

En cualquier caso, y en tercer lugar, se suscitan al menos dos cuestiones acerca de la concepción de los universales que se está tomando en consideración y en las que el artículo no entra en demasiados detalles. La primera atañe a cuál es el criterio de identidad que se está sosteniendo o asumiendo acerca de los universales o, dicho de otra manera, cuáles son las condiciones en las que dos términos generales designan el mismo universal. La segunda cuestión es cuáles son las condiciones en las que un universal existe en un mundo posible. Estas dos cuestiones también se suscitan si extendemos la definición kripkeana de designador rígido anteriormente mencionada, propuesta inicialmente para los términos singulares, a los términos de género natural o, en general, a los términos de género de la siguiente manera: Un designador d de un género g es *rígido* si designa g con respecto a todos los mundos posibles en los que g existe y *no designa un género distinto de g con respecto a ningún mundo posible*.

Esta extensión de la noción de rigidez a los términos de género – en la que el género g es concebido como un universal – no ha sido tomada en consideración suficientemente, a mi entender, en la bibliografía sobre esta temática, si bien parece ser la extensión natural de la definición de designador rígido propuesta por Kripke inicialmente para los términos singulares. Pero en caracterizaciones de este tipo, en las que se apela a universales, la *semántica* de los términos de género natural y, en general, de los términos de género no puede venir desvinculada de la *metafísica* que adoptemos con respecto a las entidades designadas por ellos.

Luis Fernández Moreno
 Universidad Complutense de Madrid
 luis.fernandez@filos.ucm.es

PACO CALVO & JOHN SYMONS, eds. 2009. *The Routledge Companion to Philosophy of Psychology*. New York/Abingdon: Routledge.

This excellent volume, the latest addition to the Routledge Philosophy Companions series, cannot be accused of a lack of ambition. Weighing-in at 42 chapters over 678 pages, it offers a comprehensive survey of the early history of philosophical psychology; full, nuanced, and objective commentaries on the central issues of the discipline by internationally regarded specialists; and a forward-looking perspective that promises to inspire new students and seasoned researchers alike. The editors present the volume as a successor to Ned Block's landmark 1980 publication, *Readings in Philosophy of Psychology*, and it is a worthy heir whose expanded scope, relative to its predecessor, is an effective marker of the dimensions along which the discipline has flourished in the intervening years, and how new technologies and methodologies have generated novel cross-disciplinary research programmes. In spite of these advances, however, many familiar conceptual and theoretical obstacles – concerning reduction and explanation, consciousness, and personhood – are shown to be as substantial as ever.

The first part of the *Companion* tours the history of the discipline, beginning with a pair of entries charting the rationalist and empiricist roots of modern psychology. These chapters are rich in historical narrative, and serve to introduce a key recurring

theme of the book – the nature of the working relationship between philosophical and psychological practises and methodologies – by emphasising the disciplines' interwoven early progress, and by classifying the ways in which central theoretical notions have evolved over time. Next, examinations of early experimental psychology, and of the history of the *quale* and the senses, provide further analysis of historical attempts to demarcate the proper boundaries and distinctive explanatory strategies of the two disciplines, and are effective in setting contemporary work within an appropriate context.

The *Companion* then turns to more recent themes, and casts an eye over three topics whose heyday has, arguably, passed: the Freudian unconscious; Behaviourism, and Cognitivism. Each chapter offers a careful study of the perspective in question, and evaluates their fluctuating philosophical fortunes. Philosophers with an interest in psychoanalysis would do well to read Edward Erwin's contribution, which sorts Freud's many careful insights into the unconscious from the more controversial aspects of his wider programme.

The second part of the volume, perhaps the core material of the book, has two related aims: firstly, to outline controversies concerning intertheoretic reduction as they occur in philosophy of science generally; and secondly, to identify philosophical and explanatory problems that are distinctive to the practise of psychology itself. Many of the entries here combine these two aims with great success – Bechtel & Wright's introduction, for instance, covers the many varieties of explanation that are the goals of psychological endeavour, while emphasising the role of this special science as an instrument for exploring the nature of mechanisms, explanatory decomposition, and reducibility more widely. Danks and Eberhardt's chapter, meanwhile, is an astute choice for furthering the second aim. It tackles the idiosyncratic conceptual and practical tasks facing experimental psychologists, and is a refreshing contrast to the abstract conceptual challenges that characterise more familiar philosophy of mind.

While a number of the chapters in this category revisit topics present in Block's *Readings* (e.g. *Functionalism; Folk Psychology as a Theory*) others indicate the interdisciplinary progress, driven by extraordinary advances in technology, that has been secured since then, and point to what may be the most profitable routes for future research. Harcastle's exploration of the interface between psychology and neuroscience, and Sharkey & Sharkey's entry on connectionism, demonstrate clearly the contribution to be made by the burgeoning science of the brain to traditional philosophical questions and, more dauntingly, the work that remains to be done before such questions are resolved.

Adams & Aizawa's chapter, meanwhile, reflects the philosophical and scientific literature's developing interest in embodied-embedded approaches to the study of the mind, but, although the entry is elegant and informative, the authors are noted critics of this paradigm, and their treatment is rather less even-handed than other more neutral contributions.

Part 3 concerns the nature, role, and naturalistic respectability of representation. Its opening two chapters are a highlight of the compendium. The author of both, Dan Ryder, combines clarity and breadth of exposition with philosophical expertise, and

produces an account that is accessible both for introductory scholars and those seeking clear formulations of the persisting problem of intentionality and its place in nature.

Other chapters here testify to Jerry Fodor's continuing influence on the field, and examine the language of thought hypothesis and the notion of modularity (and associated conceptual difficulties). The remainder of this rich and varied part of the *Companion* is devoted to the philosophical analysis of key psychological phenomena, including memory and the structure of cognition.

Shaun Nichols' discussion of the propositional imagination notes a further facet of the reciprocal transaction between philosophy and psychology, by proposing that a full psychological understanding of the imagination may reveal the possibilities, and limits, of thought-experimentation and intuition, two of philosophy's favourite tools.

In part 4, the *Companion's* attention turns again to details of the relation between mind and brain, and to the explanatory mesh between psychological, cognitive, and biological sciences.

While philosophers of mind of a traditional bent may be sceptical of what can be learned from studying the action-potentials of individual clusters of neurons, John Bickle's chapter (*Cellular and Subcellular Neuroscience*) argues that paying attention to studies of this sort can yield novel analyses of intertheoretic reduction, and offer insight into even the long-standing problems of phenomenal consciousness. More importantly still, the interdisciplinary analyses here provide vivid encouragement for philosophers to engage closely with the neurosciences, and to set aside pure armchair metaphysics. In addition, Michael Wheeler's contribution is a valuable endorsement of the explanatory efficacy of evolutionary psychology, and a counsel against the more inflammatory aspects of classical sociobiology.

Part 5 explores perceptual experience, construed broadly (indeed, whether the targets of all of the chapters here – including introspection, dreaming, and emotion – count as *perceptual* is a substantial philosophical question in its own right). It covers the historical progress of research into the nature and character of conscious experience, and the contemporary state of play emerging from the wide recent literature in empirically-informed philosophy of mind. The entries on auditory perception and temporal content that conclude this section are especially welcome, as they present reasons to be wary of the common expectation that philosophical lessons about vision can be readily translated across modalities.

Once again, we see a continuing development of the *Companion's* exploration of the mutually-informative relationship between psychology and philosophy, and we are urged to see the practise of philosophy as a tool for conceptualising the cognitive and perceptual mechanisms that are the proper targets of psychological research. Jordi Fernandez' discussion of introspection, especially, provides a perspicuous characterisation of how such intellectual collaboration might take place.

The chapters that make up the 6th part of the *Companion* defy easy categorisation. However, all explore the significance of psychological investigation and knowledge for more general themes in philosophy, concerning the nature and value of the person; agency; and identity. For instance, Owen Flanagan's treatise on Buddhist theories of

personhood, which is the only chapter to step explicitly outside the boundaries of Western analytic philosophy, invites us to think of the Buddhist themes of human flourishing and the unfolding of the person as central to any science which, like psychology, aims to give a full understanding of human nature, its limits and potential.

As is inevitable, not every reader's interests and preferences will be fully satisfied by the *Companion's* contents. One significant omission, especially given the interdisciplinary focus of many of the volume's chapters, is that of language and language-science, which receive scant attention in the *Companion*, despite the important ongoing interaction between linguistics and psychology, and the philosophical issues that arise therein. Another minor criticism concerns the inconsistent policy on including 'further readings' in addition to chapter bibliographies. Where present, these are a great tool for navigating often-complex literatures, and it is unclear why they do not follow every entry. Similarly, cross-referencing within the volume, which is exemplary in, for instance, Aare Laakso's chapter on Development and Learning, is less adequate in other entries, where the careful drawing-out of connections among topics would be helpful for students not already familiar with the landscape.

Overall, though, the *Companion* is a terrific resource for serious students of philosophy and psychology, and for researchers pursuing interdisciplinary themes. While the impeccable quality of the scholarship behind each individual entry means that the *Companion* is well suited as a reference collection, to be consulted when needed, the effort of reading the complete volume will be amply rewarded with a fascinating insight into past and future developments in philosophical psychology.

Tom Roberts
University of Edinburgh
tom.roberts@ed.ac.uk

S. HARTMANN, C. HOEFER & L. BOVENS, eds. 2008. *Nancy Cartwright's Philosophy of Science*. London: Routledge.

Nancy Cartwright is no doubt one of the most productive and influential philosophers of science nowadays. This collection of essays provides an excellent commentary on several facets of her work. The book is divided in three parts. Part I is named "Models and Representations". The title of Part II is "Causes and Capacities" and the title of Part III is "Antifundamentalism and the disunity of Science". In fact, the division aptly reflects the three major themes in Cartwright's work in the 20th century. Part I deals with the issue of representation and in particular with the question of how models may — to a certain extent, and for certain purposes — represent the world. Part II deals with several different discussions going on in the literature about the way in which the explanatory force of "causes" in causal explanations depends on something beyond what can be captured by the mathematical structure of models or equations used to describe phenomena. Part III deals with a perennial issue, whether science is ultimately committed to what Cartwright calls "cross-wise reductionism"— a view that Cartwright labels as fundamentalism.