

HISTORY OF SCIENCE

Heisenberg in the “Public Sphere”

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In 1971, discussing the case for a new 300-GeV accelerator, Werner Heisenberg put his finger on the “difficult dilemma” faced by scientists who argue for financial support from the government. Should such scientists be considered objective advisors with relevant technical expertise or members of one interest group among many others? His answer—perhaps more honest, certainly less popular, than that of many of his colleagues—is that they were already both: “[I]t is essential that high-energy specialists be consulted as advisors, since only they can really judge the details. On the other hand, these specialists are necessarily also interested parties, since they or their students want to work at the giant accelerator.”

If this dilemma was difficult, however, it was nothing compared with some of the issues involved in Heisenberg’s forays into the “public sphere” in postwar Germany. How and how well should science be funded in general? How might Germany be reincorporated into an international scientific scene? What role should scientists play in the development of civilian nuclear technologies? What status should the objection or support of scientists for West German nuclear armament have? Were such figures, as some opponents suggested, trading on their titles as Nobelists to disguise private, subjective opinions as public, objective reason? How should one speak (or not) of the period under National Socialism, and what kinds of moral claims and confessions were appropriate for public dissemination? All of these questions and many others are explored in Cathryn Carson’s meticulously researched, carefully and thoughtfully argued, and utterly compelling monograph, *Heisenberg in the Atomic Age*. Carson uses postwar Germany’s most prominent scientific figure to examine questions of particular interest to historians of modern physics as well as issues of much broader scope: Did Heisenberg himself sug-



gest, as many have claimed, that he worked against the production of a German atomic bomb? (Carson argues that he did not.) How did contemporary intellectuals (scientists and humanists) conceive of the place of scientific reason and technological power in the reconstruction of Germany after the Nazi era?

Among the book’s central concepts is the notion of the public sphere, a term developed by the philosopher Jürgen Habermas (1). Habermas saw the public sphere as an

ideal realm in which reason and argument trumped rhetoric and partisanship—a site, in Carson’s words, “of cultural and political freedom from domination, standing apart from state power, a democratic domain where the ‘coercionless coercion’ of the better argument should prevail.” While Habermas’s book spoke about the birth of the public sphere in the Enlightenment, it also spoke to its contemporary

German setting. It was a dream for the present as much as a description of the past, and physicists as well as philosophers had stakes in creating a space that included particular forms of argumentation while rejecting others. Indeed, Carson makes a strong case for the idea that the history of science policy serves as a remarkably good way to follow the transformation in the West German polity that was visible by the 1970s.

Characteristically, the book insists on reading Habermas’s words as descriptions of the present as well as the past. Throughout, Carson resists the temptation to understand Heisenberg’s postwar statements as more or less transparent windows onto pre- and intrawar events. Thus, for example, while she describes Heisenberg’s accounts of his work on the German atomic project in some detail, she refuses, for the most part, to engage with the question of their veracity. “[T]he construction of Heisenberg’s sequence of accounts,” Carson argues, “is in every way a postwar story. The reason to tell it is to plumb the postwar dynamics of speaking, not reach

some illusory clarity on what Heisenberg did during the war.” As a result of this methodological commitment, the book is not a biography in any conventional sense. Also, readers seeking close descriptions of Heisenberg’s

research should look elsewhere: this is a study of Heisenberg as a participant in and producer of public, literary, cultural, and political life.

More generally, Carson appears skeptical of the very premise of biographical writing, particularly its aim to produce a “psychological portrait”

or a sense that “we have him figured out.” In Heisenberg’s case, such skepticism seems well justified, for nothing seems to characterize his public writings as much as multivocality, the ability to say many things at different registers. Heisenberg himself embraced this characteristic by structuring his best-selling autobiography (2) as a series of dialogues and systematically avoiding the use of the personal pronoun in the book’s preface. He wished to avoid, he told his translator, “the impression ... that I am always speaking about myself in the book.”

Of course, when such multivocality and wariness of direct statements concerned his motives and actions during the war, many of his readers—particularly in the United States—found Heisenberg evasive, even duplicitous. Carson’s close attention to the history of Heisenberg’s public writings and to genre, location, and language tends to make such conclusions a little too pat, in a way that goes beyond the references to historical uncertainty common after Michael Frayn’s wildly popular *Copenhagen*. If we do not have Heisenberg figured out after Carson’s account, we at least have a sense of the situatedness of his utterances in a fraught political context. “Creating and stabilizing a post-Nazi Germany ... was no unambiguous or single-voiced process.” A profound contribution to work on Heisenberg, this book speaks to issues well beyond histories of science and Germany. It encourages real and timely meditation on the place of science in a democratic polity.

References

1. J. Habermas, *Strukturwandel der Öffentlichkeit: Untersuchungen zu einer Kategorie der bürgerlichen Gesellschaft* (Luchterhand, Darmstadt, Germany, 1962).
2. W. Heisenberg, *Der Teil und das Ganze: Gespräche im Umkreis der Atomphysik* (Piper, Munich, 1969).

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by Cathryn Carson

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