

## Hallucinatory Pictures

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## Hallucinatory pictures

*Abstract: Hallucinatory pictures are yet to be found picture-like artifacts that induce a hallucination of their content that cannot be intuitively explained by a look at the structure of the pictorial vehicle. Different accounts of depiction make different predictions about the possibility that such artifacts be considered as pictures. Some case are presented that pint towards the intuitive acceptability of hallucinatory pictures.*

A hallucinatory picture has not been discovered or invented yet; this is why you do not find a figure illustrating it here. But are we conceptually prepared for it?

In this little thought experiment, it is characterized as follows. On a surface like a canvas or a sheet of paper, some marks are traced that (if I described them to you) would appear meaningless in the sense that nobody would expect them to have a visual semantic whatsoever. But whoever actually looks at the artifact almost instantly hallucinates a visual content – say, a vivid representation of a dog as seen in a particular light, from a particular viewpoint, at a particular distance. How does this come about? We are unable to intuitively find in the features of the picture any grounding for the fact that by looking at it, we have the impression of seeing a dog. This does not look like a photograph of a dog, for instance. Scientists have not uncovered the particular visual pathway that is activated when looking at the artifact and may never uncover them.

To make our case a bit more vivid, imagine that a very special occurrence of the written word 'dog' is what is marked on the canvas. Nothing in the word 'dog' as we know it is such as to make us predict that when we *look* at it, we have the impression of visually hallucinating a dog. We may think of a dog by reading the word 'dog', of course, but this is not the type of

experience at stake; indeed, people who have not learned to read English and cannot process latin characters would just be predicted to see a scribble here. And yet they too would have the hallucinatory picture experience. In our hypothetical hallucinatory picture the marks on the canvas have – say – certain intriguing convolutions that by hypothesis we would not normally take for the picture of a dog or expect to elicit a visual recognition of a dog; however, those convolutions mysteriously unlock some mechanisms of the visual brain whose side effect is that you hallucinate the dog.

Hallucinatory pictures are accompanied by a sense of magic, of unexplained causation. I called them 'pictures', but are they pictures?

Under a very broad construal of a recognitional account of pictures (Gombrich 1960, Schier 1986), hallucinatory pictures would be pictures. On narrower recognitional accounts (Hopkins 1998), or on a structural account of pictures (Goodman, 1967; Kulvicki, 2006), they would not. Other accounts, such as two-foldness theories of depiction (Wollheim 1998) may be neutral.

A recognitional account contemplates the possibility that a picture elicits the visual recognitional abilities of the picture's viewer. This particular type of response is constitutive of being a picture. In a broad construal, no particular constraint is placed on the structure of the marks. What matters is just their raw effect on the viewer. No matter *how* this effect is attained, if it is attained, and is the manifestation of a recognitional ability with visual content, then the artifact counts as a picture. Indeed, the hallucinatory picture case is an generalization of Gombrich's idea of pictorial experience as a kind of visual illusion: “The history of art... may be described as the forging of master keys for opening the mysterious locks of our sense to which only nature herself originally held the key... Like the burglar who tries to break a safe, the artist has no direct access to the inner mechanisms” (Gombrich, 1960: 359.)

Less broad construals of the recognitional account would impose

constraints on the syntactic features of the vehicle; for instance, they would require that the marks be so arranged as to display some sort of similarity with the depicted object. Such requirements, no matter how formulated, would bar hallucinatory pictures. Under no description the vehicle of a hallucinatory picture displays a resemblance with the content. It just triggers a hallucinatory response in the appropriate conditions.

On a structural account, an item counts as a picture if it has a certain number of structural properties. The account is useful in distinguishing pictures from other types of graphic representations, in particular writing systems and diagrams. For instance, a picture's identity – as opposed to a printed character's identity – finely depends on the identity of the marks on it (change a line a little bit, and you'll have a different picture; change the shape of the letter 'd' a bit, and you still have the word 'dice'.) Pictures are moreover syntactically more replete than diagrams, insofar as more features are essential to the picture's identity than are to the diagrams (change the shape of a line and of a curve, and you'll get a different picture and diagram, respectively; and yet you may change the color in a diagram without altering its identity, whereas a change in color in a picture is a change in the picture's identity.) Hallucinatory pictures are not submitted to any of these constraints. They work by making your visual system react to features of the artifact that you won't be able to characterize in terms of relative repleteness or syntactic sensitivity.

On a two-foldness account the experience of a picture is the simultaneous experience of the content and of what it depicts. Nothing in what has been said so far about hallucinatory pictures excludes the possibility that we are aware both of the triggering marks and of the hallucinated content. We may; or we may not. The two-fold account is neutral to the possibility of hallucinatory pictures.

Are hallucinatory pictures conceptual freaks? We have some room for the intuition that many actual types of pictures are of the “magic” type. Pointillist pictures perform some magic in this sense. You have tiny green dots next to tiny red dots, and it has been an interesting discovery that

from a certain distance you will see no green and red anymore, but an expanse of yellow. Line drawings and cartoons perform some such magic as well (Cavanagh 1999; Maynard 2005). They trigger recognitional abilities by a visual display that does not instantiate many of the properties of the recognized objects (objects are not surrounded by thick lines, and most visual discontinuity lines are not representable in a line drawing.)

Not only there are many existing graphic artifacts that work in a quasi-magic way; some can be concocted that are a bit less magic than hallucinatory pictures. We have some reasons for calling them all 'pictorial', but we do not have the slightest intuition about their pictorial powers unless some tricks are performed on the visual system. The following is a continuum of real and imaginary cases.

Stereoscopic pictures are a first example. When they are fused in a single view, we hallucinate a rich 3d experience of shapes and colors. The stereoscopic 3d is a hallucination. But surely by looking at each image in the pair, we still have the impression of seeing a 3d world of forms and colors, albeit in a less vivid way? Possibly other artifacts are more compelling. A second case are random-dots stereograms; they are such that you won't see any object in each display of the pair; only when you binocularly fuse the pair, you hallucinate some figures. But surely there is something distinctively "graphic" about each set of dots? Hence a third, hypothetical case. Suppose a multimodal illusion is discovered such that if you monocularly look at one random-dot stereogram in the pair and at the same time you are auditorily administered a dose of cunningly orchestrated noise, you visually hallucinate the dog. But surely there is at least some visually available object here?

Shouldn't we contemplate the possibility of a hallucinatory picture that does not depend on a visually available object? We may want to set some limits at this point. If – fourth case, again hypothetical – I acupuncture you in such a way that you hallucinate the dog as above, you may resist the idea that you are confronted with the picture of a dog. At a minimum,

we want the pictorial vehicle to be of the same material type as that of photographs, canvases, or VR goggles. This minimal requirement is all a broad recognitional account needs in order to consider an experience a pictorial experience. Hallucinatory pictures are conceptually just one step before acupuncture hallucinations.

Most existing accounts of depiction pay due respect to an intuitive notion of what counts as a picture. This itself is not a blameworthy feature of any account. Still, we should be prepared to make interesting discoveries that might conflict with our intuitive notion.

Resemblance accounts, or structural accounts, make substantive claims about the vehicle. A broad recognitional account is committed to a very thin notion of pictorial vehicle. Dropping the vehicle altogether would leave us with hallucination only, and no picture. But a good hallucination, and a thin vehicle, can constitute a picture.

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