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# MENTAL IMAGES*

BY

ANN GARRY

MENTAL images have been maligned, often with reason, but not for all the right reasons. Even the question "Do mental images exist?" has been shunned. Yet many controversies about the existence and character of mental images remain unresolved. I try to clarify and resolve the controversy between someone, such as a reductionist philosopher of mind, who finds mental images ontologically superfluous entities and someone who claims that we must say that there are mental images in order to describe adequately the mental life of a visualizer. After considering some of the issues underlying this controversy, I argue that the experience of visualizing does not require us to say that mental images exist and that nothing significant is lost by denying their existence. I limit my discussion of mental images to visual images and use 'mental image' to refer to visual images.

Those who visualize (have mental images) complain that reductionist theories, such as behaviorism or physicalism, fail to account for the character and richness of people's visual imagery. In order to evaluate the complaint, we must look briefly at the visualizer's conception of mental images. Visualizers who are unconcerned with the ontological implications of their view would no doubt agree about the nature of mental images: images are things which seem to be very much like pictures—mental counterparts of physical pictures. For some visualizers, including myself, mental images seem to be like ephemeral color slides without the cardboard frame. For others they seem more like tiny photographs, often less detailed and vivid. Mental images seem to be sometimes in black and white, sometimes in color. They seem to be clear or blurred. They can sometimes be willfully manipulated without intermediate bodily movement—called up when needed, abolished, changed in color. Some visualizers can "place" or "project" a mental image as if it were, for example, on the fender of a car. There are mental images that seem to recur; visualizers can sometimes tell whether one mental image is like another one that they have just had. They can even have mental images that they like or dislike.

It is not surprising that mental images seem to be like pictures. Except for the impossibility of manipulating pictures without intermediate bodily movement, characteristics like those just ascribed to mental images could be ascribed to physical pictures as well. Pictures, however, have other characteristics not usually as-

cribed to mental images. Pictures (such as photographs, drawings, paintings) can be old, recent, heavy, awkward to carry, battered or in good condition, developed in only sixty seconds. Some of these characteristics can be ascribed only to something which has continued to exist over a long period of time, others can be ascribed only to certain kinds of physical things.

The visualizer insists that those who deny the existence of mental images explain what it is that is blurred or clear if his mental image is not, and what it is that he experiences when he reports having (or even seeing) a mental image of an elf on his bicycle seat. His insistence is appropriate; there is a prima facie case for saying that there are mental images of the sort just characterized. Evidence for this case may be found in the ways mentioned above in which visualizers describe their experience, speak unhesitatingly of mental images, and attribute properties to them. However, their case has not been made.

We can characterize visualizing adequately and do justice to the visualizer's experiences without conceiving of mental images as mental entities analogous to physical pictures. Those who deny this say that in order to characterize visualizing, mental images must serve as the object to which we ascribe properties such as being blurred or being small. If, as I will show, mental images do not serve this function, ontological economy warrants saying that they do not exist. By denying the existence of mental images as a kind of mental entity, I am not denying that people visualize, see with the mind's eye, or have mental images. Although we may avoid reference to mental images entirely, there is no need to; to say, "My mental image of it is blurred," creates difficulty only if we believe that we are saying something more "deep" or philosophically significant than, "I'm not visualizing it clearly." My position is that visualizing is a form of thinking; visualizing does not require the existence of any mental entities. My position is compatible with, but does not imply, a reductionist theory of mind.

A few philosophers have discussed the existence of mental images in the terms I am using here.[1] Among these philosophers, excluding Alastair Hannay, only J. M. Shorter has argued that there are properties which we must ascribe to mental images in order to say what we need to about visualizing. Shorter claims that mental images, like physical pictures, have some non-representational properties which apply primarily to physical objects. By 'non-representational property' he means a property which applies to the image as an entity "in its own right," for example, being blurred (p. 169). A representational property applies to the image merely by virtue of what it represents; for example, an image may be of a blurred signature. Physical things such as signatures, manuscripts, and photographs are blurred. Other uses of 'blurred', for example, 'blurred vision', are transferred uses (O.E.D.).

The claim that one can affirm or deny the existence of mental images on the basis of their having or lacking non-representational properties is derived from a traditional argument concerning the existence of kinds of entities. After completing analysis, we say that a kind of entity exists only if we must still refer to and ascribe properties to entities of that kind. In the present case, if only representational properties must be ascribed to mental images, then the properties may be said to be properties of what is visualized, not of the mental image itself.

Shorter's argument is based on carefully chosen examples. The first is of a

person who tries to visualize a face and does not succeed. If this person said, "His face was a blur," or "It was a blur," he would be referring not to the real face but to the face in the image (p. 169). The blur does not represent something in the real face; it is a feature of the image itself. We also say, according to Shorter, "I did not visualize it [the scene] as any particular color, the whole thing was various shades of gray" (p. 169). Here 'the whole thing', refers to the image.

Because Shorter thinks that we must sometimes say that mental images are blurred and black and white, he finds it misleading to deny that mental images exist; he places them "halfway" between pictures and descriptions. However, Shorter asks that when we say that there are mental images we "issue a warning against asking questions about them that can sensibly be asked only of real pictures" (p. 170). Shorter's position implies that mental images are entities which must be taken into account in an adequate characterization of visualizing. They must be taken into account because there are occasions on which we must characterize the mental image independently of the thing visualized and must use non-representational, physical object predicates to do so. It is this view which I want to deny.

Two objections can be made to Shorter's argument: (A) Dilman, Squires, and Odegard have claimed that we cannot distinguish a non-representational property from a representational property of a particular mental image; if we cannot, Shorter is wrong because he makes use of this distinction. In order to discuss the arguments offered by Shorter's critics two questions must be answered:

What makes a mental image of $x$, an image of $x$ rather than of $y$?
What is the criterion for saying that mental images are the same?

(B) The second objection assumes that the distinction between non-representational and representational properties of mental images is legitimate. I argue that there is another referent for 'it' in 'It was a blur' which is neither the real face that we try to visualize nor the image itself. Because Shorter has overlooked the other referent he is not justified in concluding that there are non-representational properties which we must attribute to mental images. Thus we are not committed to saying that there are mental images which have a necessary function in an account of visualizing.

(A) The claim that we cannot distinguish non-representational from representational properties of particular mental images rests on an assumption about the identity of a mental image. For example, if no proper criterion of identity would allow a distinction between a blurred image of $x$ and an image of a blurred $x$, then these images would be identical. More generally, a $\phi$ image of $x$ would be identical with an image of a $\phi$ $x$. It would follow that whenever we could say that an image has a non-representational property we could just as well say that it has a representational property. It would never be necessary to attribute a non-representational property to a mental image. If this were true, Shorter's basis for saying that there are mental images would be undercut.

Why would someone say that a blurred image of $x$ and an image of a blurred $x$ are identical? Squires bases this claim on a resemblance criterion of identity: "In so far as the images resemble the same thing they are the same image. The two descriptions come to the same thing" (p. 66). For example, both a blurred image

of a seal and an image of a blurred seal resemble a blurred seal on a document. There is nothing about our ability to distinguish mental images comparable to our ability to distinguish a painting of "the Burn on a clear day" that has been exposed to too much sun from a painting of "the Burn in the mist" (p. 65). Squires' position is supported by Odegard (pp. 264–265). Dilman supports a similar position (p. 29).

Squires' view implies that properties of mental images constitute an exception to the general rule that representational and non-representational properties are distinct and not interchangeable. Consider pictures and descriptions: a $\emptyset$ picture (description) of $x$ is usually different from a picture (description) of a $\emptyset$ $x$. A precise drawing (or picture) of an instrument is different from a drawing of a precise instrument. A misleading description of a map is different from a description of a misleading map. The same would be true for pictures and descriptions that are unsubtle, inadequate, mistaken, clear, fuzzy, and so on. Squires would say that mental images are an exception to the general rule because there is no way to distinguish an image of a $\emptyset$ $x$ from a $\emptyset$ image of $x$; the only criterion of identity is in terms of resemblance to the same thing. Squires is incorrect in at least some cases; we can distinguish a detailed image of a simple model airplane from an (undetailed) image of a detailed model airplane. For in both cases we might know whether the real model airplane is detailed or not. In the discussion that follows I will show why resemblance is not an adequate criterion of identity, and why mental images do not constitute an exception to the general rule that representational and non-representational properties are not interchangeable.

Several objections can be raised to Squires' criterion of identity. In objections (1) and (2) I suggest revisions in the way Squires states the resemblance criterion of identity. In objections (3) and (4), I try to show that any resemblance criterion of identity is mistaken.

(1) Suppose it were permissible to say that mental images resemble the same thing. The first difficulty with Squires' criterion is that images may resemble the same thing yet differ from each other in many respects. For example, one mental image may resemble the face of Marilyn Monroe as it would be if seen from squarely in front of it in its natural color; another mental image may resemble her face as it would be if seen slightly from the left and "in black and white." Both mental images resemble her face, but differ from each other. In order to avoid this difficulty Squires' criterion should be revised: mental images are identical if and only if they resemble the same thing and each other in all respects.

(2) Squires' criterion of identity applies to mental images experienced at two different times. After saying that there are ways to determine whether a painting seen at different times is the same painting, Squires claims, "So far as I know, there are no analogous ways of deciding whether a mental picture is the same as one we had last week. The only criterion of identity I can suggest would be that it resembles the same thing" (p. 66). Squires neither denies that he is speaking of numerical identity nor claims that the distinction between qualitative and numerical identity is inappropriate to mental images.[2] One supposes, then, that he is saying that we experience numerically the same image now and last week. Such a statement tempts us to suppose that a mental image is the sort of thing that can be experienced once, put away in a mental "cabinet," then pulled out to be experienced again the next week. In order to avoid this temptation we should distinguish

image tokens which we have on one occasion from the image type of which they are tokens. 'I have the same image now that I had last week' means that the image token I have now is of the same type as an image token I had last week and, perhaps, that the image tokens are exactly similar. I add that the image tokens are exactly similar because two very different image tokens of faces might be said to be of the type "image of a face." Although it will often be very difficult to determine whether image tokens are exactly similar and of the same type, the use of the type/token distinction here at least prevents us from thinking that mental images exist unnoticed through time. Squires' criterion can be reformulated: mental image tokens are exactly similar and of the same type if and only if they resemble the same thing and each other in all respects.

In my final two objections to Squires' criterion of identity I try to show that any version of a resemblance criterion is mistaken; there are fundamental issues concerning the nature and identity of mental images that a resemblance criterion cannot handle adequately.

(3) It must be explained how a mental image could resemble what is visualized when the two are so radically different.

(4) An acceptable account of what makes a mental image an image of $x$ rather than of $y$ would not allow that mental images could be the same without being of the same thing. Yet a resemblance criterion of identity would allow this.

In order to discuss these objections we must try to answer a question that Wittgenstein and others have asked, "What makes my image of him into an image of *him*?" The answer that has sometimes been given is that my image is of him not because the image resembles him but because I am thinking of him (or that I intend the image to be of him).[3] Two questions can be separated: Does the image resemble the thing visualized? And is it because of this resemblance that the image is an image of him?

The first question is difficult. It must be admitted that mental images usually seem to visualizers to resemble what is visualized, in much the way that a picture resembles what is pictured. Pictures resemble the building or tiger that they depict by something in the picture looking like a building or tiger in certain respects. We might call this partial resemblance of appearance or resemblance of some visible properties. The colors in the picture might be similar to the colors of the building; the gray shape in the middle of the picture might correspond on a small scale to the shape of the building as seen from one point of view. This resemblance should not be confused with two kinds of resemblance that I want to exclude: the alleged resemblance that any two things have simply because they are not a cow or not the Absolute, and the resemblance that people have in mind when they say of two very similar photographs of someone which both *do* resemble him, "That one does not resemble you (does not look like you) at all, but this one does."

If a visualizer wants to say that mental images resemble buildings in a way comparable to the way that pictures resemble buildings, then mental images (or what is "in" them) should have visible properties similar to or "visible" properties analogous to some of the visible properties of buildings and pictures—colors, shapes, and so on. The visualizer might say that mental images have such proper-

ties: his image of a blue envelope is blue and rectangular shaped. To say this is to claim that something mental (what is "in" his mental image, a part of the image) is blue and rectangular. However, we need not attribute visible properties to the mental image. We can say, as Squires and Dilman would, that when we speak of a blue rectangular image of an envelope we are speaking elliptically of the blue rectangular envelope we visualize. If we are speaking elliptically, as seems plausible, then we need other reasons for claiming that mental images resemble the buildings we visualize.

I think that it cannot be established that mental images resemble buildings. For there are no good reasons for claiming that mental images have the appropriate visible or analogous "visible" properties which they must have if they are to resemble buildings. According to the more plausible views of the relation between the mental and the physical, mental images do not have literally visible properties of an appropriate kind. Consider what a physicalist and a dualist might say about the possibility of mental images having visible properties. If a physicalist goes contrary to most physicalists and holds that the mental image itself, rather than the experience of having a mental image, is a brain process, then mental images would still not resemble buildings, rectangles, and tigers. Although brain processes have visible properties in certain circumstances, the visible properties of the brain process which is identical with a mental image of a tiger would not be similar to the visible properties of the tiger. Brain processes are not, for example, yellow with black stripes.

Suppose a traditional dualist holds that because images are mental they lack extension. Because images lack extension they can be neither yellow nor rectangular, nor can they have any other visible properties. Although what I am calling "traditional dualism" excludes the possibility that mental images resemble physical things, there is another dualistic position which could allow this resemblance. A dualist of the latter kind would hold both that mental images are sense-data and that visible properties of sense-data are similar to properties of physical things. I will not try to argue against this position here. However, because the problems with both of these contentions are familiar and serious, I will exclude this position from further consideration.

I can find no plausible way to argue that mental images have visible properties. If images do not have visible properties, then perhaps they have "visible" properties analogous to visible properties and thereby resemble (or "resemble") buildings and tigers. A proponent of this view might find a parallel between images and pictures. Just as seeing the visible properties of a picture enables us to notice the resemblance between the picture of $x$ and $x$ itself, so "seeing" the "visible" properties of the image enables us to notice a resemblance (or "resemblance") between the image of $x$ and $x$ itself. Although this view is tempting, it rests on a fundamental error. If mental images have "visible" properties, the properties could be "seen"; in order to "see" the properties we would have to "see" the mental images which have them. Here lies the error: we do not "see" the mental image, but "see" the building or the tiger that the mental image is of. "Seeing" $x$ is like visualizing $x$, having a mental image of $x$, and seeing $x$ in the mind's eye. If we "see" a mental image of a tiger rather than "see" a tiger, then we would have a mental image of a mental image of a tiger. Since the view that mental images have "visible" properties implies the mistaken claim that we have mental images of

mental images of tigers when we visualize or "see" tigers, we must not attribute "visible" properties to mental images. Mental images have neither visible nor "visible" properties by virtue of which they could resemble or even "resemble" the things we visualize.[4]

It is possible that Wittgenstein had in mind the vast differences between mental images and the things we visualize when he spoke skeptically of its making "sense to talk of a method of projection according to which the image of the sign was a representation of the sign itself" (*Philosophical Investigations* #366).

Even if someone still wants to maintain that there is resemblance between a mental image and the thing that is visualized, he need not hold that it is because of this resemblance that the image is an image of him. Resemblance between the image and the thing visualized is not necessary for determining the identity of the image (alternatively, for determining what is visualized, or what the image is of). For that identity depends on my thought. Almost every philosopher writing recently on visualizing agrees that visualizing $x$ requires knowledge, or belief, or thought of $x$.[5] That thinking of $x$ (at least of what $x$ would look like if seen) is necessary for visualizing $x$ is one way in which visualizing differs from having an after-image or seeing. But it seems more accurate to say that visualizing $x$ is just a form of thinking of $x$. We do not do two things—think of her face and also visualize it. By visualizing her face we think of it. Sometimes we think of things by means of words (or out loud); sometimes we think of things by means of mental images, that is, by visualizing. We can think of someone's face by enumerating sequentially some of its properties, or we can think of it by thinking of a number of its visible properties all at once as they might be if seen from a particular spatial point of view. The latter kind of thinking is visualizing.[6]

If visualizing is a kind of thinking, then a mental image is just a kind of thought. The identity of the image would be determined by what we think of. In order to account for the relation between a thought and the object of the thought we do not maintain that thoughts resemble the things thought of. So we need not suppose that images must resemble the things visualized. (A visualizer might reply that it is this resemblance that distinguishes images from other thoughts.)

Even if one does not agree that visualizing is a kind of thinking, one can hold that the identity of the image is determined by our thinking of the thing visualized. For it is possible to say that our thought of $x$ determines that the image we have is of $x$ even if one holds the weaker position that thinking of $x$ is a necessary condition of visualizing $x$.

If the identity of a mental image is determined by what we are thinking of, then perhaps mental image tokens whose identities differ would not be of the same type. Let us consider two cases. (a) I visualize Jean, then I visualize her twin sister Joan. In each case I think of exactly the same visible properties (from the same point of view); the images I have are exactly similar.[7] Yet their identity differs: one is of Jean, the other of Joan. (b) Suppose again I have two exactly similar images—an image of a blurred manuscript, then a blurred image of a manuscript. The identity of these images differs because in one case I think of a blurred manuscript and in the other I think of a clear manuscript.

We cannot analyze these cases properly using Squires' reformulated criterion. On any criterion couched solely in terms of resemblance (or apparent resemblance) two exactly similar image tokens would be of one type. Although in

some cases this would not present a difficulty, in other cases it would. For example, no difficulty arises if both image tokens in (a) are interpreted as being of the type "image of a woman's face." In (b) both image tokens can be considered to be of the type "image of a manuscript." However, on the other interpretations, exactly similar image tokens cannot be of the same type. Only an image token of Joan is of the type "image of Joan"; an image token of Jean is not of this type. The image token of a blurred manuscript is of the type "image of a blurred manuscript," whereas the blurred image token of a manuscript is not of this type.

Cases (a) and (b) can be described in terms of my characterization of visualizing. I said that if we visualize $x$ we think of a number of $x$'s visible properties as they might be if seen from a particular point of view. When we visualize Jean and then Joan, we are thinking of exactly the same visible properties in both cases. However, we are not visualizing the same person twice because we think of the properties as being properties of Jean or properties of Joan. We are not merely visualizing a face, we are visualizing Jean's face by thinking of her visible properties. Because the properties are also the properties of Joan's face we can visualize Joan's face by thinking of the same properties.

After describing case (b) in a similar manner it will be more clear why Squires, Dilman, and Odegard are mistaken when they say that non-representational and representational properties of mental images cannot be distinguished. When we visualize a manuscript we think of some of its visible properties, but do not then ask ourselves whether this manuscript we visualize is blurred or clear. We either think of the properties as being of a blurred manuscript or try to think of the properties of a clear manuscript. We can distinguish a blurred image of a manuscript from an image of a blurred manuscript simply because we usually know whether we are thinking of a blurred manuscript or a clear one. Other cases in which there are representational and non-representational properties can be treated similarly.

If my objections to Squires are correct, his criterion of identity is unsatisfactory. This is particularly significant because Squires' discussion of identity is the basis for his argument against Shorter. Squires maintains that Shorter could not be right in saying that being blurred is a property of the image, but not of the thing visualized, because there is no way to distinguish a blurred image of $x$ from an image of a blurred $x$. Although I think I have shown that Squires' argument against Shorter is unsatisfactory, there are other difficulties with Shorter's position.

(B) My own criticism of Shorter is that his basis for concluding that there are non-representational physical object properties which we must ascribe to mental images is not sound. He claims that 'it' in 'It was a blur' refers to the face-in-the-image, a part of the image itself, because 'it' cannot refer to the real face that we try to visualize. I would certainly agree that a real face is not a blur, though it may look blurred. I would also agree that we need to draw some distinction between the properties of the real face (or the mythological horse) that we visualize and the way we visualize it. But it does not follow from Shorter's claim that being blurred is a property of the image; there are other possible referents that Shorter overlooked.

Before examining Shorter's case let us consider some other examples. Suppose we visualize our friend's face, first as the color it is, say tan, then we visualize it as green. Her face is really tan, but Shorter might say, the face-in-the-image is green.

However, we can draw the same distinction without mentioning the face-in-the-image: we can say that her face is really tan, but it is visualized as green. No explicit reference either to the image or to the face-in-the-image is required; 'the face as visualized' need not refer to any part of an image. The face-as-visualized is the face as I now think of it. Its ontological status is the same as that of other objects of thought. Although the ontological status of objects of thought is hardly free from problems, there is at least some comfort in knowing that the face-as-visualized is no more problematic than any of the others.

If we intentionally visualize a face as blurred (as it might look to a myopic person) we can say that we visualize the face as blurred. If we say, "It was a blur," in this context, 'it' would refer to the face-as-visualized, not necessarily to part of the image. To say that the face-as-visualized is an acceptable referent for 'it' in 'It was a blur' in this context does not imply that the face-as-visualized would be an acceptable referent for 'it' in Shorter's context of a failure to visualize the face. 'I visualize the face as blurred' need not carry a suggestion of failure. But the notion of failure can be included: we can say, "I try to visualize her face clearly but I cannot; I visualize only a blurred face." Or if I fail completely as in Shorter's case, I can say, "I try to visualize the face, but I can visualize only a blur." These statements are less succinct than "I try to visualize her, but all I get is a blur"; however, the same point is conveyed.

A more difficult case concerns a signature. Suppose a witness is called to testify in a trial in which one important issue concerns whether or not a signature on a missing will is blurred. The attorney is pressing the witness about the signature; he says, "Try to visualize the signature on the will." The witness tries for many seconds, then says, "All I get is a blur." The attorney immediately asks: "Do you say that the signature on the will is blurred?" The witness impatiently replies, "No, no, my image is a blur, not the signature." This is a perfectly natural way of speaking. In this case it would be misleading to say either that the witness is visualizing a blurred signature or that he is visualizing the signature as blurred. Saying either of these things without qualification would give the attorney reason to think that the signature on the will was blurred. The witness's reply, "My image is a blur," was a concise way of making his point. However, he could also have made the same point saying more fully what he means: "No, the signature itself is not blurred. I am just having difficulty visualizing it. I can visualize it only as a blur (or I can visualize only a blur)." Although this way of speaking lacks the impact of "My image is a blur," it conveys what is needed: although what the witness visualizes is a blur, he does not mean that he visualizes a signature which is actually blurred.

On the basis of these examples I think we need not speak of blurred images. What is conveyed quite naturally by speaking of blurred images of a face can also be conveyed by speaking of faces which are visualized as blurred, of visualizing a blurred face, and of visualizing blurs. Thus Shorter has not succeeded in showing that we must ascribe certain non-representational properties, such as being blurred, to images. This is significant because it is the basis for his claim that there are mental images.

Odegard also objects to Shorter's argument, but suggests a different referent for 'it' in 'It was a blur'. Odegard and I agree that it need not be the image itself which is blurred. In order to say what is blurred he distinguishes between what is

visualized (the real face of a friend) and what the image we have ("frame") is an image of (a blurred face). But Odegard is mistaken when he says that what is visualized in Shorter's case is the real face of a friend. The real face is not visualized. According to Shorter the person tries to visualize the real face, but does not succeed. If he had succeeded in visualizing the face, nothing would be a blur. The proper way to describe what is actually visualized in Shorter's case is "a blur" or "a blurred face." Odegard's distinction between what is visualized (the real face) and what the image is of (a blurred face) is of no value for describing Shorter's example. A blurred face is both what is visualized and what the image is of. My way of describing the case is preferable: he tries to visualize the real face, but is able to visualize only a blur (or a blurred face). He may be thinking of the real face, but he is not thinking of it in a manner which constitutes visualizing it.

The analysis that has been used against Shorter's case of the blurred image can be applied to many of the things visualizers want to say about mental images. Shorter's example, "The whole thing was various shades of gray," becomes "I visualized the scene in various shades of gray." (I need not have meant to do it this way; sometimes it just happens.) We can say, "I visualized an elf on that bicycle," in order to account for the projectability of mental images. In other cases in which we are tempted to ascribe a non-representational property to an image, we can speak instead of the manner in which visualizing occurs. If we have a wavering or unsteady image of a face we are visualizing the face intermittently. Having a sudden image of one's father is suddenly visualizing one's father. Because I can think of no exceptions, I would conclude that any feature of visualizing which some people have wanted to explain by attributing a non-representational property to a mental image, can be explained in a manner which does not require us to attribute these properties to mental images. If we do not need to attribute non-representational properties to mental images, then mental images do not have the function in a characterization of visualizing that Shorter (and many visualizers) take them to have. Because it was in virtue of having this function that mental images were said to exist, we should deny that mental images exist. Visualizing is best characterized as a kind of thinking, not as anything requiring the existence of mental entities. A mental image is a kind of thought: what a mental image is of is determined by what we are thinking of, not by resemblance between the image and the thing we visualize.

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NOTES

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[1]J. M. Shorter, "Imagination," *Mind*, 61 (1952): 528–542. Page references here are to the article as reprinted in *Essays in Philosophical Psychology*, ed. Donald F. Gustafson (Garden City, N.Y., 1964). Ilham Dilman, "Imagination," *The Aristotelian Society Supplementary Volume*, 41 (1967): 19–36. J. E. R. Squires, "Visualizing," *Mind*, 77 (1968): 58–67. D. C. Dennett, *Content and Consciousness* (London and New York, 1969). Douglas Odegard, "Images," *Mind*, 80 (1971): 262–265.

Although Alastair Hannay disagrees in some fundamental ways with the boundaries of discussion in this paper and in the works just cited, his defense of the existence of mental images is the most recent. See *Mental Images - A Defence* (London and New York, 1971), and "To See a Mental Image," *Mind*, 82 (1973): 161–182. The limited scope of my paper does not permit me to deal with Hannay's arguments.

[2] If Squires were to deny that the distinction between qualitative and numerical identity applies to images he would be supported by Norman Malcolm ["The Privacy of Experience," in *Epistemology: New Essays in the Theory of Knowledge*, ed. Avrum Stroll (New York and Evanston, 1967), especially pp. 141–145]. Given Malcolm's remarks about two people having the same sudden thought or same sensation, we can construct the following position. If an image I have today has exactly the same description as an image I had last Tuesday, then there is no sense in which these images are not the same image. The fact that there are two occurrences of the image does not matter. The concept "exactly alike but numerically different" does not apply to images; "contents of consciousness have only *generic* identity . . ." (p. 144). For reasons given in the body of the paper I prefer not to adopt Malcolm's solution, but to distinguish image types from image tokens.

[3] Wittgenstein, *Philosophical Investigations* (New York, 1953), p. 177, and *The Blue and Brown Books* (New York and Evanston, 1958), p. 33. Ilham Dilman, *op. cit.* and "Imagination," *Analysis*, 28 (1968): 91–93. Hidé Ishiguro, "Imagination," *The Aristotelian Society Supplementary Volume*, 41 (1967): 37–46.

[4] It would be a mistake to try to avoid the "fundamental error" by claiming that when we "see" the tiger we do not "see" its "visible" properties, we are merely aware (non-"visually") of its properties. A person who takes this position fails to give full weight to the fact that these properties are to be "visible". The burden of proof would be on him to show how awareness of "visible" properties differs from "seeing" them. It is difficult to see how a distinction could be drawn that would not seem to be *ad hoc*.

[5] The following writers imply or explicitly take this view: Gilbert Ryle, *The Concept of Mind* (New York, 1949); J. P. Sartre, *The Psychology of Imagination* (New York, 1948); Shorter; Dilman in both cited articles; Ishiguro; O. Hanfling, "Mental Images," *Analysis*, 29 (1969): 166–173; D. R. Cousin, "On the Ownership of Images," *Analysis*, 30 (1970): 206–208; Bernard Williams, "Imagination and the Self," in *Studies in the Philosophy of Thought and Action*, ed., P. F. Strawson (London, 1968).

Because of the implication between visualizing and thinking, we must distinguish several experiences and point out their relations to thinking. Both visualizing Prince Charming and daydreaming about him imply thinking of him; hallucinating and having an after-image or an eidetic image of something do not imply thinking of it (although in hallucinating we think that we see something); having hypnagogic images, as we often do just before falling asleep, need not imply thinking of what is imaged.

[6] Several philosophers hold related positions. Moreland Perkins discusses visualizing as a presentation of a set of visible properties all at once; see "The Picturing in Seeing," *The Journal of Philosophy*, 67 (1970): 324–325. Bernard Williams mentions that visualizing is "of an object as seen from a point of view," p. 202. D. C. Dennett, pp. 135–136, also mentions that a point of view is required. D. S. Shwayder in "The Varieties and Objects of Visual Phenomena," *Mind*, 70 (1961): 317, claims that visualizing is thinking of the object as if one is seeing it.

[7] Although twins usually do not look exactly alike, mental images lack sufficient detail so that images of twins might include only those features which are alike. Ishiguro uses a similar example for a slightly different purpose, p. 43.