identical. As he puts it, they 'are but one thing'.(p. 38) His position may need further textual defence, as other commentators (e.g., T. J. Cronin and David Clemenson) have maintained that they are not.

There is also a further issue to which Hight might have accorded, at least briefly, some attention. He rightly points out that the early modern philosophers each had their own ontology of ideas. But this does not detract from the fact that many early moderns, beginning with Descartes, did have a much stronger concern with epistemology than their predecessors. In this context, Hight could perhaps have delved a bit deeper into the precise connections between early modern epistemology and ontology. Can the one be fully understood without the other? For example, can we truly understand what Berkeley thought about what one can know without a proper understanding of the ontological status of Berkeley's ideas? Berkeley's ideas have, as Hight notes, been seen as modes of the thinker or as ontically dependent on God's perception. But surely accepting either the one or the other would entail specific commitments as to *what* the perceiver can know. The precise ways in which ontology and epistemology may inter-relate — and the extent to which they are separable — in the work of early modern philosophers would have merited some further discussion.

Taken overall, Hight's book contains new claims, supported by quite intricate arguments. It is an interesting read and provides food for thought.

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The Senses: Classic and Contemporary Philosophical Perspectives. EDITED BY FIONA MACPHERSON. (New York: Oxford University Press, 2011. Pp. 448. Price £18.99.)

This interesting and timely anthology is divided into two sections. The first contains ten 'Classic Works' on the senses and the second, eight new papers that (in the main) started life as contributions to a conference held at the University of Glasgow in 2004. There is, in addition, a long editor's introduction that can also be viewed as a ninth new paper.

The topic of the book is the differences between the senses and the principles that should be used to determine their number and type. These issues have not always been thought particularly important, even by those writing about them. They are frequently considered, to use the phrase with which Norton Nelkin opens his paper, 'somewhat modest' (p. 184). And in his new (and second) contribution, John Heil admits to being 'less than confident that philosophers have much to contribute on the topic' (p. 284). The papers and extracts collected here, both Classic and New, go a long way to answering such uncertainty.

The selections in Section I make it clear that questions about the senses impact upon a number of issues in the philosophy of perception that are generally accepted as central. This is perhaps clearest in Grice's 'Some Remarks About the Senses'. In considering how to meet the claim that a creature pos-

sesses a sense other than the familiar five, Grice is led into a detailed discussion of direct and indirect perception and, as John O'Dea emphasises later on, 'the vexed question of the relationship between content and character' (p. 302). The four criteria for individuating the senses that Grice introduced in that paper still provide the framework for much philosophical thinking about the senses, including that in evidence in many of the papers in this volume. In 'The Senses of Martians' C.A.J. Coady questions the coherence of a thought experiment Grice employs in his 'Remarks'.

It is also obvious from Section I that the topic of this volume is more multiplicitous and subtle than it might at first seem. In approaching the question of how the senses are distinguished from one another, there are a many strands of enquiry to disentangle. For example, we might ask 'by what means have people discovered the senses and come to the belief that there are five of them?' (Nelkin), or 'how is it that, when one sees something, one is able to say that one sees it?' (J.W. Roxbee-Cox), or then again, 'how many modalities do humans have and how ought we to decide the issue?' (What Brian Keeley calls 'Aristotle's problem'). An extract from Aristotle's *De Anima* is the oldest contribution to the volume. Aristotle's account of the distinction between the senses is explained and evaluated in the paper by Richard Sorabji.

The final paper in Section I lays bare the naturalistic turn philosophical interest in the senses has taken. Scientific findings about human and animal perception that explain much contemporary philosophical interest in the senses are taken by Keeley to show that Aristotle undercounted senses in both humans and animals. Tim Bayne's paper in Section II takes up this suggestion, arguing for a distinct sense of agency, a perceptual modality that is noticeable by its absence in, for example, anarchic hand syndrome. Austin Clark addresses scientific work on interactions between the senses, arguing that cross-modal cueing experiments show that a common space is represented in at least vision, hearing and touch.

Robert Hopkins', A.D. Smith's and John O'Dea's papers in Section II, as well as M.G.F. Martin's in Section I represent a different approach. Here, close attention is paid to the way in which experiences in different modalities differ phenomenologically. O'Dea argues that 'part of perceptual experience is an awareness of the sense organ being used' (p. 306), and that this aspect of phenomenal character distinguishes between the senses (Grice and Mark Leon, in Section I, also argue that phenomenal character is essential to distinguishing the senses). Hopkins pursues the question of differences between perceptual experiences in different modalities in tandem with that of differences amongst sensory imaginings. Like Martin, he focuses on structural differences between visual and tactile experience. Smith builds on his own, earlier, work, offering an account of why, when we feel pressure at the site of some pain, we do not experience the painful quality as a quality of the extra-bodily object causing the experience of pressure.

The papers by Richard Gray and Matthew Nudds, and Fiona Macpherson's introduction, are profitably considered together. Standing against the naturalistic

turn mentioned above, Nudds offers a careful investigation of the view that our concepts of senses are concepts of certain psychological natural kinds, namely sensory mechanisms. He argues that there is evidence that there are no such mechanisms to match up to our concepts. Thus, either our concepts of the senses are empty, or, they are not natural-kind concepts after all. Here, he hints at the non-naturalistic account of the senses he has offered elsewhere (M. Nudds, 'The Significance of the Senses'. *Proceedings of the Aristotelian Society*, 104 (2004), pp. 31–51) according to which our concepts of the senses are folk-psychological concepts defined by the role they play in understanding and predicting other people's behaviour.

In his contribution, Richard Gray evaluates Nudds' (as he sees it) antirealist account of the senses alongside Keeley's 'realism'. Mediating between the two views he argues for a realist position that turns down some aspects of the view Nudds' attributes to the naturalist about the senses whilst accepting Nudds' claim that a philosophical account of the senses must take into account their significance.

In her introduction, Macpherson argues against what she calls the 'sparse view' that the senses are few in number, and rather different and distinct from one another. She argues that (*contra* Nudds) our 'folk' concept doesn't commit us to the sparse view. Instead, she contends that our concept *sense* makes room for such 'new' senses as proprioception, and a vomeronasal (pheromone detection) sense. She cites, in evidence, (i) that scientists are 'some of the folk' and they regularly count more senses than five; (ii) that it is plausible that non-scientists, given the facts about such faculties, would unhesitatingly count them as senses and (iii) that in popular culture the idea of other senses (such as x-ray 'vision') abounds.

There is much that might be said in response to each of (i)–(iii). I will end this review by remarking on just (i) and (ii). Whilst it is right that scientists do and non-scientists often respond to the relevant data as Macpherson suggests, much more needs to be said for this to count in favour of the claim that our concept *sense* allows for (say) a human vomeronasal sense. First, we need to be told why we should think that in a scientific context, and in the context in which non-scientists allow for the new 'sense', the concept being employed is the same concept, used in the same way as the everyday one employed in thought and talk about 'the five senses'. Second, alternative explanations of responses to the data need to be cleared away. For example, it might be suggested that subjects count the pheromone detection mechanism as a sense because they believe (falsely!) that their concept, *sense*, is a concept of kinds of sensory mechanism.

This question about the nature of our concept *sense* is perhaps the most neglected of those philosophical questions addressed in this volume, which is a valuable contribution to the burgeoning field that tries to answer them.

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