It is increasingly the case that lay people use a medical framework to give order and meaning to their own problems. In part, this trend is fueled by the influence of media, including television advertising and the widespread availability of health-related information on the Internet. In other words, although the medical gaze continues to be turned toward more aspects of the human condition, medicalization is no longer strictly to result of medical imperialism. Other "engines" of medicalization are influential: consumers, biotechnology – including the pharmaceutical industry – and managed care. Moreover, human enhancement is becoming ever more relevant. Human enhancement, or the use of biomedical technology to improve human performance in a variety of spheres, is taking medicine into new terrain. Rather than treating the sick, human enhancement involves creating what has been called the "bionic society". In such a society human nature is transformed by biomedical technology, with significant consequences. Cognitive and emotional enhancements are two examples of this trend. This volume examines and provides a sociological analysis of this increasingly important development.

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Salute e Società

Medicine of emotions and cognitions

edited by
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Kristin Barker

FrancoAngeli
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*What indicators to evaluate the association of general medicine doctors and paediatricians?*
Health sociology is a vibrant field of research going from global health studies, the macrosociology of health and illness, over sociological epidemiology, health services research, the sociology of professional care seeking to the sociology of cognitions and emotions. Because health has obvious bodily, cognitive, affective, and, social connotations the sociology of health and illness is one of the more interdisciplinary oriented fields in sociology.

This cross border orientation is stimulated by the fact that a lot of health sociologists work in faculties of medicine instead of departments of sociology. Therefore, they are challenged to make their research relevant for medicine, clinical psychology, health promotion, and other disciplines located at the same faculty. This comes with a drawback too, as often their research disconnects health sociological problems from the core of sociology as a discipline.

Only a few domains of health sociological research seem to circumvent this dilemma, and the sociology of medicalization seems one of them, although its subject is not health behavior as such, but the changing definitions of health and health behavior, its relevance for all health research is obvious and growing1. Social conditions are increasingly being evaluated by their consequences for health and wellbeing and medicalization theory thrives by this cultural evolution it vehemently criticizes itself. The field also shows admiring resilience, not because it still holds on to the ideas of its founding fathers, but because it seems able to transform itself constantly, from traditional medicalization theory and

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studies of medical imperialism, over medicalisation as iatrogenesis, to
studies on medicalization as the optimalisation of normal characteristics.

The arrival of a sociology of the medicine of cognitions and emotions is
part of this last wave of medicalization research and helps to refresh the
field. It directly relates to the sociology of emotions and identities, and
therefore to sociological social psychology in general. Also, as a sociology
of social change, it links the personal to the global. Its sub domain of the
pharmaceuticalisation of normal behavior connects the sociology of mental
health to issues about biotechnology, neurochemicals and identities. This
new field of research does not reduce the person to the structure and the
function of the brain – as neuropsychology does, and thereby drives out
psychology as a relevant field of study but reflects on how
biotechnological innovations, that allow for the control of emotions and
cognitions, transform identities in late modern societies.

I already made reference to a publication from a special edition of
Salute e Società on The medicalization of life edited by Antonio Maturo
and Peter Conrad to show that this flagship of Italian health sociology has
never neglected medicalization theory as a vibrant field of research.

The present special issue of Salute e Società on the medicine of
cognitions and emotions is a welcomed continuation of this tradition. It will
contribute to the further development of the second wave of medicalization
research in Europe and get its voice heard within the entire health
sociological community. As the present president of the European Society
for Health and Medical Sociology I hope that it will not only help to
strengthen the community of European health sociologists by stimulating
debate and generating new insights, but that it will also contribute to the
transformation all health scientists’ view on the surprising intermix
between biotechnology, identities, cognitions, and emotions.

2. Christiaens W. and van Teijlingen E. (2009). Four meanings of medicalization:
childbirth as a case study. Salute e Società 8, 2: 123-141.
INTRODUCTION

by Antonio Maturo and Kristin Barker*

Technological advances allow us to do things that were inconceivable only a few years ago. In turn, medicalization has become an increasingly relevant theoretical concept. However, theoretical reflections about medicalization are scrambling to keep pace with medicine’s ongoing technological pursuits. Medical “progress” transforms the way we frame reality. As Illich, Zola, Foucault and Conrad have shown, medicalization is not only a practice, but also a discourse and a language. This special issue examines the myriad ways that medical practice, discourse, and language continue to be transformed before our very eyes and in turn influence processes of medicalization. We focus specifically on the medicalization of emotions and cognition.

In practical terms, the idea for this volume crystallized in May 2011 when Antonio Maturo was invited to give a lecture at Oregon State University (OSU) by Kristin Barker. We had previously discussed the possibility of pursuing this topic and project at the US-UK Medical Sociology conference held in Boston, MA in 2008, but after Maturo’s lecture at OSU, and a day-hike in the Oregon wilderness in the unrelenting rain, our plans for this special issue solidified.

Biology and neurology provide us with a lexicon by which we discover/construct new pathological phenomena and features of the human condition which can be improved via technological intervention. But, along with the classical aspects of medicalization, like those related to disease mongering, there is also the issue of enhancement. Human enhancement involves medical interventions into normal (not pathological) bodily processes. In this regard the cultural omnipresence of pharmaceuticals is highly relevant.

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Pharmaceuticals are increasingly used to transform our mood (i.e., emotions) and our mental performances (i.e., cognition) above and beyond those states that are deemed medically pathological. We take medications to modify our nature. Our *bios*, that is our biological essence, becomes something which can medically manipulate. In recognition of this state of affair, some scholars suggest that the concept *pharmaceuticalization* may provide more theoretical leverage than medicalization per se.

Cognitive enhancement is a central theme in this volume. For example, Johanne Collin, Julien Simard and Hugo Collin-Desrosiers present interesting research about the ways in which college students in Montreal use drugs to improve cognitive performance and mood. Coveney, Gabe and Williams refer to the case of cognitive enhancement to introduce the concept of pharmaceuticalization. Kristin Barker, Jonathan Kaplan and Francesca Minerva, each individually offer their own insights by commenting on the Coveney *et al.* article. Cognitive enhancement is also at the center of the round table coordinated by Linda Lombi and participated in by Frans Brom, Ira van Keulen, Ori Lev and Mauro Turrini.

Meika Loe and Leigh Cuttino present their qualitative research on the management of identity carried out by college students with a ADHD diagnosis, a controversial condition in United States as well as other nation states. The scholars of Umeå – Carita Bengs, Annette Schnabel and Maria Wiklund – have done similar research on the relationships between identity, stress and emotions. Stephen Katz and Kevin Peters explain the bias in trials for Mind Mental Disorder, while Davide Galesi presents innovative data concerning increasing psychopharmaceutical consumption in North Italy. Antonio Maturo writes about the consequences of cognitive enhancers in terms of social justice and equity.

We would like to thank all of our authors for contributing to this volume of *Salute e Società*. Also, we would like to thank the young Italian scholars who did the translations for all their hard work. Also, we are pleased that we have been able to involve sociologists and other scholars from many different nations including Italy, the United States, Canada, Great Britain, Sweden, Germany, and Holland. In the end we think we have put together an original and innovative product.

In the field of sociology, a book focused on the social aspects of mood and cognitive enhancement has yet to be written. We hope this topic will continue to be analyzed through a sociological lens and in turn advance the subfield of the sociology of health and medicine more broadly.
THEORY

Social Justice and Human Enhancement in Today’s Bionic Society

by Antonio Maturo*

The use of substances that improve cognitive abilities is now more and more common in many countries. These treatments are not aimed at curing pathologies, but rather at enhancing normal human capabilities, i.e., people are using pharmaceutical products to alter their biological makeup. The following article investigates this phenomenon and questions the role of the State in relation to this practice. The article concludes with an explanation of why the State, unlike what some bioethicists have proposed, should not support the use of cognitive enhancers.

Key-words: bionic society, egalitarianism, pharmaceutalization, social justice, medical-ization, human enhancement.

1. Biology as the Language of Daily Life

In one of his films, Woody Allen hilariously remarked “God is dead, Marx is dead and I don’t feel so well myself”. With this quip, the director was able to synthesized years of philosophical reflections about the explicative limits of thought systems founded on religion or critical thought. In addition, we can read a reference to the crisis of the subject in this line (“and I don’t feel so well myself”), and, as an extension, to rational actor theories and individual’s ability to make choices upon evaluation of the immediate consequences. François

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Lyotard, in a more serious context, had predicted the collapse of the grand narratives (illuminism, idealism, marxism) for explaining society (Lyotard, 1984). Postmodern society, explained Lyotard, can only be understood through partial, contingent and contextually interlaced narrations.

In the eighties, Luhmann added the theme of complexity to these characteristics. Society is made up of subsystems which interrelate with their environments through their own particular code. Society is not guided by a central system, every subsystem (the economy, rights, power...) is characterized by its own code, which is also its communicative filter with the environment (Luhmann, 1993).

In recent years, society has grown more complicated. For the most part due to, or thanks to, new technologies, first and foremost the internet, and globalization. Interdependence, conflict and the predominance of risk have weakened the possibility of “governing it” and even of giving it a common description. With the weakening of religious doctrine, the abandonment of marxist critical theories and the predominance of weak thought a frame and model of thought of biomedical derivation is reemerging as tool for analyzing the present, situating single choices and finding concrete points of reference.

Medicine seems to be thriving these days.

As a matter of fact, not a day passes without there being some mention in the news of the latest discoveries in neuroscience. The fundamental assumption is that since thoughts and emotions are the result of neuronal processes, if we are able to act on these mechanisms we will be able to modify our capacity to think and feel. And so, for example, by taking a random selection of news items that have appeared in the principle Italian dailies in the last years, we discover that a neuroscientist, Colin Camerer, professor of “behavioral finance” at Caltech in Pasadena, estimates that, thanks to his magnetic resonance experiments on the brain activity, in ten years there will be a pill for improving our ability to make good investment decisions in the stock market1. In the newspaper La Stampa, on 14 August 2010 we read news about a medicalization “classic”, ADHD (Attention Deficit Hyperactivity Disorder), this time however, in relation to married couples. According to Melissa Orlov, author of The ADHD effect on marriage (translated Chinese in even), many separations are caused by ADHD.

1. Maria Teresa Cometto, E se inventassimo la pillola per stare bene? Corriereconomia, 13 June 2011, p. 21.
Maturo

by the pathological distractions of one of the partners (typically the husband). Curing this attention deficit would lead to fewer divorces. We know about the heated debates surrounding the devastating effects of these pharmaceuticals on the treatment of ADHD (Conrad, 2007). On 22 October 2009, The daily *la Repubblica*\(^2\) featured an article on sleep research. A group of scientists from the University of Pennsylvania were experimenting with a pill capable of “mimicking” the effects of sleep by manipulating brain enzymes (Vecsey, 2009). Tali Sharot, in her aptly titled book *The Optimism Bias: A Tour of the Irrational Positive Brain* (2012), claims that optimism was favored during evolution because optimistic people live longer. The idea is that positive expectations, acting like a self-fulfilling prophecy, increase our probability of success.

The impression is that research like this is very complicated, but that the scientists, or perhaps the journalists that report the discoveries, tend to overly simplify and to be overly optimistic.

These scientific proposals share the assumption that it is possible to intervene on the biology of human beings in order to make us different. Thanks to various technologies we can become “better”. In some cases, like that of ADHD, the process involves a pharmaceutical treatment. In other instances, like in the case of the anti-sleep pill, we are talking about a pharmaceutical intervention on people who are potentially healthy (even if the research was originally intended to be therapeutic). In the case of the “investment drugs” we would be dealing with a typical cognitive enhancer – like the one described in the film *Limitless*. In the case of Sharot, however, we are dealing with something different: a biological explanation, genetic to be precise, of a psychological characteristic. A pharmaceutical that allows us to perceive the world in a rosier light would make us more capable and successful.

In these examples, I have passed over all those cases of geneticization that are routinely reported in the news and which see genes as the “agents” of human destiny (Cipolla, 2010). For example, the alcoholism gene, the lung tumor gene or, as has been written about, the political leaning gene. One line of research which is very fertile today, and the reason for this is self-evident, investigates how to modify our genetic code in order to produce adequate immune

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responses: for example an immune system that is resistant to the HIV virus or prevents carcinogenic actions (Balisteri, 2011, p. 24).

In different ways, all of these discoveries and avenues of research disregard the social element of life. In other words, although a variety of examples have been presented, there is a tendency to turn to technology to find solutions to problems which for the most part have social causes. As I noted earlier, these situations are constructed within the framework of a biomedical language. We are dealing with the conceptual medicalization of society (Conrad, 2009) in which we view ourselves as individuals determined by our biological makeup. Somatic individuals, or «beings whose individuality is, in part at least, grounded within our fleshly, corporeal existence, and who experience, articulate, judge, and act upon ourselves in part in the language of biomedicine» (Rose, 2008, p. 26). This type of biologicalization of every behavior, action and emotion leads to reductionism: «the social brings us back to the cerebral, the cultural to the natural, the mind to the body» (Marrone, 2011, p. 40). The centrality that we give to our own health these days – the healthization of life – is indicative of this situation. The right to pursue happiness guaranteed by the Constitution of the United States has been overtaken by the duty to stay in good shape: «The promotion and celebration of health as the paramount value of Western society has encouraged people to interpret a variety of human activities through the vocabulary of medicine» (Furedi, 2006, p. 14). For example, in advertisements attention has shifted from the quality of food to its caloric content and its ability to lower cholesterol (Lawrence and Germov, 2008). Of course, this colonization of the greater part of human actions by the medical sphere has a long history. In 1948, the World Health Organization defined health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. Obviously, a lot has been written about this definition. Scholars have generally focused on the “ambitious” nature of this definition or, on a positive note, on its extension of the concept of health to include the social elements (Maturo, 2009a). Nevertheless, one can see that the definition derives from a “panhealth” in so much as there are very few aspects of life which do not fall under the domain of health. Moreover, if medicine is the institution responsible for intervening in issues of health and defining what is normal and what is pathological (Freidson, 1970) then medicine is legitimate in extending its jurisdiction (Abbott, 1988) well beyond the sickbed.
2. Bionic Society

Today we live in a society which is becoming more and more “bionic” everyday. Technological interventions aimed at transforming human biology are becoming increasingly common. Whereas for thousands of years humans tried to control their external environment through technology, today technology is increasingly used to internally modify our own biology (Garreau, 2004).

This intervention on the human biology carries with it a tendency to “think” in biological terminology. Medicalization, that is the transformation in medical problems of human conditions which up to that point did not present pathological traits, is growing (Conrad, 2009). Not only experts are promoting this vision. Even the so-called everyday life, so dear to Habermas (1986), “thinks and speaks” in systemic terms which derive from the biomedical sphere. In some cases, lay knowledge promotes medicalization, as Barker (2008, p. 21) demonstrates in her analysis of an electronic support group for sufferers of the contested illness fibromyalgia syndrome: «ESGs can play a crucial role in defining diffuse human suffering in medical terms and engendering patient-consumer demand for medical recognition that physicians are often reluctant to provide». Recently, Cardano and Lepori (2012) have recounted and analyzed the history of the fight for the medical recognition of voice-hearers. Conrad (2009) had already noted that the driving forces of medicalization lie outside the world of doctors and even consumers.

Not only do we intervene to treat that which is discovered or defined as a pathology, but to enhance normal human capabilities. Nevertheless, it is paradoxical that we use medical devises, not to become more artificial, but rather to regain our naturalness. We take psychopharmaceuticals which by definition alter our sensations and perceptions, in order to rediscover ourselves. As Rose writes in his analysis of the advertising for one antidepressant: «the drug thus does not promise to create a false self, on the contrary, it is through the drug that the self is restored to itself. If there is one theme or promise that runs through all these promotional materials it is this: with this drug, I can get my real self back, I can feel like myself, I can feel like me again» (Rose, 2008, p. 333). So here, through the use of artificial technologies, we become more natural. We use psychopharmaceuticals to restore a presumed normalcy. This is common not only in the context of medical treatments but also in relation to narcotics use. In Italy, the consumption of cocaine and marijuana is more