

Seeing, Doing, and Knowing: A Philosophical Theory of Sense Perception. By MOHAN MATTHEN. Oxford: Oxford U.P. 2005. pp. xxii + 362. £40.00 (hbk).

IN *Seeing, Doing, and Knowing* Mohan Matthen offers a theory of perceptual experience and perceptual systems that challenges traditional research paradigms and assumptions. The problems Matthen targets are distinctively philosophical and his analytical methods are

true to the spirit of philosophers of perception extending back at least to Descartes. Nevertheless, Matthen takes very seriously the constraints that the natural sciences place upon any philosophical theory of perception. In this vein, he writes that '[v]ision and audition take the form they take in us because of ancestral neurophysiological facts. Some of these ancestral facts persist in the present day. One will not understand the oddities of human sensory mechanisms if one ignores them' (p. 292). So, although we might successfully theorize about how an organism *could* have perceptual experience merely from our armchair, we cannot theorize about how organisms *actually do* have perceptual experience by such means.

A central target for Matthen is the 'Principle of Passive Fidelity'. Perceptual experience has often been understood, by Descartes and many ever since, as providing a passive record of external stimuli. Whatever is recorded by the sensory receptors—for example, the image recorded on the eye's retina—is faithfully and completely passed downstream to eventually surface at the level of sensory consciousness (barring decay during transmission). Thus sensation only gives organisms whole 'pictures' of the world, and any personal or organism-specific addition or subtraction of content comes in at the conscious or higher cognitive level.

The thesis central to Matthen's view, 'The Sensory Classification Thesis' (hereafter SCT), proposes just the opposite approach: sensory systems actively classify external stimuli. That is to say, sensory perception involves *doing* all the way down, and is important for *doing* all the way up. The latter is more obvious and hardly contentious—what we perceive informs how we act. Matthen stresses that this is not exclusive to bodily action: perception also informs epistemic action; how we acquire knowledge about our environment. In addition, perception is something that is *done* at a sub-personal level: different sensory receptors (for example, visual receptors that detect right to left movement as contrasted with receptors that detect edges) discard some information and use other information in

classifying incoming stimuli. This information is exchanged and ultimately organized to yield a conscious sensation of the stimulus. This sensation is not, as the Cartesian view would have it, a passive record of the receptor image, but a result of an evolutionarily determined, multidirectional system of classification. This is a very important lesson for Matthen, namely that conscious sensation is the resulting label of sensory classification, and not the other way round.

This last notion is captured by 'The Posteriority of Appearance Thesis' (hereafter PA). Matthen argues that 'things are not classified as red because they look red (under normal circumstances); instead, they look red because the visual system has determined that they are so' (p. 24). He rightly concludes that this inverts the central claim of dispositionalist theories of perceptual properties which say, for example, that what is constitutive of the colour red is that it disposes us to a certain experience. However, elsewhere Matthen overstates the point. He writes that 'Descartes and Locke supposed that we call some external objects "orange" because they have the power to produce orange sensations in us' (p. 38), and then goes on to claim that PA inverts the order of the 'because'. Here, and elsewhere (cf. p. 30), Matthen is entitled to the more surprising implication of the thesis—that we have orange sensations *because* we call external objects 'orange'; that we cannot discriminate between objects *because* we assign them to the same sensory class—only by equivocating between personal and sub-personal senses of terms like 'call' and 'assign.' Descartes, Locke, and others have the personal sense in mind: *we* name things 'orange' and identify things as discriminate or not. However, SCT targets the sub-personal senses of these terms: sensory systems classify objects as red or round and thus assign them those properties and, in some sense, call them as such. It is only by trading between these two senses that Matthen may invert the order of explanation as a criticism of the traditional view: a surprising fact it would be indeed if I have a perceptual experience as of red *because*

I call the perceived object 'red.' The order of explanation, then, that reconciles the two views and maintains the important moral of *PA* is as follows: we call a distal object 'red' because we have an experience of red because our sensory system has (sub-personally) assigned a distal object to a particular sensory class.

Parts I and II develop the assumptions, motivations, and implications for Matthen's positive view, the first focusing on sensory classes and concepts, the second on sensory ordering and similarity. Part III applies the framework to special issues in perception. Part IV focuses on perceptual content: it is here that we begin to see how deeply, according to Matthen, perception involves action. In answer to the question 'what are sensory systems for?' Matthen proposes that they function to present the world in action-relative terms. Again, the relevant actions are not merely bodily: the content of conscious sensory experience provides a conventional signal that alerts the organism to *affordances*, where evolution has determined that, for this organism, certain objects or situations are well suited for particular actions. Matthen thus extends J.J. Gibson's concept to include *epistemic affordance* (*The Perception of the Visual World* [1950] and *The Ecological Approach to Visual Perception* [1979]).

Given Matthen's special attention to the idiosyncrasies of vision, it is the philosopher of depiction and the visual arts that, among philosophers of art and aestheticians, stands to gain most from *Seeing, Doing, and Knowing*. Part V discusses the most obvious applications for and, in fact, applications of, aesthetic theory. Motivated by the findings of, among others, D.A. Milner and M.A. Goodale (*Visual Brain in Action* [1995]), Matthen distinguishes between two visual perceptual systems: *descriptive vision* (*dv*), which provides experience of visual properties of distal objects, and *motion-guiding vision* (*mgv*), which locates objects in agent-centred terms and enables orientation and motor control. Matthen employs a bit of applied aesthetics, as it were, to clarify this distinction. Following the work

of Dominic Lopes (*Understanding Pictures* [1996]) and Richard Wollheim (*On Art and the Mind: Essays and Lectures* [1973]) before him, Matthen subscribes to a twofoldness model of seeing pictures: we see the picture itself and we *see in* the picture the depicted object. Seeing the picture engages both *dv* and *mgv*; seeing in the picture only engages *dv*. What the latter lacks is a kind of implied assertive force which is enabled only by the provision of agent-centred coordinates. These coordinates only accompany seeing actual objects and without them seeing lacks a *feeling of presence*. Matthen thus appeals to a controversial theory of pictorial experience and so, by implication, critics of twofoldness will be critics of this component of his analysis.

Working in the opposite direction instead, Matthen's view provides various applications to aesthetic theory. The difference between seeing a three-dimensional object (a *depictum*) and seeing a two-dimensional depicted is typically accounted for by descriptive differences and medium awareness. Matthen's theory provides a novel explanation of this difference: seeing depicted objects lacks a feeling of presence. This invites comparative analyses of sculpture, theatre, and performance on the one hand, versus painting, photography, and film on the other. Matthen's claims also entail that imagination is rarely sufficient to engage *mgv* and thus will not result in a feeling of presence, and this, in turn, suggests that there are interesting differences between fiction and certain conceptual arts as opposed to more strictly perceptual arts.

Matthen offers an analytic table of contents, a list of definitions and theses, and a comprehensive index. This is helpful, as readers will find the book dense, challenging, and rigorous. It will repay several visits, and its importance to philosophers of various stripes, as the above review attempts to indicate, should not go unnoticed.

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