SYMPOSIUM: REID ON VISIBLE FIGURE

REID ON THE PERCEPTION OF VISIBLE FIGURE

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Thomas Reid's theory of sensory perception has been widely examined in recent years. Commentators have been more or less united in the claim that Reid treats the visual perception of the shape, or figure, of objects in a way significantly different from the way in which he treats sensory perception through the other sense modalities, and even from the way in which he treats the visual perception of color.¹ This paper argues that the recent secondary literature is mistaken in this regard. I argue that Reid treats the visual perception of shape no differently from the way in which he treats, say, the tactile perception of hardness.

The mistaken tendency of recent commentators to understand the visual perception of shape differently from other forms of perception comes, I argue, from underestimating the importance to Reid of a neo-Aristotelian, teleological conception of the human mind: Reid is at pains to discover the "intentions of nature" in the construction of the mind; he wants to sort the things our minds are able to do into those things that we are designed to do for their own sake, and those we are designed to do solely for the sake of achieving something else. Only by doing this, he thinks, can we discover the distinctive features of human nature, the features for the sake of which our minds were created. Reid's special treatment of the visual perception of shape is part of an argument for the claim that one of the functions for which our minds are designed is the perception of perspectival shape, a claim denied by Bishop Berkeley. Once we see the motivation behind Reid's discussion of the visual perception of shape, we can see that he never meant to suggest that perspectival shapes are perceived through different mechanisms from those involved in the sensory perception of any other sort of quality. At least, so I will argue.

I

Most commentators on Reid, myself among them, take the following highly schematic model of sensory perception to describe Reid's view of how such perception takes place in the canonical cases such as tactile or olfactory perception. Nicholas Wolterstorff, in fact, dubs this schematic model the "Standard Schema" (Wolterstorff 2001: 96–110). Under the Standard Schema, there are laws linking the presence of certain qualities of objects with certain sensations – hardness, for instance, with that sensation that one has when one presses one's hand on a hard table. These sensations bear no resemblance to the qualities from which they arise, and the connection between quality and sensation is in no sense a necessary connection. Nonetheless, because of the nature of the human constitution, on having them we immediately find ourselves with a "conception" of the quality from which the sensation arose and an irresistible belief that the quality exists in the object. Since the sensations trigger thoughts about the quality in the world just by virtue of our constitutions, Reid calls them "natural signs". The transition from quality to sensation occurs through Humean, or as Reid likes to say "vulgar", causation; the transition from sensation to conception and belief occurs through what Reid calls "suggestion", through which the sign – the sensation – is interpreted by the human constitution.

Not every instance of sensation leading to conception and belief is an instance of the Standard Schema, because there are also instances of acquired perception. In acquired perception, the transition of the mind from sensation to conception and belief does not arise merely because of the person's natural constitution, but because she has had certain dispositions inculcated in her, or because she makes some kind of inference using the sensation, or the conception and belief to which it "naturally" gives rise, as a premise.

In addition, commentators are almost unanimously agreed that the perception of visible figure is neither an example of acquired perception, nor an instance of the Standard Schema at work. They hold that the perception of visible figure – of the perspectival shape of an object – arises, for Reid, without any sensation whatsoever. The theoretical role occupied by sensation in the Standard Schema – the role of sign – is taken over in this case, they hold, by a "material impression", or a picture on the retina. Unlike sensations, such a picture is not, itself, an object of consciousness – it is not felt – and yet it prompts us to conceive of and believe in the existence of the visible figure of objects.² This, I will argue, is a mistaken interpretation. In fact, conception of and belief in the existence of visible figure is suggested by a sensation that follows the encounter with visible figure. The perception of visible figure does not involve any kind of exception to the Standard Schema.

Notice that the view that most commentators ascribe to Reid saddles him with an implausible view of the nature of perspectival visual perception. According to

the usual interpretation of how the perception of the visible figure of an object proceeds, the content of my judgment regarding the object is not influenced by the nature of any qualitative state of my mind, but only by the state of my body. While there may be something that it is like to perceive visible figure, there is nothing that it is like to see it, on this interpretation. Imagine that you look through a telescope at a barn in the distance and slowly bring it into focus. From the moment in which there is a hazy barn-red patch in your visual field to the moment in which the image is in focus, according to the usual interpretation of Reid, there is no qualitative change in your visual sensation. You do have a sensation of color, but the color, after all, doesn't change. What does change is the precision of boundaries of your retinal impression, and so you move from perceiving a roundish blob to perceiving a barn shape. But this change is not accompanied by a corresponding change in your sensation. This story cannot be ruled out *a priori*, but it seems to be in direct conflict with the most natural way to think about what is going on in this case. The natural thing to say, in contrast, is that color sensations differ from one another in the sharpness of the boundaries between colors that are presented to us in visual sensation. The sharper the boundaries, the clearer our perception of visible figure. The problem is that the usual interpretation of Reid's story about the perception of visible figure bars us from saying this. Thankfully, however, the interpretation is a mistake and Reid's actual view of the perception of visible figure allows us to say precisely what it is most natural to say.

II

Passages such as the following seem to support the view that for Reid in the perception of visible figure, conception and belief are suggested by a retinal impression without any sensation (I discuss a few other passages that seem to support this interpretation below):

In answer therefore to the question proposed, there seems to be no sensation that is appropriated to visible figure, or whose office it is to suggest it. It seems to be suggested immediately by the material impression upon the organ, of which we are not conscious: and why may not a material impression upon the *retina* suggest visible figure, as well as the material impression made upon the hand, when we grasp a ball, suggests real figure? In the one case, one and the same material impression, suggests both colour and visible figure; and in the other case, one and the same material impression suggests hardness, heat, or cold, and real figure, all at the same time. (Reid 1997: 101)

Notice that Reid draws an analogy here between the suggestion of visible figure by a retinal impression and the suggestion of real figure. However, he doesn't analogize the role that tactile sensation plays in the tactile perception of real figure

to the role of the retinal impression in the visual perception of visible figure. Instead, he analogizes the role that the material impression on the hand plays in tactile perception to the role of the retinal impression in the perception of visible figure. If this passage shows that he takes the material impression on the retina to be playing the role of sign in the perception of visible figure, then it also shows that he thinks of tactile perception as proceeding differently from the way outlined in the Standard Schema; real figure, too, is suggested by a material impression. *Modus tollens* is the appropriate response to this reasoning. There is ample evidence that Reid considers tactile sensation to be the natural sign of real figure, and not a material impression on the body.³

Reid begins the passage just quoted by referring to “the question proposed”, and it is worth backing up in the text to determine what, exactly, that question is:

It may farther be asked, Whether there be any sensation proper to visible figure, by which it is suggested in vision? Or by what means it is presented to the mind? (Reid 1997: 99)

There are two importantly different questions here. The first asks whether there is any sensation the unique job of which is to suggest visible figure, or, on the other hand, whether visible figure is suggested by something that does double duty. The second asks what actually suggests visible figure. We might wonder why Reid cares about the answer to the first of these questions. The reason is that he is interested in uncovering the “intentions of nature” in the construction of the human mind. This project leads him to ask of the various things that do occur in the mind, which of them are aimed at by nature – which are expressive of the point or purpose of the mental faculties involved – and which are mere side-effects or accidental accompaniments of the realization in flesh of nature’s intentions. If there is nothing with which we are endowed by nature for the express purpose of suggesting visible figure, then it seems likely that the perception of visible figure is not something that the mind is created to do. Such perception is not one of the ends of the human mind. But if such perception is not one of the ends of the mind, then it must be that we perceive visible figure as a means to something else.

The discussion of this question is aimed at addressing an issue raised by Berkeley.⁴ In *A New Theory of Vision*, Berkeley proposes the following argument for the claim that visible figures are nothing but signs of real figures and have no function other than to help us to quickly bring to mind the real figures of objects. He writes:

We regard the objects that environ us, in proportion as they are adapted to benefit or injure our own bodies, and thereby produce in our minds the sensations of pleasure or pain. Now bodies operating on our organs by an immediate application, and the hurt or advantage arising therefrom depending

altogether on the tangible, and not at all on the visible, qualities of any object; this is a plain reason why those should be regarded by us much more than these: and for this end the visive sense seems to have been bestowed on animals, to wit, that by the perception of visible ideas (which in themselves are not capable of affecting, or any wise altering the frame of their bodies) they may be able to foresee (from the experience they have had, what tangible ideas are connected with such and such visible ideas) the damage or benefit which is like to ensue, upon the application of their own bodies to this or that body which is at a distance: which foresight how necessary it is to the preservation of an animal, every one's experience can inform him. (Berkeley 1998: 59)

Visible figures are not themselves potential sources of damage or improvement to our bodies or minds, and so our perception of them does not help us immediately, or naturally, to maintain our bodies. So, the reason that we are endowed with the power of perceiving visible figure – the “end” for which we are given the “visive sense” – must be that such perception helps us to perceive some other things that are, in fact, potential sources of damage or improvement to our bodies: namely, real figures.

In fact, Berkeley refers back to his argument for this point when, later in *A New Theory of Vision*, he argues that geometry is not the science of visible figures, but, instead, the science of real, tangible, figures. He writes:

141. To come to a resolution in this point, we need only observe what hath been said in Sect. 59, 60, 61, where it is shown that visible extensions in themselves are little regarded, and have no settled determinate greatness, and that men measure altogether by the application of tangible extension to tangible extension. All which makes it evident, that visible extension and figures are not the object of geometry.

142. It is therefore plain that visible figures are of the same use in geometry, that words are; and the one may as well be accounted the object of that science, as the other; neither of them being any otherwise concerned therein, than as they represent or suggest to the mind the particular tangible figures connected with them. (Berkeley 1998: 141–142)

It is not clear, at first glance, why it is that the point put forth in sections 59-61 should be relevant to the issue at hand. After all, there is nothing illogical or impossible about a science of language – we call it ‘linguistics’ – and so the mere fact that the primary function of visible figure is to be a sign of real figure simply doesn't seem relevant to the question of what the truths of geometry apply to. Still, Berkeley is probably right that geometers don't think of themselves as engaging in a form of linguistics. More importantly, however, is what the point that Berkeley

makes here indicates about his, and by association Reid's, orientation towards the question of what geometry is, or, rather, ought to be. Berkeley seems to think that geometry would be trivial were it merely the study of the nature of an entirely arbitrary set of features of the world that are merely useful for allowing us to perceive important and fundamental ones. To consider geometry as the study of the laws governing visible figure, given that visible figure is nothing more than a sign of real figure, would be like considering geology to be the study of rock hammers, or astronomy to be the study of telescopes. Visible figures are nothing more, for Berkeley, than the tools that help us to connect our minds to real figures and, as such, they are not a worthwhile object of a genuine science.

Reid disagrees with much of this for he does not just assert that there is a geometry of visibles, he actually makes important strides towards a description of some of its theorems in *Inquiry* 6.9.⁵ But, in order to set the stage for his account of the geometry of visibles, he first needs to respond to Berkeley's contention that the perception of visible figure is not one of the ends of the mind but is something of which we are capable only because it is a useful means to some other end for which we were created. To do this, he is going to show that there is a feature of human beings the sole function of which is to allow us to perceive visible figure. Since we are given none of our features in vain, he thinks, it must be that the perception of visible figure is not just a means to an end of the human mind but is, itself, one of the mind's purposes. Thus, the science of visible figure – the geometry of visibles – is by no means a trivial science discovering the laws governing mere tools but is, instead, of just as much importance as the science of tangible figure, namely, planar geometry. So, Reid cares about the question "Whether there be any sensation proper to visible figure, by which it is suggested in vision?" because he thinks that visible figures are the appropriate objects of a science and thinks that a set of qualities are the appropriate objects of a science only if there is some feature of the human mind given us for the purpose of perceiving those qualities.

So, as I will show, in *Inquiry* 6.8, Reid argues for a series of claims: (1) Conception of visible figures and belief in their existence is suggested by a class of peculiar color sensations. (2) The primary function of these color sensations, however, is not to suggest visible figure, and so the mere fact that they *do* suggest visible figure does not show that the perception of visible figure is one of nature's intentions in creating the human mind. (3) Further, visible figure might as well have been suggested to the mind without any visual sensations at all. (4) However, a certain well-defined retinal impression has no function but to give rise to the peculiar color sensations that also suggest visible figure. The implied conclusion of these four claims is that if nature endowed us with sight only so that we might see color, we might as well have been built in such a way that we did not have such retinal impressions and did not see visible figure. What follows is that our perception of visible figure is not merely an arbitrary side-effect of endowing us with vision, the real point of which is to help us to see color. Rather, we are

endowed with vision in part because nature intends that we see visible figure. What follows from all this is that it is worthwhile to endeavor to produce a science of visible figure.

Reid states (1) as a deliverance of introspection:

When I see an object, the appearance which the color of it makes, may be called *the sensation*, which suggests to me some external thing as its cause; but it suggests likewise the individual direction and position of this cause with regard to the eye. I know it is precisely in such a direction, and in no other. (Reid 1997: 99)

Given that Reid has defined the visible figure of an object as nothing more than the conjunction of the visible positions of each of the points that make up the object (see Reid 1997: 96), this passage can only be read as stating at least part of an answer to the second question that Reid has set for himself: “By what means is [visible figure] presented to the mind?” His answer is that it is suggested by a peculiar visual sensation that also suggests color. The very same sensation, at once, suggests the color *and* the visible positions of all the parts of a real thing. Thus, the perception of visible figure is an instance of the Standard Schema. It is only because we have the constitutions that we have that visible figure is suggested by these color sensations.

Reid goes on to argue for (2) by showing that it is perfectly possible to have a color sensation that does not suggest any visible figure. Such color sensations would be different, to be sure, from those that do suggest visible figure, but the mere fact that this is possible shows that our power to have color sensations was not given to us with the intention that we perceive visible figure. Reid establishes this point by showing that our minds could have been constructed just as they are, but if our bodies had been constructed differently we would not have perceived visible figure at all. In particular, the lens of the eye could have been constructed in such a way that rays of light hit the lens and are split into multiple rays that rain upon the retina in a shower, rather than hitting it in a straight line (Reid 1997: 99-100). Since our power to have visual sensations is a mental power, alteration in the bodily organ would not be an alteration in the mind and yet the bodily alteration that Reid describes would eliminate the perception of visible figure. What follows is that the power of the mind to have color sensations was not given us with the intention that we might see visible figure.

Similarly, Reid argues for (3) (Reid 1997: 100), by showing that visible position might have been suggested by other kinds of non-visual sensation. Since visible figure is nothing more than a conjunction of visible positions, any sensation that suggested the position of a point in space with regard to a point located in the body would suggest the visible position of that point in space with respect to an eye located at that point in the body. This could have been suggested by sensations of

smell or by sensations of sound. And so if nature had wanted us to perceive visible figure we needn't have been endowed with the power to have visual sensations at all.

Everything that has been said up to this point in the argument speaks in favor of the Berkeleyan conclusion that nature did not intend that we perceive visible figure, but only gave us the power to perceive it in order to make it possible for us to perceive real figure efficiently. After all, the sensations that do in fact serve as the signs of visible figure are qualitatively very similar to sensations that do not suggest it, and the suggestion of visible figure could have been, but wasn't, accomplished through other non-visual sensations. But Reid goes on to argue for the claim that a certain retinal impression is given us for no purpose but to produce a sensation that suggests both color and visible figure. Since nature might have made it the case that this retinal impression gave rise to a sensation that suggested just the one quality, or just the other, the fact that nature has made it the case that the doubly-suggestive sensation arises from this retinal impression is strong evidence that nature intended that we perceive visible figure for its own sake; why else would this retinal impression give rise to *that* sensation, and not just to a sensation suggesting only color? Reid writes:

Now, this material impression, made upon a particular point of the *retina*, by the laws of our constitution, suggests two things to the mind, namely, the colour, and the position of some external object. (Reid 1997: 100)

Notice that Reid must be using the word 'suggests' here in a somewhat loose sense, for technically speaking a material impression only suggests the color of the object by first suggesting a color sensation. In fact, this looser sense of 'suggest' occurs throughout the passage. The passage continues,

No man can give a reason, why the same material impression might not have suggested sound, or smell, or either of these along with the position of the object. That it should suggest colour and position, and nothing else, we can resolve only into our constitution, or the will of our Maker. And since there is no necessary connection between these two things suggested by this material impression, it might, if it had so pleased our Creator, have suggested one of them without the other. (Reid 1997: 100)

Reid here takes himself to have identified an original principle of our constitution. He has identified a fact for which no explanation can be given but that we are built in that way by God. But what fact about us has he identified? The fact he identifies is that a particular retinal impression gives rise to a sensation that suggests *two* things – color and position – not one without the other, and not any third thing in addition. This is not a necessary fact entailed by the nature of the retinal impression, but a purely contingent fact about the way in which we are built. This

fact is important to Reid because it shows that God, or nature, intended us to perceive *visible figure*; the fact that we do was not some mere accidental concomitant of something else with which we were intentionally endowed. The passage continues with an argument for the claim, easily misunderstood as a statement of an exception to the Standard Schema:

Let us suppose, therefore, since it plainly appears to be possible, that our eyes had been so framed, as to suggest to us the position of the object, without suggesting colour, or any other quality: What is the consequence of this supposition? It is evidently this, that the person endued with such an eye, would perceive the visible figure of bodies, without having any sensation or impression made upon his mind. The figure he perceives is altogether external; and therefore cannot be called an impression upon the mind, without grossest abuse of language. If it should be said, that it is impossible to perceive a figure, unless there be some impression of it upon the mind; I beg leave not to admit the impossibility of this without some proof; and I can find none. (Reid 1997: 100-101)

Reid is not here describing the way in which we do, in fact, perceive visible figure. Rather, he is saying that we might have perceived it without any sensation had we been constituted, counter to fact, in such a way that the retinal impression functioned as a sign of it. The reason that he cares about this counterfactual possibility is because he wants to show that there is a feature of us that is given to us for no reason but to provide for the perception of visible figure. To be sure, nature also intended us to perceive color – a fact that he thinks no one, certainly not Berkeley, would dispute. And given these more complex intentions it made perfect sense for us to be constructed as we are, in such a way that certain sensations of color, arising from certain retinal impressions, do at once suggest both color and visible figure. But since nature intended that we perceive visible figure it follows that the construction of a geometry of visibles is no trivial thing. Such a construction would tell us the laws guiding the hand of God.

I am not claiming, nor do I hold, that visible figure for Reid does not function as a sign. It does, in fact, function as a sign in the *acquired* perception of real, or tangible, figure. But it is also originally perceived by way of sensations that function as signs. What I take myself to have shown Reid to be arguing is that the fact that visible figure is suggested by a sensation does not show that nature intended us to perceive it; what demonstrates nature's intentions in this respect is the fact that a retinal impression occasions a sensation whose suggesting function is dual and includes the suggestion of visible figure.

III

There is a passage that seems (but, as I'll argue, only *seems*) to contradict directly the interpretation for which I am arguing. In this, the 'Difficult Passage', Reid writes,

We might perhaps have been made of such a constitution, as to have our present perceptions connected with other sensations. We might perhaps have had the perception of external objects, without either impressions upon the organs of sense, or sensations. Or lastly, the perceptions we have, might have been immediately connected with impressions upon our organs, without any intervention of sensations. This last seems really to be the case in one instance, to wit, in our perception of visible figure of bodies, as was observed in the 8th section of this chapter. (Reid 1997: 176)

On its most literal interpretation, the Difficult Passage simply states exactly what I deny: that the perception of visible figure occurs without any sensation; the suggesting of visible figure is accomplished by a retinal impression.

But I don't believe that the most literal interpretation of this passage is the best one. First, notice that within a page or two on either side of the passage Reid makes various remarks that are flatly inconsistent with the literal interpretation. The section begins (Reid 1997: 174) by describing five stages that are passed through in perception: something travels from the object to the body (photons, effluvia); that thing makes an impression on the sense organs; something travels from the sense organ to the brain (neural impulses); the impression on the brain is followed by sensation; the sensation is followed by perception of the object. It is the fourth step in this process that Reid is omitting in his story about the perception of visible figure under the literal interpretation. But, after he describes these five stages, Reid remarks:

Thus our perception of objects is the result of a train of operations; some of which affect the body only, others affect the mind. We know very little of the nature of some of these operations...but, by the laws of our constitution, we perceive objects in this, and in no other way. (Reid 1997: 174)

If we perceive objects in "this, and in no other way", then we must perceive visible figure through the occurrence of all five stages including the stage involving sensation.

In addition, in the paragraph immediately following the Difficult Passage, Reid says,

The impression made by the object upon the organ, either by immediate contact, or by some intervening medium, as well as the impression made upon the nerves and brain, is performed behind the scenes, and the mind sees

nothing of it. But every such impression, by the laws of the drama, is followed by a sensation, which is the first scene exhibited to the mind; and this scene is quickly succeeded by another, which is the perception of the object. (Reid 1997: 177)

If “every [material] impression” is followed by a sensation, then, presumably, that also means the retinal impression involved in the perception of visible figure is followed by a sensation which then invokes perception.

It is, of course, possible that these avowals of the exceptionless nature of the Standard Schema are all accompanied with the silent caveat ‘except in the perception of visible figure’, but a better interpretation of the Difficult Passage will remain consistent with the avowals. And, there is a better interpretation available. The Difficult Passage distinguishes between what might have been the case, and what actually is the case. The literal interpretation takes Reid to be saying that what might have been the case is that a material impression would function as the sign of the perceived quality; what actually is the case, on this interpretation, is that the retinal impression functions as the sign. However, I suggest that what might have been the case is that nature constituted us to have the particular material impressions that we have with the intention of making us perceive certain qualities; and what actually is the case is that nature gave us certain well-defined retinal impressions with the intention that we perceive visible figure. That is, the Difficult Passage is a claim about what nature’s intentions might have been and what they were, and only derivatively a claim about what might have happened in perception and what does in fact happen.

This interpretation is supported by the fact that, in the Difficult Passage, Reid refers us back to *Inquiry* 6.8 which, as I’ve argued, provides an argument for thinking that nature’s intention that we should perceive visible figure is evidenced by the fact that a very particular retinal impression makes the difference between perceiving visible figure and perceiving only color. In addition, the chapter of the *Inquiry* in which the Difficult Passage appears is shot through with talk of nature’s intentions:

Although there is no reasoning in perception, yet there are certain means and instruments, which, by the appointment of Nature, must intervene between the object and our perception of it. (Reid 1997: 174)

Who knows but their [mind and body] connection might have been arbitrary, and owing to the will of our Maker? (Reid 1997: 176)

In this drama [perception], Nature is the actor, we are the spectators. (Reid 1997: 177)

[B]ecause the mind passes immediately from the sensation to that conception and belief of the object which we have in perception, in the same

manner as it passes from the signs to the things signified by them, we have therefore called our sensations *signs of external objects*; finding no word more proper to express the function which Nature hath assigned them in perception, and the relation which they bear to their corresponding objects. (Reid 1997: 177)

The last of these passages is particularly worthy of comment. At the end of the passage, Reid says that there are two reasons why it was appropriate to call sensations ‘signs’: the term captures the function assigned them by nature, and the term captures the relation between them and the qualities of objects that they signify. Usually, as is the case in tactile perception, the sensation is given us by nature with the intention that we should perceive a certain quality, *and* the relation the sensation bears to that quality is like the relation between sign and signifier (there is no resemblance, for instance). The case of visible figure is interesting precisely because in that case these two things pull apart. The sensation that serves as the sign of visible figure – the peculiar sensations of color that are had on having a precisely bounded retinal impression – do bear a relation to visible figure much like the sign-signifier relation. But they are not given us with the intention that we should perceive visible figure, but only with the intention that we should perceive color. We are given the retinal impression with the intention that we should perceive visible figure, but that retinal impression does not bear a relation to visible figure analogous to the sign-signifier relation.

All of these things together, then, suggest that the Difficult Passage ought not to be given its most literal interpretation, but instead, should be read in a way consistent with the claim that the perception of visible figure proceeds in precisely the same way as other forms of (natural, non-acquired) perception.

IV

CONCLUSION

Although it is often noted, it is rarely asked why Reid makes such a point of insisting that the connection between material impression and sensation, and the connection between sensation and perception, are purely contingent connections. In part, of course, his motivation for making this claim is that he takes the advocates of the theory of ideas to be committed at least to denying that the sensation-perception connection is contingent.⁶ As Reid interprets the theory of ideas, under it sensation only gives rise to perception when the sensation resembles a feature of the object perceived. Thus, not just any sensation could serve to produce perception, only those that are particularly fitted to the qualities of the object perceived.

However, what has been shown here is that there is another powerful reason for Reid’s insistence on the contingency of these respective connections. What that

contingency helps us to see is what nature really intended as opposed to what was merely a necessary concomitant of nature's intentions. Where we have found a contingent connection, and the connection is not necessarily connected to other intended contingent connections, we have uncovered one of nature's intentions in creating the human mind.⁷

REFERENCES

- Berkeley, George (1998) 'An Essay Towards a New Theory of Vision', in *Philosophical Works*, ed. M. R. Ayers, Everyman, London.
- Chappell, Vere (1989) 'The Theory of Sensations', in *The Philosophy of Thomas Reid*, eds. M. Dalgarno and E. Matthews, Kluwer Academic, Dordrecht, pp. 49-61.
- Daniels, Norman (1974) *Thomas Reid's 'Inquiry': The Geometry of Visibles and the Case for Realism*, Stanford University Press, Stanford.
- Lehrer, Keith (1989) *Thomas Reid*, Routledge, London.
- Reid, Thomas (1997) *Inquiry Into the Human Mind on the Principles of Common Sense*, ed. Derek Brookes, Edinburgh University Press, Edinburgh.
- Wolterstorff, Nicholas (2001) *Thomas Reid and the Story of Epistemology*, Cambridge University Press, Cambridge.
- Yaffe, Gideon (2003) 'Reconsidering Reid's Geometry of Visibles', in *The Philosophy of Thomas Reid: A Collection of Essays*, eds. J. Haldane and S. Read, Blackwell Publishing, Oxford.

NOTES

- ¹ This view is expressed in the following places, among others: Chappell 1989, Lehrer 1989: 52, Wolterstorff 2001: 136–143.
- ² See footnote 1 for references.
- ³ For example:
- There is no sensation more distinct, or more frequent [than the sensation of hardness]; yet it is never attended to, but passes through the mind instantaneously, and serves only to introduce that quality in bodies, which, by a law of our constitution, it suggests. (*Inquiry* 5.2, p. 56).
- ⁴ Norman Daniels also claims that Reid's discussion here is intended to respond to Berkeley. See Daniels 1974: 84.
- ⁵ For discussion see Yaffe 2003.
- ⁶ For an elaboration of this way of understanding Reid's motives see Daniels 1974: 84-93.
- ⁷ Thanks to Ryan Nichols for comments on earlier drafts and to James Van Cleve and J. C. Smith for helpful conversations.