Image and Imagination

Zsolt Bátori*
Budapest University of Technology and Economics
Moholy-Nagy University of Art and Design, Budapest

Abstract. Some argue that photographic and cinematic images are "transparent"; we see objects "through" photographs as we see objects in mirrors, through telescopes, etc. However, it has also been suggested that seeing photographic images does not provide us with the kind of egocentric information seeing proper does, so photographs cannot be considered transparent. There is also a disagreement about the kind of imagining cinematic images induce. Some think that watching fiction films involves imagining seeing the depicted events from the point of view of the camera, while others hold that such a process would involve imagining the complicated, and at times impossible ways of gaining the kind of epistemic access suggested by the shots. In my paper I argue that the controversy concerning transparency and imagining seeing is misguided, for the differences between these positions become mainly terminological, once the nature of the cognitive architecture, the perceptual and cognitive mechanisms and processes involved in perceiving pictorial representations and in imagination are explicitly explained. Based on a general cognitive theory of fiction and imagination, I offer an explanation for pictorial representations, accounting for their perception and for the processing of such representations by specific cognitive mechanisms when seeing photographic images and fiction films.

1. Introduction

Recent philosophical discussions about the nature of photographic and cinematic images have often focused on two related questions. First, some

* Email: zsolt.batori@gmail.com

theorists argued that photographic images are "transparent"; we "see through" them as we see objects in mirrors or through telescopes. Others think that the lack of spatio-temporal continuity between the perceiver and the object represented by the image disqualifies photographs from being transparent. Second, it has been suggested that watching fiction films involves imagining seeing the depicted events from the point of view of the camera, while it has also been argued that such a process would involve imagining the complicated, and at times impossible ways of gaining the kind of epistemic access suggested by the shots.

These issues are related because imagination depends on, or at least is influenced by what prompts and/or guides the process. The different ways verbal descriptions, pictorial representations, and objects perceived directly may guide our imagination when attending to fictions need to be explained when accounting for what perceptual and cognitive processes are involved in fictional imagining.

In this paper I argue that much of the controversy concerning the two questions mentioned above are misguided, for once the nature of the cognitive architecture, the perceptual and cognitive mechanisms and processes assumed by these theories are explicitly explained, the differences between their positions become mainly terminological. Based on a general cognitive theory of fiction and imagination, I will offer an explanation for pictorial representations, accounting for their perception and for the processing of such representations by specific cognitive mechanisms when seeing photographic and cinematic images.

2. Transparency

Kendall Walton proposed a version of the transparency thesis that avoids many of the problems earlier accounts of photographic realism face.[1] He argued that "the viewer of a photograph sees, literally, the scene that was photographed"[2]. According to his theory, photographic images are transparent in the sense that we see objects through photographs as we see them in mirrors or through telescopes.

The main supporting reasons for Walton's transparency thesis are the

[1] See Walton, 1984, 1986, 1997a.

[2] Walton, 1984, p. 252.

following. First, the visual properties of photographic images are counterfactually dependent on the visual properties of the objects of which they are photographs; if the visual properties of the object photographed were different, then the visual properties of the photographic image of the object would also be different. For example, if the object in front of the camera had a different shape, then the shape of the photographic image of the object would also be appropriately different. Our visual experience is also counterfactually dependent on the visual properties of the objects seen. If the visual properties of the objects in my visual field were different, then my visual experience would also be different. Ordinary seeing and looking at photographs, therefore, can be understood as visual experiences that depend on the scene in the same way; they are counterfactually dependent on the visual properties of the scene. The visual properties of images in paintings and drawings, however, depend on the mental states (beliefs, desires) of the artist. Preserving counterfactual dependence is possible, but it is an artistic choice, as opposed to the "automatic", mechanical process in photography (at least in case of straight shooting and development). Gregory Currie calls this distinction "natural" *versus* "intentional" dependence.[3] Transparency theorists conclude that the visual experience we have when looking at photographs is of the same *kind* as in case of seeing objects directly. Photographs are transparent, while paintings and drawings are "opaque", since the visual properties of paintings and drawings are mediated by or depend on the mental states of the artist.

Second, although transparency in itself is not sufficient for considering looking at photographic images to be perception (seeing), it seems easy to find a suitable second condition. The reason why transparency alone is not sufficient for perception is that understanding possible computer generated *verbal* descriptions of objects (based on a program that is capable of appropriately analysing visual input to the computer) could not be considered "seeing" the objects. Although such a description would be naturally dependent on the (visual) properties of the object described, the verbal description would not display any visual properties of the object. Hence, transparency theorists maintain that in order for a process to be considered perception (seeing in this case), transparency should be supple-

[3] Currie, 1995a.

mented with the condition of preserving real similarity relations. Errors of discrimination show that although we may easily mistake the word "house" for "hearse", it is unlikely that their visual images would be mistaken for each other. Images of houses, however, may well be mistaken for images of barns, because of the real similarities between the visual properties of those objects.[4] Although computer generated verbal descriptions may be transparent, they do not preserve real similarity relations between the visual properties of objects and their descriptions. Photographs, however, satisfy both conditions; they are transparent and they preserve real similarity relations. Transparency theorists maintain that satisfying both conditions means that looking at photographic and cinematic images of objects is a perceptual process that is analogous to directly seeing the objects themselves.

Criticism of the transparency thesis involved a number of considerations. First, it has been argued that the thesis entails that photographs are not to be considered representations, for the suggestion is that through photographs we see the objects themselves, not their representations.[5] To this objection Walton replied that his position was misconstrued; photographs are to be considered "transparent representations"; they allow us to actually see, although indirectly, the objects represented.[6] Second, there seem to be fundamental differences between the kind of information we gain via ordinary seeing and by looking at photographic and cinematic images. Seeing allows us to orient our bodies with respect to the objects seen. This type of "egocentric information" is available when looking at objects directly, when seeing through telescopes or eyeglasses, but not in case of looking at photographic images of objects. In other words, photographs do not allow us to see objects in the ordinary sense of perception, because they do not provide us with egocentric information, a kind of information that is an important aspect of the adaptive value of seeing.[7] Walton, however, maintains that this objection loses its appeal, once objects seen in mirrors are considered; although egocentric information is available in many cases, such information is not available when looking

[4] Walton, 1984. See also Carroll, 1996; Currie, 1995a.

[5] Carroll, 1995, 1996; Currie 1995a.

[6] Walton, 1997a.

[7] See Carroll, 1996; Currie, 1995a.

at objects through a confusing array of mirrors. Egocentric information, so Walton concludes, is not a suitable condition for ordinary seeing, for gaining that information depends on background knowledge; knowledge about the nature and arrangement of the mirror or mirrors.[8]

3. Imagining Seeing

According to Walton, although it follows from transparency that we see actors when watching movies, nevertheless we imagine seeing characters and events. Imagining seeing involves a perspective; we imagine seeing the characters and events "from a certain perspective or point of view, one determined by the position of the camera, or rather by features of the screen images that result from the position the camera was in when the film was photographed"[9]. Walton also argues that this process is not necessarily a deliberate one, but rather, imagination (that is, imagining seeing) happens "more or less automatically"[10].

Currie[11], however, argues that Walton's account entails that when we imagine that we see the events depicted by the shots we may also have to imagine a number of implausible consequences of the process. We may have to imagine impossible movements between shots in order to imagine the different perspectives suggested by the different camera positions. We should imagine that we are invisible when we see characters in intimate situations, in which they would not behave as they do in the presence of an onlooker. Also, many shots would require imagining some magical epistemic access to the events. Seeing people in a crowd and listening to their conversation, with the noise around them conveniently filtered out, for instance, cannot be easily accounted for by our ordinary visual and auditory access to events. It is also unclear precisely what we should imagine to explain that our visual experience is restricted; what we see does not depend on our decisions about what to look at.

Currie offers a different account of the kind of imagination involved in appreciating fiction films. First, he suggests that we need to distinguish

[8] Walton, 1997a.

[9] Walton, 1997a, p. 61.

[10] *Ibid.*

[11] Currie, 1995a.

between perceptual and symbolic beliefs. Perceptual beliefs are mental representations that are counterfactually dependent on the visual properties of the objects they represent; "if the thing seen had been a little bit more red, or larger, or had more closely approximated squareness, my belief would correspondingly have been that it was more red, larger or more square"[12]. Symbolic beliefs, that is, beliefs we come to have as a result of reading verbal descriptions, do not depend counterfactually on the visual properties of symbols; "differences in the shapes of the letters would not have induced in you different beliefs about the shape of the thing described"[13]. Second, we need to distinguish between beliefs and desires on the one hand, and imagined or simulated mental states on the other hand. Simulated (imagined) mental states are similar to beliefs and desires in terms of internal causal role; they can be operated on by inference mechanisms and they can cause emotional states, for instance. However, simulated mental states do not share their external causal roles with beliefs and desires because they are blocked off from behaviour; they are "off line".[14] Movies, according to Currie, encourage perceptual imaginings; there is a counterfactual dependence between the visual properties of the pictorial representations we see and our imaginings (our simulated mental states). When watching movies we imagine that the characters and objects have the visual properties depicted by the images we see, but we do not imagine any specific epistemic contact, such as seeing, with what we imagine to have those visual properties.

4. Pictorial Representations and a Cognitive Theory of Imagination

I think that the controversy concerning transparency and imagining seeing is misguided, because the differences between these positions become mainly terminological, once the nature of the cognitive architecture, the perceptual and cognitive mechanisms and processes involved in perceiving pictorial representations and in imagination are explicitly explained.

[12] Currie, 1995a, p. 182.

[13] *Ibid*, pp. 182-183.

[14] For the simulation theory of fiction see Currie, 1995a, 1995b, 1997; Feagin, 1996; Walton, 1997b.

Figure 1 shows the basic cognitive architecture I propose to explain the cognitive mechanisms and processes involved in imagination when we understand and respond to fictions.[15] The architecture suggests that some of our cognitive systems may operate on the same representation either as belief or as non-asserted thought. For instance, we can have a mental representation (a thought) with the following content: *The International Space Station is being attacked by Martians.* We may or may not hold a psychological attitude, such as belief, in relation to that content, that is, we may or may not believe that the International Space Station is being attacked by Martians.[16] Our inference mechanisms may operate on the content of this mental representation regardless of our psychological attitude in relation to it; we can, for instance, predict that the astronauts would panic and try to escape from the Station, should we consider this thought hypothetically, or we can also predict that they will do so in the movie we are watching (in which the International Space Station is being attacked by Martians). Other cognitive systems, such as action control, however, may only operate on mental representations that are classified as beliefs by the belief generator system.

I suggest that inference mechanisms and affect systems may operate on mental representations without necessarily being sensitive to whether or not we hold a psychological attitude, such as belief, in relation to the content of those mental representations. Examples of the insensitivity of these systems to psychological attitudes include being moved by representations entertained non-assertively when attending to fictions, hypothetical reasoning, and possibly a number of other processes. Of course, emotional reactions often require beliefs in the object of the emotion and

[15] I first developed this architecture [Bátori, 2005] to address and resolve difficulties with the "make-believe/simulation theory" (Currie, 1995a, 1995b, 1997; Feagin, 1996; Walton, 1997b) and the "mental representation theory" (Carroll, 1990, 1997, 1998, 1999; Lamaque, 1981) of our cognitive and emotive involvement with fictions. The account was also influenced by the cognitive theories of pretense, developed by Leslie (1987, 1988, 1994) and Nichols and Stich (2000), and the account of emotional responses to fictions by Meskin and Weinberg (2003), although my theory of fiction and imagination diverges from those accounts in several important respects.

[16] Mental representations that are entertained but not asserted are called non-asserted thoughts by mental representation theorists, and imagined or pretend or simulated mental states by make-believe/simulation theorists of fiction.

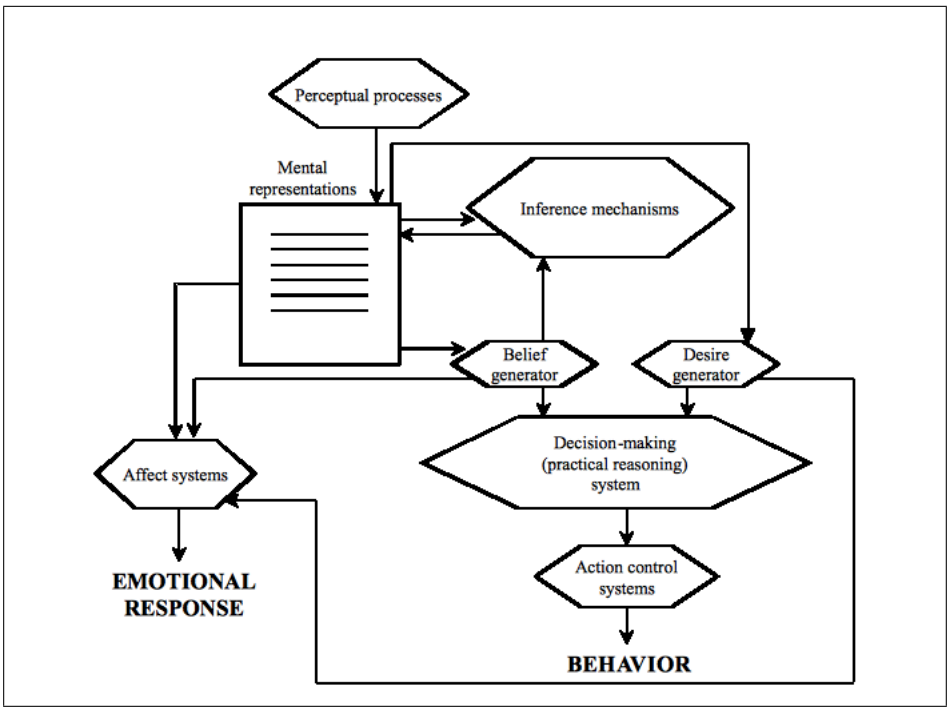

FIGURE 1. A Cognitive Theory of Fiction and Imagination.

in the occurrence of the relevant events, so some representations may only engage the affect system after being classified as beliefs by the belief generator. The belief generator takes non-asserted mental representations as input and yields beliefs with the same content as output. This is a filtering process; the belief generator determines what mental representations can be "seen" by the systems that are sensitive to our psychological attitude in relation to the content of those mental representations. In other words, I suggest that certain mechanisms, such as decision making and action control systems may only operate on representations that are "let through" (or can be seen through) by the belief generator. Contents of fictions (i.e., what is fictional in the story) do not pass this system, unless we mistake the fiction for reality.

FIGURE 2 shows how the account may be extended when linguistic and pictorial mental representations are explicitly distinguished.

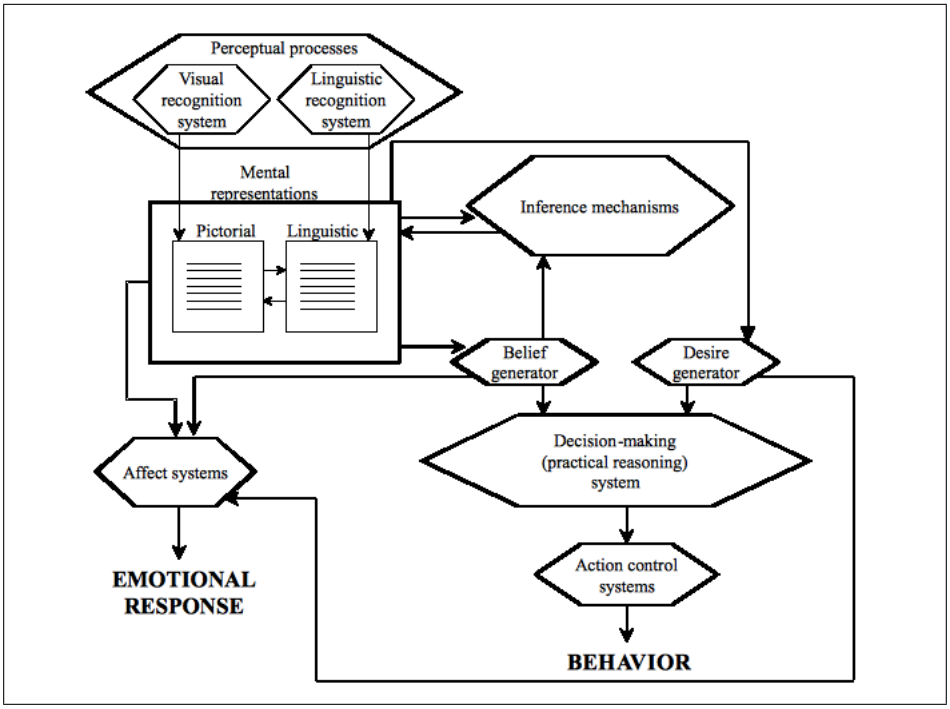

FIGURE 2. Imagination: Pictorial and Linguistic Representation.

The outputs of perceptual processes are mental representations in linguistic and pictorial form.[17] The difference between symbolic and perceptual beliefs and imaginings, suggested by Currie, is one aspect of this distinction. Pictorial mental representations in the diagram correspond to what Currie calls perceptual imaginings, excluding other, nonvisual perceptual imaginings that are not discussed here, while linguistic mental representations correspond to what Currie calls symbolic imaginings. Perceptual processes are fast, automatic, and reflex-like; once triggered by some input, the visual recognition system identifies the input and yields the output in the form of the pictorial mental representation of the object seen. Perceptual mechanisms are also modular; higher cognitive mechanisms, such as inference mechanisms, decision-making, and the like, do not play any role in such recognition capacities.[18] My visual system will identify the in-

[17] I will only consider language and vision here; of course, the account could be further extended to include other perceptual processes as well.

[18] For the modularity of perceptual mechanisms see Fodor, 1985, for example.

put as horse, on the basis of just a few visual features of the object. For instance, my visual recognition system will be triggered by horses, sketchy drawings (of horses), photographs of horses, etc., on the basis of a few key visual horse-identifying properties.[19] In other words, visual recognition mechanisms can be triggered by a small set of visual properties, resulting in a pictorial mental representation of the object in question. This mental representation, however, is *not* a belief, because on the basis of further information, inferences, etc., (that is, on the basis of information not available to the recognition mechanisms) I may or may not come to believe that I see a horse.

Let me turn now to the disputes over transparency and imagining seeing. First, in the light of the discussion above, the appeal of the transparency thesis can be put as follows. Natural counterfactual dependence and preserving real similarity relations are not the sole reasons for considering looking at photographic images to be analogous to seeing the objects themselves. The appropriate visual recognition mechanisms are triggered either by the visual properties of the horse itself or by a mechanical record of those properties. Since the information concerning the status of the visual properties recognized (original *vs.* record) is unavailable to the visual recognition systems (due to the modularity of perceptual mechanisms), there are no relevant differences between the processes of recognizing objects and recognizing their photographic images. Hence, seeing objects "through" photographs may be considered to be "perception proper" (even if seeing is "indirect" in this case).

This clarification of transparency, however, only explains why photographs may be considered transparent with respect to *many* or even *most*, but *not all* visual properties of objects. The main argument against transparency was that seeing photographs of objects does not provide us with the kind of egocentric information seeing the objects themselves does, that is, we cannot orient our bodies with respect to an object when looking at its photographic image. Transparency theorists could only dismiss this objection if egocentric information was inferred or provided by some mechanism *other* than the perceptual system, for in that case the processes involved in seeing objects and their photographic images may not exhibit

[19] See Currie, 1995; Schier, 1986.

any relevant differences. Egocentric information, however, is not inferred. Being round and being above another object are different properties recognized by the visual system; the former is a non-relational, while the latter is a relational property. Similarly, the location of the object seen with respect to the perceiver is a relational property, recognized by the very system that was argued to recognize other relational and non-relational visual properties of the object. This means that although photographs may be considered transparent with respect to most visual properties of the object, they cannot be considered transparent with respect to this relational property; the visual system provides us with egocentric information about the *object* itself when looking at it directly, but it provides egocentric information about the *photograph*, not the object photographed, when looking at its photographic image. The question of whether perceiving this kind of relational property is necessary for "perception proper", however, seems to be either terminological or the answer should be based on an independently plausible definition of perception. I will not argue for such a definition here, but as I mentioned earlier, the kind of egocentric information in question is often suggested to be an important aspect of the adaptive value of seeing, and the information is provided by the perceptual system itself, not by some other cognitive mechanism.

Finally, let us turn to imagining seeing. As we saw, Walton holds that watching fiction films involves imagining seeing the events from the perspective determined by the camera, while opponents of this view argue that imagining seeing would also involve imagining what having such a visual experience would entail or require. Currie suggests that movies encourage perceptual imaginings; there is a counterfactual dependence between the visual properties of the pictorial representation we see and our imaginings (our simulated mental states), but we do not imagine seeing. Figure 2 helps us clarify the nature of this dispute. On the one hand, Walton's position could be explained by restricting imagining seeing to coming to have mental representations in pictorial form. Walton's appeal to the automatic nature of the process in fact supports this interpretation of his position. When watching fiction films, the pictorial mental representations we form as the output of the perceptual processes (Figure 2) may or may not be operated on by inference mechanisms. That is, we may or may not consider what coming to have those mental representations

would require or entail, should we receive the input in question directly, not via cinematic images. Walton's position would be that we do not engage in such considerations when watching movies, although we can certainly do so when reflecting on our visual experiences. This understanding of imagining seeing is compatible with Walton's position, since the mental representations in question are in fact determined by the position of the camera that was used to produce the cinematic images. On the other hand, as I suggested above, pictorial mental representations in Figure 2 correspond to what Currie calls perceptual imaginings (excluding other, nonvisual perceptual imaginings). Therefore, the mental representations (in pictorial form) and the perceptual and cognitive mechanisms involved in what Walton calls imagining seeing and in what Currie calls perceptual imagining seem to be identical. If this explanation of the disagreement between the two theories is correct, then I can only conclude that the dispute is terminological, and I offer my account not only as a theory of the nature of photographic images and of the perceptual and cognitive processes involved in watching fiction films, but also as an explanation that eliminates a number of seemingly substantial controversies about these issues.

References

Bátori, Zs. (2005). *Fiction, Imagination, and Cognition.* (PhD Dissertation, Rutgers, the State University of New Jersey.) Ann Arbor: UMI Dissertation Publishing.

Carroll, N. (1990). *The Philosophy of Horror or Paradoxes of the Heart*. New York: Routledge.

— (1995). Critical Study: Kendall L Walton, Mimesis as Make-Believe. *Philosophical Quarterly*, 45:178, 93-99.

— (1996). Defining the Moving Image. In Carroll, N., *Theorizing the Moving Image*. Cambridge: Cambridge University Press.

— (1997). Art, Narrative, and Emotion. In M. Hjort and S. Laver (Eds.), *Emotion and the Arts.* New York: Oxford University Press.

— (1998). *A Philosophy of Mass Art*. Oxford: Clarendon Press.

— (1999). Film, Emotion, and Genre. In C. Plantinga and G. M. Smith (Eds.), *Passionate Views: Film, Cognition, and Emotion.* Baltimore: The Johns Hopkins University Press.

Currie, G. (1995a). *Image and mind: Film, philosophy and cognitive science.* Cambridge: Cambridge University Press.

— (1995b). Imagination and Simulation: Aesthetics Meets Cognitive Science. In M. Davies and T. Stone (Eds.), *Mental Simulation: Evaluations and Applications.* Oxford: Blackwell.

— (1997). The Paradox of Caring: Fiction and the Philosophy of Mind. In M. Hjort and S. Laver (Eds.), *Emotion and the Arts.* New York: Oxford University Press.

Feagin, S. L. (1996). *Reading with Feeling: The Aesthetics of Appreciation.* Ithaca and London: Cornell University Press.

Fodor, J. (1985). Précis of *The Modularity of Mind. Behavioral and Brain Sciences*, 8, 1-42.

Lamarque, P. (1981). How Can We Fear and Pity Fictions? *The British Journal of Aesthetics*, 21:4, 291-304.

Leslie, A. M. (1987). Pretense and Representation: The Origins of 'Theory of Mind'. *Psychological Review*, 94, 412-26.

— (1988). Some implications of pretense for mechanisms underlying the child=s theory of mind. In J. W. Astington, P. L. Harris and D. R. Olson (Eds.), *Developing Theories of Mind.* New York: Cambridge University Press.

— . (1994). *Pretending* and *believing*: issues in the theory of ToMM. *Cognition*, 50, 211-238.

Meskin, A. and Weinberg, J. (2003). Emotions, Fiction, and Cognitive Architecture. *British Journal of Aesthetics*, 43, 18-34.

Nichols, S. and Stich, S. (2000). A cognitive theory of pretense. *Cognition*, 74, 115-147.

Schier, F. (1986). *Deeper into pictures: An essay on pictorial representation.* Cambridge: Cambridge University Press.

Walton, K. (1984). Transparent Pictures: On the Nature of Photographic Realism. *Critical Inquiry*, 11:2, 246-277.

— (1986). Looking Again through Photographs: A Response to Edwin Martin. *Critical Inquiry*, 12:4, 801-808.

— (1997a). On Pictures and Photographs: Objections Answered. In R. Allen and M. Smith (Eds.), *Film Theory and Philosophy*. Oxford: Clarendon Press.

— (1997b). Spelunking, Simulation, and Slime: On Being Moved by Fiction. In M. Hjort and S. Laver (Eds.), *Emotion and the Arts*. New York: Oxford University Press.