

hopeful note: “Indeed, perhaps science has only just begun” (p. 178) – a powerful reminder of the importance of keeping an open mind even when the achievements of science seem to give us final answers. Castel and Sismondo’s discussion will certainly please all philosophers, sociologists and historians with an interest in scientific practice, while the broad range of case studies and illustrations in each chapter will take students and general readers on a wonderful journey of discovery.

Adele E. Clarke, Laura Mamo, Jennifer Ruth Fosket, Jennifer R. Fishman, Janet K. Shim (eds)

Biomedicalization. Technoscience, Health, and Illness in the U.S.

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Stefano Crabu
(Università di Padova)

The anthology edited by Clarke, Mamo, Fosket, Fishman and Shim, called "the gang of five" by Virginia Olesen because of their constant "shoulder to shoulder" academic work, proposes to face, within an innovative theoretical perspective accompanied by the discussion of

several case studies, the tendencies assumed by biomedicine in the postmodern society. In the last decades, indeed, the technological innovation in the health care field has laid the groundwork for a consistent development of the biomedical knowledge, considerably moving the medical intervention limit on the human body, till to interweave life's and human experience's aspects that otherwise would be considered "natural" (Kaufman and Morgan, 2005). In particular, the emergence of new substantive areas of the life sciences such as genomics, molecular biology, genetic medicine and pharmacogenetics, accompanied by complex diagnostic and information technologies, provides just some examples of the changes that have affected the modality of production and circulation of the medical knowledge. For this reason the Social Sciences, and in particular way the Science and Technology Studies (STS), in the last years have devoted a constantly increasing attention to the intersection between biology, medicine and life sciences in general, focusing the analysis on the emergent biomedical technologies (Hogle 2008).

The works composing the anthology proposed by Adele Clarke and her colleagues present, on the whole, the most innovative STS features. In doing so, treating the relation between medicine and society, the editors introduce an approach to social studies that is different from the classical one constituted by the medicalization

paradigm. The volume has its theoretical foundations in a seminal article written in 2003 by the editors of the book themselves (Clark et al.), and selected as the opening chapter for the anthology (ch. 1). Such contribution, which has already had not only an important relevance in the US debate, but also among European scholars, characterizes itself for researching a lively and fruitful convergence between sociological perspectives that traditionally have looked at the same phenomenon – i.e. the relation between medicine and society – from different perspectives. Specifically, the classical Sociology of Health and Illness has dedicated considerable space to the subjective experience of the illness, however omitting the increasing importance assumed by the technologies as production devices of the medical knowledge. Besides the modalities through which the biomedical knowledge is produced and shared have not been documented with enough attention. Likewise the STS, to which this book is mainly oriented, have a solid tradition in studying the "harder" sciences, and only in recent years a strong interest has emerged towards constructing the medical and biological knowledge, and towards the technoscientific practices inside the biomedical field (Bruni, 2008). As it clearly emerges from the extensive review of the literature presented in the introductory chapter to the text (pp. 1-44), the STS are currently characterized by a vivacious interest in biology and medical

science. At the same time, the most traditional medical sociology and the studies on the medical institutions are strongly permeated by the studies on science and technology. Without doubt, this virtuous contamination between perspectives has been encouraged by the increasing complexity of the biomedicine and its practices, which has brought new topics to the attention of the Social Sciences.

From an analytical point of view, the essays in this collection, since its introduction, provide the reader with a complex and articulated mapping of the prevailing phenomena that characterize contemporary biomedicine such as, for instance, the creation and commodification of new preventive medicines (preventive chemotherapies) or body enhancement products (Viagra), the definition of new epidemiological and biomedical models of the risk and prevention of the risk, the commodification of the biological material (tissues, stem-cells, sperm and so on) till the constitution of new identities of patients and new expressions of biological citizenship constituted inside the biomedical networks. In order to describe and to interpret this wide range of phenomena, the editors propose the umbrella concept of "biomedicalization", focusing the analysis on the processes and the social practices coming from the convergence between biological knowledge and medical knowledge. On this line, the classical concept of medicalization turns out to be as unsuitable as

essentialist in individualizing the contemporary biomedicine features and its emergent dimensions. The term "biomedicalization", in fact, is used by the editors from the very first pages of the book to indicate "the increasingly complex, multisided, multidirectional process of medicalization that today is being both extended and reconstituted through the emergent social forms and practices of a highly and increasingly technoscientific biomedicine" (p. 47). The suffix "bio" – in the concept of medicalization – denotes the increasing importance assumed by biological sciences in the medical discursive regime. In particular, the birth of modern medicine, in a scientific perspective, establishes itself on the so-called "clinical gaze" (Foucault, 1963) in which the human eye was understood as a generating element and at the same time as the depositary of knowledge. In the last decades, however, the clinical practice has increasingly relied on technological devices supporting the diagnostic activities previously entrusted to the "handicraft" abilities of the physician. This innovation of biomedicine and its practices is interpreted, in the text (chs. 2-3), in terms of a slow and constant transformation of the clinical gaze on the patient body, in which the technological devices have played a decisive role. The text, therefore, guides the reader through an articulated path that is first theoretical, then substantive. The purpose is describing and interpreting the decisive shift from a medicine cen-

tred on the clinical gaze – which took place at the patient's sickbed – to a biomedicine characterized by a "molecular gaze" (p. 23), in which the mediation of biological technologies appears decisive for the bodies scrutiny and for the biomedical knowledge production.

The work, on the whole, is articulated through a clear tripartite structure. The first part (chs. 1-4) is oriented to analyse in depth the thorniest and most complex theoretical matters, or rather the shift from the medicalization thesis, which has dominated the sociological debate on the connection between medicine and society for almost thirty years, to the biomedicalization thesis. To understand not only the theoretical importance of the biomedicalization thesis, but also its epistemological one, the editors express themselves in the following terms: "medicalization was co-constitutive of modernity, while biomedicalization is also co-constitutive of postmodernity" (p. 52).

In this first part of the text, what turns out to be particularly important for the STS is ch. 4, edited by Elianne Risk, which proposes an interesting critical reading of the shift from the medicalization thesis to the biomedicalization one through the gender lens. The author thoroughly shows how the theoretical shift from the medicalization to the biomedicalization has involved a new critical reading of the body and its materiality in the light of the new biomedical practices, deconstructing the man-woman and nature-culture

dichotomy that has deeply characterized the debate on the medicalization of society.

The second and the third part of the volume are devoted to present the case studies, which offer a theoretically deepened analysis of the biomedicalization processes. The essays gathered in the second part (chs. 5-9) mainly focus on the "difference" dimension, highlighting the modalities through which the processes of biomedicalization and its practices are articulated, redefined and contextually re-elaborated. This section is opened by Laura Mamo's empirical work (ch. 5) on the experience of the lesbians who turn to the services of the sperm bank for getting pregnant. Analyzing interviews with lesbian consumers of sperm bank services, the author shows how the conceptive practices, neoliberal ideology and health care policies are mutually productive, critically discussing what she defines "Fertility, Inc.". The second case study, introduced by Kelly Joice (ch. 6), focuses on the relation between the new technologies and the measurement and classification regimes of the bodies, exploring a biomedicalization key dimension: the use of new imaging technology as devices for re-elaborating and redefining the individual and collective technoscientific identities. Janet Shim, in the third case study (ch. 7), faces in a dialectical way the liaison between ethnic and class inequalities and cardiac illnesses. The case study discussed by Sarah Shostak (ch. 8) focalizes on the emergence of

molecular epidemiology and its consequences in classifying the populations in the face of the risk. The section devoted to the "difference" dimension is closed with the case study introduced by Jonathan Kahn (ch. 9), which, along the lines of Shim's reflection, investigates the "racial" dimension of the biomedicalization processes, retracing the history of the BiDil, the first medicine introduced to the market to treat the cardiac insufficiency among the Afro-American population.

The last part of the volume (chs. 10-13) focuses on the biomedical technologies of "enhancement" of the body, retracing the liminal boundaries between health and illness and the medical criteria of intervention on the body. This section faces the emblematic case of the erectile dysfunction and the Viagra as a procedure of biomedicalization of man's sexual health (Jennifer Fishman, ch. 10), the bariatric surgical weight loss (Natalie Boero, ch. 11) and the "chemopreventive" treatment of those women "at risk" of breast cancer (Jennifer Ruth Fosket, ch. 12). The last section of the anthology is concluded with the remarks by Jackie Orr on the transformation of the biological psychiatry following the introduction of "brain imaging" technologies.

The anthology edited by the "gang of five" offers, from my point of view, a fundamental contribution and an innovative theoretical framework for understanding not only the relation between medicine and

society, but also the study of the technoscientific practices tout court. Nevertheless, since the theoretical contribution in the volume's opening, an excessive emphasis is given to the American national context, to such a point that, in the work, the specific features of the American health care system are taken for granted. However, this territorial connotation is slightly mitigated by the conclusive chapter (Adele E. Clarke), which constitutes the volume's epilogue and offers an interesting as innovative transnational study of the biomedicallization processes.

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Tomás Sánchez Criado (ed)
Tecnogénesis: la construcción técnica de las ecologías humanas (2 Vols.)

(*Technogenesis: the technical construction of human ecologies*)

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Celia Diaz Catalan
 (IESA-CSIC)

Postmodernism is an interesting symptom of transition, let's accept it as such, use it to bring about the end of modernism more quickly, and, for goodness sake... let's talk about something else.
 (Latour 2008, 177).

This book edited by Tomás Sánchez Criado compiles a series of works by authors from different disciplines (psychologists, historians of science, anthropologists, sociologists, philosophers and primatologists) sharing a constructivist approach. The introductory chapter was written at the time of the enactment of the so-called "Dependency Law" (Act 39/2006 of 14th December for the Promotion of Personal Autonomy and Care for Dependent Persons), which is the result of the pressures exerted by many social movements strongly supported by the author, and represents one of the most ambitious public policies of the Spanish welfare