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02
03 THE SEARCH FOR AUTONOMY IN HISTORY
04 OF SCIENCE
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08 In fall 1984, I had the good fortune to meet Sam Schweber when I arrived at
09 Harvard University's Department of History of Science as a visiting scholar with a
10 postdoctoral fellowship from the Social Sciences and Humanities Research Council
11 of Canada. Having been trained first in physics, I remembered his name as the
12 author of the formidably difficult (for me!) *Introduction to Relativistic Quantum*
13 *Field Theory*, which I had closed as soon as I had opened it, as I immediately
14 realized that the approach was too formal for my taste. Not yet familiar with his
15 infinite generosity and attention to young scholars, I was really amazed that he asked
16 me to work with him on an essay review of Andy Pickering's book, *Constructing*
17 *Quarks*.¹ I remember that I told him right away that he would have made a good
18 priest with his very humanist attitude toward people.

19 This profoundly humanist aspect of Sam's personality makes him very concerned
20 about the future of the discipline of history of science as a *community of scholars*,
21 and in this contribution in his honor I would like to briefly address one of the
22 reasons which, I think, contributes to explain the actual predicament that historians
23 of science face. I will not raise the obvious question of access to the job market
24 and the possible overproduction of PhDs in the field. Instead, I want to discuss a
25 tension inherent in the discipline of history of science, which, I think, lies at the
26 heart of the recent debates about the state of the discipline.

27 Probably more than any other kind of historians, historians of science are torn
28 between several masters: scientists, philosophers, sociologists and general histo-
29 rians. Fifteen years ago, Paul Forman made a major contribution to the question
30 of the intimate relation between historians of science and scientists, condemning
31 the lack of intellectual autonomy of the former from the latter.² But his call for
32 "independence not transcendence for the historian of science" is still to be fulfilled
33 when one sees the various pressures scientists put on historians of science who want
34 to do more than simply contribute to the creation and celebration of the internal
35 mythology of scientific disciplines. While Forman had a moral view of the need
36 for independence, insisting that each individual had to stand up and fight for his
37 or her autonomous judgment, I think that an institutional analysis provides a better
38 way to identify mechanisms in which this autonomy could be grounded.
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41 1 Yves Gingras and Silvan S. Schweber, "Constraints on Construction", *Social Studies of Science*,
vol. 16, May 1986, pp. 372–383.

42 2 Paul Forman, "Independence not Transcendence for the Historian of Science", *Isis*, vol. 82, March
43 1991, pp. 71–86.

01 As Forman rightly observed, professional independence is not the same as intel-
 02 lectual independence.³ But I think the specific form taken by this professional
 03 autonomy, particularly in the United States, is not unrelated to the identity crisis
 04 felt by many historians of science. The creation of special Departments of History
 05 of Science (or any combination of history and philosophy and sociology of science
 06 and technology) *outside* established departments of history has not, I think, helped
 07 historians of science to take their distance from scientists. In fact, the gaining of
 08 independence was made even more difficult when these special departments were
 09 located in faculties of science instead of faculties of humanities and social sciences.

10 This particular form of institutionalization of history of science was largely
 11 contingent and had no logical necessity. After all, over the last century the discipline
 12 of history has always been able to adapt to a changing context by incorporating
 13 new *objects* of historical inquiry into its curriculum and research agenda. The
 14 emergence of the special fields of history of workers, industrialization, immigration,
 15 women, etc., *inside* history departments – often through difficult academic debates –
 16 clearly shows that a *specialization* of history of science, as opposed to creating
 17 an autonomous *discipline*, was possible. Being an integral part of the historical
 18 discipline would help historians of science to benefit from the sense of intel-
 19 lectual autonomy that historians have acquired over the years. A diverse and strong
 20 historical discipline certainly helps curb any control that some actors would like
 21 to have over the kind of questions raised – and answers proposed – about objects
 22 chosen. Sam often said publicly that for him, Frank Manuel was a model historian.
 23 It is not insignificant, I think, that as a historian Manuel was not feeling the
 24 pressure of the scientist’s “super ego” peering over his shoulder when he wrote
 25 *Isaac Newton Historian* and *A Portrait of Isaac Newton*. In short: institutional
 26 distance can contribute to intellectual independence.

27 Comparing the historian of science with the political historian sheds new light
 28 on the limited autonomy of the former compared to the latter. Which professional
 29 historian would take seriously a book on political history controlled by a panel of
 30 former politicians? By contrast, few eyebrows were raised at the publication of the
 31 book on the history of solid state physics, *Out of the Crystal Maze* although the
 32 whole enterprise was in fact controlled by a “blue-ribbon” committee of physicists
 33 (some of them Nobel Prize winners) who were also central actors in the story
 34 and decided which topics to include and to exclude. Surprisingly, even this benign
 35 comparison may be considered offensive and may be rejected by scientists or their
 36 self-appointed spokespersons. In fact, I personally experienced this reaction when I
 37 asked the above question using this comparison with political control in a review of
 38 that book for the journal *Science*. Simply suggesting such lack of independence (if
 39 not a direct conflict of interests) was too much and – as I had in fact expected⁴ – they

40 3 *Ibid.*, p. 77.

41 4 Dominique Pestre was witness to that prediction. I wrote the review while in Paris, showed it to
 42 him and said they would call me on receiving it to cut the analogy with politics. Which they did ...
 43 Who said sociology cannot be experimental?

01 asked me to get rid of that analogy and to rephrase my analysis. They finally
 02 accepted that I conclude by saying that “let us hope that historians of science will
 03 use [the book] to frame their questions in the terms of their own discipline rather
 04 than according to the preoccupations of the scientists, which are perfectly legitimate
 05 but nonetheless distinct from those of historians”.⁵ That the journal *Science* was
 06 a gatekeeper not only of the *content* of science but also of its *public image* was
 07 obvious to me but this fact became even more obvious when four years later the
 08 book review editor of the journal took “early retirement” over the turmoil raised by
 09 the publication of Paul Forman’s review of the book *The Flight from Science and*
 10 *Reason*.⁶

11 The “science war” is thus simply the most recent attempt by scientists to regain
 12 control of the research agenda of historians of science.⁷ The decision not to appoint
 13 Norton Wise at the Institute for Advanced Study in 1997 should be more than suffi-
 14 cient to show that institutional autonomy from scientists is crucial for intellectual
 15 autonomy. Confronted with such events, it is amazing to see how much energy
 16 is consumed by some historians and sociologists of science in order to convince
 17 scientists that they should care about their work, when it is in fact obvious that the
 18 aims of historians’ and sociologists’ analysis cannot be the same or even congruent
 19 with those of scientists without losing their specificity.⁸ Here again the analogy with
 20 political history is interesting: when politicians disagree with a historical analysis
 21 provided by a professional historian, nobody expects the historians to bend over
 22 backwards in order to convince the politicians.

23 Instead of trying to win scientists for their analyses, historians of science should
 24 strive for a better integration of history of science into mainstream intellectual,
 25 social and cultural history. For if it is true that science is part of history and not
 26 outside it, then the teaching of (and research in) history of science should also be
 27 part of history departments and not outside them. Of course, this does not mean
 28 that history of science departments as such cannot gain independence of thought.
 29 It only means that they are more vulnerable than generic disciplines like history,
 30 sociology and philosophy in periods of crisis. It is also clear that a better integration
 31 within the historical discipline will transform the analytical approaches, as the rise
 32 of social history of science and the relative decline of technical or internal history
 33 are in large part effects of a more thorough historicizing of science.

34 The main losers will of course be the scientists who will have greater difficulties
 35 in trying to control the historians’ research agendas and who will lose their “scribes”
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37 5 Yves Gingras, “Redefinitions in Physics”, *Science*, vol. 260, 21 May 1993, pp. 1165–1166.

38 6 For a brief summary of these events see *The Economist*, 13 December 1997, pp. 77–79.

39 7 If one includes larger social debates one should also remember the cancellation in 1995 of the
 40 original Enola Gay exhibit at the Smithsonian; see Edward T. Linenthal, Tom Engelhardt (Eds),
 41 *History Wars. The Enola Gay and Other Battles for the American Past*, New York, Metropolitan
 42 Book, 1996.

42 8 I am thinking here of the book edited by Jay A. Labinger and Harry Collins, *The One Culture?*
 43 *A Conversation About Science*, Chicago, The University of Chicago Press, 2001.

01 who wrote their grandiose odyssey as previous historians wrote the life of famous
02 politicians, insisting on their devotion to their nation and their *grandeur d'âme*.
03 Now scientists will have to write these kinds of books for themselves; for this genre
04 is no longer part of an autonomous specialty that defines for itself the hierarchy of
05 legitimate questions and answers about "science" as an historical entity.

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