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Obituary
Ian Hacking (February 18, 1936 – May 10, 2023)

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On May 10, 2023, at 87, Ian Hacking, professor emeritus at the University of Toronto, passed away. A contemporary philosopher who successfully reconciled the analytic and continental traditions, Hacking was the first English-speaking philosopher to obtain a permanent professorship at the *Collège de France* (2000-2006).

Throughout his prolific intellectual life, he worked on a wide range of topics, including, to mention only a few, probability, scientific experimentation, the creation of phenomena, language, the problem of induction, proof and deduction in mathematics, statistics and chance, classifications in natural and human sciences, transient mental illness, social construction, theories of meaning, truth, the realism/constructivism controversy, and styles of scientific reasoning. He published over a dozen books and numerous articles about these themes.

But the breadth of his interests goes back to his formative years. First, he studied mathematics and physics at the University of British Columbia. He then moved to Cambridge University. There he earned a B.A. and Ph.D. in Moral Science with two separate papers: one proving some theorems of modal logic and another, derived from the Wittgensteinian philosophy of mathematics and entitled "Proof", a reflection of his early interests in philosophy and a forerunner of his book *Why Is There Philosophy of Mathematics at All?* (2014).

Hacking characterized his work as the result of "looking at the rich complexity of the world." His insatiable curiosity and the idea that the objects about which philosophy reflects must be sought outside the philosophical realm led him not only to do philosophy "in many different ways" but to make his work relevant and exciting not exclusively to philosophy but to various disciplines. In addition, his talent for storytelling made him a public intellectual whose articles can be read, among others, in *The Globe and Mail*, *New Republic*, *The New York Review of Books*, *The London Review of Books*, etc.

Bridging the Gap

Trained as an analytic philosopher with an emphasis on philosophical logic, Hacking always considered himself within that tradition. However, several of his works have a prevalently historical mood, and he acknowledged the profound influence exerted on much of his work

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by philosophers in the continental tradition, notably Michel Foucault. Hacking noted that his reading of *The Order of Things* changed his view as an analytic philosopher to whom it did not occur that context could have the slightest relevance for philosophy. However, Hacking did not consider himself, nor was he, a disciple of Foucault; instead, he adopted and adapted Foucauldian ideas for his purposes.

Hacking set out to bridge the gap between analytic and continental philosophies without losing its potential, to show that analytic philosophy and historical sensibility need not be antithetical but can be convergent. His reading of philosophical texts from the past by analyzing, as he argues in *Historical Ontology* (2002, 34-39), *the words in their sites* to understand how we think and why we seem compelled to think in specific ways is an exercise in that reconciliation of traditions. Hacking considers that Foucault's history of the present is vital to understanding the general concepts and the root of their issues. It is necessary to consider the prehistory of concepts and what has made them possible to grasp the nature of philosophical problems. Of course, this understanding will not prevent the problems from continuing to trouble us, and it will not make them disappear, but analyzing *the words in their sites* will allow us to reveal the mutations that occurred in thought that made them possible and the real historical articulation with the schemes of concepts and practices already superseded.

The Point Is Not to Understand the World but to Change It

Perhaps the work that gave Hacking the most visibility, at least in the Anglo-Saxon philosophical sphere, is *Representing and Intervening* (1983), considered fundamentally a defense of scientific realism. However, in *Scientific Reason* (2009), Hacking wonders: is realism important? No. Was it then (in 1983), and has he changed his mind now? Again, no. It turns out, says Hacking, evoking the beginning of that work, that:

> Disputes about reason and reality have long polarized philosophers of science [...] Is either kind of questions important? I doubt it. We do want to know what is really real and what is truly rational. Yet you will find that I dismiss most questions about rationality, and I am a realist on only the most pragmatic of grounds. (2009, 146)

His realism had a pragmatic basis. The book discussed the experiment and aimed to claim its independence from theory. At that time, scientific realism was in vogue, while philosophical interest in experiments was still shy. Hacking used the controversy about scientific realism as a strategy for his fundamental purpose: to reverse the traditional hierarchy of theory over the experiment and show that the latter has a life of its own, independent of the former. To that end, he intended, through the treatment and defense of a scientific realism of entities, to show the importance of experimentation, *of doing* in science.

The overemphasis in the philosophy of science on the analysis of theory and representation has, according to Hacking, contributed to the fact that most of the philosophical debate about scientific realism has been in terms of theory, representation and truth but has said almost nothing about experiments, technology or the use of knowledge to modify the world. Where does this obsession with representation come from? According to Hacking, human beings are representers. Not *homo faber*, but *homo depictor*. Different theories are different representations of the same reality. But, if the realism debate is presented solely in terms of theories and their representational capacity or function, at best, a realist position can be established concerning them, and anti-realism will always be lurking. Hacking seeks an argument at another level of discussion, in which the central notion is not that of reference but that of manipulation.

Hacking does not claim that this experimental argument is the only evidence about the reality of an entity, nor that reality is constituted by the human ability to manipulate.

However, he believes that manipulation is the more convincing argument in that scientists not only feel the entities they use are as real as their hands but can do something else with them. It is a practical skill that breeds conviction. Experimenting is more than testing theories: it interferes with the course of nature. The important thing is to make, intervene and create phenomena because "the point is not to understand the world but to change it" (Hacking 1983, 274).

Making up People

Parallel to his work on the natural sciences, Hacking, from the 1980s onwards, also tackled the study of the human sciences. In the first pages of *The Taming of Chance* (1990), he introduces us to them by syndicating statistics as a trigger for notions such as *making up people*. Statistical bureaucracy imposes itself not only by creating rules but by determining the classifications within which people can think of themselves and the actions they are allowed to take. Statistics are not mere reporting; each new census creates new kinds of people and, consequently, new ways of being and behaving. The exciting thing about human action, Hacking argues, is that what is done depends on the possibilities of description. Hence, if new modes of description appear, new possibilities of action appear as a consequence. If the description does not exist, an action could have occurred but not under that description. As a result, the past is often reorganized and reinterpreted. Old actions under new descriptions can be re-experienced in memory. That is what has happened, according to Hacking, for example, with child abuse, which has expanded so that more and more situations fall under its description, and more and more people end up retrospectively seeing themselves as abusers and/or abused.

Often, creating a human kind provides the space for certain beings to fit into it and, in a sense, to be. A trivial example, as Hacking says in *The Social Construction of What?* (1999, 25-29), is that of the television-viewing child. Although children watched television from the invention of the set, there was no particular kind of children who were television children until the television child came to be regarded as a social problem. But one does not first form the concept and then discover the regularities or laws of the objects that fit into this category.

The process is interactive; the kind of people emerges at the same time that the class itself is invented. Postulating a classification and applying it to people produces effects on the individuals so classified, inducing changes in their self-conception and behavior, which in turn produce modifications in the existing classification. While people tend to behave according to the way they are classified, Hacking argues in *Rewriting the Soul* (1995), they often "take matters into their own hands" (1995, 38) and develop their ways, requiring revisions of classification and theories, of causal connections and expectations, to adapt to the new characteristics of their members. This feedback process, or *looping effect* of human kinds, makes the phenomena studied by the human sciences unstable and moving targets. Their objects have a *historical ontology* referring to "[...] the ways in which the possibilities for choice, and for being, arise in history" (Hacking 2002, 23) based on distinct possibilities. Hacking continues Foucault's path by thinking of the constitution of subjects not in universalizable terms but as a process that occurs in time and place, in specific local and historical forms. His ontology is not concerned with being in general terms but with its particular trajectories and affirms – in a vision that he defines as almost existentialist – that there is no wholly fixed human nature to discuss.

Genealogy of Scientific Reason: Investigating How We Do Research

Statistics – from which new kinds of people are created – constitute the background and, simultaneously, an example of what Hacking first proposed as *styles of scientific reasoning*

and, later, as *styles of scientific thinking & doing*. This meta-concept, which Hacking developed over more than three decades and which owes much to the work of the Australian historian Alistair Crombie but also, and perhaps more so, to Michel Foucault, was the result of trying to resolve and generalize questions that had arisen from the study of such exemplars as probabilistic and statistical styles.

From his earliest works, Hacking shows interest in investigating how we came to live in a universe of possibilities in which everything is thought of in terms of probability. A world that did not exist until the 17th century. His books *The Emergence of Probability* (1975) and *The Taming of Chance* attempt to tell that story, not pretending to explain questions about the foundations of statistical reasoning, as they are addressed in *The Logic of Statistical Inference* (1965) or *An Introduction to Probability and Inductive Logic* (2001), but by performing another kind of exercise: what Foucault called archaeology. In *The Emergence of Probability*, Hacking resorts to historical detail, putting under the magnifying glass and reconstituting probabilistic thought from its origins to show how during the 17th century, and as a result of a radical change that occurred very quickly from preceding Renaissance conceptions, probabilistic reasoning developed in opposition to a deterministic view of reality. Its central idea is that the specificity of probability is the duality and recurrent tension between two aspects of something like a "double Janus head". On the one hand, in epistemic terms, probability aims at assessing reasonable degrees of belief and on the other, in statistical terms, it is connected with the tendency exhibited by some devices to produce stable relative frequencies of long duration. Hacking pursues the trace of this idea of duality through the major stages enumerated between 1654 and 1678, defending the idea that the notion of probability that emerged in the seventeenth century preserves this initial duality up to the present day.

The Emergence of Probability shows how style generates a priori, but in history, the possibility that, in this case, the concept of probability becomes thinkable. But style is also a condition of possibility for the emergence of particular objects. *The Taming of Chance* illustrates, for example, how Adolphe Quetelet, based on his statistical studies of the thoracic diameter measurements of Scottish soldiers distributed according to average, creates a new type of object: the population characterized by an average and a standardized dispersion (1990, 105-114). Each style postulates a set of novelties that includes new types of objects that are individualized from the style itself and are not previously evident; elements of proof and demonstration of its own; new laws and possibilities; new types of classification and explanation; statements that before the existence of the style could not be uttered.

This Hacking project aims to perform a genealogy of scientific reason, *to investigate how we investigate*, to analyze the various general methods of scientific work that can be recognized from antiquity to the present, and the different ways of investigating that have enabled humans to dominate the planet. Each style is based on evolutionary innate human capacities, which are discovered, exploited and developed in specific historical situations, being used in different ways in different historical contexts. Thus, styles are the product of cognition and culture. As human culture develops, we learn to use these skills in entirely new ways. As a result, we learn how to investigate.

A Philosophical Use of History

For Hacking, the concepts, the objects of human sciences, the ways of telling the truth, investigating, etc., have history. Despite defining his intellectual project as philosophical, Hacking bases and defends his philosophical reflections historically, in a perspective that is not a mere conflation but an integration of history and philosophy.

"The history that I want is the history of the present" (1992, 5), says Hacking, and this entails "[...] that we recognize and distinguish historical objects in order to illuminate our own predicaments" (1992, 5). If the present condition is the product of historical

developments, then its understanding cannot be but historical. However, as Simos and Arabatzis (2021, 154) have pointed out, Hacking does not limit himself to using historical data philosophically but using philosophy; he elaborates historiographical concepts, meta-historical ideas, narratives and facts. In his works, philosophical ideas are historically informed, and historical facts are philosophically charged.

Thus, according to Daston (2007, 802), in *The Emergence of Probability*, Hacking poses a new kind of question: "What are the conceptual preconditions for the emergence of a concept so apparently simple, so useful, indeed indispensable – and yet so strangely absent before circa 1650 – as the modern notion of probability?" This question arises in the Canadian philosopher from the interest that I consider underlies, in general, all his work: the question about the historical conditions of possibility for the emergence of scientific concepts and objects (Martínez 2021).

The diversity of themes and problems Hacking addressed could lead us to mistakenly think of his work as characterized by a certain dispersion. However, and even though he declared not to have felt the need to unify his work, a more profound and more systematic approach to his thought shows us the persistence of certain central interests that appear from the beginning and that, with greater or lesser visibility, were always present in his research. Hacking was interested, fundamentally influenced by Foucault, in analyzing the historical conditions of possibility for the emergence of scientific concepts and objects such as probability, objectivity, memory, chance, multiple personality disorder, trauma, child abuse, transient mental illness, and *fugueurs*, among others.

Under this general framework Hacking dedicated his work (and his life) to "take a look at the rich complexity of the world". Indeed, that is why it is not easy to find any significant philosophical debate in the last fifty years to which Hacking has not tried to make a profound contribution in some way. That is also why his ideas will undoubtedly continue to guide many of us who work in the field of the history and philosophy of science.

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