

Editorial

This is the first volume of *Behavior and Philosophy* published during my tenure as editor. The volume includes one voluntary submission (Lazzeri's paper) and five special invited papers (the rest of the papers). In a way, then, this is almost a special issue. The papers discuss various topics, from the nature and epistemic role of postulated internal mental states to parsimony, theoretical behaviorism, methodological considerations in clinical psychology, the ontology of behavior analysis, and free will in relation to the argument from responsibility. All of the papers are engaging and thought-provoking. Readers (including the authors themselves) are welcome to submit brief commentaries to these papers (about 1,500 words, not counting title or references; no abstract needed; only one target paper per commentator). Submitted commentaries will be treated as normal submissions and subject to a review process. If the commentaries are accepted, the authors of the target papers will have the chance to reply. As a novelty, and if logistically viable, we will contemplate the possibility of a brief dialogue between the authors and the commentators, where the latter might have the chance to reply to the replies, and the authors of the target paper to reply again (authors will have the last word of the exchange). We will see. No promises. Just an idea that we might consider for future volumes.

To get the ball rolling, as it were, I briefly comment on the papers, adding a few interpretive commentaries of my own, revised according to contributors' suggestions. Before I do, however, I would like to express my deep appreciation to Sorah Stein (MA, BCBA, CSE) for her outstanding job as the journal's new copyeditor, and Rebekah Pavlik (Communications and Member Services Coordinator of the Cambridge Center for Behavioral Studies™) for her invaluable support during the transition process. Both were instrumental in making it a smooth one, and bringing it to fruition. I am equally thankful to all the authors for their contributions to this volume.

If this is almost a special issue, what is its topic? A theme that seems to me to run through all of the papers, to a greater or lesser extent, is the epistemic and ontological status of postulated internal entities as explanations of behavior. In his voluntary contribution, Filipe Lazzeri discusses the extended mind view, with a focus on its main version (functionalist), and proposes a behavioral alternative, which shares with it some externalist and functionalist features, broadly understood. Extended functionalism holds that behaviors can compose some (and only some) instances of psychological phenomena, which makes it closer to a behavioral approach. However, according to Lazzeri, extended functionalism retains problematic internalistic features of traditional functionalism (e.g., many instances of psychological phenomena are internal symbolic-computational states and processes). Lazzeri's approach claims that psychological phenomena in general (and not only a few instances of them) have overt and/or covert behaviors as constituents. He leaves open whether non-behavioral physiological events partly make up psychological phenomena as well. In line with Skinner's, Lazzeri's approach mitigates inner events as explanatory of behavior, and eschews any

hypothetical symbolic-computational entities postulated by extended functionalism.

Elliott Sober goes in the opposite direction, critically commenting on a passage from Skinner's 1953, *Science and Human Behavior*. Against the spirit and letter of some of the propositions in this passage, Sober argues that postulating inner events can help explain behavior, despite occasionally going awry. This fact does not entail that it always fails; it thus seems that Skinner commits the inductive fallacy of hasty generalization. In the passage from Skinner that Sober discusses, a causal chain goes from an environmental event, to an inner mental state, and then to a behavior. Sober contrasts this causal chain with a different situation, wherein two environmental events cause a behavior. He argues that a hypothesis that introduces an inner state makes different predictions from a hypothesis that does not.

In what might be the latest formulation of his theoretical behaviorism, John Staddon has no issue with speaking of "states," as long as they are not pre-judged as to their ontological status. The concept of internal state derives irrefutably from the logic of historical systems. An internal state might refer to neurophysiology or to cognitive features accessible to consciousness. But it need not. In what seems to be an instrumentalist position on scientific theories, Staddon views internal states as useful so long as they are part of testable theories. He thus seems to side with the sort of anti-mentalism and anti-internalism expressed by Lazzeri, at least in spirit. Lamenting the "ism," which could be misread as denoting an ideology, Staddon proposes theoretical behaviorism as a scientific amendment to radical behaviorism. This amendment acknowledges the successes of Skinner's experimental-analysis program, but repudiates his rejection of theoretical constructs such as memory and motivation. In Staddon's theoretical behaviorism, there is room for such constructs, if viewed as states qua repertoires controlled by identifiable environmental conditions under motivational conditions, from a selectionist perspective. In particular, Staddon questions the standard Skinnerian explanation of superstition and dichotomy between operant and respondent conditioning.

The issue of the epistemic and ontological status of internal states arises also from implications of the contribution of O'Donohue, Casas, Szoke, Cheung, Hmaidan, and Burleigh, in relation to clinical psychology. Blaming null-hypothesis testing and confirmation bias as major culprits for the lack of progress in clinical psychology, perhaps even psychology in general, they propose a scientifically stronger clinical psychology research based on a neo-Popperian methodology. This methodology calls for stricter, more falsificatory tests that seek to debunk hypotheses and avoid the confirmation bias. The authors give Big Pharma and Acceptance and Commitment Therapy as examples of how clinical research falls prey to the confirmation bias. The relation to the postulation of internal events as explanatory in behavior obtains from the implication that stricter falsificatory practices will contribute more to scientific progress in clinical psychology than prohibiting such postulation. Mentalistic and behavioristic research have been equally guilty of the confirmation bias, so perhaps whether or not internal events, states, and processes are postulated makes little, if any, difference. It is worth

mentioning in this regard a tidbit of Popper's methodology little known outside the philosophy of science: His notion of "hypothesis" had nothing to do with the logico-positivistic observational and theoretical terms (individual constants and predicates), where observational terms refer to observable entities (individuals and properties) and theoretical terms to unobservable entities. Popper strictly identified hypothesis with theory, characterizing it in a purely logical manner, as a universal affirmative statement, regardless of whether its nonlogical terms were observational or theoretical. Popperian falsificationism, then, applies equally to mentalistic and behavioristic psychology. Its emphasis on falsification, rather than on the terms used and concepts postulated, was a key rupture with logical positivism. The implication I see here is that the discussion over internal entities matters less than a discussion over research practices.

In his contribution, William Baum joins Lazzeri and Staddon in repudiating the postulation of explanatory internal states, but in a different direction, namely, the rejection of realism as the assertion of mind-independent reality. Realism, Baum argues, is fundamentally incompatible with a science of behavior because realism hinges on a mental-nonmental distinction, which leads to inner-outer and objective-subjective distinctions, strongly rejected by behavior analysts. He calls these distinctions "dualisms," although he does not mean, at least not in letter, a physical-nonphysical dualism. Instead, he argues, an ontology for behavior only requires the class-instance and object-process distinctions, if a science of behavior is to be coherent.

Lastly, yet importantly, Max Hocutt discusses the argument from responsibility for believing in free will. According to this argument, such believing is the strongest, if not the only, justification to hold people accountable for their acts. He argues that the validity, soundness, and relevance of the argument from responsibility hinges crucially on what free will, responsibility, and justification are. Hocutt concludes that free will is required only under some understandings of these other notions. As the other authors, Hocutt brings inner entities into the discussion, but he does it to clarify that legal responsibility is not a metaphysical postulate about anyone's internal states and on-goings, but only "an assigned social status" (perhaps to this extent, it is a convention). With this clarification in hand, Hocutt proceeds to reflect on the nature of free will.

Clearly, the problem of the epistemic and ontological status of internal entities and their relation to the character and success of a science of behavior remains far from resolved.

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Editor