Essay

Durkheim, Darwin, and Ranke: Disciplining the Scientific Self

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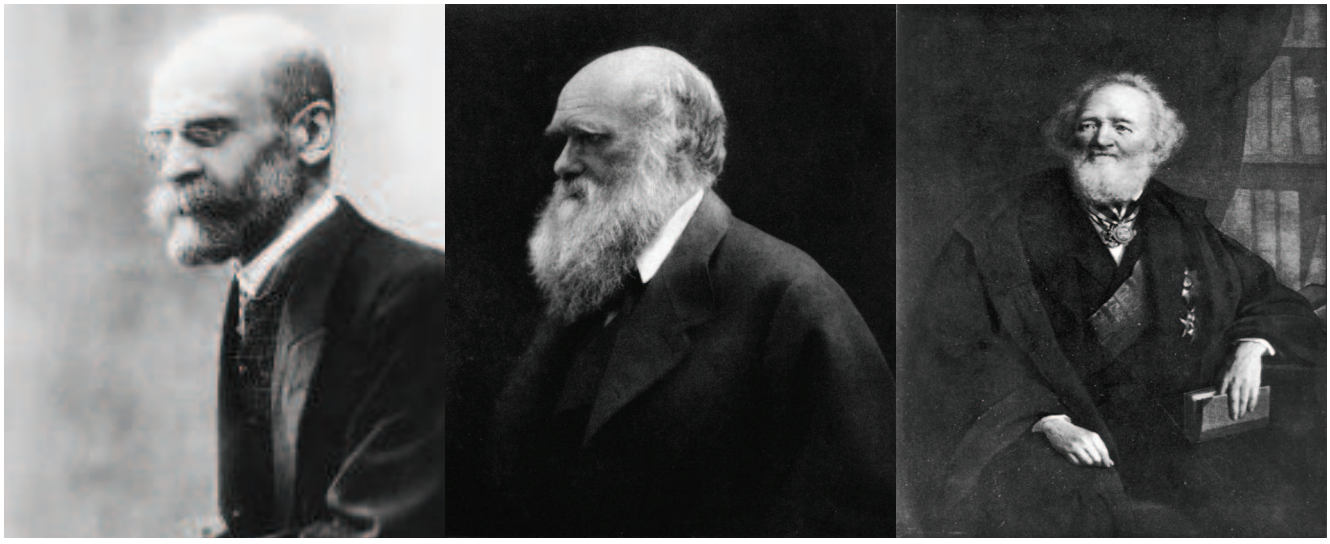

Introduction

There was a time, or so the story goes, when research ethics did not yet exist. It came into being only after World War II, in response to the gruesome practice of Nazi doctors subjecting prisoners in concentration camps to dangerous medical experiments. Initially, research ethics took the form of a ten-point declaration named after the city where Karl Brandt and 22 other Nazi doctors were sentenced by a military tribunal for their involvement in human experimentation. This Nuremberg Code (1947), in turn, became the basis for subsequent codes of ethics, such as the Declaration of Helsinki (1964) and the International Ethical Guidelines for Biomedical Research Involving Human Subjects (1993). The emergence of research ethics as we currently know it can thus be dated quite precisely: in the immediate aftermath of World War II, in the context of the Nuremberg Trials.

This story, told with minor variations in countless textbooks in research ethics, is a typical example of a "disciplinary history," that is, "an account of the alleged historical development of an enterprise the identity of which is defined by the concerns of the current practitioners of a particular scientific field" (Collini 1988: 388). Its presentism is most visible in its close identification of research ethics and codes of conduct. This identification may seem reasonable in a time when ethics is frequently associated with codes and protocols. It conceals, however, that the history of research ethics is much richer than the history of its codification, and that it stretches further back in time than textbooks want us to believe.

This paper draws attention to one particular strand of this longer, richer history. Zooming in on the "scientific self," that is, the historically contingent sets of habits, dispositions, virtues, or competencies that scientists consider important for the pursuit of scientific research, the paper argues that the scientific self is an embodied articulation of what scientists at a given time and place regard as good, responsible research. With examples from across the scientific spectrum (sociology, biology, history), the paper shows,

more specifically, that the scientific self offers us a glimpse of research ethics in non-codified form – a form of ethics that is less stable, more contested, and therefore at least as interesting as the Nuremberg Code or the Declaration of Helsinki to the extent that it translates abstract ethical demands into concrete human character traits (1).

Three Classics

To recognize the key importance of the scientific self, it suffices to revisit nineteenth-century classics such as Émile Durkheim's *Les règles de la méthode sociologique* (The Rules of Sociological Method, 1895), Charles Darwin's *On the Origins of Species* (1859), and Leopold Ranke's *Zur Kritik neuerer Geschichtschreiber* (Critique of Modern Historians, 1824). What these manifesto-like texts had in common is that they sought to change science (or at least, a particular province of science) by changing the scientist. The "scientific revolution" they advocated was, first and foremost, a revolution within the self.

Take the opening pages of Darwin's *Origins*, where the author explained at length how cautiously he had tried to avoid vices of "haste" and "preconceived opinion." The self-image Darwin rhetorically constructed was one revolving around "dispassionate judgment" and "flexibility of mind." In Victorian England, this could be read as an attempt to assure skeptical readers that Darwin's research adhered to traditional scientific method. But as Thomas Huxley clearly saw, open-mindedness and independence of judgment could also be interpreted as markers of a new scientific persona. For Huxley, indeed, it was precisely his independence of thought that made Darwin "the incorporated ideal of a man of science" – a man who served science instead of society, made no attempts to please traditional authorities, and relied on his own findings instead of on the opinions of others (White 2003).

Ranke, too, advocated a new scientific persona in subjecting early modern historians like Francesco Guiccardini to methodological criticism. His attempt to show that Guiccardini and other highly respected Renaissance historians had been guilty of "forgery of truth" and "modification of facts" served a revolutionary cause. It demonstrated the need for a new type of historian, more "critical" and "trustworthy" than his predecessors. If it took a while before Ranke was generally accepted as an embodiment of this new type of historian, this was because alternative conceptions of the scientific self, defended by Heinrich Leo and Friedrich Christoph Schlosser, among others, did not immediately disappear. Indeed, within German historical scholarship, Ranke's favorite virtues – "criticism," "precision," and "penetration" – never ceased to be criticized. Partly because of political and religious fault lines, the virtues of a good historian remained a subject on which historians could fiercely disagree (Paul 2017b).

This, of course, was also Durkheim's experience. The "objectivity" that the French sociologist famously advocated in *Les règles de la méthode sociologique* was intended as a remedy to "naivety," "speculation," "dogmatism," and "the promptings of common sense." Given Durkheim's interest in Francis Bacon, this list of vices could easily be interpreted as a nineteenth-century update of Bacon's *idola mentis* ("idols of the mind"). In fact, however, "objectivity" was the programmatic name that Durkheim claimed for a way of doing sociology that sharply distinguished itself from how Herbert Spencer, Auguste Comte, and Gabriel Tarde practiced sociology. Durkheim's catalog of virtues and vices had a polemical intent: it favored a type of scientist who privileged data collection over theoretical speculation and factual knowledge over grand theory (Gane 1988).

Language of Virtue and Vice

Apparently, then, the scientific self was central to the scientific revolutions that Ranke, Darwin, and Durkheim sought to unleash. New methods or approaches required new types of scientists.

Even if the virtues or dispositions characteristic of those new personae were not always new – "objectivity" was a nineteenth-century virtue, but "criticism" and "impartiality" had histories that stretched back to at least the seventeenth century – their specific constellations (what was the "highest" virtue that a scientist had to embody?) and connotations (what exactly did "critical" mean?) served the purpose of creating new scientific personae.

This not only happened at mountain peak level, in the foundational texts of scientific disciplines. (The publication of Ranke's 1824 book, at least, has traditionally been interpreted as the "birth" of modern historiography.) Language of virtue and vice permeated scientific discourse at all levels. We find it in book reviews, in which scientists judged each other's work against standards of virtue. We find it in letters of recommendation, where candidates for academic positions were presented as models of virtue (or, occasionally, as unable to resist temptations of vice). Most notably, we find it in controversies in which scientists failed to reach agreement over what, in a particular context, counted as virtue or vice (Paul 2017a).

Interestingly, emerging attempts to rewrite the history of nineteenth-century science through the prism of virtues and vices reveal different patterns of consensus and conflict than those offered in standard narratives of "professionalization." On one hand, nineteenth-century scientists nearly universally believed that research made demands on dispositions known as virtues. On the other hand, they found it particularly difficult to agree on what were the most important virtues, partly because many of these virtues, "objectivity" included, had not only epistemic connotations, but religious and political layers of meaning, too (Paul 2017b).

So, even for historians without specific interest in how the history of science intersects with the history of research ethics, virtues and vices in nineteenth-century scientific discourse are a promising subject of inquiry. They draw attention to the important role of the scientific self, to contested standards of scholarship, and to disciplinary sub-communities identifying with different scientific personae.

Disciplining the Self

The ethical dimensions of all this become most clearly visible if we look not just at scientific discourse, but also at how standards of virtue and vice are translated into practice – into lecturing, supervising, and mentoring, for instance. Educational practices were important for at least two reasons. One reason is that Ranke and Durkheim sought to socialize students into a scientific ethos consistent with their conceptions of the scientific self. Ranke trained young historians in his "historical exercises" (*historische Übungen*) – an informal seminar where students discussed primary sources and presented draft papers – while Durkheim mentored younger colleagues through his Année sociologique. Although Darwin's case is slightly different, Huxley ("Darwin's bulldog") believed scientific education to require identification figures and therefore presented Darwin as embodying "the ideal according to which [students] must shape their lives" (Huxley 1885: 535).

A second reason why education mattered is that Ranke, Darwin, and Durkheim agreed on the natural viciousness of the human mind. Just as Darwin elaborated on "the chief cause of our natural unwillingness" to accept new ideas, Durkheim lamented the mind's "natural disposition to fail to recognize" various kinds of bias. All authors therefore insisted on the need for "rigorous discipline," with all the Foucauldian connotations of that phrase: "Only sustained and special practice can prevent such shortcomings" (Durkheim 1895).

It is in educational practices like Ranke's historical exercises that such disciplining of selves becomes most visible. It is here that students were being molded into scientists, learned to develop scientific habits, and were taught how to suppress their "prescientific

selves" for the sake of objectivity. Historians of science have good reason to examine the following questions: How did this work? To what extent were virtues actually taught? What happened to students who failed to conform to those standards of virtue? We have been pursuing these questions through a project entitled "The Scholarly Self" at Leiden University.

Conclusion

To what extent does the concern for scientific selves and their defining qualities belong to the history of research ethics? If we follow recent historians of medical ethics and expand research ethics to include all "moral economies of science" (e.g., Baker 2013), it becomes possible to imagine a history of research ethics prior to the Nuremberg Code. More importantly, it becomes possible to acknowledge the existence of other ethically relevant genres than that of codes of conduct. The result, most likely, will be a history of research ethics that is more complicated, and arguably more interesting, than the standard narrative told in research ethical textbooks. However, it will take time for the contours of this history to become visible: much research still needs to be done on research ethics prior to World War II.

Focusing on the nineteenth century, this paper seeks to make a modest contribution to such an expanded history of research ethics by arguing that scientists reflecting on the virtues of the scientific self were engaged in research ethics avant la lettre. In defining good science, in specifying what this demanded of the scientific self, and in translating these demands into educational programs, they were as seriously engaged in implementing ethical standards as their twentieth-century successors were in drafting, revising, and implementing codes of conduct.

Acknowledgments

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Note

(1) Following nineteenth-century usage, this paper uses "science" in the broadest possible sense, also encompassing the social sciences and humanities.

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