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Geschichte des Objektivitätsbegriffs



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When I arrived at the Wissenschaftskolleg in January, I hoped to (1) finish up a number of pieces on the history of probability theory and statistics as expeditiously as possible; and (2) begin research for a new book on the history of objectivity, as reflected on the ideals and practices of the natural sciences since the sixteenth century.

I labored in the "twilight of probabilities", as Locke says, until April: my book, *Classical Probability in the Enlightenment* (Princeton: Princeton University Press, 1988) appeared this summer; a collaborative book with Gerd Gigerenzer, *et al.*, *The Empire of Chance*, will appear with Cambridge University Press in early 1989, and a long article on probability in the seventeenth century for the *Cambridge History of Philosophy*, Daniel Garber and Michael Ayers, eds., was also dispatched, though not with alacrity.

Having buried probability theory with a stake through its heart, I then set about my new project in earnest. I presented a sketch of my first chapter, "The Prehistory of Objectivity", to the Culture of Science group at the Wissenschaftskolleg in late February. My theme was the invention of facts, i. e. not of specific items but of that category of knowledge called factual. While Aristotelian and scholastic natural philosophy was certainly empirical, it was not factual: observations about the natural world were firmly imbedded in a context of generalization and illustration; they are not detached particulars allegedly free of any theoretical tinge. Particulars belonged to history, of both the civil and natural variety, which was deemed inferior even to poetry, for true knowledge resided in universals.

I argued that facts came to be seen as the better part of knowledge, as the objects of objectivity, in the mid-seventeenth century not because they were public knowledge—the facts reported in the earliest scientific journals were often of rare and/or inaccessible events—but because they were thought to be free of theory. Natural philosophers eager to pursue their work collectively, in the newly established academies, believed that the greatest obstacle to co-operation was personal ambition, and that the greatest temptation to ambition was overweening partiality towards one's own theories. Thus the earliest form of objectivity was of a restricted sort in both its objects and its attitudes: the objects were preferably singular or odd phenomena that contradicted all theories, and the attitude was one of impartiality towards theories, closely akin to wonder in the Cartesian sense.

Two stories must be told about the subsequent history of objectivity, one about objects and one about attitudes. The word "fact" has changed its meaning in dramatic ways over the last three centuries, without ever losing its claim to be the most promising object of the kind of knowledge we dignify with the honorific "objective". Whereas the prototypical seventeenth-century fact was a strange event or anomaly—e. g., double refraction or a cyclone in Jamaica—and was recounted at the length of pages, the prototypical eighteenth-century raw fact is the universal law of gravitation. After 1820, facts are statistical, sums of recurrent, identical events; twentieth-century facts are miniaturized, of the form "The cat is on the mat", or "The pointer is on five". How we got from the two-headed calf of the Royal Society to the cat-on-the-mat of the logical positivists is a long, intricate, and untold story that I eventually hope to unravel.

But in the remaining time at the Wissenschaftskolleg, I concentrated instead on the evolution of the attitude of objectivity from the late seventeenth through the late nineteenth century. The original narrow sense of impartiality towards theory had hardly implied the sweeping ban on the subjective that is part of our notion of objectivity. My question was, how and when did subjectivity become the opposite of objectivity in the natural sciences? There is a gradual widening of the notion of impartiality in the Enlightenment rhetoric of the Republic of Letters to include the irrelevance first of religion, then of rank, and then of nationality, and eventually to include a studied detachment or even withdrawal from all social ties. In the middle decades of the nineteenth century, the personal as well as the social becomes suspect, and ineffable judgments and the imagination are officially exiled from at least public science. Whereas the scientist of the late eighteenth century is modest-unto-self-effacing, that of the late nineteenth century is faceless. The first-person singular disappears from scientific articles in leading journals; the passive voice is on the march.

This is a bare-bones description of how the attitude of objectivity evolved; any plausible explanation must connect this with a parallel evolution in the organization and objects of science during this period, and this I intend to do. Although my project is still in its infancy, I have already been forced to reject my initial premise that our sense of "objectivity" is hopelessly but revealingly confused, an alloy of metaphysics, methods, and morals. I continue to see it as an alloy, but I am no longer sure it is a confusion. Our determination to keep facts and values distinct takes objectivity as its motto, but it may be that the very notion of objectivity shows how to weld the cognitive and the normative together.