Depicting Depictions

Abstract

How is it possible for a picture to depict a picture? Proponents of perceptual theories of depiction, who argue that the content of a picture is determined, in part, by the visual state it elicits in suitable viewers, that is, by a state of *seeing-in*, have given a plausible answer to this question. They say that a picture depicts a picture, in part, because, under appropriate conditions of observation, a suitable viewer will be able to *see* a picture *in* the picture. I think that this general answer is correct. Yet, I also believe that it is in conflict with the way in which some of the most influential perceptual theories of depiction—Robert Hopkins's version of the experienced resemblance theory and Dominic Lopes's version of the recognition theory—construe seeing-in, namely in terms of what I call the *design-thesis*. According to this thesis, the picture's design, that is, the two-dimensional marks visible on its surface, enter into the contents of the relevant states of seeing-in. My goal in this paper is to show that a version of the recognition theory that rejects the design-thesis can avoid this conflict and explain the depiction of pictures. I proceed in two steps. I first show why perceptual theories of depiction that accept the design-thesis have problems explaining the depiction of pictures. I then formulate a version of the recognition theory of depiction that rejects the design-thesis and show how it can explain the depiction of pictures.

1. Introduction

Willem van Haecht's painting in fig. 1 is a pictorial representation—a depiction—of a gallery. Like many other pictures, this picture depicts a scene—the gallery. But, in contrast to many other pictures, it also depicts pictures. Moreover, van Haecht's painting depicts many of these pictures in such a way that you can recognize the scenes they depict, that is, the painting depicts pictures as depictions, or, as I will often say for short, the painting depicts depictions.[1]

Fig. 1: Willem van Haecht, *The Gallery of Cornelis van der Geest*

[1] For discussions of the depiction of depictions, see, for example, Goodman (1976), Schier (1986, 52-55; 75-78), Neander (1987, 216), Peacocke (1987, 398), Lopes (1996, 209-227), Lopes (2005, 32-34), Newall (2003), Newall (2011, 95-113), Kulvicki (2006, 48-80), Nanay (2008, 978-979), Hopkins (2010, 159), and Greenberg (2013, 235).

How is it possible for a picture to depict a depiction? Proponents of perceptual theories of depiction appeal to the notion of *seeing-in* and argue that a picture depicts a depiction, in part, because, under appropriate conditions of observation, a suitable viewer will be able to *see* the depiction *in* the picture.[2] I think that this general answer is correct. Yet I also believe that it is in conflict with the way in which some of the most influential perceptual theories of depiction—Robert Hopkins's version of the experienced resemblance theory and Dominic Lopes's versions of the recognition theory—construe seeing-in, namely in terms of what I call the *design-thesis*.[3] According to this thesis, the picture's design, that is, the two-dimensional marks visible on its surface, enter into the contents of the relevant states of seeing-in. My goal in this paper is to show that a version of the recognition theory that rejects the design-thesis can avoid this conflict and explain the depiction of depictions.

The paper proceeds as follows. In section 2, I set the stage for my subsequent argument. I first introduce Hopkins's version of the experienced resemblance theory and Lopes's version of the recognition theory as two perceptual theories of depiction that accept the design-thesis. I then formulate a condition that these theories would have to satisfy in order to explain the depiction of depictions. In section 3, I argue that the design-thesis makes it impossible for Hopkins's version of the experienced resemblance theory to satisfy this condition. In section 4, I argue that the same holds true for Lopes's version of the recognition theory. I believe that the argument in these two sections can be extended to other versions of these two theories, as long as they accept the design-thesis. But I will not argue for this in this

[2] I will say more about seeing-in below. I adopt the label "perceptual theories of depiction" from Lopes. See, for example, by Lopes, (1996, 156).

[3] See, for example, Hopkins (1998) and Lopes (1996). Other versions of the experienced resemblance theory have been developed, for example, by Peacocke (1987) and Budd (1992, 1993). Other versions of the recognition theory have been developed, for example, by Schier (1986), Neander (1987), and Sartwell (1991, 1994). Neander also accepts the design-thesis. Sartwell explicitly rejects the design-thesis.

paper. In section 5, I formulate a version of the recognition theory of depiction that rejects the design-thesis and show how it can explain the depiction of depictions. I focus on the recognition theory here because the experienced resemblance theory cannot be divorced from the design-thesis.

2. Depicting depictions

The experienced resemblance theory and the recognition theory are both perceptual theories of depiction. Perceptual theories hold that depiction is an essentially visual type of representation. More specifically, they hold that a picture depicts a scene, in part, in virtue of its ability to elicit a visual state of a certain type in a suitable viewer.[4] If we use the term *seeing-in* as a general label for the relevant visual states, we can express this as follows: A picture depicts a scene only if, under appropriate conditions of observation, a suitable viewer will be able to *see* the scene *in* the picture.[5] In the following, I will call the scene depicted by the picture the picture's *pictorial content*. As we will see shortly, even though the experienced resemblance theory and the relevant version of the recognition theory agree on this general formulation, they define seeing-in in different ways.

Let me make two remarks about this general characterization of perceptual theories of depiction. First, this characterization does not specify what constitutes a suitable viewer or appropriate conditions of observation. For the purpose of this paper, the following broad

[4] This feature distinguishes perceptual theories of depiction from those theories that do not consider depiction to be essentially visual, such as resemblance and structural theories of depiction. Resemblance theories have been developed, for example, in Abell (2009), Hyman (2006), and Blumson (2014). Structural theories include Goodman (1976) and Kulvicki (2006). This feature also distinguishes perceptual theories of depiction from pretense theories. See Walton (1973, 1990).

[5] As is well known, the term *seeing-in* was originally introduced by Wollheim. Here I use the term simply as a general label for the visual states that determine pictorial content. I clarify the relationship between this use of the term and Wollheim's in fn. 12. I want to point out that both Lopes and Hopkins use the term *seeing-in* also in my sense, namely to refer to the visual states that determine pictorial content. They disagree, however, on the structure of these states. See, for example, Lopes (1996, ch. 2), Lopes (2005, ch. 1), and Hopkins (1998, 2010).

characterizations will suffice. A suitable viewer is usually defined as a viewer with a normally functioning visual system who has the appropriate psychological background that enables her to see the scene in the picture.[6] The appropriate conditions of observation are the conditions under which a suitable viewer will be able to see the scene in the picture. These conditions include both appropriate lighting conditions and an appropriate viewing position.

Second, the above characterization of perceptual theories in terms of seeing-in does not specify sufficient conditions for depiction. As Leonardo famously observed, we can see faces, landscapes, and other things in natural objects, such as stained walls. But stained walls are not usually depictions. Moreover, ambiguous figures, such as the famous duck-rabbit, show that viewers can sometimes see different scenes in the same picture not all of which are depicted by the picture. Following Wollheim, the proponents of the experienced resemblance theory and the recognition theory therefore supplement their theories of depiction with a *standard of correctness* (Wollheim 1987, 48). This standard determines which of the possible states of seeing-in determine the picture's pictorial content.[7]

We can now say more specifically how Hopkins's version of the experienced resemblance theory and Lopes's version of the recognition theory of depiction define seeing-in. According Hopkins, seeing-in is a conscious visual experience of resemblance. Hopkins characterizes this experience as follows: "To see something in a design is to experience the design as resembling that thing in that respect" (Hopkins 2010, 168). Hopkins defines a

[6] The appropriate psychological background here includes a general familiarity with pictures. But different theories also add more specific requirements. According to Hopkins, the appropriate psychological background includes knowledge of the appearance of the depicted object (Hopkins 1996, 31). According to Schier, Lopes, and Neander, the psychological background includes the disposition to recognize the depicted object (Schier 1986, 45; Neander 1987, 221; Lopes, 1996, 145).

[7] One view is that the standard of correctness is determined by the picture-maker's intentions. Another view is that the standard of correctness is causal. Wollheim (1987) and Hopkins (1998) embrace a mixed account, according to which intentional standards govern the correctness of hand-made pictures and causal standards govern the correctness of photographic pictures.

picture's design as "those features in virtue of which it supports seeing-in" (Hopkins 2010, 155). A picture's design thus includes the two-dimensional shapes and colors visible on the picture surface.[8] We can define this notion of seeing-in slightly more formally as follows:

Seeing-in as defined by Hopkins:

A viewer v *sees* a scene s *in* a picture's design d if, and only if, v visually experiences d as resembling s with regard to some respect R.

Seeing-in, according to his definition, is a visual experience with a unified, but complex, representational content. Such an experience represents the picture's design, the scene depicted by the picture, and the relevant resemblance between design and scene.[9] This definition leaves open the respect R in which design and scene are experienced as resembling each other. I will consider Hopkins's specific proposal in my critical discussion of this theory in the next section.

According to Lopes, seeing-in is a conscious visual recognitional state.[10] Lopes writes, for example, "pictorial recognition consists in recognizing a design as the features making up

[8] In a similar vein, Lopes states that the picture's design "comprises the surface configurations that you see when you see the picture surface without seeing anything in it and that are responsible for your seeing something in it" (Lopes 2005, 25). He also elaborates: "An incomplete list of pictorial design properties includes marks, directions, boundaries, contours, shapes, colors, hues, relative contrasts between light and dark, and also textures, such as smoothness of surface or invisibility of brushwork" (Lopes 1996, 3).

[9] Hopkins expresses this as follows: "In this account, seeing-in is a single experience with a complex content. The content is complex in that it has a particular structure: this resembles that in such-and-such respect" (Hopkins 2010, 168).

[10] Given phenomena like blindsight, one might plausibly argue that some recognitional states are unconscious states at the subpersonal or personal level. For the purpose of this paper, I will define the recognition theory in terms of conscious person-level recognitional states. Lopes allows for unconscious states. He writes, for example, "that we need not assume that pictorial experience is conscious, though in the vast majority of cases it is" (Lopes 1996, 177). However, I will ignore this possibility because it does not affect my argument.

an aspect of its subject" (Lopes 1996, 145).[11] We can thus define this notion of seeing-in as follows:

Seeing-in as defined by Lopes:

A viewer v sees a scene s in a picture's design d if, and only if, v visually recognizes d as features making up s.

A visual recognitional state in the relevant sense is a conscious mental state with a representational content that results from the exercise of the viewer's visual recognitional capacities. According to Lopes, these recognitional capacities may include both capacities that are employed in ordinary visual experience and extensions thereof. A viewer who is in the relevant recognitional state recognizes the visually represented design features as visible features that could be instantiated in some scene.[12]

These definitions imply that the design enters into the contents of states of seeing-in on both theories. According to Hopkins, a viewer cannot experience the design as resembling

[11] Lopes's account of seeing-in is actually more complex. He distinguishes between two levels of recognition—content-recognition and subject-recognition. The definition here applies only to content-recognition. Subject-recognition refers to the viewer's ability to "recognize picture's contents as of their subjects" (Lopes 1996, 145). I will not consider subject-recognition in this paper, however. The reason for this is that my arguments target the more basic form of content-recognition. I would also like to point out that in a later paper on the depiction of color, Lopes formulates his notion of content-recognition with regard to colors in a slightly different way: "*P* represents *x* as a F in color only if a suitable viewer, looking at *P* in suitable lighting conditions, is able to recognize *P* as of something *F* in color" (Lopes 1999, 422). See also Kulvicki's formulation of the recognition theory (Kulvicki 2014, 37).

[12] I would like to make a comment to avoid misunderstanding. As is well known, Wollheim defined seeing-in as a twofold visual experience. According to him, when a viewer sees a scene in a picture, she is simultaneously visually aware of both the scene depicted by the picture and the relevant design features *qua* features of the picture surface. See, for example, Wollheim (1987, 1998, 2003). According to the above definitions, Hopkins's and Lopes's notions of seeing-in are twofold in the sense that they involve representations of both scene and design. See, for example, Hopkins (2010, 168) and Lopes (1996, 192). But twofoldness in this sense does not imply twofoldness in Wollheim's sense. Lopes explicitly rejects Wollheimian twofoldness in several places (Lopes 1996, 37-51, 177; 2005, 34-36). The two notions of seeing-in do not require that the viewer be aware of design features *qua* features of the picture surface.

the scene in some respect unless she is somehow visually aware of the design, that is, unless her experience represents the design. According to Lopes, a viewer cannot recognize the design as features making up the scene unless she is visually aware of the design, that is, unless her recognitional state represents the design. I will formulate this commonality between the two views as the design-thesis:

Design-thesis:

> When a viewer sees a scene s in a picture's design d, the design enters into the content of the state of seeing-in.[13]

I would like to emphasize two points about this thesis. First, the design-thesis does not require that that the design be represented as design, that is, as marks on the picture surface that support the relevant states of seeing-in. For example, in Lopes's theory, the design is represented as features making up the picture's scene.[14] Second, the design-thesis does also not require that the viewer pay attention to the picture's design. The viewer might be completely immersed in her experience of the scene depicted by the picture.

The fact that seeing-in as defined by both Hopkins and Lopes implies the design-thesis allows me to formulate a condition that both notions of seeing-in would have to satisfy in order to account for the depiction of depictions. I will first state this condition, which I will call the *perception condition for seeing-in*, and then explain the reasons for it:

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[13] The design-thesis is implied in a number of formulations by Lopes. He writes, for example: "It is no mystery that when we look at a picture, we see its design, its marked coloured, and textured surface" (Lopes 1996, 177). "It is only in virtue of seeing the configurations of marks on its surface, and being sensitive to visible changes in them, that we see anything in the design" (Lopes 2005, 28).

[14] Lopes argues, for example, that design features are sometimes seen as design features, but this requires a separate experience, which he calls *design-seeing* (Lopes 2005).

Perception condition for the depiction of depictions:

A picture P_1 depicts a picture P_2 as a depiction only if, under appropriate conditions of observation, a suitable viewer sees P_2's design d_2 in P_1's design d_1 and also sees P_2's scene s_2 in P_2's design d_2.[15]

We can understand the reason for the perception condition by means of two considerations. First, hidden in the corner in van Haecht's painting in fig. 1, next to the statues, you will find some paintings that are depicted from the back. A viewer who looks at these paintings might recognize them as paintings. But, since she does not see the scenes they depict, she does not see them as depictions. Thus, in order to see a picture P_2 in a picture P_1 as a depiction, a viewer has to see the scene depicted by P_2. Second, when a viewer looks at a picture that depicts a mirror, she will see the scene that is reflected in the mirror. But she will not see the scene as depicted by the mirror. We can distinguish seeing a depiction in a picture from seeing a mirror in a picture, if we require that the viewer see P_2's scene as depicted by P_2. In accordance with the design-thesis, this requires that the viewer see P_2's scene in P_2's design.[16] If she would only see the scene in P_1's design, she would see it as depicted by P_1 and not as depicted by P_2. The perceptual condition accommodates these two considerations by requiring

[15] Hopkins and Lopes both accept the perception condition for the depiction of depictions. Hopkins is very clear on this when he writes that when we see a picture in a picture, "a design, with something visible in it, is precisely what we see in this picture" (Hopkins 2010, 159). Speaking about Vermeer's painting *Woman Holding a Balance*, which depicts, among other things, the *Last Judgment* as a depiction, Lopes puts forward "the plausible hypothesis" that "both the design of the *Last Judgment* and the apocalypse it depicts are seen in *Woman Holding a Balance*—the latter in virtue of the former" (Lopes 2005, 32).

[16] A similar observation is implied by Schier's definition of the depiction of depictions. Schier calls the depiction of depictions "pictorial quotation" and writes: "Thus when S pictorially quotes S*, S must depict S* and depict the contents of S*. We might put it this way: when S pictorially quotes another picture S*, S not only depicts the content of S* but depicts that content as belonging to S*" (Schier 1986, 76). Lopes also makes a similar observation in his critique of Gombrich's illusion theory (Lopes 2005, 29-34).

two states of seeing-in, namely one state of seeing P_2's design in P_1's design and another state of seeing P_2's scene in P_2's design.[17]

3. A problem for seeing-in as defined by Hopkins

I will now argue that seeing-in as defined by Hopkins's version of the experienced resemblance theory of depiction cannot satisfy the perception condition for the depiction of depictions. I will restrict my argument to shape properties because they play a central role in Hopkins's theory. I will first sketch the relevant features of Hopkins's proposal and then argue that it is unable to satisfy the perception condition for the depiction of depictions.

Hopkins construes the resemblances between design and scene in terms of a certain type of viewpoint-dependent properties, namely as what he calls *outline shapes*. According to Hopkins, an "outline shape at a point [is] the solid visual angle it subtends at that point" (Hopkins 1998, 55).[18] To explain the notion of a solid visual angle, consider first the more familiar notion of a visual angle. A visual angle is the angle subtended by two points on the surface of an object (for example, the object's vertical or horizontal extremities) at a viewpoint. Fig. 2 depicts a pyramid and a viewpoint V. Assume that V is located in the same plane as the pyramid's base. Assume further that the lines AB and CD are parallel to each other. Fig. 2 shows two visual angles, namely the visual angle subtended by the pyramid's base at V (angle AVB) and the angle subtended by CD at V (angle CVD). These two angles lie in two different planes that cut the pyramid's face at parallel lines. According to Hopkins,

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[17] The perception condition mentions two kinds of design features, those belonging to P_1 and those belonging to P_2. There is an important difference between these kinds of design features. The former are actual aspects of P_1's picture surface. The latter are features depicted by the former. One might therefore doubt that the latter are capable of supporting seeing-in, as required by Hopkins's definition of design. I share these doubts. But, at this point in my argument, I will proceed as if a depicted design is capable of supporting seeing-in.

[18] Budd (1993) provides a closely related account of the relevant viewpoint-dependent properties. Hopkins's notion of an outline shape has been criticized, for example, in Abell (2005).

the solid visual angle subtended by the pyramid's face relative to V is "the combination, in three dimensions, of all the angles subtended in individual planes" beginning at the base and ending at the apex (Hopkins 1998, 55). Formulated more generally, the solid visual angle subtended by a surface at a viewpoint is the set of all visual angles subtended by that surface at that point.[19]

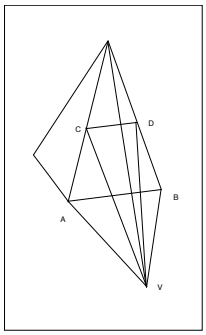

Figure 2: Pyramid with visual angles

Hopkins further argues that outline shapes can be perceived. Indeed, they are aspects of the contents of ordinary visual experiences, namely those aspects that account for the object's spatial perspectival character. Consider a visual experience of a circular plate. Unless you misperceive the plate's shape, it will look circular to you from different viewpoints. But there is also a sense in which the plate looks different from different viewpoints. We usually characterize this sense by saying that the plate looks elliptical when seen from an oblique angle. What we express, according to Hopkins, in this slightly misleading way, is the fact that the plate is seen to instantiate a certain outline shape, namely one that is identical to the outline shape of an ellipsis on a plane perpendicular to the viewer's line of sight (Hopkins 1998, 60).

[19] I would like to add two comments. First, according to Hopkins, the outline shape of an object is determined by all the outline shapes of its parts. Second, more recently, Hopkins has defined outline shapes in terms visual directions from a point (Hopkins 2003). But this does not affect my argument.

We can bring out the problem for Hopkins's notion of seeing-in if we apply the perception condition for the depiction of depictions to the concrete example illustrated in fig. 3.[20]

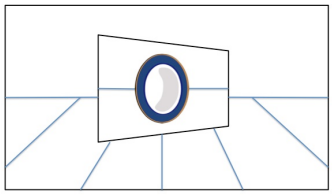

Fig. 3: Picture P_1 depicts picture P_2 as depicting a circular plate

In this image, picture P_1 depicts picture P_2. P_1 depicts P_2 as tilted to the viewer's line of sight. P_2 depicts an untilted circular plate.[21] The plate is untilted in the sense that it would face a viewer who would be positioned in front of P_2 in P_1's pictorial space at a right angle. The perception condition for the depiction of depictions applies to this example as follows:

> **Perception condition for seeing-in as defined by Hopkins:**
>
> A viewer v sees picture P_2 in P_1 as a depiction only if (i) v visually experiences P_1's design d_1 (the elliptical region on P_1's surface) as resembling P_2's design d_2 (the circular region depicted on P_2's surface) in outline shape, and (ii) v visually experiences P_2's design d_2 (the circular region on P_2's surface) as resembling P_2's scene s_2 (the circular plate depicted by P_2) in outline shape.

[20] For the purpose of the paper, I will treat fig. 3 as a depiction of a depiction. But it is actually a depiction of a depiction of a depiction. The same holds for some of the other figures in this paper.

[21] I think that it is clear that P_2 is depicted as depicting a circular plate. But even if the reader disagrees, we can give other examples of this kind. One way to construct an alternative example is by replacing the circular plate with a square or rectangular plane.

The perception condition requires that a viewer who sees P_2 in P_1 in the example in fig. 3 visually experiences d_1 as resembling d_2 in outline shape, and also visually experiences d_2 as resembling s_2 in outline shape. We can therefore ask whether the outline shape with respect to which d_1 is experienced as resembling d_2 is the same (or at least roughly the same) as the outline shape with respect to which d_2 is experienced as resembling s_2, or whether the two outline shapes are different. Both options lead to problems. Yet, before we can see why it will be necessary to make explicit an important consequence of the experienced resemblance theory.

The experienced resemblance theory has the consequence that the pictorial content of a picture can only be as determinate as the experience of resemblance. Consider the following example. Suppose a painter paints a circular plate that faces the viewer at a right angle. Suppose further that, painting in the impressionist style, the painter uses brushstrokes to depict the plate that blend somewhat into the background. A viewer who looks at the painting will not be able to tell the exact border between the brushstrokes that depict the plate and the brushstrokes that depict the background, that is, she will not be able to see the design as having a determinate shape. If the viewer cannot see the design as having a determinate shape, she can also not see it as having a determinate outline shape. But if the viewer cannot see the design as having a determinate outline shape, she can also not experience design and plate as resembling each other with regard to a determinate outline shape. As a consequence, the picture cannot depict the determinate shape of the plate. The picture clearly depicts a plate, that is, it depicts something that has a determinate shape. But it does not depict the plate's determinate shape.

Let us now consider the two options. Assume first that the outline shape with respect to which d_1 is experienced as resembling d_2 is roughly the same as the outline shape with respect to which d_2 is experienced as resembling s_2. According to this assumption, the viewer experiences d_1, d_2, and s_2 as subtending roughly the same solid visual angle from her point of view. Now d_1 is the untilted elliptical region on P_1's surface, d_2 the tilted circular region depicted on P_2's surface, and s_2 the untilted circular plate depicted by P_2. As a consequence, the viewer experiences d_2 as resembling in outline shape both the untilted elliptical region on P_1's surface and the untilted circular plate depicted by P_2. In other words, she experiences d_2's outline shape as indeterminate in this way. This leads to a contradiction. As we have seen, a picture's pictorial content can only be as determinate as the experienced resemblance. This also holds for the content of P_2. If the viewer experiences d_2 as indeterminate in the way described above, it follows that P_2 depicts the plate as having an indeterminate shape, namely as being either elliptical or circular. But this contradicts the fact that P_2 in fig. 3 depicts the plate as being circular.

Assume then that the outline shape with regard to which d_1 is experienced as resembling d_2 is different from the outline shape with regard to which d_2 is experienced as resembling s_2. No matter how we flesh out the details, this assumption implies that the viewer's experience attributes two different outline shapes to d_2 at the same time. This, I think, is problematic from a phenomenological point of view. The region that depicts the plate is experienced as subtending only one visual solid angle, namely the same visual solid angle that is subtended by both an untilted elliptical region (d_1) and a tilted circular region (d_2). One might think that one could avoid this problem by appeal to imagined experiences. One could say, for example, that the viewer experiences d_1 as resembling d_2 with regard to some outline

shape and imagines experiencing d_2 as resembling s_2 with regard to some other outline shape. But the proponent of the experienced resemblance theory cannot appeal to imagined visual experiences.

At this point, one might object that something must have gone wrong with the above argument. It is a well-established fact that viewers can see scenes in pictures accurately from a surprisingly large number of different viewpoints.[22] It should then also be possible to see a scene accurately in a picture that is depicted as tilted like the one in fig. 3. In order to assess this response, we need to consider how Hopkins's proposal could account for the fact that viewers can see scenes in pictures accurately even if they look at them from unusual viewpoints. As far as I can see there are two options.

The first option is to ascribe to viewers a capacity to see the same outline shape from different viewpoints, that is, to postulate outline shape constancy. Suppose a viewer shifts her position relative to a picture from left to right. This changes her viewpoint and, with it, the solid visual angle subtended by the picture's design. According to the present suggestion, the viewer nevertheless experiences the design's outline shape as constant, namely as roughly identical to the outline shape it subtends from the picture's intended viewpoint. One could then further argue that outline shape constancy also applies to depicted pictures. Even though the depicted picture in fig. 3 is tilted relative to the viewer's actual viewpoint, she, nevertheless, experiences d_2 as resembling s_2 with respect to an outline shape that is relative to a viewpoint perpendicular to P_2's surface. Yet, this option would have the consequence that

[22] This phenomenon is well known. When a picture is seen from an oblique angle, the shapes of the objects belonging to the scene depicted by it are not as distorted as one would expect according to the laws of geometry. Wollheim, for example, thought that we could appeal to this fact to prove the twofoldness of pictorial experiences in his sense (Wollheim 1980, 215-16). For further discussion of this phenomenon, see, for example, Pirenne (1970) and Kubovy (1986).

the viewer experiences d_2 as having two different outline shapes. This, as we have seen, is problematic from a phenomenological point of view.

The second option assumes that seeing-in involves a special type of outline shape. On Hopkins's view, ordinary visual experiences always involve outline shapes. Call these outline shapes for the moment *ordinary outline shapes*. Ordinary outline shapes change with viewpoint in a way that accounts for perspectival changes. The present suggestion is to account for the fact that pictures can be seen accurately from many different viewpoints by stipulating that resemblance seeing-in involves not ordinary outline shapes, but rather what one could call *pictorial outline shapes*. We could define a pictorial outline shape as the set consisting of all those ordinary outline shapes that allow for the accurate perception of the picture's scene. According to this suggestion, a design feature would instantiate one single pictorial outline shape as long as it is seen from one of the viewpoints belonging to one of these ordinary outline shapes. One could then say that d_1, d_2, and s_2 in fig. 3 all instantiate the same pictorial outline shape.

This option is also problematic. Like the original assumption, this proposal would render P_2's content indeterminate in a way that is in conflict with the actual facts. In order to account for the situation in fig. 3, we would have to define the relevant picture outline shape in such a way that it is shared by d_1, d_2, and s_2. But, in this case, d_2 would be experienced as resembling in outline shape both an untilted elliptical region and an untilted circular plate, that is, it would be experienced as indeterminate in this way. And, as we have seen, this has the consequence that P_2 depicts the plate as having an indeterminate shape in the sense of being either elliptical or circular. This, again, contradicts the fact that P_2 depicts the plate as being circular.

If the above argument is sound, it shows that seeing-in as defined by Hopkins's version of the experienced resemblance theory of depiction either misconstrues the content of the depicted picture in fig. 3 or leads to phenomenological inconsistencies. It thus fails to satisfy the perception condition for the depiction of depictions stated above.

4. A problem for seeing-in as defined by Lopes

I will now argue that seeing-in as defined by Lopes's version of the recognition theory of depiction also fails to satisfy the perception condition for the depiction of depictions. For this purpose, I will consider pictorial experiences that involve amodal completion. As an example of amodal completion, consider fig. 4. When you look at this figure, you see a complete disc that is partly occluded by a square. Your visual experience is the result of a process of amodal completion. Even though you have no visual impression of the missing part of the disc—the part does not project an image onto your retina—you are nevertheless perceptually aware of the complete disc.[23] Amodal completion is ubiquitous in both ordinary visual experience and experiences of pictures. For example, the large table in the center of van Haecht's painting partly occludes a number of people. Nonetheless, you see people, rather than undetached people-parts.

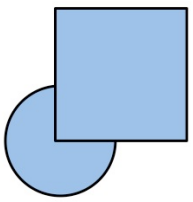

Figure 4: Amodal Completion

[23] Briscoe has argued that this type of amodal completion is perceptual, rather than cognitive or imaginary (Briscoe 2011). See also Pylyshyn (1999) and Raftopoulos (2009). For the purpose of this paper, I will assume that this is correct. For dissenting views, see Noë (2004) and Nanay (2010).

I will explain the problem for Lopes's proposal by means of the example illustrated in fig. 5.

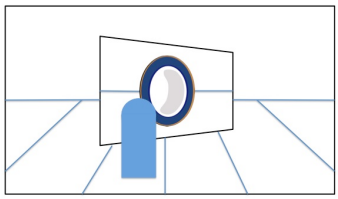

Fig. 5: Occluder in P_1's pictorial space

Picture P_1 depicts a picture P_2 that depicts a circular plate. But P_1 also depicts an occluder that is located in P_1's pictorial space in front of P_2. This occluder occludes part of P_2's surface. The perception condition for the depiction of depictions applies to this example as follows:

> **Perception condition for seeing-in as defined by Lopes:**
>
> A viewer v sees picture P_2 in P_1 as a depiction only if (i) v visually recognizes P_1's design d_1 (the elliptical region on P_1's surface) as features making up P_2's design d_2, and (ii) v visually recognizes P_2's design d_2 as features making up P_2's scene (the circular plate depicted by P_2).

According to this statement, d_1 is an elliptical region on P_1's surface and s_2 a circular plate. But it is not clear how we should characterize d_2. As far as I can see, there are two options, both of which lead to problems.

The first option holds that d_2 consists of a part of P_2's design, namely a circular region with a gap, and a part of the occluder, namely the part that covers the gap. But this cannot be right. According to this option, the respective part of the occluder would have to be depicted

as a part of P_2's surface. But P_1 depicts the occluder as located in front of P_2's surface, and not as a part of it.

The second option holds that d_2 is an amodally completed circular region on P_2's surface. According to this option, a viewer would recognize certain parts of d_1 as making up a partly occluded circular region on P_2's surface (d_2), and she would recognize this region as making up the circular plate (s_2). Since this option distinguishes between the occluder in P_1's pictorial space and the design on P_2's surface that depicts the circular plate, it avoids the problem with the previous option.

In order to bring out the problem with this option, I will focus on a specific feature of the experience of the picture in fig. 5. As we have seen, a viewer who looks at this picture will recognize the occluder in P_1's pictorial space and she will also recognize that P_2 depicts an unoccluded plate. Now, the occluder also blocks her view of the plate so that she cannot see the plate through the occluder. Thus, the viewer also recognizes the unoccluded plate depicted by P_2 as occluded by the occluder in P_1's pictorial space. The picture depicts the plate as occluded by the occluder in P_1's pictorial space. I think that this poses a problem for the present notion of seeing-in. Lopes's notion of seeing-in does not allow us to explain how a viewer can recognize the plate as occluded by an occluder in P_1's pictorial space.

Let me explain. The first thing to note is that it is not possible to say that the viewer simply recognizes the plate as directly occluded by the occluder in P_1's pictorial space. The reason for this is that occluder and plate are depicted as located in different pictorial spaces. The important difference between the two spaces is that P_1's space is depicted by P_1 and P_2's space is depicted as depicted by P_2. If a viewer fails to recognize this, she will see P_2's space as a continuation of P_1's space and thus fail to recognize P_2 as a depiction.

But there is another option. According to the present proposal, the viewer recognizes a partly occluded circular disc on P_2's surface. One might therefore suggest that the viewer recognizes the plate as occluded in an indirect way. More specifically, one might suggest that the viewer recognizes the occluder in P_1's pictorial space as partly occluding the circular disc on P_2's surface and, by doing so, as partly occluding the plate depicted by P_2. But this explanation is problematic. It is not clear what it means to say that an opaque object occludes an object indirectly. Consider a situation in which a tree partly occludes a car, which, in turn, partly occludes a house. If one would remove the car from between the tree and the house, the tree would still occlude part of the house. But, as long as the car is there, it is certainly not right to say that the tree partly occludes the house by partly occluding the car. When an opaque object occludes another object, it will do so no matter whether there is a third object between them or not.

Could one not respond to this problem by saying that recognizing an object (such as the plate depicted by P_2) as being occluded indirectly just is to recognize a partly occluded design as a feature making up that object? This kind of occlusion, one could further suggest, is possible only in cases of depicted depictions. This response is inadequate. The reason for this is that it still does not explain why the plate is recognized as occluded by the occluder in P_1's pictorial space. Since P_1's space is depicted by P_1 and P_2's space is depicted as depicted by P_2, an object in P_1's space cannot block one's view of an object in P_2's space.

At this point, another response to my argument might suggest itself. Viewers can see scenes in pictures accurately, even when the pictures are partly occluded. This often happens in busy galleries. Such cases do not pose problems for seeing-in. One could therefore suggest that my argument must harbor a significant error. Just like one can recognize a circular plate

in a picture even if the picture is partly occluded by an onlooker, so one should be able to recognize a circular plate in a depicted picture even if that picture is depicted as partly occluded.

This response trades on the analogy between the two cases. But the two cases are not analogous. Suppose you look at a picture that is partly occluded by an onlooker. Under certain circumstances, you will be able to recognize the picture's scene accurately. It is also possible, however, that the circumstances are such that you fail to do so. Suppose you look at a picture that depicts a plate with a gap. Suppose also that the gap is occluded by an onlooker. In this case, you will recognize a complete plate, and, hence misperceive the scene depicted by the picture. The fact that you can misperceive the picture in this way shows that what it depicts is independent of possible occluders between its surface and its viewers. The situation in fig. 5 is different. A suitable viewer who looks at the picture under appropriate conditions of observation cannot misperceive P_2's object in this way. What P_2 depicts is not independent of the depicted occluder in P_1's pictorial space.

We can conclude that the two options for characterizing the design of the depicted picture in fig. 5 are problematic. If we assume that the depicted occluder is part of the depicted picture's design, as suggested by the first option, we erase the distinction between P_1's and P_2's design. This is in conflict with the perception condition for the depiction of depictions. If, on the other hand, we assume that the relevant design is a partly occluded circular disc on the depicted picture's surface, as suggested by the second option, we cannot explain how the picture can depict the occluder as occluding the depicted picture's scene. Seeing-in as defined by Lopes's version of the recognition theory of depiction fails to satisfy the perception condition for the depiction of depictions.

5. Seeing-in without the design-thesis

How should we respond to the problems raised in the previous two sections? The arguments do not force us to give up either of the two theories. As far as I can see, Hopkins and Lopes could respond in at least two different ways. First, they could argue that pictures do not depict pictures, but rather represent them in some other way. Whether this response is acceptable depends on the details of such an account. Second, they could argue that there are two different notions of depiction, one that accounts for the depiction of scenes that do not contain pictures and another that accounts for the depiction of pictures. Again, whether this response is acceptable depends on the details. In the following, I will assume that depiction is a unified notion and that pictures can indeed depict depictions. I will therefore explore another option, namely to give up the design-thesis.

One cannot formulate the experienced resemblance theory without the design-thesis because it is not possible for a viewer to see the design as resembling the depicted scene in some respect without visually representing the design. Yet it is possible to formulate the recognition theory without the design-thesis.[24] In the following, I first sketch a notion of seeing-in that does not imply the design-thesis. Subsequently, I will show how this notion of seeing-in allows the proponent of the recognition theory to account for the depiction of depictions.[25]

Lopes suggested that the contents of the recognitional states have the following complex structure: a viewer recognizes some x, namely the picture's design, as features

[24] Sartwell's recognition theory rejects the design-thesis explicitly. See Sartwell (1991, 1994).
[25] A number of other theorists have developed perceptual theories that reject the design-thesis. Newall (2009, 2011) and Chasid (2014) construe the relevant visual states as non-veridical visual experiences of the picture's scene. Nanay also rejects the design-thesis in an interesting way. According to his view, design features are represented dorsally, but not ventrally. Design-features thus do not enter into the contents of the seeing-in experiences. See Nanay (2008, 2009). My account partly overlaps with all three of these theories. I believe that my explanation of the depiction of depictions is compatible with these theories.

making up some y, namely the scene depicted by the picture. We can reject the design-thesis if we construe the contents of these recognitional states in strict analogy to the contents of recognitional states involved in ordinary visual perception. We can say that to recognize an object or a property instantiated by an object visually is to categorize or identify the object or the property visually. For example, to recognize a cup visually is to visually categorize a certain object as a cup. Or to recognize Obama visually is simply to visually identify a certain person as Obama. The basic structure of the contents of these states is not 'some x is recognized as features making up some y,' but rather 'x is F' or 'x is an F.'[26]

Using this characterization of the contents of the relevant recognitional states, we can define an alternative notion of seeing-in, which I will call *direct seeing-in*:

Direct seeing-in:

A viewer v sees a scene s in a picture's design d if, and only if, d engages v's capacity (or capacities) to recognize s visually.

Since the contents of the resulting recognitional states have the structure described in the previous paragraph, the design does not enter into them. The viewer does not see the scene in the picture, "in virtue of seeing the configuration of marks on its surface," as Lopes puts it (Lopes 2005, 28). Rather, the picture's design engages the relevant recognitional capacities in a causal manner.[27]

[26] Note, however, that this is a simplification. In most cases, these contents will be complex.
[27] For this point, see also Sartwell (1991, 65). In the context of his own theory, Chasid expresses this as follows: "The influence of the surface properties on experiencing the depictum is purely causal. The experience of the depicted scene is generated by our looking at the marked surface, but does not simultaneously represent the surface" (Chasid 2014, 487).

One might be tempted to object here that the viewer must see (or visually represent) the picture's design in order to recognize the scene in it, and that the relationship between design and recognitional state cannot just be causal. But this is not correct. Compare the picture's design with the retinal image. The retinal image provides information on the basis of which the visual system constructs representations of objects in the perceiver's environment. But it is a mistake to think that the retinal image is seen. Similarly, I suggest that the picture's design provides information that allows the viewer to recognize the picture's scene. Yet, the design need not be seen (or visually represented) in order to fulfill this function.

I would like to emphasize that direct seeing-in does not imply that a viewer cannot recognize various features of the picture surface (e.g. the texture of the brushstrokes and the canvass, reflections of the light that illuminates the surface, and shadows) at the same time as she recognizes the scene depicted by it.[28] Direct seeing-in requires only that the recognitional states that determine pictorial content do not involve representations of the design.

In my view, the recognitional capacities involved in direct seeing-in come in two types. The first type consists of the recognitional capacities that belong to visual experiences. Like the proponents of the two perceptual theories discussed above, I hold that visual experiences have representational contents. The precise nature of the contents of visual experiences is subject to debate. But it is plausible to say that the contents of visual experiences attribute visual properties to objects. When you have a visual experience of a tree, for example, your experience attributes to the object a certain complex shape and a certain complex color. I assume that the content of visual experiences is the result of the employment

[28] This point has also been made by Newall and Chasid in relation to their own theories of depiction. See Newall (2003, 2011) and Chasid (2014).

of a battery of recognitional capacities.[29] Your experience of the tree attributes a certain complex shape and a certain complex color to the tree because the information contained in the pattern of light incident on your retinas engages the relevant recognitional capacities.

The second type of visual recognitional capacities involved in seeing-in are those belonging to visual judgments, that is, to judgments that are triggered by visual experiences, rather than to the visual experiences themselves. In my view, visual judgments are distinguished from other judgments because they are constitutively linked to the contents of the visual experiences that trigger them. We can illustrate this in the following way. Suppose you see that the moon has a certain characteristic shadow. Under the right circumstances, you will judge that this is a lunar eclipse. The content of this judgment is constitutively linked to the content of your visual experience. If you did not see the moon and the characteristic shadow, you would not form the judgment. Suppose, in contrast, that you observe the trails of particles in a cloud chamber. With sufficient experience, you might be able to recognize a certain trail as the trail of, say, an electron. But the content of this recognitional state is not constitutively linked to the content of your visual experience. Your visual experience represents a certain condensation pattern, but no electron or elementary particle. You form a judgment about an electron even though you have no visual experience of it.[30]

How can direct seeing-in account for the depiction of depictions? Most of us are able to recognize pictures. I suggest that recognizing a depicted depiction employs the very same

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[29] Here I agree with Newall. Newall bases his view on Matthen (2005). He argues: "If the subject is to see X, [visual processing] must involve the engagement of the subject's ability to recognize X. Recognition in turn gives rise to a certain conscious state in the subject, a visual experience of X" (Newall 2009, 131).

[30] The fact that direct seeing-in involves two types of visual recognitional capacities has two interesting consequences. First, it allows us to distinguish between two different types of pictorial contents. One type of pictorial content is determined by the contents of the visual experiences of suitable viewers. The other type of pictorial content is determined by the visual judgments of such viewers. Second, it yields a convenient way to distinguish a picture's pictorial content from its non-pictorial content. A picture's pictorial content reaches as far as the intended viewer's visual judgments.

recognitional capacities that are employed in the recognition of ordinary pictures. When you recognize a picture, you recognize it as something that plays a certain role in a complex communicative practice. Moreover, recognizing a picture typically involves recognizing the scene it depicts and recognizing the picture as depicting the scene.[31] We can capture this in the following definition:

> **Direct seeing-in for the depiction of depictions:**
>
> A viewer v sees a picture P_2 in a picture P_1 as a depiction if, and only if, there is a region r of P_1 such that the picture's design d contained in r engages the viewer's visual recognitional capacities to (i) recognize a picture P_2 in r, (ii) recognize a scene in r, and (iii) recognize the scene in r as depicted by P_2.

Accordingly, a picture P_1 depicts a picture P_2 as a depiction if P_1's standard of correctness requires that a suitable viewer be able to see a picture P_2 in P_1, that is, if the standard of correctness requires that that the picture engage the recognitional capacities of suitable viewers in such a way that condition (i)-(iii) are satisfied.[32]

Is my account of direct seeing-in for the depiction of depictions viable? Given the two observations described in section 2, it is clear that conditions (i)-(iii) are necessary for the

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[31] I say "typically" because there are alternatives. First, as we have seen, one might recognize a picture without recognizing the scene it depicts, as when one sees a picture from the back. Second, one might recognize that the picture depicts a scene, without, however, recognizing the scene. This might happen when the scene is not clearly visible. However, these alternatives do not threaten my account because they plausibly involve the employment of non-visual recognitional capacities. In these cases, one sees something in the picture that can be identified as a picture. But one does not see a depicted depiction.

[32] One can see a scene in a picture without possessing the concept of a picture. But in order to understand a picture's content, one has to understand the role it plays in a communicative practice. In other words, one can understand the content of a picture only if one possesses the concept of a picture. The same holds true of depicted pictures. One can recognize a depicted picture only if one possesses the concept of a picture. The relevant recognitional capacities are therefore at least partly conceptual. Whether they belong to visual experiences or to visual judgments depends on the scope of the contents of visual experiences.

depiction of depictions. A viewer can see the depicted picture's scene as depicted by the depicted picture, as required by these observations, only if conditions (i)-(iii) are satisfied. The question then is whether conditions (i)-(iii) are jointly sufficient for the depiction of depictions. In order to show that they are, I will consider three possible worries.

First, one might worry that conditions (i)-(iii) fail to account for the difference between a depicted picture, on the one hand, and the depiction of a window or opening onto a scene, on the other. According to the three conditions, a picture can depict a picture without depicting *any* of its surface properties. Now assume the depicted picture's space is drawn in such a way that it might be experienced as continuous with the space of the picture that depicts it. In this case, the depicted picture's scene would look just like a scene seen through an opening. I agree that, in this case, the region that depicts the depicted picture's scene looks exactly like a region that depicts a scene seen through an opening. But conditions (i)-(iii) ensure that the depicted picture's scene is visually recognized as depicted by the depicted picture. The depicted picture is therefore recognized as a picture and not as a window or opening onto a scene.

We can illustrate this point with the example of Magritte's painting in fig. 6. There is a certain ambiguity about the experience of this painting. If you focus your attention on the visible edges of the canvass depicted by the painting, you recognize the scene as depicted by the picture. When you focus your attention away from these edges, you recognize the scene as continuous with the ocean behind the picture. The two experiences engage different visual recognitional capacities.[33] But, as far as the region that depicts the depicted picture's scene is concerned, the two experiences are entirely identical. It is not the case that one presents the

[33] I do not experience this as a genuine gestalt-switch. But I am able to focus my attention in different ways so that I recognize the region of the depicted picture either as ocean or depicted scene. See also Lopes's discussion of Magritte's painting *La condition humaine*, 1933 (Lopes, 2005, 32).

depicted picture's surface properties and the other does not. This example also illustrates that features other than the depicted picture's surface can engage the relevant visual recognitional capacities. In this case, these capacities are engaged by the recognition of the picture's edges.[34]

Fig. 6: René Magritte, *La condition humaine*, 1935.

Second, one might worry that conditions (i)-(iii) fail to account for pictorial transparency.[35] Let me first illustrate this phenomenon and then say how the worry might arise. Under certain circumstances, pictures of pictures are transparent. We can illustrate this with the following example. Take a photograph of a photograph and make sure that the original is neither tilted nor damaged, and that the lighting does not cause any shiny reflections on its surface.[36] If the new photograph shows the edges of the original, you will have produced a photograph of a photograph (a picture of a picture), rather than just a copy of a photograph. But the result will also have a special quality. The region of the new photograph that depicts the original will look exactly like the original. This is the phenomenon of transparency. As the case of Magritte's painting in fig. 6 illustrates, transparency can occur not only in photographs, but also in other types of pictures.

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[34] Neander considers style as a further possible feature that engages the relevant recognitional capacities. Consider a photo-realistic copy of a crayon drawing. A viewer might recognize the quoted picture simply in virtue of its style. See Neander (1987, 216).

[35] Discussions of pictorial transparency as defined here can be found in Kulvicki (2006, ch. 3, 2014, 100-107) and Newall (2003, 2011, ch. 5).

[36] A detailed account and justification of these conditions can be found in Newall (2003).

How do we explain transparency? Let us call the picture that depicts the picture P_1 and the depicted picture P_2. Newall proposes the following explanation. In the case of transparency, the region of P_1 that depicts P_2's surface only depicts those properties of P_2's surface by means of which P_2 depicts its scene.[37] In other words, the region of P_1 that depicts P_2's surface only depicts P_2's particular configuration of two-dimensional shape, tone, and color and no other physical properties of P_2's surface. According to Newall, the impression of transparency thus comes about because the physical properties by means of which P_1 depicts P_2's surface are identical with the physical properties depicted on P_2's surface by means of which P_2 depicts its scene. If Newall is right, transparency shows that the depiction of depictions requires at the very least that P_1 depict P_2's surface as containing the very same physical properties that P_1 employs to depict P_2. Since direct seeing-in does not require a viewer to visually recognize any of P_2's surface properties, it would thus fail to account for transparency.

However, direct seeing-in yields a plausible alternative explanation of pictorial transparency. We can say that a picture P_1 depicts a picture P_2 transparently just in case P_1 does not depict any of P_2's surface properties. In this case, the region of P_1 that depicts P_2's scene is entirely identical with a copy of P_2. Both picture and copy instantiate the same physical properties and thus engage the very same visual recognitional capacities. On my view, transparency does not show that the three conditions for the depiction of depictions are not sufficient. Rather, it shows that a picture that depicts another picture transparently can

[37] Newall calls these properties *content-bearing properties*, He writes: "A picture's content-bearing properties are the properties of a picture's surface that play a role in determining its content" (Newall 2011, 97). Newall makes clear that he defines a picture's content-bearing properties as mind-dependent properties. On his view, a property is a content-bearing property in virtue of its ability to occasion seeing the feature or object depicted by that property (Newall 2011, 112).

only manifest, but not depict, those physical properties that engage the viewer's capacities that allow her to visually recognize the scene depicted by the depicted picture.

Third, one might worry that conditions (i)-(iii) lead to a misconstrual of the contents of some depicted pictures. In order to see how the difficulty might arise, consider first a picture that depicts a tilted circular plate and nothing else. In this case, your capacity to recognize a tilted circular plate is engaged, in part, by an elliptical region on P_1's surface. Now consider again the picture illustrated in fig. 3. Recall that P_2 depicts an untilted plate. Here, too, your capacity to recognize a circular plate in P_2 is engaged, in part, by an elliptical region on P_1's surface. In both cases, the capacity to recognize a circular plate is thus engaged, in part, by an elliptical region. Should we not have to conclude that P_2 in fig. 3 depicts a tilted, rather than an untilted, plate?

This conclusion would be premature. In the picture in fig. 3, the elliptical region on P_2's surface is only one of the features that allow you to recognize P_2's scene. In contrast to the picture that depicts only a tilted plate, the picture in fig. 3 also allows you to recognize P_2's pictorial space. This space differs from P_1's pictorial space in both scale and orientation relative to your viewpoint. Now, since you recognize the plate as located in P_2's pictorial space, and since this space is tilted in relation to P_1's space, you recognize the plate as untilted relative to P_2's pictorial space.

6. Conclusion

My goal in this paper was to show how a version of the recognition theory of depiction that rejects the design-thesis is able to account for the depiction of depictions. I proceeded in two steps. I first argued that perceptual theories of depiction that accept the design-thesis—

Hopkins's version of the experienced resemblance theory and Lopes's version of the recognition theory—fail to account for the depiction of depictions. I then sketched a version of the recognition theory of depiction that rejects the design-thesis and showed how it can account for the depiction of depictions.

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