

from *Mind and Consciousness: 5 Questions*, Patrick Grim, ed. (Automatic Press/VIP, 2009). See series at: www.formalphilosophy.com

Mind and Consciousness: 5 Questions

Lynne Rudder Baker

University of Massachusetts Amherst

1. Why were you initially drawn to philosophy of mind?

After an undergraduate degree with a major in mathematics, I turned to philosophy—in part because philosophy had all the interest of math (and logic) plus an indefinitely wide range of subject matter. I began philosophy at an intersection of metaphysics and philosophy of science. My dissertation, *Ontological and Linguistic Aspects of Temporal Becoming*, was on the philosophy of time. A convinced physicalist, I defended the idea that past, present and future (the A-series) are merely “mind-dependent.” I spent a year as a Mellon post-doctoral fellow at the University of Pittsburgh, working mainly with Adolf Grünbaum, who was very generous to me with his time. Other members of the philosophical community in Pittsburgh suggested that there was no philosophical interest in nowness; the word ‘now’ exhausted whatever there was of real interest concerning the status of the present. I therefore turned my attention from the status of the present (nowness) to the word ‘now’.

The word ‘now’ threw me into studying indexical reference. It was a short step from there to interest in indexical belief, and more generally, to interest in *de re* belief. So, I found myself right in the middle of philosophy of mind. In 1979, I read Tyler Burge’s ground-breaking “Individualism and the Mental” and, ever since, I’ve been an extreme social and physical externalist. My externalism extends to all mental states with conceptual content. I’ve argued against narrow content, against reductionism and eliminativism, and against the assumption that beliefs, desires, and intentions are some kind of mental entities. These latter arguments led me into the metaphysics of mind.

My interest in a nonreductive metaphysics of mind pushed me to conclude that minds (and thoughts, beliefs, etc.) are not entities. They are properties of entities. (The word ‘belief’ is just a nominalization of ‘believes that’.) This conclusion led me to the question: What are beliefs, etc., properties of?

Ah, persons! Exemplification of properties requires a subject, an exemplifier. I am the subject of my attitudes; my brain provides the vehicle. I (a person) am the thinker; my brain is what I think with.

So, I turned to the metaphysics of persons and discovered what I think is the key to understanding the natural world: the idea of constitution. Persons are constituted by bodies (organisms); credit cards are constituted by pieces of plastic; pieces of gold are constituted by aggregates of Au atoms.

Constitution, I believe, is a basic relation among material things. Aggregates of hydrogen atoms and chlorine atoms constitute hydrogen chloride molecules. The relation between the molecules and the aggregate of atoms is not identity: The aggregate of atoms makes up molecules only when the atoms are chemically bonded; the same aggregate of atoms spatially dispersed would not make up molecules.

The metaphysical picture is this: Everything is of some primary kind essentially. Things of one primary kind (or aggregates of things of one or more primary kind) when in certain circumstances, *constitute* things of a higher-level primary kind. (Officially, I do not use the idea of ‘higher-level primary kind’ in my definition of ‘constitution’; rather, I use the idea of constitution to define ‘higher-level primary kind.’) Everything that we encounter in the natural world—from molecules to persons—is constituted at each moment that it exists, at some level, by aggregates of physical particles. An entity (e.g., an animal or automobile) can be constituted by different things at different times.

Constitution is not identity (the top and legs of the table existed before the table did); it is not mereological composition (the aggregate of top and legs that

constitutes the table at t is neither a proper nor an improper part of the table at t).

Constitution is a comprehensive vehicle of novelty: a biological cell is a different kind of thing from the aggregate of molecules that constitutes it. A world with organisms in it would have fundamentally different kinds of entities from a world that lacked organisms—even if the latter world had the same chemicals as, but a different environment from, the world that had organisms. Constitution is nonreductive.

Applied to persons, the Constitution View holds that the relation between a person and her body (typically, a human organism after a certain stage of development) is constitution. Why is the relation between a person and her body constitution rather than identity (as Animalists hold)? Persons have first-person perspectives (whether rudimentary or robust) and they have them essentially. A body that constitutes a person has a first-person perspective only contingently, and only derivatively—in virtue of constituting something that has a first-person perspective nonderivatively. I have worked out a nonCartesian idea of a first-person perspective, both rudimentary and robust, in detail. An entity with a robust first-person perspective can conceive of itself as itself—from the first-person point of view, without any third-person name, description, or demonstrative. Attitudes that manifest robust first-person perspectives are expressed by, e.g., “I hope that I’ll not get a speeding ticket,” or “I wonder how I’ll die.” Realizing that an entity with a first-person perspective has numerous attitudes, I returned, with my Constitution View of persons in hand, to the philosophy of mind.

What makes the idea of constitution applicable to philosophy of mind is this: instances of mental properties (e.g., intending to signal a left turn) are constituted at t by instances of neural properties. And the important features of constitution that apply to entities are in place with respect to constitution of property instances. So, the (so-called token) ‘intending to signal a left turn’ is not identical with, and not reducible to, the neural properties that constitute it.

However, intending to signal a left turn may well have causal efficacy independent of the neural properties that constitute my intention. (See my “Nonreductive Materialism” forthcoming in *The Oxford Handbook of the Philosophy of Mind*.)

When someone exemplifies a mental property—say, my intending to signal a left turn, she is in a contentful mental state. Such a state is often said to have two kinds of properties: properties represented in the content and properties of the “vehicles” that carry content. Here is my “take” on this distinction: Attitudes and other contentful mental states are individuated by their content. It is content that makes my intention an intention to signal a left turn, rather than an intention to turn off the radio. The vehicle, on my view, is what constitutes the attitude. Although ‘vehicle’ is a noun, the vehicle of my intention to signal a left turn comprises the exemplification of properties by my brain. I, the person, am the one with the intention; my brain has properties that provide the vehicle for the intention. When my brain exemplifies such-and-such properties in such-and-such circumstances (e.g., in circumstances where there are automobiles and laws and conventions about driving), then I have an intention to signal a left turn. So, constitution is a key to understanding mentality.

The attitude (individuated by its content) is at a personal level, and the vehicle that constitutes it is at a subpersonal level. The vehicle may have nonbiological parts that play essential roles in cognitive processing. Think of cochlear implants that allow biologically deaf people to hear and comprehend language. The neural processing is integrated with bionic processing as the vehicle for the person’s understanding. (Keeping personal and subpersonal levels distinct is important to me because I do not believe that there are extended agents or extended persons; at best, there are extended vehicles.)

Many attitudes are properties that depend on our being situated in the physical and social environments that we are in. The dependence in question is not just causal, but is ontological: Nothing would *be* an instance of intending to

signal a left turn in a world without conventions, laws, and machines similar to ours.

To sum up: I don't think that the mind/body distinction is basic; rather, a basic distinction is between persons—who exemplify all manner of mental and other properties—and bodies (typically, organisms). The relation of constitution is a ubiquitous relation that holds both between persons and bodies and also between mental properties and neural (or other constituting) properties.

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

I have consistently argued for nonreductive materialism. (Caveat: Nonreductive materialism in the natural world; if the natural world exhausts reality, then I'm committed to nonreductive materialism *tout court*.) I hope to have made a two-fold contribution by developing the idea of constitution-without-identity, and by arguing for the significance of a (nonCartesian) first-person perspective.

With respect to constitution: Constitution is a comprehensive relation that unites entities at different levels without identity; it is a relation distinct from mereological composition; it is nonreductive; it does not “privilege” a mind-independent/mind-dependent distinction. Extension of the idea of constitution from concrete entities to property-instances makes the idea of constitution applicable to philosophy of mind. Attitudes are non-entities, I have argued; rather, attitudes are properties exemplified by persons or organisms. Attitudes (personal-level) are constituted by (subpersonal-level) brain and bionic states.

With respect to the first-person perspective: I have tried to show the significance of the first-person perspective for rational and moral agency, as well as for personhood. I am working out a nonCartesian account of the first-person perspective that fits comfortably with a rather extreme form of externalism, according to which all of the attitudes that we can be aware of ontologically depend on the fact that we are language-users.

I also hope to make a methodological contribution by approaching standard metaphysical questions from the point of view of what I call ‘Practical Realism.’ According to Practical Realism, metaphysics should be responsive to reflection on successful cognitive practices, both scientific and nonscientific. Practical Realism is *realist* since it is concerned with reality and not just with levels of description, and since it allows that there may exist things beyond our ability to recognize them. Practical Realism is *practical* since it takes the everyday world—that part of reality that includes us, what we do, our language, and the things we interact with—to be no less ontologically significant than the microphysical parts of reality.

This approach has two consequences: First, Practical Realism unsettles the idea that there is a sharp distinction between language and “the world”. If we consider language, not to be a formal system but to be a cognitive tool, then we cannot think of it in isolation from the world: to learn a language is to acquire a picture of the world. It is not that the world we encounter is independent of the concepts embedded in our language. We would never encounter, say, heavy traffic if we did not have a language that embeds a host of relevant concepts. Second, Practical Realism precludes the attempt to do metaphysics while restricting ourselves to what is mind-independent. We cannot take reality to be exhausted by what there would be if we didn’t exist, that is, if there were no minds.

This point is underscored by use of the idea of constitution as lever to pry open reality. Indeed, the comprehensiveness of the idea of constitution—which applies equally to molecules and to credit cards—displaces the mind-independent/mind-dependent distinction as a foundation for metaphysics. Various kinds of artifacts belong in basic ontology as much as electrons do. A microscope cannot be replaced by the aggregate of particles that constitutes it; still less can credit cards be replaced by “lower-level” objects. Since artifacts are real, nonredundant objects, they belong in ontology.

We persons, using our minds, contribute to reality. The physical particles out of which all particular entities in the natural world are made up are not the only items in ontology. Artifacts and artworks, irreducible to particles, could not exist in a world without minds. We are part of the natural world, and we change the natural world in fundamental ways. We add new kinds of entities to ontology: from spy satellites to landscape paintings to driver's licenses. Indeed, we can even intervene in the course of evolution.

Comprehensive use of the idea of constitution makes another contribution to philosophy. It shows how everyday things, whose existence we cannot in good faith deny, can be as ontologically significant as electrons. This idea stands in contrast to mereological theories, which are manifestly inadequate to account for ordinary objects as encountered. Constitutionalism simply by-passes the notion that entities can be understood in terms of their parts. It is better to approach entities in terms of what they can do, rather than in terms of what they are made of.

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

The neurosciences and much of psychology study the (subpersonal) mechanisms that make possible our mental phenomena. (Social psychology and some approaches to clinical psychology are exceptions. Even classical psychoanalysis, I think, is an exception: 'subconscious' does not imply 'subpersonal'.) Artificial intelligence provides models of intelligence that may or may not accurately reflect the mechanisms of human intelligence; my guess is that artificial intelligence will contribute many tools (especially prostheses) for us, whether it provides insights into neural mechanisms or not. I see three roles for philosophy vis à vis the neurosciences and some parts of psychology:

First, philosophers should function as critics—not of empirical results, but of interpretations of empirical results. So, when connectionist results are interpreted as implying that nobody ever believed anything, philosophers should

step in and challenge the notion of ‘believing’ at issue. Philosophers should help us all keep straight the difference between us – persons, subjects of experience – and our brains.

Second, and relatedly, philosophers should consider framework issues (not to say there’s a clear demarcation between framework and empirical results), by constructing larger pictures in which to situate scientific and technological findings. For example, we must find a place in our understanding of cognition for cochlear implants, which make bionic contributions to cognitive processing of spoken language.

Third, philosophers should call attention to, and discuss, ethical questions that arise with new technologies and that are overlooked by scientists’ eagerness to make discoveries and to invent new devices. We have seen philosophers play this role in medical ethics and in biotechnology. I think that this role will only increase in the future with foreseeable (and nevertheless startling) technological changes.

4. Is a science of consciousness possible?

The discussions about a science of consciousness have focused on phenomenal consciousness—“raw feels,” like the feel of velvet or the smell of garlic. I think that it is a fundamental error to erect a barrier between intentional psychology and phenomenal consciousness. Much of what are conscious of is intentional. (Think of the TV ad, “I could’ve had a V8.” Although the makers of the ad may be satisfied to have a subconscious influence on your behavior, the ad has induced in me an experience that is both conscious and intentional—expressed by “I could’ve had a V8.”) Typically, conscious experience is intentional: the conscious experience of hearing the announcement that you won an election changes your mental state; so does the conscious realization that you have locked your keys in your car. (Speculation: Only entities with intentional states are conscious entities.)

No doubt there are neural states (perhaps oscillations of some sort; perhaps not localized but distributed) that make conscious experience possible. These states may be discovered and come to be understood in a way that would make it appropriate to say that we have a science of consciousness. On my view, it would be more accurate to say that we would have is a science of the mechanisms that make states conscious—that is, the mechanisms that *constitute* conscious states.

Neural mechanisms can be understood only in third-personal terms. So, the science of consciousness would not show us what consciousness is, or what significance it has for the person who is conscious, or what it's like to be conscious. But from an engineering point of view, it would be a theory. I think that this shows the limitations of science: Even if we had a neural science of consciousness, we would still have the nagging question of how any objective, third-personal phenomena could give rise to first-personal conscious phenomena. We could have a science of consciousness and still not understand it as the conscious person does. Such a science of consciousness would not show that conscious experience was eliminable or reducible to anything third-personal.

I am not suggesting that consciousness is nonphysical. Consciousness is physical in the way that all intentional properties are—by being constituted by aggregates of still lower-level properties. But knowing what constitutes instances of a property may not help us understand the constituted property. You don't understand the property of being a US dollar bill by knowing that US dollar bills are constituted by pieces of a special sort of paper.

In sum, I think that there may well be something we can call a 'science of consciousness,' but it will really be a science of neural mechanisms that constitute consciousness.

5. What are the most important open problems in contemporary philosophy of

mind? What are the most promising prospects?

One of the most important problems in contemporary philosophy of mind is to keep the personal and subpersonal levels distinct. Personal and subpersonal levels are not just different levels of description, but—if my Constitution View is right—they are different levels of reality. Philosophers and scientists need not turn away from subpersonal explanations, but they should not suppose that subpersonal-level explanations supplant, reduce or eliminate phenomena at the personal level. What are needed now are theories that observe this crucial distinction.

The field of Medical Bionics provides an arena for observing the personal/subpersonal distinction. As a Practical Realist, I would advise pushing aside science-fiction thought experiments about zombies to consider real work on, say, neural prostheses. After the rather amazing success of cochlear implants, we have proof that machines can be integrated into organic brains in order to produce cognitive processing. Brain-machine interface work is very exciting and invites philosophical investigation into its ontological and ethical consequences.

To be published in *Mind and Consciousness: 5 Questions*, Patrick Grim, ed. (Automatic Press, VIP). See series at: <http://www.vince-inc.com/automatic.html> and www.formalphilosophy.com.