Berkeley’s notion of suggestion

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BERKELEY'S NOTION OF SUGGESTION

Dissertation

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For Mom, Dad, and Brian
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INTRODUCTION

In *An Essay Towards a New Theory of Vision* Berkeley introduces the notion of *suggestion* in order to show how it is we perceive by sight the "distance magnitude and situation of objects" despite the fact that distance, for example, "of itself and immediately, cannot be seen" (NTV 2). Berkeley's opponents, the "mathematicians", appeal to geometrical and optical principles in answer to this question. Berkeley, however, rejects this view, claiming that such entities have no real existence in nature, "being only an hypothesis framed by the mathematicians, and by them introduced into optics that they might treat of that science in a geometrical way" (NTV 14). Berkeley's alternative is to appeal to a different set of visual cues which are sensations of which the mind can be aware, in addition to offering a developmental account of perception. We perceive distance by means of, for example, the sensation from the strain of the eye focusing, or the sensation from the turn of they eye as we direct our eyes at the object. Such cues have no necessary connection to the perception of distance and in vurtue of this, the perceiver must rely on experience in order to learn what visual cues are coordinated with different distances. Through experience together with the immediate perception of these visual cues, distance is *suggested* to the mind, thus constituting a perception of distance. This developmental feature of his account of perception is central to the

nativist/empirist debate concerning distance perception and is the significant contribution of the *New Theory of Vision* in the history of the psychology of vision.

Berkeley's account of suggestion as it figures into his account of distance perception, should be understood as a key tool in his alternative psychological (causal) explanation to those offered by the mathematicians. However, Berkeley's concerns go beyond offering such an explanation. As I hope to show in what follows, Berkeley and at least some of his opponents, had ontological concerns that were intimately connected with their concern to provide an explanation of distance perception. Berkeley, perhaps more than either Descartes and Malebranche, was explicit about his philosophical concerns. Not only did he concern himself with how we see (which he also took to be a philosophical question), but he in turn was concerned with the nature of the objects of perception, and with what constitutes an act of perceiving material objects. It is part of the goal of this project to show how Berkeley's notion of suggestion was developed in response to the questions above.

My main goal of this work, then, is to examine the technical notion of *suggestion* that is first introduced in his account of the perception of spatial qualities of physical objects. While the NTV takes as its opponents a group comprised several authors ("the mathematicians"), I have chosen Descartes and Malebranche as representative of this group to which Berkeley is responding. First, Berkeley specifically addresses Descartes in the Appendix of the *New Theory of Vision*, treating him as endorsing a version of the view he rejects. Second, while Malebranche is mentioned very little in Berkeley's works I hope to show that Malebranche influences Berkeley significantly. Both Malebranche and Descartes

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2 Margaret Atherton argues that this psychological aspect to Berkeley's New Theory of Vision is not emphasized enough, and she attempts to show the degree to which this is the goal in the NTV in her *Berkeley's Revolution in Vision* (Ithaca: Cornell University Press, 1990).
adopt an account of distance perception that appeals to optical and geometrical principles as a means by which the perceiver sees distance. Moreover, as I argue in the discussion that follows, both accept an account of perception that is constituted by a judgement on the part of the perceiver. The difference between Descartes and Malebranche on this issue, however, rests primarily in Malebranche’s occasionalism. While the judgement on Descartes’ account is an implicit reasoning on the part of the perceiver, according to Malebranche it is an inference that is made on the part of God. But in either case spatial qualities are exhibited to the mind in a way different from the way in which sensations (or secondary qualities) are, and for this reason their views look quite similar. I shall examine both of these accounts in the first and the second chapter, respectively, in order to get a better understanding of the positions to which Berkeley is responding, and also to better appreciate the philosophical contributions in the New Theory of Vision.

In chapter 3 I begin to examine Berkeley’s arguments against the mathematicians. I show that Berkeley is concerned as much with the ontological commitments of his opponents’ theory as with its explanatory success (or lack of it). I then turn to Berkeley’s positive account of distance perception in chapter 4. My main focus here is to provide a reconstruction of his account of suggestion. Berkeley agrees that distance is not an immediate object of sight but it is, nonetheless, seen. His task, then, is to provide an account of how distance “enters” visual perception. This is where he introduces the notion of suggestion. Distance, according to Berkeley, is seen by means of other ideas that co-vary with differences in distance. Through experience and habitual occurrence of ideas, the perceiver comes to see distance by having ideas of distance “suggested” to the mind via these other ideas. But since both Descartes and Malebranche also think it indirectly enters vision, the
significant issue concerning suggestion is in what way it provides an alternative view of how distance "enters" visual perception.

It has been argued by some commentators\(^3\) that the way that distance "enters" perception is via some "intellectual" process which, according to George Pitcher, results in a relevant belief or interpretation of the object. We immediately see e.g. a hot poker, but, by suggestion we "see that it is hot".\(^4\) According to Alan Donagan, whatever is suggested to the mind is a "mediate object of vision" and such objects are, "strictly speaking, objects of judgement".\(^5\) Neither Donagan nor Pitcher develops the sense of "proposition" or "judgment" which they attribute to Berkeley's view of mediate perception.\(^6\) However, I shall argue that such an account is inadequate given that Berkeley shows signs of explicitly rejecting such an account, something succinctly put in his later commentary on the NTV, The Theory of Vision Vindicated and Explained\(^7\):

> To perceive is one thing; to judge is another. So likewise to be suggested is one thing, and to be inferred another. Things are suggested and perceived by sense. We make judgements and inferences by the understanding (TVV 42).

I argue that thinking of the mechanism of suggestion as producing a mental event constituted by a judgment hides the significance of the role that suggestion plays in Berkeley's ontological picture. Berkeley's theory of suggestion is offered as an

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\(^6\) Pitcher, understandably, doesn't provide an account of propositions. But as I interpret this notion, a propositional account of perception would have perception being constituted by a judgement or belief. And he reinforces this by his examples that it is a "seeing that".

\(^7\) G. Berkeley, Theory of Vision Vindicated and Explained, in Works, vol., hereafter TVV.
alternative to the geometrical account that Descartes and Malebranche employ. What Berkeley rejects in these accounts is twofold. First, the geometrical account presupposes the existence of geometrical properties which Berkeley's ontological picture won't permit. On the mathematicians' account, not only are the geometrical properties part of the process, but they also form part of the content of the product of this process. And this is the second reason for rejecting the geometrical account. Geometrical properties enter the content of the perception via judgement, or the understanding. Berkeley, in denying the role of judgement in perception, is rejecting the view that the geometrical properties of the mathematicians are the objects of perception.

Given these problems I offer an alternative account of suggestion, one that I call "non-propositional". On this account, perception involves neither the intellect nor any act of reasoning. Instead, it involves the imagination together with experience and habit. While commentators have begun to recognize the role of imagination in Berkeley's account of perception⁴, appealing to the imagination is not enough to capture what Berkeley intends to offer in his account. In addition to the imagination, a set of expectations must constitute the perception. Such expectations are defined by the ideas presented to the imagination. Thus distance is presented in vision not by means of the perceiver judging but by means of expectations that are developed by habit, and defined by ideas presented to the imagination. Berkeley thus changes the object of perception together with the kind of mental event that is involved in perception.

The last chapter in this work addresses some potential conflicts that this account of suggestion may have with Berkeley's general view of the mind. Two challenges that have been raised in the literature focus on his view of the mind as a transparent medium, and his view that perception is a passive event. Both principles concerning the nature of the mind are supposedly inconsistent with his account of perception involving suggestion. I devote most of the chapter to the examination of such principles, and attempt to defend Berkeley from these charges of inconsistency. However, one problem for Berkeley arises concerning his account of suggestion and the apparently inert nature of ideas. Ideas are supposed to suggest other ideas to the mind, and yet this causal efficacy is something that ideas supposedly cannot do because they are causally inert. I close by pointing out that one way to resolve this apparent tension between the inert nature of ideas and their supposedly causal efficacy in suggestion is to adopt a radical occasionalism like the one adopted by his opponent, Malebranche.
The goal of this chapter is to examine Descartes' account of perception, especially distance perception, in order to better appreciate the differences between his account and Berkeley's. There is the following apparent conflict in Descartes' works concerning distance. On the one hand, Descartes seems to offer a purely causal or psychological account of seeing distance. The end product of the causal chain is a purely sensory state and this sensation represents an object (or its qualities) in virtue of the object causing the perception:

we must not hold that it is by means of this resemblance that the picture causes us to perceive the objects as if there were yet other eyes in our brain with which we could apprehend it; but rather, that it is the movements of which the picture is composed which, acting immediately on our mind inasmuch as it is united to our body, are so established by nature as to make it have such perceptions. ¹

On the other hand, Descartes also appears to offer an account of distance perception which involves a causal chain resulting in more than a pure sensory state.

¹ Rene Descartes, La Dioptrique. Oeuvres de Descartes ed. Charles Adam and Paul Tannery (Paris: J. Vrin, 1974-83), 51. (Hereafter, Optics. All subsequent references to Descartes works will be referred to by title of work, AT volume number and the page number).
This second account involves a causal chain beginning with the object, but results in a perception involving a *non-sensory* component which allows this perception to be about qualities that are or are capable of being instantiated by those objects external to the perceiver. Accordingly, in the *Sixth Set of Replies* Descartes distinguishes between a second (sensory) grade of perception and a third (intellectual) grade of perception, and claims that perception of spatial qualities falls into the third grade.2

One way to resolve the conflict has been offered by Margaret Atherton. According to Atherton, these two accounts are in conflict only if we take them to be accounts of the same phenomenon. But in fact, they are about two different things. Atherton writes:

> Descartes has an account, on the one hand, of how we come to attribute spatial properties to external bodies, to be found in the *Sixth Set of Replies*, and an account, on the other, of how we come to have visual experiences of a spatial world, to be found in the *Dioptrics*. To the extent that these are considered accounts of two separate things, they are, of course, perfectly compatible... 3

Atherton argues that Descartes' project involving geometry in the *Optics* is not the same as the project that he outlines in the *Replies*. Despite the fact that Descartes appeals to the *Optics* in the *Replies*, Atherton suggests that there are, in fact, two different geometric theories of spatial perception in the *Optics* and the *Replies*, and that we ought to keep the two separate:

1) The theory which accounts for our ability to perceive spatially (experience spatial properties).

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2 *Sixth Set of Replies*, AT 7: 437 (hereafter, *Replies*).

2) A theory which accounts for our beliefs about the spatial properties of external world.\textsuperscript{4}

I shall return to Atherton's arguments for this position during the course of my discussion. In what follows, I argue that while the \textit{Replies} offers a much clearer statement of the kind of perceptual state involved in the perception of objects, there is substantial support for the view that such an account is also involved in the \textit{Optics}. It will become evident that Descartes is concerned with a causal account of perception, for this is his alternative to the medieval account of perception. However, there is more than a mere causal account suggested in the \textit{Optics}. In the \textit{Optics} Descartes focuses on the physiological aspect of the account, and thus makes it appear as though he is giving a different account, from that found in his later works. However, given that Descartes refers to the \textit{Optics} in his later account of the \textit{Replies}, and further, that he uses the account in the \textit{Optics} to support this more mature account, I shall argue that it is a mistake to interpret the \textit{Optics} as offering a completely different account of distance perception. Rather, it ought to be viewed as an incomplete theory that is later worked out in the \textit{Replies}, one which provides an

\textbf{Perception in the Optics}

One of Descartes' goals in the \textit{Optics} is to provide an explanation of how the telescope works, and how it can augment the valuable information that is already provided by our faculty of sight. In the course of achieving these goals, Descartes also provides an account of vision which is an alternative to the scholastic account involving \textit{species}. Descartes emphasizes that it is not by means of resemblance or

\textsuperscript{4} Atherton, 33.
likeness that the mind sees, for that would require another eye. Rather it will be by
means of movements of which the image is comprised.1

Descartes begins the Fourth Discourse by reminding the reader that "it is the
mind which senses, not the body". But the mind experiences sensation not because it
serves as an organ to the exterior senses but "because it is in the brain where it
exercises that faculty which is called common sense" and that it is through the
medium of nerves that impressions caused by the objects, are transmitted to the
brain (AT 6: 29). What is to be rejected, however, is not the theory of images per se;
rather it is the way in which these images are supposed to enable the mind to
perceive objects:

And if, in order to depart as little as possible from currently
accepted beliefs, we prefer to avow that the objects which we
perceive truly transmit their images to the inside of our brain, we
must at least observe that there are no images that must
resemble in every respect the objects they represent (. AT 6:33).

Descartes does rely on images in his account of vision. The Fifth Discourse is
devoted to a discussion of the working of the eye and the function of the retinal
image in providing the mind with information about the external object causing the
image. Appealing to experiments with animals' eyes and the camera obscura

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1 Descartes never explicitly mentions the opponents who hold such a view of
perception. However, it may be that he has in mind Bacon who claims that the
species by means of which one sees are likenesses (similitudines) The Opus Majus of
Roger Bacon, trans. Robert Burke (New York: Russell & Russell, 1962). However,
it is not obvious that Descartes accurately characterizes Bacon, or any other
medieval account of perception, for while such species were likenesses, they were
physical entities which were not themselves perceived. See Gareth Mathews "A
Medieval Theory of Vision" in Studies in Perception, ed. Peter Machamer and
Descartes offers principles that capture, at least in part, the role that images and the eyes play in registering information about the object in the brain (and ultimately providing information for the mind). Figures 1 and 2 below illustrate some of these principles which will be useful in our discussion of distance perception.

**Figure 1: Images forming at the back of the eye**

Figure 1 represents the optical experiment where a lens is placed at $M$ and a white sheet at $RST$ (representing the place where the retinal image is projected in the human eye). $VXY$ as well as the place marked by $10$, $11$ and $12$ represent external objects illuminated by the sun. According to this model the following visual principles (VP) are claimed to be true:
VP 1: The lens of the eye changes with the change in the distance of the object, if the image is to stay in focus.

VP 2: An object (V) which is larger and farther from the image (R) than another object (at 10) will create an image with the same shape and size, but will be less distinct than the image created from the other object (at 10).

VP 3: The straight line $VXY$ is represented by the curve $RST$.

Finally, Descartes offers another principle derived from experiments and illustrated in Figure 2 below:

![Figure 2: The relation of distance to size](image)

VP 4: The height of the image is to the distance from the image to the hole (in the eye) as the height of the object is to the distance that the object is from the opening of the eye.

So far, all that Descartes provides is a description of how certain features of the eye change with certain features in the object. What we need to determine is how Descartes thinks this figures into the mind’s perception of the object. Following his discussion of this last principle, Descartes explains how images enter his account.

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6 This Principle is also found in William Molyneux’s *New Dioptrics* (1692), Prop. XXVI.
of perception. "Not only do the images of objects form thus on the back of the eye, but they also pass beyond to the brain...". Connected to the image in the eye are "small fibres of the optic nerve" corresponding to each point of the retinal image which in turn has its origin in a point of the interior surface of the brain. Thus, the external object causes (through the light rays) an image to be projected at the back of the eye, which causes movement of the fibres, resulting in the movement of the (inner) surface of the brain. Descartes draws the following conclusion (see Figure 4):

the picture 789 [image comprising the origin of the fibres in the brain], sufficiently similar to the object V,X,Y, is formed once more on the interior surface of the brain, facing toward its concavities. And from there I could yet again transport it right to a certain small gland which is found about the center of these concavities, and which is properly the seat of the common sense (AT 6:50)

Figure 3: Images of objects on the interior of the brain
It is on the basis of this account that Descartes opens his chapter on vision by claiming:

Now although this picture in being so transmitted into our head, always retains some resemblance to the objects from which it proceeds, nevertheless, as I have already shown, we must not hold that it is by means of resemblance that the picture causes us to perceive the objects...rather, that it is the movements of which the picture is composed which, acting immediately on our mind inasmuch as it is united to our body, are so established by nature as to make it have such perceptions (AT 6:51; emphasis mine).

An image is transported, but the kind of image that Descartes appeals to, and more importantly the feature by means of which the mind sees, is not a colored image resembling the object like the image at the back of the eye. Rather it is an image that contains quantitative information about the retinal image. It has a shape and a size represented by 789 in Figure 3, but it is also composed of different quantities of movement which we can describe as encoded information about the external object which, at the retinal stage, is represented as color. Later Descartes will explain that it is not by means of the image alone that the mind determines the shape, size and other spatial properties of objects but this image is, nonetheless, a crucial component in the process.

We still need an account of how the mind (not the body) sees. Descartes’ answer to this in the passage above is a purely causal account of perception where the mind sees by being caused to have a purely sensory state. The connections between mind and the brain are lawful psycho-physical correlations between effects on the interior surface of the brain and the effects in the mind. Since Descartes’ goal is to explain how the movements in the brain can enable the mind to perceive "all the diverse qualities of the objects to which they refer" and given his claim that "all of the qualities that we apprehend in the objects of sight can be reduced to six
principle ones which are: light, color, location, distance, size and shape” (AT 6:51)
we can offer this sensory account of perception (SAP):

SAP: Perceiver, S, perceives quality q of kind K (Kq) belonging to object O = O
causes an image consisting of movements of a K'-kind (K'm) which results in S's
mind having a sensation of kind K", K"s.

On this account of perception, there is no intellectual component to perception. The
mind perceives in virtue of the sensations it is caused to have, and this sensory state
(K"s) represents a particular kind of quality (Kq) in virtue of the fact that the kind
of movements causing it (K'm) are in turn those movements that the quality of the
object (typically) causes in the brain by means of the retinal image and the optic
nerves. 7

While there is ample evidence that Descartes had something like SAP in
mind when writing the Optics, it is not clear that this holds for the perception of all
the qualities. When we examine his accounts of the perception of spatial qualities
(the modes of extension) there is reason to think that this account (SAP) must be
augmented to include a non-sensory component.

Distance, Size and Shape Perception.

One argument in support of the fact that SAP accurately captures Descartes’
account of perception for all qualities is that he treats distance perception in the
same way as color perception. And since color perception simply consists in the
sensations being caused by the particular "diversity of movement" in the optic fibres

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7 This is the kind of account that I interpret Margaret Atherton as forwarding when
she says that the account of distance perception in the Optics is about how we are
"visually affected" by spatial qualities.
originating in the brain, so too does distance perception. This position, however, is plausible only if we focus on one account of perception and it is then plausible only if we interpret it in isolation from the other accounts. When we look closely at all the passages where Descartes discusses spatial perception, it is much less clear that SAP adequately captures Descartes’ position.

The first account of distance perception that Descartes offers appeals to the "shape of the eye" as the means by which the perceiver sees the distance. Here Descartes appeals to one of his optical experiments we discussed above involving VP 1, namely that with a change in distance of the object, the shape of the eye changes. Descartes continues:

And as we change [the shape of the eye] in order to adjust the eye to the distance of objects, we also change a certain part of our brain, in a way that is established by nature to allow our mind to perceive that distance. And this we ordinarily do without reflecting upon it, just as when we squeeze some body with our hand, we adjust our hand to the size and shape of the body, and thus feel it by means of the hand without having to think of these movements. (AT 6:58).

There are at least two reasons why this account of distance supports the view that Descartes is offering the sensory account of perception (SAP). First, he appeals to the causal chain involving changes in the eye which in turn cause the changes in the brain. Second, Descartes appeals to the "ways established by nature" that "allows" the mind to see in virtue of the brain. Such descriptions suggest that there is no activity of the mind. Rather the mind is passive which is usually evidence for the

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Atheron argues against N. Maull that distance is treated no differently than color. See Atheron, 31. See also Nancy L. Maull, "Cartesian Optics and the Geometrization of Nature," in Descartes: Philosophy, Mathematics and Physics, ed. Stephen Gaukroger (Brighton, Susex, 1980).
absence of non-sensory or inferential component involved. Further support for this might also be drawn from the fact that Descartes explicitly claims that we perceive distance in this case "without reflecting upon it". 

One might think that interpreting the passage in this way provides support for the applicability of SAP to Descartes' account of distance perception. However, his description of distance perception in fact underdetermines whether a sensory or non-sensory account is applicable. First, as Descartes' discussion of the optical experiments illustrates, the shape of the eye alone does not provide information about the distance. The perceiver must have more information in the form of VP above. In other words, the information provided by the shape of the eye must be added to other information in order for the information about the distance to be determined. Descartes is silent about this kind of calculating in this first account which may mean at least one of two things: either i) the brain contains all this information and then causes the mind to have the appropriate sensations, or ii) the calculation takes place on the side of the mind. Since Descartes is silent here we cannot conclude that he means (i) rather than (ii).

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9 See T.M. Lennon's argument in "Representationalism, Judgment and Perception of Distance: Further to Yolton and McRae," Dialogue 19 (March 1980): 151-62, where he appeals to the passivity of the mind to argue against the mind's making an inference. Lennon is correct in pointing out that Descartes is trying to carve a special place for the reasoning. Nonetheless, the fact that the mind is passive does not support the fact that no intellectual inference occurs, although Lennon may be right that we are not entitled to count this as evidence that Descartes is an indirect realist about perception.

10 See Treatise on Man for a similar account of situation and position perception AT 11:119-202.
One might argue that Descartes' claim that we do not reflect on this shows that Descartes really has (i) in mind, and not (ii). This, however, assumes that if the mind is engaged in some process, we must be aware of it at the time of the process. And Descartes will deny this in his account in the *Replies*. The mind can make judgments but not be aware of doing so at the time. Consequently, what Descartes says in this first account of distance perception does not show SAP to be more accurate.

Descartes' brevity here can be explained by the fact that he is primarily concerned with an account where the mind perceives by means of *perceiving the resemblance between the image transmitted and the object*. And so his primary concern in giving the accounts that he does is to show that the mind perceives by means of quantitative information and geometrical principles, rather than qualitative information and the principle of resemblance. Thus, a significant part in describing the alternative theory is to describe the initial part of the causal chain from the image in the eye, to the brain. It is not unreasonable to interpret this first account of distance as an incomplete account, rather than an account that is interpreted wholly in terms of SAP.

This is even more plausible once we consider the other accounts of distance perception offered in the *Optics*. A second account that Descartes offers appeals to VP 3 that we discussed above:

> We have yet another way of perceiving distance, which is through the distinctness or indistinctness of the shape seen, together with the strength or weakness of the light. Thus when we gaze fixedly toward X, the rays coming from the objects 10 and 12 do not converge as exactly at R and T, at the back of our

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11 See the *Sixth Set of Replies*, and the discussion below.
eye, as they would if these objects were at points V and Y: *from which we see that* they are either farther away from us, or else nearer, than is the point X. Then *from the fact* that the light coming from the object 10 toward our eye is stronger than it would be if that object were toward V, *we judge* it to be nearer; and *from the fact* that the light coming from the object 12 is weaker than it would be if it were toward y, *we judge* it to be farther away (*Optics, AT 6:60*; emphasis mine).

While in the first account of distance that we examined there was no mention of any judgment or any inference taking place, this passage suggests otherwise. First, the kind of perception involved is not described as a *sensation*, but rather as a *judgment*. Second, Descartes does not describe the brain as "allowing the mind to see" as he has done in the other passages. Rather, the perceptual event is much more akin to an inference on the part of the mind where the mind judges the distance *on the basis* of other information. That is, it is *from the fact* that the light falls in a certain way that *we judge* that the object is a certain distance.

In a third account of distance, Descartes again uses language that suggests the presence of an intellectual component in perception. Referring to Figure 4 below Descartes writes:

...we *know* distance by the relation of the eyes to one another. For just as the blind man holding the two sticks AE, CE, of whose length I am assuming that he is ignorant, and *knowing* only the interval which is between his two hands A and C, and the size of the angles ACE, CAE, can *from that, as if by a natural geometry, know* the location of the point E; so also when our two eyes ...are turned toward X, the length of the line Ss and the size of the two angles XSs and XsS *enable us to know* the location of the point X. (*Optics, AT 6:60*).
Descartes concludes this account by claiming that "this happens by an action of thought which, although it is only a simple act of imagination, nevertheless implicitly contains a reasoning quite similar to that used by surveyors, when, by means of two different stations, they measure inaccessible places" (Optics, AT 6:60).

Descartes does not use the term "judgment" in this passage, however he replaces it with "knowledge" which is equally suggestive of some cognitive component. Furthermore, the means by which the mind knows is described as "reasoning" analogous to that used by surveyors. The difference, however, is that while the surveyors may be conscious of their reasoning, Descartes characterizes the reasoning as "implicitly contained" in the perceptual act.

These last two accounts of distance support an alternative account of perception, one which is still causal, but involves a non-sensory component to perception:

NSAP: Perceiver, S, perceives quality q of kind K (Kq) of object O = O causes a sensation, K"s, in S (corresponding to movements in the brain), and S simultaneously makes a judgment about Kq.

It is important to note that I have characterized the judgment as simply a judgment about the quality concerned, which does not imply that the perceiver
"judges that" the object has this quality. This latter type of judgment typically requires some sort of propositional content which is not suggested by anything in the above passage. Rather, what is suggested is a) that the means by which the mind perceives is by an implicit reasoning and b) that this reasoning is "contained" in the perceptual state where the mind "knows" the distance of the object. Both of these, I believe, suggest that the perceptual act is not purely sensory but contains some cognitive component. Furthermore, in giving such an account, one must account for what will be satisfactory as a judgment about Kq. After all, not any judgment about Kq will count as seeing K. Presumably it is a judgment about q, but how we specify this, and what may or may not be included in this judgment, is something that must be provided. Descartes does not do so.

There is a response to my interpretation of this passage, a response that is raised by Atherton in defense of her position, and will prove to be important when we consider Berkeley's account. According to Atherton, Descartes' characterization of the perception as a "simple act of the imagination" that "implicitly contains" the reasoning supports her claim that there is no intellectual component involved in the perception. There is, however, an important piece of evidence that Atherton fails to take into account. In the revised version of the Optics, which was written after the Replies, there is no mention of the imagination in this account. Descartes instead characterizes this as a simple judgment but which implicitly contains the intricate reasoning of the geometers. Such a revision indicates either that Descartes changed his mind, or simply made explicit something that was only hinted at or

12 See Dioptrice, AT 6:138: "...idque per actionem mentis, quae licet simplex judicium esse videatur, ratiocinationem tamen quandam involutam habet, similem illi, qua geometrae per duas stationes diversas, loca inaccessa dimentiuntur."
perhaps carelessly hidden in the original version. What gives weight to this second
explanation of the revision is that in the *Replies* Descartes writes as if he did have
such an account in his mind at the time of writing the *Optics*. Furthermore, his
description of size and shape perception lends additional support for NSAP as an
accurate account of the perception of spatial qualities. As I will argue in chapter 4, it
is precisely this move of replacing the act of the imagination with an act of the
intellect that Berkeley will reject.13

**Size, Shape and Distance Perception**

Descartes' account of size and shape perception is brief. However, he
acknowledges this claiming that the way in which the mind sees size and shape is
"all included in the manner in which it sees the distance and position of their parts"
(emphasis mine). He then proceeds to offer the following explanation of this:

...their size is estimated according to the knowledge, or the
opinion, that we have of their distance, compared with the size
of the images that they imprint on the back of the eye; and not
absolutely by the size of these images, as is obvious enough from
this: while the images may be for example one hundred times
larger when the objects are quite close to us than when they are
ten times farther away, they do not make us see the objects as
one hundred times larger because of this, but as almost equal in
size, at least if their distance does not deceive us. And it is also
obvious that shape is judged by the knowledge or opinion that
we have of the position of various parts of the objects and not by
the resemblance of the pictures in the eye; for these pictures
usually contain only ovals and diamond shapes, yet they cause us
to see circles and squares (*Optics*, AT 6:61).

13 In fact, where Descartes moves from an act of the imagination to an act of
judging, Berkeley moves from the position that the perceiver judges to the position,
explicitly addressed in the Theory of Vision Vindicated, that the imagination is
involved.
Here, even more so than in the triangulation account, Descartes uses a vocabulary suggesting that the perceiver calculates or makes an inference from pieces of information provided in the eye. And yet the information being used consists, in part, of information about the retinal image. We can, however, understand what Descartes is doing in one of two ways, both of which seem to be plausible interpretations of this account.

We can understand Descartes' appeal to information involving the retinal images by recalling his optical experiments and, in this case, appealing to VP 4. In the above passage Descartes claims that the perceiver can calculate the size of the object (external to the eye) in virtue of the size of the retinal image together with the distance of the object. When we consider VP 4 (the size of the object is to its distance what the size of the retinal image is to the distance between the image and the lens of the eye) we see how this geometric formula would allow the mind to calculate the size of the object if it knew the information of the other three variables. It is this principle, rather than a principle that appeals to the size of the images alone, that yields correct information about the size of the object. And this seems to be what Descartes is granting in the passage above.

It may seem uncharitable or mistaken to attribute to Descartes a view that requires that the mind have access to the distance from the lens to the retinal image. However, it is less odd once we remember that he was willing to grant the mind knowledge of the distance between the eyes as is the case in the triangulation case. Furthermore, Descartes need not claim that the mind perceives this information by perceiving the lens, and the back of the eye. Presumably what Descartes has in mind is that this quantitative information from this stage in the causal process is accessible to the mind by means of the state of the brain (the image at the interior of the brain).
The other principle that Descartes might have in mind in the above passage is much simpler, viz. that we judge the size of the object on the basis of the apparent size together with the actual distance, and conclude that it is nearly the same size as the object when placed at a closer distance. In either case, what occurs in this account of size perception is that we judge the actual size of the object external to us, which is something different from the apparent size. Given information other than the shape of the retinal images we can perceive the property of the object, regardless of how it appears to us. Thus, for size and shape perception, which is dependent on distance (and position) perception, the actual perceptual content or mental state involves something over and above what is merely presented in sensation. In order to perceive the size and shape of the object external to the mind, implicit reasoning embodying the visual principles of the optical experiments must take place. In virtue of this, some non-sensory component is contained in the perception which seems best captured by NSAP above.

What is suggested in the *Optics*, and, as we will see, developed in his later works is an account of the perception of spatial qualities that construes the perception of these kinds of qualities as significantly different from qualities that are not instantiated by objects in the external world, namely color, taste and the like. It is in virtue of the kind of properties that are involved in the perception, and their relation to the external, geometrically characterized world, that Descartes introduces the intellectual component to perception. That there is such a difference in the nature of the perceptual event in virtue of the objects of perception is illustrated in Descartes' *Principles of Philosophy* (hereafter, *Principles*). Before turning to the *Replies*, it is worth taking a brief look at the distinction he makes in this work.
Judgments and Spatial Properties

In the Principles LXIII through LXV Descartes discusses thought and extension as both substances, and also modes of substances, where modes of extension are, for instance, figures, situation of parts, or movements of an object. That these are not sensations nor perceived in the way color, light or heat are perceived is evidenced in the following passage:

...if the body was so [slightly] affected that no great good nor evil was experienced, such sensations were encountered as we call tastes, smells, sound, heat cold, light colours, etc., which in truth represent nothing to us outside of our mind, but which vary in accordance with the diversities of the parts and modes in which the body is affected. The mind at the same time also perceived magnitudes, figures, movements and the like, which were exhibited to it not as sensations but as things or the modes of things existing, or at least capable of existing, outside thought, although it did not yet observe this distinction between the two (Principles LXXI, AT 8:35; emphasis mine).

Here it is not just a matter of the mind treating these perceived qualities differently, but rather they are exhibited to the mind differently. And that is true even before the mind recognizes them as such. One way to account for this difference in perception is the way that Descartes does in the Replies, namely by distinguishing sensations from judgments of the intellect. And it is in virtue of this that NSAP seems to provide a more accurate view of the account that Descartes offers, for it takes into account the differences highlighted in the passage above.

Perception in the Replies

In the course of his discussion, Descartes makes two references to the account of distance perception in the Optics. While the Optics offered some clues as
to the nature of the perceptual event of seeing distance, namely that perception involved a judgment, as opposed to mere sensation, the Replies offers a more detailed description of this event which emphasizes the intellectual nature of the perception of distance, and other related qualities. Moreover, it offers some insight into how Descartes understood what he tried to show in the Optics.

In this section, Descartes is addressing a question concerning the certitude of the senses which was raised by Mersenne in the Sixth Set of Objections. Descartes begins his response by distinguishing three grades of sense perception. The first grade we share with animals, and is most likely best characterized as unconscious reactions to external objects and the environment. The second grade of perception involves the consciousness of the "immediate effects produced in the mind as a result of its being united with a bodily organ...". These effects are the sensations produced by the brain movements, together with the laws governing mind and body. This is the kind of explanation that we first examined in the Optics. But the sensations that he attributes to the second grade are color, sadness, smells, hunger, thirst, heat, cold, pain and pleasure. Position, distance, size and shape do not belong to the second grade according to this account.

The third grade, according to Descartes, includes "all the judgments about things outside us which we have been accustomed to make from our youth, these things being the occasions for our impressions and the movements in our bodily organs" (AT 7:437). So, the difference between the second and third grade is that while the second grade involves only sensations, the third involves only judgments. Furthermore, the judgments are about the things which are the occasions of the

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14 AT 7:418.
second grade perceptions, namely the objects outside of us. We have seen evidence that in the *Optics* Descartes spoke of the perception of distance as a *judgment* about distance, and also that Descartes upheld this distinction in the *Principles* between those qualities instantiated or capable of being instantiated in the external world, versus those sensations simply caused. So it is reasonable, given his account of perception in the *Replies*, to think that perceptual events involving qualities of extension belong to this third grade of perception. Consequently, perceiving an object which has qualities of extension and causes color perception would consist in a second and third grade perception: such an event involves both a sensation and a cognitive component.\(^{15}\)

Interpreting perception in terms of NSAP is further supported by Descartes' description of our perception of a stick that he offers in the *Replies*. Our perception of a stick, claims Descartes, is not by means of "intentional forms". Rather we see the stick in virtue of the rays of light reflected from the stick that excites certain motions in the optic nerves and by these means, in the brain. His first reference to the *Optics* is at this point: he reminds us that he has explained this in the *Optics*. He then claims that this first level leads to the second level of perception which consists only of the "mere perception of color and light". But Descartes warns that *if we are*

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\(^{15}\) The question of whether perception of an object requires sensation, and whether a sensation requires the brain is a subject frequently mentioned in Descartes' discussions. For instance, Descartes will claim that an angel, placed in our body would perceive pain as a series of motions, but not feel it as we do. (*Letter to Regius*, January 1642, AT 3:493.) It is for this reason I have assumed that this is an account of human sense perception. For humans, sense perception seems to require the body. And provided that modes of extension occur with bodies we attribute color to, then sense perception will, as a matter of fact, require sensation. See *Letter to More*, August 1649, AT 5:402. But in so far as bodies were not colored, we could perceive their spatial qualities by means of our body, but without sensation.
to make a distinction between this and the understanding, we can only attribute color and light to the senses. He then goes on to give an example which he claims makes the role of the intellect obvious:

For it is from the color sensation, of which I have an impression, that I come to judge that the stick is outside of me and colored and that from the extension of this color, its border and the relation of its situation with respect to the parts of my brain, I determine something like the shape and the distance of this same stick which even though I am accustomed to attribute this to my senses, and for this reason I have attributed to the third degree of sensation, nonetheless it is obvious that this depends solely on the understanding. Likewise I illustrated, in the Optics, that size, shape and distance could only be perceived by reasoning, deducing one from the other. (Replies, AT 7: 437; emphasis mine.)

Once again, Descartes is appealing to information at the retinal image and the parts of the brain. But from our discussion in the Optics, we should be able to discern Descartes’ intentions here. The mind, appealing to the information about the shape (border) of the image on the back of the eye, together with the "relation of its situation with respect to the parts of the brain", allow him to determine the distance of the stick. It is difficult to determine just what calculation Descartes is thinking of here. However, one suggestion is that it is Visual Principle 4 (VP 4) that he has in

\[\text{Notice that in the quote above, the information that the object is "without" us is given by the sensation alone. But, the sensation together with the further mental process yields the judgments about the shape, size, distance etc. So, when Descartes speaks of distance, it is not to be understood as the perceiver perceiving "outness" or the "independence" of objects, but rather as a length or metric in 3-dimensional space. So, while we can conclude from perceiving distance that the object is outside, perceiving distance is not identical to perceiving "outness".}\]
mind for he mentions the (only) account of size and shape in the *Optics*, and appeals to it in this passage. 17

While it is not at all clear how this is supposed to provide the mind with the perceptual information it needs to perceive the stick, it is fairly clear that Descartes has something like the account above in mind. The important point is just this: Descartes assumes that there is a) information from the retinal image and the brain that the mind uses to make a judgment about qualities of the stick; b) that the perception of size, distance and shape qualities are deducible one from the other via reasoning and c) that they are only perceived by reasoning. When Descartes writes about deducing one from the other he must have in mind how the quantitative information taken from the various parts in the causal chain, together with certain optical principles, yields further quantitative information that is information about the qualities of objects. And this is the kind of account that we encountered in the *Optics* where quantitative information transmitted to the brain provides the means by which the mind calculates and makes a judgment about the mode of extension of an external object.

Given that the means by which we perceive involve quantitative information and geometrical principles, and the final content of the perception is quantitative, it is not surprising that the intellect rather than the imagination plays a crucial role in his account of perception and that, consequently the account that best accords with Descartes view of perception is NSAP. However, there is one last piece of evidence that further supports the claim that perception of the modes of extension involves a

17 Descartes never mentions "deducibility" in this account in the *Optics*, but he does say that the size and shape perception is "all included in" the perception of distance and position.
non-sensory component. In justifying his account of a third grade of perception Descartes writes:

... although such reasoning is commonly assigned to the senses (which is why I have here referred it to the third grade of sensory response), it is clear that it depends solely on the intellect. I demonstrated in the Optics how size, distance and shape can be perceived only by reasoning, deducing one from the other. *The only difference* is that when we make a new judgment for the first time because of some new observation, then we attribute it to the intellect; but when from our earliest years we have made judgments or even rational inferences about the things which affect our senses, then, *even though these judgments were made in exactly the same way as those we make now*, we refer them to the senses (*Replies*, AT 7:437-38; emphasis mine).

Descartes recognizes that he must give an explanation for why we have not recognized these judgments as belonging to the intellect (the evidence for this being that we attribute the judgments to sense). His explanation claims that *custom* or memory of similar judgments causes us not to recognize their non-sensory component. The fact that Descartes claims that our new rational inferences and judgments are the same *in kind* as the rational inferences that we have been making from childhood, however, further supports the claim that perception of certain kinds of qualities, specifically spatial qualities, involves an intellectual or non-sensory component.

Since Descartes is explicit about both the non-sensory component of this kind of perception and his view that this account was offered in the Optics, it is very plausible to think that in both the Optics and the Replies Descartes offered an account of perception that is more accurately captured by NSAP than by SAP. The mind makes a judgment about the modes of extension of the object external to it. This judgment, however, "implicitly contains" reasoning that contains the
information that would yield a judgment with the content that it has. We can think of this on the model of a deductive argument, where the premises, taken together, actually contain the information in the conclusion. The mind's taking the information that is encoded in the brain and implicitly performing the appropriate "calculation" characterizes the mental event by means of the particular information involved. And this is, in turn, what the perception is about.

And according to the account in the Replies, such calculations and judgments are the same kinds of judgment that we make when we are conscious, at least in so far as they involve the intellect. However, due to custom, their intellectual nature has become hidden from the mind. Thus we attribute such judgments to the senses. Given this, one might characterize Descartes' goal in the Replies as one that is supposed to convince his reader that while we might be tempted to choose an account like SAP over NSAP, this would be a mistake.

It is true that much of the significant evidence in support of NSAP derives from later works, and the revised version of the Optics and that in virtue of this, it may still be true that Descartes' intentions at the time of writing the Optics did not include an account like NSAP. However, I am content to offer the claim that even if such an account were not clearly articulated and intended by Descartes at the time of writing the Optics, he later saw his project in the Optics as offering such an account. And for the purposes of my larger project, this is sufficient, for it will allow us to see where this account differs from Berkeley's. The significance of this is that Berkeley had access to this later version which appears in the Appendix to the New Theory of Vision, and that he justifiably understood Descartes' account of perception to involve an intellectual component which was in turn characterized by
the geometrical and optical principles we have examined above.\textsuperscript{18} What we will see in Berkeley's account of perception is a shift in perception from the intellect to the imagination and where reasoning and judgments are replaced by habit and custom.

\textit{Atherton's Account}

I have tried to show above that of the two accounts of perception that one might attribute to Descartes, NSAP more accurately captures Descartes' account of perception than SAP. Furthermore, while the account of perception in the \textit{Replies} is more elaborate and more sophisticated than the account in the \textit{Optics}, that same account of perception is nonetheless found in the \textit{Optics}, however incomplete it may be. This, I have suggested, has been challenged by Margaret Atherton who has argued that Descartes' project involving geometry in the \textit{Optics} is not the same as the project that he outlines in the \textit{Replies}. Since the passages in the \textit{Optics} do not provide unquestionable support for my claim and since I often rely on texts other than the \textit{Optics} to support my view, it is worth addressing Atherton's arguments before continuing.

Despite the fact that Descartes appeals to the \textit{Optics} in the \textit{Replies}, Atherton suggests that there are, in fact, two different geometric theories of spatial perception in the \textit{Optics} and the \textit{Replies}, and that we ought to keep the two separate:

1) The theory which accounts for our ability to perceive spatially (experience spatial properties).

2) A theory which accounts for our beliefs about the spatial properties of external world.\textsuperscript{19}


\textsuperscript{19} Atherton, \textit{Berkeley's Revolution}, 33.
According to Atherton, the former is the account that Descartes offers in the *Optics*, and the latter is the account with which he is concerned in the *Replies*. The former is concerned simply with our sensory response to physiological events in the brain, where the latter does involve the intellect and attributions of features to external objects. Given the disparity of the accounts it is a mistake to identify the account in the *Replies* with the account of perception in the *Optics*.

There are, roughly, three arguments that Atherton offers in support of her claim that the *Optics* and the *Replies* offer different theories about perception: i) In the *Optics* his account of color and light perception is no different from his account of perception of the modes of extension; ii) the account of triangulation is not singled out from the other account and involves a simple act of imagination rather than the intellect; and iii) in the *Optics* Descartes never talks about beliefs except in the case of illusions, and so he is thus not concerned with persons as accurate instruments for registering distance. In what follows I examine these arguments to show that such claims are either unsupported or fail to show that what I have argued above is false. Let's begin with the comparison of color to distance perception.

The first theory about vision concerns only the way that we are visually affected by the objects of the external world, and it is this theory that Atherton claims is central to the *Optics*. Atherton supports this claim by emphasizing that in the *Optics* (in contrast to the *Replies*) Descartes does not distinguish between sensory perception of color and light and perceptions of spatial qualities. What we find in the case of color perception is that the event of being aware of color or light is explained in terms of some specific sequence of physiological events in the brain. And when we turn to the accounts of the visual perception of *spatial* qualities we find that they do not differ significantly from the account of color and light perception. In fact, claims Atherton, Descartes stresses their similarities, rather than
differences. In the account of position Descartes is telling a physiologically based story about movements in the brain that co-vary with our perceptions of position. Furthermore, the same kind of story turns up in the first account of distance. Atherton writes:

In this account of distance perception Descartes outlines the workings of a sensory mechanism, just as he did when talking about color perception. What he seems to have done is to have cast about for a physiological change, which co-varies with distance, to which a subjective state of distance perception can be assumed to be a response. Our experience of changes in brain states which are themselves changes brought about by changes in eye shape, results in a psychological state of things looking to be at some distance or other.

Atherton concludes here that since the psychological state of things "looking to be at some distance or other", is no more than a response to brain events in the same way that "looking red" is such a response, there is no reason to think that the former reflects or resembles the qualities of objects more accurately than the latter.

Atherton's claim that color and distance perception are essentially the same in the Optics is plausible provided that we focus only on the first account of distance. And, it is then plausible only if we take a narrow interpretation of what Descartes is attempting to do. As I argued above, the first account of distance, where Descartes compares our perception of distance to our feeling the figure of an object with our hand, is primarily concerned with the causal chain leading up to the mind's perception. Given that one main concern is to offer an alternative to an account that

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20 Atherton, 23.
21 Atherton, 25.
22 Atherton, 24.
accounts for the mind's access to the world via images resembling the object, it is not surprising that we will find Descartes focusing on the causal chain and the kinds of images he is proposing. However, when we turn to the other accounts, it is plausible to think that this is at best an incomplete account of perception, rather than a different account. The remaining two accounts together with what Descartes says in the *Principles* provided significant support for my claim that there was more to the account of perception than what Descartes gives in his account of color and light perception. Atherton anticipates this and thus offers her second argument concerning the triangulation method of perceiving distance.

I argued above that the triangulation case is one among several descriptions that suggests an intellectual component to the perception of spatial qualities. Atherton, however, argues that Descartes does not single out this account in any way; nor is there anything in this passage that suggests that Descartes thinks this particular way of perceiving distance is non-sensory. Furthermore, even in the third account where the geometry and "reasoning" is explicitly mentioned, Atherton argues that while Descartes talks about reasoning here he also describes the reasoning as a "simple act of the imagination", and as "implicit" in contrast to the account in the *Replies*.²³

There are several weaknesses in Atherton's argument concerning this third account. First, while it is true that Descartes appeals to "implicit" reasoning, it is not obvious that Descartes' appeal to the reasoning being "implicit" is sufficient to distinguish the *Optics* from the *Replies*. Descartes admits in the *Replies*, as well as in the *Optics*, that the reasoning that takes place is implicit. But, in the *Replies* he

²³ Atherton, 26.
emphasizes that this should not be taken as evidence that the intellect is not involved. So, appealing to the fact that the reasoning is "implicit" does not distinguish the *Replies* from the *Optics*, nor does it support Atherton's claim that there is little evidence for any non-sensory component to perception. It is the appeal to reasoning that suggests an intellectual component. The appeal to its being "implicitly contained" simply tells us about our access to it, a feature that we saw Descartes attempting to account for in his later works.

But, I also discussed one further piece of evidence that is especially telling against Atherton's point. In the revised edition of the *Optics*, the edition written after Descartes wrote the *Replies*, there is no mention of the imagination. Instead, Descartes describes the event in terms of a rapid *judgment*. So, appealing to the imagination will not support the claim that no intellectual component is involved.24

24 Atherton is not the only author who appeals to this description. T.M. Lennon appeals to this in order to support his claim that the mental act does not involve an inference, *op. cit.* 153. However, there is some reason to think that in the earlier version of the *Optics* Descartes intended to distinguish those accounts of perception involving judgment and those involving imagination. Following the three accounts of distance I presented earlier in the discussion, Descartes offers a further account, but with the following qualification: this is an account that is not "seeing properly speaking" but rather "imagining" the distance of the object (AT, 6:60) In this case, the object is far away from the perceiver and the principles involved in the calculation are not geometrical or optical principles. Rather, the principles that are operative in this account are derived from experience. Finally, Descartes deliberately changes his vocabulary when describing this and points out that this account (in contrast to the others) is not a case of actual seeing. This is further support for my view, namely that actual seeing involves a judgment rather than the imagination, and is based on geometrical and optical principles rather than principles derived from experience.
But it is not just this account that suggests an intellectual component might be involved. Atherton fails to acknowledge that there is an additional account, one that we discussed above, where on the basis of the indistinctness of the shape seen together with the strength of the light, the mind "judges it to be nearer". Descartes' description in this section certainly suggests that there is some kind of calculating that must take place, even though it might be "implicit". But as I said above, the fact that the reasoning is implicit does not entail that the mental act involved is not intellectual.

Atherton's final argument that the *Optics* account of spatial perception is essentially different from the *Replies* involves the claim that in the *Optics* Descartes is not very much concerned with our beliefs in external objects. In contrast, the account in the *Replies* is an account of our rationally supported beliefs about the geometrical properties of objects where the process of perception "proceeds from an experience of sensible qualities to beliefs about the intelligible qualities of the external world".25

There are two issues with which Atherton seems concerned. On the one hand, Atherton claims that the *Optics* differs from the *Replies* in virtue of the kind of mental act that is involved: in the *Optics* the mental act is a sensory act that is caused by an external object whereas in the *Replies* the mental act is a belief about the geometric qualities of external objects.26 On the other hand, Atherton claims that the *Optics* differs from the *Replies* in virtue of the epistemic role that the geometrical principles play in Descartes' theory of vision: in the *Optics* Descartes is

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26 Atherton, 31.
concerned with how imperfect we are as perceivers of spatial properties whereas in the *Replies* our beliefs about the geometrical properties of external objects are rationally supported given the geometrical reasoning on which they depend.  

While Atherton suggests at times that differences in Descartes’ epistemological concerns help support her claims that there are differences in the perceptual accounts, I think that it is best to address these claims separately.

What I hope is apparent by now is that in both the *Optics* and the *Replies*, the perceptions in question involve the geometric qualities of objects external to the perceiver. When in the third account Descartes describes the perceiver as knowing "where the object is" it is difficult not to take this to mean that we know a quality of an external object. Furthermore, in his explanation of position, what the mind is aware of is not something in the visual field but rather it is aware of the locations "all along the line represented by the sticks of the blind man." The locations of which Descartes is speaking are locations where the parts of the sticks reside, and to make judgments concerning these is to judge about objects in external space.

It is true that mere judging does not commit Descartes to a view that perception involves belief. In fact, I have been careful in my account of NSAP to leave out any mention of beliefs. However, what is important for challenging Atherton’s claim is to point out that the *Optics* and the *Replies* cannot be distinguished on the basis of perception involving beliefs. Both accounts, however, involve judgments about the geometric properties of objects and not simply of how things appear.  

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27 Atherton, 33.

28 In further defense of the claim that the perceptual event in the *Replies* is essentially different, Atherton claims that while the event in the *Optics* is a single
In defending her claim that the accounts of perception in the Replies differs from the account in the Optics, Atherton appeals to a difference in the epistemological role of the geometrical reasoning in each account. Atherton argues that in the Optics, the geometrical reasoning is not intended to guarantee the truth of our perceptions. Descartes emphasizes how we are "imperfect instruments for registering distance". And even in the triangulation account, Atherton argues that "there is nothing in this passage to suggest Descartes thinks...the means by which distance is represented entitle us to conclude that the distance things look to be accurately reflects distances at which external objects are located". In contrast, the geometric reasoning is supposed to provide a model for rationally supported or justified beliefs.

Response to a physiological event, the event in the Replies is a two-stage process: on the basis of a sensation the mind makes an objective judgment about the spatial property of the object. Once again, that this is true of and peculiar to the Replies is questionable. First of all, while Descartes talks as if it is on the basis of a color sensation that I judge of the spatial properties, he in fact only claims that the sensation leads the perceiver to judge that the object is "outside" of him. Rather, as he claims in the following sentence, it is the color, its boundaries together with the object's position in relation to the parts of the brain that I so judge. In describing the process thus, it does not differ essentially from the accounts of distance, shape and size perception in the Optics. One might argue, however, that when Descartes talks about the shape of the retina, or the object's position in relation to the brain, that he just means the sensation by means of which the mind makes its judgment. This would be to attribute to Descartes the principle that for every feature in the visual system and the brain, there is a corresponding sensation. If this is true of Descartes' position, it will still not support Atherton's position, for there is just as much reason to say that the Optics involves this two stage process as well.

29 Atherton, Berkeley's Revolution, 27.
There is a dual role that the geometric reasoning plays in Descartes' system. However, the dual role is present in the *Optics* as well as the *Replies* so we cannot separate the accounts in the way that Atherton argues that we can. The dual role that the geometric reasoning plays, however, is not particularly clear, nor easy to explain. This is due to the fact that Descartes is attempting to use the geometric model as both an accurate description of the world, and thus an accurate description of how the visual system works, but also as a means of accounting for the representational content of the visual states of the perceiver - a representational content that is present in our tactile and our visual perceptions. But in order to defend this claim I need to return to the nature of the judgments in the accounts we have examined above.

*Judgments, Inferences and the Intellect.*

It is has been the main claim of this discussion that perception of spatial properties involves a non-sensory component, and that this account of perception was offered in the *Optics* and later developed in the *Principles* and the *Replies*. I have characterized the nature of the non-sensory component in terms of a judgment which, to use Descartes' description in the *Optics*, contains an "implicit reasoning". Such reasoning, I have argued, involves quantitative information together with certain optical and geometrical principles which ultimately contain information about quantitative properties of the objects perceived. This is the information that the mind supposedly has when it is described as "judging" the distance or shape or size of the object in perception.

The account of perception in the *Replies* adds very little to this, except for the fact that it confirms, or so I have tried to show, that the kind of perception involved is non-sensory. In other words, the presence of an intellectual component that was
suggested by Descartes' use of the terms "judgment", "knowing", and "implicit reasoning" to characterize the nature of the perception was confirmed by his classifying such perception in terms of the third grade of perception and thereby distinguishing from the sensations of color, taste, light and related sensations. In further support of this we saw that in the *Principles*, the spatial qualities involved in these perceptions were viewed, by Descartes, as being exhibited in perception in a different way from sensations.

So, what is going on here? One way to account for the fact that the perceptions in question were characterized by Descartes as "intellectual" is that such perceptions which involve geometric reasoning, are veridical and are guaranteed to be so in virtue of the geometric reasoning.

There is a sense in which such perceptions are veridical; however, they are veridical in a very qualified sense. The "implicit geometrical reasoning" I have argued, is employed in the *Optics* as a way of describing how our visual system succeeds in enabling the perceiver to see distance. In so far as Descartes is arguing that our visual system works, he must assume that the visual perceptions are true. This is evidenced by several remarks by Descartes in the *Optics*. First, he describes the triangulation account as allowing us to "know" the distance. Second, when Descartes finishes with his description of the accounts of seeing the various spatial qualities, he then says that in order that the reader should have no doubts that vision works in this way that he has described, he will then show the reader "how it occasionally deceives us" (*Optics*, AT 6:63). This also suggests that he understood himself to be giving accounts of veridical perception. Finally, since these accounts are also supposed to explain how the telescope works, and since part of his goal is to convince his reader that the instrument does work, he must assume that these principles yield veridical perceptions!
However, we must take seriously the passage that Atherton brings to our attention, where Descartes admits that the means by which "we know distance" are very uncertain:

... for, as to the shape of the eye, there is no longer any noticeable variation when the object is more than four or five feet away from it, and even when the object is near, this shape varies so little that we cannot have any very precise understanding of it ... (Optics, AT 6: 64).

On the one hand, the geometric reasoning and principles allow the mind to "know distance" and yet on the other hand, these means are quite uncertain.

What we must distinguish is the role the geometric reasoning has in producing veridical perceptions, and the role that it has in providing a reliable means for making judgments about the object causing the perception. We have seen that it must, at least on occasion, account for the perception's being veridical. The system has to work, and it has to work in virtue of these principles. However, Descartes does seem to reject it, at least in this passage, as a reliable means form making accurate judgments about the object in question. Atherton does seem correct on this point. However, contrary to what Atherton suggests concerning its role in the Replies, the geometrical account is not offered as a reliable means for making judgments about the object perceived.

In the Replies, Descartes appeals to the geometrical reasoning not to account for the reliability of the intellect in terms of making judgments about the object perceived, but rather to illustrate the role of the intellect in perception in contrast to the role of sensations. The second grade of perception involves color sensations, but the third grade involves the means by which we perceive spatial qualities of those objects. The "perceptions" at the second level, are neither true nor false, but those perceptions involving geometrical reasoning are capable of being true or false, for,
recalling what Descartes has said in the *Principles*, they involve qualities that an object either has or is capable of having. (I shall return to this in a moment, for this is another sense in which geometrical reasoning can be said to provide veridical perceptions.) Moreover, in making the means by which we see spatial qualities a geometrical inference, Descartes provides a means common to both sight and touch, thus allowing for a common object.

When Descartes does turn to the issue of reliability, he says the following:

It is clear from this that when we say "the reliability of the intellect is much greater than that of the senses" this means merely that when we are grown up the judgments which we make as a result of various new observations are more reliable than those which we formed without any reflection in our early childhood; and this is undoubtedly true. It is clear that we are not here dealing with the first and second grades of sensory response because no falsity can occur in them. Hence when people say that a stick in water 'appears bent because of refraction' this is the same as saying that it appears to us in a way which would lead a child to judge that it was bent...(*Replies*, AT 7: 438).

What is capable of being more or less reliable are the judgments that we make at the third level of perception. But, even at this level, it is not the judgments involving implicit geometric reasoning that makes the particular judgments about the external objects more or less reliable. Rather, it is the fact that we make new observations, and reflections which influence our perceptions, that makes such perceptions more reliable. Furthermore, with respect to the issue of the intellect correcting perceptions Descartes writes:

But I cannot grant my critics' further comment that this error is corrected 'not by the intellect but by the sense of touch'. As a result of touching it, we may judge that the stick is straight, and
the kind of judgment involved may be the kind we have been accustomed to make since childhood, and which is therefore referred to as the 'sense' of touch. But the sense alone does not suffice to correct the visual error: in addition we need to have some degree of reason which tells us that in this case we should believe the judgment based on touch rather than that elicited by vision. and since we did not have this power of reasoning in our infancy, it must be attributed not to the senses but to the intellect (Replies, AT 7:439).

There is no mention here of the geometrical reasoning when he discusses the role of the intellect correcting judgments.

The judgments involving the implicit geometrical inferences in the Optics provide for veridical perceptions, but do not provide a reliable means for making judgments about particular objects in the world. This seems to be the position that Descartes holds in both the Optics and the Replies. So, there is no conflict here. But we now are back to the question of the role of the intellect in perception and its relation to the geometrical reasoning. I suggested that Descartes did relegate the geometrical reasoning to the third grade of perception to account for some sense of veridical perceptions. This sense of veridicality can be understood as follows.

Implicit in the description of the judgments in the third grade of perception is a distinction between different kinds of judgments, and thus different senses of perception. The distinction is best understood in terms of the sun example that Descartes uses in the third Meditation to illustrate the different ideas one might have of objects in the external world. On the one hand, we have an idea of the sun which "makes it very small" and the other idea, based on astronomical reasoning, shows the sun to be several times larger than the earth. Here is a case where reflection and knowledge derived from the sciences may correct our vision of objects in the external world. The latter kind of perception, which involved a conceptually informed perception, certainly involves the intellect. However the first
kind of perception of the sun also involves the intellect in virtue of the fact that it involves a spatial quality. And it is in this sense that judgments involving implicit geometrical reasoning are veridical: they do not reliably present us with spatial qualities that actually belong to the object causing the perception, but they still involve, that is to say, they have a representational content that is a quality an object is capable of having.

Atherton at one point describes the geometrical reasoning in the Replies as accounting for how the "geometric qualities of the physical world become available to us" in the course of experiencing the physical world."30 In a sense she is correct, for I am suggesting that it is precisely for this reason that Descartes appeals to implicit reasoning, judgment and the intellect in providing an account of spatial perception. The only way that such properties, which objects either have or are capable of having, could be involved in perception is through the intellect.

Judgments in Perception

In closing, I would like to say a bit more about the intellectual component of NSAP. I have argued that an account of perception that best accords with Descartes' texts in the Optics and the Replies is captured by the following account:

NSAP: Perceiver, S, perceives quality q of kind K (Kq) of object O = O causes an image consisting of movements of a K-kind which results in S's mind having a sensation and simultaneously making a judgment about Kq.

30 Atherton intends more by this description. She argues that we reason on the basis of sensations. This I think is questionable given that the passage involving the geometric reasoning in the Replies seems to appeal to the retinal image and not a conscious sense perception.
But after distinguishing between reliable perceptions and merely veridical perceptions one might be tempted to think that there are two kinds of judgments involved in these different perceptions. One might think that, on the one hand, the judgment consists in the geometrical reasoning described in the *Optics*, and mentioned only briefly in the *Replies*. The implicit geometrical reasoning provides the means by which the mind "grasps" the spatial quality instantiated or capable of being instantiated in the object.

The other kind of judgment that might be involved does not require geometrical reasoning of the sort described in the *Optics*. Rather, it involves a more informed conceptual perception, appealing to geometrical or, in the case of the sun, astronomical reasoning in order to make a reliable and veridical perception of the spatial qualities of an object. This latter kind of perception is best described as a conceptual seeing, or a 'seeing that the object has a certain geometric property'. Moreover, as I indicated in the discussion above, this kind of judgment was reliable, whereas Descartes admitted that the natural geometry did not provide a reliable means for our "voluntary judgments".

While we can legitimately think of these as different kinds of judgments involved in different kinds of perception, I believe we may do so only if we keep in mind in what respect they are different and, more importantly, in what respect they are the same. They differ in the following respects. One is reliable, whereas the other is not. One is implicit whereas the other need not be. However, they are similar in two important respects. They both involve a reasoning on the part of the perceiver. And they both have as object of the judgment, a spatial quality which the material object either instantiates or is capable of instantiating.

We can, then, distinguish between the account of perception offered by NSAP above, and the second more reliable, or informed perception that is also
described in the *Replies*. I shall refer to this as the Informed Perception account (IPA)

IPA: Perceiver, S, perceives quality q of kind K (Kq) of object O =
i) O causes an image consisting of movements of a K-kind which results in S's mind having a sensation and simultaneously making a judgment about Kq, and
ii) S consciously judges O to have a quality q' (which may or may not be identical to Kq)

There are certain features that Descartes does not account for and which I have not included in this account. As I mentioned above with respect to NSAP, a perception of an object must elicit only certain kinds of judgments - not any judgment about the object will do. It is not obvious that Descartes has the apparatus for specifying what will count as an appropriate judgment, but this is a burden which any account of perception requires. Furthermore, as I have stated IPA, and particularly given the highly conceptual nature of the judgment, IPA does not really seem to be a kind of perception at all. Rather, it seems to be an instance where a case of sense perception is accompanied by (or occasions) a judgment. While this may be the more appropriate view of this kind of mental event, it is not clear that Descartes would agree that this is not a case of perception. This is best illustrated by the sun example offered in the *Meditations* where we see a small sun, but see that it is several times larger than the earth.\(^3\) Consequently, I shall treat it as one form of sense perception, but in doing so we need to stipulate that this judgment forms a complex event that is not causally separable from the sensation. This at least increases the plausibility of this counting as a perception.

\(^3\) Descartes, *Meditations*, AT 7:39.
perception there is an explicit rather than implicit reasoning that might go on. Furthermore, the perceiver would be aware of the kinds of ideas involved in the judgment rather than simply perceiving the ideas involved. As we will see when we turn to Malebranche, a similar distinction is made in his account of sense perception. Furthermore, he will adopt the account of the way that distance perceptions occur with the exception that God, instead of the perceiver's mind, performs the appropriate calculations.
CHAPTER II

MALEBRANCHE’S ACCOUNT OF DISTANCE PERCEPTION

In this chapter I will examine Malebranche’s account of distance perception. My concern is to compare his account with Descartes’, with the hopes of achieving a better understanding of Berkeley’s chief targets. What we will find in Malebranche is that while his explanations of distance perception are identical to those of Descartes, their accounts of perception differ slightly. This, we shall see, is primarily a function of Malebranche’s occasionalism. I shall argue that Malebranche has two accounts of sense perception which resemble the two accounts NSAP and IPA that we discussed at the end of the last chapter.

I tried to show in the last chapter that for Descartes, the account of sense perception involving spatial qualities required an intellectual judgmental component in the perception. Such judgments implicitly contained an inference embodying particular quantitative information and optical or geometrical principles which yielded information about the qualities of external objects. These judgments however, were not conscious inferences, and were to be viewed differently than more reflective (or conceptually informed) perceptions that were introduced in the Meditations. However, in order to account for the difference between the way that color or taste qualities enter perception, and the way that spatial qualities enter perception, Descartes introduced the intellectual component to perception. In other
words, the judgments involving implicit geometrical reasoning provided the means by which the perception obtains its representational content.

Malebranche, who is sensitive to the same distinction between the geometrical qualities of objects that enter perceptions and sensations, which also play a role in our perceptions, attempts to maintain the distinction by distinguishing "ideas" from "modifications of the mind". In doing so, Malebranche shifts the use of the term "idea". Instead of using it to refer to a mental "mode with a certain representational content" his main use is to refer to the representational content itself. Since it is in virtue of the content that a perception or awareness is what it is, then Malebranche can classify the kinds of perceptions in terms of their contents, or these ideas. With this shift in the use of "idea" Malebranche also changes (or makes explicit) the nature of the representational content, in that he objectifies the content of perceptions by the perceiver. Ideas, in Malebranche's system, are "in God" and as a result, we are led to the infamous claim that "we see all things in God" (Search, Book III Part 2, vi). While space does not permit a detailed examination of the nature of "ideas in God" (sometimes called "intelligible extension") it will be helpful to give a brief overview of the nature of ideas and the multiple, interconnected roles that they play.

Ideas in God

Malebranche shares with Descartes a geometrical vision of the nature of the physical world. The essence of matter and thus corporeal bodies is extension. And thus, what ever has extension has figure, divisibility and impenetrability (Search, III

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1 N. Malebranche *La Recherche de la Verité: Oeuvres Completes de Malebranche*, ed. A. Robinet (Paris: J. Vrin, 1959-66) Volume 1 (OC), Book I, chapter 1, section 1. (Hereafter, *Search*; references to other works will include title, book number and chapter)
Pt 2, viii 2). But, unlike Descartes, Malebranche's ideas are spiritual "archetypes" or "exemplars" which are mind independent and "represent" the corporeal world. They represent, however, in two ways. On the one hand they are "archetypes" or the uninstantiated qualities that are instantiated when bodies exist, which are the blueprints for God's creations (representations): "God must have within Himself the ideas of all the being He has created (since otherwise he could not have created them)..." (Search, III Pt 2, vi). On the other hand, these archetypes represent in that they are the means by which one perceives the world, and also knows the world: "the mind...can see what in God represents created beings, since what in God represents created beings is very spiritual, intelligible, and present to the mind" (Search, III Pt 2, vi).

In virtue of the two ways in which ideas can be understood to "represent" the corporeal world, ideas play three significant roles in Malebranche's system:

A) They are, as Malebranche suggests above, the blueprints for God's creating the bodies in the world. God could not create ex nihilo, and so there must be some exemplars or archetypes by which to create things.

B) In virtue of their being blueprints, they are the primary objects of geometry and physics and the objects of knowledge for us:

Thus for physics it is necessary to admit only notions common to all men, i.e. the axioms of geometers and the clear ideas of extension, figure, motion and rest and others as clear as those, if there are any... It is not absolutely necessary to examine whether there are actually beings external to us corresponding to these ideas, as we do not reason on the basis of these beings but on their ideas. We should only be careful that the reasonings we make about the properties of things are in agreement with our sensations of them, i.e., that what we think is in perfect agreement with experience, because in physics we try to discover
the order and connection of effects with their causes either in bodies, if there are any, or in our sensations, if they do not exist \((Search\ VI, \ Pt.\ 2,\ vi)\).

Such ideas are "spatial" or "quantitative" properties which corporeal objects either instantiate or are capable of instantiating.\(^2\) As we will see Malebranche often talks about the existence of an idea for each corporeal body. However, in keeping with the notion of ideas as the blueprint for the corporeal world, Malebranche also describes ideas as "parts of" or "truths of" the idea of extension. In other words, there is one archetype of extension which includes intelligible qualities, intelligible (three-dimensional) "spaces"\(^3\) from which geometrical and physical truths are "discovered":

\begin{quote}
I know the parts of extension clearly because I can see their relations evidently. I see clearly that similar triangles have proportional sides, that there is no plane triangle the three angles of which are not equal to two right angles. I see these truths or relations clearly in the idea or archetype of extension. For that idea is so luminous that contemplating it is what makes Geometers and good Physicists, and it is so fertile in truths that all minds together will never exhaust it.\(^4\) \((Dialogues,\ \text{III} 6)\)
\end{quote}


\(^3\) See \textit{Eclaircissement VI} in \textit{Oeuvres Completes} (\textit{OC}), volume 3. Subsequent references will be to \textit{Elucidations}.

One way of thinking about intelligible extension, and ideas, is in terms of the essences or definitions of objects. And when we do true science, we discover these essences and truths governing them. They are, then, the objects of our knowledge.

Given that ideas are both the actual and possible qualities of objects, they will play a valuable role in our perceptions of the world (both veridical and non-veridical). We saw in the discussion of Descartes that our perceptions often represented qualities of objects which weren't necessarily instantiated but were capable of being instantiated by objects. But he never provided an account of how perceptions obtained the content of qualities that were not instantiated in the object causing the perception. Ideas, in Malebranche's system are supposed to do just that, namely account for the content of our perceptions of something "external" (albeit spiritual) to us. This is the third role of ideas: (C) ideas account for the content or "objective reality" of an idea (to use Descartes' term) whether an object actually has that quality or not. There are "intelligible bodies and intelligible spaces" just as there are material bodies and material spaces and it is through the former that we see and learn about the latter. 5 With this rough sketch of the role of ideas, we shall now turn to a more detailed account of the last role of ideas, since that is my main concern in this chapter.

**Perception in Malebranche**

Ideas, I have argued, serve several roles in Malebranche's system, all intimately connected to the issue of perception. They are mental items only in so far as they are in God, and thus, spiritual. They "represent" corporeal objects in virtue of the fact that they are instantiated or capable of being instantiated by material objects. In addition to ideas, there are perceivers who perceive and have knowledge

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of these ideas, and there are corporeal objects which are perceived by finite
perceivers and God. However, as Malebranche concedes to Regis⁶, and as he spells
out in the passage below, material objects, while perceived, are only indirectly
perceived:

...there are two kinds of beings, those our soul sees immediately, and
this it knows only by means of the former. For example, when I see
the sun rise, I first perceive what I see immediately, and because I
perceive this...I judge that this first sun, which is in my soul, is
external to me, and that it exists. (Search I, 14 ii).

Material objects are indirectly perceived in that they are perceived by means
of another kind of being which results from the certain motions in the eyes and
brain. While this other being is most likely a sensation, we must be careful not to
limit the second object to a simple sensation, for as Malebranche insists throughout
his writings, perception consists in both the perception of an idea together with a
sensation. But we need to say more about the nature of perception and the way that
ideas and sensations are involved.⁷

Ideas, as the objects of perception and modifications of the soul, are the
means by which the soul must perceive (Search, III Pt 2, i). Turning to the
perceptual question, Malebranche introduces the kinds of perceptions in the
following way:

⁶ Reponse a Regis OC 17 p 303.

⁷ Nadler characterizes sensations as adverbial sensings in his Malebranche and
Ideas, 64. While it is tempting to do this sense Malebranche most often labels them
"modifications of the mind" or "impressions on the mind" these expressions still
underdetermine the relation between the color or light and the mind perceiving it.
Moreover, as I will argue at the close of this chapter, it is not obvious that
Malebranche was so troubled by sensations as objects perceived.
...the soul's perceptions of ideas are of two kinds. The first which are called pure perceptions, are, as it were, accidental to the soul: they do not make an impression on it and do not sensibly modify it. The second, which are called sensible, make a more or less vivid impression on it. Such are pleasure and pain, light and colors, tastes, odors, and so on. For it will be seen later on that sensations are nothing but modes of the mind ...

There is an ambiguity in the passage above that will surface throughout Malebranche's work on perception. The same ambiguity touches his use of "idea". On the one hand, "ideas" and "perceptions" appear to refer to the modes of the mind, in the same way that Descartes referred to them. This is the only way to understand Malebranche's use of the term "pure perceptions" in the passage above, for ideas as objects of perceptions are not themselves perceptions. On the other hand, "pure perceptions" and "ideas" are, according to Malebranche, supposed to refer to the perceptual contents that I discussed above. Eliminating the ambiguity, however, is not difficult once we settle on the typical use of the terms in Malebranche's works. Strictly speaking "idea" refers to the representational content of a perception and this content, in Malebranche's system, is primarily the idea or archetype of extension and the various modifications of it. While it is always the means by which God "perceives," such ideas may or may not be perceived by (or revealed to) a particular perceiver's mind. By "pure perceptions" we are to understand a particular kind of event in the perceiver's mental life: an event of a perceiver having an awareness with an idea of (or part of) extension as its content. Pure perceptions are awarenesses only of ideas and thus may be understood as pure thinking or conceiving.

While Malebranche admits that an awareness or perception on the perceiver's part is necessary for perceiving ideas, he says very little about the mental "act" or awareness that it involves. The reason for this is twofold. His main concern with the
The other type of perception, namely modifications of the mind, are just those modifications that have been traditionally labeled as sensations, viz, color, light, taste, pain and the like. Sensations, as well as imaginings and the thinking process of thoughts, are "inside" the soul, compared to ideas which, although spiritual, are outside of and independent of the perceiver. Sensations such as color, light etc. have no representational content, but are occasioned by brain states and objects external to us. As Malebranche puts it, for colors, lights, tastes, odors "truth is not found there" (Search, I, x).

So far, the two kinds of perceptions outlined above describe conceiving and sensing. There is yet a third kind, namely the perception of sensible objects, which involves both sorts of perceptions. In Book III Malebranche examines 5 accounts of how sensible objects are seen, and he argues that the most plausible account has the soul perceiving created beings by being "joined to a completely perfect being that contains all intelligible perfections"; that is, we see all things in God. A reasonable interpretation of Malebranche's view of sense perception of an object characterizes perception as involving both kinds of perceptions he described at the beginning of the Search: a perception of a pure idea (pure perception) together with a sensation (or group of sensations):

The sensation is a modification of our soul, and it is God who causes it in us. He can cause this modification even though He does not have it Himself, because He sees in the idea He has of our soul that it is capable of it. As for the idea found in awareness in question is its content. And what makes it the idea that it is, is its representational content. Also, the main purpose of introducing ideas and his account of perception is to avoid any intermediaries that might give a foothold to the skeptic. That is, as soon as we introduce awarenesses which are themselves modifications, the problems with the cartesian accounts creep in. Or we find that we must ask the same questions but at a different level.
conjunction with the sensation, it is in God, and we see it because it pleases God to reveal it to us. God joins the sensation to the idea when objects are present so that we may believe them to be present and that we may have all the feelings and passions that we should have in relation to them (Search III vi).

The kinds of sensations involved will depend on the kind of perception. So, for instance, if we are dealing solely with visual perception the sensations that will be involved are color and light. In veridical perception we direct our eyes towards a corporeal body that exists but is only the occasion (occasional cause) of our perception. Since bodies "cannot act on, or reveal themselves" to minds, they are the occasions for our perceptions that are (really) caused by God (Elucidations, 6). Furthermore, God's actions of joining the pure perception to a sensation is what is supposed to allow for the perceiver's belief that a particular object is present (or exists). This is the crucial role of sensations in Malebranche's account of perception for the following reason. Recall that ideas that represent objects and that are in God, are general ideas and may be best thought of as essences or definitions of objects. While each object is represented in God, it is represented at best, by types of qualities. But perception is also about particular objects or qualities. This might account for Malebranche's claim that "the bodies we look at... are different from the ideas that represent them" (Elucidations, 6). And certainly it is this duality in perception that has led to the widespread criticism of Malebranche's position. Sensations have the job of "particularizing" the general idea(s) of extension. But how they do this is not so easy to account for. There are at least two interpretations of the

9 Again, Malebranche describes how it is the Intelligible Reason that acts on our spirit: C'est donc l'idee ou l'archetype des corps qui nous affecte diversement. Je veux dire, que c'est la substance intelligible de la Raison qui agit dans notre espirit par son efficace toute-puissance, et qui le touch et le modifie de couleur, de saveur, de douleru, par ce qu'il y a en elle qui represente les corps. Dialogues, V,.p. 111.
way in which general ideas are "joined with" and thus "particularized" by sensations. I shall address each account in turn.

**Sensible Extension**

One way to understand this is to think of the idea itself becoming sensible. In this case there would not only be intelligible spaces and qualities, but also sensible spaces and sensible qualities of extension. However, this is not the correct way of construing the role of ideas in sense perception. Consider what Aristes says in response to Theodore who suggests that he can discover geometrical truths through visual sensations:

> It is not our senses but Reason joined to our senses that enlightens us and discloses the truth to us. Do you not perceive that, in the sensible view we have of this figure, there is at once the clear idea of extension joined to the confused sensation of color that affects us? Now it is in the clear idea of extension, not in the white and black which make it sensible that we discover the relations in which the truth consists; it is, I say, in the clear idea of extension that Reason contains, not in the white and black that are mere sensations, confused modalities of our senses whose relations it is not possible to discover. There is always a clear idea and a confused sensation in the view we have of sensible objects, the idea representing their essence, the sensation informing us of their existence. The idea makes known to us their nature, their properties, the relations they have, or can have, to one another, in short, the truth; the sensation on the other hand, makes us sense the difference among them and the relation they have to the convenience and preservation of life (*Dialogues*, V p. 107).

In perceiving a sensible object, no quality of extension that is part of the perception, or rather the content of that perception, is instantiated with that sensible quality or qualities. Any extension that is involved in the perception is just the archetype in God that is instantiated *in the object* which is, in turn, the occasion of the particular
(veridical) perception. So, there is no *instantiated* property of extension that I immediately or directly perceive, even though it may seem that with the color, for instance, there is a shape, size and colored object at a distance. Sensations make an object's *existence* known to the perceiver, and that means that there are instantiated quantitative or corporeal properties, but those are only revealed to us through their archetypes in God. So, when we open our eyes intelligible extension "is made sensible with respect to us". (*Dialogues*, Preface.)

Malebranche is very careful to deny that some quality of extension is instantiated with the color. He is quite aware of a view that would endorse sensible extension but he denies that there is such a thing. In the passage following Aristes' description of the nature of perception of sensible qualities, Theodore presses Aristes by noting that the color seems extended:

I grant you that color, like pain, is not locally extended...But why not suppose that they are, as it were, sensibly extended, in the same way as the idea of bodies, intelligible extension, is intelligibly extended? Why not suppose that the light which I see when I press the corner of my eye, or the like, brings with it the sensible space it occupies? Why do you suppose that the light is referred to intelligible extension?

Aristes' answer is twofold. Only the "archetype of bodies" can represent bodies, and only universal Reason (God) can enlighten us by displaying these ideas. In other words, a non-material soul cannot represent material things. Moreover, the perceiver would discover such truths about bodies on its own, without the help of God. Theodore then goes on to offer further arguments against the objection he has proposed. Here we get a clearer view of how Malebranche thinks he differs (and should differ) from certain accounts of perception:

Pain is not color, color is not heat, nor heat cold. Now, the extension of the color - or joined to the color - which you see
when you look at your hand is the same as the extension of the pain, the extension of the heat, the extension of the color which you are also able to sense. Hence, the extension belongs neither to the color, nor to the pain, nor to any of your other sensations. For you would sense as many different hands as you have different sensations on the supposition that our sensations are extended in themselves, as they appear to us to be, or that the colored extension we see is but a sensation in the soul as are the color, the pain, or the taste - a supposition accepted by some of the Cartesians who are aware of the fact that we do not see objects in themselves (Dialogues, V p. 111)\(^\text{10}\)

If the idea is not instantiated with the color, but is still joined with the sensation, then there is one other possibility of how the idea enters perception. One way that general ideas enter perception is through the application of concepts or classification by the perceiver. In other words, to say that a general idea is joined to a sensation might be best understood as a case of "seeing this as such and such".

**Intellectualized Extension**

One way that a general idea of a quality, for example, a square, might enter perception is through the application of the idea as a concept, or through the making of a judgment about the object perceived. Given a particular sensation (or group of sensations) a perceiver might classify the object perceived as a square. Notice that the mind is directed at a particular object due to the sensations that result from looking at the object, but the judgment involves the application or the classification of a general concept. This model of perception is quite similar to Thomas Reid’s account who, in response to Berkeley, argues that we must have more than mere sensation in perception. The sensation, according to Reid, is accompanied by a

\(^{10}\) See also Dialogues, II, 11-2. This is the argument to which Berkeley responds in NTV 48-49 when he addresses the question of the heterogeneity of the senses.
conception of some quality of an object and a belief in the existence of some object with that property.  

Consider the following passage where Malebranche describes the relation between the mind and God:

The mind of man is united to his body in such a way that, by way of his body, he is related to everything surrounding him, not only sensible objects but invisible substances, since men are attached and bound together in mind as well as in body. And all this is in consequence of the general laws that God uses to govern the world, and that is what is marvelous in Providence. The mind of man is also united to God, to eternal Wisdom, to universal Reason which enlightens all intellects. And it is again united to it by general laws of which our attention is the occasional cause that determines their efficacy. Movements that are excited in my brain are the occasional or natural cause of my sensations. But the occasional cause of the presence of ideas to my mind is my attention (Dialogues, XII, p.289; emphasis mine).

Ideas are revealed to the mind (are present to the mind) provided that the mind is "attentive". We need not think of "attention" as an occurrent property of the mind, however. Consider what Malebranche says about attention in the Search: "since ... the ideas of all things are continually present to us while we are not attentively considering them, all we have to do to preserve evidence in all our perceptions is to look for ways to make our mind more attentive..." and as a result of

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11 C. McCracken discusses this in Malebranche and British Philosophy (Oxford: Clarendon Press, 1983) pp. 295-301. See also S. Nadler's discussion in Malebranche and Ideas. Nadler also argues that perception involves a cognitive component and characterizes the relation between ideas and the perceiver as a "conceptualizing". However, as I shall argue below, there is another way in which ideas are involved that will count as sense perception for Malebranche. Nadler does not acknowledge this as a kind of perception but only as an act of discrimination by the perceiver.
our attention, such ideas that the mind needs in order to understand, will be provided. (Search, VI, Pt 1, i) Attention, then, may be thought of as a state of mind that develops in the perceiver by gaining knowledge. A mind, it would seem, can be more or less attentive in the sense that a mind can have a better or worse grasp of concepts. The mind learning to apply concepts just is the mind having ideas revealed to it by God.

With this in mind we can formulate the following account of sense perception that I will call the *Attention-revelation* account (AR):

Person P perceives a corporeal body O with spatial qualities Q1, Q2...Qn. =

a) O is the occasion for the perception of O,

b) God causes a sensation or group of sensations in the mind of P,

c) P's attention is the occasion for God enabling P to see that O has Q1,Q2...Qn.

We can flesh this out by considering a simple case of seeing a round penny. In seeing a round penny the perceiver directs her eyes towards the penny and has a certain set of sensations of color, and light and judges that the object is round. Her "judging that" is identical to an awareness of a general idea (roundness) that as a matter of fact is in God. In other words, applying a concept when one "sees that the object is round" just is what it is for God to reveal an idea to the mind.

We indirectly see the penny, because seeing the corporeal object is mediated by concepts. However, what allows this perceptual event to count as "seeing the penny" is that it is in virtue of our eyes being directed at the penny that God causes the perception. What makes it a veridical perception of the penny is that the idea that is revealed to my mind is in fact instantiated by the penny.

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12 See also Search, III, Part 2, x and Search II, Part 2 i.
I have used "seeing that" or "seeing as" to try to describe the way that an idea could be joined to a sensation. I think this is what Malebranche attempts to do when, in response to an objection that on his account the intelligible sun must move or change, he says:

It should not be imagined that the intelligible world is related to the sensible, material world in such a way that there is an intelligible sun, for example, or an intelligible horse or tree intended to represent to us the sun...or that everyone who sees the sun necessarily sees this hypothetical intelligible sun (Elucidations, 10; emphasis mine).

In sense perception, we do not direct our mind in two different directions, outward (to the sun) and "upward" to God. (Although something of the latter sort may take place when we do pure geometry, but that is not seeing.)

According to the Attention-revelation account of sense perception, there are two kinds of awarenesses that constitute the indirect perception of corporeal objects. There is the having of a sensation (which involves no representational content) and a judgment about spatial qualities belonging to the object. In so far as any spatial qualities are involved in the perception, they are involved as mind-independent ideas which characterize what the judgment is about. The perception involving spatial qualities, in other words, is non-sensory. There are two disparate kinds of awarenesses (disparate in virtue of their representational content) that constitute the sensible perception. This is how I characterized Descartes’ account of distance perception which was constituted by a sensation of color and light together with a judgment about spatial qualities of the object. AR, then, bears a significant resemblance to Descartes’ account. However there is a complication that arises when we consider yet another kind of perception that Malebranche introduces into his discussion of distance perception.
So far I claimed that there were three kinds of perceptions: pure perceptions (awareness of ideas), sensations (modifications of the mind) and sense perception which, according to AR, is constituted by these two. However, there is another "kind of sensation" that Malebranche describes which, unlike the sensations we have considered so far, involve spatial qualities. The challenge in offering an account of spatial perception is to provide a coherent account of the nature of such sensations and also how they figure into perception given that perception of extension seems adequately accounted for by the conceptualization mentioned in AR above. I shall argue below that these sensations he calls "natural judgments" also involve ideas in so far as they involve spatial qualities. Given how natural judgments function we will be forced to modify our account of Attention-perception above. But, in addition to this I shall argue, contrary to some recent critics, that this kind of perception does count as sense perception for Malebranche.

**Natural Judgments**

Natural judgments play several roles in Malebranche's discussion of perception. Malebranche first introduces the notion of natural judgment when he attempts to explain the discrepancy between the "look of things" (how things appear in a non-judgmental sense of appears) and how we take them to be. His example is the case of size, where the apparent size of objects changes as we move, but we take the object perceived to be the same size:

> When I look at a man walking toward me, for example, it is certain that as he approaches, the image or impression of his height traced in the fundus of my eyes continuously increases and is finally doubled as he moves from ten to five feet away. But because the impression of distance decreases in the same proportion as the other increases, I see him as always having the same size. Thus the sensation I have of the man always depends on two different impressions, not counting the change in the
eyes' position and other matters of which I shall speak in the following (Search, I, vii).

In this case, natural judgments supplement the retinal image in order to account for appearances involving objects and modes of extension. But natural judgments are also introduced to account for the fact that the immediate objects of perception look to be external to us:

It seems to me beyond question that our souls do not occupy a space as vast as that between us and the fixed stars, even if it be agreed our souls are extended; thus it is unreasonable to think that our souls are in the heavens when they see stars there.... Our soul, then, just sees stars and houses where they are not, since the soul does not leave the body where it is located, and yet sees them outside it. (Search I, 14, i)

According to Malebranche, every sensation is accompanied by a judgment that locates the sensation either in the perceiver's body, in the case of pain, or in an object at a distance from the body, in the case of color (Search, I,x,6). In other words, we cannot have a perception of color, without it being located (at a distance) somewhere. Natural judgments account for the fact that colors and light (in the case of vision) look (in the non-judgmental sense) at a distance and a certain size and shape. They provide sensations with an "object-directedness".

With this in mind there are two questions that must be addressed. First, we must determine the nature of this mental event vis-a-vis sensations and judgments. For on the one hand, natural judgments are described by Malebranche as "complex sensations" (Search I 14 i) and yet he labels and frequently describes them as

While 20th century discussions of perception might take this as an instance of the mind's contributing conceptually to this perception, Malebranche presents this as simply a function of "the way things look" without any interpretation or background knowledge.
"judgments". Second, giving color sensations spatial qualities seems to be quite similar to what occurs in sense perception, an account for which has already been offered by AR. We need to determine how natural judgments differ from the intellectual component of AR and whether we must alter AR to accommodate such perceptions.

**Complex Sensations and Natural Judgments**

Natural judgments are labeled "sensations" according to Malebranche, because "it is given to the sense only to sense and never, properly speaking, to judge" \(\text{Search I vii 4}\). Here Malebranche is simply endorsing a well-entrenched principle that the intellect judges and the senses only sense and he is particularly intent on relegating natural judgments to sense in order to contrast them with the "free judgments" that might be made on the basis of the natural judgments.

If natural judgments are simply sensations, two questions arise: a) in what sense are they the same kind of mental event as color sensations? and b) how do they figure into an account of perception?

Stephen Nadler treats natural judgments as simply an additional kind of sensation, like color sensation. And given that he attributes to Malebranche an account of perception along the lines of AR above, he simply incorporates natural judgments into the category of "group of sensations".\(^{14}\) However, Nadler recognizes that there is a difference between color sensation and natural judgments, but he attributes this to a difference in whether such sensations represent things external to the perceiver. He cites the following passage from Malebranche in order to illustrate his interpretation:

\(^{14}\) Nadler, 24.
It is certain, then, that the judgments we make concerning extension, figure, and motion of bodies include some measure of truth. But the same is not true of those concerning light, colors, tastes, odors, and all the other sensible qualities, for truth is never encountered here. (Search 1 x)

By "truth" Malebranche presumably means that natural judgments are about or "of" qualities that corporeal bodies have or are capable of having, whereas colors, tastes, sounds and smells are not. When we turn to the question of sense perception, and how AR is to accommodate these sensations the following account seems to be available. Spatial sensations, although they have representational content, are nonetheless the same kind of mental event as color sensations. And so, if we represent color sensations as adverbial sensings (as Nadler does) all we need to do is to make such sensings include spatial qualities as well. Thus we get a sensing there-red-ly mental event. To this, however, must be added the clear ideas in God, which AR provided above. We might slightly modify it as follows:

Person P perceives a corporeal body O with spatial qualities Q1, Q2...Qn. =
  a) O is the occasion for the perception of O,
  b) God causes a sensation or group of sensations in the mind of P, some of which have representational content Q1....Qn, and
  c) P's attention is the occasion for God enabling P to see that O has Q1,Q2...Qn.

This is quite close to the account of sense perception offered by Nadler.

There is, however, a problem with construing natural judgments as the same kind of event as sensations. What Nadler fails to take into account is how natural judgments obtain their representational content, given that ideas are supposed to provide this for our perceptions. We cannot say that a sensation has representational content in virtue of the fact that it corresponds to what is in the external world. For Malebranche, what gives a mental state representational content is the presence of
an idea itself - that is what he thinks he has improved upon in Descartes system. So, for this event of sensing spatially to have representational content, an idea must be involved in some way other than correspondence. Further, as we saw earlier in the discussion, Malebranche refuses to admit sensible extension in the same way that he admits sensible color: "the extension belongs neither to the color nor to the pain". And yet, it is not obvious how adverbial sensings would avoid this problem in Malebranche's system.

Nadler is right in distinguishing the two kinds of mental events in virtue of one having and one lacking representational content. However given the role of ideas in Malebranche's system, namely to provide the representational content, it would seem that if the perception is to have representational content, an idea must be present to the mind. What remains to be determined is whether it is present to the mind in the same way as ideas are present to the mind in AR above. Understanding how ideas are involved in natural judgments emerges from Malebranche's account of natural judgments qua judgments.

**Natural judgments qua judgments.**

Malebranche's explanation of why he calls them "judgments" begins following his description of them as complex sensations:

Nevertheless, since what in us is but a sensation can be considered in relation to the Author of Nature who excites it in us as a kind of judgment, I speak of sensations as natural judgments, because this way of speaking makes sense of certain things as can be seen here, toward the end of chapter nine, and in several places. *(Search, I, vii 4)*

When we turn to the end of chapter nine to find what will make sense of this way of speaking, the topic of discussion concerns the many ways in which we judge distance. In fact, the accounts of distance perception that we saw in Descartes are virtually
duplicated in Malebranche. Malebranche, like Descartes, is intent upon endorsing
the optical explanations of distance perception and includes convergence of lines,
triangulation and clarity of the image in his account.15

The difference between the two rests primarily in the "place" of the
inference leading to the judgment. For Descartes, there was an implicit inference,
"contained in" the judgment about distance. For Malebranche, there is a sense in
which the inference is "implicit" in the judgment on the part of the perceiver.
However, it is implicit in the sense that "we would make them if we knew enough",
whereas in Descartes, the reasoning actually takes place. Consider the following
description of the role of God's inferences in such perceptions:

I feel I must again warn that judgments about the distance, size
and so on, of objects are formed in the ways I have just
explained, not by the soul, but by God according to the laws
concerning the union of the soul and body. I have therefore
called these sorts of judgments natural in order to emphasize
that they occur in us independently of us, and even in spite of us.
But as God fashions them in and for us in such a way that we
could form them ourselves if we knew optics and geometry as
God does, if we knew everything that occurs in our eyes and our
brain, and if our soul could act on its own and cause its own
sensations, I attribute to the soul the performance of judgments
and inferences as well as the subsequent production of its
sensations, which can be the effect only of an infinite power and
intelligence (Search I, ix).

Malebranche's "externalizing" of the inference (making it God's rather than
the perceiver's) is not simply a difference in the psychological status of the event. It

15 He too offers a account of how we perceive objects far off which appeals to
experience rather than natural geometry (Search, I, ix).
is also a way to give the mental event a characteristic (as "of" a spatial quality) without making that characteristic a modification of the perceiver's mind. This is difficult to understand unless we keep in mind that an inference in God characterized by the laws of optics can also represent a quantitative character that one might count as distance from the eye. Of course a lot needs to be built in to this inference to make it represent "distance from the perceiver" but this is, I believe, what Malebranche has in mind when he takes the inferences that Descartes' perceiver is supposed to make, and relocates them in the will of God causing this perception.

We can take the triangulation account, to which both Descartes and Malebranche appeal, in order to illustrate how the inference in God, provides the representational content of a natural judgment of distance. What occurs in the perceiver is a mental event constituted by a particular arrangement of color patches and shadings which can be described as a color-in-an-object-at-a-particular-distance perception. What makes this a group of color sensations is that certain modifications of the mind are occasioned by an object and some motions in the brain. But what makes this a perception of a particular distance, is determined by the particular inference in God in the same way that the implicit inference determines the content of the judgment in Descartes' system. We can think of the inference in God on the model of a deductive argument, whose conclusion, although separate from the premises, is really "contained in" the premises. Analogously, the conclusion which is the content of the natural judgment in the perceiver is already contained in the premises (inference, or set of ideas) in God; this inference determines the content of the perception in the perceiver.

The inference in God is characterized in the ways outlined in the explanations of how we see distance. And so, in the case of triangulation,
quantitative information about the angle of the eyes, the interocular distance together with the appropriate optical and geometrical principles already contains information about the measurement between the perceiver's eyes and the object. Of course, God doesn't make these calculations, but they are included in God's will causing the natural judgment with that particular content. Natural judgments are *judgments* in virtue of their being structured events, but the structure is contained in God's will (its content) which constitutes that particular event. And it is this that gives the mental event its content, and makes it "of" those qualities that objects are capable of instantiating. This is something lacking in color sensations.\(^{16}\)

Natural judgments are Malebranche's attempt to account for the fact that in sense perception (we might say "uninformed" sense perception) there is still a sense in which colors look located, which is to say we see them as more that mere colors.\(^{17}\) And we react accordingly. When in pain perceivers not only wince (due to the pain) but grab the place "where the pain is". Likewise, we might be inclined to react differently to a very large, moving color patch, as opposed to a small one. This is more than reacting to mere color. There are reactions *as if* the color (really) is at a place, on an object, of a certain size. Furthermore, natural judgments also provide some clue to the way in which general properties get particularized. Distance, in general, might be thought to be characterizable by the general principles that are

\(^{16}\) There is trouble here for Malebranche, or at least on this account of representational content, but I think it really resides in making the cause of the perception (the means by which God creates) also the content of the perception: color sensations will have a cause that is presumably constituted by primary qualities but this would provide them with a content they are not supposed to have. Ultimately, Malebranche can solve the problem only by simply stipulating that certain events have content while others don't.

\(^{17}\) One might say that they account for why we might *think* there is a sensible extension.
cited in the explanations in both Descartes' *Optics* and in the ninth chapter of Book I of the *Search*. But, a particular quantitative output results once there is particular information concerning the angles of the eyes of the perceiver in question.

But it is not the idea alone that provides the means by which perceptions get to be about things external to us. According to Malebranche this mental event must consist in a sensation together with an act of judging (qua natural judgment) the object to be located and a certain size. But, as Malebranche is prompt to point out, this judgment is not something that we can refrain from making. They take place "independently of us, and even in spite of us" (*Search* I ix).

With this in mind we now need to return to our account of sense perception to determine to what extent AR can accommodate this.

**Attention-Revelation and Natural Judgments**

The most obvious difference so far is that AR describes an informed perception, where the mind's attention is the occasion of the idea being revealed. In that account, the mind was attentive and some sort of judgment or application of a concept was made *on the part of the perceiver*. In natural judgments spatial qualities are in some sense "presented" to us in much the same way as colors. No attentiveness is required, and such judgments occur *in spite of* informed perception. In fact, it is precisely due to the fact that such natural judgments are false, that Malebranche warns we ought not to willingly judge according to our natural judgments.

I have argued that natural judgments are not to be incorporated into AR as mere sensations, but they may figure into AR as a type of judgment. In doing so, we could accommodate the following kinds of cases. Take, for instance, the example of a penny placed on the table in front of one. Without any knowledge of the geometrical properties of the penny, the perceiver will be presented with a perception involving an object in space, at a certain distance, of a certain color. As
the perceiver learns more about the quantitative properties of the objects that she perceives, she may then have perceptions where she applies these geometrical concepts to the objects. She may see that the shape of the object is a circle, but with that application of the concept of circle comes the geometrical knowledge of its outer curve being equidistant from its center. This second case might be an example where the natural judgment coincided with the attentive kind of sense perception. One could not noticeably separate what was the natural judgment and what was the informed perception. However, there are certain cases where the informed perception may "correct" (but not really alter) the natural judgments. Such cases in current psychology are called perceptions that are cognitively impenetrable. The best example here is the case of the sun that Descartes uses in the *Meditations*. While the sun appears a certain size, and a certain distance away, astronomical reasoning informs us of the true size and distance of the sun. Thus we can "see that" the sun is thousands of miles away from us, despite the fact that it appears only some 200 yards away. In this case, the natural judgment occurs in spite of the informed perception. But even in this last case, in order to have the informed perception, a necessary condition for Attention-revelation kinds of sense perception is a natural judgment. So we must revise our account as follows:

**Person P perceives a corporeal body O with spatial qualities Q1, Q2...Qn. =**

a) O is the occasion for the perception of it,  
b) God causes a sensation or group of sensations together with  
c) natural judgments in the mind of P where some or all of ideas Q1...Qn are present to P and,  
d) P's attention is the occasion for God enabling P to see that O has Q1,Q2...Qn.

On this account of perception, two judgments are made: one occurs which needs no attention on the part of the mind, while the other does.
There is, however, a problem for this account as I have stated it. I have construed natural judgments as an involuntary judgment of a sensation being located at some distance and of a certain shape and size. But both kinds of judgments involve ideas that are or are capable of being present to the mind. And while on occasion the natural judgment will be different from the informed judgment, there will be occasions where the two judgments will be identical. In this case, one of the judgments would be sufficient to do the work needed for the perception.

In light of this problem we need to say more about the difference between the two kinds of judgments. The following description by Malebranche provides a clue to the differences between these mental events:

But over and above our natural judgments, which might be regarded as compound sensations, a free judgment is found in practically all our sensations; for men not only judge through a natural judgment that pain, for example is in their hand, they also judge it by a free judgment; not only do they feel it there, they also believe it to be there, and they have become so accustomed to forming such judgments that they have great difficulty avoiding them (Search, 14 ii).

Here Malebranche provides the means for distinguishing the two kinds of mental events. While previously it was tempting to think that the distinguishing feature between the two was whether it was made with the will, here Malebranche is more concerned here with a) our capabilities in refraining from making the judgement and b) the presence of a belief. The natural judgment, while a complex event, does not entail a belief on the part of the perceiver. "Free judgments", in contrast, involve the perceiver's assenting to this complex event, or, as more informed perceiver's would do, assenting to a more correct description of the perceived object and its qualities. While informed judgments can still be mistaken, it
is not completely implausible to characterize informed judgment as involving a belief in the judgment made.

We need not attribute any particular view of belief to Malebranche other than to take it as a mental state requiring a degree of conviction concerning the state of affairs in question. Malebranche obviously wants to draw a distinction between what the senses do, and what the intellect does in contributing to perception. This will also be a problem for Berkeley when he attempts to characterize his notion of suggestion. He will struggle in the same way, for on the one hand judgment does not belong to the senses, and yet the phenomenon of color being located at a distance and in an object does seem to be something presented to the senses, and not a function of the intellect. We should, then, think of belief as requiring the ability on the part of the perceiver to describe, however minimally, the object presented to her and assent to such and such being the case vis-a-vis the object, e.g. "this object is before me".  

**Sense Perception in Malebranche**

So far, I have suggested that Malebranche’s account of sense perception has as a necessary condition, both a natural judgment and a conceptual component that we can understand as involving a belief. However, not every natural judgment will result in a belief or conceptual judgment, or so it would seem. So we must now reconsider whether Malebranche would allow perception involving just natural

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18 As I claimed earlier, we need not think of "having an attentive mind" as describing an "all or nothing" state of affairs, vis-a-vis the perceiver's conceptual development. Having an attentive mind requires that the perceiver be capable of applying concepts, but the degree of sophistication can develop over time, to account for the difference between the lay persons conceptual seeing and the geometer's.
judgments to count as sense perception. I argue below that there is reason to believe that Malebranche would accept this as an instance of sense perception.

Stephen Nadler argues that according to Malebranche, "perception is essentially a cognitive activity" but with the addition of a sensory component. The sensory component on Nadler's account is provided by pure "passions" which are modifications of the mind such as color or light, as well as the spatial sensations which are sensations with representational content. This sensory awareness of extension which includes representational and non-representational sensations is classified by Nadler as the "discrimination" component.19 The cognitive component is provided by two other components of perception. First, there is the "recognitional" component which consists in the presence of a "clear and distinct" idea to the mind. He also refers to this as conceptualization, or "seeing that" and in this respect his account resembles the account I have offered above. The third component that Nadler includes with this cognitive account of perception is an "anticipation" component where in having the perception there is an "implicit reference to anticipated appearances". Nadler illustrates this account of perception in the following example:

In perceiving a penny, I am at least sensibly conscious of a certain bronze color shaped in a certain way... But if my activity is to qualify as a perception of the penny... I must see that it is round (or at least that it has such and such shape).... Moreover, if I see that the penny is round, I am also thereby led to anticipate further possible appearances of the penny... [which is] made possible by the presence of the idea or concept of circle in my perception of the penny... 20

19 Nadler, 170-71.

20 Nadler, 176.
But, a necessary condition for perception is the conceptualization. Perceptions involving natural judgments, despite their representational content, are still only sensations. According to Nadler "sensation without any ideas present, without attending to any intelligible representations... is then looking without seeing or perceiving."\(^{21}\)

There are two essential problems with Nadler's account. First, it is not obvious that all perception must involve conceptualization on the part of the perceiver. This has at least been plausibly challenged in the literature on perception. Second, and what is relevant for our purposes, it is not at all obvious that this account accurately captures Malebranche's view of sense perception.

Nadler claims that an essential part of perception, and essential to Malebranche's view is the fact that the conceptual component brings with it more than a simple grasp of a concept but includes an anticipation on the part of the perceiver concerning further "possible appearances". To my knowledge there is nothing in what Malebranche says about perception that requires as a necessary component of perception, this anticipation of sensory appearances. Berkeley is the first to explicitly develop such an account in sense perception. Indeed, as I will argue in the next chapter, this is a crucial part to Berkeley's notion of suggestion. Instead of knowing the relations that intelligible ideas bear to one another, Berkeley's account will appeal to anticipation of future appearances and what relations sensible ideas bear to one another.

One might argue that Malebranche does appeal to something like anticipated appearances when he describes the function of color perception. For color, while not external to us, is supposed to serve to warn the perceiver about objects that can

\(^{21}\) Nadler, 175.
bring pleasure or pain to the perceiver's body. However, even if we grant that this is an appeal to the anticipatory component to which Nadler is appealing, this would support my view that such anticipation takes place at the level of sensations, rather than at the level of a conceptual perception.22

The problem that is more central to Nadler's account, however, is that the evidence that he cites in favor of his conceptual account of perception actually supports an account of perception which involves merely natural judgments. Consider the following passages that Nadler offers in support of his view that perception requires an attentive awareness of intelligible extension:

There is thus a clear idea and a confused sensation in the perception one has of a marble column. I say a clear idea of the extension and not of the marble. For I know the nature and properties of the extension; but I do not know the internal configuration of the parts of the marble, that which makes the marble what it is rather than a brick or lead. 23

However, this passage only requires that a "clear idea" and a "confused sensation" constitute the perception of the marble. As I have argued, and as I think Nadler must concede, a "clear idea" (which is, as Nadler admits, another term for "idea") is involved in both natural judgments and conceptual seeing, just as a "confused sensation" viz color or light, is involved in both. Conceptual perception requires, as Nadler admits, an attentive mind. However, in this passage, there is nothing to

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22 I think that while this may certainly be the source from which Berkeley develops his account, Malebranche (and even Descartes) simply use this to explain the role of color perception, rather than to give an account of what perception of objects consists in.

23 *Reponse au livre de Mr Arnauld. Oeuvres completes de Malebranche* volume 6, p. 98.

24 Nadler, 21.
suggest that in addition to a "clear idea" what is necessary for sense perception, is attention or belief. Given how I have construed natural judgments the information in this passage underdetermines which of the two kinds of judgments is required.

One might think that by clear idea we are to understand something which excludes the sense in which ideas are involved in natural judgments. Clear ideas are to be contrasted with confused sensations and natural judgments are confused sensations. This is how Nadler considers natural judgments, namely as "confusedly" representing objects. It is this, I believe, that leads him to assume that "clear ideas" presuppose an attentive mind. Consider the following passage where one might interpret Malebranche as saying something to this effect:

The word idea is equivocal. Sometimes I take it as anything that represents some object to the mind, whether clearly or confusedly. More generally I take it for anything that is the immediate object of the mind. But I also take it in the most precise and restricted sense that is, as anything that represents things to the mind in a way so clear that we can discover by a simple perception whether such and such modification belongs to them... (Elucidations, 3).

But, even if we think "clear idea" is to be taken in the "most precise and restricted sense" of the term, this does not show that natural judgments will not include such an idea. This strict and most precise use of the term still describes ideas and what they offer to the perceiver. But this does not entail that perception requires that the idea is so revealed to us, at the time. It is the presence of an idea that provides the potential for the perceiver to discover the true qualities of extension, but the perceiver need not do so at the time of perception. Or at least there is nothing in this passage to suggest this. But, more telling is the following passage where Malebranche seems fairly clear about what counts as a "confused sensation", and this does not include natural judgments:
Do you not perceive that in the sensible view we have of this figure, there is at once the clear idea of extension joined to the confused sensation of color that affects us? Now it is in the clear idea of extension, not in the white and black which make it sensible that we discover the relations in which the truth consists; it is, I say, in the clear idea of extension that Reason contains, not in the white and black that are mere sensations, confused modalities of our senses whose relations it is not possible to discover. There is always a clear idea and a confused sensation in the view we have of sensible objects... (Dialogues, V, 107).

It is quite apparent in this passage that the "confused sensation" relates to those sensations which do not have any representational content, and thus does not apply to natural judgments. Nadler's claim, then, that sense perception requires an attentive mind which is more than perception involving natural judgments, is unsupported. Sense perception consists in a clear idea and a (confused) sensation, but a natural judgment does involve a clear idea on the interpretation I have presented. And thus, at least for Malebranche, can count as a case of sense perception.

We must, then, add to our account of perception, a simpler account which does not incorporate the more informed, conceptual component to the perception. We can call these Natural Sense Perception (NSP) and Attention-Revelation Perception, respectively:

**NSP:** Person P sensibly perceives O with spatial qualities Q₁, Q₂...Qₙ =
- a) O is the occasion for the perception of O
- b) God causes a complex mental event consisting in a sensation or group of sensations together with one (or more) natural judgments such that the mind has an awareness of a sensation with a location, a certain size and shape.

**AR:** Person P perceives a corporeal body O with spatial qualities Q₁,Q₂...Qₙ =
- a) O is the occasion for the perception of it,
b) God causes a sensation or group of sensations together with
c) natural judgments in the mind of P where some or all of ideas Q₁...Qₙ
are present to P and,
d) P's attention is the occasion for God enabling P to believe that O has Q₁,Q₂...Qₙ.

Perceivers can perceive distance in two different ways, according to
Malebranche. According to NSP, we sensible perceive distance by, first, directing
our eyes toward an object O, which is at a particular distance, Q₁. This object with
its qualities is the occasion for God's willing S to have sensations of color, and light
together with an awareness on the part of the perceiver. We might characterize such
an awareness as an awareness as if the color were at a certain distance from the
perceiver. Malebranche provides very little in virtue of which we can describe this
awareness. But just as I characterized the awareness of a pain being located in terms
of the way that the perceiver reacts to it, so can we characterize the awareness of
distance in terms of the perceiver's disposition to behave given the perception.

Phenomenologically, or from the first person perspective, the perception of distance
seems no different from sensing color and light. But, ontologically, the mental event
involved in perceiving distance or any other spatial quality, even in natural
judgments is a structured event in virtue of its being constituted by the inference in
God.

This way of perceiving can be contrasted with the kind of perception
characterized by AR. Children and uneducated adults interact with their
environment on the basis of perceptions involving natural judgments. And they form
their free or voluntary judgments about the world on the basis of what they learn
through NSP perception. NSP perception is the sense perception that leads
Malebranche to denigrate the senses in favor of pure perceptions. However, more
informed, 'attentive' perceivers who begin to grasp the truths of geometry and
engage in the sciences begin to view their world differently. They begin to interpret their "naive sense perceptions" in terms of geometrical properties and their relations to other intellectual archetypes. It is this kind of intellectual perception that is a perception leading to and involving understanding. There are many types of things discovered by attention, however. Attention not only directs our mind to the ideas in God, but also helps correct errors that we might be led to make on the basis of some natural judgments, for example, the correct size of the sun. If we think about perception involving natural judgments, another way of involving the ideas in God results from the knowledge the perceiver would get in knowing the laws of optics. A perception involving an idea through a natural judgment may change to a perception involving attention when we discover how the natural judgment is caused.25

Of course, there are still problems with these accounts. Just as we saw in the case of IPA in Descartes, any account that appeals to some judgment or belief on the part of the perceiver will need to spell out the nature of the belief that would count as perceiving the object. For example it could be as conceptually simple as attributing a description of the location of the object, or it may be as conceptually rich as a geometrical characterization of the object, its size, and exact distance from the perceiver. However, a belief that an animal was, for instance, a hurricane would not be the kind of belief that would be acceptable in the case of a perception of the

25 I think it is this that Margaret Atherton has in mind when she says "since the sensation we are having embodies one possible consequence made actual of the idea of intelligible extension, we are able to work back from it, via geometrical principles to establish the optical laws of which this particular sensation is a consequence" (Atherton, 49). She goes on to say that this is not knowledge we get in perception. However, I think Malebranche thinks that this is one way that ideas can enter perception, and one way that we can bring knowledge to a perception that makes it more enlightened.
animal. In so far as Malebranche does not provide answers to these questions, the account requires additional refinement.

**Two Objections**

There are two final objections to my account that I will consider in closing. First, one might argue that the spatial qualities that are involved in natural judgments are *relative* qualities of objects important for the "convenience and preservation of life" but ought to be contrasted with ideas in God which are only essences and "intrinsic" qualities of objects. Thus, ideas in God cannot be involved in natural judgments.

While not the same objection, this objection is related to the one considered above, and there is something to this concern, especially when one considers Malebranche's descriptions of intelligible extension involving "general" ideas and archetypes or essences of things. However, Malebranche also claims that there are intelligible distances of things and intelligible relations between objects (*Elucidations*, 6). Furthermore, since Malebranche does grant the existence of objects that are perceived, presumably they really are at a distance from us, and this quantitative information must be contained "in God's ideas" in some form or other. Consider what Malebranche says below:

> There is thus a clear idea and a confused sensation in the perception one has of a marble column. I say a clear idea of the extension and not of the marble. For I know the nature and properties of the extension; but I do not know the internal configuration of the parts of the marble, that which makes the marble what it is rather than brick or lead. 26

26 *Reponse au livre de Mr Arnauld*, *OC* volume 6, 98.
Relative qualities of extension are still extension nonetheless. Thus, I think we can reject this challenge to my account.

The second kind of objection emerges from Nadler’s concerns about Malebranche and the issue of whether Malebranche endorses a representational theory of perception. On a representational interpretation of Malebranche, he would endorse the following three claims:

1. Whenever an (external) object is perceived, it is perceived indirectly, where
2. The object, O, is directly perceived = it is false that O would be perceived by S only if S were to perceive something, I, which is not identical with O, nor is it a part or member of O.
3. In every perception, S perceives an idea or sensation directly.

According to Nadler, despite several apparently incriminating statements by Malebranche which seem to commit him to a representational theory of perception, Malebranche does not hold such a view. Nadler’s position depends heavily on his interpretation of the relation between ideas and the perceiver in perception. Nadler argues that although Malebranche’s uses the term "perceives" often when he speaks of the mind’s awareness of ideas, there is at least as much evidence to suggest that what Malebranche has in mind is an intellectual awareness as opposed to a visual perception of ideas. This, coupled with a view that we do not perceive sensations as objects, but rather that sensations according to Malebranche, are adverbial sensings, allows us to refrain from attributing a representational account of perception to Malebranche. However, Nadler seems to think that if we allow another way for ideas to enter sense perception, a way other than this

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27 Nadler, 164.

28 Nadler, 165.
conceptualization or intellectual apprehension, then we must attribute a representational theory of perception to Malebranche.

There are at least two things that one might say here. First, Nadler's primary defense of his claim that Malebranche does not endorse a representational theory is that the awareness involved in the perception of ideas is different from visual perception. This is, of course, true. For visual perception requires a complex event with an object being the occasion of a immediately perceived sensation together with an perception of an idea (either via a natural judgment alone, or together with a conceptual awareness). And this event, which constitutes visual perception of an object, is not the same event that constitutes the relation between the perceiver and the ideas in God. But that this is true does not address the issue of whether such objects are perceived by means of perceiving some object, separate from them.

At no point does Malebranche take back his statement that we see physical objects indirectly. And yet, as Nadler realizes, there are numerous occasions where he claims that we see them indirectly. There are two entities that Malebranche describes as being perceived directly. On occasion, Malebranche claims that we immediately see "that which results from the motions of the eye and brain" (*Search I*, 14, ii). This, I claimed earlier, might support the view that modifications of the mind, like color and light, are constituted by an immediate awareness of a sensory object. However, he is even more explicit about ideas being the direct objects of awareness, and that it is in virtue of their being directly perceived, but nonetheless representing things that are or are instantiated by objects, that we indirectly perceive objects.²⁹

²⁹ See *Reponse a Regis*, OC 17-1:303; *Search I*, 14 ii. That Malebranche holds a representational theory of perception is endorsed by several authors: R. Church, *A Study in the Philosophy of Malebranche*, (London: George Allen and Unwin, 1931)
There is, then, more substantial evidence in favor of Malebranche endorsing a representational theory of perception, as opposed to a non-representational theory. Nadler's attempt to distinguish the two kinds of perceptions does not adequately challenge this interpretation. At best, (and this is worth quite a bit) it shows us why Malebranche (and perhaps others) might not be concerned with holding a representative account of perception. In fact, it is not clear that Malebranche is any more than superficially bothered by such charges. His main concern, in addition to taking the atheist to task, is to squelch the skeptic. And he does both by claiming that we are presented with ideas that exist in God and that are revealed to us through the good will of God. While Malebranche continually asserts that we do perceive objects, they are not the direct objects of our perception.

There are still certain aspects that are left unresolved by these two accounts of perception and that Malebranche is silent on. For instance, I have tried to illustrate how natural judgments are different from the judgments in informed perception by distinguishing between a non-conceptual judgment and a belief. However, it seems that there are cases where the perceiver might make a conceptually informed judgment about the object before her, without actually believing her judgment to be true. This might occur in the case of a hallucination. However, I suggest that this is more of a problem for Malebranche's account than my interpretation of Malebranche.  


* There is a problem for Malebranche whose source is his occasionalism. As he admits on several occasions, natural judgments, if not always, are often false.
What Malebranche attempts to do with his natural judgments is to drive a wedge in between Descartes second and third grade of perception. On the one hand, natural judgments are supposed to considered sensations in us and thus appear to be different from the spatial perceptions in Descartes that only occur at the intellectual level (or third grade) of perception. On the other, Malebranche deliberately calls them judgements, in virtue of what they are with respect to God, namely structured events, but whose structure does not depend on us, but on God. It is for this reason that I think Malebranche's account of distance perception essentially involves an event constituted by a judgement. In the next chapter I will address Berkeley's complaints against "the mathematicians", that is, against his opponents like Descartes and Malebranche. Berkeley will reject both the geometrical inferences that both Malebranche and Descartes appeal to, but also the judgmental component that is present in both accounts of perception. While rejecting one does not require Indeed, it is up to us to resist what our senses tell us, and confine our "free judgments" to those facts discovered by the intellect. But, the cause of our natural judgments (and our hallucinations) is God. God, then, is responsible for creating erroneous perceptions. But, given God's omnibenevolence, this would appear to be a significant problem for Malebranche.

This is not just a problem for Malebranche. Descartes also faced such a problem when he acknowledged that our senses tempted us into attributing color to objects. How could a good God build us in such a way as to err? The solution to this problem which is addressed by Malebranche is simply to point out that there is some purpose to such erring sensations, namely the "convenience and benefit" of our lives, but that to judge truly of the nature of the external world, we must refrain from assenting to such judgments. The error, according to both Malebranche and Descartes, resides not in the sensations, but in our will that assents to such sensations.

This is hardly a satisfactory response if one thinks that we could do without such sensations, and it certainly doesn't explain those errors concerning objects that are beyond our reach - for instance, the sun, which looks closer than it actually is.
the rejection of the other, it will become apparent that for Berkeley, the two are intimately connected.
CHAPTER III

BERKELEY’S ARGUMENTS AGAINST THE MATHEMATICIANS

Berkeley begins the *New Theory of Vision* by laying out three goals of the work: a) to show the manner wherein we perceive by sight the distance, magnitude and situation of objects; b) to consider the difference between the ideas of sight and touch, and; c) to consider whether there is any idea common to both these senses (*NTV* 1). While Berkeley separates such questions, and will offer arguments for each claim at different places in the work he will, at times, while addressing a new question refer the reader to previous discussions which already provide the answer to his questions.¹ So Berkeley is aware of their connection and also of the connections between these claims that others have made in their discussions of spatial perception. I have tried to illustrate that the phrase 'the manner wherein we perceive' the spatial qualities is ambiguous in the works of Descartes and Malebranche. Both authors intend for the geometrical reasoning to be the manner wherein the geometrical properties are perceived, despite the fact that in Malebranche’s occasionalist metaphysics it is God who does the calculating, so to speak. But, while the geometrical reasoning of both Descartes’ and Malebranche’s system provided an explanation of how the perceiver arrived at the mental event of

¹ See *NTV* 127, and his frequent appeal to Molyneux’s problem and the newly sighted blind man.
perceiving distance, it also accounted for making the perception about an external, 3-dimensional spatial quality. This was particularly clear in Malebranche, for the ideas in God (which included the complex idea of the geometrical reasoning) played the role of representational content, and accounted for how it was possible for the mind to perceive spatial qualities.

Berkeley is somewhat more attentive to this ambiguity which is reflected by the different goals stated at the beginning of this chapter. He too is worried about more than the mere causal or psychological explanation of how the mind comes to be in a perceptual state, and his answer to this which appeals to experience, and more specifically learning, is what is responsible for generating the debate between empiricism and nativism in the psychology of perception. However, Berkeley is also concerned with what constitutes the perception of spatial versus non-spatial qualities like color and taste, and his answer to the first, psychological question reflects the differences in his answer to the second, philosophical question.

In this chapter I will be concerned primarily with Berkeley's arguments against, as he calls them, "the mathematicians". I will argue that examining Berkeley's arguments in light of Malebranche and Descartes provides a better appreciation of complaints against the mathematicians' account and offers a different understanding of the arguments than has been offered by some previous commentators of the New Theory of Vision. While Berkeley's position may not be viable, we should no longer be tempted to interpret his arguments as either naive or grossly misrepresentative of his opponents. He recognizes the difference between Descartes and Malebranche and offers arguments that reflect this awareness.
**Berkeley's arguments against the mathematicians' account.**

After presenting his 3 goals of the work, Berkeley immediately turns to the various claims that he attributes to his opponents, and the particular claims that he will reject. All agree, according to Berkeley, that (1) distance, of itself and immediately, cannot be seen (NTV 2). Accordingly, one must provide an account of the means by which it is seen. According to Berkeley, the mathematicians claim that (2) we judge the distance of near objects on the basis of the two optics axes, concurring at the object (triangulation) (NTV 4) or (3) by means of the extent to which the rays falling on the eye diverge (NTV 6). And that (4) we judge the distance of remote objects by an act of judgment grounded on experience rather than on sense; specifically, we judge by means of the "intermediate objects" and by the "faintness and size" of the object's appearance (NTV 3).

These claims 1-3 define the mathematicians' (or mathematicians') account of seeing distance, and from my discussion in chapters 1 and 2, it should be apparent that both Descartes and Malebranche share many of these claims. We saw in the Sixth Discourse of Descartes' *Optics*[^2], and in Malebranche's *Elucidations*, and in chapter 9 of Book I of his *Search After Truth*[^3] that in the accounts of distance perception these authors appealed to triangulation and convergence of light rays (claim 2 and 3 above). Finally, we saw that they also appealed to the significantly different account of seeing remote objects, outlined in claim (4) above, where the judgment required experience. Of course Berkeley will target only the first 3 claims, for he in fact will adopt the latter explanation as the model for the causal explanation of how we see distance. Technically speaking, then, the mathematicians'

[^2]: Rene Descartes, Sixth Discourse of the *Optics*.
[^3]: *Oeuvres Completes de Malebranche*.
account does include the account based on experience, but Berkeley, in attacking the mathematicians, excludes this account. In the discussion, I shall do the same.

While claims 2-3 were explicitly presented by Descartes and Malebranche, we must be careful in attributing claim 1 to Malebranche and Descartes. There are several reasons to be cautious here. Consider what Berkeley states in NTV 2:

It is, I think, agreed by all that distance, of itself and immediately, cannot be seen. For distance being a line directed endwise to the eye, it projects only one point in the fund of the eye, which point remains invariably the same, whether the distance be longer or shorter.

First, Berkeley could be claiming that all agree with the conclusion of what appears to be an argument, or, that all agree with the conclusion together with the reasons presented. If we interpret Berkeley as intending the latter, while it may be legitimate to attribute this to some of the "mathematicians", it is not obviously an accurate characterization of Descartes and Malebranche. For neither Descartes nor Malebranche describes distance as being a line directed endwise to the eye.  

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See A.A. Luce's Berkeley and Malebranche, (Oxford: Oxford University Press, 1934) for his discussion of the figures influencing Berkeley, e.g. Rohault, Barrow and Molyneux. Molyneux's writings are significant in that the argument in NTV 2 is strikingly similar to Molyneux's in his New Dioptrics:

Distance of itself is not to be perceived. For it is a line (or a length) presented to our eye with its end toward us, which must therefore be only a point, and that is invisible (New Dioptrics Prop. XXXI, 113).

Even if the scope of the phrase "it is agreed by all" is only intended to include the conclusion, thus not committing his opponents to the reasons offered in *NTV* 2, it is still not obvious that he has accurately captured both Descartes and Malebranche. Part of the problem rests with understanding the notion of "immediately perceived" something which Berkeley uses to a much greater extent than either Descartes or Malebranche. Descartes does not use the notion of immediate or direct perception when writing about distance perception. And Malebranche, while he claims that we perceive physical objects indirectly by means of sensations, he also claims that we perceive the qualities (ideas in God) which are instantiated or capable of being instantiated by these objects. However, there is a way of understanding Berkeley's concerns that justify attributing the mathematicians' account to both Descartes and Malebranche, including claim (1) about distance.

According to this argument in *NTV* 2, since distance projects a point on the retina that does not vary with the change in distance of an object, distance is not immediately seen. The key factors in immediately seeing distance, at least in this passage, seem to be what is registered on the retina, and more importantly, whether what is registered on the retina co-varies with the actual distance an object is from the perceiver. Since what is projected in the retina doesn't co-vary then something more must be added in order for distance to be seen. This "something more" in both Malebranche and Descartes is the geometrical reasoning. If we keep in mind that one of Berkeley's goals is to offer a competing explanation of how the perceiver sees

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6 Malebranche, *Elucidations*. Malebranche also characterizes this relation in terms of ideas being "present" to the mind. E.g. *Dialogues, XII*, p. 289
distance, size and magnitude and how such optical puzzles posed by the mathematicians can be resolved, then we can interpret this claim about distance and immediate perception as a claim that the explanation requires more than an appeal to what is registered on the retina, and that distance must be perceived by means of some other idea. Descartes, I have already argued, appeals to implicit geometrical inferences in order to account for how color and light sensation must be supplemented in order for the perceiver to see distance. And while Malebranche moves such inferences "out of the head" of the perceiver, and "into the will" of God, he nonetheless thinks that the geometrical inferences are significant in providing an explanation of seeing distance. There is reason to believe, then, that both Descartes and Malebranche would agree to the conclusion provided that by an object "of itself and immediately" not being seen we mean that it is by means of an inference or judgment (either intellectual or natural). Berkeley will add to this that it is not by means of suggestion either.

There are several questions remaining concerning Berkeley's argument in *NTV* 2, some of which I shall address when we turn to Berkeley's own account of

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8 G. Pappas develops a much more detailed account of what Berkeley means by "immediate perception" in "Berkeley and Immediate Perception" in *Essays on the Philosophy of George Berkeley*, ed. E. Sosa (Boston: D. Reidel Publishing, 1987). However, here I take him to be using it in a very loose sense, namely that for something to not be immediately perceived is for it to be perceived by means of some other idea. But this leaves open the question of the nature of the means by which the mediately perceived idea is perceived (e.g. by means of a sensation, inference or something else).

9 This is supported by the fact that at the beginning of his discussion of distance he discusses the problem that objects of different sizes (and at different distances) subtend the same visual angle and will produce the same retinal image. (*Search*, 1, 9). The point is that the information at the retinal image alone is not sufficient to distinguish between objects at two different distances.
how we perceive distance. However, for now we can interpret Berkeley as correctly attributing to both Descartes and Malebranche the claim that distance is not of itself and immediately seen, in addition to claims 2 and 3 that constitute the mathematicians' account of distance perception. We are now prepared to examine Berkeley's arguments against this position.

**Berkeley’s First Argument Against the Mathematicians**

Before offering his positive view concerning the explanation of how distance is seen, Berkeley addresses the mathematicians' view which was, according to Berkeley, commonly accepted but unsatisfactory for several reasons. He offers 3 arguments against the account. The first, I shall argue, is telling against Descartes given certain assumptions shared by both Descartes and Berkeley; but it fails to address Malebranche's account. However, Berkeley's second argument does succeed in at least addressing his account, although little support is provided for Berkeley's claims. His third argument addresses the mathematicians' account in general, and illustrates the extent to which Berkeley sees his theory as a competing scientific theory of vision.

His first argument appears in sections 9-12 of *NTV* following his brief summary of his opponents' account. It can be summarized as follows:

1. **It is evident that, when the mind perceives any idea not immediately and of itself, it must be by the means of some other idea (NTV 9).**

2. **No idea which is not itself perceived can be the means of perceiving any other idea (NTV 10).**

3. **Distance is in its own nature imperceptible.**

4. **But it is perceived by sight (NTV 11).**
5. So, the idea of distance is brought into view by means of some other idea that is itself immediately perceived in the act of vision (NTV 12).

As it stands, Berkeley's premises do not support the above conclusion. Since Berkeley's conclusion is that the ideas by means of which distance is perceived are immediately perceived, premise 2 must be modified to say:

2' No idea which is not itself immediately perceived can be the means by which any other is perceived.

The second modification required is to change 3 to read:

3'. Distance, is not immediately perceived by sight.

Since Berkeley has only defended the view of why distance is not immediately seen (by the eye) in its own nature, context would seem to dictate that we change 3 in the above way. This is also appropriate given that he later admits that distance is immediately perceived by touch.

After modifying premise 1 to focus on the problem of immediate visual perception Berkeley's argument is as follows:

1. When the mind perceives by sight any idea not immediately and of itself, it must be by means of some other idea.

2' No idea which is not itself immediately perceived can be the means by which any other idea is perceived NTV 10.

3' Distance, is not immediately perceived by sight. NTV 11

4. But it is perceived by sight. NTV 11

5. So, the idea of distance is brought into view by means of some other idea that is itself immediately perceived in the act of vision. NTV 11

There is yet another potential problem with the argument as stated above. Claims 1, 2' of the argument, and its conclusion all speak of the mind's perception of an "idea". And yet in the discussion of distance just prior to the argument, in claims
3 and 4, and also in the examples that Berkeley offers in support of premise 1 and 2, there is no mention of "ideas". Rather, the discussion is of objects or properties which have no explicit reference to a perceiver, or a mind. We need to settle the question whether distance or the idea of distance is presented to the mind in order to avoid an apparent equivocation in the above argument.

While Berkeley uses the two interchangeably throughout the \( NTV \) (see, for instance, \( NTV \) 16), I think we can attribute this to a tendency that Berkeley does share with his contemporaries, namely the tendency to label veridical perceptions in terms of their content. Thus a veridical perception about a particular distance will bring with it information about that distance and thus in this sense might be said to suggest that distance to the mind. But distance is not the same as the idea of it, at least in the \( NTV \), for as Berkeley reminds us in section 44 of the Treatise concerning the Principles of Human Knowledge\(^{10}\) (hereafter Principles), he did assume the "vulgar" error that distance and objects at a distance are mind independent. But if we realize how he characterizes the vulgar error (namely as ideas resembling something else), we can see that in visual perception an idea of distance is brought to the mind. Furthermore, we can keep premise 4 as it is, if we understand that distance is perceived by sight, but mediately perceived in virtue of the idea of distance being presented to the mind.

Once he has established that distance is brought into view by means of an idea that is itself immediately perceived in this act of vision, Berkeley turns to denying the mathematicians' explanation of how distance is brought into view. Here he rejects both the triangulation explanation and also the appeal to divergence of rays. Measurements concerning lines and angles, or measurements of the degree of

\(^{10}\) Works, vol.2, 1949; hereafter, Principles (PHK)
divergence of rays are not immediately perceived in this act of vision because such measurements are not perceived at all:

those lines and angles by means whereof some men pretend to explain the perception of distance are themselves not at all perceived; nor are they in truth ever thought of by those unskilful in optics. I appeal to anyone's experience whether, upon sight of an object, he computes its distance by the bigness of the angle made by the meeting of the two optic axes? Or whether he ever thinks of the greater or lesser divergence of the rays which arrive from any point to his pupil? (*NTV* 12)

Berkeley then presents the following argument for his claim against the mathematicians:

Everyone is himself the best judge of what he perceives and what not. In vain shall any man tell me that I perceive certain lines and angles which introduce into my mind the various ideas of distance so long as I myself am conscious of no such thing (*NTV* 12).

Berkeley's key assertion is that the individual perceiver is the best judge of a) what he perceives and b) what he doesn't perceive. If by "best judge" Berkeley means that our beliefs on the subject matter are incorrigible, then there are passages in other works of Berkeley's that suggest what principle might be implicitly assumed in this argument. Consider the following passage from the *Principles*:

...so long as I confine my thoughts to my own ideas divested of words, I cannot be deceived in thinking I have an idea which I have not. It is not possible for me to imagine, that any of my own ideas are alike or unalike that are not truly so. To discern the agreements or disagreements there are between my ideas, to see what ideas are included in any compound idea and what not, there is nothing more than an attentive perception of what passes in my own understanding (Introduction to the *Principles*, 22).
Berkeley offers several formulations of the principle involving an incorrigibility on the part of the perceiver. His first claim is that he cannot be deceived in thinking he has an idea which he does not have. But following this, Berkeley develops this claim, offering a richer description of this principle. According to Berkeley, it is not possible to imagine that our ideas are alike/unlike when they are not truly so. In other words, in addition to the having of an idea, the perceiver also seems to have guaranteed access to the similarities and dissimilarities between ideas. Of course, while the similarity or dissimilarity of something with respect to another is a relational property, it is reasonable to allow Berkeley some restriction on the kinds of properties that may be compared. And so, we might think that of the relational properties only similarity and dissimilarity are applicable, and with respect to these only the non-relational or intrinsic features. Thus we could formulate the principle implicitly endorsed in his argument against the mathematicians as follows:

\[ \text{IT}^* : \text{For some non-relational property, } P, \text{ it's not possible that (S thinks the idea, } x, \text{ has property, } P \text{ and it be false that } x \text{ has } P). \]

There are yet at least two other features that must be added to IT* in order for it to accommodate what Berkeley claims in the passage from the NTV. First, Berkeley points out that it is an attentive perception of what passes in his understanding that is sufficient for seeing what ideas are included in compound ideas. Second, Berkeley's claim against the mathematicians is that he believes that such ideas don't have the property. This requires that it is impossible for the

\[ ^{11} \text{So, for example, while it may be plausible that if I believe my idea to be e.g. pure red, my belief can't be mistaken, it seems likely that I can be mistaken about, for instance, what experience will follow it, or whether this is the 10 billionth idea I've had today.} \]
perceiver to have "missed" something in the inventory of the idea, leading her to a false belief that the idea lacks a property. However, there is good reason to think that we ought to refrain from accepting "IT" as an implicit principle in this argument. First, "IT" does appeal to incorrigibility and is useful only if Berkeley means by "best judge" that the perceiver is incorrigible. However, at various points in the NTV, Berkeley at least appears to admit that he may be mistaken, although he thinks he is not. Second, "IT" even with some modification, is still most likely false. It is at least possible that we can be mistaken about properties that our ideas have, or lack especially once we allow for our beliefs about their likeness/unlikeness to other things to be included. We might, for instance, have a pain much more severe than another and yet think that they are alike. Although it may be true that Berkeley endorses this false principle in this argument (as he endorses later in his works), he does not appear to endorse it in the NTV and thus it would be better to refrain from attributing it to this particular argument in NTV if possible.

Finally, there is a weaker, less controversial interpretation of the argument that appeals to principles Berkeley explicitly endorses in the NTV. A full statement of the principle concerning the relation between objects of immediate perception and the perceiver is offered in the Principles:

So that one idea or object of thought cannot produce, or make any alteration in another. To be satisfied of the truth of this, there is nothing else requisite but a bare observation of our ideas. For since they and every part of them exist only in the mind, it follows that there is nothing in them but what is perceived. (PHK, 25; emphasis mine.)

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12 See, for instance, NTV 130.
Berkeley's argument here is that we can be assured that ideas do not have the capability (or quality) of being able to make alterations in other things because we do not perceive anything in the idea that reveals this capability. And, as the italicized part of the passage indicates, given the nature of ideas such ideas that are perceived have no more (no hidden) parts than those it is perceived to have. We can formulate this as follows:

If an idea \( x \) is perceived by \( S \) and has parts \( P_1 \ldots P_n \) then \( S \) is aware of \( P_1 \ldots P_n \) and, if \( S \) is aware of \( P_1 \ldots P_n \) of an idea \( (x) \) perceived by \( S \), then \( x \) has \( P_1 \ldots P_n \).

While this more complete statement of the principle is presented in the *Principles*, Berkeley explicitly endorses the first part of this bi-conditional in the *NTV* 81 where he argues that once perceived, there is no part of an idea that is not perceived by the perceiver, \( S \):

> It will perhaps be objected that the minimum visibile of a man doth really and in itself contain parts whereby it surpasses that of a mite, though they are not perceivable by the man. To which I answer, the minimum visible having (in like manner as all other proper and immediate objects of sight) been shewn not to have any existence without the mind of him who sees it, *it follows there cannot be any part of it that is not actually perceived and therefore visible* (*NTV* 81; emphasis mine).

Here, Berkeley is essentially claiming of a proper and immediate object of perception (in this case sight), that if it has, for example, parts \( P_1 \ldots P_n \), no one of them fails to be actually perceived by the perceiver. And this seems to be a statement of the first part of the principle formulated above. Moreover it is the important part of the principle in virtue of the argument that Berkeley is presenting in *NTV* 12. Berkeley is claiming that he does *not* perceive any angles and lines when perceiving distance. But from *NTV* 81, we can conclude that if some of the
properties $P_1...P_n$ are not perceived by $S$, then they are not parts of the idea in question. That is, the idea lacks those parts.

This passage from $NTV$, however, requires some modification of the formulation offered above. The passage from $NTV$ 81 specifies the kind of perception involved, namely proper and immediate perception (or actual perception). Furthermore, just as we had to restrict IT in terms of the kinds of qualities immediately perceived, so too must we restrict SI, in terms of the parts that can be immediately perceived. For as Berkeley will later acknowledge, there are certain things that are related to ideas but are not ideas or members of collections of things, namely notions. And notions, at least on some interpretations, seem to be relational properties. While talk about "parts" might itself take care of this problem, in that when we talk of parts of things, we typically think of parts as non-relational kinds of things, Berkeley will, when he talks about immediately perceiving things, shift his description from "parts" of ideas to "qualities" of ideas or things. In virtue of this, we can modify SI as follows, restricting the characteristics, $P_1...P_n$, to non-relational characteristics:

$$SI: \text{If an idea, } x, \text{ is immediately perceived by } S \text{ and has the non-relational characteristics } P_1...P_n, \text{ then } S \text{ is aware of } P_1...P_n, \text{ and, if } x \text{ has non-relational characteristics } P_1...P_n, \text{ and } x \text{ is immediately perceived by } S \text{ then } S \text{ is aware of } P_1...P_n.$$  

$^{13}$ I use 'characteristics' instead of 'properties' or 'qualities' in order to avoid associating such entities with "modes" of substances, something that Berkeley was primarily interested in rejecting. For Berkeley's use of "ideas" and "quality" see $Three \text{ Dialogues between Hylas and Philonous}$, I, 175; and $PHK$ 9, 14, 37.

$^{14}$ Another formulation might be in terms of immediate perception, namely "Necessarily (if S i.p. x then x exists)" where x is an idea. Thus it is not possible to immediately perceive an idea and that idea not exist. See Phil Cummins, in "Berkeley's Manifest Qualities Thesis" $Journal of the History of Philosophy$ 28:3
Our original purpose in finding SI was to present an implicit assumption of Berkeley's that supports his claim that we are the best judge of what we do and do not perceive. One explanation for why Berkeley would accept SI lies in one view of the nature of the idea, namely, as a mental item modeled on sensations. Sensations like pain and pleasure might be thought of as being a mental event or state which reveals both its essential and accidental characteristics to the perceiver. What it is to be a pain, for instance, and the particular kind of pain, is completely revealed to the entity who has it - similarly for color. Given this self-presenting character of ideas, Berkeley's argument here is that the perceiver is the best judge, not because the beliefs from perception are incorrigible but simply because the individual is the one who immediately perceives the idea. If the idea is wholly presented to the individual perceiving it, it seems more likely that he/she will be better judges of what is (immediately) perceived than a third person.

(July 1990) and G. Dicker's "The Concept of Immediate Perception in Berkeley's Immaterialism," in Berkeley: Critical and Interpretive Essays, ed. Colin Turbayne (Minneapolis: University of Minnesota Press, 1982). However, here Berkeley appeals to "imagining" and "thinking" which tend to suggest a more cognitive state. Moreover, it is questionable to what extent immediate perception is infallible as Cummins suggests. In one sense, one might say that sensations are infallible because they are neither true nor false. Descartes sometimes seems to suggest this. But the most plausible way of interpreting the infallibility is in terms of attributing properties to objects as Descartes will describe in the passages I examine below. Here I adopt G. Pappas' non-epistemic sense of "immediately perceive" and also the principles which he formulates concerning immediate perception in "Berkeley and Immediate Perception."

15 See P. Cummins' "Berkeley's Manifest Qualities Thesis."
16 Additional passages in the NTV support the view that the individual perceiver has privileged (but not necessarily incorrigible) access to the objects of awareness. In NTV 56, for instance, Berkeley writes that "in order to discover by what means the
On this interpretation we can modify claims 7 and 7b to the following:

7: The individual perceiver is the best judge of what he perceives and what he doesn't because

7b': (SI) If an idea, x, is immediately perceived by S and has the non-relational characteristics P1,... Pn, then S is aware of P1...Pn, and, if x has non-relational characteristics P1,... Pn, and x is immediately perceived by S then S is aware of P1,...Pn.

There are still problems with this argument, as there is with any argument that claims we are the best judges in classifying our perceptions. It seems plausible in many cases that a third person might be in a better position to judge how this object ought to be classified. In cases where, for instance, science is given the task of properly classifying the nature of experiences, the ordinary perceiver would never, with as much attention as one wants, be able to make such classifications. However, this is a problem for any theory about our access to any perceptual or non-perceptual event, and requires an elaborate investigation into and a theory for the nature of meaning. And since my main goal is to provide an accurate account of Berkeley's view, regardless of its flaws, this problem is best addressed elsewhere.

The advantage of this interpretation of the argument is that it relies on a principle that is weaker than the incorrigibility claim about our beliefs concerning ideas. This is preferable for it makes sense of the fact that Berkeley proceeds to magnitude of tangible objects is perceived by sight, I need only reflect on what passes in my own mind...". And in defending his account that distance is not immediately seen, but only suggested to the mind Berkeley relies on our "narrow" and careful examination of our ideas to correct the prejudice that language creates (NTV 45).
offer two additional arguments against the mathematicians, suggesting that he does not rest his case on introspection alone, and that he does not think that we have incorrigible access. Given that he does go on to rule out the likelihood of us judging by means of angles and lines, we can weaken the conclusion of this first argument. Consequently, on this interpretation, then, Berkeley's argument can be reconstructed as follows:

6: Berkeley, upon careful observation, is not conscious of perceiving any lines or angles (or the divergence of the rays arriving at the pupil) when he perceives distance.

7: The individual perceiver is the best judge of what he perceives and what he doesn't because

7b': (SI) If an idea, x, is immediately perceived, then S is aware of x and all the non-relational characteristics of x. and, if x has non-relational characteristics P1...Pn, and T and x is immediately perceived by S then S is aware of P1...Pn.

And so,

8: The certain lines and angles by means whereof some pretend to explain the perception of distance, are not perceived.

9: The certain lines and angles by means whereof some pretend to explain the perception of distance are not immediately perceived in the act of vision. So,

10. The mind (most likely) does not judge of the distance of object by means of angles and lines. (Nor does it judge by means of the divergence of the rays hitting the pupil).

I have attempted to reconstruct Berkeley's argument against the mathematicians. However, before turning to his second and third arguments, I want to examine to what extent he has succeeded in challenging his opponents.
Descartes' and Malebranche's Responses

If I am correct in my account of Berkeley's argument, there are two key premises with which Descartes and Malebranche may take issue: 2', where Berkeley stipulates that an idea can be the means by which something is perceived only if it is, itself, immediately perceived; and 7b', Berkeley's claim about our access to the content of our ideas. In both Descartes and Malebranche, ideas were the means by which we perceived objects. However, Malebranche explicitly introduced his notion of "idea" that was spiritual but independent of the mind of the perceiver. Malebranche, then, would most likely deny the claim that we are the best judge of the means by which we perceive distance. For those means are not accessible in sense perception because they are not "had" by perceivers but rather form part of God's willing the perception.

Descartes, however, cannot and does not take this option. We saw in the first chapter that Descartes describes the reasoning involved in seeing distance as "implicit". Certainly on one interpretation of "implicit reasoning" Descartes could be interpreted as rejecting Berkeley's claim that such ideas (involved in the reasoning) are accessible to the perceiver. That is, Descartes could mean that the means by which the mind perceives distance are in principle inaccessible to the perceiver. 17

While Descartes could be anticipating the position that Helmholtz adopted, there are two reasons for thinking that Descartes would not agree that such ideas are in principle inaccessible to the mind, which will be discussed more fully below. First, there are passages in Descartes that are too similar to those adopted by Berkeley to allow one to think that they fundamentally disagree on this point. Second, the fact

17 This is one interpretation of the view of the mind that is developed in the early 19th century with Helmholtz. See his Treatise on Physiological Optics, 3 vols. Trans. J. Southall (Milwaukee, 1925).
that Descartes anticipates an argument similar to Berkeley's and tries to deal with it in a way other than appealing to in-principle inaccessibility, suggests that he in fact shares some version of SI and commits him to the claim that we are the best judge when it comes to the ideas by means of which we perceive other things.

**Accessibility and Knowledge of our ideas**

While Descartes does not explicitly state a principle like SI, there is reason to believe that he endorsed a claim similar to it. This is evidenced primarily in the arguments that Descartes offers for the distinction between mind and body, and by other related claims, for example, his claim in the *Principles* that the mind is better known than the body.\(^1\) Descartes' commitment to a claim similar to SI can be seen in the following passage from the *Principles*:

> For if we, who are supposing that everything which is distinct from us is false, examine what we are, we see very clearly that neither extension nor shape nor local motion or anything of this kind which is attributable to a body, belongs to our nature, but that thought alone belongs to it (*Principles*, Part I, VII).

The objects of his attention, in "supposing everything which is distinct from us false" are his ideas and himself. And from this, Descartes concludes that we ought to see that none of the spatial qualities belongs to our nature. However, here Descartes is making an assumption about the nature of what is revealed to him when he examines his ideas in this situation. It may be the case that he cannot see, when examining himself and his ideas, anything that either is, or implies a quality of motion, shape or extension. However, this alone would not let him conclude that thought alone belonged to it. What he must also be assuming is that, when he examines his ideas and himself, there are no hidden qualities belonging to his ideas.

\(^1\) See *Principles of Philosophy*, Part I, LXVI, AT 8A,32.
or to himself (or at least no non-relational qualities). In other words, the assumption Descartes is making here is:

If an idea, x, has qualities P₁...Pₙ, and x is perceived by S, then S is aware of P₁...Pₙ.

While this is only one part of SI, the principle to which Berkeley appeals, it is the part of SI upon which Berkeley bases his argument against the mathematicians.

Descartes shows signs, however, of anticipating a challenge of the sort offered in Berkeley's first argument, namely that we are not aware of any lines and angles. Following his claim that the judgments involved in distance perception are just like new judgments that we make, Descartes addresses the issue of why we are not aware of these judgments we are supposed to make in seeing distance. We need to address this response. According to Descartes, the reason that we are not aware of the reasoning involved in distance perception is that the judgments and rational inferences involved in the perception of distance have been made since childhood, and as a result of custom have become rapid and thus easily attributable to the senses, and not the intellect.¹⁹

This is one way of understanding what Descartes had already anticipated in the Optics, namely that the process, while belonging to the intellect, was implicit. Such ideas are in principle accessible to the mind, but as a matter of fact, they have become inaccessible due to habit from making such judgments from childhood.

This is the kind of explanation, moreover, that Descartes offers in his discussion in the Principles concerning our judgments about color and mistaken beliefs about external objects. It is due to habits formed from our infancy that we make mistaken judgments about our sensations and also external objects.²⁰

¹⁹ See Sixth Set of Replies, AT 7:438.
²⁰ See Principles of Philosophy, Part I, LXXI, AT 8A,36.
There is, however, a problem that Berkeley’s argument addresses. While Descartes’ explanation of our not being conscious that these reasonings take place certainly seems to be a legitimate explanation of why we do not notice such ideas when we make the judgments everyday, it does not explain why, upon careful reflection, we cannot make available to consciousness, at least parts of this process. That is, while it is true that we may not be conscious of such ideas at the time of the perception, upon careful reflection, we should be able to recall such ideas.

One might be tempted to come to Descartes’ defense in the following way. Suppose on a particular occasion a shopkeeper sees that a customer is a thief by means of seeing the butt of the gun in his coat pocket. It is true that she perceived the thief by means of seeing the butt of the gun. And yet it is plausible that she is never able to recall the means by which she made this perceptual judgment about the gunman. In fact, Descartes relies on a similar explanation when he is trying to defend his claim that the mind always thinks. He defends his claim that the mind always thinks despite the fact that we do not always remember it by claiming that the brain does not always retain the traces of perceptions or thoughts of which we were once conscious. Consequently, Berkeley’s testimony that he is not now conscious of any angles and lines in perceiving distance is no objection to the claim available to the mathematicians, namely that at the time of the perception it was accessible to the mind.\(^{21}\)

There are two problems with this kind of defense. First, this appeal to insufficient stimulus (insufficient for memory) is a different argument from that offered in the \textit{Replies}. His explanation in the \textit{Replies} claims that habit has covered that which was once accessible, not that there was insufficient stimulus for this to be

\(^{21}\) See \textit{Replies to the Fifth set of Objections}, AT,7:357.
accessible. Second, this is not a viable explanation given the kind of phenomenon being explained. What allows for the response above in the shop owner's case is that the perceptual event in question was a singular-occurring event. And so it is plausible that such an event could not be accessible through memory. However, the perceptual inference involved in seeing distance is not a singular event occurring only once. Rather it is a process that has occurred repeatedly and still takes place (at least on some occasions). If our shop owner falls into the habit of distinguishing customers on the basis of what she sees (or doesn't see) in their jackets it would be odd for her never to recall the means by which she distinguished them. Given that the inferential process is repeated and still takes place, Berkeley's attack becomes more plausible.

Finally, it would not help to point out that Descartes claims we have been making such judgments from childhood. The force of habit has nothing to do with our not being able to bring it to consciousness. The artworks of the French Impressionists are a successful tool in making the casual viewer aware of the numerous shades that are before us when looking at nature, but of which we are rarely conscious in our daily activities. Here it seems that we have a perfect example that supports the claim that even in those cases where habit might be said to govern our perception since childhood, we can find some way to bring those things perceived back to the attention of the mind. Furthermore, we must not forget that this is a recurring event, performed since childhood. In the case of recurrent events, it is more plausible that memory would be enforced rather than inhibited. So,

\[22 \text{ In fact, this would make Descartes' explanation concerning the mind's continual thinking, to be rather implausible.}\]
neither an appeal to habit, nor an appeal to memory is adequate for explaining why this recurring event cannot be brought to consciousness.  

Berkeley's discussion, of course, says nothing of singular versus repeated occurrences, and so we must understand that what I have said by way of defense of Berkeley is speculation on my part. Furthermore, it is not clear how Berkeley would deal with singular occurring events, for they seem to involve ideas that one does not, and can not, given memory constraints, attend to. My guess is that IT" would have to be modified to account for cases such that, if one could attend to it, one would not be mistaken about it.

Given the principles that Descartes explicitly endorses, and the expectations that Berkeley and Descartes share concerning the kind of explanation that ought to be given for this kind of event, Berkeley's argument does significant damage to  

33 If we understand Berkeley's argument in this way, then it is easy to see why the following criticism of his argument proves inadequate. One of the several criticisms that David Armstrong raises against Berkeley is that while Berkeley appeals to the "unskilled in optics" to refute the mathematician's claim, the same may be said against Berkeley's theory, namely that often ordinary perceivers are unaware of the muscular sensations that are supposedly cues for distance. However, there is nothing in S1 as I have presented it, and as Berkeley presents it, that requires that one must be able to notice the means by which we perceive. We must be aware of it, which is a condition for recalling it, with sufficient attention. The lay person will be able to recall, with sufficient training, the muscle movements, just as the impressionist painter is trained to notice much of what is often missed in perception. But Berkeley does not think one will ever be able to be trained to notice angles and lines while perceiving.

Armstrong's challenge to this way of defending Berkeley, is that "on occasion we become aware that the angle made by the optic axes at the object is getting larger as the object approaches, and we always could become aware of this if our attention were directed to it" (Armstrong, Berkeley's Theory, 21). Unfortunately it is not obvious that we can actually become aware of the angle of the optic axes becoming larger unless we allow for mathematical ways of classifying.
Descartes' position. Of course we can always grant that a) the perceiver's mind doesn't have to make these inferences, or b) the mind can use information (perceive an idea) that is, in principle, undetectable. But to choose b) is to anticipate a change in the model of the mind. And to choose a) is to anticipate the significant development in Malebranche's account of perception. The next argument against the mathematicians provides some reason to think that Berkeley was aware of this difference between Descartes and Malebranche.

II

Berkeley's second argument Against the Geometrical Account

Berkeley's presentation of his next argument is very brief:

1. Those lines and angles have no real existence in nature, being only a hypothesis framed by the mathematicians, and by them introduced into optics that they might treat of that science in a geometrical way.

So, the mind does not by them judge of the distance of objects. (NTV 14)

Berkeley gives no further defense or discussion of this argument, but I take his claim to simply be that since the angles and lines have no real existence in nature, we could not perceive them. Thus it is not by their means that the mind perceives distance.

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24 One response by Descartes that we did not consider was the appeal to the objective versus formal being of ideas. Descartes might claim that while we must be aware of ideas in terms of their formal being, we need not have introspective access to their objective being. This is to anticipate the development in Malebranche. However, the price that Descartes must pay is to "externalize" the causal process, placing the inferences in God rather than in the perceiver. And this is to adopt Malebranche's thorough-going occasionalism.
As is frequently the case, the terseness of Berkeley's arguments has permitted commentators to speculate on the meaning behind his claims.

Margaret Atherton understands Berkeley's main concern here and in the preceding argument to be the restrictions on vision that are generated from our visual systems. In Berkeley's first argument against the geometrical account, Atherton argues that Berkeley is not merely claiming that the geometrical explanation is undermined due to a person's failure to perceive such angles and lines. Rather, she sees Berkeley offering new constraints on what counts as a successful explanation of perceiving distance. And a successful explanation of perceiving in turn requires an account of how the perceiver gets that information. According to Atherton, Berkeley assumes that the perceiver can get at the information only in the form of "ideas registered or represented for the perceiver by the visual organ." It is in virtue of this that our not being aware of angles and line is a relevant argument for why they are not any part of how I see.25

Atherton then turns to his second argument and claims that Berkeley, in addition to arguing that the angles and lines are not in fact part of how I see, argues that they cannot be part of it because they cannot be effectively registered as such by the visual system. Atherton stresses that while we may be able to draw a picture in which angles are present, in the case of seeing with two eyes, "tipped or turned eyes are not in and of themselves angles", and in the case of the divergence of rays, "there is no way in which the lines and angles can be represented on the retina. What strikes the retina strikes it as a point".26 Atherton concludes that Berkeley is neither taking a stand on theoretical entities nor doubting the existence of physical entities.

25 Atherton, Berkeley's Revolution, 81.
26 Atherton, 83.
but only claiming that there is no way the "geometric behavior of light rays can enter into a psychological theory at this point, because there is no way in which the sensory system can represent such behavior to us".\textsuperscript{27}

While Atherton and I both agree that Berkeley is making a stronger claim than he makes in the first argument I presented, namely that it is not possible for these angles to be the means by which the mind perceives distance, Atherton's interpretation of the argument with its emphasis on the structure of the \textit{visual system} is, I think, misleading. Contrary to what Atherton says, I think Berkeley is making a claim about theoretical entities, and more specifically about the absence of the mathematicians' theoretical entities \textit{in rerum natura}.

Atherton interprets Berkeley's overall agenda in these arguments to involve an appeal to new constraints on what counts as a successful explanation of perception. This interpretation, according to Atherton, is reasonably taken from what Berkeley says about our having to immediately perceive the \textit{ideas} by means of which we perceive other ideas.\textsuperscript{28} And this last claim is in turn determined by his claim that what we perceive is determined by our sensory systems. In this second argument Berkeley is supposed to be saying that angles and lines cannot be a satisfactory explanation for a psychological theory because our \textit{sensory systems are not built to register angles and lines}.

\textsuperscript{27} Atherton, 83.

\textsuperscript{28} At this point I disagree with Atherton given our disagreement about Descartes. While Atherton takes Descartes to be ambiguous concerning the role of the mind in perceiving distance, I have argued in earlier chapters that Descartes acknowledges that the implicitly made geometrical inferences provide an explanation of how perceiver's \textit{mind or intellect} perceives primary qualities. And so, Berkeley is not offering new constraints, but ones shared by his predecessors.
The problem with Atherton's interpretation is its emphasis on the nature of the visual system. Nowhere in this or the surrounding passages does Berkeley mention the eye, the retina or *our sensory system* in general. He simply and straightforwardly states that such entities do not exist *in nature*. Berkeley's concern here is neither physiological nor psychological, but ontological.

Of course the ontological claims have physiological and psychological implications. If they do not exist in nature, they could not be registered by our visual system. However, the nature of our visual system is not the target of his argument here. Moreover, if Atherton were correct in saying that Berkeley is simply denying the visual system's capability of registering these entities, then we can't take Berkeley at his word here, for denying that they have a real existence *in nature* is going beyond a mere description of the visual system's capabilities.

If we take Berkeley at his word and interpret him as denying the existence of the mathematicians' lines and angles then it is obvious why these can no longer be the key components of the explanation of how the mind perceives distance. Moreover, with this interpretation of the argument Berkeley can grant that our judgments about what we do and do not immediately perceive need not be infallible and yet still make his case against his opponents. For if such entities do not exist in nature, then even if our judgments about what we perceive are fallible, this argument shows that we couldn't be perceiving them anyway.

In addition to Berkeley's fairly explicit statement that he is arguing against the existence of the mathematicians' theoretical entities, there are other arguments that he offers that make this interpretation plausible. If we turn to the Philosophical Commentaries\(^{29}\) he already has expressed his opposition to the mathematicians'

\(^{29}\) *Works*, vol. 1, 1948 (hereafter *PC*).
entities. First, he comments on the fact that the mathematicians own they are unable to find in rerum natura, anything corresponding with their "nice ideas". Second, Berkeley claims that the mathematicians' and mathematicians' notion of lines, (and angles) and their concept of extension is, according to Berkeley, inconceivable for him.

An in depth study of Berkeley's attack on their concept of extension would take me far astray at this point. However, there is adequate evidence that Berkeley, even before the NTV, rejected the reality of some of the mathematicians notions. Contrary to Atherton, then, my understanding of Berkeley's argument here takes him to be making a stand against the theoretical notions of the mathematicians, and recognizing that they are just that: they are hypotheses without any existence in nature. This is not, as Atherton claims, just a visual problem about what is representable by our visual systems. It is an ontological claim about what is there to represent.

While this argument, as I present it, seems simple, it is significant for the following reason. This attack on the existence of the entities themselves directly addresses Malebranche's account of how we perceive distance, something that Berkeley's first argument failed to do. As we have seen in chapter 2, according to Malebranche's account of seeing distance, the perceiver's mind does not make the

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30 See Gary Thrane's discussion of Berkeley's rejection of the notion of absolute space and the standard interpretation of geometry in "The Spaces of Berkeley's world" in Berkeley Critical and Interpretive Essays.

31 PC, 342. See also PC 337, 925.

32 PC 355, 925. Here his targets mentioned in the Philosophical Commentaries are Pardies (1655), and the Hobbes and Willis debate.
inferences. Instead it is God who makes the inferences (or inference). Consequently, the first argument fails to address Malebranche for it is directed toward an account where the mind is supposed to make the calculations. This second argument, however, targets the existence of the means, and thereby targets the means by which God lets us perceive. If these means are merely mortals' hypotheses, then they aren't the means that God uses.33

There is something that Berkeley concedes later in the NTV that one might take to challenge my interpretation of this argument, and help support Atherton's. I have claimed that Berkeley is denying the existence of such entities in nature. And yet later in the NTV he acknowledges that they may be used to correctly predict apparent distance:

Hence also it appears there may be good use of computation, by lines and angles, in optics; not that the mind judges of distance

33G. J. Warnock takes Berkeley to be making a claim about theoretical entities but one that supports an instrumentalist reading of talk about light corpuscles. Instead of corpuscles, I understand Berkeley to be rejecting the theoretical entities of the mathematicians, namely lines and angles. It is the light rays that cause the confused ideas which are the ideas by which we perceive distance. I agree then with Atherton and Brook that Warnock is mistaken in taking Berkeley to be presenting an instrumentalist reading of talk of light corpuscles. However, unlike Atherton, I do see him as offering a claim about our talk about mathematical entities. See G.J. Warnock, Berkeley. (London: Penguin, 1953): 202-3.

Armstrong interprets Berkeley's denial that the angle and lines have real existence to mean that there are no "physical strings or wires connecting our eyes to the object on which they are focused." But, claims Armstrong, we should be able to judge of the angles of our eyes even without such strings (Armstrong, 20.) It is not obvious, however, that this is an accurate interpretation of Berkeley's second argument. He does think, in the NTV at least, that distance is a line of tangible points and thus is in some sense physical. What I take him to be denying is the kind of lines and angles that are posited by e.g. Malebranche, namely those abstract ideas in God that are the objects of our knowledge about geometry. See NTV 122-24.
immediately by them, but because it judges by somewhat which is connected with them, and to the determination whereof they may be subservient...it follows that a man may make use of the divergence of the rays in computing the apparent distance, though not for its own sake, yet on account of the confusion with which it is connected. *NTV* 38

One might interpret Berkeley as endorsing the existence of lines and angles when he claims that the confused ideas are "connected with them". If so, Berkeley would simply be denying that such lines are registered by the sensory system. And this would support Atherton's point spelled out above.

However there are two points that are important to make in response to this. First, Berkeley is, I think, speaking loosely here when he takes the actual lines and angles to be connected to the ideas of confused vision. What is connected is the actual effect of the light rays, which are represented by the drawings of the mathematicians which contain angles and lines. Berkeley himself sometimes slips from talk about the representation of the light rays, which is what our geometrical talk is really about, to the actual light rays themselves.

But second, even when Berkeley allows for the relevance of the objects of geometry, he is not thereby endorsing the entities that he is rejecting in this argument against Malebranche. In his works prior to the *NTV*, and within the work itself, Berkeley rejects the mathematicians view of space, lines and their infinite divisibility. As Berkeley will claim later in the *NTV*, distance is a line of "tangible" points, and this is the object of geometry (*NTV* 158).

What leads Atherton to interpret Berkeley in the way that she does is Berkeley's argument in *NTV* 2 which does appeal to the retina. Taking this to be a

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*NTV* 74 expresses the same thought, and is the passage to which Berkeley refers when he discusses the subject in *TVV*. 

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part of his "theory of vision" (although not the psychological part) Atherton interprets Berkeley as significantly concerned with the visual system. However, while he is concerned with the visual system, Berkeley's concerns, even as early as *NTV* 14, go beyond the psychological explanation of the mind's visual cues. Berkeley is already well aware of, and concerned with the ontological questions that are relevant to the 3 goals that he outlined at the beginning of the work. While he does not present an argument against Malebranchean ideas in *NTV* 14, he will do so later in the *NTV* when he attacks abstract ideas, and answers his question concerning the issue of ideas common to both senses (*NTV* 122-24).

So, Berkeley's acknowledgment of the computational use of lines and angles presents no conflict with my interpretation of his second argument. 35

In the first argument I claimed that Berkeley argued against the plausibility of the means by which we perceive being angles and lines of the geometrical account. However, the last argument not only precludes the perceiver from being able to perceive them, but also attacks the Malebranchean position that they are the means by which God allows us to perceive. This third argument, moreover, provides Berkeley with evidence that he is correct in citing the means that he has.

35 Nancy Maull has argued that Berkeley did not appreciate the fact that Descartes was attempting to show, by means of the natural geometry, how geometry was applicable to both the contents of perception and the external world. "Cartesian Optics and the Geometrization of Nature." But Berkeley was quite aware of this as is evidenced by what he says in *NTV* 14. It is at least as plausible to think that he was well aware of the motivations of the mathematicians, with whom he had no sympathy.
III

**Berkeley's Third Argument**

The final argument against the optical account is an attack on the theory's explanatory success. In all three cases of size, distance and situation perception Berkeley appeals to visual illusions as test cases for his theory as well as his opponents'. In the case of seeing distance, Berkeley appeals to the Barrow illusion to show that even if it were possible for the mind to perceive the angles and lines, and that they were real existences, "these principles would not be found sufficient to explain the phenomena of distance" (*NTV* 15).

The goal of this case examined by Barrow is to predict the apparent distance of the image created from placing the eye between an object and a mirror in which the rays from the object are reflected, thereby hitting the eye. According to the optical account, the less that the rays diverge, the farther the object is judged to be, and the more they diverge, the closer it appears. What Barrow found, however, was that when the eye was pulled away from the mirror (when the divergence of the rays decreases) the object continued to appear closer, rather than farther off. The optical account, then, failed to predict the appropriate visual distance phenomenon in this case.36

What is produced in this case is a fuzziness which increases as the eye moves from the mirror. Berkeley's theory, which appeals to the correlation between increasing fuzziness and decreasing distance, claims that his theory successfully

predicts the outcome of this experiment, for we do judge the object to get nearer.
Consequently, his account is further supported by such empirical considerations.37

Berkeley, at this point, thinks that he has shown that the mathematicians' account of seeing distance fails to accurately predict the phenomena of visual experience, and thus it is not by means of the divergence of lines that the mind sees distance. Following the three arguments against the mathematicians account of seeing distance, Berkeley moves on to consider the Molyneux question, claiming that the blind man could not identify distance by sight before he had the opportunity to compare the ideas of the different senses. While Berkeley does write as if the fall of the mathematicians' account showed that the Molyneux Man38 could not justifiably visually recognize distance, he then proceeds to offer his account of seeing distance and spell out the details of the heterogeneity thesis which is the core support for his answer to the Molyneux problem.

Berkeley's criticism of the mathematicians' account, namely that it fails to account for the phenomena above (the "locus apparens" to use Molyneux's terms) is accurate. And while Berkeley's account fails to accurately account for some of the problem cases (like the moon illusion) these are, just that, "problem cases". At the time, then, Berkeley's theory proved no more problematic scientifically, than Descartes'.

37 Turbayne points out that Berkeley's theory which appeals to confusion in this case as the distance cue doesn't work, for a purblind person still sees the object as the normal perceiver does: nearer. (Turbayne, Myth of Metaphor, 181). What this means is that there is another cue to which both are appealing. Having to make this correction, however, does not help the optical account.
38 This name has been coined by P. Cummins in "On the Status of Visuals in Berkeley's New Theory of Vision" in Essays on the Philosophy of George Berkeley.
It is not my concern to evaluate the scientific worth of Berkeley's account. In this chapter I have been primarily concerned with the extent to which Berkeley accurately characterized his opponents, and the extent to which his arguments were successful. His argument against Descartes, with some supplementation, seemed quite effective, given the principles that Descartes adhered to. His argument against Malebranche was, in fact, more of a statement, whose defense would be provided in the later sections of the *NTV*. What is of interest here, however, is that while Berkeley is, in the first several sections concerned with the mere (causal) explanation of how the mind perceives, he already appeals to the conclusions of arguments that he will later provide. That is, while Berkeley is concerned with the question concerning how we come to (learn to) perceive distance as perceivers, in arguing for his view and against Malebranche, he already anticipates an answer to the third question, namely that there is no idea common to both senses. But his reasons for rejecting this view will not be offered until *NTV* 48 and again, more fully at *NTV* 121 and the passages following this. The answers to the three questions that he poses at the beginning of the *NTV* are intimately connected, and his rejection of the mathematicians' account of the manner in which we perceive spatial qualities anticipate his answers to the questions concerning the spatial qualities themselves. In the following chapter I will examine Berkeley's positive account of distance perception and, more importantly for this project, his account of suggestion which is a key feature of his account of sense perception.
CHAPTER IV

BERKELEY'S ACCOUNT OF DISTANCE PERCEPTION

In the last chapter I examined Berkeley's three arguments against the mathematicians. I claimed that Berkeley's arguments illustrated a sensitivity to differences existing between Descarte's and Malebranche's accounts of distance perception, and that his arguments reflected this difference. Furthermore, I claimed that his argument to the effect that the angles and lines of the mathematicians did not exist in rerum natura was not, as Margaret Atherton suggested, an argument concerning the visual system, but involved a metaphysical claim against Malebranche's view of ideas. This attack on Malebranche, I argued, relied on Berkeley's claim that the entities of the mathematicians are not real entities, but mere hypotheses brought in to treat of vision geometrically. Berkeley's complaint is twofold: these are not the kind of entities with which to explain the mind's vision, nor are these the kinds of entities that are the objects of perception.

Berkeley addresses the first point when he says in the *Theory of Vision Vindicated and Explained*:

To explain how the mind or soul of man simply sees is one thing, and belongs to philosophy. To consider particles as moving in certain lines, rays of light as refracted, or reflected, or crossing,

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1 *Works*, vol. 1, 1948 (hereafter *TVV*)
or including angles, is quite another thing, and appertains to geometry. To account for the sense of vision by the mechanism of the eye is a third thing, which appertains to anatomy and experiments. ... the former theory is that which makes us understand the true nature of vision, considered as a faculty of the soul (TVV 43).

The complaint expressed here primarily concerns the proper causal explanation of how the mind perceives. Explaining (causally) how the mind perceives (one he takes to also be a philosophical concern), ought not to appeal to the mechanisms of the eyes or the geometrical properties of the behavior of light. But immediately preceding this passage Berkeley presents the problem that, he claims, puts his theory of vision on a "new foot and in a different light from all preceding theories", namely:

But how comes it to pass that we apprehend by the ideas of sight certain other ideas which neither resemble them, nor cause them, nor are caused by them, nor have any necessary connection with them? (TVV 42)

Berkeley's theory of vision encompasses more than the psychological questions, it concerns the nature of the objects perceived. And, it is not surprising that in discovering (or offering) a new view of the objects of perception Berkeley produces a different account of the causal mechanisms and, more importantly, the nature of perception itself. For as I have tried to show in the discussion of Malebranche and Descartes, their views about the nature of the object perceived were reflected in the accounts of perception that they offered. Both Descartes and Malebranche appealed to a non-sensory judgment in their accounts of spatial perception given that the means by which distance (and other spatial properties) of objects were to be characterized in terms of geometrical principles and quantitative information. While Malebranche, in offering his account of natural judgments, attempted to capture the sense in which spatial qualities of existing objects were perceived by sense, he still
maintained a non-sensory component in perception that was of the same kind as the awareness in a more cognitively charged kind of perception.

*The Essay Towards a New Theory of Vision* attempts to offer a true account of vision as defined by Berkeley above. Such an account involves two related projects, both of which provide alternative positions to those of Malebranche and Descartes. The first project involves the goal of providing the proper causal explanation, namely to determine "the manner" wherein the mind perceives spatial qualities. This includes not only his alternative view about the kind of visual cues that allow us to see distance, but also his novel claim that contributed significantly to the history of psychology, namely that we need to learn to see distance. The second project concerns the object or "content" of this perception, also stated in *NTV* I, which is to determine whether there be any idea (or quality) common to both senses. This project is of philosophical concern for it requires an account of what constitutes the perception of an object as well as some assumption about the object perceived. His answer to this question concerning the existence of a quality common to both senses is negative, and leads to his view that vision is the language of the Author of nature. That Berkeley sees the two projects as intimately connected is evidenced by the following description taken from his notebooks:

> My end is not to deliver Metaphysiques altogether in a General Scholastique way but in some measure to accommodate them to the Sciences, and shew how they may be usefull in Optiques, Geometry &c. (PC 207).

It will not be surprising, then, to find answers to metaphysical questions influencing his psychological account of seeing distance.
The goal of this chapter is to examine Berkeley's account of the manner in which we perceive distance, and determine in what ways Berkeley's account differs from his opponents. This will lay the groundwork for a more general account of his view of perception and more specifically, his notion of suggestion. I will begin by turning to his description of the problem at NTV 2, where Berkeley offers what appears to be an argument for why distance is not immediately perceived.

The Physiological Argument and the Immediate Perception of Distance

Berkeley begins his discussion in the NTV with the claim that "It is, I think, agreed by all that distance, of itself and immediately, cannot be seen" (NTV 2) while offering the following argument for why this is so:

For, distance being a line directed endwise to the eye, it projects only one point in the fund of the eye, which point remains invariably the same whether the distance be longer or shorter (NTV 2).

There is, however, significant disagreement among commentators concerning to Berkeley's understanding of the argument and to what extent he endorses the premises. I argued in chapter 3 that while there were no signs of Descartes and Malebranche accepting his reasons for not immediately perceiving distance it was still most likely that they accepted the conclusion. And since it is reasonable to

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2 Armstrong writes "This view that distance is not immediately perceived, and this argument for it, he simply takes over uncritically from current optical theory" (Armstrong, Berkeley's Theory of Vision, 9). See also Gary Thrane's "Berkeley's 'Proper Object of vision'" and Donagan's "Berkeley's Theory of Immediate Objects of Vision" in Studies in Perception; and M. Atherton, Berkeley's Revolution, all of whom claim that Berkeley endorses this argument. Atherton qualifies this, however, claiming that he didn't need to.
interpret the scope of the phrase "it is agreed by all" to pertain to only the conclusion, one understanding of the NTV 2 is that Berkeley offers his own argument for a claim that he shares with his opponents.

But in taking Berkeley to endorse this argument, and interpreting the argument at face value, one must address two problems that have been raised by commentators. First, the argument appeals to what is present or not present on the retinal image to determine what is immediately perceived. This suggests that what is immediately perceived is the fund of the eye, which, according to D. Armstrong, lands Berkeley in a viscous regress.³ Second, endorsing this kind of argument for what is immediately seen has been claimed to conflict with other methodological principles that Berkeley endorses.⁴

One option, given these problems, is to interpret this argument as appealing to introspection of what is presented to the mind, rather than appealing to the anatomy of the eye.⁵ On this interpretation of NTV 2, Berkeley's argument is that distance, because it is a series of visual points from the object to the perceiver, is not presented to the mind because the perceiver is simply not in a position to see these points. Only a third person could see those because she can only immediately see distance from things that are beside each other and in front of the perceiver. There is some merit to this interpretation, especially given the fact that later in NTV 112,

⁴ See Alan Donagan, "Berkeley's Theory of Immediate Object," 323.
Berkeley admits that there are two kinds of "distances" in virtue of there being two kinds of points comprising distance: visible and tangible points. The problem with this as an interpretation of the argument in NTV 2, however, is that it simply misses the appeal to the "fund of the eye". This argument in NTV 2 clearly refers to the anatomical facts about the eye, claiming a relation between those facts and immediate perception. Any attempt to interpret it merely as a relying on visual points and introspection fails to do justice to the text.

Gary Thrane, recognizing that this argument at NTV 2 is, at least in part, physiological, offers an information-theoretic interpretation of the argument. According to Thrane, what we see is the light pattern that the retina is capable of registering, and not the retina itself:

Berkeley's argument, reformulated, goes like this: strictly speaking, all that could be immediately seen are those features of the optical stimulus to which the photo-sensitive surface (the retina) is sensitive. The retina is sensitive to a bidimensional array of colors and to the intensity and hue of those colors, but the retina is sensitive to nothing else.

What is immediately perceived, then, is a bidimensional array of colors and intensity and hue of those colors. Thrane claims that there are certain benefits to interpreting the argument in this way. First, it interprets NTV 2 as a physiological argument and not purely phenomenological, which adheres more closely to the text.

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6 This argument is adopted by Donagan in "Berkeley's Theory of Immediate Objects of Vision" from Gary Thrane's account in "Seeing: a Modern Assessment of Berkeley's Theory of Vision". Atherton also claims that this is Berkeley's argument, but claims that Berkeley, although he did endorse it, need not have (Atherton, Berkeley's Revolution, 69).
Second, it explains how the perceptual puzzle gets generated. From pure introspection, claims Thrane, we do see objects as distant and we would never begin to doubt this. Finally, it attempts to avoid the criticism that we must see the retinal image by claiming that we see the stimulus by means of the "photosensitive surface" which "just is the fund of the eye."

Alan Donagan, however, in attributing this physiological argument to Berkeley has raised the following objection. Donagan claims that a direct conflict arises between Berkeley's methodological principles expressed in the *Theory of Vision Vindicated* and his endorsing such a physiological argument for what is and is not immediately perceived. In the *TVV* Berkeley writes:

> To explain how the mind or soul of a man simply sees is one thing, and belongs to philosophy. To consider particles as moving in certain lines, rays of light as refracted... is quite another thing and appertains to geometry... (TVV 42).

Donagan claims that "Berkeley would have denied that a "philosopher" might legitimately seek whatever indirect help optics, anatomy and physiology may

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7 Thrane thinks that an argument based merely on introspection could never generate the puzzle of why distance is not immediately seen. Objects just do look to be distant, according to Thrane. Berkeley would agree with Thrane about how things look (after all, he admits in the *Principles* that the aim of the *NTV* is to show how we don't see what we often think we see), but it is not clear that Berkeley didn't think that introspection, together with some further philosophical reasoning couldn't generate the puzzle. His appeal to language, and what we mean by saying something is at a distance seems to be evidence for the fact that he thinks we might generate the puzzle without depending on the physiological argument. See *NTV* 44-45

8 Thrane, 255.
furnish" in justifying what is and is not immediately seen. And thus "by his own methodological principles he ought not to have offered it".9

Citing this passage, however, does not undermine a physiological interpretation of Berkeley's argument. In the passage cited by Donagan, Berkeley is concerned about the proper causal explanation for how the mind perceives, and not about what is perceived. An adequate account of perception must show "how the soul sees" which the geometrical account fails to do because it is really merely appealing to causes and disguising them as entities belonging to the mind. But this physiological argument is an argument defending the initial materials that are available to the mind, and the proper causal explanation is yet to come.

While this is not the only argument that Berkeley offers for the objects of our perception (in fact, he may not even think it is the most important) Berkeley is, to an extent, submersed in the physiology of sight, for his visual cues do correspond to the physiological cues from which the geometers derive their explanations. Moreover, Berkeley shows signs in the NTV of wanting to accommodate the data from optical experiments (NTV 15), and thus there is no reason not to think that Berkeley might appeal to generalizations about what is and is not immediately seen and what is projected on the retina. So Thrane's interpretation is not threatened by this challenge.

9 Donagan, 322. A similar kind of argument is raised by Brooks in Berkeley's Philosophy of Science, (The Hague: Martinus Nijhoff, 1973). Brook suggests that Berkeley illicitly appeals to objects at a distance, only later to reject this. But, as Atherton points out, Berkeley's overall theory does not depend on the argument at NTV 2, for he offers other arguments later in the NTV for the claim that we do not immediately see distance.
There is one last objection to Berkeley's argument at *NTV* 2 which is relevant for understanding Berkeley's view of distance perception. George Pitcher has argued that Berkeley's conclusion that distance is not immediately perceived is unwarranted because Berkeley fails to take into account stereoscopic vision. According to Pitcher, had Berkeley relied on the behavior of two rather than simply one retinal image, he might not have arrived at the mistaken conclusion.\(^\text{10}\) While Pitcher is right to point out that Berkeley's argument depends on information at one eye more than likely this would not have concerned Berkeley, for he offers other arguments for his conclusion. But, more importantly, appealing to stereoscopic vision does not yield the claim that distance \textit{is} immediately perceived, only that things appear in a bulgy-looking way. And things appearing in a "bulgy-looking way" does not show that three-dimensional distance is immediately perceived by sight.\(^\text{11}\)

There is one feature of the argument that Thrane does not explicitly consider in his argument, but which is worthwhile addressing at this point. If Berkeley endorses *NTV* 2, then he is also endorsing the claim that "distance is a line directed endwise" to the eye. On one interpretation of *NTV* 2, Berkeley was referring to a \textit{visual} sense of distance. But, we can equally interpret the argument to appeal to Berkeley's account of tactile distance. At *NTV* 112 Berkeley writes:

> by distance between any two points nothing more is meant than the number of intermediate points: if the given points are visible the distance between them is marked out by the number of the

\(^{10}\) G. Pitcher, \textit{Berkeley}, 22.

\(^{11}\) See Donagan "Berkeley's Theory of Immediate Objects" and Atherton, \textit{Berkeley's Revolution}, for a similar point.
interjacent visible points: if they are tangible, the distance between them is a line consisting of tangible points... (NTV 112).

Very likely, as early as NTV 2, Berkeley's understanding of three dimensional distance (distance between bodies in three-dimensional space) was simply a length comprised of tangible points. The more points, the greater the distance. And so it is tempting to see Berkeley as appealing to this definition of distance to support his claim in NTV 2: different distances could not be registered on the retina because only one point of the tangible line is ever registered on a retina.

The problem with interpreting the argument in this way is that it commits Berkeley to a view of distance that his opponents most likely did not share. And yet Berkeley claims in this argument that "it is agreed by all" that distance is not immediately seen. Even if we confine the scope of this phrase to the claim about distance being immediately seen, his use of "distance" must be the same throughout the argument, and thus he must appeal to a common use of the term. Consequently, we ought to understand his claim about distance being a line as a neutral description of distance. All can agree on distance being a line in three-dimensional space, and further that it is a line constituted by points, without being committed to an analysis of the nature of those points. And, to use Thrane's interpretation, this line cannot be immediately seen because the retina is not sensitive to any such thing. Thrane's interpretation, then, seems to capture Berkeley's argument provided we add this account of distance to the reconstruction of the argument.

Of course, we now need to ask whether his opponents did endorse even this neutral or general account of distance. Molyneux clearly endorsed this account of distance, for it is this claim that is shared by both Molyneux's and Berkeley's
arguments concerning the immediate perception of distance.\textsuperscript{12} Further, while neither Descartes nor Malebranche provide explicit definitions of distance, they are working with the optical principles that later appear in Molyneux's work, and thus it is not surprising that Berkeley is correct in attributing this general sense of distance to his opponents.

We are now in a position to consider Berkeley's alternative account of how distance perception is to be explained, and, as importantly, his account of what is perceived when we perceive spatial qualities.

\textit{The Proper (Causal) Explanation of Seeing Distance}

I mentioned earlier that Berkeley's positive psychological or causal explanation of how the mind sees distance involves two new features. First, he appeals to different cues which are the means by which the perceiver sees distance. But second, he adds to his explanation a developmental component. As we will see, however, his position concerning the visual cues and distance perception plays a significant part in determining his developmental account of perception.

Berkeley offers three types of visual cues by means of which the perceiver sees distance: the muscular sensation from the turn of the eye as the perceiver focuses on the object; the confusion of the visual image together with the degree to which the visual image becomes more or less confused as the object comes closer to the perceiver or retreats; and thirdly, the sensation from the strain of the eye that results from the perceiver attempting to keep it in focus. So, for instance, as Berkeley writes in section 26 of the \textit{NTV}:

\textsuperscript{12} See Molyneux, \textit{New Dioptrics}, Prop XXXI, 113)
Thus, greater confusion having been constantly attended with nearer distance, no sooner is the former idea perceived, but it suggests the latter to our thoughts. And if it had been the ordinary course of Nature that the farther off an object were placed, the more confused it should appear, it is certain the very same perception that now makes us think an object approaches would then have made us to imagine it went farther off. That perception, abstracting from custom and experience, being equally fitted to produce the idea of great distance, or small distance, or no distance at all.

According to Berkeley, there is nothing in the visual cues themselves that would indicate or represent a greater or smaller distance to the perceiver. Of course, on Malebranche and Descartes' account, the angle alone would not yield the information about distance either. But, the principles involved in the geometrical model were not contingent generalizations but necessary truths. Leaving the perceiver aside for only a moment, we can say of the visual cues in Berkeley's account, that there is only a contingent connection between them and distance. In essence, Berkeley takes the model that both Descartes and Malebranche offered for perception of objects at a far distance, and applies it to distance perception, simpliciter.

Focusing on the mathematical model that both Descartes and Malebranche adhere to for perception of objects at near distances, Berkeley emphasizes that the process involved is not like an argument in mathematics with necessary connections between premise and conclusion, nor does it require the kind of mental judgment or level of awareness that such arguments seem to require:

What seems to have misled the writers of optics in this matter is that they imagine men judge of distance as they do of a conclusion in mathematics, betwixt which and the premises it is indeed absolutely requisite there be an apparent, necessary
connexion: but it is far otherwise in the sudden judgments men make of distance. We are not to think that brutes and children or even grown reasonable men, whenever they perceive an object to approach, or depart from them, do it by virtue of geometry and demonstration (NTV 24).

Of course we saw, in both Descartes' and Malebranche's accounts, that they did not require the perceiver to know that the cues were connected with distance. However, the process is, at least on Descartes' account, likened to what is performed by surveyors, it is just that we are not conscious of it. But Berkeley is attacking not simply the fact that we do not consciously do this. He is attacking the model itself and its ontological commitments and this is what I understand to be behind his claim that the mathematicians introduce the geometrical means by which one sees distance in order that they may treat vision in a geometrical way (NTV 14). In so far as he is attacking the model he is not misrepresenting their position.

In arguing about the lack of necessary connections between the means by which the perceiver sees, and the object seen, Berkeley is led to claim that the perceiver must learn to perceive the distance. That Berkeley draws the connection between contingent connections between ideas and learning on the part of the perceiver is evidenced by Berkeley's response to the Molyneux problem where the hypothetical blind man regains sight. According to Berkeley, the blind man, upon regaining his sight, "would, at first, have no idea of distance by sight; the sun and stars, the remotest objects as well as the nearer would all seem to be in his eye, or rather in his mind" (NTV 41). But, claims Berkeley

it is indeed otherwise upon the common supposition that men judge of distance by the angle of the optic axes, just as one in the dark, or a blind-man by the angle comprehended by two
sticks... For if this were true, it would follow that one blind from his birth being made to see, should stand in need of no new experience in order to perceive distance by sight (NTV 42).

Berkeley's reasoning seems to be that if there are necessary connections between the visual cues and the distance of the object, as there are between the angles, the geometrical principles and the length of distance, and the means are the same through sight and touch, then the newly sighted blind man needs no new experience to perceive distance by sight. And further, that contingent connections entail that the perceiver must learn or experience each of the connected parts bearing the contingent connections.

It should be apparent after considering the kinds of cues that Berkeley appeals to, that he has chosen visual cues that might be appropriately labeled the "mental analog" to the cues to which both Malebranche and Descartes appeal. For instance, instead of the actual angle of the eyes, Berkeley appeals to the sensation of the turning of the eyes as it focuses on the object. And again, instead of the degree of change in the actual lens in the eye as the object is brought into focus, Berkeley's visual cue is the sensation that accompanies the eye as it attempts to keep an object in focus. Berkeley, moreover, is aware that there is some sort of connection between the behavior of the eyes and the visual cues. Following his attempt to show that his account better accommodates the phenomena in the experiment raised by Dr. Barrow, Berkeley writes:

Hence also it doth appear there may be good use of computation by lines and angles in optics; not that the mind judgeth of distance immediately by them, but because it judgeth by somewhat which is connected with them, and to the determination whereof they may be subservient (NTV 38).
In other words, Berkeley recognizes a pragmatic reason for appealing to angles and lines in optics, but they are not the means by which the mind perceives (they have no role in any psychological or causal explanation of how we perceived), nor are they relevant for distance perception apart from the fact that they are connected with those visual cues that the mind does use in perceiving distance.

I have claimed that Berkeley rejects the accounts of perception that Malebranche and Descartes offer of near objects because he rejects that a) we make our judgments by means of lines and angles, and b) that there is a necessary connection between the visual cues and distance. However, if this is the only difference between the accounts, then Berkeley's contribution, although significant in itself, would only be to offer a different explanation of how this perception comes about. And in fact, the way in which Berkeley often presents his views might lead some to think that the nature of the perceptual event was the same despite the difference in the psychological story leading up to the event. First of all, as Berkeley seems to suggest in the *Principles*, he assumed that things at a distance did exist independently of the mind. Second, ideas (or sensations) are the objects that seem to be the things which are immediately perceived. As Berkeley writes, "I know evidently that distance is not perceived of itself. That by consequence it must be perceived by means of some other idea which is immediately perceived, and varies with the different degrees of distance." (*NTV* 18). Finally, throughout the *NTV* Berkeley writes as if distance is perceived by sight by means of a judgment:

The judgment we make of the distance of an object, viewed with both eyes, is entirely the result of experience. If we had not constantly found certain sensations arising from the various dispositions of the eyes, attended with certain degrees of
distance, we should never make those sudden judgments from them concerning the distance of objects. (NTV 20).

Based on this information alone, we could attribute to Berkeley an account of distance perception as follows:

Where \( v_1, v_2, \) and \( v_3 \) represent the visual cues that Berkeley cites, and \( O \) represents the objects that are independent and at a distance from the perceiver,

\[ S \text{ sees the distance of an object } O = \]
\[ a) \text{ An object } O \text{ is the cause of the event where } 
\]
\[ b) \text{ S immediately perceives a sensation idea (} v_1, v_2 \text{ or } v_3 \text{) and as a result, } 
\]
\[ c) \text{ S judges the object } O, \text{ to be at distance } D_1. \]

The perception, then, consists in a sensation together with a judgment concerning the distance, and the judgment is elicited as the result of the sensation in question having been "connected with different distances". And this account looks very much like the account (NSAP) of perception we formulated in our discussion of Descartes. However, Berkeley does introduce a new component to his account of

13 T.M. Lennon, in his "Representationalism, Judgment and Perception of Distance: Further to Yolton and McRae" attempts to show that the accounts of perception offered by Descartes, Malebranche and Berkeley are not as different as some commentators often believe. Lennon argues that the essential components of Descartes' account of distance perception is manifested in both Malebranche's and Berkeley's account, viz. involving a judgment that is a passive perception of independently established relations (Lennon,160). Lennon concludes that the issue between them is more an issue concerning scientific realism rather than representationalism in perception. While I agree with Lennon's conclusion, and also with his claim that there are similarities between the accounts, the similarities are there only in virtue of the broad level of description used to characterize their accounts of perception. I hope to show that once we spell out Berkeley's notion of suggestion, a difference in the objects of perception also results in a difference in the account of perception itself.
perception which, I shall argue, serves to distinguish his theory from the other
theories of perception. Moreover, while there can be no doubt that Berkeley does
offer a new psychological account of perception, his task in the New Theory of
Vision is also philosophical for he does think that there are significant ontological
differences connected to and presupposed by the different accounts of perception.

*Perceiving Distance*

Before turning to the notion of suggestion itself and its role in the perception
of distance I shall address two questions. First, when Berkeley claims that "distance
is suggested to the mind" does he mean that distance itself is suggested to the mind,
or the idea of distance? Second, how does distance get perceived (as opposed to
shape or solidity)? Answering both of these questions will help to elucidate what
occurs in the mind of the perceiver when he or she sees distance. Answering this
with respect to distance will help in formulating a more general account of
Berkeley's notion of suggestion.

I briefly addressed the first question in chapter 3 while examining Berkeley's
argument against the mathematicians. I argued that while Berkeley does at times
(and even within the same section - see NTV 16) interchange the terms in question,
it is more plausible given other things that he says, to interpret him as meaning that
the idea of distance is presented to the mind and thus suggested to it in sight.
Consider what Berkeley says in the following passage where he presents an example
that is supposed to help illustrate how things are mediately perceived:

> It is evident that when a mind perceives any idea, not
> immediately and of itself, it must be by the means of some other
> idea. Thus, for instance, the passions which are in the mind of
> another are of themselves to me invisible. I may nevertheless
perceive them by sight, though not immediately, yet by means of the colours they produce in the countenance. *NTV* 9

Here Berkeley seems to suggest that the objects of the mind’s perception, whether mediate (as in the case of the passions) or immediate (as in the case of the colors) are ideas. And yet, there is good reason to think that Berkeley is not yet an idealist about distance. For he tells us this the *Principles* in section 44, and also assumes, at least in the *NTV* 2, that distance is a line that projects a point on the retina.14. Given this, we can either understand his use of "ideas" to be more akin to Malebranche’s use, as the content of the perception. Or, we can interpret him as a representationalist such that ideas are immediately perceived and suggested to the mind (as the passions are) and these mind-dependent ideas represent objects independent of the mind. Unfortunately there are passages that support both the representationalist reading and the idealist reading in the NTV, and thus I believe that there is an unresolvable tension in the NTV concerning distance. The tension is created by the passages from the NTV together with what he claims in the *Principles*.

The support for the view that Berkeley is a representationalist in the *NTV*, at least with respect to the ideas of touch, is evidenced by what he says in *NTV* 44 and again in section 44 of the *Principles*. In the *Principles*, Berkeley describes what the vulgar error consists in with respect to vision: "the proper objects of sight neither

14 Of course his account of how we perceive distance by appealing to conditionals about sensations that we would experience does set him up for an idealist account. However, I take his introduction of "distances of time" (*Principles*, 44) to provide some support for the fact that he did not assume an idealism with respect to distance in the *New Theory of Vision*.
exist without the mind, nor are the images of external things, was shown even in that treatise [NTV]" (Principles, 44). Immediately following this Berkeley claims "though throughout the same the contrary be supposed true of tangible objects." Similarly, in NTV 44 Berkeley is offering an argument for why the objects of sight are a) not at a distance, but also b) why they are not "so much as the ideas or resemblances of things placed at a distance." Supposing the contrary of the objects of touch would be to assume that they are at a distance, or that the ideas by means of which we perceive them are resemblances of them. And this would seem to be the case with distance itself. That is, when Berkeley claims that the idea of distance is suggested to the mind, it would seem that, to assume the vulgar error with respect to distance just is to assume that these tactile ideas are resemblances of distance. This is in contrast with his later description of perceiving distance, offered in the Principles, where instead of sensations or ideas of distance being suggested to the mind when distance is perceived, distances of time are suggested to the mind. Such ideas are no longer of distance but constitute it. While it is not clear to what extent Berkeley’s (tactile) ideas of distance are resemblances of distance, they do seem to be ways (or sensations) of measuring the length between two objects. This lends support to the fact that it is some idea representing distance that is perceived. And finally, the fact that it is the idea of distance that is presented to the mind is even more plausible once we realize that ideas, according to Berkeley, are things "intromitted" by each sense. Objects and their distance are not intromitted by senses, but, the ways in which they are represented (their ideas) are. And thus, the objects that are immediately perceived by touch are ideas which are mind-dependent entities, and it is an idea of distance that is suggested to the mind when the perceiver sees distance.
There is no doubt that interpreting Berkeley as a representationalist concerning distance saddles him with an odd theory of perception. For instance, in seeing distance one has a visual idea and, at least on some occasions, will have a tactile idea, both of which represent distance. However if we consider the alternatives I believe it is clear that this account best accords with what Berkeley says in the texts mentioned above. One alternative is to interpret Berkeley as a direct realist, claiming that the visual and tactile ideas, while ideas of distance, are not themselves perceived, and having them just is perceiving distance. We could interpret the having of tactile and visual sensations as adverbial sensings or information transfer. The problem with this account is that while it does not saddle Berkeley with a double representationalist account of perception, it is not well supported by the texts. Berkeley, to my knowledge, never describes the perception of ideas as a sensing event. Ideas are objects not acts, and they are perceived.¹⁵ For this reason such an interpretation is not adequate.

The second alternative is to concede that Berkeley is an idealist about distance and that the bundles of ideas that are suggested to the mind by means of the visual cues, just constitute distance. And thus we immediately see distance by touch and mediately through vision. This account is very tempting for two reasons. We know that Berkeley was already an idealist before writing the New Theory of Vision. Second, when he talks about perceiving distance in the NTV, Berkeley appeals to

¹⁵ See for example Principles, where ideas of vision and touch are perceived. Even in those places (Dialogues) where Berkeley treats perceptions as sensations we ought not to assume that he is treating perceptions as unperceived sensings. Rather he treats perceptions as sensations to show that they are mind-dependent.
conditionals whereby the perceiver, upon having visual cues judges that "if I advance forward so many paces, I shall touch an object". But putting it in these terms suggests that an object being at a distance comes to nothing more but what is captured by these conditionals. And object being at a distance just is for such sensations to result of be capable of resulting given certain circumstances. Finally, this is precisely the account he will later give when he overtly espouses his idealism. But, there is a serious problem with this interpretation. In taking this view we must reject what Berkeley says in the Principles about accepting the vulgar error concerning distance. I do not know how to resolve these tensions, except to attribute to Berkeley a representational theory as described above, however flawed it might be.

The second question to answer concerns the nature of this idea of distance and how it is perceived. Distance, if we assume Berkeley commits the vulgar error, is something existing outside of the perceiver, and is perceived by ideas representing it. The idea of distance, however, is a tangible rather than visible idea which means that distance is properly perceived by touch. And, given that Berkeley claims that the idea of distance is suggested to the mind, it would seem that it is the idea, derived from or intromitted by the sense of touch, that is suggested to the mind when a perceiver sees distance. How it is suggested will concern us when we turn to the notion of suggestion. However, what is suggested (how we describe this idea) is still something that needs to be determined. Here again, Berkeley provides little detail concerning how distance is immediately perceived and, consequently, concerning which ideas are suggested to the mind. The most detailed account is in NTV 45 where Berkeley writes:
... and I believe whoever will look narrowly into his own thoughts and examine what he means by saying he sees this or that thing at a distance, will agree with me that what he sees only suggests to his understanding that after having passed a certain distance, to be measured by the motion of his body, which is perceivable by touch, he shall come to perceive such and such tangible ideas which have been usually connected with such and such visible ideas.

Given what Berkeley says here, we measure the distance by the motion of the body, and this motion of the body is perceived by touch. This description requires some clarification, however. By "the motion of the body" perceivable by touch, Berkeley most likely means the kinesthetic sensation that results from walking or moving one's body (or part of the body) from one place to another. But further, Berkeley adds to this those ideas resulting from touching the object, in addition to the kinesthetic motion from the body. Since the distance in question is a relative length between the perceiver and an object, the ideas involved must be the motion of the body as the perceiver moves towards the object, together with a further tactile idea when the object is reached. A similar attempt to capture the fact that the motion must be of a finite length is illustrated in Berkeley's description in the *Principles*. The difference here is that Berkeley no longer takes the sensation to be a measuring of the length, but requires a metric to be imposed on the sensation which is achieved by appealing to time:

So that in strict truth, ideas of sight, when we apprehend by them distance and things placed at a distance, do not suggest or mark out to us things actually existing at a distance, but only admonish us that ideas of touch will be imprinted in our minds at such and such distances of time, and in consequence of such and such actions (*Principles*, 44).
Given what Berkeley says in these two descriptions, there is no single idea that represents the distance of the object beyond our reach. Rather, what is immediately perceived by touch (and later involved in distance being suggested to the mind) is a particular bundle of ideas that might be characterized by the following description offered in *NTV* 45: if I advance forward so many paces or miles, I shall be affected with such and such ideas of touch.\(^\text{16}\) Perceiving distance, then, involves having certain bodily sensations that occur when the distance between two objects is traversed. As Berkeley says in the passage from the *NTV*, the perceiver measures the distance with the motion of the body. This is a primitive way to measure, but by offering such an account, Berkeley takes himself to be offering an account that captures how children and brutes, as well as adults, perceive distance (*NTV* 24). We learn to perceive the distance of objects as we walk towards them. And, given that Berkeley is providing a developmental account of how we perceive distance it is not implausible to think that he would grant other similar ways of perceiving distance, for instance by reaching for an object and grasping it, or grasping it and pulling it toward one.\(^\text{17}\)

\(^\text{16}\) In the case of the description offered in his later work, Berkeley adds the feature of time that acts as the measurement of the sensations.

\(^\text{17}\) It is important to keep in mind that this is a reconstruction both of what Berkeley claims in the text, but also of how this perception actually takes place. The perception of distance and the perception of objects at a distance while two different kinds of perception, nonetheless take place simultaneously. This is one further reason why Berkeley often talks about perceiving distance or objects at a distance in the same breath.
Berkeley's alternative account to the mathematicians', then, involves different visual cues as well as different ways of perceiving distance. Where both Malebranche and Descartes endorsed the view that distance was perceived in the same way through sight and touch, namely by means of angles and lines, Berkeley's account holds that we (immediately) perceive the idea of distance only by touch. Furthermore, when we do see distance, it is by means of three kinds of visual cues mentioned earlier, namely the strain from focusing on the object, the different degrees of bluriness in one's visual field, and the sensation from turning one's eyes on the object. Each of these visual cues co-varies, *ceteris paribus*, with an object being placed at a distance. And they also co-vary (again, *ceteris paribus*) with different degrees of sensations resulting from the motion of the body and ending with the appropriate tactile ideas from touching the object perceived. By having continually experienced these ideas that are "wont" to be connected, the perceiver, upon perceiving the visual cues comes to perceive the idea of distance (*NTV* 17).

While these are the sensations that one has when actually perceiving distance by touch, one need not actually have such sensations when seeing distance by sight. This is what Berkeley attempts to capture by characterizing the bundle of sensations by means of the conditional *if I advance so many paces... I shall experience such and such tactile sensations*. Or, in the case where one reaches for the object instead of traversing the distance, the bodily sensations that would be connected with the visual cues might be characterized by the conditional *if I reach out with my arm, I shall have such and such tactile sensations*. And thus, very roughly (I shall refine this account in the discussion that follows) seeing distance is constituted by the perceiver experiencing one or more of the visual cues above (that, as a matter of fact, are connected with the bundle of tactile sensations representing distance) and
thereby having the ideas of distance suggested to her mind. And such bundles of sensations are characterized by the conditionals of the sort described above.

There are, then, the following differences between this account of distance so far described, and those we saw in Descartes and Malebranche. First, the way that distance itself is perceived is different. That is, instead of a geometrical inference or calculation, the perceiver has a series of tactile sensations. Second, Berkeley thinks this allows children and animals as well as adults to perceive distance, and to perceive it in virtually the same way, because it is by means of sensations rather than judgments and inferences that distance is seen. Finally, the visual cues are different from those of the mathematicians' and the perceiver must experience the connected ideas in order for the one idea to suggest the other, thereby allowing for the perceiver to see distance.

With these two questions answered there is one more question that arises and will be addressed more fully in my discussion of suggestion. There are, in the above description of seeing distance, really two candidates for the idea of distance that is suggested to the mind. First, there is the bundle of sensations that might be suggested to the mind when the perceiver perceives the appropriate visual cue. Second, the conditional may also characterize a judgment or thought made by the perceiver. This would be a mental event different from the sensations themselves. That it is a judgment characterized by the conditional is plausible given that Berkeley himself writes: “having of a long time experienced certain ideas, perceivable by touch, as distance, tangible figure, and solidity, to have been connected with certain ideas of sight, I do upon perceiving these ideas of sight forthwith conclude what tangible ideas are...like to follow” (NTV 45).
There are several problems with an interpretation that attributes to Berkeley the view that suggestion involves a judgment on the part of the perceiver. In the following section I address this feature of distance perception by means of examining Berkeley’s notion of suggestion itself. I shall examine the problems with an account that appeals to judgment in sensation and show why it is preferable to adopt an alternative, non-judgmental account of suggestion.

Mediate Perception: Seeing Distance

In the preceding discussion I outlined the several dissimilarities between Berkeley’s accounts and his opponents’. However, if seeing distance involves a judgment on the part of the perceiver, then there is a significant feature of the perceptual event that all three authors share, for both Descartes and Malebranche, distance itself entered the visual perception by means of a judgment. Recall that Descartes claimed that spatial (or primary) qualities were exhibited to the mind in a different way from sensations (or secondary qualities). And this was manifested in Descartes’ account by an implicit reasoning which I characterized as an intellectual judgment. On Malebranche’s view, while he introduced the notion of natural judgments to accommodate the fact that perception of spatial qualities is passive, and in no way a part of our active will, he nonetheless characterizes this part of perception as an awareness of ideas, thus following Descartes in making spatial qualities be exhibited in perception in a different way from qualities of light and color. On both accounts, the perception was best understood as an intellectual judgment.

Berkeley too recognizes that distance enters vision in a different way than color perception. But the challenge before us is to determine how (in what form) is
the idea of distance to be presented to the mind when one mediately perceives it? Before turning to examine what I shall refer to as the Propositional account (one which interprets the idea that is involved in suggestion as a judgment) I shall begin with a rough sketch of what is involved in Berkeley's notion of suggestion.

Unlike his opponents who think that distance is perceived by means of angles, lines and geometrical inferences, Berkeley claims that sensations from the turn of the eye or the strain of the eye, in addition to degrees of confusion in the perception are the means by which distance is seen. Moreover, in contrast with Descartes and Malebranche, for Berkeley there are no necessary connections between the means and the final perceptual content, but only habitual and contingent connections:

Not that there is any natural or necessary connection between the sensation we perceive by the turn of the eyes and greater or lesser distance. But - because the mind has, by constant experience, found the different sensations corresponding to the different dispositions of the eyes to be attended each with a different degree of distance in the object - there has grown habitual or customary connection between those two sorts of ideas so that the mind no sooner perceives the sensation arising from the different turn it gives the eyes...but it withal perceives the different idea of distance which was wont to be connected with that sensation (NTV 17).

A key feature of the notion of suggestion is the fact that the different ideas are joined by habit rather than reason. This has the following consequences. First, the means by which we see are very different from the content of the final perception. This is in contrast with Descartes and Malebranche's accounts where the means, being "implicitly contained" in the perception, also contained the content of the perception. But second, by introducing habit, Berkeley not only introduces the
notion that distance perception is learned (something that initiated the
nativist/empirist debate in psychology) but also provides a significant shift in the
model of the mind. The role of reason is depreciated and habit and custom are the
mechanisms that figure predominantly into the mental life of the perceiver. With
this, the sharp dichotomy between the adult human perceiver and the "brute" as
perceiver is dissolved.

While more needs to be said about the perceptual event involving suggestion,
we can begin with the following initial sketch. Where y is the "suggesting idea" (the
visual cue in this case) and x is the suggested idea, and P the perceiver:

S1: x is suggested to the perceiver P, by y at time t consists in
i) y is immediately perceived at t
ii) there is a customary co-variance between ideas of type x and type y
iii) in virtue of i) and ii) y's being immediately perceived issues in x's being
presented to the mind of S.

Returning to the perception of distance according to S1, the sensation of, for
example, the movement of the eye must be immediately perceived at t, there must
already be a co-variance established between differences in y and differences in x
(the ideas of distance), thus resulting in distance being visually perceived.

As clause (iii) in S1 indicates, what is suggested (x) is in some way presented
to the mind. And yet we know that, unlike the "suggesting idea" (the cue), it is not
immediately seen at the time of the perceptual event. Understanding in what way
the idea in question is "presented" to the mind is the feature which distinguishes the
accounts that follow. Let me begin with the Propositional Account.

It is initially plausible, given Berkeley's expression "being presented to the
mind," to think of the idea that is presented as a sensation or image. After all, he
claims that it is by means of the motion of the body that one perceives distance. This
kinesthetic motion is much more like a sensation than, for example, a judgment.
Moreover, as I discussed above, the way things are perceived according to
Berkeley's view of the vulgar position is by way of resemblances (NTV 44).
However, I also claimed that the bundles of sensations above were characterized by
various conditionals, and that it was plausible to think that a judgment expressing
the conditional might in fact be the idea that is suggested in seeing distance. In
addition to Berkeley's description of the conditional in NTV 45, the examples that
he offers when he illustrates how his notion of suggestion contrasts with his
opponents, tend to support the view that some sort of judgment must be involved.
Berkeley's first example appeals to the relation between the color of a person's face
and the "hidden" passions, something that is not perceived by any sense. So, for
example, we perceive by sight the shame or fear in a person by means of the color of
her face which we do perceive immediately (NTV 9). Similarly, the sound of words
suggests to the mind the meaning of those words (NTV 20).

As a result, some commentators have been led to offer an account of
suggestion that I call the Propositional Account (PA, hereafter). There are two
related forms that this account may take. First, we can interpret suggestion as an
inference from the immediately perceived idea to a judgment involving the
suggested idea. So, for instance, from the sensation from the turn of the eyes we

18 The authors I have in mind are G. Pitcher in his book Berkeley, and G. Stack in his
Donagan also suggests that Berkeley might hold such a view, although Donagan
does not say enough to attribute this interpretation to him.
infer, by an act of the understanding, that an object is at a near/far distance. 19

Second, we can eliminate any reference to inference per se, and merely present suggestion as issuing in a judgment that the object is near or far. Thus, according to Pitcher, if we see the heat in a red hot poker, while we immediately perceive the redness, the heat is suggested to the mind in the sense that "we perceive that it is hot". In either formulation of PA, to say that the idea of distance is suggested to the mind is not to say that another sensible idea is presented to the mind, but rather that the mind makes a judgment about what was immediately perceived by touch. PA would require that we modify S1 above as follows:

S2: x is suggested to the perceiver P, by y at t =
   i) y is immediately perceived at t
   ii) there is a customary co-variance between ideas of type x and of type y
   iii) in virtue of i) and ii) S' judges that an object has x.

    In addition to Berkeley's examples there appears to be significant support for such a view in the NTV. Consider the following passages:

At NTV 66 Berkeley writes:

    Those ideas that now suggest to us the various magnitudes of external objects before we touch them might possibly have suggested no such thing...so that the very same ideas on the perception whereof we judge an object to be small might as well have served to makes us conclude it great (NTV 66; emphasis mine).

And at NTV 22 he writes:

    this confused appearance of the object does therefore seem to be the medium whereby the mind judges of distances in those

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19 See G. Stack, "Berkeley's New Theory" for this formulation.
cases wherein the most approved writers of optics will have it judge by the different divergence... \((NTV \text{22; emphasis mine).}\)

It is therefore a manifest consequence from what has been demonstrated that instead of the greater or less divergency ... the mind makes use of the greater or lesser confusedness of appearance thereby to determine the apparent place of the object \((NTV \text{22; emphasis mine).}\)

In each of these passages Berkeley appeals to the mind "judging" or "concluding" and in others, ideas are presented "to the understanding," all of which tend to support PA. There are further examples of suggestion that Berkeley presents where what is presented to the mind is unlikely to be a sensible idea. For instance, truth, God and love are suggested:

Phyl. In reading a book, what I immediately perceive are the letters, but mediately, or by means of these, are suggested to my mind the notions of God, virtue, truth, &c ...

Hyl. No certainly, it were absurd to think God or virtue sensible things, though they may be signified and suggested to the mind by sensible marks...\((Three \text{ Dialogues between Hylas and Philonous, }1,174).\)

Finally, PA gains further support for it does a nice job of explaining how an idea, completely different from the proper objects of that sense modality, can be part of that perception. To see why this is an advantage we need only consider why an account which allows a sensible idea to be suggested may spell trouble for Berkeley. If we think of a sensible idea from a different sense modality being

\(\text{\textsuperscript{20}}\) Berkeley, \textit{Three Dialogues between Hylas and Philonous} in \textit{Works}, vol. 2; subsequent references will be to the \textit{Dialogues}, number of the Dialogue and pagination from \textit{Works}.\)
suggested and thereby entering vision, it is difficult too see how ideas, like the idea of distance, could seem to be "visually presented" to the mind along with color and light. Rather, to have a sensible idea suggested from another modality to the mind would be more akin to someone smelling a certain perfume, and as a result having an image of a lover recalled to the mind. It would be inadequate to have an account where seeing distance involves its being suggested to the mind in the way in which the lover's image is suggested simply because it gets the phenomenology wrong. The case of the perfume and the lover is too much like memory and, among other things, is phenomenologically different from perception. The advantage of PA is just this: thinking of suggestion in terms of a propositional awareness does allow for the idea of distance to at least seem visually presented. The idea of distance enters vision as a judgment so that something is added to the perception but in such a way so as to make it seem visually presented.

**Problems**

Despite the advantages of this account, there are problems with it. On one formulation of PA, suggestion presupposes an inference on the part of the perceiver. But this is the kind of event that Berkeley rejected when he rejected his opponents' accounts of distance perception. It seems odd that he would reject his opponents account for this reason only to then offer an account essentially involving this type of event.

But even if we settle for the second formulation which doesn't explicitly rely on an inference, there is still an *intellectual judgment* involved. This is problematic for the judgment, as formulated in PA, is propositional in kind and requires that the perceiver have the appropriate concepts and abilities to make the relevant
judgment. While this may be true in some cases where Berkeley has indicated that 
suggestion is at work (when the written word suggests truth) it is at least 
questionable in many other cases. This is particularly so in the case of perceiving 
distance, for Berkeley appeals to animals and small children as legitimate perceivers 
of objects and distance, and in fact relies on their perceiving distance in order to 
challenge his opponents (NTV 24).

But finally, and perhaps most telling against PA, is the passage from the 
Theory of Vision Vindicated and Explained where Berkeley explicitly rejects 
characterizing suggestion in terms of judgment, understanding and inferences.:

To perceive is one thing; to judge is another. So likewise to be 
suggested is one thing, and to be inferred another. Things are 
suggested and perceived by sense. We make judgments and 
inferences by the understanding (TVV 42).

This passage undercuts the plausibility of either formulation of PA, and since this 
later work is taken by Berkeley to be a commentary and clarification of his views in 
NTV it would be very difficult to accept any attempt to dismiss this passage. So, if 
suggestion is not to be associated with either judgments or inferences, or the 
understanding, it is a mistake to include, as PA does, an intellectual judgment or act 
as constitutive of suggestion.

That Berkeley seems to reject the role of reason and the understanding with 
respect to suggestion is further supported by a passage in the Dialogues where Hylas 
is attempting to show that something invisible can still be perceived. In response to 
Hylas's claim that he perceives Julius Caesar by means of a statue of Caesar when 
Caesar is not visible, Philonous argues that such thoughts of Caesar must come from 
reason and memory, rather than from sense. And yet, he offers this one exception:
Though I grant we may in one acceptation be said to perceive sensible things mediately by sense: that is, when from a frequently perceived connection, the immediate perception of ideas by one sense suggests to the mind others, perhaps belonging to another sense, which are wont to be connected with them. For instance when I hear a coach drive along the streets, immediately I perceive only the sound but from the experience I have had that such a sound is connected with a coach, I am said to hear a coach...the coach is not then properly perceived by sense but suggested from experience (Dialogues, 1, 204).

So likewise when we are said to see a red-hot bar of iron; the solidity and heat of the iron are not the objects of sight, but suggested to the imagination by the colour and figure, which are properly perceived by that sense.

That ideas are suggested to the imagination (rather than the understanding) is further supported by what Berkeley says in TVV:

Ideas which are observed to be connected with other ideas, come to be considered as signs by means whereof things not actually perceived by sense are signified or suggested to the imagination, whose objects they are, and which alone perceives them... (TVV 39).

The first thing to note is that Berkeley is explicitly rejecting the role of reason in mediately perception. The second feature to note is Berkeley’s appeal to the imagination. The mind does not "judge that" the bar is hot (as Pitcher’s account suggested), rather the qualities that are immediately perceived by touch are presented to the imagination. The imagination, unlike the understanding, has sensible qualities as its objects, rather than propositions or judgments. So, we can replace clause iii of PA by the following clause to yield S3:

S3 : x is suggested to the perceiver P, by y at t =
   i) y is immediately perceived at t
   ii) there is a customary co-variance between ideas of type x and of type y
   iii) in virtue of i and ii, upon perceiving y, x is presented to the imagination of P.
By focusing on the imagination it seems that Berkeley attempts to preserve the sensible characteristic of distance perception, and also eliminate the need for higher conceptual abilities in the perceiver. Brutes, children and adults alike can engage in this kind of perception.

But S3 won’t do as it stands. The problem is that while having an idea presented to the imagination captures the sensuous character of sense perception, it doesn’t capture the kind of sensible content that we need. By merely having the idea presented to the imagination, we come dangerously close to the problem illustrated by the perfume and the lover. That is, it presents distance perception more like a memory than a presentation of distance. In other words, the mental event of a memory need not carry with it the assumption that the object remembered exists, and, more importantly, is present to the perceiver. And yet, these two assumptions seem to be an essential component to sense perception. A second (related) problem lies in the fact that it doesn’t seem to capture the sense of anticipation that is crucial for Berkeley’s account. Consider, once again, Berkeley’s descriptions of what occurs in the event involving suggestions:

I do, upon perceiving these ideas of sight, forthwith conclude what tangible ideas are, by the wonted ordinary course of nature, like to follow.

... certain visible figure and color....determine me to think that if I advance forward so many paces...I shall be affected with such and such ideas of touch (NTV 45; emphasis mine).

Berkeley’s descriptions of the sensations that are suggested to the mind are conditionals describing the relation between the motion of the body and the other tactile sensations which, taken together, represent distance. But, the conditionals do not describe merely what the perceiver has experienced (what has happened
concerning those ideas). There is something more that Berkeley is struggling with in his description of the situation, something that is more obvious in the second of the two passages above. In the second formulation Berkeley changes from a mere description of a correlation between the two kinds of ideas, to a description of what the perceiver “shall” experience. With this description, I believe Berkeley is attempting to capture at least two things. First, there is a normative component involved in the description: not only have these ideas been correlated in the past, but given certain conditions a certain event will happen again. Second, it is a description that is not simply about types of events, but rather about particular token events or sensations. So, in psychological terms, instead of the perceiver thinking about what has happened in the past, or, about simply the connections that actually exist between tactile sensations of the sort (given certain circumstances) the perceiver applies these generalizations to the situation at hand and has the expectation that they will occur whenever the perceiver chooses to realize the other, related circumstances. I refer to this phenomenological feature of the situation as the “future-directedness” of the phenomenon at hand because it attempts to capture an important phenomenological (or introspective) feature of perception that is lacking in an account of memory or imagining per se. But we can talk about these two features in the following way. Instead of conditionals characterizing the sensations suggested to the mind, we ought to think of these conditionals as counterfactuals. In this way we capture the normativity that may be lacking in an account relying simply on conditionals. However, typically a counterfactual assumes that the action is not done, for instance, if I had advanced forward so many paces, I would have had certain other tactile sensations. But this is not quite right because it doesn’t capture the feature of perception, namely that the object is present to the perceiver and, that
the perceiver expects to have certain experiences in virtue of this. Instead, it must be something like a subjunctive conditional whereby we can say of the suggested idea that it captures the thought that "if I were to advance so many paces, I would experience certain tactile experiences." This way of characterizing what is suggested still allows for the perceiver to choose to bring about the required circumstances and expect to have the appropriate set of sensations.

Understanding what is involved in the event described by such conditionals, however, also shows why merely having ideas presented to the imagination following the visual cue will not capture the kind of event that Berkeley attempts to describe. Furthermore, it would seem that PA did a much better job of describing the mental event that is characterized by this kind of conditional for it is difficult to see how appealing to the imagination alone could capture an event describable in these terms. Rather, a judgment expressing those conditionals might seem the most plausible candidate for what is suggested to the mind.

George Stack, having recognized both problems attempts to amend this account by claiming that the imagination represents "possible perceptions" as well as sensory phenomena. Unfortunately Stack doesn’t explain what possible

21 "Imagination represents those sense-ideas which had been "originally perceived." Imagination bears a dependency relationship to sense-perception. The mental act of imagination has, in addition, the function of representing possible percepts in the process of mediate perception. That is, the sensory phenomena immediately perceived may be said to represent or signify those data which may possibly be perceived". See Stack, "Berkeley's New Theory," 126-27. Stack also includes as a component of suggestion the "recollection of the habitual experiences" between the sensation immediately perceived and the sensations or ideas mediatly perceived. While he is correct in suggesting that the connections must have some influence on the event or else we would not get the mediately perceived idea suggested, it is
perceptions amount to, and, more importantly, how imaginary or possible percepts differ from memory so as to capture the phenomenon that I have claimed is one that Berkeley shows signs of trying to capture. It is not uncommon to rely on the imagination to provide what I have described as the "future-directedness" of the perception, and yet more must be said about how the imagination can account for this.22 And so we still need a satisfactory account that will capture the future directedness that Berkeley requires. My account attempts to do just this.

The Non-Propositional Account

The account I propose, one which I shall call the Non-Propositional Account (NPA) is one which incorporates judgment as well as the imagination in the notion of suggestion. Some judgment takes place, (and must take place in order to avoid the above problem). But the judgment is not of the propositional sort. In fact, when we examine Berkeley's use of judgment in the NTV, he rarely, if ever, speaks of *judging that* an object is near or far. Rather he speaks of judging *of* distance. If we can treat the notion of "judging of distance" as structurally analogous to the perception of an misleading to think that the perceiver recollects these ties. For the perceiver may not be aware of them at all. That the suggestion takes place requires not a recollection of them, but an effect that such habitual experiences have had on the mind.

22 B. Belfrage also relies on the imagination as the faculty which perceives in the event of suggestion, but while he is correct in spotting the role of the imagination, it is not enough to account for the kind of perception that Berkeley himself describes in NTV 45. See Belfrage's "The Constructivism of Berkeley's New Theory of Vision" in Minds, Ideas, and Objects: *Essays on the Theory of Representation in Modern Philosophy* ed Phillip Cummins,161-180.
object we will be able to say that the former's being true of a percipient does not require the percipient to have any de dicto awareness of the object.

So, we need to spell out what kind of a judgment this might be. On this account, to judge of something (as opposed to judging that such and such is the case) one must have in place a set of appropriate expectations related to (at least) the idea that is suggested. 'The expectation is what makes this a quasi-judgment. However, vis-a-vis propositional judgments, it is relatively primitive in that it doesn't require any sophisticated conceptual apparatus.

The expectation itself is created from the experiences that Berkeley describes in his developmental account of perception. From constantly conjoined ideas the mind comes to have an expectation regarding certain kinds of ideas that might follow others. But while the past experiences are what is responsible for generating an expectation in the first place, we define the kind of expectation that it is by means of the ideas presented to the imagination.

Thus we have a very complex event on our hands. What constitutes the event of seeing distance according to the Non-Propositional account is that an expectation, cultivated by past experiences and defined by those ideas which are presented to the imagination, is elicited by the immediate perception of another idea. While each of the past experiences may occur separately from the sensation immediately perceived, there is no reason to think that the actual event of perception, for Berkeley, is something other than one complex event.

It is important to keep in mind that this type of expectation does not presuppose a battery of concepts on the part of the perceiver although our characterization of it may be quite sophisticated, just as Berkeley's appears to be in NTV 45:
Having of a long time experienced certain ideas perceivable by touch - as distance, tangible figure, and solidity - to have been connected with certain ideas of sight, I do, upon perceiving these ideas of sight, forthwith conclude what tangible ideas are, by the wonted ordinary course of nature, like to follow. Looking at an object, I perceive a certain visible figure and color...determine me to think that if I advance forward so many paces...I shall be affected with such and such ideas of touch (NTV 45).

Furthermore, the set of expectations need not be a closed set, and might change as the perceiver develops. So, instead of having expectations of the kinds of sensations I have from the movement of my body, I might also have expectations of how the visual colors and magnitude of objects will change.

One might object that the expectation is just a disguised inference, and thus we have gained very little over PA, after all. However, an expectation is, I believe, significantly different from an inference, and to characterize it as such is really to conflate two different types of mental events. Take, for instance, the following two cases. The first case involves a detective looking for an American in Paris. The detective spots a person, shabbily dressed in a sweatsuit and tennis shoes and moves to arrest the person as the American suspect. The second case involves a spouse who returns to her home and upon seeing her spouse lying on the couch, plants a kiss on his cheek only to find that it is deadly cold.

While our first case seems to involve an inference from the type of clothes to the judgment about the person's nationality, the second involves an expectation on the part of the woman concerning the health of her husband - an expectation which is thwarted by the temperature of his cheek. While inferences may contribute to expectations, and may even become expectations and may even be transformed into expectations they are not the same kind of event.
The advantages of this account are several. First, unlike PA, NPA allows that one can develop such expectations without having a significant repertoire of concepts. So this account allows for brutes and children to perceive distance without attributing to them any elaborate set of concepts and judgmental ability. Second, like PA, in allowing for expectation to play the key role in how the idea is "presented to the mind", we can accommodate the intuition that distance is presented to the perceiver and that we are not merely recalling past experiences, but rather, anticipating that they can occur again. We get a sense that distance is something there waiting, rather than something merely remembered. However, by defining the expectation in terms of the imagination we preserve Berkeley's attempt to retain the sensuous nature of mediate perception.

The third advantage to this account, and I have mentioned it above, is that it uses the tools that Berkeley employs throughout his writings. There are no necessary connections between perceptions and no judgments or inferences from one perception to another. Rather, there are expectations that are built up from experiences, and those expectations, triggered by sensible ideas, are characterized by a set of subjunctive conditionals characterizing those experiences.

We are now in a position to revise our account of suggestion such that:

That is not to say that we don't at times judge of distance. I think it is safe to say that in such instances we may be judging of remote distance. But here, Berkeley is explicit in the role of propositional judgment. This sort of judgment is much more along the lines of conscious inference, and estimation. And Berkeley employs such descriptions.
S4: x is suggested to (the perceiver) S by y at t =
   i) y is immediately perceived by S
   ii) there is a customary co-variance between ideas of type x and type y
   iii) in virtue of i and ii) y being perceived issues in an expectation (or set of
       expectations) defined by ideas of the kind x that are presented to the
       imagination at t.

S4 is intended to capture Berkeley's notion of suggestion as it figures in distance
perception. Thus x and y range over two sorts of ideas, the suggesting ideas will be
the visual cues that Berkeley offered at the beginning of the *NTV*, and the ideas
suggested may be a simple sensation from the arm being outstretched, or a bundle of
ideas formed from the motion of the body and the interaction with the object after
the perceiver reaches it. However, suggestion is the kind of event that characterizes
all mediate perception by the senses. The spatial qualities of the object, immediately
perceived by touch, are suggested by means of other ideas immediately perceived by
sense and vice versa. Moreover, while in dealing with distance perception I have
focused on the visual cues in that perception, there are other ideas that are
immediately perceived at the same time that distance is. For instance, while color
and light are part of some of the cues for distance perception (e.g. for the confusion
of the visual image), they are not essential to the actual straining of the eye. But
presumably, in attempting to see an object with our eyes, we will automatically have
before us an arrangement of color and light while we begin to learn to see distance.

So far, what I have said portrays suggestion as simply pertaining to simple
ideas, and clusters of ideas that pertain to actions. But Berkeley also writes as
though the idea that is suggested could be an entire physical object. Berkeley writes
in section 46 of the *NTV*:

   Sitting in my study I hear a coach drive along the street; I look
   through the casement and see it; I walk out and enter into it; thus
   common speech would incline one to think I hear, saw, and
touched the same thing, to wit, the coach. It is nevertheless certain the ideas intromitted by each sense are widely different and distinct from each other; but having been observed constantly to go together, they are spoken of as one and the same thing. By variation of the noise I perceive the different distance of the coach and know it approaches before I look out.

And again in the *Dialogues*:

For instance, when I hear a coach drive along the streets immediately I perceive only the sound; but from the experience I have had that such a sound is connected with a coach, I am said to hear the coach...the coach is not then properly perceived by sense, but suggested from experience (*Dialogues*, 1, 204).

These passages seem to indicate that what is suggested need not be confined to single ideas but physical objects can be suggested to the mind as well. But, in the next section I will argue that what Berkeley has in mind here need not commit him to an entire physical object being suggested to the mind. Rather the coach is suggested to the mind in virtue of the small number of ideas that are presented to the imagination.

*Suggestion and Signs*

I have offered an account which accords best with what Berkeley says both in the *NTV* and also in his later commentary on this work, one which presents perception of objects as essentially involving expectations whose content is determined by the objects of the imagination and not the intellect. However, I still must account for those passages where Berkeley appeals to suggestion and suggested ideas which do require some sophisticated reasoning and conceptual apparatus. Recall Berkeley’s claim that by means of the words on the paper, notions of God, truth and Virtue are suggested to the mind:
Phyl. In reading a book, what I immediately perceive are the letters, but mediately, or by means of these, are suggested to my mind the notions of God, virtue, truth, &c. ...

Hyl. No certainly, it were absurd to think God or virtue sensible things, though they may be signified and suggested to the mind by sensible marks.... (Dialogues, 1, 174).

What seems particularly difficult for my account is that the expectations are defined only by the ideas that must be presented to the imagination. And yet truth and virtue and God are not the kinds of ideas that could be presented to the imagination. One way to accommodate this apparent difficulty is simply to broaden one’s definition of suggestion to include this example. Being suggested to the mind on this definition, would either involve expectations defined in terms of sensory ideas, or it involves higher order concepts being presented to the intellect.

I am inclined to resist such a move, however for the simple but important reason that Berkeley seems very clear about disassociating suggestion with any intellectual or judgmental component. So, an alternative to broadening the definition of suggestion is to adopt the view that Berkeley has two notions of suggestion that he employs, one, a technical notion which is essential to his account of sense perception, the other a non-technical or loose use of the term. This general sense of the term is found in both Locke’s Essay and Hume’s Treatise where each author is simply describing the phenomenon of an idea being presented to the mind, without presupposing any particular analysis of what it is. So, in this instance

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24 See Locke’s Essay Concerning the Human Understanding Bk. 2, ch. 18, 7; Bk. 3, ch. 6, 43; Hume, Treatise Bk. 1 Part 4, ii.
where Berkeley loosely employs the term, the understanding is involved, but this kind of perception of ideas by the mind is not really perception at all.

There is another alternative, however, one that saves Berkeley from the apparent equivocation on 'suggestion'. Here we must turn to the central metaphor that Berkeley employs to describe his theory of vision: vision is the language of the author of nature (NTV 38). While this language metaphor describes the (contingent) connection between the immediately perceived idea and the idea suggested to the mind (the former being the sign of the latter), it also can apply to the relation that the suggested idea has to other ideas. In this case, there is a relation of cause/effect between God, and any one of the effects that results from God's willing my perception of an idea. As Berkeley suggests in Alciphron, "we assist the intellect by the imagination...we illustrate the spiritual by the corporeal..." such that we have corporeal symbols for that which is too various, too fleeting and too obscure" (Alciphron, 7 section 13, 305).

God, virtue and even truth, then, can be said to be suggested to the mind, even when only sensory objects are (actually) suggested. For the ideas that are (actually) suggested are, as a matter of fact, signs to illustrate these other notions and in that way aid the intellect. And, as Berkeley concedes in TVV 45 "But after some experience (the perceiver) would perceive their connection with tangible things and would, therefore, consider them as signs, and give them... the same names with the things signified". We can interpret Berkeley as doing so in this passage, where instead of God being suggested it is the sign of God that is, strictly speaking, suggested to the mind. And this is how we might describe how entire physical objects are suggested to the mind on Berkeley's account. While I do not wish to enter into a discussion of the nature of objects at this point, one understanding of the
nature of physical objects is that they are complex bundles or collections of ideas, not all of which are actually perceived by an individual human perceiver. We might also say the same of how they are suggested to the mind. On the one hand, we want to say that the object is suggested, just as Berkeley says God is suggested. But it is, strictly speaking, only an idea or small group of ideas - members of the collection of ideas comprising the object, that are actually suggested to the mind.25

In offering the Non-propositional account of suggestion I have tried to show that Berkeley employed a technical sense of "suggestion" which intentionally appeals to the imagination in contrast to judgment and inference. In doing this Berkeley attempts to carve a place for an account of sense perception that goes beyond mere sensation, but avoids any appeal to the intellect. He avoids appealing to the intellect, however, in two ways. First, he avoids appealing to a propositional awareness in sensory perception that presupposes a significant degree of conceptual ability on the part of the perceiver. But second, he also rejects any inferential process. While we saw in both Descartes and Malebranche their attempts to distinguish perception requiring a greater degree of conceptual knowledge (IPA and AR) from a more primitive sense of distance perception (NSAP and NSP), both still relied on a judgmental component.

Berkeley, in dissolving the dichotomy in the perception of physical object between reason and sensation, places adult perception on a continuum with human children and brutes, and also anticipates Hume's appeal to habit over reason.

25 See G. Pappas' discussion in "Berkeley and Immediate Perception" concerning how a physical object is immediately perceived, even if all of its members are not.
There are, however, some potential difficulties that I shall address in the
following chapter. I said earlier that there were two difficulties concerning the
immediate perception of distance. One concerned the fact that Berkeley's
description of immediately perceiving distance seemed to require a sophistication on
the part of the perceiver that conflicted with his view that children and brutes
perceived distance. This I attempted to remedy by spelling out the different kinds of
ideas representing distance that might be suggested to the mind, and that adults as
well as brutes could have in perceiving distance. The other problem, however, I left
untouched, namely that in Berkeley's explicit description of perceiving the distance
of objects beyond our reach, he required a compound idea comprised of the motion
of the body, together with an amount of time, or the sensation resulting from the
touching of the objects that were previously at that distance. Here, distance is
perceived by means of an act or activity by the perceiver, which, prima facie
conflicts with the notion of perception as a passive event. In the next chapter I
address two apparent conflicts between this account of suggestion and Berkeley's
general theory of the mind as both a transparent and passive entity. I shall argue that
while some apparent conflicts can be resolved, the apparatus that Berkeley attempts
to use is much too simplistic to accurately capture the phenomenon of perceiving
distance.
CHAPTER V

PASSIVITY IN PERCEPTION AND TRANSPARENCY OF MIND

In the last chapter I argued that we ought to reject an interpretation of Berkeley's account of suggestion as constituted by an inference or by an intellectual judgment. Instead, I offered an account whereby suggestion was constituted by ideas presented to the imagination in addition to an expectation on the part of the perceiver defined in terms of these ideas and cultivated by past experience. One of the advantages of this account is that, while preserving the sensuous feature of perception by appealing to the imagination, the expectation involved captures the 'future-directedness' of perception that Berkeley seems to attempt to capture.

There are, however, two significant challenges that have been raised concerning Berkeley's notion of suggestion, both concerning an alleged inconsistency between Berkeley's general theory of the mind, and this new notion of suggestion. The first alleged conflict arises between a principle endorsed by Berkeley, that the mind is transparent, and his notion of suggestion which supposedly involves hidden transitions in the mind. The second alleged conflict is between Berkeley's claim that the mind is passive in perception and his notion of suggestion which supposedly involves an act of the imagination. In what follows I shall examine what is typically meant by these general principles of the mind in
order to determine whether Berkeley held such principles, but also in order to
determine to what extent, if any, they conflict with his theory of suggestion. I shall
argue that Berkeley does hold a version of both of these principles but that he can
consistently hold these principles while maintaining the account of suggestion that I
have ascribed to him.

Transparency of Mind Thesis

One formulation of the objection that Berkeley's notion of suggestion
conflicts with his view that the mind is transparent is raised by George Pitcher. In his
discussion of Berkeley's account of perception Pitcher writes:

...in his explanation, he appeals, as we have seen, to a transition
in the mind (the transition, namely, from visible ideas to the
(tangible) ideas of distance) that is so swift and sudden as to be
'unperceived.' We must all agree that this transition, if it does
indeed take place, is 'unperceived' for we are certainly not
aware of it. But unfortunately Berkeley's conception of the mind
as a transparent medium does not permit him to posit any such
event, for according to that conception, it makes no sense to
speak of something's being, or occurring, in a person's mind if he
is not aware of it.¹

The two passages that Pitcher takes to illustrate the conflict are cited below.
The first passage involves Berkeley's description of his own account where he
describes suggestion as an "unperceived transition":

We cannot open our eyes but the ideas of distance, bodies and
tangible figures are suggested by them. So swift, and sudden, and

¹ Pitcher, Berkeley, 22.
unperceived is the transition from visible to tangible ideas that we can scarce forbear thinking them equally the immediate object of vision (NTV 145, emphasis mine)

According to Pitcher, Berkeley's appeal to a hidden transition is precisely the luxury that he does not afford his opponents which is illustrated in the passage below where Berkeley is attacking the mathematicians' account of distance perception:

But that this is not true I am convinced by my own experience; since I am not conscious that I make any such use of the perception I have by the turn of my eyes. And for me to make those judgments and draw those conclusions from it, without knowing that I do so, seems altogether incomprehensible (NTV 19).

Pitcher, as I understand his argument, interprets this passage as committing Berkeley to the conception of the mind such that "it makes no sense to speak of something's being, or occurring, in a person's mind if he is not aware of it". We can formulate this principle as follows:

**TM: For any entity, E, if E is in or occurs in S's mind, then S is aware of E.**

By endorsing TM, Berkeley is committed to the following inconsistency. Berkeley asserts in *NTV* 145 that a transition occurs in the mind of the perceiver, from a visible to a tangible idea, but that this event is one of which the perceiver is unaware. But here we have a counterexample to TM, a principle that Berkeley endorses in *NTV* 19. ²

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² See the discussion from Pitcher's quote above. Berkeley chides his opponents for seeking to explain our visual judgments of distance by appealing to things of which we are not in fact aware; thus he claims that to make judgments or draw conclusions
Pitcher's argument against Berkeley, however, is unconvincing. The claim that is closest to expressing TM is Berkeley's statement in *NTV* 19 that "for [him] to make those judgments and draw those conclusions from it, without knowing that I do so, seems altogether incomprehensible". However, while this statement suggests some introspective access to the perceiver's mental repertoire Berkeley does not say that *any* type of event must be perceived. In this particular argument he is addressing the *kind* of judgment and conclusions that the geometers ascribe to us, namely intellectual judgments and inferences. Given what Berkeley writes in *NTV* 19 we are only entitled to attribute to Berkeley the following principle:

**TM': If E is an inference or a judgment and E is in S's mind, then S must be aware of that inference when it occurs.**

It is not surprising, given Pitcher's account of suggestion discussed in the last chapter, that he would find the notion of suggestion to conflict with any formulation of TM. After all, according to Pitcher, suggestion does involve an intellectual judgment. However, formulating the transparency principle so that only inferences and judgments are events that are transparent to the perceiver relieves Berkeley from any charge of inconsistency provided that we attribute to him the Non-Propositional account of suggestion. For, on this interpretation suggestion involves neither an inference nor a judgment of the sort that is involved in his opponents accounts. Consequently, Berkeley can consistently endorse TM', use it in his attack of the geometers, while endorsing the Non-Propositional account of suggestion.

'without knowing that I do so, seems altogether incomprehensible'. But then he cannot, without inconsistency, allow himself the luxury of unperceived transitions in the mind.
There is another formulation of this objection, offered by Aaron Ben-Zeev in his paper "Re-examining Berkeley's Notion of Suggestion". According to Ben-Zeev "Berkeley admits that the process of suggestion is unperceived and if we remember his claim that "no idea which is not itself perceived can be...the means of perceiving other ideas" then we should doubt the existence of the process of suggestion too".

While Ben-Zeev is correct in citing this passage as illustrative of Berkeley's thesis about the transparency of the mind, it is a mistake to think that it conflicts with his account of suggestion. Consider the following passages that we examined in chapter 3 when we discussed his arguments against the geometers:

So that one idea or object of thought cannot produce, or make any alteration in another. To be satisfied of the truth of this, there is nothing else requisite but a bare observation of our ideas. For since they and every part of them exist only in the mind, it follows that there is nothing in them but what is perceived. (Principles 25; emphasis mine.)

It will perhaps be objected that the minimum visibile of a man doth really and in itself contain parts whereby it surpasses that of a mite, though they are not perceivable by the man. To which I answer, the minimum visible having (in like manner as all other the proper and immediate objects of sight) been shewn not to have any existence without the mind of him who sees it, it follows there cannot be any part of it that is not actually perceived, and therefore visible (NTV 81; emphasis mine).

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4 Ben Zeev, "Reexamining Berkeley," 23.
The principle expressed in these passages can be formulated as follows:

**SI:** If an idea, \( x \), is immediately perceived by \( S \) and has the non-relational characteristics \( P_1...P_n \), then \( S \) is aware of \( P_1...P_n \), and, if \( x \) has non-relational characteristics \( P_1...P_n \), and \( x \) is immediately perceived by \( S \) then \( S \) is aware of \( P_1...P_n \).

What are transparent to the mind, for Berkeley, are *ideas*, for they contain no features which are not immediately perceived. Berkeley is, in fact, quite careful when he discusses our knowledge of operations in the mind:

... but so far as I can see, the words will, soul, spirit, do not stand for different ideas, or in truth, for any idea at all, but for something which is very different from ideas, and, which being an agent cannot be like unto, or represented by, any idea whatsoever. Though it must be owned at the same time, that we have some notion of soul, spirit, and the operations of the mind, such as willing, loving, hating, in as much as we know or understand the meaning of those words (PHK 27)

While Berkeley only mentions the operations of willing, loving and hating, if we think of suggestion as some sort of operation of the mind, then it too will not be known and not be like an idea. Further, even though Berkeley claims that ideas that are not perceived cannot be the means by which other ideas are perceived, he can allow for unperceived operations that aren’t ideas to facilitate the perception. So, Berkeley’s attack on Descartes depends on a principle of transparency in the mind, but this principle of the mind is perfectly compatible with the Non-Propositional account of suggestion that I forwarded in the last chapter.  

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3 One might object that suggestion being a relational property, as I suggested that it was, is a feature of ideas and thus ought to be something of which the perceiver is aware. While an adequate discussion of Berkeley’s account of relations and how we
A Further Objection

We have seen that two attempts to capture the principle that Berkeley endorses concerning the transparency of mind (namely TM' and SI) are consistent with the view of suggestion I have offered. There is, however, another principle that Berkeley uses against his opponents, that might seem to be inconsistent with the notion of suggestion, a principle that we also examined in chapter 3 above. Consider what Berkeley says in the following passage from the Introduction to the Principles:

...so long as I confine my thoughts to my own ideas divested of words, I cannot be deceived in thinking I have an idea which I have not. It is not possible for me to imagine, that any of my own ideas are alike or unalike that are not truly so. To discern the agreements or disagreements there are between my ideas, to see what ideas are included in any compound idea and what not, there is nothing more than an attentive perception of what passes in my own understanding (Introduction to the Principles, 22).

Berkeley offers several formulations of the principle involving an incorrigibility on the part of the perceiver. His first claim is that he cannot be know them is not possible here, there is reason to believe that relational features of ideas are not something of which we are aware. One reason for thinking this depends on the fact that physical objects (which are collections of ideas) are immediately perceived by perceivers. If collections of objects are immediately seen, but we do not immediately see all of the ideas that are members of that collection, then there must be some relations of immediately perceived ideas, of which we are not aware. (Of course, Berkeley himself might not have been aware of the need for this qualification, but he at least isn't forced to hold it.) For a defense of this view that Berkeley does believe objects are immediately perceived, see Pappas, "Berkeley and Immediate Perception."
deceived in thinking he has an idea which he does not have. But following this, Berkeley develops this claim, offering a richer description of this principle. And further, that an attentive perception is needed in order to have this incorrigible access. From this we can formulate the troubling principle as follows:

**IT**: It's not possible that (S thinks (attentively) that x has/lacks P and it be false that x has/lacks P).

The apparent problem for Berkeley is that throughout his works Berkeley admits that we (mistakenly) think that distance is immediately seen. (After all, he calls the vulgar error and error and thus must make room for mistaken beliefs.) But according to **IT**, if we believe that distance is immediately seen then what we believe must be true, and thus we do immediately see distance and this conflicts with his claim that distance is only suggested to the mind in vision.

There is, however, a way out for Berkeley. First, while Berkeley does claim that we have access to the relational properties 'likeness' and 'unlikeness', he need only be committed to these relational properties, and further, these relational properties as applied to non-relational or intrinsic qualities, like the color of something. In doing so, he need not accept the challenge that we have incorrigible access concerning whether something is mediately or immediately perceived given that these are relational properties. But second, Berkeley does not say of any belief that it is incorrigible, but only those resulting from an attentive mind as I have discussed above. We can, then, arrive at a true belief about immediate perception but not "without obstinate striving and labour of the mind" (*MTV* 146). Berkeley believes that he will be able to convince those who hold the false belief about immediately seeing distance that this view is mistaken even though it is not.
something that is easily believed and is something about which an inattentive mind can be mistaken.⁶

With this part of the apparent inconsistency dissolved, we need to turn to the other potential conflict in Berkeley's principles.

**Passivity in Perception**

On several occasions Berkeley seems to endorse the claim that the mind is passive in sense perception. For example, in the *Philosophical Commentaries* Berkeley writes:

> Whatever has any of our ideas in it must perceive, it being that very having, that passive reception of ideas that denominates the mind perceiving. That being the very essence of perception, or that wherein perception consists (PC 301)⁷

This distinction between activity and passivity in perception is not a new distinction that Berkeley introduces. Locke⁸ often talks about the mind being passive in the reception of simple ideas, and commentators have characterized Descartes' second

⁶ It is also important to note that in changing our belief, the content of our perception does not necessarily change. That is, we do not, in changing a belief about the objects immediately perceived, always obtain the mental state where distance is not mediately seen. So, while we can talk about the blind man, Berkeley will admit that we can only approximate the experience of the blind man (NTV 92). We shall discuss this at greater length in what follows.

⁷ See Samuel Johnson's characterization of this claim in *Works* III 3, and Berkeley's response in *Works* IV 3, for one example of this.

⁸ See *Essay*, II xxii, 2; *Essay* IV xi, 5.
grade of sensory perception as a mental event where the mind is passive. Before determining whether the passivity principle succeeds in producing some trouble for Berkeley, we need to get a clear sense of what might be meant by the notion.

One way that the notion might be understood is in terms of the absence of any mental activity, as illustrated in the description below:

if one systematically strips away from a given perceptual act all the accretions due to past experience, all the collateral information, anticipations, interpretive and inferential elements, all the habitual or conditional associations, then one will be left with a "pure sensory core" - the given of sense experience...

We might formulate this interpretation of the passivity principle as follows:

PM: S's sense perception of x is passive iff i) S perceives x by sense, and ii) it's not the case that (S's perceiving x is constituted by a judgment, inference, belief or anticipation on the part of S) and iii) it's not the case that (S's perception of x occurs as a result of past experiences)

Descartes' second grade of perception certainly meets i-iii of PM, and thus would count as passive perception. However, on my interpretation of Descartes' account of sense perception, as well as Malebranche's account, a judgment was involved on the part of the perceiver. Furthermore Berkeley's account of perception fails to meet clause (ii) above. While Berkeley rejects inferences and intellectual judgments as constitutive of suggestion, suggestion does involve an anticipation on

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9 Ben-Zeev, "The Passivity Assumption of the Sensation-Perception Distinction", *British Journal for the Philosophy of Science* 35:4, December 1984, 327-41

10 F. Dretske, *Seeing and Knowing*, (Chicago: The University of Chicago Press, 1969), 75. See also B. Russell's *The Analysis of Mind* (George Allen and Unwin, 1921), 144, for a similar characterization.
the part of the perceiver. So if this is the correct formulation of Berkeley's notion of passive perception, then it is in direct conflict with the account of suggestion that I am attributing to Berkeley.

One might attempt to avoid the problem by arguing that while Berkeley often writes as if suggestion is involved in perception there are also passages where Berkeley claims that all perception is immediate perception. For example, in *NTV* 50 Berkeley writes "Whenever we say an object is at a distance, whenever we say it draws near, or goes farther off, we must always mean it of the latter sort, which properly belong to the touch and are not so truly perceived as suggested by the eye in like manner as thoughts by the ear". Here one might interpret Berkeley to be contrasting suggestion with genuine perception. Consequently, if suggestion is not really a form of perception, then the conflict can be resolved quite easily. PM above requires that S perceive x. But if all perception is immediate perception, then only immediate perception is passive.

While it is true that immediate perception for Berkeley is passive I think we ought to resist this way of avoiding the problem for the following reason. I argued in the last chapter that with his technical notion of suggestion Berkeley was attempting to find a middle ground to the Cartesian dichotomy between perception involving judgment and mere sensation. Suggestion, while more complex than immediate perception, was nonetheless a genuine form of sense perception. Consider again the passage that I examined in the last chapter, where Berkeley deliberately claims that mediate perception is indeed *sense perception*, even though it is not *properly* or *strictly speaking*, perception:
Though I grant we may in one acceptation be said to perceive sensible things mediately by sense: that is, when from a frequently perceived connection, the immediate perception of ideas by one sense suggests to the mind others, perhaps belonging to another sense, which are wont to be connected with them. (Dialogues 1, 204; emphasis mine).

I argued that the purpose of Berkeley's introducing the imagination into his account of suggestion was to retain the sensuous nature of mediate perception while recognizing that certain kinds of perception required more than actual perception by the senses. There is, I will argue, another way of reconciling Berkeley's notion of perception by suggestion with his claim that perception by sense is essentially passive - a way which does appeal to the passivity of immediate perception, but without rejecting suggestion as a genuine form of perception. And so, I will suggest that we reject PM in favor of a more accurate formulation of Berkeley's principle of passivity in perception. Let's examine more carefully the few passages where Berkeley mentions the passive nature of perception.

Revising PM

Consider the following passages from the Dialogues:

Phil. Then as to seeing, is it not in your power to open your eyes, or keep them shut; to turn them this or that way?

Hylas. Without doubt.

Phil. But doth it in like manner depend on your will, that in looking on this flower, you perceive white rather than any other colour? Or directing your open eyes toward yonder part of the heaven, can you avoid seeing the sun? Or is light or darkness the effect of your volition?

Hyl. No certainly.
Phil. You are then in these respects altogether passive.

Again, Berkeley writes in the *Principles*:

But whatever power I may have over my own thoughts, I find the ideas actually perceived by sense have not a like dependence on my will. When in broad daylight I open my eyes, tis not in my power to choose whether I shall see or no, ... and so likewise as to the hearing and other senses, the ideas imprinted on them are not creatures of my will. There is therefore some other will or spirit that produces them (PHK 29).

In this passage from the *Dialogues* Berkeley distinguishes those events that are dependent on the perceiver's will as a causal source, and those which are not. Those events that are not the effect of the will are events where the mind is passive. This is again emphasized in the passage from the *Principles* when Berkeley claims:

But whatever power I may have over my own thoughts, I find the ideas actually perceived by sense have not a like dependence on my will. When in broad daylight I open my eyes, tis not in my power to choose whether I shall see or no, ... and so likewise as to the hearing and other senses, the ideas imprinted on them are not creatures of my will. There is therefore some other will or spirit that produces them (PHK 29).

Here Berkeley provides further details concerning something's *not* being dependent on the will: it is not in the perceiver's power to have or not have these ideas. So an essential feature of passive perception is not the absence of an expectation or operation as PM indicated. Rather it is that the perceiver cannot will to have (or not have) the object of the perception. We ought to replace PM with the following statement of Berkeley's notion of passivity:

**Berkeley's Passivity Thesis (BPM):** S's sense perception of x is passive iff i)
S perceives x by sense, and ii) the perceiver is not the causal source of S's perceiving x, and iii) the perceiver cannot (without the altering of the sense organ in question) cause the idea, x, to exist or cease to exist.

One might still think that there is a conflict between the event of perception involving suggestion, and its purported passive nature. Clause (iii) claims that the perceiver cannot (without altering the sense organ) cause the perceived idea to exist or cease to exist. That is what makes it passive. And yet, one might think that in the case where the object is suggested to the mind, we are capable of causing the suggested idea to cease to exist. One might arrive at this position by reasoning in a way similar to that of the last of the three objections concerning transparency of mind. Berkeley thinks that some of us (mistakenly) think we immediately see distance, and yet he also thinks we can, with attention, correct this prejudice. The device that he appeals to in order to correct this prejudice is the case of the blind man, and his response to the Molyneux problem. We are told to think of the case of a blind man regaining his sight. While the blind man would have perceived distance, solidity and other spatial qualities (by means of touch) he would have no idea of such qualities by sight. In thinking of what takes place perceptually when he regains his sight, we are supposed to think of a case that is not contaminated, so to speak, with what occurs once he has the experience that he eventually will have when he experiences how ideas of sight and touch are conjoined. In considering what I have called the uncontaminated visual experience of the blind man regaining sight, we are presumably providing an example of what we immediately see, namely, only colors and light. But in correcting our mistaken belief, and in taking the blind man's experience to heart, one might argue that we must will that the suggested idea cease to exist. It is only by doing so that we could actually "get into the shoes" so to speak, of the blind man.
This kind of objection, however, presupposes a certain account of what is involved when we correct our belief, an account that Berkeley need not hold. And, more importantly, it misconstrues Berkeley's intentions regarding the example of the blind man. This line of reasoning assumes that in order for us to change our mistaken belief, we do have to change the object of perception; in other words, if we are really "obstinate" in our attempt to correct our prejudice, we will actually succeed in having an experience just like the blind man which is to say, we will successfully will that what is suggested to the mind upon perceiving color and light, is no longer suggested.

But Berkeley, in appealing to the blind man does not expect us to be able to rid ourselves of what is suggested through sight. As Berkeley explicitly states in *NTV* 92,

...though perhaps it may not be an easy task to divest ourselves entirely of the experience received from sight, so as to be able to put our thoughts exactly in the posture of such a one's, we must, nevertheless, as far as possible, endeavour to frame true conceptions of what might reasonably be supposed to pass in his mind (*NTV* 92).

What he suggests here is to approximate what the newly sighted perceiver would experience, and to try to understand what would "reasonably" be supposed to take place in this event. And so, when Berkeley claims in *NTV* 146, that careful attention can get us clear of the prejudice that language creates - he need not think that anything in our perception changes. Rather, what changes is our understanding about what is and is not suggested. So, Berkeley may still believe that we can never merely perceive colors and lights once we have become accustomed to having distance suggested to the mind. And in fact, this is how Berkeley characterizes suggestion.
That is, suggestion is something that is not a function of the intellect or the will, but of habit or custom. Consequently, we would not expect the understanding to correct the product of suggestion, but only our beliefs about it.

One might argue that there is another way that the mind is capable of willing what is suggested in or out of existence. The imagination is involved in mediate perception, and more specifically, having something suggested to the mind requires ideas being presented to the imagination as well as being actually perceived by sense. So, one might object, perception that involves ideas presented to the imagination fails to meet the condition expressed in clause (iii) of BMP, for the perceiver is able to alter the ideas of the imagination without altering the sense organs.

This objection succeeds in pointing out the problem with characterizing perception involving suggestion as merely involving ideas presented to the imagination. For if the event involved simply the imagination, then we have a problem in meeting (iii) of BMP because we could alter the idea by means of our will. However, we must keep in mind that suggestion is constituted by expectations on the part of the perceivers, expectations whose content is defined by what is presented to the imagination. It is, on Berkeley's view, the expectations that are not changeable by or subject to the will. Our expectations result in spite of our will. So the objection formulated in this way depends on an inaccurate account of Berkeley's notion of suggestion.

In offering a response to this mistaken objection, however, another problem with BMP arises. Passivity in perception does apply to ideas, and yet expectations are not ideas. And so, we cannot say of the event of seeing of distance, for instance,
that it is passive. For there is no place for expectations in the formulation - and yet it is ideas, and not expectations that are supposed to be perceived passively. There is, however, an option open to Berkeley, which maintains his view that perception of ideas is passive, and still allows for a perceptual event involving suggestion to count as a passive event of perceiving.

In the passage from the *Principles* Berkeley is not just talking about perception by sense, which is how he will characterize both immediate and mediate perception. Rather, he claims that "the ideas actually perceived by sense" have not a like dependence on his will. The key qualification is the notion of ideas "actually" perceived. One might think that this simply shows that it is immediate perception and not mediate perception that is passive. However, in those passages where Berkeley is concerned with passivity, what is required in passivity is more strict than immediate perception. When an idea is passively perceived, it is in those cases where that idea is actually and properly perceived by sense. So for instance, in section 29 of the *Principles*, Berkeley claims that "tis not in my power to choose whether I shall see or no...and so likewise as to the hearing and the other senses". Berkeley addresses those ideas as they are presented to their proper senses, those ideas, as he tells us, that "would have been perceived, in case that same sense had then been first conferred on us" (*Dialogues* 1, 204). Furthermore, when we examine the other passages where Berkeley talks about passivity, while a first glance seems to indicate that physical objects are the objects passively perceived, a closer examination reveals that, once more, passivity rests with those ideas actually and strictly perceived by one sense modality. In the passage from the *Dialogues* above, Berkeley begins by citing the example of perceiving the flower, but it is the color that is the idea that I cannot will to exist or cease to exist. Similarly, although he
claims that it is not within my power to avoid seeing the sun, he qualifies this by claiming that it is the light or darkness that is the object of perception at issue. So, we must modify BMP to accommodate this feature of Berkeley's discussion:

**Berkeley's Passivity Thesis (BPM2):** S's sense perception of x is passive iff i) S perceives x by sense, and ii) S's perception of x is independent of S's volition such that the perceiver cannot, without the altering of the sense organ in question, will the actually and strictly perceived idea, (either x or some other member of the collection of ideas perceived), to exist or cease to exist.

The analysis of passive perception focuses on those ideas that are actually and strictly perceived which is accommodated in clause (iii) above. In formulating BMP in this way, however, we accomplish several things. First, we capture the feature that is common to several passages of Berkeley's, namely that to be passive in perception is for the idea in question to be independent of the will of the perceiver. Second, clause (iii) captures the fact that the object over which I have no power, either to will into or out of existence, is an idea that is actually perceived. However, I have also modified (iii) so that it requires some member of a collection to be actually perceived. But this occurs even in cases where perception is by suggestion. Consider once again what occurs in a case where the coach is suggested by means of what is heard. The kinds of ideas, the perception of which suggests the coach to the perceiver, are often those ideas proper to that sense. It is the sound that suggests the coach, and strictly speaking, all that is heard is sound (*Dialogues*, 1, 204). Consequently we can allow (but of course it is not entailed by BMP2) that some forms of mediate perception may be passive. Even more importantly, however, we are not committed to denying that mediate perception is perception. It is, of course, not actual and strict perception, although it may involve such perception.
The upshot of this, then, is that Berkeley's claim about passivity, at least as revealed in the passages we have considered so far, does not conflict with his notion of suggestion. The passivity thesis is primarily directed at actual and strict perception. But I have been careful in qualifying what idea is actually perceived. As BMP2 stands, it allows for collections of ideas to be passively perceived as long as one of the members of that collection is actually perceived by sense. So, for instance, an object at a distance may be passively perceived even though only one of its members is actually perceived by sense.

This way of understanding addresses one of the problems I raised at the end of the last chapter. The discussion revealed that the idea of distance was a complex bundle of ideas involving the motion of the body together with tactile sensations resulting from touching the body perceived. This, however, seems to involve an act on the part of the perceiver to "synthesize" (to use the Kantian expression) the motion and the tactile sensations. But this seems to conflict with distance being passively perceived. The apparent conflict can be resolved by appealing to clause (iii) above. For the motion itself may be thought of as a complex idea made up of minimal tangibles and provided that some member of this complex bundle is actually perceived, that is sufficient for distance itself to be passively perceived. 

Passivity has also been understood as providing a means to secure some epistemic guarantee or certainty. This is evidenced in the initial formulation, PM, where to be passive is to be devoid of any contribution on the part of the perceiver. While there is no sign that Berkeley intends the notion of passivity itself to provide such epistemological guarantee, it is interesting to see parallels between cases of passive perception and places where we gain some epistemological footing. For instance, Berkeley will claim that color, motion and the like "considered as so many sensations
Passivity as Causal Inertness

There is another use of the notion of an object's being passive that surfaces in Berkeley's texts. While related to the other notion, it is so related only in virtue of its concern with ideas. This notion of passivity concerns the causal power of the objects and not the mind's perception with respect to such ideas and so it is the object that is passive, not the perception. This sense of passivity surfaces in the following passages:

All our ideas, sensations, or the things which we perceive, by whatsoever names they may be distinguished, are visibly inactive, there is nothing of power or agency included in them. So that one idea or object of thought cannot produce or make any alteration in another...A little attention will discover to us that the very being of an idea implies passiveness and inertness in it insomuch that it is impossible for an idea to do any thing, or, strictly speaking, to be the cause of any thing: neither can it be the resemblance or pattern of any active being as is evident from Sect. 8. Whence it plainly follows that extension, figure and motion, cannot be the cause of our sensations (PHK 25).

And again,

A spirit is one simple, undivided, active being: as it perceives ideas, it is called the understanding, and as it produces or otherwise operates about them, it is called the will. Hence there can be no idea formed of a soul or spirit: for all ideas whatever in the mind" are "perfectly known" (Principles, 87). And further, mistakes, according to Berkeley, lie "not in what he perceives immediately and at present" but "in the wrong judgment he makes concerning ideas he apprehends to be connected with those immediately perceived". Mistake and loss of certainty enters once the act of collecting ideas across senses and judgments about this product are made.
being passive and inert, vide Sect. 25, they cannot represent unto us, by way of image or likeness, that which acts. (PHK 27)

We can capture this notion of passivity in the following principle:

PC: An object, O, is passive = It is not possible that O acts or is the cause of some other state of affairs.

While the argument that ideas are passive in the sense given in PC relies on the fact that ideas, when properly perceived, are passive in the sense outlined in BMP2 above, the two senses are distinct. While it may appear that a claim concerning passivity in the objects of perception would not raise any problems with respect to the notion of suggestion, there are potential conflicts that arise. Consider what happens during the course of an idea being suggested to the mind of the perceiver. Initially, two ideas (kinds of ideas) must occur together. But due to the fact that they have occurred together, the occurrence of one results in the other being suggested to the mind. And I have characterized this kind of event in terms of the development of expectations (defined by the "suggested" idea). The apparent problem in the way that I have described the phenomenon of suggestion, is that an idea seemingly brings about the occurrence of the expectations. This is fairly straightforward causal talk concerning ideas, something which Berkeley claims is not correct given the passivity (causal innerness) of ideas.

There is a further, related problem. According to Berkeley's theory in the *New Theory of Vision*, it is only reasonable to think that as the perceiver continues

12 For a thorough discussion of Berkeley's arguments supporting his claim about ideas, see Phillip Cummins's article "Berkeley's Manifest Qualities Thesis" *Journal of the History of Philosophy* 28:3 July 1990.
to have new experiences, new expectations will develop. But, as new experiences occur something in the perceiver must be modified in order to determine what expectations will develop. One might think that what changes as experience changes, is the spirit itself. It takes on new dispositions which result in different expectations given different ideas. But appealing to the active power of the imagination and the mind is of no help; here, however. For the mind cannot act without some causal feature that, at least if we take his account of suggestion at face value, must come from the ideas immediately perceived. But, if we take what Berkeley says about ideas seriously, they have no power in them to do this.13

There are at least two responses that one might offer in defense of Berkeley at this point. First, one might appeal to the fact that Berkeley does not use this kind of passivity in the New Theory of Vision, and so he is at least alleviated of the inconsistency in that work. The problem with this response is that, while true, it does not help with his use of suggestion in his other works. Moreover, in my account of suggestion I have relied on his later characterizations of the notion which coincide with his views concerning passivity with respect to ideas.

A second way to defend Berkeley is to simply appeal to the option that he already has in place for those ideas that are actually and strictly perceived, namely that they are produced by some will other than mine. More specifically, Berkeley

might answer to this objection and say that the ideas still have no causal efficacy, but that God is the (real) cause of our expectations being established and ideas being presented to the imagination. So, for example, when I open my eyes as an infant, what I perceive is not dependent on my will, and I cannot (without altering my sense organs) make this idea disappear. The cause of this idea, however, is not an object existing independently of the perceiver, but rather God. And God is further responsible for causing the occurrence of ideas which follow upon my willing to do certain things, like, reach my hand out and touch objects. However, when the perceiver has developed certain expectations regarding what sensations typically result from what actions, we must attribute the development of those expectations not to the ideas experienced, but rather to God. Furthermore, when I have certain visual sensations that are typically accompanied by certain tactile sensations, what actually causes those ideas to be suggested to the mind, and certain expectations to develop is not the particular visual cue in question, but God.

There is still a sense of causation that we might loosely apply to the role of, for example, the visual cues. There is a sense that one might say that the ideas cause, and that is to describe a constant conjunction between the occurrence of the immediately perceived idea, our expectations that the particular ideas presented to the imagination. That is, we have certain laws of nature that can be extracted from these (PHK, 30), but this kind of causation is not really causation at all. God, then, is the primary causal mechanism in both immediate and mediate perception. Where the pure activity takes place is at the level of the will or more specifically at the level of action. This result, however, is really in keeping with the view of mediate perception that I have been developing throughout this project. I have emphasized that while Berkeley introduces the notion of suggestion to characterize mediate
perception and to distinguish it from immediate perception, his notion of suggestion is also an attempt to preserve the similarity between the two kinds of perception.

For mediate perception, according to Berkeley, is still perception by sense. Given Berkeley's attempts to preserve the significant similarity between the two kinds of perception, it should not be surprising that God will play as active a role in the event of mediate perception as he does in the immediate perception of objects.14

14 While this may be satisfactory for sense perception, it is not clear that a similar problem doesn't soon arise for any act of the mind. The problem is that our perceptions and our actions are intimately connected and just as in the case of sense perception we want to be able to say that the occurrence of an idea is what brings about the occurrence of an event that does depend on my will. But if God must initiate my willing, Berkeley's claim about the spirit being active in contrast to the passivity of ideas looses some of its credibility.
CONCLUSION

The main goal of this project was to illustrate the complexity and significance of Berkeley's technical notion of suggestion which he first introduces in the Essay Towards a New Theory of Vision. Typically Berkeley's appeal to suggestion in perception is understood as simply an appeal to the laws of association in characterizing the mind's workings. While this is certainly an important feature associated with his notion of suggestion, I hope to have shown that this is not all that Berkeley attempts to do with his account of perception and his appeal to suggestion. I have chosen to examine both Descartes' and Malebranche's accounts of distance perception in order to help illustrate the contributions that Berkeley himself thought he was making with his new account. In my discussion of Descartes' account of distance perception I showed that Descartes draws a sharp dichotomy between a purely sensory component and a purely judgmental component. Further, spatial perception (including distance perception), according to Descartes, falls into the latter type of perception. This, Descartes has us believe, is at least in part due to the implicit (geometrical) reasoning that takes place in spatial perception (as well as the kind of connections that exist between the geometrical spatial qualities of objects). Thus, I argued, Descartes' account of distance perception, as I have described above, consists in a sensation together with an intellectual judgment (or implicit reasoning). While I also discussed another account of what I called 'informed sense perception,'
an account which can be found in Descartes' writings, the judgment in both types of perception is the same.

Malebranche, like Descartes, appeals to geometrical and optical principles in order to account for a perceiver's seeing distance. However, where Descartes appeals to an (implicit) reasoning on the part of the perceiver, Malebranche externalizes the reasoning - relocating the inferences from the perceiver's mind to God's will. These inferences form the content of God's will which is both the cause and the content of the perception in us. Such judgments, when not occasioned by an attentive mind, are labeled "natural judgments". Natural judgments, together with sensations, when caused by an object, count as sense perception for Malebranche.

I argued that while Malebranche explicitly claims that an event involving natural judgments is a perception by sense, rather than by intellect, the event itself is much more akin to Descartes' event of perceiving distance than it is to a sensation. And this, I argued, was something that Malebranche, at least at times, acknowledged, for he explains that the natural judgment is a judgment when considered in relation to what it is in God.

By introducing his notion of suggestion in the Essay Towards a New Theory of Vision Berkeley is rejecting two key features to the mathematicians' account of distance perception. First, he rejects their account as a legitimate explanation of how the mind sees distance. For Berkeley, while an appeal to geometrical and optical principles is useful for certain computations in studying vision, these principles are applicable to vision only in virtue of the other means by which we see distance. These means, he argues, are the new set of visual cues introduced in the New Theory of Vision. Instead of the geometrical angles and lines together with geometrical principles that result in a judgment about distance, Berkeley appeals to sensations as the strain from the turn of the eye, the confusion or blurriness in vision as an object
approaches or recedes, and the sensation from the turn of the eye as the perceiver focuses on the object. Connected with his rejection of the cues of the mathematicians account, at least as cues for how the mind sees, is his rejection of the claim that the cues are conceptually or necessarily connected with distance. With this claim Berkeley also introduces another significant feature of his explanation of how we perceive distance: the perceiver cannot perceive distance without learning to connect visual with tactile cues.

However, the second feature of their accounts that he rejects, a feature that I have focused on by developing a detailed account of his notion of suggestion, is their analysis of sense perception. More specifically, the notion of suggestion is introduced as Berkeley attempts to carve a place for spatial perception by sight midway between an account that goes beyond mere visual sensation and those accounts offered by Descartes and Malebranche where sense perception of spatial qualities requires an intellectual component. Berkeley rejects the role of judgment in sense perception, as I have tried to show in my "Non-Propositional" account of suggestion. Instead, he replaces reasoning on the part of the perceiver (i.e., Descartes' view) as well as reasoning on the part of God (Malebranche's view) with a set of expectations that develop in the perceiver in virtue of constant connections between ideas. There is no reasoning on the part of the perceiver, according to Berkeley, but brute "reaction" to the perceptions that occur. Furthermore, while Malebranche attempts to capture something like this kind of event with his notion of natural judgments, he still characterizes these events as judgments in virtue of the fact that, with respect to God, we characterize them as inferences. Berkeley's expectations, however, are not defined in this way. Rather, on the Non-propositional account of suggestion, such expectations are defined by ideas presented to the imagination and originally perceived by sense.
With his notion of suggestion, I hope to have shown that Berkeley introduces a significantly different alternative account of distance perception to that of his opponents, Descartes and Malebranche. With it, Berkeley also introduces an account of perception that breaks down the strict dichotomy in spatial perception between the senses and reason, allowing brutes and humans to perceive distance and to perceive it in essentially the same way. Imagination, as well as custom or habit, plays a key role in this model of sense perception and anticipates Hume's preoccupation with habit as opposed to reason in the *Treatise.*
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