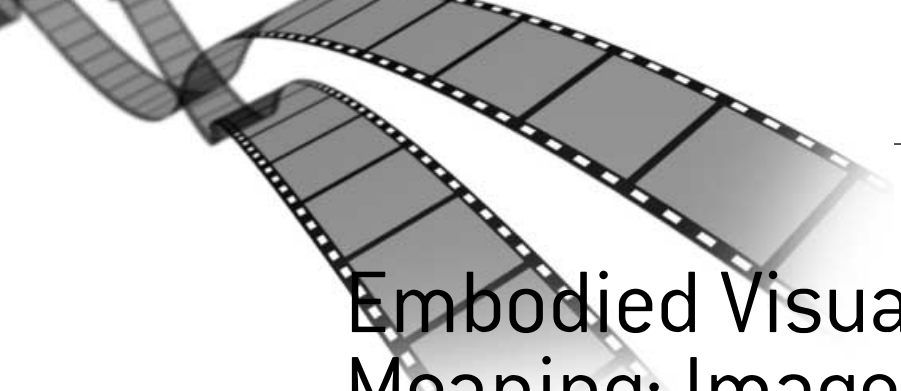

Embodied Visual Meaning: Image Schemas in Film

Maarten Coëgnarts and Peter Kravanja

Abstract: This article examines embodied visual meaning in film, the ways that film makes use of recurring dynamic patterns of our shared bodily interactions with the world (image schemas) to communicate abstract meaning to the viewer. Following the lead of recent discoveries in the field of neuroscience, the article argues that this metaphorical transference of abstract thought by means of image schemas is possible via the activation of embodied mirroring mechanisms in the observer. This empathetic and physical encounter of the viewer with the representational content and form of the work is crucial to the understanding of abstract conceptual thought in film.

Keywords: aesthetic experience, conceptual metaphor, embodied mind, embodied aesthetics, filmic metaphor, image schemas, mirror neurons

In the perception of shape lies the beginnings of concept formation.
—Rudolf Arnheim (1969)

Proponents of conceptual metaphor theory (CMT) claim that knowledge of abstract phenomena is only possible by linking these to concrete experiences. The conceptual metaphor mind is body is at the core of this theory (Lakoff and Johnson 1999).[1] According to Lakoff and Johnson, thought is fundamentally embodied, that is human beings use physical experiences to metaphorically structure thoughts about abstract phenomena. For example, we speak about time in terms of space ("the deadline is *ahead of us,*" "time *flies by,*" "we are *nearing* the end of the year") or we describe emotions in terms of forces ("she *fought* against her tears," "he *suppressed* his fears"). In order to further emphasize their claim of an "embodied mind," both Johnson (1987) and Lakoff (1987) point to image schemas. These recurring patterns of our sensomotoric experiences (for example in-out, front-behind, and part-whole) play a crucial role in answering the following question: How is abstract, philosophical thinking possible? Conceptual metaphor theory needs to address the following problem: the existence of image schemas is based nearly exclusively on

Projections
doi: 10.3167/proj.2012.060206
Volume 6, Issue 2, Winter 2012: 84–101 © Berghahn Journals
ISSN 1934-9688 (Print), ISSN 1934-9696 (Online)

verbal manifestations (see also Forceville 2011). To ascertain the veracity of the claim that human beings use image schemas to make the world around them comprehensible, it is therefore of pivotal importance to take non-verbal modalities into account as well (see also Johnson 2007). This article aims to contribute to this debate by appreciating the significant role of the body in film. After introductory remarks concerning image schemas, the article shows how they are used by filmmakers and their collaborators to convey abstract meaning to the viewer. The article concludes with a discussion of the role of image schemas in the viewer's aesthetic experience.

Image Schemas: An Introduction

Although the term image schema is in itself no novelty, continuing on the ideas of Immanuel Kant (1724–1804) and Maurice Merleau-Ponty (1908–1961) among others, it first appeared simultaneously in *The Body in the Mind* (Johnson 1987) and in *Women, Fire, and Dangerous Things* (Lakoff 1987).[2] Johnson describes the image schema as follows:

> *An image schema is a recurring dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience. . . . Experience is to be understood in a very rich, broad sense as including basic perceptual, motor-program, emotional, historical, social and linguistic dimensions. (1987: xic, xvi)*

Let us illustrate this by using a schema that Johnson (1993: 166) considered to be of fundamental importance to our thinking: the *source-path-goal* schema or SPG. While swimming, running, walking, or moving in any other way, a certain structure or pattern emerges as a person moves from an initial condition A (source) over a pathway C (path) toward a destination B (goal). This is what Johnson calls an image schema. The schema is abstract in nature because it needs to be general and applicable to a wide range of experiences. Alternatively, it is also concrete because it is grounded in our daily physical interactions with the world. In his reading of Lakoff and Johnson, Hampe (2005: 1) summarizes the main characteristics of an image schema as follows:

- Images schemas are directly meaningful, preconceptual structures grounded in our physical movements through space and in our perceptual and physical interactions with objects.
- Image schemas are highly schematic gestalts, conveying the structural contours of our sensomotoric experiences in a general way. Because of their abstract and unspecified nature, image schemas are never just physical. There is always a mental aspect involved.
- Image schemas exist as recurring and analogous patterns beneath the level of conscious awareness and prior to theoretical and conceptual re-

flection.[3] They come to being automatically and prereflectivily in our daily physical interaction with the world.

- Being gestalts, they are internally structured (i.e., they are composed of very few related parts) and they are very flexible. Because of this flexibility, a single image schema can manifest itself in multiple domains. For example, a part of the body may not have anything to do with a part of a theory, but both share a joint organisational structure. As such, similarities can be discerned between concepts that may seem vastly different at first sight.

Other examples mentioned by Johnson (1987, 2005) include the image schemas in-out, center-periphery, close-far, front-back, and so on. What these often self-evident image schemas have in common is their basis in a shared physical experience. This uniformity grants image schemas a certain objectivity, which protects them from sheer subjectivity and relativism.

Johnson (1987, 2005, 2007) argues that the structure of these shared physical experiences forms the base for rational and abstract thought. More precisely, image schemas can be extended metaphorically to the realm of abstract phenomena. Johnson (2005: 24) writes: "The central idea is that image schemas, which arise recurrently in our perception and bodily movement, have their own logic, which can be applied to abstract conceptual domains. Image-schematic logic then serves as the basis for inferences about abstract domains." To illustrate this point, he refers to the schema of balance, which is often used to structure a rational argument (Johnson 1987: 89): "When I set out to convince others of my view, I *pile up evidence, amass facts,* and *build up a weighty argument*. Ideally, anyone who listens to my argument will *weigh* its merits. Two arguments may *carry equal weight,* so we then try to *tip the scale* in favor of our view by *adding* further evidence. If we are successful, we feel the *balance tip* in our favour, as we add to our argument." As such, the balance image schema allows one to understand the abstract in terms of the concrete.

If Lakoff and Johnson are indeed correct in claiming that the body plays a fundamental part in conceptualising abstract phenomena through its mediating role, it is plausible to assume that non-verbal manifestations of conceptual metaphors exist as the metaphoric belongs to the realm of thoughts and not of words.

The conceptual metaphor theory is, however, limited in a key way. As Forceville (2009, 2011) rightly points out, most studies are based solely on verbal manifestations of conceptual metaphors. If Lakoff and Johnson are indeed correct in claiming that the body plays a fundamental part in conceptualizing abstract phenomena through its mediating role, it is plausible to assume that non-verbal manifestations of conceptual metaphors exist as the metaphoric belongs to the realm of thoughts and not of words.

Language only covers one modality that conveys the physical and metaphorical interconnections of

our thinking. If body and mind are interwoven, this connection should be visible through other modalities as well. Language is not the only bearer of embodied meaning (see also Johnson 2007: 207–234). As the focus is left on the verbal, there is a risk of engaging in circular reasoning where the existence of image schemas is only proven on the basis of spoken and written words. Critics of the conceptual metaphor theory might posit the counterargument that the conceptual domain and that of language are fundamentally the same, which would severely undermine the credibility of CMT. To respond to these objections, it is of pivotal importance that non-verbal expressions are brought into account. This in turn motivated Charles Forceville (2009, 2011) to confront CMT claims by considering them in the light of multimodal and non-verbal manifestations of conceptual metaphor.

Following Forceville, we hereby attempt to contribute to this debate by appreciating the significant role of the body in film. More precisely, an analysis of specific film images allows us to illustrate how filmmakers and their collaborators make use of image schemas to convey abstract meaning to the viewer.

Image Schemas in Film

In the second chapter of his book *The Cognitive Semiotics of Film,* Warren Buckland (2000) pleads for a renewed appreciation of the corporeal dimension within film theory. Backed by insights acquired by Lakoff and Johnson and their notion of image schemas, he makes it his goal to vanquish what he considers symptomatic in cognitive and psychoanalytical reflections on film: the neglect of the body. Buckland engages in a discussion with David Bordwell, among others. Like Lakoff and Johnson, Bordwell has developed a theory based on schemas. However, whereas the conceptual metaphor theory uses a definition that is intrinsically dynamic and connected to the body, Bordwell, according to Buckland (2000: 31–32), offers a view of schemas that is abstract, disembodied, transcendent, and static.

In his book *Narration in the Fiction Film* David Bordwell (1985) typifies the narrative film as inherently incomplete. More specifically, he posits that the logical form is incomplete, but that this gap is filled by the active mental intervention of the viewer. To illustrate this position, he refers to the narratological distinction between *fabula* and *syuzhet,* drawn from Russian Formalism (see, e.g., Tomashevsky 1965). The *fabula* or story not only describes all visible and audible events, it also conveys all events that are assumed by the viewer, in chronological and causal order. Conversely, the *syuzhet* or plot consists of the visible and audible events that occur during the film as seen and heard by the viewer. In order to reconstruct the *fabula*—the narrative logic of the film—Bordwell believes that the viewer uses specific schemas. These are abstract mental structures that organize the perceptual cues in the plot into a coherent and comprehensible mental whole. One of the most important

schemas is that of cause-and-effect, a schema allowing the viewer to causally link the events of a film.

For Buckland this view strongly exemplifies a top-down approach. Bordwell conceives schemas as abstract conceptual structures (top) that relate to the perceptual chaos (bottom) of what the film shows or makes audible. As such, Buckland (2000: 31) argues, he isolates the physical grounding of schemas and describes their function merely in terms of the creation of literal meaning, leaving no room for metaphors. As he puts it: "Bordwell's cognitivism follows the philosophy of the subject in that both involve disembodiment and the subject's isolation from language" (Buckland 2000: 32).

Although Buckland certainly makes a point in addressing the bodily roots of schemas, his criticism of Bordwell seems somewhat strong for the following reasons.

First, Bordwell is said to have developed a strong disembodied theory of schemata. In light of more recent claims this objection seems somewhat unjustified and outdated. In *Poetics of Cinema* (2008), for example, Bordwell discusses the relationship of bottom-up to top-down processes, and acknowledges the possible embodiment of "higher-order" activities:

> *The top-down-bottom-up distinction drastically simplifies a complex process that would probably be best modelled along several dimensions rather than a single vertical one. . . . Psychological research in the cognitive paradigm has steadily diminished claims for a blank-slate conception of the human mind and belief in the unlimited plasticity of human capacities. More and more activities seem traceable to humans' supersensitive natural endowment. . . . As research goes on, many "higher-order" activities will probably be revealed as grounded in a rich perceptual system present at birth but awaiting activation and tuning from the environment. (Bordwell 2008: 45)*

Second, by rejecting Bordwell's account of abstract schemas and substituting it with Johnson's embodied concept of image schemas, Buckland treats both schemas at the same level, thus making abstraction of the functional and hierarchical discrepancy between the two. Gallese and Lakoff (2005) and Dodge and Lakoff (2005), for example, refer to image schemas such as SPG and containment as "primitive," suggesting that other schemas might be more complex, less clearly tied to the body. A more reasonable account would be then to argue that simpler bodily schemas such as SPG are used to structure complex schematic structures such as causation. Indeed, if our understanding of abstract thought is structured in terms of our perceiving and doing, as Johnson (2005: 16) argues, then the same bodily structures must be appropriated to shape our understanding of abstract schemas such as cause-and-effect as well. Hence, if image schemas are metaphorically recruited to

understand abstract schemas (for a discussion of causation, see, e.g., Johnson 2008), then the former cannot act as a substitute for the latter.

If image schemas are metaphorically recruited to understand abstract schemas then the former can not act as a substitute for the latter.

Furthermore, Buckland seems to suggest that all schemas and all metaphors derive from the body and not from the world outside of our bodies. Adopting this perspective neglects, however, the importance of culture (Kövecses 2005; Yu 1998,) and history (Blumenberg 1998) in characterizing metaphor and schemas. As Westra (2010: 128) argues by referring to Blumenberg's metaphorology, we should avoid the temptation to reduce all metaphor to the sphere of embodiment: "Both approaches (embodiment and the cultural/historical dimension) can, and even should be, viewed as complementary for an overall theory of metaphor."

In this article we propose, then, to adopt a moderate view of image schemas. Rather than rejecting Bordwell's theory, we argue that both views can be complimentary. Image schema theory does not have to rule out a more abstract account of schemas. Following Buckland (2000), although not in an absolute way, and some other recent studies (Branigan 2003, 2006; Forceville 2011; Forceville and Jeulink 2011; Kappelhoff and Müller 2011) we plead for a renewed appreciation of the body by considering Lakoff and Johnson's notion of image schemas in the light of the filmic medium. Whereas Buckland (2000: 46–51) tries to determine how a specific schema can be applied to general concepts from film theory such as frame or diegesis, we opt to illustrate the process of embodied meaning by showing some of the ways in which image schemas operate in significant film scenes. In what follows we describe five image schemas in film, and we show how they determine the structure of abstract conceptual thought. In discussing each image schema, we sometimes refer to linguistic examples. This, however, does not imply that linguistic metaphors are needed for the viewer in order to grasp the meaning of the scene in question. By bringing them in, we only want to draw attention to CMT's claim that metaphor is primarily conceptual, a matter of thought. Therefore, the same image schema can operate in film as well as in language. Both media are manifestations of one and the same conceptual metaphor.

The same image schema can operate in film as well as in language. Both media are manifestations of one and the same conceptual metaphor.

Container This schema is essential to our physical experience and is characterized by the attributes inside, border, and outside. Concerning the metaphorical application, Lakoff and Johnson (1980: 30) note that the visual field is generally perceived as a container, as things appear *in* and *out of* view ("there is nothing *in* view," "she is *out of* sight," "I can't see him because that tree is *in* the way"). A complex filmic application of this image schema is of-

fered by a scene from *Spartacus* (1960). The film shows Julius Caesar (John Gavin) in a Roman bath while he is conversing with patrician and strategist Marcus Licinius Crassus (Laurence Olivier). The men are opposite each other and depicted without interference of cutting. Crassus *fills* the left side of the filmic space, Caesar the right. Crassus has decided to manipulate Caesar in order to get rid of his political opponent in the Senate, the hedonist Sempronius Gracchus (Charles Laughton). When later on Gracchus joins the conversation, the mise-en-scène is adjusted. Caesar moves toward the neutral center of the screen, flanked by the two sides between which he will have to choose (Figure 1). Then Crassus leaves the scene, emptying the filmic space he was occupying. Caesar then rises and puts himself opposite Gracchus, thus occupying the same space (or container) that was inhabited by Crassus (Figure 2). Where his position had been neutral before, he has now chosen a side. This change in the state of affairs is confirmed by a play with shot-reverse shots. Both men no longer *fill* the same filmic space (container). As such, the concrete (in this case our shared physical experience of *in* and *out*) is metaphorically extended and used to express the abstract political machinations of the corrupt Roman aristocrats. In other words, the image schema of a container functions as a solution to the problem of how to express political power struggles cinematically.[4]

Figures 1–2. Spartacus: *The container image schema*

Source-Path-Goal In their study on the SPG schema in animation, Forceville and Jeulink (2011) show how this image schema plays a crucial role in conceptualizing time. In the short animation film *O* (1996), for example, the SPG schema is instantiated by movement from right (past, birth) to left (future, death), thus spatially suggesting the protagonist's maturing and ageing. But live action films make use of this schema as well. In a scene from *Professione: Reporter* (1975), the images betray the use of the SPG schema to solve the filmic problem of a flashback. When foreign correspondent David Locke (Jack Nicholson) switches his identity for deceased weapons dealer Robertson's (Charles Mulvehill), the film goes back in time to a conversation between the two men. This flashback occurs as follows: the camera moves uninterruptedly in a horizontal way from an initial condition A (the present: Locke at the table while he trades his passport photo for Robertson's) over a pathway C to destination B (the past: both men talking on the veranda) and then returns from B (the past) to A (the present). As the movement takes place horizontally, the schema left-right is part of the metaphoric conveyance. The left side of the room is temporally one with the past, the right corresponds to the present. Movement into the depth of the screen would turn the schema into front-behind. Think, for example, of the opening scene from *Murder, My Sweet* (1944). As this time-moving metaphor (see also Gentner and Imai 1992; Lakoff and Johnson [1980] 2003) depends on a filmic parameter (in this case: the movement of the camera), it can be called a filmic metaphor, following Rohdin (2009).

Center-Periphery This image schema finds its physical roots in the experience of the body as center and in that of the perceptual field as periphery. It can be described briefly as follows: a perceived object gains intensity as it approaches the center (see also Deane 1995: 633). The shorter the distance to the center, the greater the potential for interaction and intimacy, and vice versa. In the American war film *Casualties of War* (1989), dealing with the abduction and rape of a Vietnamese teenage girl by four American soldiers, this image schema is used to metaphorically emphasize Sgt Meserve's (Sean Penn) dominant position within his group of soldiers. The film shows a static shot of Sgt Meserve in the foreground while he is shaving. His four subjects are in the background. The image is constructed symmetrically, visually accentuating the vertical axis in the middle. This separation is given emphasis in the antefilmic space by the presence of a hanging blanket in the middle of the screen, separating the two entities. Sgt Meserve is standing to the right of the blanket while the soldiers can be seen to its left. The information within this frame is more or less constant. Neither the camera nor the characters move in any way that calls attention to itself, keeping the structure of the image stable. The shot makes use of the split-focus technique (keeping the foreground and

the background into focus at the same time), suggesting that the film deliberately chooses to keep as short a distance as possible between Sgt Meserve and the camera. As the leader of the group, he is centralized, while his soldiers remain in the periphery. Because of this, he gains intensity and his dominant position is suggested to the viewer. As such, the positional terms front and back are laden with abstract meaning in this context. On top of that, the sergeant is shown to the right of the screen, not the left. As the viewer's gaze seems to be drawn to the right when reading an image in a static frame, the character in the right of the frame is always given more attention than the scene in the left (Gross and Bomstein 1978). This discovery from perceptual psychology is used metaphorically to motivate Sgt Meserve's position within the frame.

Verticality The schema vertically or high-low/top-down finds its physical roots in numerous experiences. As a rule, people tend to lie down while sleeping and get up when waking up. Happiness and sadness are often metaphorically understood in terms of this schema ("I *fell into* a depression," "the morale *sank*," "my joy was *rising*"). Control and submission are also articulated through this schema. Earlier we discussed how the image schema center-periphery served to answer the psychological (and as such, abstract) control exercised by Sgt Meserve in *Casualties of War.* Another scene from the same film shows how the vertically image schema can play the same role as a possible filmic alternative. In one shot, the film shows Sgt Meserve in worm's-eye view (low angle) while the object of his gaze (the soldiers) is filmed in bird's-eye view (high angle). The effect of this subjective style of shooting is that of Sgt Meserve looking down on his subjects like a divine figure. The spatial terms *low* and *high* receive the connotations of submission and control, respectively. This way, the film evokes the conceptual metaphor *control is high, being submitted to control is low* (see also Lakoff and Johnson [1980] 2003: 15). In this example, we are dealing with a filmic metaphor where the camera angle is responsible for evoking the conceptual metaphor in the viewer. Besides the angle, filmmakers could choose to make use of the antefilmic space as well. For example, American director Joseph Losey is known to use the vertical dynamic of the stairs metaphorically in order to represent the dialectic between master and slave and the corresponding relationship of the domineering and the submissive (examples can be seen in *The Servant* [1963] and *Accident* [1967]).

Balance Finally, the balance image schema finds its roots in the physical experience of the symmetrical distribution of gravitational forces relating to a central axis, such as the balance exercised by a rope dancer. In his book *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason,* Mark Johnson (1987) describes how the physical experience of balance metaphori-

cally relates to the visual content of art. This image schema would explain why the perception of symmetry is often experienced as pleasant, as the content of the art seems to metaphorically imitate the physical experience of balance and symmetry.

However, the image schema can also be used to express oppositions on a higher and more abstract level. An example of this can be found in *You Only Live Once* (1937). In this fatalistic drama of doom directed by Fritz Lang, Henry Fonda plays ex-convict Eddie Taylor who cannot seem to find a steady job in the outside world. He marries Joan Graham (Sylvia Sidney) and the couple has a child. When Taylor is wrongfully accused of murder, he runs away. In his attempt to escape from the police, Taylor ultimately commits an actual murder, which leads to a grim and untimely death for himself and his beloved. In order to express a dying faith in modern society (represented in the film by institutions such as the Church, the judicial system and prison), on the one hand, and the unity of love, on the other, the film makes clever use of the balance image schema. The first part of the film has the camera showing Taylor in the presence of his priest and his attorney. He is allowed to leave prison. The three characters walk toward the exit of the prison, which serves as a gateway to his beloved. The walking action is filmed with a lateral traveling shot, following the characters toward the exit. The scene is filmed in a striking way. The camera bobs up and down, partially cutting off Fonda's face in the top edge of the screen (Figure 3). When the metal gate is opened, the situation changes. Another traveling movement is used, this time a very pure and precise movement straight toward Joan (Figure 4). This way the film restores a sense of security to the images that was lacking before. When Eddie sees Joan, balance is returned. She gives him the certainty that he is moving in the right direction. The deliberately erratic movements of the image, inside and outside, represented his sense of unease and the possibility of things going

Figures 3–4. You Only Live Once: *The balance image schema*

wrong again, an omen of the doom that awaits later in the film. It is also worth noting that the couple is shown in the center of the screen when they are renewed. The only source of security is not the Church or the judicial system, but love. This idea is communicated metaphorically using the image schema of balance.[5]

Image Schemas and the Viewer: On Mirror Neurons and Aesthetic Experience

So far we have restricted ourselves to a discussion concerning image schemas on the level of specific filmic images. Now the following question arises: how do these image schemas relate to the viewer? How is the (physical) viewer related, for example, to the (embodied) SPG schema from *Professione: Reporter*? This question is crucial because the film maker has the intention to *transfer* abstract content. This primarily requires the viewer to relate to the embodied aspects of the image schemas on screen—whether this occurs consciously or not. The body functions as a conduit for abstract conceptual thought. Without this conformity between object and subject, no transference can take place.

The recent discovery of "mirror neurons" within the domain of neuroscience (Gallese et al. 1996; Rizzolatti et al. 1996) offers a possible answer to the question of how this bridge can be made. These neurons, considered by some to be one of the most important discoveries in modern brain science, are spread over crucial parts of our brain: the premotor cortex and posterior parietal cortex. The remarkable quality of the mirror neuron system (MNS) is that it not only activates when we perform a certain action, but also when we see another person performing that same action. When the MNS is activated, the observation of an action triggers the same neural networks that are active during its execution (Freedberg and Gallese 2007: 200). They are called mirror neurons because the visual characteristics of the neurons (the visual stimuli activating the neurons during the passive act of watching) reflect the motoric activity (the motoric actions neurons activate when performing the action in question). The discovery of this mechanism suggests that, when we see another person performing an action, we are mentally performing the same action. In short, this means that each action we witness, we repeat in our minds, whether it is Buster Keaton's acrobatics or the ambiguous smile on Liv Ullmann's face in Ingmar Bergman's *Persona* (1966). On a more fundamental level, this means that there is probably a biological dynamic that supports our understanding of others and the complex exchange of abstract ideas.

Recognizing the implications of the discovery of mirroring mechanisms for our understanding of art, Freedberg and Gallese (2007) and Gallese (2010, 2011) have been among the first to apply this model from neuroscience to aesthetic experience. In their study, they describe the aesthetic experience as pri-

marily a physical encounter of the viewer with the artwork where the work—whether it be a static work such as a building or a painting, or moving art such as film or dance—activates all kinds of mechanisms in the viewer including the simulation of actions, emotions, and tactile sensations. This discovery of a physical relation between object and subject as a basis for aesthetic experience is not new. In 1873 Robert Vischer (1994) already introduced the concept of empathy or *Einfühlung* in the domain of aesthetics. Vischer described *Einfühlung* as the physical response caused by the form within a painting.[6] According to him, symbolic shapes get their meanings primarily from their embodied and anthropomorphic content. What is new in Freedberg and Gallese is the connection of this notion of empathy to mirror neurons. As such, they bring the discussion on the aesthetic role of empathy from a metaphysical and intuitive level to a material and physical level (the definable structure of the body and the brain). Mirror neurons therefore form an empirical and objective basis for the role of empathy and emotion in the aesthetic experience of the viewer. Suddenly, empathy is given a more important role than it has traditionally been endowed by art historians such as E. H. Gombrich (1960) and R. H. Collingwood (1938) whose focus was on the cognitive aspects of art. As such, the concepts of empathy and emotion are freed from their position of isolation and neglect.

Freedberg and Gallese's (2007) theory on empathy is expressed through two complementary aspects of relations. First, there is the "relation between embodied empathetic feelings in the observer and the representational content of the works in terms of the actions, intentions, objects, emotions and sensations depicted in a given painting or sculpture" (ibid.: 199). This aspect can be described as the what of the aesthetic experience. Second, there is the "relation between embodied, empathetic feelings in the observer and the quality of the work in terms of the visible traces of the artist's creative gestures, such as vigorous modelling in clay or paint, fast brushwork and signs of the movement of the hand more generally" (ibid.). This aspect is the how of the aesthetic experience and refers more generally to the form of the artwork. In this case the sense of the felt bodily response arises not from any seen actions, but from the implied movement of the artist. Think for example of the grandiose strokes of Peter Paul Rubens or of Jackson Pollock's action painting. Although Freedberg and Gallese mostly focus on painting, film can be recognized to share these two sources of aesthetic experience. On the one hand, physical experiences can be evoked in the viewer by events and actions on the antefilmic level, that what is being depicted in front of the camera.

The embodied mechanisms can be activated in the viewer by events on the filmic level.

On the other hand, the embodied mechanisms can be activated in the viewer by events on the filmic level. It is mainly in this category that the examples discussed above can be categorized. Think of *Pro-*

fessione: Reporter, for example, where a horizontal camera movement, as a filmic parameter, evokes the embodied SPG image schema. Schematically, Freedberg and Gallese's theory can be represented as the following dualistic model of aesthetic experience (Figure 5):

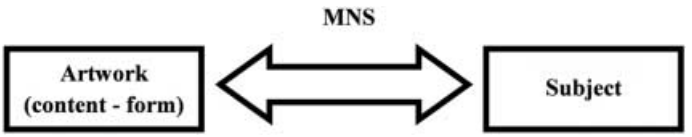

Figure 5. Dualistic model of aesthetic experience

Freedberg and Gallese's theory is, however, limited in one important way. Challenging the primacy of cognition in responses to art, Gallese and Freedberg define aesthetic experience almost exclusively in terms of a physical relation. Little attention is given to the abstract and cognitive dimension of aesthetic experience. Their dualistic approach mostly focuses on the physical connectivity between the work and the viewer, while in fact this physical relation could in turn form a bridge to the construction of meaning on a higher, more conceptual level. For example, in *Professione: Reporter,* the aesthetic feelings are not limited to a physical relation between the viewer and the work (based on the SPG schema). The conformity between the form of the film, on the one hand, and the subject's body, on the other hand, constitutes an opening to the conveyance of abstract meaning (the exposition over time) where the body functions as the source domain for the metaphoric clarification of the abstract target domain. The image schema that is expressed in the form (a camera movement, a concrete expression of the work) and that metaphorically refers to the concrete repertoire of the viewer's experiences (physical actions such as swimming or walking), is then again applied metaphorically in order to convey an abstract phenomenon. In other words, the aesthetic experience that is the result of a physical intertwining of the subject and the object (as seen in Freedberg and Gallese) can trigger a further cognitive application of the aesthetic experience. Note that this opening to a deeper, conceptual level is entirely determined by the body. The abstract content cannot be formed without the physical mediation between object and subject. Through the image schema, the abstract always refers to the physical, so that the former cannot be seen separately from the latter. The cognitive aspect of the aesthetic experience always implies a sen-

The image schema that is expressed in the form (a camera movement, a concrete expression of the work) and that metaphorically refers to the concrete repertoire of the viewer's experiences (physical actions such as swimming, walking, etc.), is then again applied metaphorically in order to convey an abstract phenomenon.

sory aspect. Taking these observations into account, Freedberg and Gallese's dualistic model can be extended to a three-part model (see Figure 6):

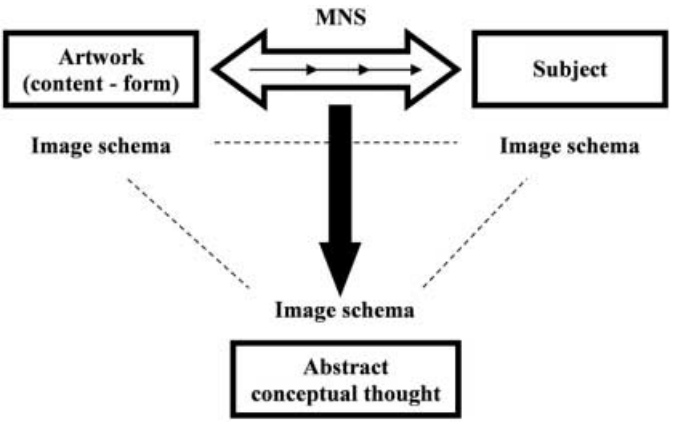

Figure 6. Three-part model of aesthetic experience

Conclusion

In his 1873 essay "Über das optische Formgefühl: Ein Beträg zur Ästhetik," Robert Vischer distinguishes between *Sehen* and *Schauen*. The former he describes as the mere passive and unconscious experience of physiological stimuli where the stimuli received have not yet been transformed and ordered into a meaningful, living whole. It is the task of the process of *Schauen* to achieve that transformation and order. Vischer typifies *Schauen* as follows:

> *Scanning (*Schauen*) is more conscious than mere seeing (*Sehen*), for it sets out to analyze the forms dialectically (by separating and reconnecting the elements) and to bring them into a mechanical relationship. Scanning alone makes a complete artistic presentation possible, for its movement . . . is accompanied by an impelling animation of the dead phenomenon, a rhythmic enlivening and revitalization of it. . . . Once I have accomplished the process of scanning, the impression of seeing is repeated on a higher level. What I have seemingly separated I have reassembled into an ordered and restful unity. Again I have an enclosed, complete image, but one developed and filled with emotion. To chaotic "Being" I called "Become!" (1994: 94)*

This article has focused on the second form of viewing. We have shown how filmic images are anchored in bodily experience via image schemas. This thesis is biologically and neurologically justified by the recent discovery of mirror neurons, which may serve as an explanatory model for the empathic exchanges between object and subject. The result of this process is a kind of harmony between the viewer as a physical subject and the filmic images. Our

analysis of specific filmic images has allowed us to conclude that this conformity between the two can be applied metaphorically to convey abstract meaning. Embodied image schemas such as container, SPG schema, center-periphery, , verticality, and balance are applied metaphorically in order to express abstract phenomena such as power struggles, psychological conditions, and the movement of time. Therefore, our analysis allows us to appreciate both the cognitive and the physical dimension of aesthetic experience. In this way, our article offers a nuanced middle road between the purely cognitive and the purely physical. Let us conclude by quoting Warren Buckland (2000: 51): "Perception is not a process that involves a relation between the eye and the mind (whether conscious or unconscious); more fundamentally, it involves the metaphorical projection of the body on screen and in frame."

Maarten Coëgnarts has an MA in Film Studies and Visual Culture from the University of Antwerp and MA in Sociology from the University of Antwerp. His research primarily focuses on metaphor in film and embodied visual meaning. He also has a special interest in film analysis and in the relation between film and philosophy.

Peter Kravanja holds MS and PhD in Mathematical Engineering and Computer Science from the Katholieke Universiteit Leuven, MA in Cinema Studies from the Université de la Sorbonne Nouvelle—Paris 3, and BA in Philosophy from the Katholieke Universiteit Leuven. His research interests include analytic philosophy of art applied to cinema, filmic metaphors, questions concerning analysis, interpretation, and form, as well as the relation between film and the other arts.

Notes

[1] In cognitive or conceptual metaphor theory it is common to use small capital letters to indicate that these particular wordings are not a matter of language, but of concepts, belonging to the realm of human thought. These concepts are underlying the very nature of our daily metaphorical expressions (linguistic or otherwise).

[2] According to Kant ([1781/1787] 1999), the schema—which he described as "an art hidden in the depths of the human soul"—was the third instance allowing the application of purely cognitive concepts (categories) on sensory experiences.

[3] We refer to the distinction made by German philosopher Martin Heidegger between *Vorhandensein* and *Zuhandensein*. The former marks the relation between man and thing as a conscious and theoretical one. The latter has its meaning flowing forth from the way we relate to all things in our daily existence.

[4] For a similar reflection on this scene—albeit not from a metaphorical angle—see Günther (2004).

[5] These reflections are partly inspired by the insights of French filmmaker Claude Chabrol who analyzes a few scenes from the film in the short documentary *Fritz Lang par Claude Chabrol* (2003), which can be viewed as an extra feature on the Region 2 DVD of *You Only Live Once* (EAN: 5050582501704).

[6] We refer to the observations on art theory made by Aby Warburg and Maurice Merleau-Ponty. See Rampley (1997) for a discussion by Aby Warburg relating to Robert Vischer.

References

Arnheim, Rudolph. 1969. *Visual Thinking*. Berkeley and Los Angeles: University of California Press.

Blumenberg, Hans. 1998. *Paradigmen zu einer Metaphorologie*. Frankfurt am Main: Suhrkamp.

Bordwell, David. 1985. *Narration in the Fiction Film*. London: Routledge.

Bordwell, David. 2008. *Poetics of Cinema*. New York: Routledge.

Branigan, Edward. 2003. "How Frame Lines (and Film Theory) Figure." Pp. 59–86 in *Film Style and Story: A Tribute to Torben Grodal,* eds. Lennard Hojbjerg and Peter Schepelern. Copenhagen: Museum Tusculanum Press.

Branigan, Edward. 2006. *Projecting a Camera: Language-Games in Film Theory.* New York: Routledge.

Buckland, Warren. 2000. *The Cognitive Semiotics of Film*. Cambridge: Cambridge University Press.

Collingwood, Robin George. 1938. *The Principles of Art*. London: Oxford University Press.

Deane, Paul D. 1995. "Metaphors of Center and Periphery in Yeats' *The Second Coming*." *Journal of Pragmatics* 24 (6): 627–642.

Dodge, Ellen, and George Lakoff. 2005. "Image Schemas: From Linguistic Analysis to Neural Grounding." Pp. 57–91 in *From Perception to Meaning: Image Schemas in Cognitive Linguistics,* ed. Beate Hampe. Berlin: Mouton de Gruyter.

Forceville, Charles. 2009. "Non-verbal and Multimodal Metaphor in a Cognitivist Framework: Agendas for Research." Pp. 19–42 in *Multimodal Metaphor,* eds. Charles Forceville and Eduardo Urios-Aparisi. Berlin: Mouton de Gruyter.

Forceville, Charles. 2011. "The Journey Metaphor and the Source-Path-Goal Schema in Agnès Varda's Autobiographical Gleaning Documentaries." Pp. 281–297 in *Beyond Cognitive Metaphor Theory: Perspectives on Literary Metaphor,* ed. Monika Fludernik. London: Routledge.

Forceville, Charles, and Marloes Jeulink. 2011. "The Flesh and Blood of Embodied Understanding: The Source-Path-Goal Schema in Animation Film." *Pragmatics & Cognition* 19 (1): 37–59.

Freedberg, David, and Vittorio Gallese. 2007. "Motion, Emotion and Empathy in Aesthetic Experience." *Trends in Cognitive Sciences* 11 (5): 197–203.

Gallese, Vittorio. 2010. "Mirror Neurons and Art." Pp. 441–449 in *Art and the Senses,* eds. Francesca Bacci and David Melcher. Oxford: Oxford University Press.

Gallese, Vittorio. 2011. "Seeing Art . . . Beyond Vision. Liberated Embodied Simulation in Aesthetic Experience." Pp. 62–65 in *Seeing with the Eyes Closed,* eds. Alexander Abbushi, Ivana Franke and Ida Mommenejad. Berlin: Association of Neuroesthetics.

Gallese, Vittorio, Luciano Fadiga, Leonardo Fogassi, and Giacomo Rizzolatti. 1996. "Action Recognition in the Premotor Cortex." *Brain* 119 (2): 593–609.

Gallese, Vittorio, and George Lakoff. 2005. "The Brain's Concepts: The Role of the Sensory-Motor System in Conceptual Knowledge." *Cognitive Neuropsychology* 22 (3/4): 455–479.

Gentner, Dedre, and Mutsumi Imai. 1992. "Is the Future Always Ahead? Evidence for System-Mappings in Understanding Space-Time Metaphors." Pp. 510–515 in *Proceedings of the Fourteenth Annual Meeting of the Cognitive Science Society.* Bloomington, IN: Erlbaum.

Gombrich, E. H. 1960. *Art and Illusion: A Study in the Psychology of Pictorial Representation.* London: Phaidon.

Gross, Charles, and Marc Bornstein. 1978. "Left and Right in Science and Art." *Leonardo* 1 (1): 29–38.

Günther, Winfried. 2004. "A Shot Conveys an Outlook: Some Aspects of Mise-en-scène in *Spartacus*." Pp. 57–65 in *Kinematograph: Stanley Kubrick,* eds. Bernd Eichorn et al. Frankfurt Am Main: Deutsches Filmmuseum.

Hampe, Beate. 2005. "Image Schemas in Cognitive Linguistics: Introduction." Pp. 1–12 in *From Perception to Meaning: Image Schemas in Cognitive Linguistics,* ed. Beate Hampe. Berlin: Mouton de Gruyter.

Johnson, Mark. 1987. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason.* Chicago: University of Chicago Press.

Johnson, Mark. 1993. *Moral Imagination: Implications of Cognitive Science for Ethics.* Chicago: University of Chicago Press.

Johnson, Mark. 2005. "The Philosophical Significance of Image Schemas." Pp. 15–33 in *From Perception to Meaning: Image Schemas in Cognitive Linguistics,* ed. Beate Hampe. Berlin: Mouton de Gruyter.

Johnson, Mark. 2007. *The Meaning of the Body: Aesthetics of Human Understanding.* Chicago: University of Chicago Press.

Johnson, Mark. 2008. "Philosophy's Debt to Metaphor." Pp. 39–52 in *The Cambridge Handbook of Metaphor and Thought,* ed. Raymond W. Gibbs, Jr. New York: Cambridge University Press.

Kant, Immanuel. [1781/1787] 1999. *Critique of Pure Reason.* Cambridge: Cambridge University Press.

Kappelhoff, Herman, and Cornelia Müller. 2011. "Embodied Meaning Construction: Multimodal Metaphor and Expressive Movement in Speech, Gesture, and Feature Film." *Metaphor and the Social World* 1 (2): 121–153.

Kövecses, Zoltán. 2005. *Metaphor in Culture: Universality and Variation.* Cambridge: Cambridge University Press.

Lakoff, George. 1987. *Women, Fire and Dangerous Things: What Our Categories Reveal About the Mind.* Chicago: University of Chicago Press.

Lakoff, George, and Mark Johnson. [1980] 2003. *Metaphors We Live By.* Chicago: University of Chicago Press.

Lakoff, George, and Mark Johnson. 1999. *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.

Rampley, Matthew. 1997. "From Symbol to Allegory: Aby Warburg's Theory of Art." *Art Bulletin* 79 (1): 41–55.

Rizzolatti, Giacomo, Luciano Fadiga, Vittorio Gallese, and Leonardo Fogassi. 1996. "Premotor Cortex and the Recognition of Motor Actions." *Cognitive Brain Research* 3 (2): 131–141.

Rohdin, Maths. 2009. "Multimodal Metaphor in Classical Film Theory from the 1920s to the 1850s." Pp. 403–428 in *Multimodal Metaphor,* eds. Charles Forceville and Eduardo Urios-Aparasi. Berlin: Mouton de Gruyter.

Tomashevsky, Boris. 1965. "Thematics." Pp. 61–95 in *Russian Formalist Criticism: Four Essays,* eds. Lee Lemon and Marion Reis. Lincoln: University of Nebraska Press.

Vischer, Robert. 1994. "On the Optical Sense of Form." Pp. 89–123 in *Empathy, Form and Space: Problems in German Aesthetics, 1873–1893,* trans. and eds. Harry Francis Mallgrave and Eleftherios Ikonomou. Santa Monica: Getty Center for the History of Art and the Humanities.

Westra, Adam. 2010. "Review of Hans Blumenberg's Paradigms for a Metaphorology." Trans. Robert Savage. *Ithaque* 7 (1): 119–129.

Yu, Ning. 1998. *The Contemporary Theory of Metaphor: A Perspective from Chinese.* Amsterdam and Philadelphia: Benjamins.

Filmography

Antonioni, Michelangelo. 1975. *Professione: Reporter* (*The Passenger*). Italy and Spain.

Bergman, Ingmar. 1966. *Persona*. Sweden.

Clert, Vassili. 2003. *Fritz Lang par Claude Chabrol*. France.

De Palma, Brian. 1989. *Casualties of War.* USA.

Dmytryk, Edward. 1944. *Murder, My Sweet*. USA.

Khurana, Kireet. 1996. *"O".* India.

Kubrick, Stanley. 1960. *Spartacus*. USA.

Lang, Fritz. 1937. *You Only Live Once*. USA.

Losey, Joseph. 1963. *The Servant*. UK.

———. 1967. *Accident*. UK.