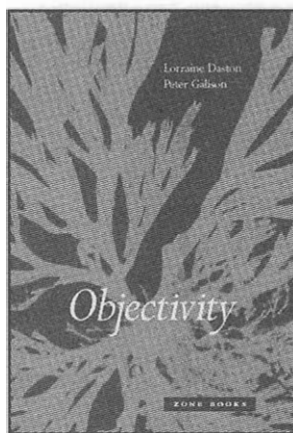


OBJECTIVITY

Lorraine Daston and Peter Galison  
Zone Books (\$38.95)



by W. C. Bamberger

Early on in their massive, intriguing study *Objectivity*, the historians of science Lorraine Daston and Peter Galison drive home something we all already know: that “objectivity” can never be defined without reference to its seditious other half, “subjectivity.” We learn of the word’s “somersault history,” how as late as the time of Descartes it meant the opposite of what it now means. This book, then, is a record of the shifting alliances and border clashes between objectivity and subjectivity, doubt and confidence, self-trust and self-suspicion.

All this makes *Objectivity* sound simple enough: the not-so-unique history of a discipline’s pendulum-style swings. But Daston and Galison offer us more than a timeline of attitude adjustments. They open up each of these attitudes to show us how pursuing objectivity can strain and hobble the pursuer:

First and foremost, objectivity is the suppression of some aspect of the self, the countering of subjectivity. . . . If objectivity was summoned into existence to negate subjectivity, then the emergence of objectivity must tally with the emergence of a certain kind of willful self, one perceived as endangering scientific knowledge.

That is, researchers aspiring to objectivity have to be constantly on guard against themselves; they must invite voluntary, selective crippling.

Surely all the wear is worth it, we might think, because of the scientific certainties to be discovered. As it turns out, for scientists as for the rest of us, certainty isn’t always a good thing, for it “can come at the expense of maximizing truth; historians of science have shown that precision and replicability can tug in opposite directions.” And so the pendulum can never quite come to rest.

To illustrate their points, Daston and Galison guide us through generations of atlases—not of geography, but of anatomy, phrenology, plant families, even clouds—gatherings of images meant to pack up knowledge and make it portable, to guide the matching of analytical images to originals in the surrounding world. (To assist their explication there are black and white reproductions throughout; forty-five are re-reproduced in color.) The ever-changing ideal of how such atlases should be assembled is the backbone of the book.

We are shown how, early in the history of objectivity, experienced scientific observers—thought of and even spoken of as “sages”—guided artists in the creation of idealized images, perfect specimens generalized from imperfect examples found in nature. Then, beginning in the mid-19th century, a rising discomfort with the self-serving fallibility of human interven-

tion led to a turn to mechanical reproduction, largely photographic. (The authors also note the rise of mechanical repeatability by punch card; they use this tangent as an occasion to remind us that not only do changing theories of objectivity affect how we view our world, but the opposite holds as well.) This turn to the mechanical—which took place in much of the wider world, not just in the laboratory and on the pages of atlases—was in part prompted by a pervasive mistrust of human abilities that now seems blatantly patriarchic or shaped by class differences. One example: Charles Babbage, who has achieved cult-figure status as the designer of “the Difference Engine,” the first mechanical computer, held that: “One great advantage which

we may derive from machinery is from the check which it affords against the inattention, the idleness, or the dishonesty of human agents.”

This mistrust of human agency, of course, wasn’t all imposed from above. As the idea of objectivity continued its evolution, all conscientious observers aspired for a time to being machines. So it was that, in the immediate wake of the “Age of Reason,” any responsible scientist hoped to have his “inner eye of reasoned sight. . . deliberately blindfolded.” The idea was to achieve image “purity” through an approach drained of every human imperfection. Like most ideals, this one was eventually modified by second thoughts and reality checks. Mechanical means, Daston and Galison demonstrate, worked *too* well: photographs produced images that were so equally focused over an entire field that areas of special interest were lost in all that accuracy.

The effect of this unnatural perfection was that, beginning in the early 20th century, trained judgment—in essence, the abandoned “sages” model—once more became the ideal. Experts selected, sorted, and highlighted aspects of interest out of teeming images. With some baroque variations, such as the shift from the scientist’s intended audience being seen as passive receivers of knowledge to being recognized as active interpreters, this model has held into our time. The wheel has turned nearly back to its original course.

In what direction might the next generation of scientific objectivity swing us?

In the last thirty pages of *Objectivity*, Daston and Galison offer their thoughts concerning the hybrid nature of the processes involved in creating nanotechnologies—where science and commerce are ever more tightly intertwined; where the individuality of the scientist is subsumed by the anonymity of engineering; where image and science’s creations are interdependent to a degree never before seen. The authors categorize productions of this kind as “successors to the atlas,” and suggest that many of our current definitions—including that of objectivity—will not apply to these emerging hybrids.

Over the length of the book, Daston and Galison slyly modulate their style. In the opening pages their tone is detached—“objective”—as they dryly accumulate detail. By the time they reach the last third of the book, they are much more present, and provoke smiles of wonder as they offer cross-disciplinary constructions with a magician’s dramatic snap. They even use humor as one of their idea-connectors. This is a surprising, engrossing book that treats humanity’s struggle to unsharpen the world and itself as a field of endless turmoil and fascination. ♦