Objectivity

Guy Axtell

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Introduction: A Valuable but Contested Concept

"Objectivity" is an important theoretical concept with diverse applications in our collective practices of inquiry. It is also a concept attended in recent decades by vigorous debate, debate that includes but is not restricted to scientists and philosophers. The special authority of science as a source of knowledge of the natural and social world has been a matter of much controversy. In part because the authority of science is supposed to result from the objectivity of its methods and results, objectivity has been described as "essentially contested" and even "embattled." The concept of objectivity has important but disputed applications outside of scientific practices as well. Philosophers, psychologists, and theologians debate whether there is an objective basis for ethical claims and demands. Legal scholars debate what it would mean for laws to be objectively derivable from basic assumptions about justice and equality. One aim of this book is to guide readers through the often volatile debates over the nature and value of objectivity. Another aim is to contribute to that debate through certain themes that will shortly be introduced.

Objectivity is posited of many things: of questions or subject matters, of methods (procedures) or results (products) of collective inquiry, and of course of inquirers—persons—themselves. *Objective questions* are thought of as those which can be answered by recourse only to factual evidence; subjective questions, by contrast, include things like matters of taste

or personal preference. But so far we have only examples of uses of the concept of objectivity. What about a definition? John Dewey wrote that the time for definition is at the end of inquiry, not at the beginning. Dewey has a point, since an uncritically accepted definition places limits on the usefulness of a concept. Still, it will be helpful to have a working definition to start from, recognizing that further examination may lead to qualifications or refinements. Let's define objectivity in its primary epistemic sense as a set of norms that obliges persons or groups of persons to apply impersonal modes of reason in the course of their inquiries or deliberations. This working definition makes objectivity a characteristic of our processes of inquiry (our general motivations and specific strategies) and, derivatively, of the products of those inquiries. Complying with norms of objectivity involves methodically avoiding known sources of error. Establishing and complying with norms of scientific objectivity also serves the social function of promoting trust in what science and technology produce (empirical studies, theories, technical innovations, etc.). To call the results (products) of inquiry objective is on a social level to endorse those products as trustworthy due to characteristics of the process by which they were produced.

Our working definition, to be clear, is of what is typically called cognitive or epistemic objectivity; it does not try to capture the secondary sense of objectivity intended by such phrases as "the objective world." Speaking of running an "objective test" or producing an "objectively written" news report emphasizes characteristics of a process or a product. But objective world-talk speaks neither of procedures nor products of inquiry, but rather elicits a mental image of a world of facts or a static physical reality conceived as separate from and prior to all of our strategies of inquiry. Could objectivity be what belongs to the object of thought rather than to a knowing subject? This would make objectivity something static and absolute, and thus very different from the degree concept we have previously described. This book will take a different tack and argue that objective world-talk really isn't a kind of objectivity even though it is a longstanding connotation of the word. This ontological sense of objectivity, as it is called in the literature, might still be

philosophically interesting. Its defenders, as we will see in Part I, even view the robust metaphysical realism that it presupposes as a necessary condition for making any sense of epistemic objectivity. However, accepting this claim draws us into a swarm of issues surrounding realism and antirealism. on which the present account will try to stay neutral.

Drawing attention to how norms of objectivity attach both to processes and to products of inquiry makes objectivity relevant to every intellectual interest in truth or knowledge. This is why objectivity's primary sense is said to be cognitive or epistemic objectivity. Like "justification" and "rationality," which are its most closely associated terms in the field of epistemology (the theory of knowledge), objectivity is a normative concept. That is to say, this concept instills a burden on our thinking, insofar as we value the epistemic goods of true belief, knowledge, and understanding: a burden to reason in ways which are true to the objects we study. which distinguish fact from opinion, and which avoid modes of reasoning or decision-making that are biased, idiosyncratic, or arbitrary. Also, like justification and rationality, objectivity as here understood is a degree concept: a process or product of inquiry can have more or less of it. Examining empirical facts and proceeding as logically as we can from those facts to inferences that may be based upon them are certainly things that heighten the rational confidence we have in the products of inquiries. But as almost every textbook on the theory of knowledge points out, even a high level of rational justification for our beliefs does not, strictly speaking, guarantee their truth. This recognition of our fallibility, on the other hand, should not deter our attempts to make our ways to seeking knowledge as well justified and resistant to error as we can make them.

Our initial characterization of objectivity still allows that what norms it instantiates may be quite domain-specific: what objectivity means to actual disciplines or fields of study may differ with the type of things that each discipline studies, so that norms of objectivity are not one-size-fits-all. Also, the very expectation or "obligation" to reason impersonally or impartially comes not only from the nature of the objects of study but also from the social roles we inhabit. Some degree of objectivity, we have said, may be incumbent upon all truth

seekers, constraining the ways we represent the world and our experiences. But objectivity is not expected of us in all areas of life, just as not all questions are objective questions. The social roles of parent, student, counselor, scientist, and public-policy maker, for example, bring with them certain role-specific obligations to impersonal or impartial reasoning that are not incumbent upon others.

"Objectivity" is a noun, but when we take our focus to be the more active, adjectival, or adverbial uses—what it means to conduct oneself as an "objective inquirer" or for the job performance of employees to be "objectively assessed"—some contrast terms may come readily to mind. While we would not want key philosophical concepts to have a primarily negative sense, proscribing or excluding certain things, philosophical concepts are often articulated in part by examining their relationship with other concepts with which they are closely associated or contrasted. Contrast terms to the "objective" include "subjective," "personal," "partial," "biased," and "idiosyncratic."

Treating objectivity as a normative epistemic concept bearing upon practices of inquiry leads to the expectation that the specific meanings and functions of the concept have changed over time and will continue to change with the growth of knowledge. Those who have done historical studies highlight both how norms of scientific objectivity differ by specific field, and how prevailing conceptions of objectivity in any given discipline reflect that discipline's changing state of investigative techniques. One commonality that Daston and Galison (2010) think transcends this particularity is that prevailing norms of scientific objectivity always function to identify and exclude a specific notion of "scientific subjectivity." The normativity of the concept of objectivity for Daston and Galison is largely found in the prescription to avoid certain practices or ways of thinking deemed unsound or unscientific. Such prescriptions can be quite detailed, and the leading or paradigmatic way of thinking about what constitutes objective procedures and results continues to evolve as the sciences themselves have evolved.

Let's consider some initial examples of cognitive objectivity in action. The following are just a few instances in which a social practice brings with it certain expectations of

objectivity on the part of a person or collective, a procedure, and/or a product of inquiry:

- a team of scientists record, compile, and report data from their experiment
- a team of sports referees confer to decide whether they should reverse a call on the basis of what they each report seeing, or on the basis of replay footage, together with their knowledge of the rulebook
- a nonpartisan political group deliberates over how to design, run, and prepare a report on attitudes toward health care initiatives
- a journalist decides to do "objective reporting" in contrast to editorial journalism
- a teacher designs an assessment rubric and tries to apply it in assigning individual grades
- members of a school board propose changes to their curriculum to better meet stated educational goals
- a judge in a court case, or of a pie contest, renders a decision based upon standard criteria

In the last example, the judges in a law court and in a pie contest are not on equal standing with respect to the degree of objectivity expected of those serving in their social roles. There are rarely very formal procedures or criteria to follow in a pie contest, as there routinely are in the courts. Law and science are two areas with highly defined procedures and expectations upon practitioners. Judges are expected to recuse themselves from a case if they doubt their ability to remain objective due to some special circumstance, such as knowing personally one of the litigants. They may find it wise to do so anyway, if the case could later be appealed on the grounds that the judge had a conflict of interest.

Pie tasting might be an extreme example, because demands for impartiality in a matter so subjective strike us as odd. The taste, smell, and appearance of pies are an aesthetic matter, and idiosyncratic judgments about them are impossible to avoid. We may doubt that there are any recognized experts on this matter whom we might ask to supply us with criteria for judgment, or even a way to quantify such criteria into a useable scale. Then again, it may be that if we are

skeptical it is because we know little of the craft ourselves. Formalizing and following a set procedure can certainly increase at least the appearance of objectivity. Publishing the criteria for blue ribbon pies and knowing that judges will be giving grades for each one of them aids contestants and judges alike. This procedural objectivity adds fairness and transparency to the process, but it may also in the long run make the public more aware of what experts think are, or should be, the standards of their craft.

We can see from the present case that there are still quite substantial objectivity-related expectations for the performance of judges, regardless of whether there is an agreed matter of fact about what makes one pie better than another. In a saying attributed to Socrates at the dawn of moral philosophy: "Four things belong to a judge: to hear courteously, to answer wisely, to consider soberly, and to decide impartially." Socrates' remark might apply even to pie judging. Impartiality and what is here called sober judgment are personal and professional virtues—excellences—of any judge. To consider soberly might mean to apply a consistent set of criteria, and to weigh strengths and weaknesses of each entry carefully into an overall decision. To be a fair and good judge of a pie contest one must still have some recognizable criteria for rating pies, and apply that criteria soberly and impartially. The expected impartiality of the judging means at least the employment of criteria with direct relevance to features of pies rather than extraneous factors. Should our judge unconsciously favor a contestant who is a friend or one with a sweet smile, or, worse still, one who offers a bribe, there would be a failure of trust between judge and contestants and a censure of the judge if the favoritism were to come to light. In the first two cases this would regard only judicial competence, but in the bribery example the censure would be for an ethical lapse. Failures of expected objectivity can carry ethical overtones because such failures so often have consequences for others. We can see this even in the pie contest, although we will later look at the more serious matter of objectivity in the areas of risk assessment and management.

We have already touched upon two themes of this book's treatment of objectivity: first, that the most important notion

of objectivity for scientists and philosophers to be concerned with is cognitive or epistemic objectivity, and second, that our expectation that people display objectivity and its associated virtues depends a great deal upon social and professional roles we inhabit. But it is time now to turn more specifically to the main arguments of the book, and then to a brief summary of its three parts.

Some philosophers claim that the concept of objectivity has a single unified or "core" meaning. Robert Nozick, in Invariances (2001), for example, tried to distill a unitary essence of objectivity. He held that "invariance under transformations" is the common thread between the different strands of objectiveness that he recognizes. Nozick's understanding of objectivity clearly captures an important aspect of methodology in the hard sciences, the idea "that testing theories by pushing them to their limits under unusual circumstances leads scientists to identify the transformations the theories are invariant under, and thus to formulate theories in their most objective form" (103). He is certainly correct that objectivity is advanced by diverse avenues of study showing the same result. But this characterization of objectivity is drawn primarily from Nozick's familiarity with physics, and appears too domain-specific to serve as the basis for a univocal conception of objectivity.

The approach taken in this book runs counter to Nozick's quest for a unitary sense of objectivity. Our approach will rather be a further development of what Heather Douglas (2004) calls the thesis of the "irreducible complexity" of objectivity, and what Richard Bernstein (2010) calls a "pragmatic pluralist" approach. First, the thesis of the irreducible complexity of objectivity has important implications for the approach that we take. One of the leading approaches to conceptual analysis aims to provide a kind of "complete" definition of a philosophical or scientific term by stating a complete or exception-free set of necessary and sufficient conditions for the application of the concept. But the early twentieth-century proponents of analytic philosophy acknowledged that this goal is achievable only for concepts that have a clear univocal meaning. Vague concepts or those with multiple meanings are not amenable to such a rigorous form of conceptual analysis.

The irreducible complexity thesis tends rather to associate the concept of objectivity with what Ludwig Wittgenstein referred to as a "family-resemblance" concept. This kind of concept is one where there are multiple identifying features. but no single feature on the list may be necessary, and different combinations of features may suffice for identification as the kind of thing in question. Such concepts are best approached by alternative means than standard attempts at conceptual analysis. And, indeed, there are numerous alternatives all of which are exemplified in contemporary treatments of key philosophical concepts. For instance, a philosophical concept might be recognized as primitive rather than as definable in terms of other concepts. A philosophical concept might be articulated and studied by way of a "genealogical" account of its origins and functions. A philosophical concept recognized as an "open concept" is sometimes approached by identifying conditions that cluster around it without being individually necessary or jointly sufficient for its proper application. Or, again, our study of such a concept might profit from the articulation of a "taxonomy" of its several senses.

These are just some of the ways to approach philosophical analysis that do not presuppose the ideal of complete definition. The "taxonomic" approach is indeed what Douglas applies to the concept of objectivity. We need to recognize a spectrum or plurality of modes of objectivity, some but not all of which might serve to provide a useful concept of objectivity in a particular field of study, or with a particular subject matter. Douglas proposes that we "dissect objectivity along operationally distinct modes," and her elaboration of various kinds and modes of objectivity (discussed in later chapters) provides the constructive complement to the essentially negative thesis of the "irreducible complexity" of objectivity. This book will share and build upon this general approach, while also offering some elements of a genealogy of the concept of objectivity.

Along with studying the functions of the concept in various distinct forms of inquiry, scientific and nonscientific, we will take it as our purview to examine the dynamics of long-standing debates over the concept of objectivity, and to try to understand the philosophical motivations and dialectical give-and-take of thinkers involved in these debates. Bernstein's

two books, Beyond Objectivism and Relativism (1983) and The Pragmatic Turn (2010), will be valuable to us in this regard, since he offers a powerful, double-edged critique of objectivism and relativism. But introducing these two new terms will require further background.

Some thinkers believe that science and ethics are both objective: rational inquirers have objective criteria to appeal to in the judgments they make in both areas. Others think that science has an objective basis but that ethical judgments do not: in science we have the facts of the natural world to arbitrate our beliefs and any disagreements over empirical matters we may have, but there are no universally recognized facts or principles to provide an analogously objective basis for our ethical judgments. Indeed, taking this further, many thinkers insist upon a sharp contrast between the objectivity of scientific truth claims and the subjectivity or cultural relativity of judgments of right and wrong action. Yet another common attitude, prevalent especially among postmodernists, is the view that, while there are no grounds for such an asymmetry, neither science nor ethics is as objective as previous thinkers have made them out to be. We should be skeptical about the purported claims of objectivity made by scientists and by ethicists, since the truth claims of the one group no less than the other are conditioned by or perhaps even determined by personal or cultural factors.

When we engage debates that span different domains like this, we are engaged in a comparative project, and some of the things we will most want to compare are the motivations for general, sharply opposed attitudes that we call objectivism and relativism. These opposed viewpoints are complex, but perhaps the easiest way to describe them is that the objectivist holds that our beliefs in a certain area are the result of discovered truths, perhaps together with the reasoning abilities of rational agents, while the relativist holds that we create our own standards and that "truth" and "knowledge" are terms that simply lend honorific status to whatever the individual or the culture, a community, presently values.

"Objectivity" and "objectivism" are not synonyms. Every academic discipline upholds general or domain-specific norms of objectivity. Objectivism is, in Bernstein's view, an overly robust philosophical commitment to the need to ground our beliefs in facts independent of mind (cognitive objectivism) and our ideals of morally right and wrong action in principles that command universal assent (moral objectivism). Its opposite, relativism, is a philosophical commitment to there being no better than local, socially constructed grounds for our claims to truth (cognitive relativism) and/or for norms of morality (moral subjectivism and cultural relativism).

Bernstein and several other contemporary philosophers we will encounter argue that once the impetus toward overly robust conceptions of objectivity (objectivism) is denied, then the impetus toward relativism is undermined. We are left with a weaker but substantially more plausible and sustainable conception of epistemic objectivity. This book develops this argument by showing both how pluralism is distinguished from relativism and how developing the differences between pluralistic and relativistic accounts of knowledge helps to make them the cure for entrenched attitudes of objectivism and relativism. In a nutshell, the pragmatic pluralism that Bernstein describes will help us to articulate substantial middle ground between objectivism and relativism, while that articulation of middle ground in turn helps to expose and undercut the unhealthy demand that one must choose either/ or, between just those two options.

Part I of the book surveys the debate over metaphysical realism, beginning with Immanuel Kant's distinction between things as they exist in themselves (noumena) and things as they appear to us (phenomena). This "gap" between the world in-itself and our perceptions/conceptions of it is also the basis for Thomas Nagel's characterization of objectivity as the view from nowhere. I and other pragmatists such as Bernstein offer a critique and a response to Nagel's metaphysical realist assumptions. As Chapter 1 explores, metaphysical realism of the sort that Nagel and others like Paul Boghossian (2007) espouse is a major source of tension between objectivist and relativist philosophical orientations. Bernstein also locates a major source of tensions between objectivism and relativism in the legacy of early modern thought, and more particularly in what he calls the "Cartesian Anxiety." Chapter 2 addresses the Cartesian Anxiety's impact upon conceptions of objectivity. Descartes's influential demand for certain foundations of knowledge and firm

refutation of skepticism deeply impacts how we conceive the nature and value of objectivity to this day. Bernstein characterizes Cartesian rationalism as exhibiting a doubtful response to the anxiety over the firmity or infirmity of the foundations of human thought and action, and as motivating binary, either/or thinking about objectivism and relativism. The anxiety reflects a desire for absolute foundations for knowledge and ethics, tinged with a worry that disappointment of this desire to secure such foundations means a victory for skepticism and forces of unreason. Thus one legacy of philosophical modernism may be an ill-conceived logic that pushes us to accept one extreme or the other while neglecting possible middle ground in the debate.

Part II of the book primarily surveys what we can call the "Science Wars" of the twentieth century. It examines key concerns about objectivity in the philosophy of science. Part II also further develops the pragmatic pluralist account introduced in Part I by arguing that what constitutes objectivity differs substantially across the physical and social sciences, in historical research, and in philosophical subfields like value theory (including political theory and ethics) and the philosophy of science. What we can call disciplinary objectivity can be shown to differ substantially from one discipline or field of inquiry to another, with disciplinary aims, methods, and theories constantly readjusting to one another. This draws us into questions about similarities and differences between the natural and the human sciences.

As but one example, in some fields expertise is a main signifier of objectivity, while in others trust in numbers tends to displace trust in experts. Expertise and formalized quantitative methods are two faces of objectivity. Faith in numbers and in persons elicit distinct ideas and can sometimes pull us in different directions. In the main, however, empirical science has undergone a significant shift away from expertise and toward standardized methods, or what we can call formal objectivity. Formal (sometimes called mechanical) objectivity is perhaps preferred in the hard or empirical sciences today because it better fits the repeatable character of scientific experimentation. Objectivity here means at least the public character of scientific evidence, the repeatability of tests, and strong scientific standards of experimental design. Techniques

of quantification have become extremely powerful tools in both the natural and social sciences. Perhaps nothing empowers the translation of knowledge from context to context more than formal methods allowing for quantitative expression. This favoring of formal objectivity over knowledgeable experts also reflects attempts to overcome a perceived weakness of practices that leave too much discretion—too much choice and possible idiosyncrasy—to those acknowledged as experts. As one recent author summarizes this shift, "Standardization movements were attempts to eliminate that necessary expertise.... Standardization of tools, metrics, units, and frameworks creates a kind of universality and eliminates subjectivity. There is a sense... in which all histories of the progress of scientific knowledge are histories of formal objectivity."²

To open Part II, Chapter 3 looks at the transition from positivist to post-positivist philosophy of science and how it affects the ideal of scientific objectivity. Positivists held a robustly objectivist account of scientific rationality, alongside a highly skeptical account of ethical judgments. While the strictest sense of scientific objectivity is tied to reportable facts and their determination by repeatable, publicly observational procedures, its more inclusive and philosophically interesting sense includes things like what a sound inference, successful prediction, or suitable form of explanation is considered to be. So asking not just about optimal conditions for the gathering of empirical data, but also about the very aims, methods, and theories of the sciences, is vital to the concern that scientists and philosophers have with understanding norms of scientific objectivity. This invites our closer concern in Chapter 3 with troublesome issues about theory construction and confirmation, about the relationship between science and values, and about the relationship between seemingly impersonal processes and the interpersonal or communal governance of norms.

Chapter 4 focuses on debates over the possibility and value of objectivity in the human sciences and the writing of histories. Importantly for our core argument, this chapter also extends Bernstein's critique of the dynamic between objectivists and relativists. While philosophical motivations to objectivism are critically examined in Part I, Part II ends with a

parallel critique of Richard Rorty's linguistic relativism as a philosophically ill-motivated response to the Cartesian Anxiety. We examine and criticize in particular Rorty's theoretical dichotomies on which are based his much-debated call to dispense with the language of objectivity in favor of an alternative language of "solidarity."

Part III turns attention more directly to objectivity's other keenest critics, and to broader extensions of the concept toward ethics and value theory. The most constructive elements of the argument that this book makes are in Part III, so I present a fuller introduction here. Chapter 5 highlights the work of social and feminist epistemologists over the past several decades. Social epistemologists have asked such questions as the following: "Do we rightly attribute characteristics like objectivity and its associated virtues to groups and collectives, or only to individuals?"3 "Do people tend to make better decisions and reason better in groups? How much epistemic diversity and what kinds of epistemic diversity are needed to maximize deliberative outcomes such as in public policy decisions?" Philosophers of science as diverse as C. S. Peirce, Karl Popper, and Helen Longino all emphasize that scientific objectivity is enabled and enhanced by social mechanisms of belief correction. The individual is vital in science, but strong community norms are also needed that help to control for problems of bias and idiosyncratic judgment. But much of the epistemological tradition, whether due to its own individualist assumptions or because the importance of the social aspects of science are neglected when theory choice is seen as a matter of deductive or inductive logic, has left the social aspects of knowledge seeking as merely peripheral concerns. Rehabilitators of the concept of objectivity who approach the concept through social or feminist epistemology want to show just how epistemically central the acknowledgment of the social character of inquiry should be.

Chapter 5 articulates how social and feminist epistemologies can still be supporters of the value of cognitive objectivity, even if their reconstructions and suggested ways of improving decision-making processes are some of the most challenging to the standard or received view. One obvious reason why feminists have been skeptical of received accounts

of objectivity is the way in which attempts to limit women's opportunities and political equality have historically been facilitated by appeals to objectivity. For example, the nineteenth-century slogan "Anatomy is destiny" is associated with opposition to women suffrage and equal access to education and career paths. The ideology behind it appeals to a purported scientific fact that men and women are adapted by nature to different stations in life. "Anatomy is destiny" reflected the idea that women's "natural place" was in child rearing, and perhaps even in self-sacrifice for the sake of the family, while men's place (alone) was in business and leadership roles. The slogan was aimed at persuading people to reject feminist aspirations to political equality by appealing to the authority of science and an assumption of biological determinism. Together, these presumed objective facts of nature worked to reinforce a traditional division of labor within culture.

The early criticisms of objectivity by feminists were some of the most extreme, sometimes depicting objectivity as nothing but male subjectivity, or nothing but a rhetorical appeal to ethos. Especially with the rise of postmodernism, numerous voices urged us to purge objectivity from our philosophic and scientific vocabulary. But a decisive course change appears to have occurred around 1990 amongst social and feminist epistemologists and philosophers of science. Over the past quarter-century, feminism has been better characterized by efforts to reconstruct the concept while still acknowledging its basic value. This shift in thinking is well captured in Helen Longino's declaration in Science as Social Knowledge (1990) that she and other feminists have "abandoned a negative goal—rejecting the idea of a value-free science—for a positive one-developing an analysis of scientific knowledge that reconciles the objectivity of science with its social and cultural construction."5 On this newer approach, the social character of science as a practice does not necessarily threaten objectivity, as logical positivists who sharply contrast the social and the rational had assumed. Rather, as Longino claims, "the objectivity of science is secured by the social character of inquiry."6

Chapter 6 reconstructs our understanding of appeals to objectivity in relationship to ethical normativity. There is a

general, deep-seated worry about ascribing objectivity to things that are human-centered. It may lead us to claim, with Shakespeare's Hamlet, that "there is nothing either good or bad, but thinking makes it so." Yet neither are judgments of ethical praise and blame determined merely as personal judgments, or descriptive reports of what some broader grouping like a "culture" or "society" identifies as praiseworthy or blameworthy. Ethical subjectivism and relativism are too easy, just as ethical absolutism is. Some philosophers think that the validity of ethical claims is better considered along a spectrum of the particular and the universal than on the traditional but ill-fitting spectrum between the subjective and the objective. Chapter 6 develops a view of ethical normativity as having "second-personal" authority. It also argues that unless we are in the grip of certain doubtful pictures of what the objectivity and universality of values must be, ethical objectivity and universality remain useful concepts.