

The book cover features a close-up, high-contrast image of a human face in shades of purple and blue. The face is partially obscured by a semi-transparent purple band that contains the title. The background is filled with a complex pattern of interlocking gears in various sizes and colors, including purple, blue, and teal. The overall aesthetic is futuristic and intellectual.

MIND AND CONSCIOUSNESS

5 QUESTIONS

EDITED BY PATRICK GRIM

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Why were you initially drawn to philosophy of mind?

When I encountered Descartes' *Meditations* as a freshman, I was fascinated and challenged. I thought his view just had to be wrong, but it was going to take some hard work to say why. Fifty years later, I haven't adjusted that opinion. I wasn't a budding scientist or even a science-phile then, but still it seemed obvious to me that the mind was the brain, and that there had to be a way of explaining intentionality non-miraculously. Qualia—I didn't encounter the term for a year or two—were a challenge, but I thought I could already see that no treatment of them as "intrinsic" properties had a prayer. So dualism was never attractive to me. I could feel the Zombic Hunch, and could thus see what people were talking about, but it struck me as a good candidate for the intuition to jettison, if we could. In the half century since then I've noticed a remarkable reluctance by many philosophers to even *consider* denying it. That strikes me as embarrassing: here we are at some kind of conceptual impasse, and something's gotta give! You'd think that people would at least *try out* the idea of abandoning their conviction that the zombie hypothesis makes sense. But for many of them, it is apparently inconceivable that zombies might not be conceivable after all. And among some of them I swear I detect a faint whiff of self-righteousness that might be expressed as moral disapproval of the very idea of challenging this idea. It may not be a *sin* to question qualia, but it is definitely not *nice*. This attitude has always amused me, but I suspect that my inability to conceal my amusement makes more enemies than friends.

What do you consider your most important contribution to the field?

I think the idea of the intentional stance—its relation to the design stance and the physical stance and the account of the role it plays across human inquiry—is probably my most important contribution, because it is the foundation for both the multiple drafts model of consciousness and the compatibilist account of free will I have developed. Both consciousness and free will are often—even typically—seen to be marvelous, mysterious, phenomena unlike anything else in the natural world (“real magic,” in other words¹). By understanding how the intentional stance is applicable to less awesome phenomena, we can see how (human) consciousness and free will are not stand-alone mysteries but decomposable into simpler phenomena, both synchronically and diachronically. That is, we can see how—in general, the details are still being worked out—to build a conscious mind out of unconscious (but intentionally interpretable) parts—homunculi—and how an agent can have free will though composed of parts that do not have free will; *and* we can understand how consciousness and free will could evolve out of simpler psychological and biological antecedents. I think the fact that the concept of the intentional stance has been put to such vigorous use (and some abuse) by the relevant sciences has also shown philosophers something about the role that we philosophers can play in the interdisciplinary quest to understand the mind.

What is the proper role of philosophy in relation to psychology, artificial intelligence, and the neurosciences?

Philosophical confusions are not restricted to philosophers and lay people. Scientists, whatever they may think of philosophy as a discipline, take on—and are guided by—philosophical assumptions,

¹Lee Siegel draws our attention to the fundamental twist in his excellent book, *Net of Magic: Wonders and Deceptions in India*, (Chicago Univ. Press, 1991):

“I’m writing a book on magic,” I explain, and I’m asked, “Real magic?” By *real magic* people mean miracles, thaumaturgical acts, and supernatural powers. “No,” I answer: “Conjuring tricks, not real magic.” *Real magic*, in other words, refers to the magic that is not real, while the magic that is real, that can actually be done, is *not real magic*. (p425)

It can’t be *real* if its explicable as a phenomenon achieved by a bag of ordinary tricks—cheap tricks, you might say.

whether they do this reflectively or by unexamined hunch or habit of thought. I consider philosophy to play the role of uncovering and examining these guiding assumptions and clarifying the logical requirements and implications of the theories scientists propose. The scientific study of the mind is a particularly philosophy-heavy area of research, since the phenomena are so hard to describe neutrally (a task for which I designed *heterophenomenology*) and so hard to align with what we know about brains and the processes that occur within them. The gulf between the view from the inside and the view from science is unlike any other explanatory gulf in nature—even greater than the gulf between living things and inanimate matter, and it is no wonder that it remains so hard to bridge. It is probable that what makes this such difficult research is that some of the assumptions we take for granted are just false. Philosophy, with its lack of conceptual boundaries, its tradition of challenging everything, is well poised to uncover these stumbling blocks. In principle, philosophers could do this from their armchairs with only the most passing acquaintance with the stumbling forays of the scientists. In practice, however, engaging quite intimately and strenuously with the scientific questions and questioners provides a wealth of material for the imagination that one would be hard-pressed to conjure up on one's own. One of philosophers' greatest weaknesses is mistaking failures of imagination for insights into necessity. There is nothing like a heavy dose of empirical discovery to strengthen and discipline the imagination. And to those philosophers who recoil from the "conceptual naivete" of the scientists when they attempt to fathom their work, I say: First, ask yourself if their presumed naivete is getting in the way of their substantive research. If so, you have a fine contribution to make by sorting this out and enlightening the scientists; if not, you might like to reconsider the charge and see if what you have called naivete is just practical and defensible impatience with niceties that do not deserve so much attention.

There has been something of a reactionary swing in recent years among young philosophers of mind, back to the "classic" formulations of the problems and away from cognitive science, but I find this work to be invariably pinched and largely devoted to artifactual puzzles of no wider interest. By "leaving science to the scientists" these philosophers are making two mistakes: cutting themselves off from new ideas that could help them with their pure projects and walking away from one of the few domains of science that could actually use lots of help from well-informed philoso-

phers. Their hermetically sealed, factually impoverished disputes also have an unfortunate side effect: they fuel the stereotype of the philosopher as somebody who plays word games and makes ignorance a virtue.

Is a science of consciousness possible?

Yes, of course. The defeatist idea that consciousness is a mystery beyond human ken has nothing going for it. The idea that is usually trotted out in support of this pessimism is one version or another of "cognitive closure": just as fish (we surmise) cannot be made to understand democracy and dogs cannot be made to understand mathematics, so there must be areas of inquiry forever beyond us finite, naked apes—and consciousness is the top candidate for being the humanly insoluble mystery. Why? Well, the brain cannot entirely represent itself so it cannot, in principle, understand itself—didn't Turing or Gödel prove something like that? These claims betray a misunderstanding of the nature of human inquiry and where it gets its power. First, putting our brains on the dimly imagined continuum with insect nervous systems at the bottom, and dogs and dolphins and chimps just next to us at the high, complex end, ignores the obvious fact that we're the only species that asks questions! Language gives our little brains a huge boost in cognitive power denied to all others. We have thinking tools—language itself, mathematics, microscopes and telescopes and statistics and a thousand other mind-sharpeners—that no other species has, and we get tremendous leverage from a division of labor. Whatever the Group Brain consisting of billions of human beings can do (abetted by the labors of billions before who have died but left us the fruits of their inquiries), can be done in summary form by just about any one human brain. (Our grandchildren can effortlessly understand scientific ideas that stumped the Nobel laureates of the last generation.) Curiously enough, language permits us to use formulae that we do not completely understand! (We can leave the deep understanding to the experts.) So the explanation of human consciousness will be composed at many levels by many disciplines and nobody will *have* to understand all of it in the detail in which it is confirmed. Thus even if the social psychologist and the linguist need to have a rudimentary appreciation of the role of the neurochemistry, they don't have to be capable of neurochemistry research, let alone the quantum physics that underlies it. And everybody will be able to understand the

textbook version of the overarching theory, just as everybody can now understand the theory of life, evolution by natural selection, even if the details of methylation of DNA molecules or the dynamics of climatic pumping and habitat tracking remain fuzzy at best for most understanders. It is a special irony that Noam Chomsky is often cited as the authoritative source of the idea that our minds are cognitively closed, for Chomsky drew our attention to the marvelous feature of language that makes this a negligible surmise: because language is systematically productive—that is to say, its well-formed formulae are composed in ways that permit one to understand the wholes by understanding the parts—each of us can understand what might as well be an infinity of different explanations—some true, most false, but comprehensible when well-formed. The claim that consciousness is an insoluble mystery implies that the true explanation of consciousness could not be composed in, or translated into, language we can understand, that no chain of comprehensible explanations could ever lead to an explanation of consciousness. I have never seen anyone advance an argument for that conclusion.

What are the most important open problems in contemporary philosophy of mind? What are the most promising prospects?

We still need a good theory of semantic information. Both cognitive scientists and evolutionary biologists make heavy use of a concept (or concepts—it isn't clear if they are exactly the same) of information that is manifestly not the well-studied Shannon-Weaver concept, and nobody—to my knowledge—has propounded and defended a good theory of this concept. Does information about food preferences or nest building techniques by birds get passed through the germ line, in the genes, or does it get passed through social learning? We can say a lot about how to answer this question (do some cross-fostering studies, and see if the fledglings adopt the practices of their foster parents) but we don't have a good clean theory of the sort of information that can either ride along on the DNA or be picked up in the light as it enters the fledglings' eyes. Can the information that is picked up by Gricean implicatures also be transmitted in other ways? What is the relation between explicit and implicit information transfer by communicative acts? Should all differences that make a difference count as *semantic* information? (A dog growls at the stranger at the door. *Something* in the dog—something that might be a memory of a similar

looking or smelling person who abused him, or might just be an emotional scar of sorts, or even an innate suspicion-mechanism directed at anything novel—was triggered by the encounter and provoked the growl. What information does it carry? How can we align the information of such states, whatever they are, with the sentences of natural or scientific language that articulate content explicitly?)

We are beginning to understand the tight interplay between our normative and indeed ethical notions and our ways of conceiving of the goings-on in our minds. This rapprochement of ethics and philosophy of mind (via neuroscience and evolutionary theory!) is a frontier on which much work still needs to be done.

From my vantage point I see the pace of discovery picking up. In the last decade or so, we've learned a great deal about the underlying mechanisms of the brain and how they might work together to create the "non-mechanistic" phenomena of mind. The fit between folk psychology and neuroscience is fitful and tantalizing—a mixture of sudden insights and frustrating complications. We are so close and yet so far. Our students can *begin* their careers with a detailed and flexible inventory of concepts, methods, and results that were unimagined by our professors when we were students. Along the way, the false starts and misbegotten agendas have often been inspired by visions that contained demonstrable philosophical errors and confusions, so we philosophers have not just been along for the ride.

Debates concerning the nature of mind and consciousness are active and ongoing, with implications for philosophy, psychology, artificial intelligence and the neurosciences. This book collects interviews with some of the foremost philosophers of mind, focusing on open questions, promising projects, and their own intellectual histories. The result is a rich glimpse of the contemporary debate through some of the people who make it what it is.

Interviews with

Lynne Rudder Baker, David Chalmers, Daniel Dennett, Fred Dretske, Owen Flanagan, Samuel Guttenplan, Valerie Gray Hardcastle, John Heil, Terence Horgan, Douglas Hofstadter, Frank Jackson, Jaegwon Kim, William Lycan, Alva Noë, Hilary Putnam, David Rosenthal, John Searle, Steven Stich, Galen Strawson, Michael Tye

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