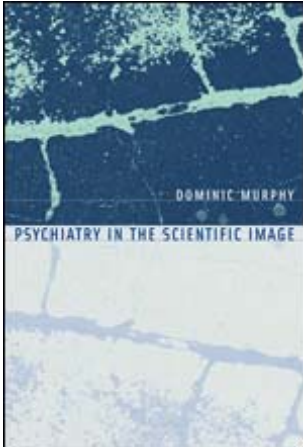


Commentary

Psychiatry in the Scientific Image

Dominic Murphy
MIT Press, Cambridge, MA, 2006

Elisabetta Sirgiovanni*
elisirgiovanni@hotmail.com



Dominic Murphy's first book is a contribution to the debate on psychiatry within analytical philosophy, in spite of the well-known philosophical production on the subject in the continental tradition. Even clearer than the few available textbooks on analytical philosophy of psychiatry, the author remarkably presents and discusses in detail the most considerable psychiatric issues on which contemporary philosophers of mind are interested: the concept of mental disorder (Chapter 2), folk psychology (Chapter 3), the medical model in psychiatry (Chapter 4), mechanistic explanation (Chapter 5), the problem of validation (Chapter 6), both social constructionist (Chapter 7) and evolutionary approaches (Chapter 8), and finally taxonomy (Chapters 8-9).

Its title, *Psychiatry in the Scientific Image*, reminds that of the Wilfrid Sellars' paper *Philosophy and the Scientific image of man* that inspired also the popular Bas Van Fraassen's work *The Scientific Image*. Murphy states openly this linguistic fatherhood but reports only Sellars' text, ignoring Van Fraassen's one among bibliographical references. Sellars' expression contrasts the *manifest* image of the world, roughly the world as it appears to human observation, with its *scientific* one. Murphy shows that present psychiatry, although intended to be discussed within the latter, conforms much more to the former. As a matter of fact, he discredits the current psychiatric nosology, that of the DSM, as *incoherent-heterogeneous-provincial*, being reliable on manifest symptoms but unsatisfying about causal explanations of mental illnesses (Chapter 9). Yet that constructive empiricism suggested by Van Fraassen, and apparently ignored by an explicit reference, seems to be somewhat a theoretical inspiration. According to Van Fraassen (1980), science does not aim to state the truth, but empirical adequacy, therefore it should explain correctly what is observable, and should construct *models* suitable to phenomena. Though adverse to a purely descriptivist approach, conceived as just commonsense based, Murphy states that wondering whether mental disorders are natural kinds is an inconclusive question as it obscures the more important issue of the availability of categorical taxonomies. What matters, he says, is whether we can come up with a basis for classification and he suggests we can do it through the idealized notion of *exemplar*, causally explained representations of symptoms (Chapter 7 and 10). However, while, on the one hand, he creates exemplars on the basis of the DSM categories (e.g., OCD and schizophrenia), on the other hand he seems to forget the limits of the DSM whose commonsense clusters hardly fit for identifying a shared cause.

Concerning the scientific image of psychiatry, Dominic Murphy explores an attractive possibility: making psychiatry part of the most important contemporary scientific enterprise on mind-brain, cognitive science. On the one hand, his aim testifies the worrying isolation of

* University of Siena



psychiatry from the other sciences of the mind. On the other hand, cognitive theories appear only as one direction among a range of etiological and taxonomic approaches to psychiatry. In fact, certain skepticism about such a project in the psychiatric debate is often motivated by the fact that cognitivism would involve a definite theoretical choice for a pre-paradigmatic discipline like psychiatry, a choice that many psychiatrists would feel not inclined to. However, Murphy's work has the remarkable merit of beginning to build a bridge between cognitive sciences and psychiatry as accurately and widely as no one before. The general goal of his text is offering the image that psychiatry should acquire, concerning the main related philosophical problems, if it came to be reformulated as a "clinical cognitive neuroscience".

With regard to the former paper *Darwin in the Madhouse*, co-authored with Stephen Stich in 1998, the conception of psychiatry in cognitive terms shows different features. As a matter of fact Murphy raises objections to the view he previously defended that such a reformulation should be completely modeled on Evolutionary Psychology and on its main constraints, the *Massive Modularity Hypothesis* and the *Adaptation Hypothesis*. This could disappoint whoever expected this book were an extension of those ideas. In fact, two central chapters are dedicated to arguments against the possibility of fully explaining mental illnesses either as a modular deficit (Chapter 5) or as an adaptive problem (Chapter 8). However, while Murphy claims that Evolutionary Explanation simply fail to stand up, Modularity is partly maintained for deficits of peripheral cognitive systems. Therefore, Murphy seems to have agreed to José Luis Bermúdez' objections (Bermúdez 2001), according to which modularity could not face the problem of explaining supposed deficits of central systems (i.e., delusions and other problems in rationality) in neurocomputational terms.

Nevertheless, Bermúdez referred to a different conception of Modularity from the Massive one, namely, Fodorian Modularity (Fodor 1983). Hence, by taking Bermúdez' arguments in consideration, Murphy does not seem to adopt a definite position regarding the matter. It is not clear whether and why he became Fodorian in matter of architecture of mind since the problem of explaining central cognitive systems largely results from Fodorian conceptions about modules and cognitive reasoning mechanism that Massive Modularists elude. Massive modules do not include strong informational encapsulation and can intend reasoning not to be executed by a single and isolated module, which manifests the same properties - holism and isotropy - the phenomenon of reasoning shows from the outside (see Sperber 1996). Furthermore, those properties seem not to be in human reasoning as sharp as Fodor thinks they are. Murphy considers neither these counter-argumentations nor those coming from the Connectionist area against two main ideas: the idea of the lack of informational encapsulation even in peripheral systems (Churchland 1988) and the idea of sub-symbolic computation for modules (Waskan & Bechtel 1997). Connectionists state that their approach poses fewer problems to the holism of representations. On the contrary, Murphy prefers to share what he defines a "two-stage picture" about psychiatry, according to which the foundation of psychiatry in positive facts (or naturalization project) is not always wholly attainable. In case of deficits of central systems, normativity side would resist to naturalization as well as personal explanation.

Against the current Micro-reductionist approach in biological psychiatry (that of genes and neurotransmitters), Murphy espouses a kind of non-eliminative epistemological Reductionism (Chapters 2-3), which places psychiatry within the medical model (i.e., mental illnesses as deficits of brain mechanisms) but maintains multilevel explanations (i.e., personal-intentional plus computational and neurological levels). He challenges the idea of a *fundamental* explanation, which corresponds for Micro-reductionists with the smallest level in nature. However reasons he offers against Molecular Research Strategies are not as decisive as he



thinks. He states that Molecular Reductionism cannot play the unifying explanatory role its theorists expect for it. As a reason, he claims that Genetic Reductionism is dependent on animal models. He then argues that even in very simple organism like small worms the causal pathways between genes and phenotype are of great complexity, and require multilevel causal models. Nevertheless the very same dependence occurs in models of brain mechanisms at highest levels. Moreover, he does not clarify what he means when talking of ‘levels’ except for mentioning David Marr. As a matter of fact, he confuses size or aggregation levels (molecules, cells, organ areas, organs, bodies, etc.) with realization levels (mind-brain) (see Kim 1998). Therefore, his argumentations save at most highest size levels. However, if they are intended to save psychological level too, they fail.

He identifies his kind of reduction with the Mechanist approach and with its decomposition assumption (Chapter 3). However, the offered characterization of Mechanistic approach seems to be misleading. He refers to the mentioned Fodorian objections against Massive Modularity as “The Limits of Mechanistic Explanation”, as he entitles Chapter 5. Nevertheless William Bechtel and colleagues insist that Mechanistic theory, although a functional decomposition theory, has little to do with Modularity (see, for example, Bechtel 2003, 2009). Among several differences between the two approaches, it is worth saying that Mechanism does not retain the idea of relatively autonomous components because it states such an idea hardly squares the organization of the brain. According to Mechanisms, it is no longer appropriate to think in terms of a dichotomy between modular accounts and holistic ones, but a continuum in which the middle is occupied by various designs of mechanisms. Assuming decomposability in scientific investigations is just a heuristic assumption that is only partially true of any given mechanism. Natural systems, especially biological systems, are conceived *nearly decomposable* systems, or better still independent only to a first approximation. Accordingly, even when mechanistic theorists identify a particular system as a locus of control for a particular function, they need not impute full responsibility to that component. They think natural systems are complex systems whose main characteristic is interaction.

Anyhow Murphy’s concept of disorder is objectivist (Chapter 2). That is, mental illnesses are brain diseases and they can be explained in factual biological terms. He takes place against the Social Constructivist view that mental illnesses are violations of social norms but his arguments against Social Constructivism are clearly inadequate. Firstly, he argues that Constructivism cannot explain why we distinguish between psychological and behavioral phenomena like racism, boorishness, hypocrisy and so on, conceived only as disapproved, and mental disorders. Secondly, he says that Constructivism cannot avoid Relativism. However, on the one hand, Constructivists think that social deviances and mental disorders have much more in common than one may think at first sight. For Social Constructivists, they are both social constructs which vary from society to society and relate on the different norms established by each of them. For example, racism wasn’t a deviance from social norms up to the latest century as well as religious delusions. A Constructivist might argue that our different judgments depend on the way each society considers them more or less dangerous. Michel Foucault, for example, consecrated his work to both the phenomena of criminality and madness, and conceived them as two form of the same purpose of segregation of people violating social norms, which originate detentions as clinics (Foucault 1966) and prison (Foucault 1975). On the other hand, Murphy is espousing a *petitio principii*. Social Constructivism is exactly a kind of Truth Relativism (see Boghossian 2006), a thesis according to which there are not true statements but statements true for X and not for Y - where X and Y are people, historical eras or social communities. Constructivism is a Relativist thesis and thus cannot avoid Relativism, Murphy says. The inference is not strictly invalid, but clearly deceptive. Why should we avoid relativism? He has no arguments for that. Nevertheless,



except for this fault, his way of integrating social in natural causation (Chapter 7) is interesting and worthy, as well as his integrative conception (Chapter 3) of the medical (Guze 1992) and the biopsychosocial model (Engel 1977), usually regarded as alternative solutions. Social forces are natural ones.

Even though commonsense intuitions are seen relevant to science, the book refuses traditional conceptual analysis. Harmful-dysfunction analysis (Wakefield 1992) for the concept of disorder is rejected as a Folk Psychology *a priori* product (Chapter 2), exactly as DSM constructs (Chapter 9). As involving empirical assumption, they both need to be defined on the basis of empirical enquiry, and Murphy has a liking particularly for the former approach about disorder definition. With regard to the concept of 'function' involved in the dysfunction component of the definition of disorder, between historical-teleological and designed, he chooses an eclectic view that reflects current debate in philosophy of biology (see Godfrey-Smith 1993) according to which the term vary depending of what the theory is trying to explain. It is unusual however that he continues to use the scientifically temporary term 'disorder', which literally denotes a behavioral condition with unknown etiopathogenesis, even though he thinks mental disorders hide underling causal disruptions. Thus they are pathologies, not disorders.

Admittedly some argumentations in the book are not very accurate and do not meet analytical philosopher's standards of clarity and method. Reasons to accept some theories are sometimes proposed in a rhetorical style. Nevertheless main suggestions are both well-described and attractive. This is not only the first monographic book that explores systematically the whole project of discussing the theoretical foundations of a future cognitive neuropsychiatry. It is one of the most brilliant in the current philosophy of psychiatry. Written by a philosopher alone, it is a remarkable and hard work of research. It offers painstaking knowledge for main issues in both huge philosophical and psychiatric debates. That what makes it a fundamental and indispensable reference for philosophers of mind, of science and of biology and for psychiatrists. Moreover this book is an excellent guide to philosophy of pathological mind, also for beginners. Its conclusions support a promising new direction of scientific research for psychiatry. They leave interesting open questions regarding the role of normativity and the possibility of a complete naturalization. Prolific matter of debate for future philosophical work.

BIBLIOGRAPHY

- Bechtel, W. (2003). Modules, Brain Parts, and Evolutionary Psychology. In S. J. Scher and F. Rauscher (Eds.), *Evolutionary psychology: Alternative approaches*. Dordrecht: Kluwer.
- Bechtel, W. (2009). Explanation: Mechanism, Modularity, and Situated Cognition. In P. Robbins and M. Aydede (Eds.), *Cambridge Handbook of Situated Cognition*. Cambridge: Cambridge University Press.
- Bermúdez, J. L. (2001). Normativity and Rationality in Delusional Psychiatric Disorders. *Mind and Language*, 16: 457-493.
- Boghossian, P. (2006). *Fear of Knowledge, Against Relativism and Constructivism*. Oxford: Oxford University Press.
- Churchland, P. M. (1988). Perceptual Plasticity and Theoretical Neutrality: A Reply to Jerry Fodor. *Philosophy of science*, 55(2): 167-187.



- Engel, G. L. (1977). The Need for a New Medical Model: A Challenge for Biomedicine. *Science*, 196: 129–136.
- Fodor, J. A. (1983). *The Modularity of Mind*. Cambridge, MA: MIT Press.
- Foucault, M. (1966). *Naissance de la clinique. Une archéologie du regard médical*. Paris: PUF.
- Foucault, M. (1975). *Surveiller et punir. Naissance de la prison*. Paris: Gallimard.
- Godfrey-Smith, P. (1993). Functions: Consensus Without Unity. *Pacific Philosophical Quarterly*, 74: 196-208.
- Guze, S. (1992). *Why Psychiatry is a Branch of Medicine*. New York: Oxford University Press.
- Kim, J. (1998). *Mind in a Physical World*. Cambridge, MA: MIT Press.
- Murphy, D., & Stich, S. P. (1998). “Darwin in the Madhouse”, paper at *Evolving the Human Mind Conference*, Hang Seng Centre for Cognitive Studies, University of Sheffield, 24-27 June.
- Sellars, W. (1963). Philosophy and the Scientific Image of Man. In W. Sellars, *Science, Perception and Reality*. London: Routledge & Kegan Paul.
- Sirgiovanni, E. (2006). Psicopatologia e Modularità. In F. Ferretti & F. Marraffa (a cura di), *L’architettura della mente, Saggi sulla modularità* (pp. 213-244). Catanzaro: Abramo.
- Sirgiovanni, E. (2008). Il DSM e la Psichiatria occidentale. Auspici futuri per la classificazione dei disturbi mentali. *L’Arco di Giano*, 57, 125-138.
- Sperber, D. (1996). *Explaining Culture. A Naturalistic Approach*. Cambridge, UK: Cambridge University Press.
- Van Fraassen, B. C. (1980). *The Scientific Image*. Oxford: Oxford University Press.
- Wakefield, J. C. (1992). Disorder as Harmful Dysfunction: A Conceptual Critique of DSM-III-R’s Definition of Mental Disorder. *Psychological Review*, 99(2), 232-247.
- Waskan, J., & Bechtel, W. (1997). Directions in Connectionist Research: Tractable Computations without Syntactically Structured Representations. *Metaphilosophy*, 1/2, 31-62.

TABLE OF CONTENTS

1. Introduction
2. The Concept of Mental Disorder
3. Psychiatry and Folk Psychology
4. The Medical Model and the Foundations of Psychiatric Explanation
5. The Limits of Mechanistic Explanation in Psychiatry
6. A More or Less Realist Theory of Validation as Causal Explanation
7. Social Construction and Sociological Causation
8. Evolutionary Explanations of Psychopathology
9. Classification
10. Classification in Psychiatry

