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Conscious and Unconscious Mentality

Examining their Nature, Similarities,
and Differences

Edited by **JURAJ HVORECKÝ,**
TOMÁŠ MARVAN, and **MICHAL POLÁK**

A **Psychology Press** Book



CONSCIOUS AND UNCONSCIOUS MENTALITY

In this collection of essays, experts in the field of consciousness research shed light on the intricate relationship between conscious and unconscious states of mind.

Advancing the debate on consciousness research, this book puts centre stage the topic of commonalities and differences between conscious and unconscious contents of the mind. The collection of cutting-edge chapters offers a breadth of research perspectives, with some arguing that unconscious states have been unjustly overlooked and deserve recognition for their richness and wide scope. Others contend that significant differences between conscious and unconscious states persist, highlighting the importance of their distinct characteristics. Explorations into the nature of the transition from unconscious to conscious mind further complicate the picture, with some authors questioning whether a sharp divide between unconscious and conscious states truly exists.

Delving into ontological, epistemological, and methodological issues, this thought-provoking text challenges established paradigms and paves the way for a reimagining of consciousness research. It does so in an understandable and accessible way, making this a perfect companion for both experts and students of philosophy, psychology, and related fields.

Juraj Hvorecký is a researcher at the Department of Applied Philosophy and Ethics at the Institute of Philosophy of the Czech Academy of Sciences in Prague. He also teaches at the Undergraduate Program in Central European Studies (UPCES) in the Czech capital. He combines his interests in philosophy of mind with applied ethics, especially in the domain of disruptive technologies.

Tomáš Marvan is the head of the Department of Analytic Philosophy at the Institute of Philosophy of the Czech Academy of Sciences in Prague. Marvan is a philosopher of mind working at the intersection of philosophy, neuroscience, and psychology. He works on mental qualities, and on the differences between conscious and unconscious perceptual processing.

Michal Polák is Professor of Philosophy at the University of West Bohemia, Pilsen, Czech Republic, where he is responsible for teaching and research in the field of philosophy of mind and cognitive sciences. He explores various aspects of phenomenal consciousness from a naturalistic perspective, the neural basis of consciousness, mind-brain identity, and selfhood.

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CONTRIBUTORS

Kathleen Akins is Professor of Philosophy at Simon Fraser University, James S. McDonnell Centennial Fellow in Philosophy of Science, and a Burnaby Mountain Endowed Research Professor. Her work incorporates current research within philosophy of mind, neurophysiology, neuropsychology, neuroethology and psychophysics in order to understand the nature of perception, cognition, consciousness, the emotions and mental representation in general. She has published extensively, for example in *The Behavioral and Brain Sciences*, *Current Biology*, and *Consciousness and Cognition*. Together with Martin Hahn, she has been working on the book, which argues for a new account of colour perception, and solves some long-standing puzzles in neuroscience, phenomenology, and metaphysics of colour.

Brice Bantegnie received his PhD from the Jean Nicod Institute in Paris and is currently a Marie Skłodowska-Curie Action Global Postdoctoral Fellow at the University of California, Riverside, and at the University of Southampton. He was previously a member of the research group on ‘Dual Models of Phenomenal Consciousness’ at the Institute of Philosophy of the Czech Academy of Sciences.

Berit ‘Brit’ Brogaard is Professor of Philosophy and Senior Cooper Fellow at the University of Miami. Her areas of research include philosophy of perception, philosophical psychology, and cognitive science. She is the author of *Transient Truths* (Oxford University Press, 2012), *On Romantic Love* (Oxford University Press, 2015), *The Superhuman Mind* (Penguin, 2015), *Seeing & Saying* (Oxford University Press, 2018), and *Hatred: Understanding Our Most Dangerous Emotion* (Oxford University Press, 2020).

Tim Bayne is a philosopher of mind and cognitive science, with a particular interest in the nature of consciousness. A Senior Fellow at the Brain, Mind and Consciousness program of the Canadian Institute for Advanced Research (CIFAR), Toronto; he is Professor of Philosophy at Monash University (Melbourne), having taught previously at Macquarie University, the University of Western Ontario, the University of Manchester, and the University of Oxford. He has published widely, and is the author of *The Unity of Consciousness* (OUP, 2010) and *Thought: A Very Short Introduction* (OUP, 2013), *Philosophy of Religion: A Very Short Introduction* (OUP, 2018), and *Philosophy of Mind: An Introduction* (Routledge, 2022). His current research focus concerns the problem of other minds, and the challenge of identifying the presence of consciousness in infants, non-human animals, and artificial systems.

Sam Coleman is Reader in Philosophy of Mind and Cognitive Science at the University of Hertfordshire. He works on consciousness, especially the relationship between conscious and unconscious forms of mentality, and has written articles on these topics. His book *Dark Mind: Subjectivity without Consciousness* is forthcoming with Oxford University Press.

Sascha Benjamin Fink is Junior Professor of Neurophilosophy at Otto-von-Guericke-University, Magdeburg, Germany, and substituted as Professor for Cognitive Anthropology at University Leipzig. At Magdeburg, he co-heads the Philosophy-Neurosciences-Cognition-Program and is a member of the Center for Behavioral Brain Sciences. His publications focus on philosophical issues in the neuroscience of consciousness, especially concerning neural correlates of consciousness, the structure of conscious experiences, and the status of first-person methods. He has edited issues on the neural correlates of consciousness, the philosophy of psychedelics, thinking and perceiving, the legacy of Thomas Metzinger and, being a strong advocate for fair and sustainable scientific publishing, works as an editor-in-chief for the diamond open access journal *Philosophy and the Mind Sciences*. Currently, he works on sensory engineering, structural approaches to consciousness, the psychology of vagueness and philosophical issues of psychedelics in the BMBF-project PsychedELSI. He loves good food and ancient forests.

Dimitria Electra Gatzia is Professor of Philosophy at the University of Akron, Ohio. She specializes in Philosophy of Mind and Cognitive Neuroscience. She is the recipient of research fellowships at the Centre of Philosophy Psychology at the University of Antwerp (2016–2017) and the Czech Academy of Sciences, Institute of Philosophy (Summer 2021), and the co-editor (with Berit Brogaard) of *The Epistemology of Non-visual Perception*

(OUP, 2020) and *The Philosophy and Psychology of Ambivalence: Being of Two Minds* (Routledge, 2021).

Martin Hahn is an Associate Professor of Philosophy at Simon Fraser University, British Columbia, Canada, Department of Philosophy. He is especially interested in the connections, and differences, between linguistic reference and intentionality and the consequences of direct reference theory for accounts of mental representation. He is a co-editor (with Bjørn Ramberg) of *Reflections and Replies: Essays on the Philosophy of Tyler Burge* (MIT Press, 2003).

Benjamin Henke is a Postdoctoral Research Fellow at the Centre for Philosophical Psychology at the University of Antwerp and a Research Fellow with the Psyphas Program in Psychology and Philosophy at the University of Haifa. He has research interests in cognitive science, artificial intelligence, and epistemology.

Juraj Hvorecký is a researcher at the Department of Applied Philosophy and Ethics at the Institute of Philosophy of the Czech Academy of Sciences in Prague. He also teaches at the Undergraduate Program in Central European Studies (UPCES) program in the Czech capital. He combines his interests in philosophy of mind with applied ethics, especially in the domain of disruptive technologies. More specifically, he is interested in emotions, conscious/unconscious divide, and the ethical implications of social robotics and autonomous technology.

Lukas Kob is in the final year of his doctoral studies on the topic of structuralism in consciousness science. This work is being conducted as part of the research project 'Extrospection. External access to higher cognitive processes', which is primarily based at the Berlin School of Mind and Brain and Otto-von-Guericke University Magdeburg. He received a B.Sc. in Psychology from the University of Leipzig and an M.Sc. in Philosophy-Neurosciences-Cognition from Otto-von-Guericke University Magdeburg, where he currently works as a research assistant. His academic interests include unexplored connections between the philosophy of science and the philosophy of consciousness, as well as systems neuroscience and cognitive psychology.

Azenet Lopez is a postdoctoral researcher at the interdisciplinary research group Cognition, Values and Behavior at the Ludwig Maximilian University of Munich. She holds a temporary position as principal investigator of the project 'From Information to Consciousness through Attention and Integration', funded by the German Research Council (DFG). She earned her Ph.D. in Philosophy from the University of Miami in 2020.

Tomáš Marvan is the head of the Department of Analytic Philosophy at the Institute of Philosophy, Czech Academy of Sciences (Prague). Marvan is a philosopher of mind working at the intersection of philosophy, neuroscience, and psychology. He works on mental qualities, and on the differences between conscious and unconscious perceptual processing. He has also published on conceptual relativism, ontological realism, and free will. He (co-)authored three books and numerous papers. The papers appeared in journals such as *Consciousness and Cognition*, *Neuroscience of Consciousness* and *Philosophy and the Mind Sciences*.

Matthias Michel is a postdoctoral researcher at the Center for Mind, Brain, and Consciousness, New York University. His research focuses on foundational and methodological issues in the cognitive neuroscience of consciousness. He is interested in the goals of consciousness science, its main explanatory concepts, and its experimental and inferential methods.

Michal Polák is Professor of Philosophy at the University of West Bohemia, Pilsen, Czech Republic, where he is responsible for teaching and research in the field of philosophy of mind and cognitive sciences. He explores various aspects of phenomenal consciousness from a naturalistic perspective, the neural basis of consciousness, mind-brain identity, and selfhood. His work includes three books and articles which have appeared in *Consciousness and Cognition*, *Philosophy and the Mind Sciences*, *Neuroscience of Consciousness*, *Frontiers in Psychology*, and the *European Journal of Analytic Philosophy*.

David Rosenthal is Professor of Philosophy at the Graduate Center, City University of New York, and Coordinator of the Graduate Center's Interdisciplinary Concentration in Cognitive Science. He works mainly in philosophy of mind and has published extensively on the nature of consciousness, especially on his higher-order-thought theory of consciousness, on his quality-space theory that individuates mental qualities independently of consciousness, and on the awareness and identification of the self. He has also published on the nature of intentional content, mind-body materialism, the emotions, Descartes's theory of freedom, Moore's paradox, and the importance of the history of philosophy, and related topics.

Thomas Alrik Sørensen is an Associate Professor of Cognitive Neuroscience and Neuropsychology at Aalborg University in Denmark, where he is heading the Center for Cognitive Neuroscience. He is also affiliated with the Sino-Danish Center for Education and Research in Beijing as well as the Center of Functionally Integrative Neuroscience at Aarhus University, Denmark. He has investigated a range of diverse topics, but currently his main area of research

is in the field of perception and memory, where he has explored topics like synesthesia, multi-sensory perception, attention, and expertise.

Assaf Weksler is a Teaching Faculty Member at the Department of History, Philosophy, and Judaic Studies at the Open University of Israel, and a Research Fellow with the Psyphas Program in Psychology and Philosophy at the University of Haifa. His work focuses mainly on philosophy of perception, informed by its psychology and neuroscience.

Benjamin D. Young is an Associate Professor of Philosophy and a member of the graduate faculty in interdisciplinary neuroscience and the Institute for Neuroscience at the University of Nevada, Reno. He conducts research at the intersection of cognitive neuroscience and philosophy with a particular emphasis on olfaction. His research on nonconceptual content, qualitative consciousness in the absence of awareness and the perceptible objects of smell appeared in journals such as *Mind & Language*, *Neuroscience and Biobehavioral Reviews*, *Pacific Philosophical Quarterly* and *Philosophical Studies*. His most recent projects include the co-edited textbook *Mind, Cognition, and Neuroscience* (Routledge 2022) and a co-edited collection *Theoretical Perspectives on Smell* (Routledge 2023). Ben just finished a book on olfactory philosophy tentatively titled *Stinking Philosophy* (MIT press, forthcoming) and is currently working on a book about the unconscious and our sense of self, tentatively titled *Don't Tell Anyone*.

PREFACE

The journey leading to this book began several years ago when a small team of researchers at two Czech institutions started to debate intricacies of the theories of consciousness. Initial discussions and the first common results were significantly boosted by a grant from the Czech Science Foundation that the team was awarded in 2020. Since then, our work has been more systematic. Besides publications, we were able to establish research connections to people with similar interests across the globe. This latter effort led to the conference in the summer of 2021. The editors of this volume (together with Brice Bantegnie and Veronika Lorencová) organized the event titled “Conscious and Unconscious Mind: Commonalities and Differences”, with over twenty participants. The conference took place in the Dominican Monastery in the heart of Prague, and was jointly organized by the Institute of Philosophy of the Czech Academy of Sciences and the Department of Philosophy at the University of West Bohemia. The two days of the conference were filled with lively talks and debates about conscious and unconscious mentality. Most of the papers presented at the conference were later reworked into the chapters of this volume. Three chapters were additionally commissioned to make the topics of the volume more comprehensive.

We would like to thank all the conference participants and authors of the chapters, Emilie Coin, Khyati Sanger, Ceri McLardy, and Tori Sharpe at Routledge, and everyone who contributed in one way or another to this volume. Work on it was generously supported by the Czech Science Foundation (GAČR) project ‘Dual Models of Phenomenal Consciousness’ (project no. 20-14445S), realized jointly at the Institute of Philosophy of the Czech Academy of Sciences and at the Department of Philosophy, University of West Bohemia.

To make communication more jovial while working on the grant, on the conference, and on the present volume, we sometimes referred to ourselves as ‘Phenomenals’. By this we meant all who are deeply interested in phenomenal experience and its enigmas. We hope that the book will be enjoyed by the Phenomenals out there who ponder the relations between conscious and unconscious episodes in perception, emotion, volition, and thought.

The Editors

1

INTRODUCTION

Mapping the contrasts and parallels between the conscious and unconscious mind

Juraj Hvorecký, Tomáš Marvan, and Michal Polák

Debates in the field of consciousness research concentrate mostly on outlines and defences of theories of consciousness. Such theories are concerned with how contents become phenomenally conscious, what is phenomenality, and how qualitative and cognitive aspects of consciousness combine. Yet comparatively little attention has been paid to how our increasing understanding of the unconscious mind determines the explanatory success of such theories (for exceptions to this trend, see, e.g., the essays collected in Radman 2017 and Hesselman 2019). Many mental processes that were historically associated solely with consciousness seem to also be present at the unconscious level, and we are getting an ever more-refined picture of the scope, richness, and functions of such processes. Theories of consciousness not infrequently include strong assumptions about unconscious processing without thinking through this new evidence. Often observed is cherry-picking of various empirical results from tasks that tap into unconscious processes, and their utilization in consciousness research to advance a particular position. What is missing is a global perspective on how theories of consciousness should be shaped by what we know about unconscious mentality. The present volume reverses this current by putting the topic of commonalities and differences between conscious and unconscious contents of the mind at the centre of the stage.

Neglecting the connection between the unconscious and conscious parts of the mind leads to the following issue: Unless we have a clear notion of how exactly conscious and unconscious states differ, we don't know what it is that the theory of consciousness is supposed to explain. In consequence, we may burden ourselves with unnecessary worries regarding the function(s) of consciousness. It seems fair to presume that the vast majority of theories of consciousness postulate that conscious and unconscious mental states have a

radically different nature. Unconscious states, if they are presumed by a theory at all, lack the defining features of the conscious ones. Yet the more we learn about unconscious states and processes, the more intricate an image of this part of mind is revealed, often leading to surprising discoveries. In many domains, unconscious states turn out to be richer and more complex than previously thought, often coming indistinguishably close to their conscious counterparts. If that is so, implications for theories of consciousness are forthcoming. The more work on creating mental content is done unconsciously, the less is demanded of consciousness. Perhaps, then, we should not assume that consciousness is fulfilling all those tasks that were traditionally assigned to it. Instead of a maximal strategy that considers consciousness as a tool that creates, structures, and endows contents with various properties, one could explore less demanding roles for it. In its extreme form, consciousness could be regarded as playing one role only—that of making the already prepared and fully determined contents conscious.

Intentional, temporal, motivational, subjective, and other properties of mental states are clearly present at the conscious level. The central issue is to what degree analogous (or possibly identical) properties are to be found at the unconscious level. If the unconscious existence of some, or even most of them, could be well established, there is no reason to assume that consciousness plays a significant role in making them real. Importantly, there is one set of properties that conscious states are widely assumed to possess exclusively, namely phenomenal properties. However, even this central assumption of consciousness research can be challenged by showing that the opposite approach is consistent with much recent evidence. In many cases, the identity of conscious and unconscious phenomenal contents seems to be supported by relevant experiments and conceptual considerations. Furthermore, there is evidence suggesting that unconscious contents are sometimes richer than their conscious counterparts. These scenarios, uncovered by recent research on unconscious mental states, call for the rethinking of some of the theories of consciousness promoted today—and of the very relation between conscious and unconscious mind.

Several of the contributors to this volume take the recent evidence on unconscious mentality as indicating that unconscious states have been unfairly belittled: Unconscious states are every bit as real and richly structured as conscious ones. Other authors push back, arguing that at least some categories of conscious states do not have their unconscious counterparts, or that the differences between conscious and unconscious states remain more important than any possible commonalities. A closely related strand in this volume is represented by authors exploring the nature of the transition from unconscious to conscious mind. What does it take for an unconscious mental state to enter consciousness? Is major transformation required? Or, perhaps the talk of ‘entering consciousness’ is altogether misleading because there is no sharp

divide between unconscious and conscious parts of mind. The transition from unconscious to conscious states may be a *graded* one—and the very contents that we experience may have gradually emerging properties. The remaining chapters complement these two strands in various ways, addressing ontological, epistemological, and methodological issues surrounding unconscious mental states and their relations to the contents of consciousness.

Michal Polák's opening chapter starts from the assumption that phenomenality (or qualitiveness) is a trait that may pertain to unconscious states. Polák argues that separating phenomenality from consciousness requires a reconsideration of the meaning of three concepts that are essential in the discourse on the nature and emergence of phenomenal consciousness. The notions of 'phenomenality', 'what-it's-likeness', and 'consciousness' are all closely related, and accepting the assumption of unconscious qualities changes the relations among them as well as the meanings commonly assigned to the terms. This can be seen most significantly in the very notion of consciousness itself.

Berit Brogaard and Dimitria E. Gatzia's chapter follows up recent controversies about whether *blindsight* is a form of unconscious perception or not. It has been argued by Phillips (2020) and others that blindsight is not unconscious perception but rather a form of degraded conscious perception. Brogaard and Gatzia defend the opposite view. They accept that blindsight produces residual awareness but argue that this residual awareness is non-perceptual. They focus on the residual visual abilities to detect and discriminate colour found in some blindsight patients, showing that residual consciousness in blindsight is indirect and lacks the phenomenal character of conscious vision. The perceptual aspects of blindsight are therefore entirely unconscious.

Unlike Brogaard and Gatzia, who defend a wide functionality of the unconscious states, Tim Bayne argues that volitional states are necessarily conscious, and there are no unconscious counterparts to volitions. Bayne starts off from a careful delineation of volition and argues that, as it is a personal-level phenomenon interacting with a central processing agency, it cannot be unconscious. He discusses and rejects various objections to his thesis and goes over several purported examples of unconscious volition to demonstrate they do not represent genuine cases of the phenomenon. Bayne also offers some general remarks on the diversity of mental states that should preclude scholars from simply assuming uniformity of existence of all mental states in their conscious and unconscious forms.

Brice Bantegnie tackles a question pressing the higher-order thought accounts of consciousness. On a standard reading of these accounts, there are two states to any higher-order theory, the lower-level target state and the higher-level state that targets the lower-level one. This is the so-called relational reading of HOT. It is worrisome that the higher-order thought can

misrepresent the first-order state, with assumed consequences for conscious perception. Bantegnie offers reasons to adopt the non-relational HOT view and makes a case against the purported threat of misrepresentation cases. He goes on to argue that misrepresentation is a problem that affects no version of HOT theory, and should therefore be discarded.

David Rosenthal, in his chapter ('Methodological considerations for the study of mental qualities'), points out a major methodological drawback of those conceptions—he calls them *intrinsicist*—which do not allow for unconscious mental qualitative character. *Intrinsicist* conceptions, Rosenthal claims, not only lack independent support but preclude any informative account of what conscious qualitative character consists in. Rosenthal goes on to develop an alternative account of mental qualities, an account that proceeds independently of consciousness, and is supported by robust empirical findings. The chapter also offers an explanation of why the *intrinsicist* picture is widely endorsed, as well as why many authors maintain that the subjective appearances of consciousness exhaust its mental reality.

In 'Can structuralist theories be general theories of consciousness?', Sascha Benjamin Fink and Lukas Kob scrutinize the distinction between conscious and unconscious mental states through the lens of 'neurophenomenal structuralism'. This view assumes that phenomenal states are individuated by their relational structure and that this structure is reflected in neural activation spaces. Taking this view as their starting point, Fink and Kob ask whether it is possible to develop a structuralist account of the transition between unconscious and conscious mental states. They carefully explore the structuralist options, disagreeing with each other about the promise of neurophenomenal structuralism to become a general theory of consciousness. While Kob thinks that the neurophenomenalist solution can only elucidate the structure of experience, Fink is more optimistic in holding that, with suitable adjustments and conceptual innovations, one could devise an all-encompassing structuralist account of how unconscious states turn into conscious ones.

Matthias Michel's chapter ('The old and new criterion problems') revives the recent methodological debates about the so-called 'criterion problem'. This problem issues from the fact that negative subjective reports such as, 'I didn't see the stimulus', can be interpreted as indicating either that the subject really didn't see the stimulus, or as indicating that, while the subject did see the stimulus, the strength of the sensory signals associated with the stimulus dropped to a level that elicited a conservative response. Michel presents two solutions of the criterion problem. He then goes on to propose what he calls the 'new criterion problem', which consists in determining whether criteria effects reflect perceptual changes, or changes in the subject's response strategy. Working through case studies, he argues that, although there is currently no systematic way to solve it, this new version of the criterion problem can in principle be solved as well.

Tomáš Marvan presents two arguments for unconscious sensory qualities—the behavioural and the neural. The upshot of both arguments is that the similarities between conscious and unconscious sensory states are much greater than typically assumed in both the philosophy of mind and the cognitive neuroscience of consciousness. In fact, both arguments (and especially the latter one, which is explored at some length in the chapter) support the view that the mechanisms of sensory qualities are literally the same in conscious and unconscious perceptual conditions. This view has important implications for general theories of consciousness and for research on neural correlates of consciousness.

The next chapter, by Juraj Hvorecký (‘Troubles with the orthogonality thesis’), presents a series of challenges for the thesis that conscious and unconscious mental states share the same properties. Hvorecký starts off by evaluating criteria for their sameness and discovers that the claims of identity require stronger arguments than standardly offered. He then offers empirical and conceptual arguments against the thesis of orthogonality that assumes the independence of content and consciousness and, in doing so, he attacks the so-called two-factor theories of consciousness. At the end of his chapter, Hvorecký outlines an alternative one-factor theory in which contents of consciousness result from a cumulative aggregation of properties that, upon crossing a certain critical threshold, simply make contents conscious without the need for any additional functional steps.

In ‘Unconsciously smelling the self and others’, Benjamin D. Young complicates the picture of the conscious/unconscious divide even further. His detailed knowledge of the olfactory domain leads him to a thorough exploration of the role of unconscious smells in guiding our everyday behaviour. Young illustrates how smells, unlike other forms of perception, are not transparent. One might perceive them as pleasant or disgusting, but in fact they inform us about many other properties of ourselves and others—illnesses, family linkages, states of oneself. This is all done unconsciously, yet via a medium that is consciously present. His chapter is a strong reminder that constructing theories of consciousness in a single, usually visual, modality could be deeply misleading.

Sam Coleman presents a novel argument for the existence of unconscious emotional states with qualitative character. Feeling theories of emotions equate emotions with episodes of conscious qualitative character possessing a distinctive emotional ‘feel’. The feeling theory cannot be true simpliciter, argues Coleman, since there are unconscious emotions, but no such thing as unconscious feelings. The author claims that prominent feeling theories of emotions (such as those advocated by Jesse Prinz and Uriah Kriegel) founder on a dilemma: They can say that either conscious emotions are feelings, or that there are unconscious emotions, but not both. In their place Coleman proposes a simple alternative feeling theory, which identifies emotions with

emotional qualitative characters. Since emotions can exist unconsciously, emotional qualitative character can exist unconsciously, Coleman concludes.

Azenet Lopez asks whether consciousness arises gradually or is a discontinuous (all-or-nothing, categorical) phenomenon. The option that consciousness is a gradual affair assumes a spectrum going from completely unconscious to fully conscious states. In contrast, the discontinuity thesis asserts that the transition from unconscious to conscious states contains no intermediate steps. In order to answer this empirical question, Lopez argues, it is important to consider which properties consciousness must have anyway, regardless of one's preferred theory of consciousness. One of these key properties, according to the author, is attention. Lopez goes on to argue that attention is a gradual phenomenon, which, in turn, supports the claim that consciousness must also be a gradual affair.

Berit Brogaard and Thomas Alrik Sørensen extend their previously introduced 'template tuning theory' to answer the puzzling question about the gradability of perceptual consciousness. Upon reviewing ample empirical evidence, they side with defenders of gradable consciousness. According to them, inexact categorization of visual input often results in working memory storage that is not fully available to the perceiver, thereby issuing in graded phenomenal awareness of the target. While their template tuning theory proves to be compatible with both graded and dichotomous accounts of consciousness, their exploration of further empirical data supports the gradable view.

Kathleen Akins and Martin Hahn present a gradualist account of colour phenomenology. Their chapter introduces a new puzzle about how human infants begin to see colour. Human cortical vision, in all its complexity, develops slowly over many years. So, when does the human capacity for colour vision arise, and how does it develop? The chapter presents a partial explanation of how colour vision arrives 'bit by bit'. The authors conclude with the suggestion that the distinction between 'black and white' and 'colour'—one that applies so cleanly to physical images—is unlikely to map onto human visual phenomenology in any informative way.

The closing chapter, written by Benjamin Henke and Assaf Weksler, revisits a recent controversy about the nature of perspectival shape perception. Many objects have known shapes, yet under specific viewing conditions, they are perceived as possessing a different, perspectival shape as well. For instance, when viewing a circular coin rotated in depth, it fills an elliptical region of the visual scene. Henke and Weksler criticize a recent experiment (Morales et al. 2020) that endorses perspectivalism—the view that perspectival shapes are genuinely presented in perceptual experience alongside the real ones. Interpreting the same evidence with the help of unconscious pre-attentive guidance, the authors conclude that the alternative view, anti-perspectivalism,

can also successfully explain the results of the experiment. The debate thus continues.

It is our hope that the present volume will stimulate further interest in similarities and differences between conscious and unconscious states and episodes, and will spark new debates on this topic. As we stressed at the beginning of this Introduction, the subject matter is not just interesting in its own right, but it has important implications for any empirically grounded theory of consciousness. The theory of consciousness of those who believe that conscious and unconscious episodes are dramatically different is bound to be very different from the theory of those who think conscious and unconscious episodes are in their core properties nearly indistinguishable. Hence, parallel to the ongoing honing of the individual theories—such as the global workspace theory, neural recurrence theory, or Higher Order Thought theory—we also need to think more deeply about the basic assumptions underlying any such theory. Among these, assumptions about the scope, richness, and functions of unconscious states should be seen as particularly important.

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