
This collection is well-suited for students seeking a one-volume introduction to the long conversation in philosophy surrounding visual perception. The chronological arrangement of key articles (a total of 23, all but one previously published) makes this, effectively, a documentary history of a decidedly interdisciplinary discussion beginning with Maurice Merleau-Ponty (a selection from his 1945 Phenomenology of Perception) and continuing through Daniel Dennett and David Chalmers. More than history, it is also a substantive contribution to the conversation, a philosophical argument structured in a traditional fashion with roots at least as old as Aristotle: the editors choose not only what to include but also where to begin, and they get both the first and last words.

Since the direction of the argument is toward visual perception as active (or, more properly, interactive) and embodied, Merleau-Ponty is an excellent--and hardly surprising--point of departure. As a philosophical argument, this collection guides readers toward a vision of vision as something an organism does rather than an internal "mental" process. The editors place vision not in the head, but in the world. This enables them to draw on several important theoretical traditions that might otherwise appear entirely incompatible. J.J. Gibson's "ecological" approach, for example, is well-represented--though the editors introduce a comparative perspective that is, arguably, more consistently ecological than the one developed by Gibson and his followers; and they include some of the most trenchant criticism of the Gibsonian approach. What emerges from this conversation is an interactive process in which neither organism nor environment is passive. Though Jean Piaget doesn't even make a cameo appearance here (perhaps because he is rarely thought of as a philosopher or as a theorist of perception), his understanding of cognitive structures in the context of a biological process of equilibration and adaptation is an indispensable part of the theoretical background. In the foreground are computational theorists such as David Marr, and the vast literature on information processing is present even where (perhaps especially where) it is in dispute.

The editors' introductory essay gives a clear roadmap of the discussion, placing key articles vis-à-vis an "orthodox" view that is largely rejected: "The works collected in this volume target a distinct philosophical and scientific orthodoxy about the nature of perception. Some of the papers defend the orthodoxy; most criticize it; and some set forth positive alternatives to it. Each selection provides, we believe, a crucial moment in the articulation of an important family of problems for contemporary philosophy of perception" (1). The collection, then, is a series of crucial moments, each of which could be (and, in most cases, has been) the occasion for a substantive philosophical discussion. This is
particularly appropriate for seminars in which students are seeking to join a conversation rather than simply encountering it as an historically done deal: virtually every selection is an invitation. The selections are, in many cases, already recognized as classics in the field; and the editors have included either complete articles or substantial selections, so readers will not be left with the feeling of having only been exposed to snippets. Readers who do wish to explore material further will welcome the references included with each selection. These effectively extend the conversation back to John Locke and beyond, so students who master this book will be well-grounded in the history of the field as well as the work of theorists who currently dominate it.

Noë and Thompson describe the "orthodox view" as a "computational" one that "treats perception as a 'subpersonal' process carried out by functional subsystems or modules instantiated in the person's or animal's brain." This treatment means that orthodox theorists (Pylyshyn is cited as a recent example) treat perception as "cognitively impenetrable": "the beliefs and expectations of the perceiver are thought to have no influence on the character of the subpersonal computations that constitute perception" (2-3). Orthodox theorists have also contended that "every conscious perceptual state of the subject" corresponds to "a particular set of neurons...whose activities are sufficient, as a matter of scientific law, for the occurrence of that state" (3). Much of the research in visual perception guided by this argument has been concerend with locating such sets of neurons and activities, "the bridge locus" (Davida Teller) or the "neural correlate of consciousness" (David Chalmers) for visual perception. These "orthodox" theorists are well-represented in the collection, but Noë and Thompson also gather representatives of "a significant heterodoxy in visual science (and cognitive science more generally)" (3). This heterodoxy encompasses a number of "alternative research programs," but the unifying factor is "the inseparability of perception and action" (3). Noë and Thompson divide the representatives of this heterodoxy into four categories: the "ecological" approach (associated with Gibson), which approaches perception as "an act of the whole animal" (3); the "enactive" approach (associated with Maturana and Varela), which approaches perception as a self-organizing activity of the nervous system that generates "the perceptuo-motor domain of the animal" (5); the "animate vision" approach (associated with Ballard), "at the interface of computational vision, artificial intelligence, and robotics" (5), concerned with "how the facts of sensorimotor embodiment shape perception" (6); and "sensorimotor contingency theory" (associated with O'Regan and Noë), which argues that "Visual experience is not something that happens in an individual. It is something he or she does" (6).

That Noë is one of the names associated with "sensorimotor contingency theory" is a reminder that this collection is an argument as well as a documentary history. That visual experience is something one does is the first word and the last (567) in this collection; and the case (which draws on the whole range of "heterodox" theory while carefully and fairly introducing readers to the prevailing "orthodoxy") is persuasive. This is an excellent introduction for students of perceptual theory, made more effective by the fact that the editors practice what they preach: students who encounter this collection are invited not to absorb theory but to do it.

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