

Objectivity

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Lorraine Daston & Peter Galison, *Objectivity*

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Article

Lorraine Daston and Peter Galison, who have been collaborating for more than two decades in the field of the science of representation as well as the representation of science (see for instance Baetens 2005), have cowritten a truly outstanding book, that will hopefully shape our future vision of what is meant by objectivity, from an epistemic as well as from an ethical (and aesthetical) point of view. The very notion of objectivity has a certain frightening quality, since it may rapidly become boundless and therefore unfocused, vague, or split between a dizzying range of competing meanings in various disciplines. One of the great achievements of this book is therefore the willingness to select a very simple (but of course not simplistic) starting point, which allows the authors to reconcile breadth of scope and precision of analysis. Instead of analyzing every possible theoretical debate on objectivity (and other related subjects such as truth, reference, and so on), they focus on the corpus of scientific atlases, i.e. the compendia of scientific images which aim at synthesizing the current state of the art of a given discipline. In the terms of Bruno Latour's writings, moreover, Daston and Galison consider the images of these atlases as 'objectivity in action'. For the authors, these images do not simply reflect certain ideas on objectivity; they actually perform objectivity (or at least a vision of objectivity). In other words, the study of this type of images can function as a shortcut to underlying epistemic and ethical views of objectivity. Given the very significant social function of these images –which frequently establish a direct dialogue with their competitors and forerunners–, atlases represent a key actor in scientific communication, and are also more accessible to the broad public which is explicitly targeted by some of them.

A second major feature of this book is that the authors strongly underline the historically shifting meaning of objectivity. Since they foreground debates on objectivity from the 18th Century onwards (without, of course, neglecting previous eras), they demonstrate in an extremely convincing way that this period in Western history can be characterized by three different and successive visions of objectivity. The first is "truth-to-nature", which means a vision of objectivity that aims to extract a universal truth (the type) from what can be observed by the naked eye (the token, the concrete utterance). This type of vision, which implies both selection of what has been observed and aesthetic transformation of its representation, can only be performed by a sage (some will say: a genius) but it also requires strong collaboration with an artist (an engraver, a draughtsman, a printer), hence the label of "double sight" coined by Daston and Galison. The second vision of objectivity is "mechanical objectivity", which is a kind of "blind sight", for the observatory is craving for a reproduction of particulars (and no longer of universals) that is as automatic and unhampered by personal vision as possible (for contrary to the previous era, the personal input of the observer is no longer seen as an advantage). Photography, Daston and Galison remark, may

seem the ideal tool and model for this type of representation, yet in practice things are much more complex; often photography is considered less objective than other techniques and many photographic practices do not aim at objectivity at all. The final vision is that of “trained judgment”, which is the scientific attitude of the expert, who is able to interpret the raw data of mechanical objectivity in a way that identifies meaningful patterns and family resemblances in what can be observed, but not understood, by the eye of the observer or the machine.

Objectivity, however, is not just a historical description and philosophical discussion of these three basic epistemologies. First of all, because the sequence of double sight, blind sight, and trained judgment is never reduced to a simple chronology (let alone a teleology). Daston and Galison take history much more seriously, for instance by arguing that ‘older’ epistemologies are never totally erased by newer ones, and that history really matters (i.e. that the past continues to matter for present and future): trained judgment is therefore not simply a ‘return’ to the truth-to-nature-paradigm, but is on the contrary a way of exceeding the limits of the model of mechanical objectivity that did not yet exist in the period of truth-to-nature. Secondly, because the notion of objectivity is not ‘mechanically’ situated on a historical line, but linked to a reflection on the ethos of the scientific subject: objectivity is what is done by scientists wanting to be objective, and in order to know and understand what they are doing, it is also important to know how they are seeing their own work, their own duties, their own ideal. In this regard, the tension between subjectivity and objectivity rapidly appears as the basic distinction in every discussion on objectivity: subjectivity and objectivity are mutually defining (subjectivity is the contrary of objectivity and vice versa), yet the shifting ideas on what counts as subjective and objective in this field do not completely coincide with the ways these notions are defined in the philosophical field. Nor is it possible, in the eyes of Daston and Galison, to reduce the successive meanings of objectivity to historically datable facts (for instance, Kant’s redefinition of subjectivity – which pits it against knowledge – has of course played an important role in the rise of mechanical objectivity, or the growing awareness of unconscious motivations, which has been paramount in the critique of the ideal of the battle of the will against itself which had been the role model of mechanical objectivity). *Objectivity* always takes into account a wide diversity of data and criteria, while always going back to its own starting point, that is the question of what can be learnt from a thorough examination of the images in scientific atlases. Finally, but I shamefully realize that a simple review is incapable of doing justice to the extraordinary wealth of information and insight contained in this book, *Objectivity* also provides very illuminating ideas on the more or less conflicting relationships between art and science in the case of visual representations. Thanks to their historically informed view of objectivity, Daston and Galison convincingly argue that art and science cannot be defined in an essential –and essentially antagonistic– way. Science may be defined by its craving for ‘objective’ knowledge, yet art is not merely ‘subjective’ (as Romanticism has taught us to think, and the influence of Romanticist visions of art as the expression of an individual will cannot be underestimated in the gradual rejection of that same individual will in 19th Century science). The very opposition (which is of course not the same as the very distinction) between science and art can be explained by historical reasons, and these reasons are not restricted to the past, of course. As Daston and Galison show in their final chapter on nanotechnology, in a scientific visual paradigm in which envisioning information is actually the same as making or creating information (for the images that appear in nanotechnology are no ‘reproductions’ but ‘productions’) there may be room for a new dialogue between art and science in the near future.

Bibliography

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