

**SYMPOSIUM:
DESCARTES ON PERCEPTUAL COGNITION
INTRODUCTION**

John Sutton

Descartes, the textbooks say, divided human beings, or at least their minds, from the natural world. This is not just the consequence of metaphysical dualism, but of the concomitant indirect 'ideas' theory of perception. On the standard view, the soul must dimly infer the nature of the external world from the meagre, fragmentary, and often misleading input which is causally transmitted from objects through the nervous system to the brain and, ultimately, to the pineal gland. The metaphysical solipsism of the *cogito*, on this picture, has its psychophysiological counterpart in the way Descartes sets all goings-on in nature at such a distance from the knowing subject who is temporarily and imperfectly united with a physical body. We cannot be sure, after all, that there are human beings rather than mere automata under the hats and cloaks we see from our window.

The epistemological focus of much 20th-century history of early modern philosophy has, in the case of Descartes, not only led to general neglect of his natural philosophy. It has also encouraged the misreading of substantive claims in his psychophysiological account of perception, by assuming that this account must be derived from and subordinate to the general demands of method outlined in the *Meditations*. But the details of Descartes' theory of perception were already in place in the early 1630s: *Le Monde*, including *L'homme*, offers both a general theory of representation, and a set of specific psychophysiological hypotheses about the operation of the senses. There is little evidence that Descartes was at this stage deeply moved either by epistemological scepticism or by the need to demonstrate the immortality of the soul. Further, as this symposium seeks to confirm, careful reading of Descartes may suggest a theory of perception quite unlike the caricature: Descartes' 'ideas', whatever they are, are not simply passive reflections of the external world.

The symposium consists of four papers which take up different aspects of an interpretation of Descartes' theory of perception which has been developed over some years by John Yolton. The papers are followed by a response from Yolton which addresses the central criticisms of his interpretation, and seeks to develop it further. Many philosophical discussions of perception run aground on tired disputes between 'direct realists', who see perception as immediate awareness of the world, and 'indirect' or 'representative realists', who argue that there can be no such awareness without the involvement of some kind of mediating representation in cognitive processing. While Yolton is sympathetic to direct realism, his work seeks to offer genuine alternatives to extreme versions of either position.

Yolton hopes that careful discussion of the history of theories of perception 'may even offer some resolutions to questions about representation and realism' (note 1). He disputes the standard historical narrative which laments 'the original sin of modern philosophy' in the seventeenth-century 'invention' of ideas as dubious reflections or representations of the world, cutting us off from a newly veiled reality (2): for Yolton this 'way of ideas' story was a convenient target invented by Thomas Reid, a story which smooths over considerable diversity in the earlier traditions (3). He claims instead to find, in an interpretation of Descartes which

Yolton shares with Arnauld, a philosophically significant version of direct realism which still allows a role to a certain kind of representing in perception.

On this view, ideas are not the objects of perception, but are *acts* of perceiving, and thus are not intermediaries between mind and world at all. The relation of representation holds not between an idea-object and a physical object, but between an *act* of perceiving and a physical object: thus, the hope is, 'the indirectness traditionally associated with representative theories disappears' (4). Yolton's first significant claim is that ideas as acts of perceiving do not themselves signify objects. How then are they involved in perception? Ideas are not themselves signs, but are cognitive or interpretive responses to signs. In his second central claim, Yolton argues that the signs in question are the physiological motions in nerves and brain to which, according to a 'natural geometry', cognitive responses arise (5).

So in Yolton's version of Descartes' account, there is still room for representation, or perhaps 'representing'. According to traditional divisions, one mark of an *indirect* realist theory is that it postulates a two-stage cognitive process in perception: first there is some *direct* awareness of an idea or trace, then by inspecting this idea the subject somehow *indirectly* infers the way the world is. But Yolton does not posit direct awareness of brain motions: it is indeed hard to see how such motions could be immediate objects of experience which the subject then puts to use in a conscious inference. David Behan's paper below, which places Descartes' account of perception in the context of the sophisticated and diverse theories of perception in late scholastic philosophy, shows how close Descartes is here to notion of a 'formal sign', which is not itself an object of knowledge, but by means of which we know something else. Behan demonstrates that the scholastics who employed this notion were confident that the use of formal signs in an act cognition does not thereby rendered that act mediate in an epistemologically problematic sense.

But some critics, keen to convict Descartes of incoherence, take him to accept direct consciousness of images etched on the pineal gland. J.J. Gibson's biographer Edward Reed, for example, argues that, because Descartes believes that 'all existing thoughts are consequences of the motions of the brain', he must also accept that 'all awarenesses are awarenesses of brain states' (6). However this does not inevitably follow. Descartes does insist, in a number of passages discussed throughout this symposium, that ideas do not *resemble* their objects. As Yasuhiko Tomida argues below, the corpuscularian theory of matter shared by Descartes and Locke entails that the world of appearances differs from the physical world. The compatibility of this natural philosophy with any direct realist commitment to the immediate perception of macroscopic objects is debated by Tomida and Yolton (7): but there is no reason to think that the rejection of representation-by-resemblance requires that we only ever see our own brains. As Nancy Maull puts it, the 'elaborate optical plumbing' involved in generating judgements about distant objects 'does not imply that the soul is aware of a pineal pattern' (8).

For Yolton, the great advantage of his account is that it offers at least the beginnings of an alternative to merely naturalistic causal theories of perception. The causal relations in operation between physical objects and brain motions are not sufficient for perceptual cognition: there must also be a distinct cognitive, signficatory, or semantic relation in operation between those brain motions and the idea-acts which interpret them. Although Yolton on occasion wonders if causal and cognitive relations could be compatible or work in tandem (9), his considered view in *Perception and Reality: a history from Descartes to Kant* (10) is that there are only signficatory, and not causal, relations running to the mind from the physical world. In his paper below, Peter Slezak takes issue with this central, arguing that a better interpretation of Descartes offers a purely causal account of perception, which moreover is philosophically preferable to Yolton's non-mechanistic alternative (11).

Even if, as Yolton believes, Descartes' account does not rely on static idea-representations cutting us off from reality, there remains a further question about the operation of this natural geometry. If we are not consciously aware of brain motions in responding cognitively to them, must there not be some inner interpreter to which perceptual capacities are attributed. This is a central charge of Celia Wolf-Devine's contribution below: she claims that accounts of perception in terms of the unconscious operation of natural signs must, despite disclaimers by both Descartes and Yolton, invoke an inner homunculus to interpret those signs. That there remain problems about bridging the gap between the causal and the cognitive on Yolton's account is not surprising: as both Slezak and Wolf-Devine acknowledge, even the naturalistic consensus in cognitive science has failed to bring us much closer to a solution. Both Yolton's work and this symposium contribute to an approach to perception in which historical interpretation and contemporary theory may illuminate each other.

Notes

1. John Yolton, 'The Way of Ideas: a retrospective', *Journal of Philosophy* 87 (1990), 510-6, at p.516.
2. Richard Rorty, *Philosophy and the Mirror of Nature* (Oxford, 1980), chapter 1: the quotation is from n.32 on p.60.
3. Yolton, *Perceptual Acquaintance from Descartes to Reid* (Minneapolis, 1984), chapter 11.
4. Yolton, review of S. Nadler, *Arnauld and the Cartesian Philosophy of Ideas*, in *Journal of Philosophy* 88 (1991), 109-112, at p.111.
5. Yolton, 'Mirrors and Veils, Thoughts and Things: the epistemological problematic', in A. Malachowski (ed.), *Reading Rorty: critical responses to 'Philosophy and the Mirror of Nature'* (Oxford, 1990), pp.58-73, at p.62.
6. Edward S. Reed, 'Descartes' Corporeal Ideas Hypothesis and the Origins of Scientific Psychology', *Review of Metaphysics* 35 (1982), 731-752, at p.733. For related phenomenological and direct realist attacks on Descartes see Marjorie Grene, *Descartes* (Brighton, 1985), pp.205-12; David Farrell Krell, *Of Memory, Reminiscence, and Writing* (Bloomington, 1990), pp.65-8; Emily Grosholz, *Cartesian Method and the Problem of Reduction* (Oxford, 1991), 129-31.
7. See also Stephen Gaukroger, 'Introduction: the background to the problem of perceptual cognition', in *A. Arnauld: on true and false ideas*, Gaukroger (trans.), (Manchester University Press, 1990), 1-41, at pp.37-39.
8. Nancy Maull, 'Cartesian Optics and the Geometrization of Nature', in S. Gaukroger (ed.), *Descartes: philosophy, mathematics, physics* (Brighton, 1980), 23-40, at p.34.]
9. See for example *Perceptual Acquaintance*, p.39; 'Representation and Realism: some reflections on the way of ideas', *Mind* 96 (1987), 318-30, at p.323.
10. Ithaca, 1996: see especially pp.183-214.
11. See also John Sutton, *Philosophy and Memory Traces: Descartes to connectionism* (Cambridge, 1998), pp.294-7.