The mind-brain problem in psychiatry: why theoretical pluralism is better than theoretical monism

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The mind-brain problem (MBP) is a persistent challenge in philosophy and science, having marked implications for psychiatry. In this paper, we claim that physicalism, a kind of theoretical monism, is usually taken by many psychiatrists as the only possible solution to the MBP, and argue that this may have negative consequences for the field. Not only does it restrict the psychiatric training, thereby preventing professionals from considering and reflecting upon different perspectives on the MBP, but it also leads clinical psychiatrists to ignore alternatives in their research agendas and clinical care. We suggest, therefore, that, as long as the MBP remains open and disputed by divergent views, theoretical monism should give place to theoretical pluralism in psychiatry.

Keywords: mind-brain problem, psychiatry, theoretical monism, theoretical pluralism, philosophy of science, philosophy of mind.

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The mind-brain problem (MBP)—primarily understood as the question of how the mind relates to the brain—is one of the oldest and most persistent challenges in philosophy and science, having marked implications for psychiatry. For example, it may influence not only research agendas, designs, and interpretations, but also clinical care, especially in relation to topics such as free will, stigma and treatment options (Kendler, 2005; Moreira-Almeida and Araujo, 2015). During the last decades, many technical developments in neuroscience (e.g., genetics, neuroimaging) have advanced our understanding of the relation between mental phenomena and neural circuitry. However, they have also led to an exaggerated, sometimes naive optimism about reaching an ultimate theoretical explanation of such relationship. For example, there is a widespread belief among psychiatrists that physicalism (the mind is a material or physical process, a product of brain functioning) is the only rational and scientifically acceptable solution to the MBP. According to this view, the MBP has been solved already. Nevertheless, at best this an unwarranted conclusion, as we will argue now.

The first problem to be noted is that physicalism does not necessarily follow from the empirical data available in contemporary neuroscientific research (Uttal, 2011; Araujo, 2012). On the contrary, the main findings from neuroscience can be accommodated to different views on the MBP. Second, in fields such as consciousness studies and the philosophy of mind, competing theoretical models and some pieces of empirical evidence point to many difficulties in physicalist perspectives on the MBP (Uttal, 2011; Lavazza and Robinson, 2014; Dolbeault, 2017), not to mention the persistence of the hard problem of consciousness (Schwitzgebel, 2016; Ataria, 2017). Third, the MBP is mainly a theoretical problem, which involves conceptual analysis, thereby going far beyond the empirical dimension of scientific research (Araujo, 2012). All these problems seem to indicate that the theoretical monism (physicalism) that dominates psychiatry today may have negative consequences for the field. Not only does it restrict the psychiatric training, thereby preventing professionals from considering and reflecting upon different perspectives on the MBP, but it also leads clinical psychiatrists to ignore alternatives in their research agendas and clinical care (Kendler, 2005; Moreira-Almeida and Araujo, 2015).

One way of describing the scientific status of psychiatry is to say—according to the Kuhnian
model—that it still finds itself in a “pre-paradigmatic” period, that is, it has not reached a consensual scientific paradigm or disciplinary matrix yet (Chibeni and Moreira-Almeida, 2007). This is also recognized by Kendler (2005), who declared it to be in a “prescientific ‘battle of paradigms’”, warned against simplistic, “monistic explanatory approaches”, and called for “empirically rigorous and pluralistic explanatory models” (p. 433).

Working in academic areas that are in a “pre-paradigmatic period” is not the same as working in the so-called “mature” sciences, which have a well-established and widely accepted paradigm or disciplinary matrix that guides research and practice. During the pre-paradigmatic phase, a bolder, more critical, open-minded, and pluralist approach is required. It is essential to foster the improvement of traditional hypothesis (paradigm candidates) and the development of new ones, even if they initially sound weird and unfashionable (Chibeni and Moreira-Almeida, 2007). Gravity and germ theory can be taken here as examples. Gravity theory, proposed by Isaac Newton, faced initially strong opposition, in part because it implied action at a distance, the mechanisms of which Newton could not explain. Also, it was considered outmoded, to the extent that it revived Aristotelian ideas. Germ and contagion theory, advanced by Ignaz Semmelweiss and John Snow, was also at the time considered old-fashioned and in contradiction with more “modern” theories, such as the “miasma” theory.

The advancement of science, especially in pre-paradigmatic periods, occurs through a Darwinian competition of paradigm candidates. As philosopher of science Imre Lakatos once remarked, scientific progress is facilitated by open-minded competition among alternative approaches:

“It would be wrong to assume that one must stay with a research programme until it has exhausted all its heuristic power, that one must not introduce a rival programme before everybody agrees that the point of degeneration has probably been reached. (...) The history of science has been and should be a history of competing research programmes: the sooner competition starts, the better for progress. ‘Theoretical pluralism’ is better than ‘theoretical monism’.” (Lakatos, 1970, p. 155)

According to this “Darwinian competition” of research programs, it is essential to combine rigor and open-mindedness. Thus, paradigm candidates should have the opportunity to be fully developed and to prove their adequacy under rigorous testing.

Following the Lakatosian view, we defend that, for psychiatry, theoretical pluralism is better than theoretical monism. Studying a subject as complex as mind/consciousness and its relationship to the brain requires intellectual humility, persistence and awareness of the different academic fields that contribute to the understanding of the MBP. Physicalism—be it in its reductive or non-reductive form—is certainly a plausible candidate to account for the MBP, but it is not the only one. Moreover, it is still far from being a satisfactory theoretical explanation for the MBP. Therefore, assuming that it (or any other hypothesis) is the only game in town produces several unintended consequences, such as a naive and dogmatic acceptance of the hypothesis in question, a poor understanding of its limitations, and a certain blindness to alternative data interpretations. Furthermore, it impairs the development of old (e.g., interactionist dualism, and panpsychism) or new solutions.

Finally, we would like to propose some theoretical/methodological guidelines for psychiatrists to improve their understanding of the MBP. First, to be acquainted with the interdisciplinary scholarship that bears on the MBP (e.g., philosophy of mind and consciousness studies). Second, to take empirical findings seriously, even when they do not fit into a prevalent/fashionable paradigm candidate (primacy of empirical data over theories). Third, to avoid both the dogmatic rejection and the hasty, naive acceptance of new or old hypotheses. Some desirable characteristics of a promising paradigm candidate are: empirical adequacy (supported by a wide range of empirical evidence), falseability (being submitted to and survived different kinds of empirical tests), predictive accuracy, broadness of scope, simplicity, theoretical integration with correlated areas, and ability to predict new kinds of phenomena (Chibeni and Moreira-Almeida, 2007). We defend that this is the best way to promote progress in psychiatry, moving it from a pre-paradigmatic period to a mature scientific status.
REFERENCES


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