sensitivity, cross-cultural variation, creativity, and "multimodality." However, cognitive linguistics and semiotics have been poor bedfellows and interactions between them have often resulted in cross-talk. This paper, which focuses on metaphors in Greek street art, aims to improve this situation by using concepts and methods from cognitive semiotics, notably the conceptual-empirical loop and methodological triangulation.
In line with the cognitive semiotics paradigm, we illustrate the significance of the terminological and conceptual distinction between semiotic systems (language, gesture, and depiction) and sensory modalities (sight, hearing, touch, smell, and taste). Thus, we restrict the term multimodality to the synergy of two or more different sensory modalities and introduce the notion of polysemiotic communication in the sense of the intertwined use of two or more semiotic systems.
In our synthetic approach, we employ the Motivation and Sedimentation Model (MSM), which distinguishes between three interacting levels of meaning making: the embodied, the sedimented, and the situated. Consistent with this, we suggest a definition of metaphor, leading to the assertion that metaphor is a process of experiencing one thing in terms of another, giving rise to both tension and iconicity between the two "things" (meanings, experiences, concepts). By reviewing an empirical study on unisemiotic and polysemiotic metaphors in Greek street art, we show that the actual metaphorical interpretation is ultimately a matter of situated and socio-culturally-sensitive sign use and hence a dynamic and creative process in a real-life context.

Keywords: metaphor, motivation and sedimentation model, multimodality, polysemiotic communication, street art

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1 Introduction

Metaphor, or the general phenomenon where one thing is understood in terms of something else, continues to be a popular topic in the humanities, social sciences, and cognitive sciences.[1] While much new knowledge has been accumulated during the past decades since the "revolutionary" approach proposed by Lakoff and Johnson (1980) known as Conceptual Metaphor Theory (CMT), a number of crucial questions remain either controversial or underexplored. Three such questions, which we address in this paper, are the following:

- How do universal, cultural-specific, and context-sensitive knowledge interact in metaphor use?
- To what extent are metaphors creative in terms of the author's intentions and perceiver's interpretation?
- How are metaphors expressed within and across semiotic systems like language, gesture, and depiction, and instantiated in particular socio-cultural media?

Our approach is that of *cognitive semiotics*, the transdisciplinary field for the investigation of meaning making, combining concepts and methods from semiotics, cognitive linguistics, and cognitive science (Konderak 2018; Sonesson 2012; Zlatev 2015; Zlatev et al. 2016). There have been relatively few attempts to explicitly combine cognitive linguistic and semiotic theories in metaphor studies (e.g., Mittelberg, 2008; Müller, 2008b), and our foremost goal here is to show that such a synthetic and integrative approach is profitable, despite a number of apparent contradictions. In particular, cognitive linguistic approaches to metaphor reject the traditional notion

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of metaphor as a figurative device and usually view metaphors as more or less fixed cross-domain conceptual *mappings* (Lakoff 1993; Lakoff and Johnson 1980; Grady 1997) involving specific neural correlates (Lakoff and Johnson 1999).[2] Semiotic theories, on the other hand, irrespective of their variety, would see metaphor as a particular kind of *sign* (process) based on *iconicity*, operating in conjunction with other figures (e.g., metonymy, hyperbole, irony, oxymoron). Sonesson (2015), for example, explicitly argues that the mappings of CMT may be considered *diagrams* (analogies), but not metaphors (see Section 2.2). We claim, however, that such contradictions are resolvable, and aim to show how.

Our argumentation proceeds along the following lines. In Section 2, we provide a brief review of metaphor-related issues and concepts within cognitive linguistics and semiotics, respectively, and indicate why they do not need to be seen as antagonistic. In Section 3, we present our synthetic cognitive semiotic approach, defining notions such as *polysemiotic communication* and introducing the *Motivation and Sedimentation Model* (Blomberg and Zlatev in press; Devylder and Zlatev in press), with its three distinct and interacting levels of meaning making and its implication for metaphor theory.

In Section 4, we show how this cognitive semiotic framework can be applied to a recent analysis of figurative expressions in Greek street art (Stampoulidis and Bolognesi under review), which presents an intensified socio-political commentary, especially after the outbreak of the financial crisis of 2008 (Drakopoulou 2018; Tsilimpounidi 2017; Zaimakis 2015). We propose that this expressive genre is particularly appropriate for metaphor (and, more broadly, figurative) analysis, as it fuses aesthetics and politics, offering a situated form of participation in urban space and fostering the emergence of a prolific culture. For this purpose, street artists often use playful and self-reflective sets of semiotic strategies to engage their audience (Elias 2014). In general, street art encompasses unsanctioned and mainly illegal practices that take place in an urban "publicly accessible space" (Bengtsen 2018b), including visual interventions in the streets such as pasteup, posters, stickers, drawings, large wall paintings, cut-outs, stencils, and even sculptures and 3D installations (e.g., Bengtsen 2014; Lewisohn 2008; Philipps 2015). In Section 5, we summarize our theoretical contributions.

The general structure of our argument in this paper follows the *conceptual-empirical loop* (Zlatev 2015) of cognitive semiotics, which implies starting an investigation with conceptual analysis and then proceeding with empirical investigation before returning to the concepts with clarifications and improvements (see Figure 1).

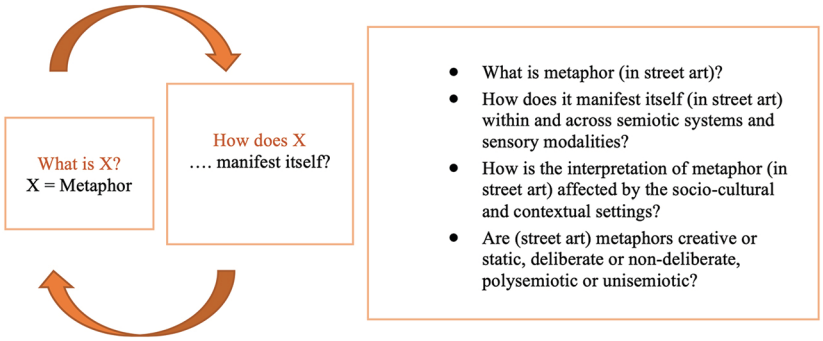

Figure 1: The conceptual-empirical loop (adapted from Zlatev 2015: 1058) and a number of questions that appear during the loop (in the domain of street art).

2 Metaphor in cognitive linguistics and semiotics

Metaphor has been the topic of controversy since Aristotle, who in "Poetics" (Kassel 1965) and "Art of Rhetoric" (Freese [1926] 1967) described it as an implicit comparison between two things, and thus a special kind of analogy (Ortony 1979: 3; Ricoeur 1975). For Aristotle, and all those who have followed him, metaphor is essentially a rhetorical figure with a predominantly aesthetic function. An often-quoted example is Shakespeare's *Juliet is the sun* (e.g., Cameron and Deignan 2006), which is clearly both intended as a metaphor and dependent on context for its interpretation. As we show in this section, this is the common point of departure for both cognitive linguistic and semiotic approaches, even when they have rebelled against Aristotle's theory of metaphor. In each of the following sub-sections, we summarize some ideas concerning metaphor in the two approaches, building up for our synthesis in Section 3.

2.1 CMT and recent developments

With the publication of Lakoff and Johnson's *Metaphors We Live By* (1980) and the rise of studies on metaphor in cognitive linguistics (e.g., Gibbs 1994; Grady 1997; Johnson 1987, Johnson 2007; Kövecses 2005, Kövecses 2010a; Lakoff and Johnson 1999, Lakoff and Johnson 2003; Lakoff and Turner 1989; Müller 2008a), the focus of investigations started to shift from the analysis of creative and deliberate expressions onto everyday expressions like *we are stuck, he is over the hill*, and the hypothetical mental processes underlying them. It was claimed that "our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (Lakoff and Johnson 1980: 3). Thus, the traditional notion of metaphor as a poetic and rhetorical device was rejected, and metaphor was redefined as a conceptual scheme of *cognitive correspondences* (Lakoff and Johnson 1980, Lakoff and Johnson 1999, Lakoff and Johnson 2003) between a *source* domain and a *target* domain, as shown in diagrams such as Table 1, and referred to using the TARGET IS SOURCE schema (Lakoff and Johnson 1980).[3]

Table 1: Source-target mapping for the LIFE IS GAMBLING GAME conceptual metaphor (adapted from Kövecses 2010b).

Source: GAMBLING GAME	**Cognitive correspondences (Mapping)**	**Target: LIFE**
PLAYERS	→	LIVING BEINGS (HUMANS)
PLAYMATES	→	CO-LIVING BEINGS, CO-CITIZENS
COOPERATIVE PLAY	→	SOCIAL DEVELOPMENT
DISTANCE COVERED	→	PROGRESS MADE
DIFFICULTY RATINGS	→	DIFFICULTIES EXPERIENCED
BETS MAKING	→	LIFE CHOICES
GAME-WINNING	→	BEING SUCCESSFUL IN LIFE

In the late 1990s, the CMT approach was elaborated by Grady (1997) who distinguished between *primary* and *complex* (compound) metaphors. Hampe (2017) points out that primary metaphors may be seen as deeply embodied cognitive analogies, which arise from pan-human bodily sensory-motor experiences. Several scholars have highlighted that in this sense many conceptual metaphors (such as MORE IS UP, GOOD IS UP) discussed in the literature are primary metaphors and potentially universal since they correspond to certain bodily experiences that are shared by all human beings, as opposed to the more complex (compound) metaphors like LIFE IS GAMBLING GAME or LIFE IS JOURNEY (Grady 1997: 288; Grady and Ascoli 2017; Kövecses 2009, Kövecses 2010b). According to the theory, primary metaphors are universal, automatic, and outside of consciousness:

> We do not have a choice as to whether to acquire and use primary metaphor. Just by functioning normally in the world, we automatically and unconsciously acquire and use a vast number of such metaphors [...] They are a consequence of the nature of our brains, our bodies, and the world we inhabit. (Lakoff and Johnson 1999: 59)

While influential, the theoretical framework of CMT has often been criticized by a number of researchers, who represent distinct approaches in cognitive linguistics and other neighbouring disciplines like cognitive psychology, media and communication, anthropology, and literature studies. The following issues have been the focus of the debate.

Universal or cultural? As pointed out, CMT has emphasized that metaphor is grounded in pan-human bodily experiences, paying special attention to universal mappings between source and target domains (Lakoff and Johnson 1999: 47, 56–57). This means that all conceptual metaphors, according to CMT, are essentially independent of any specific language and primary metaphors in particular are independent of culture and background knowledge. On the other hand, it has been pointed out that even primary metaphors depend on socio-cultural and historical contexts (Forceville 2017; Kövecses 2010a; Kövecses 2017). Casasanto (2017) presents a review of studies, demonstrating cross-linguistic, cross-cultural, and cross-individual variation. This would seem to be in favour of metaphor theories that highlight creativity and dynamicity in both creation and interpretation (e.g., Cameron et al. 2009; Müller 2008a).

Unconscious or conscious? CMT not only emphasized universality, but also the claim that mappings such as that in Table 1 (aka *conceptual metaphors*), are essentially part of the "cognitive unconscious" (Lakoff and Johnson 1999). Zlatev (2011) argues that that notion is problematic philosophically and empirically, especially given analyses (and most examples) of metaphors, which are based on the researchers' intuitions (cf. Itkonen 2008b). Furthermore, over the past decade, a number of cognitive linguists and discourse analysts have critically addressed this issue and drawn attention to the role of deliberate (intended) metaphor use in language and

communication (e.g., Cameron 2003; Charteris-Black 2004; Müller 2008a; Semino 2008; Steen 2008, Steen 2009, Steen 2011, Steen 2017; Steen et al. 2010).

Methodology: metaphors in context? As pointed above, the original methodology of producing metaphors and analysing them on the basis of researcher-intuition was subsequently extended with experimentation (Boroditsky 2000; Casasanto 2017; Gibbs 2017a, Gibbs 2017b). In addition, many have argued that this should be complemented with a discursive approach to metaphor (Cameron 2003, Cameron 2016; Charteris-Black 2004; Müller 2008a; Musolff 2004; Semino and Demjén 2017; Steen et al. 2010; Zinken 2007; Zinken et al. 2008; Zinken and Musolff 2009) with the help of corpus studies as well as detailed studies of discourse. For example, Semino (2008) has argued that decontextualized cognitive analogies in the traditional X IS Y form (and their underlying mappings) cannot fully account for metaphors in real-life social discourse. Several analysts have advocated the use of the multiple "spaces" of *conceptual-integration* (aka *blending*) *theory* as allowing more flexibility for such analyses than CMT (e.g., Fauconnier and Turner 2002; Dancygier and Sweetser 2014; Kövecses 2017).

In language or beyond? Even if CMT claims that metaphor is not a linguistic but cognitive phenomenon, most of the evidence for the theory comes from language, and only to some degree from other semiotic systems (with new developments) like gesture (e.g., Cienki 2013, Cienki in press; Mittelberg 2008; Müller 2008b) and depiction (e.g., Bolognesi et al. 2018; Forceville 2009). If metaphor is indeed not limited to language, this would lead us to inquire into how semiotic systems differ in the way metaphors can be expressed and how they interact with one another. Research along these lines has been accumulating on a number of media and genres with specific focus on the semiotic system of *depiction* realized in genres such as *print advertising* (e.g., Forceville 2017; Pérez-Sobrino 2017; Bolognesi and Strik Lievers 2019), *film* (e.g., Forceville 2016; Coëgnarts and Kravanja 2015; Fahlenbrach 2016), and *cartoons* (e.g., El Refaie 2009; Teng 2009). This is usually done under the heading of "multimodality" but, as we propose in Section 3, this is a rather ambiguous term.

To summarize, it has become clear over the course of these debates that culture, consciousness and context are crucial to both production (creation) and comprehension (interpretation) of metaphors (Musolff 2004; Charteris-Black 2004; Kövecses 2005, Kövecses 2015; Pragglejaz Group 2007; Semino 2008; Zinken and Musolff 2009). In other words, there is wide agreement among many metaphor scholars that at least the original CMT has failed to acknowledge the essence of metaphorical creativity, and new theories have been proposed such as *discourse metaphor theory* (Zinken 2007) and *deliberate metaphor theory* (Steen 2011). However, such have mostly focused on metaphor in language.[4] The challenge is to go beyond language, and for ideas on how to do so, it is natural to go to semiotics.

2.2 Semiotic approaches to metaphor

Semiotic theories of metaphor differ enormously but meet in at least one respect: the assumption that metaphors are a particular kind of *sign* (process). Unfortunately, this does not amount to much common ground, as sign definitions differ extensively among semioticians. These fall very roughly in two different traditions: a Saussurian structuralist tradition that emphasizes convention and "arbitrariness," and a Peircean tradition that highlights interpretation (cf. Chandlers 2007). In a kind of synthesis of these traditions, as well as ideas from Husserlian phenomenology, Sonesson (2010, 2014, and 2015) has developed a definition of the sign as a kind of meaning making process that presupposes conscious awareness and requires the experiencing subject to both associate and differentiate expression and content. This gives a sign concept that is quite intuitive and consistent with common sense, as it renders (most) words, representational drawings, many gestures, and natural symptoms like smoke as signs — provided, of course, the required interpretative abilities of a subject to understand them as such. On the other hand, simple stimulus-response associations, or acts of direct perception are certainly meaningful, but not sign-mediated processes. In addition, as we discuss in Section 3, signs typically form systems (like language, gesture, and depiction), with more or less complex inter-sign relations (Zlatev 2019).

From this perspective, the well-known sign-typology based on the work of Peirce: iconic signs (icons), indexical signs (indices), and symbolic signs (symbols) can be understood as derived from the predominant *semiotic ground* that links expression and content during interpretation, where there are nearly always several grounds combined in a single sign (Jakobson 1965). The three types of grounds are *iconicity* (similarity), *indexicality* (contiguity or part-whole), and *symbolicity* (conventionality). Thus, icons and indices are motivated while symbolic signs are conventional although not arbitrary, as they often involve the other two grounds as well.[5] All these kinds of signs are involved in acts of communication such as those expressed by the street artworks that we analyse and review in Section 4, where we show that the semiotic grounds of indexicality and symbolicity (based on socio-historical background knowledge and context) interact closely with iconicity. But what makes a sign process *metaphorical*?

In the semiotic theory of Peirce (1931/1974), there are three types of (hypo)icons: imagistic (*images*), diagrammatic (*diagrams*), and metaphorical (*metaphors*), all grounded in similarity. In the case of the image, expression

and content share simple qualities, such as the colour samples listed in a colour palette (Sonesson 2014). In the case of diagrams, it is a matter of similarity of relations rather than properties (Lenninger 2012). Thus, (Peirce 1931/1974: 2.277) defines diagrammatic iconic signs as "those, which represent the relations […] of the parts of one thing by analogous relations in their own parts." The definition of metaphor given by Peirce is famously unclear,[6] but is generally taken to be "one level higher" than that of diagram (Hausman et al. 1996; Lance et al. 1996), implying that the diagram/analogy/mapping is waiting to be discovered and creatively interpreted in various possible and contextually appropriate ways (Sonesson 2015). Thus, the static cross-domain mapping along the lines of CMT's LIFE IS GAMBLING GAME (see Table 1) is in itself a diagram, while a (somewhat) creative expression like (1), taken from a popular ABBA song, can function as a metaphor that requires the kind of diagram shown in Table 1 for its interpretation.

(1)
The winner takes it all. The loser's standing small.

This analysis conforms with the view that metaphors are the most complex iconic signs (Peirce 1931/1974) especially when understood as creative, emergent, and dynamic processes, socio-culturally grounded and contextually influenced: a view that has been gaining currency in both cognitive linguistics and semiotics (Kövecses, 2015; Müller, 2008a; Sonesson, 2015). As shown in Figure 2, however, metaphors are only one kind of sign (process) and can be understood only in relation to and interaction with other kinds of signs. This implies that the (verbo-) pictorial metaphors in street art that we analyse in Section 4 may interact with other rhetorical figures that are supported by relations of contiguity (metonymies) and part-whole relations (synecdoches)[7], as seen in Figure 2 below:

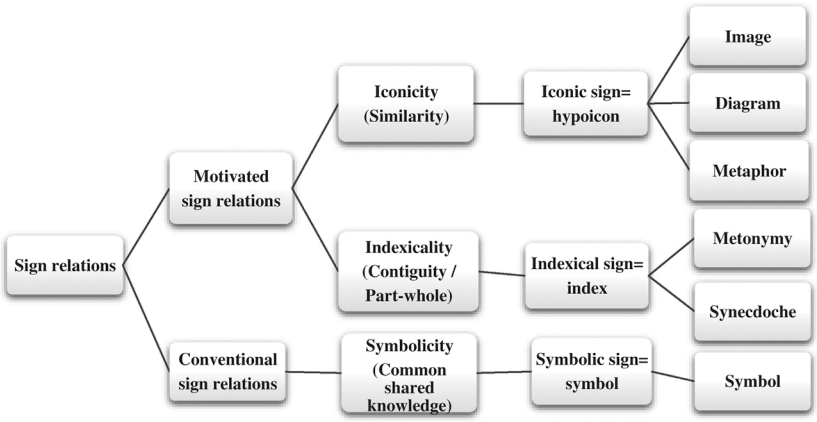

Figure 2: A hierarchical organization of sign relations.

Turning from figurativity in the semiotic system of language to that of depiction raises additional issues. Ever since Barthes's (1964) classical paper "La rhétorique de l'image," where he proposed that the tomato in the advertisement served as a metaphor for Italy, French structuralists have worked on different taxonomies of rhetorical figures in images comparable to those elaborated for language since classical antiquity (Durand 1983). One of the foremost of these was developed by the group of researchers known as Groupe μ (1970, 1976). In their later work, however, Groupe μ (1992) rejected the typology of rhetorical figures inherited from verbal rhetoric, and instead proposed a cross-classification of elements which conflict with everyday expectations, creating a degree of incongruity. This latter notion figures in a number of definitions of metaphor, such as in the "interaction theory" of Black (1979), where a (good) metaphor is supposed to offer unexpected ways of thinking, as it brings together two concepts (tenor/target and vehicle/source) that persist in a state of tension. Sonesson (1996, 1997, 2010, 2014, and 2015) has developed these ideas in relation to the phenomenology of perception, according to which our experiences are based on expectancies that may be confirmed or disappointed. Sonesson's analysis of figuration in images focuses on part-whole relations (and thus indexicality), proposing that most disappointed expectancies involve both the presence of something unexpected and the absence of something expected, and thus incongruity. This can be seen in Figure 3, where the Greek flag on the roll of toilet paper is certainly unexpected, highlighting both similarities (in physical form) and dissimilarities (in function), as discussed in detail in Stampoulidis and Bolognesi under review.

We should note here a difference between the semiotic systems of language and that of depiction. In language, metaphoric expressions typically manifest themselves with an explicit directionality, conveyed by the order of the constituents and syntax in general: both in so-called direct metaphors (e.g., "my job is a jail") and in indirect metaphors (e.g., "she devoured the novel") (see Steen 2017) it is clear what constitutes the source

and what constitutes the target of the metaphor. In the semiotic system of depiction such directionality is less clearly expressed. Anticipating the analysis presented in Section 4, on the level of metaphoric expression the directionality typically remains unclear, until the viewers integrate what they see with genre-related knowledge, conventions, the nature of the depicting surface, and other types of contextual information. Once such knowledge is integrated, it becomes clearer which part of the pictorial representation functions as source and which one functions as target, and the directionality clearly emerges, to allow viewers to interpret the metaphor on the basis of iconicity. The presence of pictorial incongruity (a strong form of tension) and iconicity between source and target concepts suggest that a figurative interpretation is needed, but only through the integration of sociocultural and context-specific knowledge (indexical and conventional world knowledge) are the viewers able to make connections with their experiential lifeworld, and interpret the metaphor as such (see Stampoulidis and Bolognesi under review).

Figure 3: A unisemiotic monomodal street artwork by an unknown creator. Metaphor: GREEK FLAG ≡ TOILET PAPER. Photograph by Stampoulidis, July 2015.

Thus, Sonesson (2015) proposes that metaphor creation and interpretation is a kind of discovery procedure, since it is possible to find similarities about two things involved in the metaphor for which you were not aware of beforehand and draw open-ended inferences (see Section 4). This is a productive idea, but we find that requiring the property of incongruity for metaphoricity is too restrictive, in particular for moderately creative (verbal) metaphors, such as that in (1). In a way, this approach goes to the opposite extreme of CMT, acknowledging as metaphorical only fully creative and non-conventional (iconic) processes, while metaphors in both language and depiction can be *more or less* conventionalized (sedimented) in the cultural knowledge of a given society (e.g., Svanlund 2007), as we explicate in section 3.2.[8]

2.3 Summary

As reviewed in this section, cognitive linguistic and semiotic approaches to metaphors have often grappled with similar problems of analysing and even defining metaphors in relation to other figurative processes, allowing some account for the continuum of conventionality and/or creativity. At the same time, there is considerable terminological ambiguity and a suspicion bordering on hostility between the two traditions. With the framework that we present in the following section and apply in a study of Greek street art images in Section 4, we hope to be able to provide a possible common ground.

3 A cognitive semiotic framework for metaphor analysis

3.1 Methodology and central concepts

As stated in the introduction, cognitive semiotics combines concepts and methods from cognitive linguistics, semiotics, and cognitive science with the aim to study the multi-faceted notion of *meaning* as comprehensively as possible. One of its core principles, in the spirit of phenomenology and hermeneutics, is *the conceptual-empirical loop* mentioned in Section 1, which requires that we start with few preconceptions and to formulate definitions of the objects of study that are as intuitive as possible. Using these definitions, we perform empirical analyses using observation and experimentation in order to return to the concepts we started with and possibly improve them. A second principle consistent with the first is *methodological triangulation*, combining the use of first-, second-, and third-person methods in the study of specific semiotic phenomena based on the perspective of the researcher, like intuition, empathy, and experimentation, respectively (Zlatev 2009, 2015). These principles are exemplified in Section 4 in reviewing the study of Stampoulidis and Bolognesi under review.

The concept of *sign* is central for cognitive semiotics, but not as co-extensional with meaning in general, as in many schools of semiotics (Chandler 2007). Rather, it is a special kind of process that presupposes the conscious awareness on the side of the interpreter that a given *expression*, in one or another material medium, represents a particular *content* in some respects, from a certain perspective, consistent with the theory espoused by Sonesson (e.g., 2010) and summarized at the beginning of Section 2.2.

Signs form *systems* with more or less complex inter-sign relations and properties that are in part determined by the medium employed by the particular system. Language — in either the spoken (speech), bodily (signed languages), or written (text) medium — is the best-known semiotic system, allowing the expression of an endless possibility of different meanings. This is largely due to the relations between its signs (paradigmatic, syntagmatic, hierarchical), which correspond to what is generally known as "grammar" (see Zlatev 2019). Speech and writing are sub-systems of language with properties such as "rapid fading" (Hockett 1960) differentiating them (see Table 1). Another semiotic system is that of *gestures*, understood as intended expressive bodily movements that are visually perceivable (Kendon 2004). Most relevant for present purposes, however, is the semiotic system of *depiction*, realized in various media from sand drawings and wall paintings to the numerous technologies that all involve the production of lines and patches of contrasting colours on surfaces in such a way so as to create a "likeness" to real or imaginary objects or events (Green 2014). Table 1 shows some of the properties of these three semiotic systems, with "material" referring to extra-bodily resources like a surface affording inscription, and "double articulation" to the presence of a level of systematic elements like phonemes that are meaningless in themselves. "Syntagmatic relations" are linear combinations of signs and the notion of semiotic ground was discussed in Section 2.2.

Table 2: Three universal semiotic systems of language, gesture, and depiction with some of their properties.

Properties	Semiotic systems Language (Speech, Writing)	Gesture	Depiction
Production	Vocal, Material	Body	Material
Perception – senses recruited	Auditory, Visual	Visual (possibly auditory)	Visual (possibly tactile and olfactory)
Rapid fading	Yes, No	Yes	No (relatively)
Double articulation	Yes	No	No
Semiotic grounds	Conventional > Iconic	Iconic + Conventional	Iconic > Conventional
Syntagmatic relations	Compositional	Sequential	Possibly sequential

While each one of these systems may be used independently, most spontaneous human communication involves the combination of two or more, e.g., *polysemiotic communication* (Zlatev 2019). This allows complex interactions of sign use, where the different expressive potentials of the systems interplay with and balance one another in ways that remain to be explored in detail.

Some research in this direction is performed under the heading of "multimodality" (Jewitt et al. 2016), in several different research traditions, with rather conflicting terminology depending on the context and the goals of the researcher. In cognitive linguistics (for a review, see Devylder in press), the term "modality" is often used to refer more or less to what we mean by semiotic system, for example, by calling verbo-pictorial images such as that in Figure 8 "multimodal metaphors" (e.g., Forceville 2017). In gesture studies, speech and gestures are commonly referred to as "communicative modalities," and language itself is often considered "multimodal"

(Vigliocco et al. 2014). On the other hand, in the tradition of social semiotics (e.g., Bateman 2011; Kress 2009; van Leeuwen 2005), one considers the combination of "modes" such as speech, text, image (still and moving), colour, music, typography, font, layout, design, and so on under the notion of "multimodality."[9] However, as pointed out by Green (2014: 9–10): "there is no theoretical limit to the number of modes that may be recognized in various socio-cultural contexts, and this leads to an abundance of modes that are difficult to compare," especially with research outside of social semiotics. Finally, and what is arguably the least controversial use of the term, in most of psychology "modality" is used to refer to the different senses: sight (visual), hearing (auditory), smell (olfactory), touch (tactile), taste (gustatory), and possibly others like proprioception (body awareness). Perception as a whole can be said to be multimodal (e.g., Fulkerson 2014; O'Callaghan 2012).

Given this extensive ambiguity of the term "multimodality" (see also Adami 2016; Green 2014; Devylder in press), we constrain the use of the term to the synergy of two or more different sensory modalities in the act of perception (see Table 2). A street artwork may thus be either unimodal, if perceived only visually, or multimodal, if also perceived through other sensory modalities, such as tactile (if we touch it while walking down the streets). As pointed out earlier, we use the term polysemiotic communication for the synergy of two or more semiotic systems (see Table 2). For example, a work of street art consisting of verbal text (language) and pictorial elements (depiction) is clearly a form of polysemiotic communication, instantiated in the particular socio-cultural medium of street art. Conversely, the street artwork depicted in Figure 4 might be considered as an example of unisemiotic communication (only the semiotic system of depiction is present) but is still (potentially) multimodal since it may trigger multiple senses in the viewer, such as sight and touch.[10] The street artwork shown in Figure 5, instead, is polysemiotic and (potentially) multimodal, because it exploits features (like the texture of the pig) related to the sense of touch, besides features (like shape and colour) related to the sense of sight.[11] Metaphorical images such as that shown in Figure 3 should be regarded as unisemiotic and monomodal, while those that combine language and depiction as that in Figure 7 (Section 4) are polysemiotic and monomodal.

Figure 4: A unisemiotic and (potentially) multimodal street artwork by Bleeps.gr. Photo courtesy of the artist.

Figure 5: A polysemiotic and (potentially) multimodal street artwork by an anonymous queer group: Stop Homo-Trans-Phobia. Photograph by Ilaria Hoppe, September 2010, Berlin (Kreuzberg), Germany.

3.2 The motivation and sedimentation model

Inspired by concepts from phenomenology (Husserl [1901] 1970; Merleau-Ponty Merleau-Ponty [1945] 1962) and integral linguistics (Coseriu 1985, 2000), the Motivation and Sedimentation Model (MSM) distinguishes between three basic levels of meaning (the embodied, the sedimented, and the situated), and links these with two operations: *motivation* and *sedimentation*.[12] It has been applied to the understanding of language norms (Zlatev and Blomberg in press), to the debate on linguistic relativity (Blomberg and Zlatev in press), and most recently to metaphor (Devylder and Zlatev in press). It may be illustrated as in Figure 6.

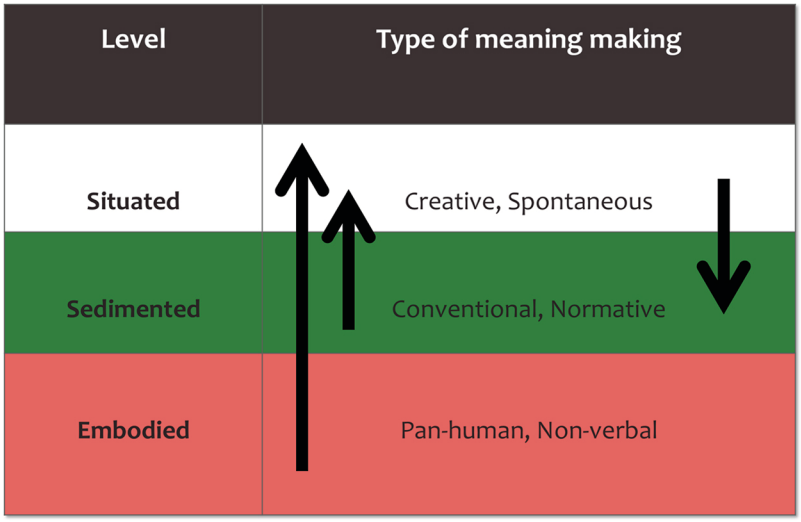

Figure 6: The Motivation and Sedimentation Model of meaning making, with upward motivation relations and downward sedimentation relation (from Devylder and Zlatev In press).

The *embodied level* involves non-linguistic, cognitive, and experiential processes and structures such as bodily mimesis (Donald 1998), emotions (Foolen et al. 2012), categorization (Rosch 1977), and analogy-making (Gentner and Markman 1997). The latter corresponds to a form of (diagrammatic) *iconicity* (Devylder 2018; Itkonen 2005; Jakobson 1965; Zlatev 2016). As capacities, these processes are universal, part of our human nature, although they can be shaped into culture and context-specific manifestations through interactions with the other two levels. The *sedimented level* consists of social and linguistic norms (Itkonen 2008a), writing systems and symbolic notations (Goody 1977; Donald 1998), and shared cultural beliefs, histories, and ideologies (Forceville 2017). The *situated level* is the most dynamic, creative, and tightly dependent on the immediate context and ongoing social interaction. It is the level of emergent contextual meanings, subject to interpretation and play.[13]

The primary *motivation* operation is that between the embodied and the situated level, reflecting the claim that situated meaning making presupposes pre-linguistic, pan-human properties of human embodiment and

features of the universal human lifeworld.[14] In a second step, the contextual meanings become relatively consolidated over time in a "downward" direction at the sedimented level. This, in turn, co-motivates future contextual meanings at the situated level: the secondary motivation relation. Applied to metaphor, this implies that to comprehend a verbal metaphor (expression) such as (1) or a pictorial one as that in Figure 3, processes such as perceptual categorization, analogy-making, and emotional appraisal are necessary as primary motivators. However, they are not sufficient, as metaphorical interpretation within and across semiotic systems is always co-motivated by the sedimented level of socio-cultural knowledge as well.

Even this quite schematic description of the model allows us to draw a number of implications for the various debates concerning metaphor. First, MSM implies that metaphors are fundamentally *signs* in a particular semiotic system, rather than mappings or any other kind of cognitive correspondences and structures. The latter, like the hypothetical LIFE IS GAMBLING GAME diagram in Table 1, can rather function as part of the motivation for the situated use of metaphors like (1), given here once more for convenience, which eventually leads to their conventionalization on the sedimented level.

(1)
The winner takes it all. The loser's standing small.

Second, and in line with the semiotic tradition, MSM implies that metaphors are primarily *iconic* (e.g., resemblance-based) signs, but not like images or onomatopoetic expressions where the resemblance is between expression and content, but between the *contents* of two signs: a more directly given ("source"), and a more relevant for the context ("target"). With respect to (1), these are respectively the literal senses of terms like *winner, takes-it-all, loser, small*, and their metaphorical counterparts, or more generally: between the experiences of winning and losing in a game, and corresponding experiences in life. Concerning the GREEK FLAG ≡ TOILET PAPER pictorial metaphor in Figure 3, these interpretations are toilet paper (with its associations) and, with the help of metonymy (FLAG FOR NATION), Greece. In all cases, the similarity between source and target meanings co-exists with various degrees of tension, from mild ambiguity to obvious incongruity.

Third, the model implies a scale of *metaphoricity:* a particular metaphorical expression will be experienced as metaphorical in proportion to (a) the degree of iconicity and (b) the degree of tension between the source and target concepts. If a metaphor is only motivated by the sedimented level, that means that it has been so conventionalized that neither (a) nor (b) will be prominent. Thus, expressions like (2) may be taken, in a particular cultural context, as quite literal.

(2)
Life is a zero-sum game.

In accordance with these implications, the definition of metaphor proposed by Devylder and Zlatev in press is the following: an expression in a given semiotic system (or a combination of systems) with (a) at least two different potential interpretations (tension), (b) standing in an iconic relationship with each other, where (c) one interpretation is more relevant in the communicative context, and (d) can be understood in part by comparison with the less relevant interpretation.

Corresponding to this theoretical definition of metaphor the reader should have noticed that we have arrived at a conception that is in several ways a synthesis of the cognitive linguistic and semiotic traditions reviewed in Section 2. While we agree with semiotics that metaphors are fundamentally signs, we accept as plausible the existence of analogies on either the embodied level ("primary metaphors") or on the sedimented level ("complex metaphors") as motivations for the use of metaphorical signs (expressions) on the situated level. Concerning the debate on universality vs. culture-specificity, acknowledging the co-motivating powers of the embodied and sedimented levels allows for various combinations of both factors. Critiques of CMT that targeted its relatively static *mappings* can be addressed by pointing to the fundamentally dynamic and context-sensitive nature of the situated level. Thus, we agree with Kolter et al. (2012: 221) that metaphors "should be regarded as a process of meaning construal in which new metaphoric expressions dynamically emerge, are elaborated, and are selectively activated over the course of a conversation," and at the same time emphasise that these would not be possible without universal processes of meaning making on the embodied level, and cultural conventions and shared knowledge on the sedimented level. Furthermore, the model highlights that metaphors can be expressed in semiotic systems other than language, such as gesture and depiction, and also through the integration of such systems in polysemiotic communication, as we illustrate in Section 4.

Finally, the model also addresses what is perhaps the most hotly contested issue in metaphor theory today: the role of *consciousness*. With its roots in phenomenology, MSM implies that human meaning making is always more or less *accessible* to conscious awareness, even when it is not in *focal* consciousness, but in its margins (Zlatev 2018). Even the "unconscious," from the perspective of phenomenology, leaves its traces on conscious experience (Brooke 1986; Mouratidou 2019). In short, consciousness, as the "depth-structure of subjectivity"

(Zahavi 1999: 206), is a scalar concept, varying from unconscious and pre-conscious to semi-conscious and focally conscious experience (Zahavi 1999; Sonesson 2009).

In relation to metaphor, this implies that there is no *fully unconscious* metaphor use, as the two properties that we propose as definitional — iconicity and tension — need to be *experienced* by both metaphor producers and interpreters. This, of course, does not mean that all metaphors should be produced with the explicit intention to be understood as such, e.g., *deliberately*, as this is an additional dimension of metaphor (e.g., Steen 2009, Steen 2017). Quite a few, especially among (verbo-) pictorial metaphors that are most often highly creative, will be of this kind, as highlighted by Forceville (2009: 23, our emphasis): "a phenomenon to be labelled a (visual) metaphor should be understandable as an *intended* violation of codes of representation, rather than as being due to carelessness or error" and also strongly supported by a number of ethnographic go-along interviews conducted with Athens-based street artists periodically between 2015 and 2018 by Stampoulidis.[15] Thus, we maintain that metaphor use is fundamentally linked to human consciousness, to a much greater extent than to the "automatic mind" (Gibbs and Chen 2018).[16]

In the following section, we show how this cognitive semiotic framework for metaphor both guides and helps interpret the findings of a recent empirical study of (verbo-) pictorial metaphors in Greek street art.

4 Applying the framework to a sample of Greek street art

The visual and artistic practice of unsanctioned painting on the public walls increased dramatically in Greece during the period of the recent economic crisis, affecting in one way or another the everyday experiences of Greek citizens. Opposition against the control mechanisms required by the "European troika" was reflected in an abundant production of wall paintings and illustrations (Stampoulidis 2016, Stampoulidis 2018). In this way, street art practitioners claimed their right to participate in the visual construction and reproduction of urban space. The visual environment is thereby changing, considering the ephemeral and open nature of street art (Bengtsen 2014; Stampoulidis 2016, Stampoulidis 2018, Stampoulidis 2019) as well as the economic, political, and cultural contexts of these situated practices, where metaphors are literally "taken back to the streets."[17]

This view leads inevitably to the position that street art metaphors are basically the result of the street artists' intentions and actions at the moment of execution, which are ultimately creative and socio-politically motivated, aiming to trigger their viewers' attention and raise awareness about contemporary social and political issues. Here, one may note the major points of discussion in academic literature on street art (there is a large body of research in this area, but see Bengtsen 2014, Bengtsen 2018a; Hoppe 2014; Riggle 2010; Wacławek 2011), notably *ephemerality* and *site-specificity/time-specificity*. Street art tends to be ephemeral, and thus it may not be meant to last for long — street artworks continuously change and evolve throughout time, or may be just removed.[18] The property of site-specificity implies that street art is part-and-parcel of what is happening in a society in a specific time and space and thus street art may reflect significant societal events and situations, as has been argued elsewhere (Stampoulidis et al. 2018).

In relation to such site-and-time-specificity, or in other words, *situatedness*, Kwon (2002: 11) emphasizes that artworks are "singularly and multiply experienced in the here and now through bodily presence of each viewing subject, in a sensory immediacy of spatial expansion and temporal duration." This implies the phenomenological need to focus on the actual location (as site) and the street artworks' inseparability from their situated environment. Therefore, as has also been pointed out by Bengtsen et al. (2013), even when it is possible to remove a street artwork from its original location and ideological site in order to relocate it in an institution-lead context without breaking its materiality, the artwork itself along with its intended signification may be largely lost.

In connection with the three levels of MSM — embodied, sedimented, and situated — a street artwork's meaning is ultimately influenced by its ephemeral and non-commercial street context.[19] Street art is a situated practice of meaning making, including artists' performative and conscious deliberations to create art, that is highly dependent on contextual circumstances and invites its recipients (passers-by) to take an active participatory role, engage in the city's ephemeral dialogue, and experience the artworks themselves in situ (Hansen and Flynn 2016). Thus, street artists usually purposefully integrate the phenomenological site (street context) into their work to construe context-influenced situated meanings and interpersonal relations. On the other hand, painting legal walls of fame as part of public art festivals or exhibiting artworks and installations in an institutional site with well-determined and regulated conditions of perception would involve a very different context and set of appropriated aesthetics compared to unsanctioned painting in the streets outside the commercial sphere (O'Doherty 1986).

Focusing on street art, the study by Stampoulidis and Bolognesi under review aimed to show how a cognitive semiotic framework can act as a comprehensive toolkit for the identification and interpretation of (verbo-)

pictorial metaphors in a compiled corpus of 50 street artworks such as that in Figure 7, collected in Athens periodically between 2015 and 2018.[20]

Figure 7: A polysemiotic monomodal street artwork by an unknown creator. Metaphor: MERKEL ≡ MINNIE MOUSE. Photograph by Stampoulidis, August 2017.

The image in Figure 7 is clearly polysemiotic, consisting of (a) a human face with exaggerated, cartoon-like ears, (b) the Euro symbol, and (c) the Logo for "Disney," with the latter two combined to create a compound "Euro-Disney," denoting a well-known attraction outside of Paris. How can we decide if this compound image expresses a metaphor and, if so, which one? Considering the presentation of MSM in Section 3, we could state that the embodied level can only help us to see the analogy (and in effect, blend) of human and animal face. It is the sedimented and situated levels that are essential to understand what the artist could be communicating. First, the face alongside the Euro-symbol allows a viewer that is at least somewhat familiar with the political context to identify the person depicted as the German politician Angela Merkel. Second, the combination of "Disney" and the particular shape of the ears in turn activate a particular referent: a fictive, and somewhat ridiculous, character such as Mickey (or Minnie) Mouse.

The street artist can thus express a socio-political commentary by combining parts of different concepts: Disney and Politics. An iconicity-based comparison between these two sets of contents emerges as an unexpected unity with clear semantic tension, allowing us to construe the metaphor MERKEL ≡ MINNIE MOUSE. This metaphor shows a dissimilarity by pointing to a comparison between Merkel (metonymically standing for European politics) and the Disney character (associated with frivolity). Hence, understanding this image requires not only general visual skills, but highly specific and sedimented cultural and political knowledge as well as acquaintance with genre conventions. In addition, the image would not be fully comprehensible without considering the situated level, that is, the specific socio-cultural setting, at this moment, in this place, deliberately construed by a certain creator for an intended audience (e.g., the context of the "austerity crisis" within Greece and EU, etc.). Some of the complexity involved is displayed in Figure 8.

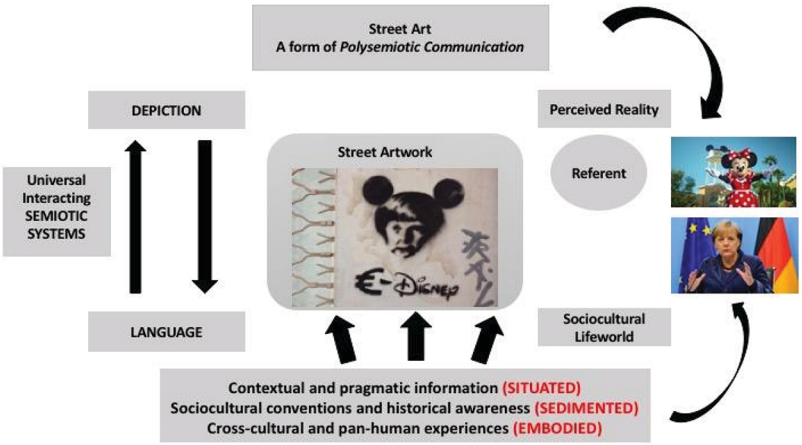

Figure 8: Street Art, a form of (typically) polysemiotic communication.
The images of Minnie Mouse and Angela Merkel have been accessed from the internet: https://omundukhumundu.wordpress.com/2017/05/29/angela-merkel-says-eu-cannot-rely-on-britain-and-us/ (last accessed 2019/03/22) and http://www.dlptoday.com/2016/11/01/new-look-mickey-mouse-in-glorious-new-disneyland-paris-2017-promotional-video/ (last 2019/03/22).

This was the theoretical point of departure for the empirical study realized by Stampoulidis and Bolognesi under review, where the goal was to identify, analyse, and interpret metaphors in Greek street art and, in the process, show how cognitive linguistic and semiotic theories of metaphor can be integrated. The study was based on the qualitative and quantitative analyses of a sample of 50 street artworks such as that in Figure 8. The questions asked were which types of knowledge are required for identifying metaphors in street art and to what extent analysts with different cultural background could agree in distinguishing images that are predominantly metaphorical (even when they integrated other figures such as metonymy and hyperbole) from other rhetorical images.[21]

Stampoulidis and Bolognesi under review followed the two main methodological principles of cognitive semiotics (see Section 3.1): (a) the conceptual-empirical loop, integrating conceptual analysis and empirical investigation, and (b) methodological triangulation, which was realized as follows. First, the two analysts worked independently to analyse the images, using a pre-defined step-wise procedure (see below) as well as relying on their personal knowledge. Second, as a second-person methodology, they discussed and negotiated their interpretations with one another (in a formal content analysis featuring interrater reliability tests), and in addition they asked two external annotators to evaluate the analysts' interpretations under a pre-given protocol (again, in a formal content analysis) featuring interrater reliability tests.[22] This can be seen in Table 3.

Table 3: Methodological triangulation for the study of particular semiotic phenomena — here, street art (adapted from Zlatev 2015: 1059).

Perspectives	Methods	Applicable on the study of metaphors in street art
1PM	Intuition	Identification and interpretation of metaphors (and other rhetorical figures) based on personal experiences and intuitions.
2PM	Empathy	Interpersonal communication and negotiation between the two analysts and second-order social interaction between the analysts and two external annotators.
3PM	Quantification	Quantitative analysis of our interpretations with interrater agreement tests.

The results of the study showed that a distinction between metaphorical and non-metaphorical (though still rhetorical) images could be reliably made among the images in the sample, by using the criteria of iconicity and tension, combined with an analytic *data-driven* procedure, which incorporates theoretical and methodological aspects of the cognitive semiotics framework (Stampoulidis and Bolognesi under review). The procedure that Stampoulidis and Bolognesi developed follows the steps below:

1. For each image, it is possible to identify a topic, about which the viewer is invited to reconstruct a standpoint, intended by the creator (in line with VisMip, Šorm and Steen 2018).

2. Any rhetorical image displays incongruities using the criteria of iconicity and tension, which eventually leads to the analysis and interpretation of the intended message. The high level of agreement by the two analysts, despite their different cultural background, could be explained by assuming that they relied on the embodied level to identify both similarities and incongruities in the images, based on general lifeworld experiences, as well as some general shared socio-cultural knowledge on the sedimented level (concerning Merkel, Disney, the crisis, etc.).

3. The task was to spell out and interpret the same metaphors, which in many cases relied on interaction with metonymic processes, as suggested for the case of Figure 8 above.

4. The question was to what extent the two analysts, with different socio-cultural and linguistic background (Greek and Italian), would agree on these interpretations.

As mentioned, two external annotators evaluated the analyses of the 32 images from the sample that were identified as metaphorical by the main analysts. These second-order evaluations indicated that beyond the identification of incongruities and analogies (on the embodied level), the way the metaphors were interpreted

were subject to extensive variability, due to differences in socio-cultural knowledge (the sedimented level) and the local pragmatic context (the situated level). For example, the image in Figure 7 was interpreted by the Greek analyst as an ironic, sarcastic, and politically-dominant site-specific expression of visual protest and activism in Greece at a moment of crisis, allowing an understanding of the dynamics of political mobilisation and the diffusion of symbols and ideas in urban space. By the Italian analyst, on the other hand, it was interpreted as a satirical representation of EU political dynamics in general, without specifying the situatedness of the Greek crisis.

In only 14 cases out of 32 was there full intersubjective agreement in this step of the procedure. This supports the view that, ultimately, metaphors are highly creative, flexible, and dynamic processes. Even when using a data-driven and stepwise procedure informed by cognitive linguistic and semiotic models, analysts may agree on the *identification* of pictorial and polysemiotic metaphors but only to some degree on their pragmatic *interpretation*, especially if they differ with respect to their knowledge on the sedimented and situated levels. In line with MSM, it is crucial to approach metaphors in a more encompassing way, as shown in Table 4.

[Correction added after online publication 16 May 2019: On page 14 (paragraph 1) "In only five cases out of 32 was there full intersubjective agreement in this step of the procedure." was corrected to "In only 14 cases out of 32 was there full intersubjective agreement in this step of the procedure."]

Table 4: Applying MSM to metaphors in street art, with upward motivation operations, and downward sedimentation operation.

Level of meaning making		Type of process
Situated	↑	Creative street art practices, street context-based significance, moment of execution, actual location
Sedimented	↑	Socio-historical, indexical and symbolic background knowledge
Embodied	↑	Pan-human, experiential motivations; Identifying degrees of *iconicity* (similarity) and degrees of *tension* (incongruity)
	↓	

Thus, the study summarized in this section could naturally be interpreted with the help of the cognitive semiotic framework presented in Section 3 and the Motivation and Sedimentation Model in particular. To recapitulate, metaphors are signs in any semiotic system, where there is both similarity (iconicity) and semantic tension, often resulting in incongruity between at least two meanings. The interaction between the embodied level (including cross-cultural and pan-human knowledge), the sedimented level (implying the role of indexical and symbolic knowledge), and the situated level (including considerations of the author's intentions in a specific socio-political context) is essential for metaphors indeed emerge *in the streets*.

5 Conclusions

In this paper, we have addressed some key issues in metaphor theory by proposing a synthetic and dialogic cognitive semiotic framework, combining insights from cognitive linguistics and semiotics. This framework presupposes that the essence of metaphor is a process of experiencing one thing in terms of another, giving rise to both *tension* and *iconicity* between the two "things" (meanings, experiences, concepts). We presented clear evidence for the claim that metaphors can be expressed in various semiotic systems other than language, instantiated in the socio-cultural medium of street art, very often in polysemiotic combinations using one or more sensory modalities. Similar analyses could be extended to other socio-cultural media such as digital art, advertising banners, sand drawings, oil paintings and so on.

With the help of the findings of the study of Stampoulidis and Bolognesi under review, we showed that metaphorical interpretation is ultimately a matter of situated and socio-culturally-dependent sign use and hence a dynamic process in a specific real-life context. Further, metaphoricity is a scalar notion that can be enacted to different degrees, largely dependent on the situated level of meaning making (Müller, 2008a; Müller and Tag, 2010). Yet, this level is not sufficient, as it presupposes the norms of the sedimented level, and the cognitive processes of the embodied level. We may conclude by suggesting that our framework and MSM in particular may advance the discussion in contemporary metaphor research in cognitive semiotics and beyond.

Acknowledgements

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Notes

1 The etymology of the English term *metaphor* derives itself from the Greek *μεταφέρειν* (*meta* 'beyond' + *pherein* 'carry'), meaning to transfer something from one place to another (Danesi 2004: 10).
2 "Mappings should not be thought of as processes, or as algorithms that mechanically take source domain inputs and produce target domain outputs. Each mapping should be seen instead as a fixed pattern of ontological correspondences across domains that may, or may not, be applied to a source domain lexical item" (Lakoff 1993: 210).
3 Within the cognitive linguistic tradition, small capitals are used to indicate a concept, domain, or conceptual mapping.
4 See Steen (2018) for an exception.
5 As argued by Deacon (2012: 13), to understand symbols "one must also understand these social conventions, because nothing intrinsic to the form or its physical creation supplies this information."
6 "Hypoicons [...] which represent the representative character of a representamen by representing a parallelism in something else, are metaphors" (CP 2.277, EP 2: 274).
7 We acknowledge that the relationship between metonymy and synecdoche is indeed a complex and highly debated topic within cognitive linguistics, semiotics, and rhetoric (e.g., Fontanier 1968; Groupe μ 1970, Groupe μ 1992; Nerlich 2010; Sato 1979; Seto 1999), but for the purposes of the present paper, synecdoche and metonymy are clustered together under the notion of *indexical signs*.
8 For elaborations on this matter please, see Sonesson (this volume).
9 Although theoretical apparatuses differ, authors draw particularly on Halliday's (1978) social semiotic view on language and Systemic Functional Linguistics (SFL).
10 It is important to note that the terminological distinction and conceptual dichotomy between the semiotic systems of language and depiction are not always clear-cut, especially in the case of street art (and graffiti), as has been argued in a certain literature (e.g., Bal 1991; Neef 2007). Therefore, we would like to stress that street art is typically a form of polysemiotic communication and, thus, we restrict the term unisemiotic either to the case of primarily *depiction-dominant* or primarily *language-dominant* graphic representations (see for example Figure 3 and Figure 4).
11 Figure 5 was created by a female art collective based in Berlin and aims to increase awareness about sociopolitical and environmental issues (for a discussion about street art and environmental issues, see Bengtsen 2018a). We would like to thank the art historian Ilaria Hoppe for pointing our attention to this street artwork in Berlin, Germany.
12 See Zlatev (2018), for some discussion of the phenomenological roots of these notions and of cognitive semiotics in general.
13 There is some similarity between this division and that in Kövecses's metaphor theory: "the *supraindividual* level corresponding to how a given language and culture reflects decontextualized metaphorical patterns, the *individual* level corresponding to the metaphorical cognitive system as used by individual speakers of a language, and the *subindividual* level corresponding to universal aspects of various kinds of embodiment" (2010b: 321, our emphasis). In relation to MSM, Kövecses's supraindividual level resembles the sedimented level while the subindividual resembles the embodied level. However, the situated level in MSM differs from Kövecses's individual level by being precisely not limited to "individuals" and their mental representations. One may also observe that Kövecses's theory has been proposed and exemplified by using examples of metaphoric expressions retrieved from language only, while the MSM model has been applied and illustrated using examples of metaphoric expressions taken from multiple semiotic systems.
14 Lifeworld is the English translation of the German term *Lebenswelt*, first introduced by Edmund Husserl as an encompassing expression for the world of our experiences.
15 The so-called *go-along* or *walk-along* interviewing (Kusenbach 2003) is an innovative approach to obtain contextualized real-time perspectives. Go-along exploratory interviews may add new angles of looking at the reception of street art. Moreover, Kusenbach (2003: 478) argues that "go-alongs develop phenomenological themes by placing researchers in the mobile habitats of their informants (in *situ*), thus facilitating access to their experiences and practices as they unfold in real time and space." However, this is a methodological matter which deserves a detailed discussion.
16 This conclusion may seem to contradict Steen's (2009: 180) statement that "awareness of metaphor as metaphor is not a necessary precondition for metaphor being used deliberately: the intentional use of metaphor as metaphor need not become conscious." But this contradiction is also apparent, as Steen operates with a very different notion of consciousness than the phenomenological one: "consciousness is knowing that you are aware, while awareness itself is the content of what is in people's window of attention" (2017: 6). In other words, Steen's "conscious" corresponds to "reflective," which, of course, is too much to request from everyday metaphor use.

17 Street art is a concept that is broader than graffiti, including several techniques, aesthetics, and expressive media. It is, to a large extent, an intentional spatiotemporally oriented (site-specific), ephemeral, entertaining (playful), and cross-cultural, but also a socio-culturally conventionalized phenomenon (for a discussion about street art and graffiti terminological issues and various conceptions within most recent street art and graffiti scholarship see Ross et al. 2017). Relevantly, street art is typically built on the interplay between two universal and interacting semiotic systems — language and depiction — and is thus a form of polysemiotic communication.
18 Ephemeral street art is not *intended* to last. Nevertheless, it may last for some minutes or for years. As Bengtsen (2018a: 11) argues, "the key idea is that unexpectedly encountering an artwork perceived as unsanctioned, ephemeral, and open — as something that should not really be there and might soon disappear — may serve as an interruption that can pull the viewers out of their routine and increase their awareness of their environs." In other words, Bengtsen (2018a) highlights that the inherent ephemeral nature of street art is in accordance with the explorative potential of street art implying that urban space is a site for exploration that never becomes a routine, in contrast with artworks found in a different institutional context, such museum or gallery, where commissioned artworks are not constantly changed, but instead static. Nevertheless, commissioned public art and commercial urban art exhibited in institutional sites, even though quite often being temporary, are not meant for exploration — but certainly can be used as such.
19 We may need to remind that MSM is not specific for metaphors with and across semiotic systems. Due to its general and synthetic nature, it has been applied to phenomena such as linguistic norms (Zlatev and Blomberg In press), linguistic relativity (Blomberg and Zlatev In press), and metaphors (Devylder and Zlatev In press).
20 For the reader who is interested in gaining access to all the items that we included in our corpus, protocols, and files used for the reliability testing that was conducted, we have constructed an online repository on the Open Science Framework (OSF) platform. To get access to the OSF-repository follow this URL: https://osf.io/jrv5k/.
21 The first author/analyst is a native speaker of Greek, whereas the second is Italian (without knowing Greek).
22 Interrater reliability tests are typically performed by measuring the agreement between independent coders, which is measured through established measures such as the Cohen's kappa coefficient (κ). The κ scores range from 0 to 1, where 0 means null agreement and 1 means full agreement between the two coders. By convention, scores above 0.7 indicate strong agreement, while scores between 0.5 and 0.7 indicate moderate agreement. For a detailed explanation of this measure and related measures used in content analysis, please refer to Bolognesi (2017).

Correction note: [Correction added after online publication 16 May 2019: The figure caption of Figure 5 "Figure 5: A polysemiotic and (potentially) multimodal street artwork by Neozoon: Stop Homo-Trans-Phobia. Photograph by Ilaria Hoppe, September 2010, Berlin (Kreuzberg), Germany." was corrected to "Figure 5: A polysemiotic and (potentially) multimodal street artwork by an anonymous queer group: Stop Homo-Trans-Phobia. Photograph by Ilaria Hoppe, September 2010, Berlin (Kreuzberg), Germany."]

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Bionotes

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