Reviews

Oxford Textbook of Philosophy and Psychiatry
BILL FULFORD, TIM THORNTON and GEORGE GRAHAM (Eds)
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The Oxford Textbook of Philosophy and Psychiatry sets itself (on its back cover) the seemingly impossible task of speaking to “professionals in health and social care, managers, lawyers, and policy makers; service users, informal carers and others in the voluntary sector; through to philosophers, neuroscientists and clinical researchers.” I am happy to report that Bill Fulford, Tim Thornton, and George Graham have succeeded in producing a volume that cannot fail to appeal. In over 900 letter-sized pages, complete with an accompanying CD-ROM packed with readings, they cover such topics as the concept of mental illness, methodological issues in classification and diagnosis, the history of psychopathology, and the mind-body problem in the context of mental disorder. The scope of the volume is truly impressive.

The authors have created not an overview of the field, but a tool for inquiry. Each section is complete with exercises, final reflections, self-test questions, reading guide, and an extensive bibliography. Throughout, the authors insist that the reader not merely assimilate information, but wrestle with the issues. When, e.g., we embark on the section on diagnosis in medicine and psychiatry, we are asked to:

Write a list of a few medical diagnoses. These could be from your own experience as a doctor or as a patient. Think of minor as well as more serious conditions. Then write down what purposes these diagnoses serve, thinking about this particularly from the perspective of a doctor or other healthcare professional. (Exercise 1, p. 33)

At first glance, the exercise seems easy, even trivial. Anyone who completes it, however, thinks otherwise. Estimated to last 20 minutes—time estimates accompany all exercises in the book—the exercise lays the groundwork for thinking about psychiatric diagnosis, which, unsurprisingly, is the topic of the following exercise. By comparison to medicine, psychiatric diagnoses are often couched more in terms of symptoms than in terms of etiological factors. Nevertheless, both types of diagnosis inform about etiology, treatment, and prognosis, supporting the idea that mental illness is neither a fiction nor the mental equivalent of disease. Such facts can, of course, merely be stated. By inviting the reader to engage the issues on her own, the authors mean to foster philosophical reflection.
The focus on in-depth engagement with the issues is reflected in the accompanying readings. Most of the readings are short excerpts precisely so that the reader does not rush through the material. A short excerpt from Hobbes’ objection to Descartes’ *Meditations*, e.g., is estimated to take 30 minutes to read and digest. Of course, one cannot absolutely counter the tendency of students of any subject to rush through the material. The frequent exercises and the concluding self-test questions to each section, however, ensure that more fastidious readers get the most out of the materials. As a memory tool, too, these exercises are excellent, encouraging, as they do, a concluding perusal of the text. It is hard to see how the authors could have provided more encouragement to readers to engage with the many puzzling and difficult issues at the intersection of philosophy and psychiatry.

The volume is divided into five parts. Given the size of the volume I cannot go into detail with each part. Instead, I discuss some parts in detail and some merely in outline. The detailed discussion gives a flavor of how this massive task is approached; the outlines are meant to capture its scope.

Part one outlines the core concepts that any student interested in philosophical psychiatry must master, centering on the idea of mental illness. What *is* a mental illness and how does it relate to disease? Here Thomas Szasz’s view that the idea of mental illness, by contrast to bodily disease, is primarily evaluative, frames the debate within a larger discussion of the fact–value distinction. Szasz argues that bodily disease is a deviation from factual norms concerning bodily function and structure, whereas mental illness characterizes a deviation from psychosocial, ethical, and legal norms. His view is contrasted with that of Robert Kendell, who maintains that at least some mental illnesses are as factual as physical diseases; indeed, there is no substantial difference between the two sorts of disorder. Both assume that the notion of disease in medicine is unproblematic and that the closer mental illness is shown to be to disease, the more it may be regarded as an actual disorder.

The idea that the notion of bodily disease is entirely factual and unproblematic is, of course, highly contentious. It is notoriously difficult to define ordinary biological functioning in such a way as to make everything we think of as physical disease come out as an abnormality. This is illustrated by Christopher Boorse’s attempt at drawing a principled fact–value distinction between illness and disease. As the authors point out, he finds it impossible not to smuggle in evaluative notions when he applies the term ‘disease’. What this indicates is that the notion of disease is not quite as unproblematic as is often thought; it, too, has an evaluative dimension. The conclusion is *not*, the authors argue, that there is no difference between bodily and mental illness. The difference is subtle, but extremely important for how to understand the nature of *mental* illness. The fact is that bodily illness and its various symptoms, e.g., pain, has more factual connotations than mental illness and its symptoms, e.g., anxiety, which is more characterized by evaluative connotations. This conclusion comes at the end of a couple of chapters introducing philosophical logic and conceptual analysis, culminating in a discussion of Richard Hare’s distinction between descriptive and evaluative meanings.
The organization of section one is ingenious. Philosophical method and thought is introduced at key moments to illustrate what, exactly, philosophy has to offer psychiatry. And we see that it is much. Starting from relatively confused ideas about illness and disease, we end up with a much more sophisticated understanding of the concepts and their descriptive and evaluative dimensions. We are also left with a better appreciation of the pitfalls of separating mental and bodily illness too much or too little. There is an evaluative dimension to psychiatric categories that should not be ignored.

Part two is a history of psychopathology from the time of Classical Antiquity to now. The early history is, of course, quickly dispatched, and the bulk of the section concentrates on the father of modern psychiatry, Karl Jaspers. Since he was highly influenced by phenomenology and, as a result, psychiatry is too, the phenomenological tradition is examined (through the work of Edmund Husserl). Jaspers, however, also relied on central concepts from the debate about the nature of humanistic science at the time, wherefore Dilthey, Weber, and Rickert make their own appearances in this brief history. The purpose of the section is not merely to acknowledge the history of the discipline, but to bring out in more detail some of the questions and issues that still plague it, e.g. the nature of causal explanation and the connection between reasons and causes.

Part three examines the scientific standing of psychiatry. After a brief introduction to philosophy of science, we turn to the psychoanalytic tradition. As is well known, psychoanalysis is often touted as the paradigm of pseudo-science. Most famously, Karl Popper argued that the problem with the discipline was that it was unfalsifiable. What we are given in the textbook is a sophisticated discussion of psychoanalysis and recent philosophy of science showing that many of the problems the discipline has in conforming to traditional models of scientific theory are shared with other disciplines that we would be loath to discard as nonscientific. Here, as elsewhere, one might have misgivings on the emphasis placed on one or a couple of central figures, in this instance Thomas Kuhn. Subsequent sections, however, tend to allay those concerns since a great number of philosophers and positions are eventually covered and their work pressed in to use.

A problem that haunts much psychiatric diagnosis is the difficulty of characterizing defining symptoms of mental illness in a way that is not theory-laden. If we cannot do so, we run the risk of seeing the world, and more precisely patients’ symptoms, through theory-tinted glasses. This problem, however, plagues all science, as the section goes on to elaborate. Again, the reader is made to understand that the problems with psychiatry are not unique to the discipline, but are shared by more scientifically respectable disciplines. As we proceed through the section, issues in the philosophy of science are systematically applied to issues in psychiatry: the scientific realism–antirealism debate to the question of whether mental illnesses are real, different accounts of explanation (the deductive-nomological and the causal model) to criteria for diagnostic explanation and expertise, ideas of reasons and causes to the issue of the etiology of mental illness, and the problem of induction to the evidence-based medicine approach to psychiatry.
Part four concerns itself with moral and legal issues in mental health. Questions about treatment and consent are central here, and are considered in detail. A clinical case—that of a professional (Simon) coming to believe that he is in direct communication with God—dominates the last couple of chapters and serves as an excellent demonstration of many of the lessons learnt so far. Using the ICD and the DSM-IV to classify Simon’s disorder, the authors demonstrate the importance of the diagnostic criteria used and help us see how often the need for greater accuracy hides important values. More precisely, where ICD would classify Simon as having schizophrenia, the DSM-IV would not because his work achievements have not been adversely affected by his hallucinations and disordered beliefs. Since schizophrenia is, for many practitioners, the goal-standard of a mental illness, it is a big problem that its diagnosis relies on evaluative criteria. The rest of part four gives us tools to deal with this problem.

The final part of the book is about the intersection of philosophy of mind and psychiatry. Much of psychology and psychopathology has taken an increasingly neurobiological turn. Mental illness, such as psychopathy, is increasingly understood in terms of which brain regions are affected (see the work of James Blair). This raises important questions for psychiatric diagnosis and care. This is particularly true since explanations in terms of brain malfunction are often understood to cancel out explanations in terms of mental states. A more thorough examination of the mind–body problem is therefore of particular importance to psychiatry. Here the earlier focus on the relation between reasons and causes is revisited and examined through Donald Davidson’s anomalous monism and Daniel Dennett’s intentional stance. At the very end, we are invited to consider the impact of autism on our theories of how we know other minds and of schizophrenia on our theories of personal identity. Where this part of the book began by providing help to psychiatric practitioners trying to better understand mental illness, it ends up providing philosophers with evidence that has profound impact on how to think about the mind. The book, then, has amply lived up to its promises. Although not every section or every part is of equal interest to everyone concerned with psychiatry and philosophy, the book as a whole has plenty to offer to everyone.

The Oxford Textbook of Philosophy and Psychiatry is an extraordinary piece of work. It offers insight into a field through active engagement with some of the key issues. It covers tremendous ground, but never in an enumerative or dull way. I highly recommend it to everyone toward whom it is aimed: professionals, managers, lawyers, policy makers, carers, philosophers, neuroscientists, and clinical researchers.

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For several decades, neuroscience has been one of the most rapidly growing fields among the biological sciences. Despite its appreciable lag, the philosophy of neuroscience is finally undergoing its own parallel evolution and development. Not to be confused with philosophy of mind, neurophilosophy, or any other cognates, philosophy of neuroscience is a legitimate subdiscipline in the philosophy of science dealing with theoretical, conceptual, and methodological issues arising in the neurosciences. *Cognition and the Brain* is an important book surveying the current state of the field. It includes twelve chapters organized into five sections identifying important topics in contemporary neuroscience and its philosophy: data and theory in neuroscience, neural representation, visuomotor transformation, color vision, and consciousness. To provide a view into the kinds of issues addressed in the book and wrestled with in the field more generally, I will selectively focus my critical discussion to several chapters at the exclusion of others that are certainly worthy of attention in their own right.

The first section raises challenges for several foundational assumptions underwriting theory construction and data interpretation in contemporary cognitive neuroscience. Two chapters have to do with the nature, status, and role of first-person reports. Among those, Evan Thompson, Antoine Lutz and Diego Cosmelli (ch. 2) argue that before one can successfully correlate objective, neural data and thereby explain subjective, experiential data, several methodological and epistemological issues must be tackled. Arguably, the content and character of experiences are fundamental phenomena to be explained in cognitive neuroscience (e.g., explaining a normal human observer’s visual percept when presented with a Gabor patch having a certain spatial frequency and orientation is a fairly typical goal of visual neuroscience). Yet the only available experimental data are reports given by subjects, and these are at best only *indirect* measures of the experiences themselves. Hence, the question arises as to how direct the correspondence relationship is between the first-order experience and the second-order awareness of that experience reflected in the subjective report. Few have taken up this important question, let alone offered plausible answers to it. The gist of Thompson et al.’s proposal is that the correspondence is close enough for the report to usefully serve as data, but that a tighter registration can be attained through the employment of phenomenological methods, such as training subjects to sharpen their attentional sensitivity and use a more fine-grained vocabulary to describe their experiences more accurately. According to the authors, one further upshot of more regimented experiential data is that it will better serve its current role in constraining hypotheses about neural implementation. The success of their arguments notwithstanding, it seems beyond
doubt that issues of the relationship between experience and its subjective report must be taken seriously by all neuroscientists that seek explain sensory (e.g., visual, auditory, or tactile) psychophysical data.

Another salient issue in neuroscience, addressed by Valerie Hardcastle and Matthew Stewart (ch.1), involves the widespread commitment to functional localization as a basic organizing principle of the brain. If this assumption is false or if its scope is more restricted than commonly presumed, then it represents a problematic and deeply entrenched bias with broad consequences. This is especially true in areas of neuroscience where inferences about structure-function relationships are drawn from analyses of functional deficits stemming from structural damage or lesions. Hardcastle and Stewart pose what amounts to an empirical challenge to the functional localization thesis. In general, there are two principal ways of doing this: (a) supplying evidence for the spatially distributed nature of the neural substrate supporting a given function or ability; or (b) a more indirect route appealing to neural plasticity or functional reorganization. Hardcastle and Stewart opt for the latter strategy. The route is indirect because only in certain cases does plasticity militate against localization claims. Brain plasticity involving subsumption of a given function by a neural substrate (e.g., circuit, area, or set of areas) not normally associated with the performance of that function is directly at odds with both the claim that the function is localized to a single area and the (often tacit) rider that only that particular area is capable of supporting the function. However, inferences from observations of plasticity to anti-localization claims aren’t automatic, because there are other varieties of plasticity that don’t seem to place any pressure at all on claims about localization. Hardcastle and Stewart maintain that the process of vestibular compensation—rapid recovery of postural and oculomotor function following unilateral vestibular deafferentation—provides clear empirical evidence of the brain’s capacity for functional reorganization and consequently raises a red flag for the localization assumption. In their words, “searching for the function of any area is a fool’s errand” (p. 36). Despite an interesting and informed discussion, it is difficult to see how this sweeping conclusion follows.

Undoubtedly, vestibular compensation involves plasticity. Compensation has been documented repeatedly in natural and experimental contexts across many vertebrate species, including humans. And since receptors in the semi-circular canals cannot regenerate and the observed timescale of recovery is too rapid to lay down new connections, some other kind of plasticity must be in play. Vestibular compensation turns out to involve the “unmasking” and subsequent use of normally present (yet typically unexploited) visual inputs to vestibular nuclei. Yet one might plausibly wonder why this type of plasticity warrants an inference to an anti-localization thesis. The adaptive change in the brain in these cases seems to involve only a change in connectivity, but these altered connections nevertheless remain connections to the very same nuclei subserving vestibular functions in normal, undamaged brains. Following compensation, vestibular nuclei continue to be the loci of normal functional capacities such as posture maintenance, balance, and gaze stabilization. The only significant difference is this selfsame functional area is now supplied sensory
signals from a (once-redundant now-necessary) visual source. Since there is no real subsumption of functional roles to distinct brain areas, there is little basis for an anti-localization thesis. What is needed to avoid some of the confusions Hardcastle and Stewart fall prey to is a more precise classification scheme for types of plasticity, in addition to a more systematic characterization about how these map onto anti-localization theses.

On a more positive note, the chapter emphasizes the significant role localization hypotheses often play, and highlights potential difficulties in the inference from evidence of neural plasticity to a conclusion against functional localization. Additionally, it indicates how conceptual clarifications and refinements can assist in deepening our understanding of the brain and its capacities. With finer-grained distinctions between types of plasticity—say between those involving wholesale recruitment of entirely distinct areas versus those merely altering connectivity—some of the empirical disputes might dissipate. Yet still other distinct kinds of plasticity would remain uncategorized such as intra-area reorganization or “remodelling” of body surface representations in somatosensory cortex during normal regimes of motor learning (e.g., Wang et al., 1995). These and other forms of experience-dependent plasticity would also stand in need of incorporation into a comprehensive conceptual framework. However, all this is just to state that there is more work for the philosopher of neuroscience to do in this area, which is unarguably a good thing.

The next section revolves around the topic of representation, which lies close to the heart of many debates in theoretical cognitive science. The contributions here are diverse. Whereas Chris Eliasmith (ch. 4) makes a highly general argument against understanding neural representation in any terms but its own (i.e., without reliance on metaphor), the other two chapters cover more specific issues involving temporal representation and its physical implementation in the brain. I will focus on some provocative proposals made by Rick Grush (ch. 5) since his chapter has import into other ongoing debates in philosophy of cognitive science including the dialogue over the shape and plausibility of sensorimotor accounts of perception.

Grush’s starting point is a phenomenological insight shared by theorists such as James and Husserl that experience, to use Grush’s apt phrase, is “not temporally punctate,” but instead exhibits temporal spread. The basic idea is that if normal human observers are suitably sensitive to the temporal aspect of any given experience they will notice how the temporal content isn’t exhausted by what is occurring at the particular instant in real time at which the experiential state occurs or is tokened. Time as represented spans some short yet definite temporal interval stretching a little back into the past and forward into the future from the current moment in real time (Husserl famously called these aspects “retention” and “protention,” respectively). Granting this initial phenomenological assumption about the interval-like nature of temporal contents places distinct demands on the information-processing structures capable of supporting such contents. Specifically, the candidate physical structures or processes must be capable of generating an evolving estimate of the state of whatever process or system is being tracked and/or controlled over some temporally extended interval centered on the current time. For us, this will involve our brains generating
optimal state estimates both about our own bodily processes and environmental ones (e.g., the changing position and velocity of our hand during a reaching movement toward a ball rolling across the table). Drawing upon resources from control theory and signal processing theory, Grush articulates what he calls the “moving window emulation” model that is supposed to achieve exactly this goal. To those familiar with some of Grush’s previous work, this proposal should sound relatively familiar. The model extends—to the temporal domain—the emulation framework he’s been systematically developing over the past decade or so as a general account of representation and cognition (e.g., Grush, 2004). To his credit, it does seem to have the right shape to begin to explain the primary phenomenological intuition for which it was developed. However, far more specification of the theoretical model would be required to subject it to empirical test. For instance, in order to map elements of the model onto neural structures and start to see how it might be implemented in real neural systems, it would be useful to know precisely those aspects (bodily and environmental) for which trajectory estimates are being constructed. As a final plus, the model seems equally capable of making sense of various puzzling and recalcitrant perceptual phenomena well-known for many years in psychophysical studies, such as the cutaneous rabbit illusion and the flash-lag effect. Not a bad start for a philosopher.

Having an information-processing model putatively showing how temporally indexed information can be carried by a system’s states is only half the battle for Grush; the other is explaining how these selfsame states carry temporal contents for an experiencing subject. Importantly for Grush, these aspects cannot be collapsed into one another. This aspect of the account requires Grush to put forward another novel and fascinating suggestion that having temporal perceptual contents at the personal level depends critically upon having the appropriate kinds of connections forged between sensory inputs and motor behavioral outputs (which necessarily unfold in time and have rich temporal structure). The thrust of his hypothesis is well captured by the following: “What makes a given information-carrying state support experience with content specifiable in terms of behavioral time will be the fact that the state plays a role in the right sensorimotor dispositions, in this case, the temporal features of such dispositions” (p. 189). While Grush has developed a similar idea in more detail elsewhere as a proposal for explaining our capacity for representing space, its application to temporal representation is new. Regardless of the ultimate tenability of Grush’s theoretical model, his overall account succeeds in lending some much needed plausibility to the hypothesis that behavior is somehow intimately connected to the contents carried by perceptual experiences. It offers fresh new possibilities for making such ideas concrete that cannot be easily gainsaid by detractors, in striking contrast to a number of other superficially similar views on offer these days that rely upon overly loose metaphors or otherwise hard-to-pin-down constructs such as “sensorimotor contingencies.” It is for these reasons combined that Grush’s essay is one of the richest and most thought provoking of the entire volume.

The next three sections cover visuomotor transformations, color vision, and consciousness, respectively. All are rich in interesting and important material.
Of particular note is Pierre Jacob’s (ch. 7) well-informed and useful overview of the dual visual systems theory, which includes a critical discussion of the ongoing debate over the specific role (or roles) vision plays in the guidance and control of motor behavior. Also noteworthy is Paul Churchland’s (ch. 9) paper on color vision, both as a discussion about the prospects of a neural network theory of color experience and simply as a new contribution from one of the original philosophers of neuroscience. Finally, Andrew Brook (ch. 12) offers an illuminating discussion of the various skeptical arguments against a broadly representationalist or neuroscientific account of consciousness and shows, in an incredibly clear manner, a route to avoiding some of the more troublesome, unproductive philosophical debates.

The aim for the volume, according to the editors, is “to achieve a comprehensive ‘snapshot’ of the current state of the art in the project to relate philosophy and neuroscience” (p. 2). Although worthwhile in many ways, it falls slightly short of delivering on this promise. One might naturally expect a comprehensive survey of the philosophy of neuroscience to be capable of serving as something of a general reader or reference for the field. The book fares with mixed results, however, either as an entry point for neophytes, or as an authoritative reference for experts. For beginners, many of the articles simply presuppose too much in the way of background knowledge and set-up to allow anything more than a schematic understanding. Without substantive section introductions, the uninitiated reader will be hard pressed to see what is really at stake in the ensuing discussions and debates. There are indeed a few contributions that might have, if expanded, usefully served as references for practitioners of philosophy of neuroscience, perhaps for those who wanted a systematic delineation of basic concepts and problems in the area in which they work, or perhaps for those reading outside their specific areas of expertise. However, these contributions are outnumbered by those whose coverage is far less synoptic and systematic. For example, neither of the contributions in the section on visuomotor transformations includes a discussion of the role played by parietal cortex in spatial coordinate frame transformations, or the central and ongoing debate in that literature over whether posterior parietal cortex implements them as flexible basis function representations or as a series of intermediate coordinate frame remappings between sensory input and motor output (Andersen et al., 1997; Buneo & Andersen, 2006; Pouget & Sejnowski, 1997).

Despite these grievances, Cognition and the Brain is a solid collection, which includes a number of new papers by preeminent researchers in the field and does succeed at providing a good yet rough sense of the philosophy of neuroscience. For these reasons alone it is worthwhile reading. The book’s strengths should help to further galvanize a new generation of philosophers interested in the neurosciences who were still cutting their teeth during the decade of the brain. It should also provide a useful resource to theoretically-minded neuroscientists wishing to reflect further on the nature of their own work, find possible conceptual clarification, or even discover a novel theoretical vocabulary or set of ideas to connect some not-yet-connected dots.
References


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**Cartographies of the Mind: Philosophy and Psychology in Intersection**

**MASSIMO MARAFFA, MARIO DE CARO, and FRANCESCO FERRETTI (Eds)**

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*Cartographies of the Mind* contains stimulating contributions to the fields of cognitive science and philosophical psychology. Most of the chapters provide empirically rigorous and philosophically interesting introductions to the topics that are examined. It could serve well as a primary text for either upper-level undergraduate courses or graduate-level survey courses on cognitive science or philosophical psychology. But given the breadth of topics covered and the uneven quality of the essays, a course reading list would require supplementary materials as well.

The book consists of twenty-three chapters, divided into three parts: “The Interplay of Levels,” “Dimensions of Mind,” and “Dimensions of Agency.” These titles are not informative; so, this review provides a general overview of main themes discussed in each part, and examines some of the more interesting chapters. According to the editor’s preface, the volume’s authors share an *interactionist* approach to the study of the mind. This approach purports to avoid the biases of both “scientific” and “philosophical isolationism.” The former regards scientific psychology to be the only viable methodology for examining the mind. The latter regards philosophical methodology to be the only viable tool for investigating the
mind. The interactionist approach integrates the findings of an empirically-informed philosophy of mind and a philosophically-informed scientific psychology.

Part One, “The Interplay of Levels,” contains an introductory chapter to the book and two chapters that focus on computational explanation. Each chapter in Part One assumes that some version of computational functionalism is true; hence their emphasis on computational explanation.

Chapter One, Massimo Marraffa’s “Setting the Stage: Persons, Minds and Brains,” introduces the main themes and topics examined in the book. Marraffa constructs a brief but detailed history of cognitive science during the 20th Century, which focuses on how various reactions to eliminativism about folk psychology (in its introspectionist and computational forms) shaped the development of cognitive psychology and the central debates in philosophy of mind during that period. Marraffa’s account of the development of functionalism from behaviorism is exemplary. He also lucidly describes the main theoretical perspectives taken towards the relation between neuroscientific explanation, psychological explanation, and other forms of explanation. Marraffa ultimately advocates a non-reductionist theory that he calls, “explanatory pluralism,” which contends that as science develops, different “levels” of explanation co-evolve and do not succumb to reduction. Marraffa contrasts the pluralistic model of the co-evolution of scientific theories that he endorses with the reductionist model defended by Paul Churchland and Patricia Churchland. Marraffa criticizes the unidirectionality of their reductionist approach, and he endorses a non-reductive theory that displays bidirectionality (i.e., lower-level theories are considered to “mutually influence” higher-level theories). Marraffa’s explanatory pluralism draws from the work of Huib Looren de Jong. While the general discussion of the role of scientific explanation in cognitive psychology is fruitful, Marraffa’s chapter is marred by his hasty dismissal of the explanatory value of introspection. He argues that to rely on introspection in cognitive psychology is to commit the “homunculus fallacy.” His argument would benefit from engaging with contemporary philosophical work on introspection, including the sort of work present in subsequent chapters, such as Tim Bayne’s attempt to vindicate the status of introspection (discussed below). This is an instance of a more general weakness of the book: although there is some engagement between the chapters, they are mostly freestanding and are not well integrated with each other—an extremely striking flaw given the editors’ interactionist ambitions. The addition of an epilogue that integrates the arguments and themes of the book might have helped in this regard.

Part Two, “Dimensions of Mind,” consists of seven chapters each of which provides interesting and recent psychological data on a specific topic (e.g., perception) and discusses philosophical issues that pertain to the topic. Part Two contains chapters on the following topics: perception, synaesthesia, memory, emotion, cognition, concepts, reasoning and language comprehension. Many “research programs” are offered in these essays, and their abbreviated proposals would benefit from more sustained argumentation. (Craig De Lancy’s “Emotion and Cognition: A New Map of the Terrain,” provides the most developed proposal in Part Two.)
Part Three, “Dimensions of Agency,” is longer than Parts One and Two combined, and is divided into four sections. The section titles are uninformative and a more specific description of their contents is in order, which is unfortunate since the strongest and most interesting chapters of the book appear here.

Section One, “Self-Knowledge,” consists of chapters about the unconscious, self-deception, and the nature of human agency. The latter is discussed by Eddy Nahmias in his “Autonomous Agency and Social Psychology.” Nahmias describes a series of threats to human autonomy (better: ‘volitional integrity’) that have emerged from the findings of various studies in social psychology, such as situationism, the explanatory irrelevance of character traits, and the errors of folk psychology and introspection. One moral that is frequently drawn from these studies is that human beings do not govern their behavior by principles that they have consciously chosen. Nahmias persuasively argues that the empirical data of these studies do not provide evidence for this broad threat to human autonomy. Nahmias’ arguments are stimulating, and raise difficult questions about what it is to consciously choose a principle of action.

Section Two, “ Consciousness,” consists of three chapters that formulate and defend various conceptions of the unity of consciousness. Tim Bayne’s “The Unity of Consciousness: A Cartography,” is particularly helpful. Bayne articulates a few of the most prominent understandings of the idea that consciousness is unified. One conception, dubbed “the unity thesis” by Bayne, maintains that “for any subject of experience, there will be a global phenomenal state that subsumes each of the experiences that the subject in question has at the time” (p. 207). Bayne indirectly supports the unity thesis by undermining the primary objection to it—namely, the split-brain objection. According to this objection, empirical data from cases of persons with a severed corpus callosum show that such persons have two simultaneous streams of consciousness, at least within experimental contexts. Such cases are frequently used as counter-examples to the unity thesis. Bayne criticizes the split-brain objection, saying that “the evidence suggests that conscious perception of the split-brain subject may alternate between their hemispheres, rather than each hemisphere supporting its own stream of consciousness” (p. 208). Bayne supports this interpretation of the evidence by citing the findings of Jerre Levy and Colwyn Trevarthen’s work on split-brain cases, which strongly suggest that the split-brain data do not provide a straightforward counter-example to the unity thesis.

Section Three, “Agency and the Self,” contains two chapters that argue against eliminativism about the self and one chapter about the problem(s) of free will. Although the title of the section may suggest otherwise, it is not about action-theory or moral psychology. The two chapters that argue against eliminativism about the self, Ralph Kennedy and George Graham’s “Extreme Self-Denial” and Stephen White’s “Empirical Psychology, Transcendental Phenomenology and the Self,” present similar arguments against Humeanism about the self. Both chapters develop versions of the Kantian thesis that conscious perception requires that there is an agent that has such perception. Kennedy and Graham emphasize the mineness of conscious perception; White emphasizes features of rationality that presuppose the
existence of a subject of what he dubs rich perception. The arguments of these chapters are interesting, but they would benefit from more engagement with actual defenders of Humeanism about the self such as Derek Parfit (Kennedy and Graham do mention Parfit’s view, but they do not grapple with it).

Section Three also contains Mario De Caro’s “How to Deal with the Free Will Issue: The Roles of Conceptual Analysis and Empirical Science,” which contains a classification of theories of free will. There is a problem with this taxonomy that is also directly relevant to the categorization of theories provided in the book’s preface. De Caro classifies theories of free will as either scientific isolationist, philosophical isolationist or pluralist. Scientific isolationism treats the problems of free will as empirical problems that can only be addressed by empirical science. Philosophical isolationism regards the problems of free will as a priori conceptual problems that can only be solved with philosophical conceptual analysis. The third option, which De Caro advocates, is pluralism, which maintains that both empirical science and philosophy should be used to resolve the problems of free will. De Caro’s taxonomy employs an unclear contrast between philosophical methods and scientific methods, and his characterization of philosophical methodology is particularly unhelpful: he claims that philosophical approaches to a problem require (1) the deployment of a unique form of philosophical conceptual analysis and (2) the use a priori methods for solving problems. First, there is no distinctively philosophical form of conceptual analysis, and it is doubtful that analytic philosophers (the philosophers most explicitly concerned with conceptual analysis) share a single conception of it. Frege, Wittgenstein, Russell, Quine, and Kripke clearly have different conceptions of conceptual analysis and its role in philosophical investigation. Moreover, many branches of contemporary analytic philosophy (e.g., contemporary normative ethics) are not primarily concerned with or primarily deploy conceptual analysis. Second, assuming that philosophical investigation must be a priori is highly controversial and endorses an overly rationalist conception of philosophy.

In short, scientific isolationism, philosophical isolationism and pluralism are not helpful categories for classifying the central issues of either free will or philosophy of mind. Few, if any, contemporary analytic discussions of free will and philosophy of mind either solely rely upon empirical science or only deploy conceptual analysis and a priori methods. Most of the major figures in philosophy of mind use empirical science, conceptual analysis and a priori methods in their research: consider the work of Ned Block, David Chalmers, and Jerry Fodor. To address the problems of free will and philosophy of mind, it is more helpful to examine the arguments of authors doing research in these fields than it is to classify their arguments as (scientifically or philosophically) isolationist. In this vein, De Caro does provide an interesting discussion of the theories of Robert Kane and Timothy O’Connor.

Section Four, “Social Agency,” consists of chapters about (a) whether non-linguistic animals can have beliefs, (b) theory-theory versus simulation theory and (c) the relation between social science and neuroscience. Simone Gonzzano’s “The Beliefs of Mute Animals,” contains a particularly sophisticated discussion of the first topic.
Building upon Donald Davidson’s work on belief, Gonzanno argues, against Davidson, that one may be justified in attributing beliefs to certain non-linguistic animals.

One final note: the text contains numerous typographical errors. This reviewer detected twenty-six (most of which are before page 200). One would hope to provide a better example for one’s students.

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Physicalism: Or Something Near Enough
JAEGWON KIM
200 pages, ISBN: 0691133859 (pbk); $29.95

Jaegwon Kim is well known in contemporary philosophy of mind for challenging traditional conceptions of mental causation, and for his advocacy of the reduction of the mental to the physical. In this book Kim continues to argue that nonreductive physicalism in philosophy of mind cannot account for mental causation. Kim argues that only a reduction of the mental to the physical can account for mental causation, because physical to physical causation is the only legitimate kind of causation. Mind-body reduction is thus necessary to save mental causation. Kim further argues that much of our mental phenomena, such as beliefs, desires, thoughts, and intentions are reducible. The only exception is qualitative features of experience, or “qualia,” which he does not think can be easily reduced. The attempt at reduction Kim calls “the problem of consciousness.” Mental causation and consciousness are thus identified as the main problems for physicalism.

I will start with Kim’s discussion of mental causation. In chapter 1 Kim argues that causal efficacy of mental properties is inconsistent with the acceptance of:

1. Physical causal closure: If a physical event has a cause at t, then it has a physical cause at t.
2. Causal exclusion: No event can have more than one sufficient cause, unless it is a case of overdetermination.
3. Mind-body supervenience: What happens in our mental life is wholly dependent on, and determined by, what happens to our bodily processes.
4. Mental/physical property dualism: A mental property is irreducible to a physical property.

A physicalist is committed to accepting (1) and (3). Exclusion principles like (2) are not easy to give up for someone with a physicalist metaphysics. Mental/physical property dualism, therefore, must be given up. It follows we must become reductive physicalists. Otherwise, mental causation is impossible. This is because only a physical cause, such as bodily processes, can cause any physical event. It should be pointed out that versions of nonreductive physicalism are forms of property dualism on this construal. This “supervenience argument” is an attempt to show that we cannot have mental causation without reductive physicalism.

In chapter 3, Kim argues that substance dualism, as well as property dualism, cannot account for mental causation. This is because the very possibility of any kind of causal relationship depends upon a shared spatiotemporal coordinate system. Immaterial, nonspatial entities cannot enter into causal interactions. In this chapter Kim goes beyond simply claiming that something nonspatial cannot cause something to happen in space. He offers an interesting and original criticism of substance dualism of the Cartesian sort, by giving what he calls “the pairing problem.”

Kim asks us to suppose that two guns, A and B, are simultaneously fired resulting in the simultaneous deaths of two people, A’ and B’ respectively. Firing A causes the death of A’ and firing B causes the death of B’. What principle underlies these causal pairings? (p. 79) Kim’s answer is that all and only spatial relations can pair the firing of A with the death of A’ and the firing of B with the death of B’. Kim argues that for mental causation no nonspatial psychological relation can do the job. Consider the perception of a tree. What is it to perceive one tree and not another? The only credible answer is a causal one. The tree I see is the one that is causing my perceptual experience. The trees I do not see are not so causally related to me. So, intentional relations can only be explained by causal relations. These causal relations are unintelligible without some kind of “space” that gives each mental substance a unique “location.” But causal relations outside of physical space have never been worked out coherently.

Kim considers some possible psychological cause-effect pairings, but finds them incoherent, or to presuppose physical spatial relations. Although I have not done justice to it, I find this part of his book original and a plausible critique of Cartesian interactionism. The upshot is that if we are to save mental causation, we must be reductive physicalists. I do not see how we can deny that Kim has made a convincing case for this view. Seemingly the only way out of this for a substance dualist is to bite the bullet and claim that there just are mental causes whether or not there is any explanation of them. If itching and wanting to scratch do not bring about my scratching, then we are in trouble. I turn next to Kim’s account in chapter 4 of how we should reduce the mental to the physical.

Kim begins his treatment of reduction by saying that if we could reduce pain to C-fiber stimulation, or reductively explain pain, then we could eliminate what Joseph
Levine called the “explanatory gap” between qualitative features of our inner experience of pain and our neural states. He considers different kinds of reduction found in the literature, and opts for what he calls “functional reduction.” This involves two stages: (1) identifying the causal roles of the underlying mechanisms, and (2) empirically discovering what these underlying mechanisms are. As an example, Kim shows us what a functional reduction of pain might look like:

Suppose pain is being functionalized, say, à la David Armstrong: being in pain is a state apt to be caused by tissue damage and apt for causing winces and groans. Why is Jones in pain? Because to be in pain is to be in some state that is apt to be caused by tissue damage and apt for causing winces and groans, and Jones is now in neural state N, which, as it happens, is a state apt to be caused by tissue damage and apt for causing winces and groans. (p. 112)

Kim says that this seems like a good functional reduction of Jones’ pain that shows how a reductive explanation can close the explanatory gap. Pain plays the causal role of being caused by tissue damage, and in turn causing me to groan. Empirically, the pain is realized in some neural state N, which just happens to in fact be the state that is discovered to play the causal role in question. Here it looks like Kim is satisfied that he has shown what a functionalist reduction of pain would be like. This is a “reduction” because pain is nothing else than the realization of the causal role in a neural substrate, Kim goes on to consider an additional and different proposal by Ned Block and Robert Stalnaker to give a reductive explanation of consciousness in terms of a posteriori necessary identity. Kim construes their reductive explanation of consciousness in two ways, one of which is:

Suppose we want to explain why consciousness ceases in people when they are administered sodium pentothal. . . . Block and Stalnaker evidently think that a reductive explanation of this phenomenon could work like this:

(III)T (neurophysiology)

An injection of sodium pentothal causes pyramid cell activity to cease (from T).
(K) Consciousness = pyramidal cell activity.
Therefore, an injection of sodium pentothal causes loss of consciousness.

Kim makes the following remarks about such attempts to reduce conscious states in the final chapter of the book:

Can we reduce qualitative states of consciousness? . . . [suppose] we are asked to design a machine that responds to punctures and abrasions to its own skin . . . by taking evasive maneuvers to separate itself from the source of the damage . . . in addition we are told to make this device experience pain when it suffers damage to its skin. That is, we are asked to design into the machine a “pain box” which, in addition to its causal work of triggering a motor response when it suffers damage, gives rise to a pain experience. We can, I am sure, easily design into a machine a device that will serve as a causal intermediary between the physical input and the behavioral output, but making it experience pain is a totally different affair. I don’t think we even know where to begin. What we miss . . . is a connection between the causal work of the pain box and the arising of pain when the box is activated. Why pain rather than an itch or tickle? The machine would try to flee
Kim thinks this shows that causal work will not distinguish a pain or itch from other sensations. Pain is associated with tasks like scratching (like an itch) or squirming behavior (like a tickle) but this causal work does not define or constitute a felt pain. In general, qualia like a felt pain are not functional properties. This explains why it is so difficult to give a functional reduction of any “quale” like pain.

It seems safe to conclude that according to Kim’s own account, he has not provided us with a single example of a functional or explanatory reduction for any mental phenomenon to a neural base, with the possible exception of pain. But if we cannot reduce pain and sensations (sensory qualia) to a neural substrate, what can be so reduced, if anything? Kim addresses this question, writing:

It seems to me that we cannot avoid thinking of intentional/cognitive states, like thought, belief, and desire, as supervenient on behavior and other observable physical facts. We must accept creatures that are behaviorally and functionally like us as creatures with mentality similar to ours—with belief, desire, intentionality, will, and so on. This is one strong reason for thinking that such mental properties are definable and interpretable in terms of their roles in behavior causation. (p. 166)

Kim goes on to make some major concessions that militate against finding any functionalist reductions of intentional states such as believing, desiring and intending. He does not believe that anyone has produced full functional definitions of such mental phenomena, and that it is unlikely that we will have any such definitions soon (pp. 165, 167). If we can give partial functional analyses of these properties we can, Kim believes, start to search for the underlying physical and biological mechanisms.

Kim argues that relational properties of qualia, such as pain, can be captured with his functional reduction. Thus the problem of mental causation is largely, but not completely, solved. The concept of pain is defined functionally, as stated above. But the intrinsic quality of pain, its hurting, is a quale that cannot be captured in this functional reduction. The hurtfulness, or felt quality, is causally inert or inefficacious. We can only capture the similarities and differences of pain in our functional reduction. Thus his view is “near enough” to physicalism. We must leave a mental residue, or the intrinsic qualities of qualia. The problem of consciousness is not completely solved.

Physicalism: Or Something Near Enough is vintage Kim, and well worth reading for anyone interested in physicalism in the philosophy of mind.

References

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