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How the intentions of the draftsman shape perception of a drawing

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ABSTRACT

The interaction between the recovery of the artist's intentions and the perception of an artwork is a classic topic for philosophy and history of art. It also frequently, albeit sometimes implicitly, comes up in everyday thought and conversation about art and artworks. Since recent work in cognitive science can help us understand how we perceive and understand the intentions of others, this discipline could fruitfully participate in a multidisciplinary investigation of the role of intention recovery in art perception. The method I propose is to look for cases where recovery of the artist's intentions interacts with perception of a work of art, and this cannot be explain by a simple top-down influence of conscious propositional knowledge on perception. I will focus on drawing and show that recovery of the draftsman's intentional actions is handled by a psychological process shaped by the motor system of the observer.

1. Introduction

1.1. Art and cognitive science: some methodological precautions

Art is one of the most complex domains of human activity, notably because it can mobilize nearly all kinds of human abilities and competences. For this reason, many authors consider that cognitive science could be an essential actor in the theoretical investigation of art (Cavanagh, 2005; Dissanayake, 1992; Dutton, 2008; Freedberg & Gallese, 2007; Ramachandran & Hirstein, 1999; Solso, 2005; Zeki, 1999). One difficulty with cognitive approaches to art is that art (or artistic experience, or art appreciation) is not a natural kind, indeed it is far from that. If this is the case, it can hardly be addressed in toto with a scientific approach. As a result, cognitive approaches to art are frequently either too narrow or too broad. They are too narrow when they investigate local perceptual phenomena which can occur in front of artworks, but which can also occur in so many other cases of perception that it is unclear how they are supposed to enrich our understanding of art. They are too broad when they try to address very general questions such as art appreciation, for which it is unclear that the tools provided by cognitive science can have relevance, since it is unlikely that the kinds of questions asked could lead to testable hypotheses.

Thus, for a cognitive approach to be optimized, it is important to find "mid-level" questions, neither too broad nor too narrow (Casati, 2003; Pignocchi, in press). At first sight, the topic of intentions might provide such questions. On the one hand, the study of the mechanisms at work when we recover other's intentions is one of the most active fields in cognitive science. On the other hand, the recovery of the artist's intentions is a classical topic for traditional disciplines in the investigation of art, such as philosophy (Davies, 1982; Iseminger, 1992; Levinson, 1993; Livingston, 1998), art criticism, and art history (Baxandall, 1985; Gombrich, 1995). The topic of intention is also frequently present, although sometimes only implicitly, in our everyday thinking and conversation about art and artworks. For these reasons, research on intentions in art could argue for a role for cognitive science in pluridisciplinary investigations, as an alternative to proceeding as if the field of art was impervious to serious scientific investigation. Clearly, this viewpoint could help make it explicit how a cognitive approach can enrich our understanding of art.

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The topic of intentions, however, is still too wide, and it must be decomposed into more explicit sub-problems. This paper focuses on drawing. In conclusion will suggest some approaches to generalizing the results to other art forms. Drawing seems an interesting object of study for two main reasons. First, as a visual art, drawing already benefits from a rich literature in philosophy and the history of art. Second, as we shall see, it is possible to give a psychological account of how a drawing is produced. This will turn out to be helpful, since there is growing evidence in cognitive science that the motor knowledge of an observer plays a crucial role in the perception and understanding of the intentions of others.

Now we have narrowed down the object of inquiry a little, the last preliminary step will be to clearly formulate the problem that is to be addressed.

1.2. Intentions and perception: the problem

Some help is provided by two widely accepted theses in the analytic philosophy of art:

(1) Only information that can be seen in a picture, or that influences the way a picture is seen, has relevance for its appreciation, its understanding, and its evaluation as a picture (Graham, 1994; Lopes, 2005; Wollheim, 1987).
(2) The intentions of the artist play some role during the appreciation, understanding, and evaluation of a picture as an artwork (Danto, 1981; Hopkins, 2006; Livingston, 1998; Wollheim, 1987).

These two theses are supposed to be purely descriptive. They do not claim that we *should* understand, appreciate, or evaluate pictures this way. But that we actually *do* it this way. I will not provide a defense for these claims here, but it should be observed that they are quite intuitive. It is true that information which has absolutely no impact on the way we see a picture (its weight for instance) does not seem to have much relevance for our experience of this picture as a picture. It is also true that the intentions of the artist – what she wanted to do, how she proceeded, what problem she needed to solve – seem to frequently impact our experience of a piece of visual art.

The conjunction of these two theses implies that, in one way or another, there must be some interaction between the recovery of the artist's intentions and the perception of a picture. This last observation allows us to formulate a clear problem which seems both to be addressable with a cognitive approach and strongly related to traditional interrogations about art: *what are the psychological mechanisms that allow an observer to recover the artist's intentions, and how does this recovery interact with his perception of the picture?*

As said, we will restrict our investigation to drawing. But despite this restriction, the answer to the above question is still likely to be much too complex to be addressed in a single paper. Here, I will develop a general method (which could easily be adapted to the investigation of other art forms) and give the first results obtained using this method.

2. The top-down theory

2.1. The top-down influence of conscious propositional knowledge: a default theory

Authors who have discussed the question of the interaction between intention recovery and perception of pictures have addressed it by endorsing, at least implicitly, a very simple theory which I will refer as "the top-down theory". According to this view, an observer first acquires conscious propositional knowledge (i.e. knowledge which has a form something like that of a sentence) based on what she hears or reads about the intentions of the artist, in addition to the inferences she can perform using her background knowledge and what she perceives by looking at the picture. Once acquired, this propositional knowledge exerts a top-down influence on the way she sees the picture (Hopkins, 2006; Maynard, 2005, p. 191; Walton, 1987, p. 100; Wollheim, 1987, p. 89).

Simple as it is, this theory nevertheless explains many kinds of interaction between the recovery of an artist's intentions and the perception of a picture. Consider *A Woman Drinking Tea* by Chardin (the example is a painting, but since the top-down theory is supposed to apply to all kinds of pictures, it would apply in the same way to a drawing). Baxandall (1985) notices that Chardin did not paint the reflection of the woman on the teapot. He then informs us that the woman in the picture is Chardin's wife, a few weeks before her death. Baxandall argues that Chardin voluntarily suppressed the reflection to enhance the ghostly aspect of the woman. Contrary to what Baxandall seems to believe, it is implausible that without explicitly noticing it the absence of the reflection would have any effect on our experience of the painting. Cognitive science has shown that anomalies involving represented reflections are generally unprocessed by our cognitive apparatus (Cavanagh, 2005). Nevertheless, once we have read Baxandall's analyses, we start paying attention to the absence of the reflection, and begin seeing it as the result of a precise and meaningful intentional process. From this moment on, the absence of the reflection begins to shape our experience of the painting and, in fact, enhances the ghostly aspect of the woman drinking tea.

For this kind of case, the top-down theory seems adequate. However, intuitively, it seems implausible that the top-down theory could be the whole story about interaction between intentions and perception. Results in cognitive science reveal that conscious propositional knowledge cannot shape perception in all possible ways. More precisely, it appears to be able to shape it in only two ways. First, propositional knowledge can influence experience through attention. The acquisition of