

**Marko Synésio Alves Monteiro**

*Os dilemas do humano: reinventando o corpo humano numa era (bio)tecnológica [Dilemmas of the Human: Reinterpreting the Human Body in the (bio)Technological age]*  
São Paulo, Annablume, 2012, pp. 168

**Denise M. Nunes** *University of Santa Catarina*

The book by Marko Synésio Alves Monteiro presents issues that cross the process of construction of individual identity, taking into account how the body is perceived by both the individual and the look of others. The volume provides the reader with a reflection on the relationship between body, technology and society, pointing out the inextricable interweaving of these three elements in contemporary times.

Following a STS approach and focusing on sociological insights, this volume analyzes the body as focus and cause of human dilemmas related to health, consumer culture and the politicization of life (just to make a few examples). Inspired by Donna Haraway's political utopia, the author seeks to contribute to debates regarding the relationship between body and science.

The presentation of the book, written by Professor Laymert Garcia dos Santos (University Estadual de Campinas), challenges the reader introducing some "almost existential" questions. Do we have or do we are a body? The dilemma between 'to be' and 'to have' in this case points out the perception of a supposedly singular individual, who has notion of its existence beyond him/herself. Discussions on the body are often polarized between individuals and species, and individuals and society. According to Santos, the book by Marko Monteiro seeks to map what is happening with the body in the "postmodern" age, focusing on its role of information brokerage. Santos explains that for Monteiro technoscience is building an operative logic that sees the body as a cybernetic organism, i.e. the cyborg as presented by Donna Haraway. This assumption leads to one main dilemma: the individuals' ability to reinvent their own body through options offered by (bio)technology. Aiming at analyzing new relationships between science, technology and corporeality, Monteiro discusses dilemmas about the reinvention of the body, in a relational context between the material existence of the body itself and its representations.

The aim of the book is to discuss new relations between science, technology and corporeality, seeking to understand how new scientific practices associated with biotechnology alter the forms of material existence of the body. The book is structured into eight chapters dealing with different situations involving the body's relationship with biotechnology. The work takes as its point of departure the way biotechnologies reshape the body and, as a point of arrival, the way contemporary art uses this re-

configuration from the moment in which artists use their own bodies as part of an aesthetic-policy action. This way, the author wants to discuss the relationship between materiality (as a material ontology) and body representation. All analysis has as background a rich theoretical framework of the humanities and social sciences.

In the first chapter, Monteiro presents a case study on biomarkers of prostate cancer with the aim of offering a vision of new empirical relationships between living matter and the technology discussed throughout the book. The object of this debate is the DNA chip, they are microarrays where stretches of DNA are fixed in order to determine how they react to medications. This object has enabled a discussion on a perception of the body as object of information, manipulable and measurable. This DNA chip contains organic matter on an artificial blade. It works like a cyborg in miniature, and thus follows a logic of representation and manipulation logic (the digital body). The author sought here to distinguish the idea of the "body as machine" from the idea of the "body as information" that is shaping up inside laboratories through scientific practices.

The chapters two, three and four are addressed more theoretical problems.

Chapter two discusses theoretical problems involving the sociology of science and its epistemological consequence. Introducing the debate existing between authors pioneers in the field of Social Studies of Science and Technology (as Bourdieu, Merton, Latour, Woolgar, etc.), Monteiro discusses the idea of "science as practice" in order to present the scientific knowledge like something socially constructed.

In chapter three, the author presents the body as object of social theory. From the Cartesian perspective, which sees the mind separate from the body (reducing the latter to its materiality), Monteiro shows how this view of the body is insufficient to explain the new developments associated technology. Referring to Pierre Bourdieu, Merleau-Ponty and Michel Foucault, the author discusses the relationship between nature and culture. From this discussion the author concludes that the technologies linked to genetic need to be understood beyond our "representational" (symbolic) body. Monteiro calls attention on the idea of control as a social practice and on the ways in which it starts to engage with the molecular sphere.

The fourth chapter focuses on the concepts of human and humanism, taking as a starting point the new standard for artistic representation of man which occurs in the Renaissance. Monteiro continues showing the Cartesian rupture and the advent of the body-machine: body and spirit are now dissociated. The body is no longer holy and it becomes a functional material.

The genetic theory as a new dogma of biology is the subject of the fifth chapter. For the author, the assumptions of molecular biology are directly related to mechanistic explanations (as he explained in the previous chapter). The genetic is considered to be the holder of the truth

about life and the gene becomes a material entity used for explanatory purposes. In this case, the molecular biology, from genetic theory, provides a "final explanation" for life, as Descartes craved.

Hitherto, Monteiro presents and discusses translations of physiological body to the body-information as it occurs in the laboratory. The author also shows how the molecular biology appears as owner of the absolute truth of the biology. Then, in chapter six he presents a discussion of the possible consequences of these processes. In other words, here are discussed political issues that are raised by the possibility to manipulate the body. The potential here is interpreted as a possible way of linking technology/body/policy arising from biotechnology. This issue becomes central, as a historical example of the most radical expression of a logic of life politicization.

In contrast to chapter six, chapter seven examines practices of recreating the body distinct from those offered by eugenics. The focus is on the manipulation of the living matter (the body) for aesthetic purposes. Bio-art appears here as a particular mobilization of the potential originated from advances in genetics. It dislocates laboratory practice in order to promote an ethical debate about the relationship between technology and life. Bio-art allows to create new ethical uses of technology and this ethic-aesthetic becomes a critical weapon against the possibility of a genetic determinism (author argues).

In the concluding chapter, Monteiro points out that biotechnology should not be banned, although it certainly has an eugenic potential that should be questioned. The author suggests that we should seek new and different machinic assemblages for biotechnologies, more consistent with our democratic ideals and able to preserve existing life forms.

When thinking about the possibility of reinvention of the body in a biotechnology age, many other questions arise and the book by Marko Monteiro presents numerous theoretical concerns and explanations. This is a dense and intense reading highly relevant for scholars interested in studying the body in its social relationship with new (bio)technologies. After its reading, new questions related to the body (and beyond) will arise.

\* \* \*

### **Stefano Ossicini**

*L'universo è fatto di storie non solo di atomi. Breve storia delle truffe scientifiche [The Universe is Made of Stories, not Only of Atoms. A Brief History of Scientific Frauds]*

Vicenza, Neri Pozza, 2012, pp. 286

**Giuseppe Pellegrini** *University of Padua*