

Book Reviews

Anthropos Today: reflections on modern equipment

Paul Rabinow

A machine to make a future: biotech chronicles

Paul Rabinow & Talia Dan-Cohen

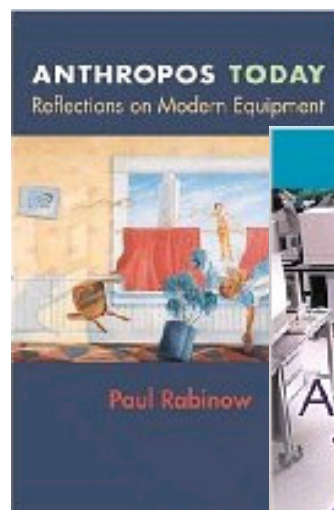
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The two books reviewed here, by the American anthropologist Paul Rabinow, a professor at the University of California at Berkeley, deal with similar themes in different ways. And those who venture through their pages will soon see that, while **Anthropos Today** (2003) was conceived as a collection of essays concerned with ethnographic practice and the production of anthropological knowledge, **A Machine to Make a Future** (2005) relates an ethnographic experiment carried out in co-authorship, both in terms of the field research performed at the biotechnological company *Celera Diagnostics* and in its conversion into text, into ethnographic theory. Thus, there is nothing better than to read them as a pair.

From the essays to the chronicles, it can be seen that the books share a question which was very well posed (some time ago) by Robert Musil, author of the beautiful *The Man without Qualities*, a classic modern novel. Musil defined the essay as a literary experience which, in the sequence of its parts, looks at several sides of a question without completely apprehending, as the desire to embrace totalities makes us suddenly lose sight of their proportions and leads us to submit problems to theories and concepts. According to Rabinow, chronicles, like essays, are also ways of asking questions; even though, in the eyes of those who crave historical narratives, essays



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and chronicles are epistemologically unsatisfying and excessively fictional.

Readers familiar with recent discussions in anthropology of science are sure to see that Paul Rabinow's movement and speech is closer to the reflections of philosophy and the arts. And that his work is characterized by a movement somewhat distinct from that which began to gain space in anthropology, especially, after the 1970s, when authors such as Roy Wagner (**The Invention of Culture**, 1981 [1975]) tried to end the great epistemological divide which supposes anthropological reflection to be the privilege of the West, giving a protagonist's role not only to the authors who (and with whom) we study, but also to their speech as articulated from their own theories (and no longer as "primary" and less complex data), which in its turn results in a certain distancing of this anthropology from the philosophical writing in favor of that which ethnography itself apprehended. Rabinow can be seen as an author who positions himself in this interim, in a dialogue with other areas of knowledge, based on the speech and practices of the authors who he related to in his ethnographies.

In **Anthropos Today** (2003), Paul Rabinow discusses a proposition by Michel Foucault about the Greek word *Paraskeue*, which corresponds both to "equipment" and to the act of "preparing". According to Foucault, "equipment is what exists between the transformation of logos into ethos" (apud RABINOW, 2003). That is, to link knowledge with its ethical (or aesthetic) expressions it is necessary to establish mediation, a preparation capable of adapting the questions to the problems that are to be investigated. From then onwards, Rabinow evokes another Foucauldian notion, "problematization": "Problematization elaborates the conditions in which possible answers can be given and defines the elements that will constitute what the different solutions are trying to answer. This elaboration of a fact as a question, this transformation of a set of obstacles and difficulties into problems is what constitutes the point of problematization and the specific work of thought" (Foucault *apud* Rabinow, P. Política da verdade: entrevista com Michel Foucault, In: **Antropologia da Razão**, Rio de Janeiro: Relume Dumará, 1999: 32).

Rabinow suggests that "equipment" can therefore be understood as an arsenal of discursive exercises conceived to reach practical ends and which thus become the means through which knowledge can transform itself into a real regime, or as a practice through which *knowledge of oneself and of others* can, therefore, be reconnected to *care of oneself* and *care of others*. A discussion dear to Foucault and which Rabinow updates by questioning what currently defines humanity and its corresponding means of subjectivization. Taking Foucault as his starting point, the author criticizes the holistic and culturalist notions of Clifford Geertz' anthropologies and the resigned criticism that Max Weber's sociology bequeathed to the social sciences, despite the fact that Weberian attention to the particularities of modern phenomena has been an important factor in the suc-

cess of his investigation of the historical processes that erected Western societies.

This equipment, says Rabinow, is not merely an abstraction, for it possesses its own materiality, its consistency (2003, p.10). This can be seen in his book **French Modern: norms and forms of the social environment** (1995), where he sought to show that the ideas of a certain *plan de ville* contributed decisively to the formation of individual lives, *un plan de vie*. Or yet, in another text, called **A modern tour in Brazil** (1992), where he analyzed the urban projects of the cities of Rio de Janeiro and Brasilia. These reflections appear in the books **Anthropos Today** (2003) and **Marking Time** (2008) exactly when the author discussed the need to displace thought through an *adjacent gaze*, in an anthropology of the contemporary. Adjacent in the sense that it remains very close to its "object", but in an interval or point of symmetry converted into a problematization space. Maybe that is why Michel Foucault reemerges as one of the most interesting conceptual figures in the anthropology of so-called "complex" societies, along with anthropologists such as Louis Dumont, Bruno Latour or Marilyn Strathern. This is because it's not a question of taking just any reflections from philosophy, but simply of formulating a methodological alternative capable of apprehending potentialities and multiplicities and of creating a suspension space where reflection is not joined to deduction, but rather, to inductive reasoning. From processes, actors and practices to theory.

After the chapters dedicated to the dialogue with Michel Foucault, Max Weber, and the questions of *method* and *object*, we arrive at chapter number four. At this moment, the author describes such characters from the arts at times when they lived and produced as *foreigners*. Characters that, in transit and in a liminal position, were able to look closely and from afar at phenomena which concerned their time, but from points of view that problematized them. An example of these characters can also be found in Marshall Berman's book (**All that is Solid Melts into Air**, 1982), in Charles Baudelaire's criticism of modernity; Rabinow, for his part, talks about the work of Marcel Duchamp in his comings and goings between Paris and Munich, and of the experimentations of Paul Klee. The last three chapters deal with the question of writing in anthropology, the ways of apprehending and describing current experiences. Which leads us directly to the book **A Machine to Make a Future** (2005).

In this book, Paul Rabinow tells us that in 1999 molecular biologists agreed unanimously on the number of genes present in the human genome, which was believed to be close to a hundred thousand. Once the Human Genome Project was concluded, the same scientists found that this prediction was substantially mistaken. The announcement, in 2000, that there were approximately thirty thousand genes in our DNA surprised everyone. From then onwards, an intense debate about the biological significance of this *quantum*, its definition and the status of what was named "genetic action" began

to forge a new field of reflection that ended up having repercussions in the humanities.

These developments were responsible for the articulation of several questions, such as: understanding of basic vital processes; new therapies, diagnoses and treatments that became possible; vast sums of money that sparked the interest of pharmaceutical laboratories and their investors; the development of new aggregated technologies; the reconfiguration of the notions of health and sickness; among many others. That is why, in the domains of life and the sciences devoted to it, a future previously unforeseen – and restricted to our scientific fictions – was quickly being constructed.

At the time, the Californian biotechnical company *Celera Diagnostics* – the research projects of which, developed over the course of 2003, are discussed in this book – believed that the knowledge made accessible by the mapping of the human genome could be applied to the development of powerful diagnostic apparatuses, which in their turn would aid the proliferation of knowledge about human life, while they seemed already to project the new problems that would figure in this new wave of technoscientific developments. Problems that would bring many promises of health and revolutionary therapeutics, promises of such magnitude that they threw into question the very strategies and objectives of the company *Celera Diagnostics*.

In this way, Rabinow and Talia Dan-Cohen show that if improvements, modifications and updating were really attained that year, these also revealed that *Celera's* initiatives were based on the certainty that it was possible to make “a machine to make a future”. According to the bulletins published by *Celera*, the identification of health risks through genetic tests, one of the main aspects of life in this future envisaged by the technique, would not only be predictable and possible to reproduce on a large scale, but above all, relevant in clinical terms, also ensuring the anonymity of users and greater possibilities for therapeutic care. For Rabinow & Dan-Cohen, *Celera* is just one of the many examples of how biotechnical companies around the world were (and are) dealing with the need to create technoscientific machines and artifacts capable of producing our futures on demand, leaving to the humanities and ethics committees the possibilities, scenarios and questions raised along the way.

From the beginning of the book, the authors evoke Hans-Jorg Rheinberger's idea of “machines to make futures”. This science historian stated that: “Experimental systems can be seen as the smallest units of work that integrate research. As such, they are manipulation systems conceived to supply unforeseen answers to questions that experiments would be incapable of formulating clearly. These devices are machines to make the future. They are not simply instruments that generate answers: experimental systems are vehicles for the materialization of questions) (Rheinberger in Rabinow & Dan-Cohen 2005: 2).

And Rabinow & Dan-Cohen tried to turn this “equipment” into constitutive and mediating elements of

a narrative anchored in an experimental ethnography and writing, whether this “equipment” consisted of concepts, people or paraphernalia related to knowledge production in a laboratory: “We were interested to see what would happen if we gave – substantially – more narrative space to people and events at *Celera Diagnostic* than they usually received from both journalists and social scientists in general” (2005, p.5).

As a result, this book incorporates the questions previously debated in *Making PCR* (1996), revealing once again all of Paul Rabinow's appreciation of the writings of Michel Foucault by proposing that a description – when it is well done – takes away the need for explanations and greater theoretical reflections. This can be proved by the scant references to other books and authors and by the limited number of footnotes; elements widely used in dissertations of the most varied types and themes within the humanities. Nevertheless, while *Making PCR* was dedicated to investigating the contexts in which scientific innovations occur, *A Machine to Make a Future* focuses more on the process through which these innovations (or determinations made inside private experimental systems) are “translated” into other domains. And thus, the objective of Rabinow & Dan-Cohen's book is to bring anthropological enlightenment about this new machinery and the actors concerned with it, beyond the world of laboratories.

As we mentioned Michel Foucault's influence on the works of Paul Rabinow, it is worth noting that in this book the notion of “descriptive imperative” also relates to a constant concern with authorship and ethnographic authority in anthropological texts. In other words, it is an alternative to the postmodern criticism of ethnographic practice and, at the same time, a belief in the possibility of establishing another type of relation between ethnographic doing and the production of anthropological knowledge. In the first pages of the book, Rabinow presents his co-author Talia Dan-Cohen, a graduate student. And he justifies her participation in the book's research and writing by saying that in this co-authorship he was looking not only for an alternative to the traditional “author” figure, but also a dialogue between different perspectives at play and, in the later elaboration of the text, another reflexive methodology in anthropology.

The research was carried out over nine months, from January to September 2003. And one of the dimensions of the experimental method employed by Rabinow & Dan-Cohen is including another “observer” in the ethnographic field. To paraphrase Niklas Luhmann (1998), it was about “observing the observers observing”, that is, turning ethnographic research into an opportunity to create an anthropology of anthropology itself. Thus, while Paul Rabinow and his informants talked about technoscientific developments and *Celera's* projects, Talia Dan-Cohen observed them. And, according to the authors, the analytical work on the collected data, as well as the writing and revision of the various drafts the text was slowly developing into, were equally distributed tasks.

These theoretical-methodological explanations, therefore, occupy the first pages of the book, both in the opening and in the first chapter, where the authors describe the recent history of the company *Celera Diagnostics*. In the second chapter, they demonstrate the two ways in which the company sought to explain its technologies to two different groups: “investors” and “anthropologists”; (it seems that it would be better to say “laymen” for scientific questions, represented in this case by Rabinow and Dan-Cohen). And this is the point around which the authors develop a large part of their arguments, that is, the difference between these two forms of communication that distinguish scientists from “laymen”, creating an epistemological asymmetry that lies in the irrefutable *truth of the facts*.

The third chapter concerns the managers responsible for technology platforms, as opposed to high-level technocrats who direct companies such as *Celera*. These managers are in charge of manipulating the interfaces that make the relationship between scientists and machines possible, so that the promises made to investors can be kept. In short, they are the middle managers who are the workers of this biotechnological engineering directed at producing machines and artifacts, speech and practice, facts and “truths”.

Chapter four deals with a theme already debated by Paul Rabinow in **French DNA: trouble in purgatory** (1999), in a plot that involves nations, commerce, patients and genetic research. At the time, Rabinow investigated an American biotechnology company, Millennium Pharmaceuticals, and the most advanced French genetics laboratory, Human Polymorphism Study Center (CEPH), a partnership that aimed to formulate a joint project around discovering the diabetes genes. Although the discussion of the French case centered on the question of “biosociality”, a question that does not appear in chapters four and five of **A Machine to Make a Future**, there are clear similarities between the two books when it comes to analyzing the confluence of health policies, scientific discoveries, financial interests, pharmaceutical laboratories and all sorts of actors involved. In the last two chapters, the authors portray the projects and efforts scientists have made to isolate

and perfect therapeutic procedures for specific illnesses, and the possibilities opened up by these innovations, whether it is their promises or the ethical and political questions implied.

At the end of the book, the reader will notice that among the interviews, statements, descriptions and theoretical debates of this text, “experimental” in its ethnography and co-authorship, there is a problematization of some of the consequences of our contemporary epistemological reconfiguration process, which fuses health and identity, wealth and sovereignty, knowledge and value. As a result, we are also involved with the process that reveals how technology is affecting us (socially and bodily). In short, we can infer from Rabinow & Dan-Cohen’s work that we are faced with the following questions: what forms of appropriation of life by technique are emerging? What is the space currently occupied by ethics? These are questions that, if they have not been exhaustively discussed by the authors, certainly appear in their rich description of the daily life of a biotechnology company and its characters, who are some of the messengers and protagonists of our modernity’s promises and challenges.

While Paul Rabinow has published some eminently ethnographic works, among which **French DNA: trouble in purgatory** (1999) stands out, his last books are generally essays about anthropological practice. In a review of the book **Marking Time: on the anthropology of the contemporary** (2008), published in this same magazine, in its July-December 2008 edition, the reader can become familiar with some of his most recent reflections, which have been occupying his research agenda since **Anthropos Today** (2003). However, **A Machine to Make a Future** (2005) shows that Paul Rabinow has the rare ability of producing and describing ethnographies that combine great detail with the capacity to articulate them in a theory that doesn’t overdetermine them when they are apprehended and narrated.

Bibliographic references

RABINOW, P. Política da verdade: entrevista com Michel Foucault. In: _____. *Antropologia da razão*, Rio de Janeiro: Relume Dumará, 1999. p.32. 