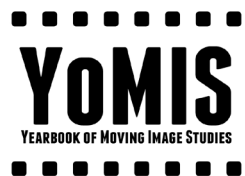# Image Embodiment: New Perspectives of the Sensory Turn

Lars C. Grabbe, Patrick Rupert-Kruse, Norbert M. Schmitz (eds.)

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Image Embodiment

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YEARBOOK OF MOVING IMAGE STUDIES

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Image Embodiment

New Perspectives of the Sensory Turn

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FACHHOCHSCHULE KIEL
University of Applied Sciences

muthesius
kunsthochschule

MOVING
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KIEL

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From Language to Film Style: Reassessing the Role of Conceptual Metaphor in Cognitive Film Studies

Maarten Coëgnarts & Peter Kravanja

Abstract

This article presents the views of two strands of film scholarship, each taking the tools of Conceptual Metaphor Theory (CMT) into suitable areas of Cognitive Film Studies. In the first section we consider the implications of CMT for the study of two kinds of *languages about film*, namely (1) the kind of *ordinary* language audiences use to talk about their viewing experience and (2) the kind of *theoretical* language film scholars use to reason about film. In the second section we explore how CMT can be applied to the study of *film style*. Drawing upon earlier research we show how three abstract concepts (perception, time and emotions) can be metaphorically embodied at the non-verbal formal level of film through cinematic devices such as camera movement, editing and framing. Our paper will reassess and discuss the methodological and theoretical implications of both views. This comparative study intends to highlight the academic value of CMT for Film Studies and to inspire avenues for further research.

Keywords

abstract concepts, conceptual metaphor, embodied cognition, film style, image schema

1. Introduction

From the mid- to late 1970s and onwards cognitive scientists from various disciplines began to embrace a conception of cognition according to which bodily states, imaginative processes and situated action are central to cognitive functions. This view, also known as *embodied cognition* or *grounded cognition*, directly challenges the standard computational view of the 1950s and 1960s according to which the mind was seen as a kind of abstract information processor that could be run independently of the body and brain (Lakoff and Johnson 1999, 75–78). Over the years the notion of embodied cognition has motivated a wide range of different themes and theories (for a good overview, see Shapiro 2011; Wilson 2002). One prominent framework that has drawn considerable attention arose from the field of cognitive linguistics and is known as Conceptual Metaphor Theory (henceforth, CMT) (Lakoff and Johnson 1980, 1999). The general idea behind this theme of embodied cognition is that all human abstract concepts (e.g., time, the mind, causality, emotions) are structured according to a wide range system of metaphors that are grounded in recurring, dynamic patterns of our sensory-motor experiences, patterns which are called *image schemas* (e.g., Johnson 1987; Lakoff 1987). These metaphors are conceptual in that they are built on a reality that is cognitive or mental rather than linguistic or rhetorical. Linguistic expressions are merely the manifestations of an underlying mental system that is modality-independent. Consider, for example, such primary metaphors (Grady 1999) as TIME IS SPACE ("Time *is flying* by," "The time for action *has arrived*") and UNDERSTANDING IS SEEING ("I *see* what you're saying," "I don't *see* the point").[1] In each case the linguistic expressions between parentheses are motivated by the same underlying conceptual metaphor in which the inferential logic of a concrete source domain (space and seeing, respectively) is mapped onto the inferential logic of an abstract target domain (time and understanding, respectively).

In this paper we will consider the relevance and implications of CMT for the scientific study of film. More specifically, our paper will reassess and illustrate a selection of research findings of two categories of film

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1 Cognitive linguists commonly use small capitals to distinguish conceptual metaphors from their linguistic instantiations.

scholars that each have applied the conceptual tools of CMT to address a number of problems within the field of Cognitive Film Studies. This discipline evolved in the mid-1980s as a critique of Grand Theory within film academia (e.g., Saussurean linguistics, Lacanian psychoanalysis, Althusserian Marxism, and Barthian textual theory) and generally aims to understand, among other things, how the bodily constitution of human beings (e.g., perceptual and neural processes) relates to aspects of film spectatorship (e.g., emotional responses, comprehension of film narratives, the saliency of particular formal features of films, etc.). Key references in this regard include, among others, the writings of David Bordwell (1985), Noël Carroll (1990), Murray Smith (1995), Ed Tan (1996), and Torben Grodal (1997, 2009).[2]

The first section of our paper considers consequences of CMT for the analysis of two kinds of *languages* about film, namely (1) the kind of *ordinary* language audiences use to talk about their viewing experience, and (2) the kind of *theoretical* language film scholars use to reason about film. The second section of our paper, by contrast, does not consider the implications of CMT for the analysis of *language*, but examines instead how particular abstract concepts articulate themselves metaphorically at the *visual stylistic level* of films (i.e., through cinematic devices such as camera movement, editing, framing, etc.). Drawing upon our own research, we show how CMT offers a valuable theoretical framework for the analysis of three abstract concepts, namely: perception, time and emotions.

2. CMT and Language about Film

One key question that needs to be answered in any assessment of the relationship between metaphor and film is the question of location: on which filmic level can conceptual metaphors be located and examined? The first obvious answer would be to focus upon the *linguistic* level. Since Lakoff and Johnson's conceptualisation hypothesis has been mainly tested with respect to language, one can similarly assume that conceptual

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2 For a good overview of some of the current views and issues within Cognitive Film Studies, see Shimamura (2013) and Nannicelli and Taberham (2014).

metaphors are also pervasive in verbalisations concerning film. The task, then, is to distinguish between *the kinds* of languages that are related to film. Broadly speaking, one can discriminate between three levels of linguistic articulation, namely (1) the kind of *ordinary* language audiences use to talk about their subjective viewing experience, (2) the kind of *theoretical* language film scholars use to reason about film, and (3) the kind of language characters in films use to express abstract meaning. Current research primarily shows an interest in the application of CMT for the study of language *about* film (contrary to language in film). For this reason we will limit ourselves in the following two sections to a discussion of (1) and (2), respectively.

2.1 Ordinary Language of Film Viewers

One of the theoretical merits of CMT is that it provides scholars with a useful conceptual framework for understanding how people verbalise their inner subjective experiences. Thereby cognitive linguists have stressed its importance for the verbalisation of emotional states (e.g., love, anger, etc.) and mental states (e.g., perceiving, knowing, etc.).[3] Consequently, when one extends this observation to the domain of Cognitive Film Studies one can similarly ask the question whether or not conceptual metaphors also underlie the audience's verbalisations of their subjective experience of watching a film. In this section we will illustrate the validity of this hypothesis by focusing upon a case-study that was recently conducted by Bálint and Tan (2015). In their study the authors investigated the implications of CMT for our understanding of what they label the viewer's experiential level of *narrative absorption*. Narrative absorption can be described as "a spontaneous temporary change in the state of consciousness due to an exceptionally intense awareness of a fictional narrative" (Bálint and Tan 2015, 63). The central goal of their research, then, has been to reconstruct the audience's mental content of being absorbed in a (film-)narrative by exposing the various metaphorical extensions of the image schemas that are underlying the viewers' verbalisations of their film experience.

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3 For a good overview of common abstract target domains, see Kövecses (1993, 23–28).

One image schema in particular that the authors believe to play a significant role in the verbal construal of the viewers' experience of being absorbed is that of CONTAINMENT (Dewell 2005; Johnson 1987, 22–23, 2007, 141; Lakoff 1987, 272; Lakoff and Johnson 1999, 31). This schema is grounded in a wide range of common basic bodily experiences (e.g., walking *into* rooms, putting things *into* our bodies, moving *in* vehicles, etc.) and exhibits the property of having an inside, an outside, and a boundary. As their study shows, the audience tends to extend these structural elements metaphorically in order to conceptualise the experience of being absorbed in a film. Consider, for example, sentences (1) and (2):

(1) Just yeah, more *in* the movie than *outside* the movie.
(2) Yes, so you're *in* the moment, just *in* the film, I know people talk about switching off and that but it's more than that, you just become involved *in* that film and what's happening. (Bálint and Tan 2015, 69).

Here the internal structure of containment is no longer conceived literally, but metaphorically. The properties of *inside* and *outside* are mapped onto the *real world* and the *story world* (characters and events), respectively.

The same line of reasoning can also be construed with respect to the image schema of CENTER-PERIPHERY (Johnson 1987, 124; Lakoff 1987, 274). This schema is grounded in the observation of one's own body as the center with the objects either near or far from it as belonging to the periphery. Likewise, then, everyday expressions such as sentence (3) can be seen as linguistic cases of metaphorical thinking in which the two spatial terms *center* and *periphery* are being projected onto the narrative elements of *story world* and *real world*, respectively.

(3) At that point I think I sort of felt like I had taken *a step away from* the story. (Bálint and Tan 2015, 69)

The schemas of CONTAINMENT and CENTER-PERIPHERY only capture the *static* part of the experience of being absorbed in a story. As such, they do not adequately account for the *dynamic* part of absorbed film viewing. In order to convey this part, the authors argue, both sche-

mas have to be complemented by the extension of two additional image schemas, namely SOURCE-PATH-GOAL (Johnson 1987, 113, 2007, 142; Lakoff 1987, 275; Lakoff and Johnson 1999, 32) and FORCE (Johnson 1987, 42–48). The first one is grounded in our experience of motion. Whenever we move from one place to another there is a certain starting point (the source), a path and a direction, and an ending point (the goal). The second one is rooted in one's physical interaction with the environment. It involves such features as directionality and power or intensity. FORCE is related to the SOURCE-PATH-GOAL image schema in that it is often the cause of motion, i.e., forced movement involves the use of a force that causes an object to move from one location to another. Hence, the fusion of forced movement with containment results in the construal of, what Bálint and Tan (2015, 76) following Dewell (2005), label the DYNAMIC CONTAINMENT image schema in which a force causes an entity to move from an outside towards an inside (i.e., the notion of ENTRY). Likewise, a linguistic expression such as sentence (4) extends this dynamic logic (in this case of "being pulled *into* something") metaphorically in order to conceptualise the viewer's entrance of the self from the real world (the outside, the source, the periphery) into the story world (the inside, the goal, the center).

(4) But I know I'm going to have trouble with it because it comes so fast, it does *pull* me in, it *pulls* me back *in* at certain points, and when I'm *pulled in* I can't really pay as much attention to what's happening, and so this is all just an attempt to prepare for what I know is about to happen. (Bálint and Tan 2015, 76)

Their research thus shows how the viewer uses modality-independent cognitive procedures such as conceptual metaphor in order to express the subjective experience of being absorbed by a film narrative. The verbalisations are manifestations of an underlying mental system that is metaphorically modelled according to the spatial set-up of image schemas.

The linguistic examples analysed so far all denote instances of ordinary language. In the next section we will illustrate how conceptual

metaphor is also omnipresent in the type of formal language film scholars use to theorize about film.

2.2 Formal Language of Film Scholars

To illustrate this section we would like to consider the verbal definitions of five concepts taken from film (narrative) theory, namely: (1) the *story-plot* distinction, (2) *narration*, (3) the *flashback/flashforward* distinction, (4) *off-screen space* and (5) the *filmic frame*. Let us start with a description of the first one, as provided by Bordwell and Thompson (our italics):

(1) The set of *all* the events [*in*] a narrative, both the ones explicitly presented and those the viewer infers, constitutes the story. … The term plot is used to describe everything visible and audibly present [*in*] the film before us. The plot [*includes*], first, all the story events that are directly depicted. … Second, the film's plot [*contains*] material that is extraneous to the story world. (Bordwell and Thompson 2014, 70–71)

Here one could argue that the authors understand both theoretical concepts in terms of containers that differ from each other with regard to their inside content: the story "contains" something that is "excluded" from the plot (i.e., presumed and inferred events), and vice versa, the plot "contains" something that is "excluded" from the story (added nondiegetic material). Moreover, as Bordwell and Thompson's definition of *narration* below suggests, the plot is conceived as highly active; like human beings, it is able to "convey" and "withhold" things.

(2) Narration: The process through which the plot [*conveys*] or [*withholds*] story information. (Bordwell and Thompson 2014, 504)

A similar extension of dynamic properties towards the practise of film theorizing can be found with regard to the authors' description of the conceptual distinction between a *flashback* and a *flashforward*:

(3) Flashback: An alteration of story order in which the plot [*moves back*] to show events that have taken place earlier than ones already shown. … Flashforward: An alteration of story order in which the plot [*moves forward*] to future events and then returns to the present. (Bordwell and Thompson 2014, 502–503)

Relying upon the SOURCE-PATH-GOAL image schema, the plot is conceived as an animated entity in space that moves from one location (the source: the present) to another one (the goal: the past and future, respectively). In cognitive linguistics this mental model of time is known as the EGO-MOVING metaphor (Boroditsky 2000, 5; Gentner 2001, 203) or THE MOVING OBSERVER OR TIME'S LANDSCAPE metaphor (Lakoff and Johnson 1999, 141–148). In this metaphor the 'ego' or the observer's context (in this case, the plot) progresses along the stationary time-line toward the past or future.

The three filmic concepts analysed so far are *abstract* in the sense that they "are neither purely physical nor spatially constrained" (Barsalou and Wiemer-Hastings 2005, 129). In addition, one could also distinguish a group of *concrete* filmic concepts in which the image schemas are physically instigated in the concepts themselves. Consider, for example, Bordwell and Thompson's definitions of *off-screen space* and *frame*:

(4) Off-screen space: The six areas blocked from being visible on the screen but still part of the space of the scene: to each side and above and below the frame; behind the set, and behind the camera. (Bordwell and Thompson 2014, 504)

(5) Frame: A single image of the strip of film. (Bordwell and Thompson 2014, 503)

Both concepts are taken to be literal in that they cannot be understood metaphorically in terms of mappings from one concrete source domain onto another abstract target domain. Indeed, the screen as well as the film's frame can be considered containers in their own right. They both involve physical objects with edges that designate a boundary between an inside and an outside. An illusion of movement, then, is created when both containers interact, that is, when a series of small containers (frames) are projected onto a larger container (the screen). From this

interaction, then, one can infer, as we have done elsewhere (Coëgnarts and Kravanja 2016), the basic logic of the conceptual distinction between *on-screen* and *off-screen* as follows:

(6) If the frame is *in* the screen, and X is *in* the frame, then X is *in* the screen, i.e., X is on-screen. If the frame is *not in* the screen, and X is *in* the frame, then X is *not in* the screen, i.e., X is off-screen. (ibid., 131)

The filmic frame, however, does not function in the same way as the frame in painting functions. As Buckland (2000, 48) observes, in the latter "the frame acts as an absolute boundary; it unequivocally severs the bounded space from its surroundings". In film, however, the author writes, "the frame is mobile": the inside visual content of the frame's container is not everlasting, but alters due to the effect on the screen of the moving camera, a zoom lens, or certain special effects. In this sense one might understand the filmic frame in the same way as Bálint and Tan understand the concept of absorbed film viewing, namely in terms of a dynamic container (Dewell 2005). As we have written in Coëgnarts and Kravanja (2016):

(7) On the one hand, the filmic frame can be related to the experiential pattern of ENTRY in that it involves activities and paths, with things going in frame and out of frame. ... On the other hand, given the camera's potential to move, the filmic frame can also be understood in terms of ENCLOSURE in that the frame actively determines what will be visible on-screen. That is, the edges of the frame are used to select and to compose the inside content of the container (i.e., the notion of framing). (ibid., 132)

The idea that the frame has a much broader range of abstract meanings than its basic level literal meaning is also central to the work of Buckland (2000, 2015). Drawing upon the film theoretical writings of Heath (1976) and Branigan (2006) the author illustrates how both film scholars extend image schemas in order to expose the abstract meanings of the frame. For instance, for Heath, Buckland points out, the frame is a metaphor because it involves a transfer of meaning from one object to another.

Consider, for example, the following theoretical idea, as developed by Heath (1976, 260):

(8) The stake of the frame is clear … : the frame is the reconstitution of the scene of the signifier, of the symbolic, into that of the signified, the [*passage through*] (the soundtrack and) the image from other scene to seen; it ensures distance as correct position, the summit of the eye, *representation*. (Heath as quoted in Buckland, 2015, 303)

Like Bálint and Tan (2015) Heath employs the SOURCE-PATH-GOAL image schema ("the passage through") in order to conceptualize the spectator's visual experience as a metaphorical journey. First, the spectator is positioned in front of the screen. The film frames projected on it, then, open up, as Buckland (2015, 303–304) writes, "a signified (the film's diegesis or storyworld) within the frame and apparently behind the screen (this is the illusory fiction effect)." The spectator's vision therefore constitutes a transition from the film theatre (the source) to the film's fictional world (goal).

2.3 CMT: Moving Beyond Language

The two applications discussed so far take language as their central object of study. They both provide verbal evidence of metaphorical extensions of image schemas that are manifested in sentences and words about film (whether it be ordinary or theoretical language). However, by focusing entirely on verbal manifestations of conceptual metaphors both applications expose themselves to the same criticism that has been raised against CMT. This fallacy entails that cognitive linguists tend to fall in a practice of circular reasoning in which the central proposition (i.e., metaphor is a conceptual matter, and only derivatively a linguistic one) is proven by referring back to language (e.g., Forceville 2009; Forceville and Jeulink 2011; Gibbs and Perlman; Pecher, Boot, and Van Dantzig 2011). Indeed, if research on conceptual metaphor is restricted to language, opponents might contend that there is no difference between conceptual metaphors and verbal manifestations, which in turn would

seriously challenge the theoretical validity of CMT. As Forceville and Jeulink rightly point out:

> If CMT is correct in emphasizing the centrality of the MIND IS BODY metaphor in human conceptualizing, it should be difficult or even impossible to find non-metaphorical conceptualizations of abstract phenomena. … The focus on verbal manifestations of the postulated conceptual metaphors is no help here: detractors might object that the conceptual and the verbal levels are actually the same thing. If this should be the case, CMT claims about the central role of metaphor in cognition would of course be seriously undermined. (2011, 39)

Hence, if we presume that CMT is correct in claiming that metaphor is not a 'mere' linguistic phenomenon but a much deeper cognitive reality, then it is crucial to find surface manifestations that go beyond the realm of language. Linguistic metaphors are just the formal expressions of a way of thinking that is spatially grounded in the metaphorical extensions of sensory-motor knowledge. Consequently, if metaphor is primarily a cognitive mechanism that is modality-independent, then, it is plausible to assume, as Forceville (2009, 2016) has repeatedly done in his writings, that conceptual metaphors are not only used to structure our understanding of abstract concepts in language, but also to structure our understanding of abstract concepts in other modes of expression as well, including the non-verbal, cinematic one.[4] For instance, one way to avoid the fallacy of circular reasoning would be by illustrating how conceptual metaphors are articulated in terms of the film's *stylistic* elements: how are abstract concepts embodied in terms of cinematic devices such as editing, camera movement, lighting, sound, music, etc. It is exactly this question that has fuelled the emergence of a second line of research.

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[4] It is for this reason that Forceville (2009, 24) coined the term of *multimodal metaphor*: "metaphors whose target and source are each represented exclusively or predominantly in different modes."

3. CMT and Film Style

Intuitively, there are two general ways to approach Lakoff and Johnson's conceptualization thesis from the perspective of film style. One is to select a particular *abstract concept* and to investigate how it is metaphorically embodied in non-verbal, cinematic terms. The other is to select a particular non-verbal *mode of cinematic expression* (e.g., camera movement, editing, sound design, film music) and to investigate how this mode is used to represent (a) certain abstract concept(s). In recent literature one can find examples of both approaches. Table 1 is a schematic attempt to offer a brief overview of some of these references according to (1) the central abstract conceptual domain(s) under scrutiny, (2) its central mode of filmic expression (visual or aural) and (3) its central image schema(s) (if explicated).[5]

Reference	Abstract concepts	Modes of filmic expression	Image schemas
Chattah (2015)	Characters' mental and emotional life [STATES, TENSION] Narrative events [CLOSURE]	Aural [film music]	EXPECTATION, CONTAINER, LINEARITY, PATH
Coëgnarts and Kravanja (2014a)	Binary oppositions in the Western genre [CIVILIZATION vs. WILDERNESS, COMMUNITY vs. INDIVIDUALITY]	Visual [frame-within-frame configuration, editing, mise-en-scène]	CONTAINER
Coëgnarts and Kravanja (2014b, 2015a, 2015b, 2015c, 2016), Coëgnarts, Kiss, Kravanja and Willemsen (2016)	Characters' mental life [PERCEIVING, REMEMBERING, UNDERSTANDING]	Visual [framing, mise-en-scène, camera movement, superimposition, split-screen, editing, POV-shot]	CONTAINER, FRONT-BACK, LEFT-RIGHT, SOURCE-PATH-GOAL, UP-DOWN
Fahlenbrach (2008, 2014)	Characters' emotional life [ANGER, FEAR, SHAME]	Aural [music, sound design] Visual [camera movement, editing, lighting, mise-en-scène]	BALANCE, CONTAINER, FORCE, LIGHT-DARK
Forceville (2011), Forceville and Jeulink (2011)	STORY, QUEST, TIME	Aural [music] Visual [mise-en-scène]	BALANCE, FORCE, CYCLICITY, SOURCE-PATH-GOAL, UP-DOWN
Forceville and Renckens (2013)	Moral status of events and characters [GOOD-BAD]	Visual [lighting, mise-en-scène]	BALANCE, LIGHT-DARK
Ortiz (2011, 2014, 2015)	Characters' mental and emotional life [STATES, CONDITIONS, HAPPINESS, NORMALITY,…] Relationships between characters [BEING IN CONTROL, INTIMACY, IMPORTANCE, SOLIDARITY,…] Moral status of events and characters [GOOD-BAD,…] TIME	Visual [framing, camera movement, lighting, split-screen, extreme high-angle shots, extreme close-ups, mise-en-scène,…] Aural [sound design]	BRIGHT-DARK, CONTAINER, ENCLOSURE, FIRM, PROXIMITY, STRAIGHT, UP-DOWN …
Reinerth (2016)	Characters' mental life [DREAMING, HALLUCINATING, REMEMBERING]	Visual [camera movement, editing, framing, superimposition]	CONTAINER
Winter (2014)	Moral status of events and characters in the Horror genre [GOOD-EVIL]	Visual [camera angles, lighting, mise-en-scène]	LIGHT-DARK, LOW-HIGH

Table 1: CMT and film style: a selective overview of the literature.

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5 Many of these references are included as articles in Coëgnarts and Kravanja 2014c, and as chapters in two edited volumes on the subject, namely: Coëgnarts and Kravanja 2015d and Fahlenbrach 2016.

From this table one may infer at least three conclusions. Firstly, it is interesting to see how a significant amount of abstract concepts under scrutiny can be subsumed under what Jens Eder (2010, 24) in his heuristic core model of characters more generally labels the property domain of *the mind*: they involve mental features that fictional beings possess. It involves such research questions as how are characters' mental functions (e.g., remembering, perceiving, etc.) portrayed cinematically, or how are characters' moods (e.g., happiness, shame, etc.) represented in audio-visual terms? The emphasis on character subjectivity comes as no surprise as the MIND IS THE BODY metaphor (Lakoff and Johnson 1999) is also the core metaphor within cognitive linguistics.

Secondly, there is no one-to-one relationship between image schemas, on the one hand, and abstract concepts, on the other hand. That is, *one* image schema can be metaphorically extended for the purpose of representing *different* abstract concepts, and vice versa, the structural elements of various (albeit limited) image schemas can be extended metaphorically to one and the same abstract concept. Nevertheless, the amount of image schemas that can be extended is restricted: human sensory-motor experiences only allow the flourishing of a narrow selection of gestalts, whereas the amount of concepts that are not spatially grounded is extremely large.

Thirdly and finally, each mode of filmic expression provokes its own inherent set of image schemas, namely those image schemas that result from the interaction between the reality in front of the camera and the specificity of the cinematic device. For instance, camera movement by its nature tends to elicit the SOURCE-PATH-GOAL schema, superimposition the FRONT-BACK schema, split-screen the LEFT-RIGHT or UP-DOWN schema, etc.

These general observations notwithstanding, any inquiry into the relationship between CMT and film style should at least expose two specific relationships, namely:

(1) The relationship between film form and patterns of sensory-motor experience (i.e., the question of image schemas):
- How is the audio-visual reality in front of the camera structured cinematically and how does this structuring provokes the instigation of image schemas?

(2) The relationship between image schemas and abstract content (i.e., the question of metaphorical extension):

- How is the inferential logic of the image schemas, as elicited by the cinematic device, metaphorically mapped onto the inferential logic of the abstract concept?

Answering both questions is necessary to overcome one of the main ontological problems of identifying conceptual metaphor in film, namely the observation that film has a concrete and holistic nature as opposed to the abstract and analytical nature of language (see Grodal 2016). Indeed, in order to identify metaphorical extensions of image schemas in film it is important that the concrete and fuzzy nature of the reality in front of the camera is somehow 'flattened' in favor of a more concentrated, less holistic and dense structure.[6] Considering the studies in Table 1 one might argue that this unity or "formal precision", as Arnheim (1957, 200) would call it, can be imposed onto the real-life in front of the camera by the application of various cinematic devices (e.g., camera movement, editing, lighting, music, etc.). Thereby, the line of the argument is as follows:

(1) The application of various cinematic devices triggers the vivid instigation of image schemas in the filmed event. For instance, camera movement allows the instigation of the SOURCE-PATH-GOAL schema, superimposition that of FRONT-BACK, split-screen that of LEFT-RIGHT or UP-DOWN, etc.

(2) Through these image schemas the filmed event obtains a formal unity and precision that provides coherence: it acquires characteristics that, like language, can be analyzed. For instance, depending on the applied cinematic device, one can identify, in the filmed event, a source, a path, a goal, a front, a back, etc.

(3) The articulation of these structural elements in the filmed event, in turn, allows the possibility of metaphorical extensions, that is, the inferential spatial logic of image schemas, as elicited through

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6 This touches upon the difference between art and real-life: "the work of art as a human artefact intended to represent the dynamic aspects of human experience by means of ordered, balanced concentrated form" (Arnheim 1988, 225).

camera movement, framing or any other cinematic device, may be mapped onto the inferential logic of abstract concepts.

It is important to note here that image schemas *an sich* are not metaphorical. They only become metaphorical once their properties are extended towards the realm of conceptual knowledge.

In what follows we will illustrate this theoretical line of reasoning by considering it in the light of three case-studies of our own. Using the abstract concepts of perception (Coëgnarts and Kravanja 2014b, 2015a), time (Coëgnarts and Kravanja 2015b, 2015c) and emotion (this paper) as examples, we will show how they are structured cinematically (with an emphasis on the visual film style) by virtue of metaphorical extensions of image schemas.

3.1 Perception

For our first case-study we would like to consider a filmic event taken from Stanley Kubrick's *The Shining* (UK/USA 1980). The scene involves the moment of perception in which Wendy (Shelley Duvall) *sees* the body of Dick Halloran (Scatman Crothers), the chef at the Overlook Hotel, lying dead on the floor (see fig. 1).[7]

Mental mechanisms		Conceptual metonymy	Conceptual metaphors		
		EYES STAND FOR SEEING	VISUAL FIELD IS A CONTAINER PERCEIVING IS TOUCHING		
Filmed event					
		Objective shot [medium shot]	POV shot [long shot]	POV shot [zoom-in]	POV shot [medium wide shot]
Image schemas	SOURCE-PATH-GOAL	Source		Path	Goal
	CONTAINER	Outside	Inside		
Abstract concept	PERCEPTION	Character's eyes	Visual field of the character	Focusing attention on an object within the character's visual field	Object of attention within the character's visual field

Figure 1: Wendy "makes eye contact" with Dick Halloran's dead body in The Shining (Stanley Kubrick, UK/USA 1980).

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7 All film stills in this contribution are treated as visual citations, in accordance with the established guideline for fair use of film stills from DVDs in scholarly writings.

As we have argued elsewhere (Coëgnarts and Kravanja 2014b, 2015a) this filmic manifestation could be analyzed as a merger of two metaphorical extensions, namely (1) the extension from the physical domain of containment to the abstract domain of a visual field, and (2) the extension from the physical domain of movement to the abstract domain of perceiving.

(1) The first extension has been verbalised by scholars as the VISUAL FIELDS ARE CONTAINERS metaphor (Lakoff and Johnson 1980, 30). It emerges naturally in that when we look at some territory, our field of vision automatically defines a bounded physical space (i.e., the part that we can see). Examples include such English expressions as "The ship *is coming into* view," "That's *in the centre of* my field of vision" or "There's nothing *in* sight." In the filmic example above this metaphor is elicited cinematically by the perception shot or the point-of-view shot (henceforth, POV shot). Embedded in the level of editing, this metaphor involves a relation between an objective shot of a character (i.e., Wendy) looking at something, and the actual subjective POV shot showing what the character is looking at (i.e., the dead body of Dick Halloran). Similarly, the POV shot above can be conceived as metaphorical in that the inside of the CONTAINER image schema, physically instigated in the filmic frame, is mapped onto the visual content of the character's visual experience (i.e., Wendy's visual field), and the outside is mapped onto the part in space that the character cannot see (e.g., the space that coincides with Wendy's eyes).

(2) The second extension has been verbalised in literature as the PERCEPTION IS TOUCHING metaphor (Lakoff 1995; Yu 2004). It underlies such expressions as "My eyes *picked out* every detail of the pattern" or "My gaze *is* out *over* the bay." As Lakoff points out, the words 'gaze' and 'eyes' are conceived metaphorically as visual limbs that can reach out and touch things. Both expressions involve motion from a starting point (perceiver), over a pathway, towards an end point (object perceived). Succesful perception, then, takes place when the character's gaze 'reaches' the target. In the filmic example above this metaphor is elicited cine-

maticaly by zooming in from Wendy's full visual field (the source) to the object of her attention, namely the dead body of Halloran (the goal). The zoom-in, as a property of the POV shot thus becomes, as Branigan (1984, 81) already pointed out, a "metaphor for vision" in that "it is analogous to the character's sudden discovery and heightened interest in an object."

3.2 Time

In the previous section (character) perception was identified as the abstract target domain that needed further metaphorical clarification. In addition cognitive linguists have also identified a group of metaphors in which perception functions as a source domain in its own right. Thereby, scholars have stressed its conceptual significance for various abstract target domains including mental functions such as knowing, thinking, understanding (e.g. Gibbs 2006, 97; Johnson 2007, 165; Lakoff and Johnson 1999, 393-399; Yu 2003, 2004), and time (Boroditsky 2000; Gentner 2001; Gentner, Imai and Boroditsky 2002; Lakoff and Johnson 1980, 1999; Núñez and Sweetser 2006). With regard to the latter, cognitive linguists have pointed out that humans tend to map the location of the object perceived onto the time event (past or future). Belonging to the more general metaphor TIME IS SPACE, this metaphor underlies such linguistic examples as "Christmas *is approaching*" or "We *are approaching* the end of the year." In both cases the FRONT-BACK image schema, which originates from human bodily orientation, is mapped onto the future and past, respectively. Núñez and Sweetser (2006) have labelled this metaphorical model, in which the location of the observer specifies the now, the system of Ego-Reference-Point (Ego-RP) metaphors.[8] They distinguish this metaphorical categorization from Time-Reference-Point (Time-RP) metaphors in which time is not construed with respect to the ego as a reference point, as in, for example, "Wednesday *follows* Tuesday" or "Spring *follows* Winter."

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8 This model also includes the EGO-MOVING metaphor or THE MOVING OBSERVER OR TIME'S LANDSCAPE metaphor, as briefly discussed in section 2.2 of this paper.

Consequently, once character perception is spatially grounded in film (through, for example, the cinematic strategy of the POV shot or other strategies, see Coëgnarts and Kravanja 2014b, 2015a), one can easily map the location of the perceiver and the location of the object perceived onto the time event (Coëgnarts and Kravanja 2015b); that is, at least in case of a temporally continuous event of character perception, where both locations occur in the present. However, in order to see whether an incoming event of character perception is temporally *discontinuous* (i.e., a scene in which the character does not 'see' the present, but the 'past' or 'future'), further information is needed (see also Coëgnarts, Kiss, Kravanja and Willemsen 2016). Consider, for example, the film image in figure 2. It portrays the flashback scene at the end of George Stevens' *A Place in the Sun* (1951) in which the male protagonist George Eastman (Montgomery Clift) remembers an event that was shown earlier on in the film: the scene in which he passionately kisses Angela Vickers (Elizabeth Taylor) on the balcony. In this scene the image schema of FRONT-BACK (and LEFT-RIGHT) is extended in order to structure the relationship between George in the present, on the one hand, and the past object of his memory, on the other hand (see fig. 2).

Mental mechanism		Conceptual metaphor	
		TIME IS SPACE [EGO-RP]	
Filmed event			
		Superimposition [extreme close-up over a close-up]	
Image schema	FRONT-BACK	Front image	Back image
Abstract concepts	PERCEPTION	Object of perception	Perceiving Character
	TIME	Past	Present

Figure 2: George remembers ("perceives") the past in A Place in the Sun (George Stevens, USA 1951).

Here the viewer cannot *know*, for example, that the superimposed image of the kiss belongs to George's mind, if the viewer has not seen the image during events that took place earlier in the film (and that are stored in working memory). Hence, in order for the viewer to connect the perceptual concept of 'seeing' to the temporal concept of 'the past' (i.e., to come to the verbalisation "George 'sees' the past") one has to include *prior knowledge* about the perception of the character. It is because the viewer has perceived the content of the object perceived before (in this case, equally through a prior filmed event), that the viewer is able to *infer* that the object perceived in the incoming event (i.e., the kiss) belongs to the past.

3.3 Emotion

To illustrate our third and last case-study we would like to consider a single shot taken from the final scene of *Brief Encouter* (UK 1945), David Lean's highly emotional rendering of a love affair between Laura (Celia Johnson), a married middle class woman, and Alec (Trevor Howard), a married doctor. The scene, which is located in the refreshment room of a railway station, occurs at the end of the film when Alec bids Laura goodbye by touching her shoulder for a last time. After he has left the room, the camera centers on Laura's illuminated face as she listens to the sound of his departing train. As the roaring sound of the train increases in volume, the camera tilts to the right, causing the horizontal image to slowly move counter-clockwise (see fig. 3).

Mental mechanisms		Conceptual metonymy	Conceptual metaphors
		FACIAL EXPRESSION FOR EMOTION	**EMOTION IS A CONTAINER EMOTIONAL CHANGE IS MOTION EMOTIONAL INSTABILITY IS IMBALANCE**
Filmed event		Medium shot	Camera movement + tilt / Close-up
Image schema	CONTAINER	Inside (not full, sufficient space)	Inside (restricting of free space) / Inside (almost full)
	SOURCE-PATH-GOAL	Source	Path / Goal
	BALANCE	Balance	Increasing imbalance / Intensified imbalance
Abstract concept	EMOTION	Emotional stability (or less emotional instability)	Emotional change Increasing emotional instability / Highpoint of emotional instability

Figure 3: Laura's increase of emotional instability in Brief Encounter (David Lean, UK 1945).

As with the previous cases of perception and time, the abstract content is externalized by means of metaphor: Laura's internal emotional state of imbalance and disorientation is given visual expression by virtue of the metaphorical extension of the physical domains of (1) containment and movement and (2) balance.

(1) The first extension relates to the EMOTION IS CONTAINER metaphor (Kövecses 2000, 37) and underlies such expressions as "She trembled *in* fear," or "She is *in* love." As we have seen earlier in this paper, containers are characterised by having boundaries. As such they exhibit the property of maintaining whatever is inside it. In the case of living beings, this entails that the borders of a container prevent them from moving around freely. Since this is how people often feel when they are delivered over to intense emotions, it follows that the image schema of CONTAINMENT is particularly relevant to our folk understanding of what Radden (1998, 275) labels "intense and predominantly negative emotions." Stylistically speaking, then, the feeling of 'being contained' is intensified by gradually narrowing the edges of the filmic frame

(the container) in relation to Laura's facial expression (i.e., camera movement). The underlying metaphor at work here is that of CHANGE OF EMOTIONAL STATE IS MOTION or its lesser variant INCREASE IN EMOTIONAL INTENSITY IS MOTION in which the starting point (e.g., medium shot) can be mapped onto the non- or less intense emotional state of Laura ("there is still space in the container for the character to move freely in the frame") and the ending point (e.g., close-up) can be mapped onto the intense emotional state ("less space: Laura's face is *hooked in* the frame as container").

(2) The metaphor underlying the second extension can be verbalised as the EMOTIONAL INSTABILITY IS IMBALANCE metaphor (Cervel 2003, 207) and relates to the compatibility of the image-schema of BALANCE (Gibbs 2005, 69; Johnson 1987, 74) with the conceptualisation of emotions. As Gibbs (2005, 69) writes, this schema "emerges through our experiences of bodily equilibriums and disequilibriums and of maintaining our bodily systems and functions in the state of equilibriums." Verbal evidence, then, suggests a metaphorical elaboration of the schema towards a large number of abstract domains of experience, including not only psychological and emotional states, but also legal relationships, power relationships and formal systems (Johnson 1987). In the filmic example above, BALANCE is extended in order to structure the inner emotional life of Laura. Stylistically, this extension is made possible by the tilt function of the camera: by rotating the moving camera in a vertical plane the film causes the horizontal image to slowly move counter-clockwise, thus suggesting a feeling of physical, and by metaphorical extension, emotional imbalance.

4. Conclusion

The goal of this article has been to outline and compare two ways in which Lakoff and Johnson's conceptualisation thesis of embodied cognition can be applied to Cognitive Film Studies. In the first section we

have shown how metaphorical extensions of image schemas can be analysed with respect to two types of languages about film: namely (1) the type of language viewers use in order to express their subjective experience of being absorbed in a film narrative and (2) the type of language film scholars use to reason about film (i.e., about such concepts as story, plot, frame, etc.). In the second section we have shown how CMT can be extended from the verbal level of film viewing and film theorizing to the non-verbal and visual level of film style. More specifically, we have shown by means of three case-studies (perception, time and emotions) how the application of cinematic devices can structure the cluttered surface reality in such a way as to enable a process of metaphorical mapping between the structural elements of image schemas, on the one hand, and the structural elements of abstract concepts, on the other hand. Comparing both approaches thus enabled us to show that the process of metaphorical thinking not only underlies linguistic expressions, but cinematic ones as well. As such our paper provides evidence for the broader theoretical claim that there are general cognitive mechanisms for understanding abstract meaning that operate independently of medium or mode of expression.

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