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Part III. Critical Reconstructions of Objectivity

5 Objectivity Rehabilitated

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5.1 Knowledge and Community

In Part II we primarily studied the key philosophical concept of objectivity through its applications in methodologically divergent fields like those of the natural and behavioral sciences, and. In Part III we will take a different approach and primarily study different defenses, critiques, and reconstructions of the concept. Chapters 5 and 6 engage thinkers and schools of thought that sometimes reject the value of the concept itself, as well as those that criticize specific conceptions of objectivity but that still accept the value of the concept of objectivity. Chapter 5 looks mostly at feminist and social epistemology. Some feminist and social epistemologists we will engage in this chapter believe that a critique of the prevailing notion of objectivity and development of a new and more satisfactory understanding of objectivity actually ‘runs to the heart’ of their own research. Chapter 6 deals with debate over how to understand

ethical norms and values. We will especially be engaged with Richard Rorty's post-modernist critique of ethical universality and objectivity, including especially what he calls the liberal ironist alternative.

Knowledge and Community

Social and feminist epistemology has been strongly overlapping movements in recent philosophy. Feminists have been suspicious that appeals to objectivity mask scientific ideology and an androcentric conception of reason. Although there has been outright rejection of the value of objectivity in some forms of postmodernism and feminist standpoint epistemology, it is not helpful to approach feminist, historicist, and postmodern social constructionist, etc. provocateurs of our debate over objectivity as enemies of reason. Indeed, Rosenberg describes the dialectical position of critics of scientific objectivity as "largely defensive; their aim was to protect areas of intellectual life from the hegemony of natural science. To do so, they need only challenge its pretensions to exclusivity as a 'way of knowing'" (2011, 276).

If this is correct, then many of the critics are primarily concerned to debunk what we have called scientism with its unified conception of scientific method and its hierarchicalized conception of the sciences as sources of knowledge. It seems quite possible to reject scientism without rejecting either the possibility or value of objectivity *per se*. This rejection of scientism does not excuse from criticism appeals to objectivity that do not presuppose it. There are still many ways that such appeals may mask partiality and unexamined assumptions. But it begins to explain why many feminist studies of objectivity, especially in recent decades, are much better described as reconstructions or rehabilitations than as attempts to undercut the value of the concept. Feminism, too, has evolved and matured; despite differences between groups like

feminist empiricists, naturalists, and post-modernists, none simply jumps to the other side of an objectivity/subjectivity dualism.

Social epistemologists and sociologists of science often endorse a broadly Peircean or Mertonian view that presents the social aspect of science, and the norms guiding scientific activity, as a corrective to the free reign of personal idiosyncrasies and biases. Kuhn also affirmed the scientific community as an enabler of objectivity, and feminist theory has developed it much further. But this did not, as detailed earlier, stop objectivists from viewing social approaches to objectivity as a threat to the rationality and objectivity of science. Sometimes the objections have been legitimate, but at other times the critics were making doubtful assumptions of their own. Assumption of a dichotomy between the rational and the social goes at least as far back as Mannheim, who defined the scope of sociology of knowledge as beliefs for which no compelling epistemic rationale exists. On this view, any rational episode of scientific change or theory-adoption can be explained by appeal to exclusively epistemic values, and this makes sociological factors explanatorily irrelevant.

It was this view based on a dichotomy of the rational and the social that we found was presupposed in the logicist conception of objectivity examined in Chapter 3. For logicists like Reichenbach, as Laudan points out, “the freight that the term *rational* carries in that phrase was purely epistemic...rational reconstructions were purely and simply epistemic reconstructions” (2004, 15). Social and feminist epistemologies avoid this narrowness by framing the relevant contrast as that between social (including ethical and political) and cognitive values. Epistemic values do not need to be narrowed further to algorithmic rules of inference from data or a particular, stringent conception of evidence. But what distinctions between kinds of value can be drawn, and how to understand their impact on scientific reasoning and science and technology

policy decisions, are questions much debated among social epistemologists. They are also some of Helen Longino's foremost philosophical concerns. Longino tries to explain how critical discussions of the goals and standards of scientific inquiry are possible and desirable. Through "effective critical interactions" we "transform the subjective into the objective, *not by canonizing one subjectivity over others*, but by assuring that what is ratified as knowledge has survived criticism from *multiple points of view*" (emphasis mine; 2001, 129). Scientific reasoning is objective when and only when it is practiced within a scientific community in which:

- There exist shared standards that critics can invoke, and public forums for criticism;
- Theories are responsive to criticism of evidence, methods, assumptions, and reasoning;
- The community as a whole is responsive to such criticism; and
- There is a basic equality of intellectual authority among qualified scientific inquirers.¹

Longino "understands the cognitive processes of scientific inquiry not as opposed to the social but as themselves social" (1993, 260). Her reconstruction of objectivity begins with science as a social practice. She wants us to socialize our understanding of human cognition, and to see knowledge as the product not primarily of individuals, but of communities. Contemporary feminists seek to redefine objectivity in line with their own insights on individual and collective rationality. In a statement on feminist epistemology for the 25th Anniversary of *Hypatia*, Longino writes that "feminist philosophers still place a high value on knowledge. We contest, we retheorize, we reshape, but we do this because we accept the value placed on knowledge in our

¹ Longino (2002), 129.

cultural and philosophical tradition. Knowledge is important, and hence we want to reclaim it”.² Her feminist empiricism seeks an account of scientific inquiry “that allows feminists to claim both that scientific inquiry is value laden or ideological and that it produces knowledge.” Our expectation that individuals display objectivity and its associated virtues arises only in certain contexts, and depends a good deal upon what social and professional roles we inhabit. Similar questions can be asked regarding groups and collectives, which traditional epistemology, with its focus on individuals, somewhat neglects.³

Feminists object to “the epistemology for idealized subjects that characterizes much normative thinking” in philosophy. Social and feminist epistemologies reject the traditional, individualistic conception of the self that is supposed to be the subject of knowledge. They instead embrace a relational or social conception of the self. Secondly, Longino criticizes as well the dichotomous understanding of cognitive and social values presupposed on both sides of the debate between objectivists and constructivists. “Cognitive rationality and sociality are dichotomized when they are treated as definitionally excluding one another.”⁴ Both of these assumptions she thinks functioned to polarize discussion of objectivity early in the post-positivist

² Longino (2010), 739.

³ Social epistemology includes study of groups and collectives. While this focus on group behavior and processes contrasts with the individualistic assumptions of much analytic epistemology it is conducted without presupposing either the metaphysically spooky notion of a group mind, or the claim that an evaluation of a collective, such as an institution, simply reduces to the evaluation of the separate individuals who comprise that collective.

⁴ Longino (2002), Introduction.

era of science studies. In *The Fate of Knowledge* (2002) she argues that rejecting them should not lead to jettisoning the ideal of objectivity. Rather it leads to connecting objectivity with concerns about intellectual (and perhaps moral) agency and responsibility. The achievement of objectivity is partly a consequence of that inquiry's being a social and not an individual enterprise. Social or community interactions are enablers of objectivity, rather than something relevant only when science goes amiss. Scientific inquiry occurs in a social context and scientists are social actors whose interests drive their scientific work.

Longino urges us to step aside from “global accusations” about science and objectivity that characterized the science wars in the 1970s through the 1990's, and to instead bring feminist critique into closer contact with science as a practice. “One of the hallmarks of scientific knowledge is said to be its objectivity. This is a notion that has come in for a great deal of criticism. Arguments offered under the banner of feminism have contended both that scientific inquiry is not as objective as it purports to be and that objectivity is a mistaken ideal reflecting masculinist preoccupations. In these polemics, objectivity itself remains insufficiently examined, a closed box hurled back and forth between rhetorical contestants.”⁵

What Longino (1992) describes as the fundamental insight of feminist philosophy of science is “that ideological and value issues are interwoven with empirical ones in scientific inquiry. What is important is not that they be banished, but that we have (1) analytic tools that enable us to identify them, and (2) community practices that can (in the long run) regulate their role in the development of knowledge” (270).

We will return to Longino's reconstruction of objectivity after first discussing one further overlap between social and feminist epistemologists. Feminist and social epistemologies have

⁵ Longino (1992), 202.

been especially concerned with the reception of testimony, and with issues of trust, credibility, and dependence upon others for most of what we think we know. The individualist orientation of analytic epistemology values epistemic self-reliance or autonomy: direct knowledge is best; dependence on the testimony and the trustworthiness of others is of lesser value. Social epistemology redresses the traditional bias toward independently acquired versus dependently acquired knowledge. If knowing is taken more as a collective enterprise then our epistemic dependence upon others is significantly greater. To the extent that knowledge relies on testimony and trust, not only truth-seeking, but also ignorance can play a positive role.⁶

But the social atmosphere in which we judge speakers' credibility may be one in which residual prejudices impact how we go about identifying good and poor informants. So to the extent that we find the community of inquirers basic to our ways of knowing, concerns about proper or improper grounds of trust, and about epistemic justice and injustice will be important as well. In her book *Epistemic Injustice: Power and the Ethics of Knowing*, Miranda Fricker examines the kinds of injustice that occur when a wrong is done to someone specifically *in their capacity as a knower*. Failures of objectivity that result in epistemic injustice are not always or only epistemic failures, but ethical ones as well. So social and feminist epistemologists like Fricker describe a quite entangled view of the relationships between cognitive and ethical evaluation of claims and sources of claims. Fricker distinguishes two kinds of epistemic injustice, testimonial and hermeneutical; each can be considered a failure of objectivity in a different direction. "An example of the first might be that the police do not believe you because you are black; an example of the second might be that you suffer sexual harassment in a culture that still lacks that critical concept" (2007, 1). In cases of testimonial injustice a person is

⁶ See especially Townley (2011).

wronged in their capacity as a source or provider of knowledge. For example, prejudice causes a hearer to give a deflated level of credibility to a speaker's word. Hermeneutical injustice occurs when someone is wronged in their capacity as a subject of social understanding. For example, someone or some group is placed at an unfair disadvantage when it comes to interpreting their social experiences.

Social injustices and disadvantages typically produce epistemic injustices and disadvantages of these sorts. An especially vivid historical example might be the use of a term of mental illness, drapetomania, by some white slave-owners to describe the motivations that lead some slaves to attempt escape. While describing this desire as pathological was mocked even in its own time, other forms of hermeneutical injustice work more subtly to prevent recognition of the capabilities, interests, and experiences of persons or groups who diverge from cultural norms. Historically, women in the United States prior to the suffrage movement were not only unable to vote or run for office, they generally were not allowed to enter contracts, to sue or regularly to testify in court. This speaks to a cultural and legal inequality of women *as epistemic agents*, that is, as trustworthy sources or conveyers of knowledge.

We can see from Fricker's work how both feminism and social epistemology put issues of proper trust at the center of the theory of knowledge, and how feminist epistemology can be both analytical and yet performed in the service of quite explicit "transformative" projects. "Risk aware social epistemology" demands awareness of how social power operates in epistemic situations; it demands awareness of concrete risks of error generated by roles and social situations. It may prescribe "a healthy skepticism as a persistent backdrop against which trusting occurs" (ix). It may insist that acknowledgment of a *prima facie* equality of intellectual authority blind to sex, gender, age, dis/abilities, race, ethnicity, or other social divisions. Fricker's *prima*

facie duty connects with Longino's social account of objectivity, an account that "invalidates consensus that is achieved by means other than free and open critical discourse."⁷

Many of these concerns with epistemic justice and injustice are shared by political philosophers in discussions of political process, and political legitimacy. Feminist theory has built especially strong connections with deliberative democratic theory, since the intersections between gender and power differentials are important to both. Allen Buchanan for instance for example agrees with Fricker that the ways we socially identify authorities and attribute credibility "can either exacerbate or diminish the moral and prudential risks of socially inculcated false beliefs." The "systemic" nature of falsehoods or cognitive distortions underlying power differentials makes them all the more difficult to recognize and combat, even if one is inclined towards serious self-examination:

A person brought up in a racist society typically not only absorbs an interwoven set of false beliefs about the natural characteristics of blacks (or Jews, and so on), but also learns epistemic vices that make it hard for him to come to see the falsity of these beliefs... Along with substantive false beliefs, the racist (like the anti-Semite and the sexist) learns strategies for overcoming cognitive dissonance and for retaining those false beliefs in the face of disconfirming evidence.⁸

Supporters of deliberative democracy, including many feminist and social epistemologists, argue that inclusion of a diversity of perspectives typically improves deliberative procedures and

⁷ Longino (2002), 55.

⁸ Buchanan (2004), 97-98.

increase the soundness of results. How we can do better at inquiry is a topic not just for knowledge-producing practices like sciences, but for collective decision-making in political life. For John Dewey, a multiplicity of perspectives distinguishes a "public" from "mass" opinion. From an ethical perspective, inclusive and fair procedures are what best underwrites democratic *legitimacy*. Deliberative virtues strongly overlap with epistemic ones, since the good deliberator is first and foremost a good inquirer. But epistemic arguments for preferring deliberative democratic institutions and procedures require empirical support. What differences are there in trying to promote objectivity through the inclusion of all perspectives, and inclusion of all opinions or all stakeholder groups?

5.2 Difference Feminism and Standpoint Epistemology

When Longino and other feminists criticize “the epistemology of idealized subjects that characterizes much normative thinking,” they are taking issue with a kind of methodological individualism, but also with the gender-neutral conception of the ego associated with thinkers like Descartes and Kant. It is interesting that female contemporaries of Descartes like Mary Astell and Damaris Lady Masham actually appealed to a gender-neutral notion of the self to argue for greater educational opportunities for women. Referring to human traits rather than distinctly male or female traits seems to open the door for arguing, as first wave *equality feminists* like Mary Wollstonecraft did, that we should jettison the separate virtues/separate spheres ideology and instead argue that different aptitudes between the sexes simply cannot be measured when men and women receive educations with very different aims and limitations.

Perhaps beginning with Carol Gilligan’s critique of what she saw as masculinist bias in Lawrence Kohlberg’s account of the stages of “human” moral development, many feminists

began embracing the view that men and women have distinct cognitive and ethical styles, in large part a consequence of embodied subjectivity. The emergence of *difference feminism* enabled critiques of what were seen as masculinist accounts of disciplinary objectivity, and sometimes the very concept of objectivity was described as androcentric. Both religion and science have conspired to subordinate women, or to place them safely upon a pedestal (and apart from seats of power).

Gender-neutral strains of feminism are well-suited to counter religious conservatism about women's place, as well as pseudo-scientific versions of sexual dimorphism describing women as the repository of emotions and non-rational characteristics. Difference feminism often picks different but equally important tasks of unmasking. It invites a fuller understanding of the embodied self than the Cartesian or Kantian views allowed for. It seemed to many also to promise a more powerful and sweeping critique of masculinist bias in philosophy, and in philosophy of science in particular. One might say that for the difference feminist, Aristotle or Kant defined reason in their own male image, enabling others to deny women full rationality. A gender-neutral view of the aims of education may mask that what is taken as normal for human beings tacitly draws from male or masculinist traits and characteristics. So some have argued that an assumption of gender neutrality can actually be a path to sexism.

But approaches, we are saying, have been made over the years by feminists of different orientation. For the difference feminist it seems more sensible to undercut in this way the merit of the very standards of rationality and objectivity, than to accept the standards and to argue as equality feminists like Wollstonecraft, J.S. Mill and Harriet Taylor did that, given equal education, women live up to the measure as well as men do. One exemplary work of difference feminism applied to science studies is Julie A. Hankinson Nelson's *Feminism, Objectivity and*

Economics (1996). She tries to show that Anglo-American economic theory is built around distinctly masculine-based notions of what is valuable. The model of *Homo economicus* and its calculus of economic good has been the unquestioned core of the traditional approach to economics, while the study of families and alternative models like *Homo reciprocans* is marginalized from the realm of economics. One upshot is that domestic labor goes uncoun­ted in economic statistics. Feminist critique and analysis, in such a situation, rather than making economics less objective, actually “pushes it to be more objective by freeing it from one-sided, male-centered assumptions.” Nelson believes that by implicitly framing objectivity and rationality according to masculine-associated traits and experiences, “a concern for objectivity has been allowed to degenerate into a rigid objectivism, and a concern for reliable explanations of human behavior has been allowed to collapse into a dogmatic focus on constrained maximization” (1996,150).

In Nelson’s feminist science studies a feigned neutrality or value-freedom is contrasted with recognition of epistemic perspective or location.⁹ This point also relates to the ways that she, Sandra Harding and other difference feminists have tried to reconstruct the concept of objectivity by distinguishing between “strong” and “weak” senses. Hankinson Nelson calls the received, detachment-based notion of objectivity “weak objectivity,” because whether intentionally or not it excuses the social community of science from criticism. A strong sense of objectivity, by contrast, is one that takes the location of the knower into account and identifies rationality and

⁹ The economist and philosopher Amartya Sen uses “positional objectivity” to describe “an objective inquiry in which the observational position is specified (rather than being treated as an unspecified intrusion—a scientific nuisance).” Sen from Nelson (1996), 42.

objectivity with openness to criticism. “Strong Objectivity, or objectivity that does not degenerate into ‘objectivism,’ is based not on an illusion of detachment, but rather on a recognition of one’s own various attachments and on the partiality this location lends to one’s views” (48).

Critics of difference feminism, however, object that the work such a purely formal distinction can do is quite limited. Granting that explicitly acknowledged perspectives can still be sexist or highly biased in other ways, a strong/weak distinction does not mitigate the need to distinguish qualitatively the differences between more and less biased views. Feminist standpoint epistemology even has critics among women philosophers. Along with radical historicists and some sociologists of science, it is numbered among those Susan Haack (1998) refers to as “the new cynics.” Each in its own way she thinks treats scientific theory-choice in terms of “acceptance” rather than “warrant.” A self-described ‘passionate moderate,’ Haack understands the turn away from epistemic normativity and to decision or acceptance as reflecting misguided assumptions of the “epistemological counterculturalism” that grew out of science studies in the 1970’s. This counterculturalism tends to be dismissive of the value of the concept of objectivity, but Haack argues that it “rests on misconceptions about knowledge, society, power, and objectivity. These are, most importantly: first, that standards of goodness, justified belief, bona fide knowledge, etc., are culture or community bound; and second, that inquiry is inevitably political.”¹⁰

¹⁰ Haack (1998), 142.

We can pick up these criticisms in the next chapter, dealing with post-modernism. How difference feminism informs a strong version of standpoint epistemology,¹¹ and what effect this might have on the viability of the concept of objectivity is not something we need to pursue further here. But the point here is that a turn from feminists as an ‘opponents’ of scientific objectivity to positive, reconstructive accounts of it has mirrored to some extent a rethinking of standpoint epistemology as first formulated. This need to qualify standpoint epistemology stems from acknowledgement of practical and theoretical problems with the way it was originally formulated. Speaking to the practical problems of strong standpoint epistemology, Marianne Janack points out that, “Criticisms of objectivity that invoke masculine cognitive style and experience, or which appeal to accounts of identity formation that emphasize gender differentiation undermine the egalitarian grounds that seem to be essential to countering claims that women are less responsible epistemic agents than are men” (2002, 272). If to validate feminist epistemology one must assume that women have a unique style of reasoning, then this arguably leaves women in position of trying to say what the alternative to reason and objectivity is. Theoretically, standpoint epistemology tends towards the view that “*There is no neutrality.*

¹¹ We should not make the connection too strong. Anderson for example is “against the idea of a distinctive feminist method of research” and finds that “far from advocating or practicing a monolithic feminine or feminist methodology, contemporary feminist research is strongly pluralist, in both theory and practice.” Yet this does not lead her to give up all aspects of standpoint epistemology. On the contrary, she thinks that “The central concept of feminist epistemology is that of a situated knower, and hence of situated knowledge.” Anderson, from <http://www-personal.umich.edu/~eandersn/hownotreview.html>

There is only greater or lesser awareness of one's bias."¹² But some feminists have warned that the danger of this claim, like those of strong historicism or social constructionism, is that it pushes towards a relativistic embrace of 'multiple and incompatible knowledge positions'.¹³ Some writers have even formulated these theoretical problems as dilemmas for strong standpoint epistemology. One such dilemma is posed by the editors of *A Mind of One's Own: Feminist Readings on Reason and Objectivity*:

Wouldn't the abandonment of reason and objectivity be self-defeating for feminists? Wouldn't we be giving up on the possibility of persuading others of the correctness of our views? If we were to dismantle the traditional ideals of rational discourse and impartiality, wouldn't we be depriving ourselves of the very norms necessary to ground our own critiques? And if we dissociated feminist thought from these capacities and values claimed by men, wouldn't we be embracing and reinforcing—rather than challenging—the invidious stereotypes and femininity that are especially destructive for a woman who would be a philosopher?¹⁴

¹² Phyllis Rose (1985).

¹³ Longino (1993), 107.

¹⁴ Anthony and Witt (1993), xiv). See also Lloyd (1995). There are some women philosophers like Martha Nussbaum who think women's interests would be better served by a focus on ways in which women and men are alike rather than different, and by avoiding terms like feminist epistemology and feminist philosophy of science. Nussbaum argues that the international women's movement advocates for universal rights for women to education, and that to do so self-consistently requires a more universalist

Another version of this objection is the Bias Paradox, which draws attention to tensions between standpoint epistemology and emancipationist projects. Feminist standpoint epistemology is charged with making two inconsistent claims: “The *situated knowledge thesis* claims that all scientific knowledge is socially situated...[whereas] *the thesis of epistemic privilege* claims that unprivileged social positions are likely to generate perspectives that are ‘less partial and less distorted’ than perspectives generated by other social positions....”¹⁵ So whereas the second thesis appeals to impartiality as enabling one to judge some perspectives as better than others, the situated knowledge thesis undermines this assumption to the extent that it suggests that all knowledge is partial.

There are still substantially different ways that these issues are handled by feminists. So we should not overstate the “rethinking” of standpoint that has gone on in feminist philosophy in recent years, even though it is clearly part of the ‘sea-change’ that Longino set off among feminists to rehabilitate the concept of objectivity rather than reject its philosophic and practical value. Intemann (2010) points out that current versions of feminist empiricism and standpoint feminism have moved closer together, but that key differences remain:

account of social justice and a teleological (or eudaemonist) approach of human flourishing or well-being. So she contrasts the standpoint view with her “capabilities” account which appeals to central human capabilities (substantial freedoms, like access to education or to political activities) that are often denied to marginalized groups including women.

¹⁵ Rolin (2006).

Specifically, they make competing claims about what is required for increasing scientific objectivity. They disagree about 1) the kind of diversity within scientific communities that is epistemically beneficial and 2) the role that ethical and political values can play.

We will look further at these issues below. But the idea of a person's "epistemic location," or "rhetorical space" seems basic to feminist epistemology, and is shared in moderation even by many who deny that there is any distinctive female cognitive style or distinctive feminist method of research. Standpoint remains a resource for evaluating power relationships and for justifying broad inclusion in democratic procedures.¹⁶

5.3 Problematic Conceptions of Objectivity

What specific senses or conceptions of objectivity do contemporary feminists want to debunk? Generally, the problematic conceptions of objectivity are said to be those "that generate *partial* accounts of the world, which they misrepresent as complete and universal. ...By representing partial perspectives as aperspectival and externally guided, these problematic conceptions of objectivity induce systematic mistakes on the part of those who embrace these conceptions." To confuse a partial perspective with one that is neutral or presuppositionless is to make a *projective error*: it is to mistake qualities of the knower (or relations of the knower to their object) for intrinsic qualities of the object of study. Much as the systematic character of strong biases makes

¹⁶ While there are clearly problems with strong versions of standpoint epistemology, this is true also of strong versions of historicism and social constructivism, which are nevertheless compatible in more moderate doses with support of the possibility and value of objectivity.

them all the more difficulty to recognize and rout out, projective errors can also be invisible to those that make them, and so they can remain entrenched in scientific practice.

Criticism also falls on a number of more specific conceptions or associations of objectivity. Elizabeth Anderson like many feminists takes a stance in opposition to scientific realism, doubting the kind of external guidance that is supposed to flow from identifying objective knowledge with knowledge of the way things really are independent of the knower. But given her recognition of differences among feminist philosophers, we need not pursue this point. She does however highlight three additional conceptions of objectivity often considered especially problematic by feminists:

- *Aperspectivity*: objective knowledge is ascertained through “the view from nowhere,” a view that transcends or abstracts from all particular locations;
- *Detachment*: knowers have an objective stance toward what is known when they are emotionally detached from it;
- *Value-neutrality*: knowers have an objective stance toward what is known when they adopt an evaluatively neutral attitude toward it.¹⁷

One of the conceptions of objectivity most criticized by feminists is the *view from nowhere*. While recognizing human limitations, Thomas Nagle maintained that we should strive to detach ourselves from any particular perspective and overcome the basic divide between

¹⁷ Anderson (2011) Italics and bullet-points added. See especially section 7, “Feminist Critiques and Conceptions of Objectivity.”

subject and object. Feminists have emphasized evidence as often multiply interpretable, and perspectives as the source of reasons and evidence. This leaves the view from nowhere as a “position of no position or of a subject not only disinterested but disembodied.”¹⁸ Objectivity as value-neutrality is typically justified as a psychological stance needed to guard against such ills as wishful thinking and politically motivated or ideological reasoning. But “Feminists argue, on the basis of historical and sociological investigations of the history and current practice of science, that this insistence on the value-neutrality of scientists is self-deceptive and unrealistic.”¹⁹

According to *detachment*, scientists should adopt an emotionally distanced, controlling stance toward their objects of study. Feminists sometimes present this as an androcentric perspective or anyway try to highlight the epistemic defects of emotional distance. They stress the epistemic fruitfulness of emotional engagement with the object of study. We can block the effects of wishful thinking and political dogmatism on science without requiring scientists to bracket their value judgments. Nelson identifies and then criticizes all the specific senses of detachment she finds operating in the current default understanding of objectivity: “detachment from social influences, detachment from the subject of study, detachment from fellow researchers, detachments from practical or immediate concerns, and detachment from partisan ties.” Anderson argues that it blocks recognition and acknowledgment of the way their values have shaped their inquiry, and insulates those values from critical scrutiny. Detachment may be criticized even when a weaker notion, impartiality, is affirmed as a requirement of scientific

¹⁸ Ibid.

¹⁹ Ibid.

objectivity. The impartiality of science is sometimes thought to demand that acceptance of a theory be based exclusively on cognitive values, or more restrictively on the direct evidence supporting the theory, and the lack of evidence against it. This requirement of distinguishing cognitive from social values and basing theory-choice only on the former is compatible with the historicist claim that the particular cognitive values and standards of evidence recognized in science have shifted over time. Few today would doubt that cognitive values are influenced by cultural value complexes. But to the extent that one thinks culture not only influences but *determines* what standards of justification and evidence are adopted—the thesis of *radical* historicism—there will be no grounds for distinguishing cognitive from social values, and so even impartiality is rejected. This radical historicist view is not widely endorsed in feminist science studies, however.

Proponents of value-neutrality and still stronger, value-free views are more likely to hold that scientists, even in public policy-related contexts should endorse only cognitive and not social or personal values related to their research. This traditional view holds that both science and policy benefit from a clear boundary: science is insulated from potentially corrupting political influences, and policy-makers can trust the objectivity of what is presented as science while keeping political responsibility for the policy decision in the hands of the elected or appointed officials charged with that task. So to properly fulfill its advisory role, science should remain insulated from the ethical, social, and political considerations that we know pervade policymaking. So for example Ted Goertzel (2011) argues that “We social scientists have forfeited much of our potential influence because we are too often perceived as advocates for a cause rather than as objective researchers.”

Critics of this value-neutral or value-free view respond that the boundary between science and policy is both harder to maintain and anyway less desirable than is often supposed. On neither side of this division is it a matter of experts armed with rigorously derived evidence, responsible only to the facts. The supposedly clear separation between “risk assessment” and “risk management” is a special target of criticism. While risk assessment is presented as a technically-base, scientific assessment of relative risks, and all contentious political wrangling about acceptable or unacceptable risks are supposed to be contained in the risk management part of the process, critics argue that this is far from being the case. The tidy distinction conceals that values that should be on the table for debate are already presupposed in risk assessment.²⁰ Even activist motivations can contribute to objectivity and give rise to good science.

An overlapping issue is the status of “feminist science”: science explicitly informed by feminist values. An association of “feminist economists,” for example, might seem a threat to the objectivity of economics, but if it serves to critique a long-standing bias in methodology, and to point out and counter value-judgments at work in traditional approaches in economics, then it need not sound oxymoronic. Sharon Crasnow (2006) acknowledges that, “To do research as an activist is to adopt an explicitly value-laden methodology, and so to challenge the norms of impartiality, neutrality, and autonomy.” Yet she goes on to argue for “an alternative account of objectivity that would not automatically rule out such value-laden research as good science.”²¹

²⁰ Douglas (2009).

²¹ S. Crasnow (2006), 2.

This discussion shows that concern over the place of values—pragmatic, ethical, and cognitive—in inquiry is central to social and feminist epistemology. Criticism of impartiality, detachment and value-neutrality conceptions of objectivity attend a broader debate over science and values. Can science be value-laden, yet retain its integrity as a source of reliable knowledge? Through their reconstructions of objectivity, some feminists argue that it can. But this leads back to the problem of the underdetermination of theory by empirical evidence.

5.4 Underdetermination Revisited: Entanglers and Disentanglers

Feminist studies include, in addition to research on power differentials based on sex, gender, and other social divisions, research on processes of continuity and change in culture, politics, and science and technology. In Chapter 3's discussion of scientific change we saw that inferences from data to theory are neither deductive nor inductive; they often rely on a more holistic understanding of one's evidence-base and are abductive, or ampliative. Situations of local underdetermination, where multiple theories compete in some area of science, heighten the need for more holistic evaluation of evidence and of the scientific merits of the competing theories. This is the reason why not only strictly epistemic but also more broadly cognitive values are recognized as criteria for theory-choice. There is a greater need in such situations to turn from strictly epistemic to more broadly cognitive criteria for theory-choice: theory virtues and standards of inference to the best explanation. Scientific practitioners in fields of natural or social science either temporarily or chronically beset by underdetermination worries need to closely monitor the equilibrium between scientific aims, methods, and theories.

But what about social (ethical and practical), in contrast to cognitive values? Do they play a role as well? Both the view of science as a social practice and examination of the problem

of the underdetermination of scientific theories and hypotheses by the data they account for have been held to show that scientific reasoning and judgment draws upon non-epistemic interests and values. One can argue about whether this is true of good as opposed to junk science, and many feminists today argue that it is true of good science, as we will see. But the initial problem concerns what to make of the logical “gap” between a set of data and a theory. Acknowledgment of the gap suggests that potentially much else besides empirical evidence and inferential rules is involved, and so has been a focal point for discussion of science and values.

Underdetermination issues have been taken to pose a threat to the fundamental rationality of the scientific enterprise. Here are two examples of ways to state the problem that illustrate how easy it is for reactionary objectivism and boomerang relativism to clash once the rational/social dichotomy has taken hold:

- If “non-logical” and “extra-empirical” considerations must play a role in theory choice, then it is only a small step to the conclusion that “adoption of such criteria, that can be seen to be different for different groups and at different periods, should be explicable by social rather than logical factors.”²²

²² Hesse (1980); see also Stanford (2013).

- “If underdetermination undermines even empirical adequacy’s ability to put a definitive, uninterested, end to disputes, are we not faced with either anarchy or the role of the powerful – the tyranny of the majority?”²³

Put these ways, it is easy to see how ideology or community consensus would be thought ultimately to decide what objective truth is. Exposing false shared assumptions that motivate ideological extremes --- or better still, show such extremes as equally ill motivated – can be a powerful tool to philosophical reconstruction. The one side in the debate appears as committed to a dichotomy of the rational and the social as do the objectivists they so completely reject. Objectivists and relativists divide, but apparently not before agreeing upon rules that eventually lead polarization, to reactionary objectivism and boomerang relativism. It is a shared assumption among objectivists and radical historicists that “non-logical” and “extra-empirical” factors would be an intrusion that constitutes an objection to the rationality of science. Historicists, sociologists, and radical interpreters of Kuhn's theory have sometimes capitalized on this assumption to claim that underdetermination of theory by data means that theory choice is either non-rational, or only rational relative to some psychological, social, political or other perspective. Proponents of the sociology of scientific knowledge (SSK) movement along with some feminist science studies argue that sociopolitical interests and/or power relations play a crucial and even decisive role in fixing scientific beliefs.

Anderson writes that while the underdetermination problem “has served feminist scientists well” by exposing value-laden science, “the time has come to rethink the way it models the relations between values and hypotheses.”²⁴ Better feminist reconstructions of objectivity

²³ Longino (1997), 54.

²⁴ Anderson (2004), 2.

require a better understanding and response to the underdetermination problem. The value-free conception of objectivity is made attractive by the flawed idea that values are not objective, but that science is. Robert Nozick rejects the value-free conception of objectivity, by exposing its further commitment to what he calls the *Contamination Thesis*: When something that is not objective is introduced into a subject or plays a role there, it makes the subject nonobjective and separates it from epistemic norms and the production of knowledge (2001, 95). The Contamination Thesis is shown wrong if, as Nozick argues, “we cannot determine that a factor is biasing without knowing the role it plays in an overall process” (117). The objectivist notion of contamination shares with its boomerang counterpart the notion that whether a factor is biasing is determined simply by the “kind” a factor, it is, a value judgment or a bit of empirical evidence. But Nozick argues that this account is naïve and we need to take a broader look at the different legitimate roles that social and epistemic values play in the process and products of inquiry: “Whether a factor is biasing... is not an intrinsic quality of that factor. It depends upon the nature of the overall system within which that factor operates.”

It would strengthen our diagnosis of the shared assumptions of objectivism and relativism if we can show that boomerang relativism presupposes the Contamination Thesis that Nozick identifies and rejects. Haack perhaps shows us this when she pinpoints the interpretation of the underdetermination problem employed by the ‘new cynics’: an interpretation on which it is social values that determine theory-choice and policy endorsements. She calls it a “tie-breaker interpretation” of the lessons of the underdetermination problem. The best explanation of what leads a scientists to any new consensus after a period of contestation between competing theories is whatever “breaks the tie.” It is easy to see how the tie-breaker interpretation motivates what we called ‘boomerang relativism,’ so how should feminists are just their understanding of the

underdetermination problem to better serve feminist reconstructions of objectivity? Kristen Intemann like Haack argues that the tiebreaker interpretation or “bucket model” conflicts with the feminist aspiration to rehabilitate the concept of objectivity. “If contextual values only properly enter into decisions about theory acceptance after all scientific considerations have been exhausted, then it is difficult to make the case that feminist values could contribute towards our scientific or epistemic endeavors.” Kristen Intemann comments that “The tie-breaker interpretation invites this criticism by framing political commitments as independent from our cognitive or scientific goals. They come into play only when epistemic or cognitive considerations have run out.”²⁵

Intemann and Haack both charge that there is an apparent conflation in the tie-breaker interpretation, encouraged by radical meaning holism, between recognizing the underdetermination problem as showing us that social or non-epistemic factors *can* be what leads to a new scientific consensus, and asserting the ‘tie-breaker’ thesis that they *must* be. The evidence which competing theories account for is common to them, and cannot decide. This notion we have seen as encouraged by strong meaning holism.²⁶ But something decides, so it can only be non-epistemic factors. What fills the “gap” that logic leaves, and brings resolution to scientific debates, is explicable by social *rather than* empirical evidence or cognitively good

²⁵ K. Intemann (2005), 1007.

²⁶ If one starts with contrastive underdetermination, the claim associated with Quine that for any body of evidence confirming a theory, there are or could be *other theories* also well confirmed by that very same body of evidence, then, the reasoning goes, there is nothing but non-epistemic reasons that could lead one to support this one and not these others. It is easy to draw radical conclusions about the limited reach of evidence and about the rationality in science.

reasons. This is a distorted way of thinking about scientific change that confuses the presence of any non-logical aspects of scientific reasoning with determination of judgments by just those non-logical factors. The importance of evidence has almost evaporated just by the fact that scientific reasoning isn't just formal deduction or induction over a given body of empirical fact. So again it looks like the Tie-breaker Model does indeed presuppose what Nozick calls the Contamination Thesis.

These considerations are important for understanding Longino's reconstruction of objectivity, and for what others like Anderson, Intemann and Grasswick have recently added to the discussion. Those who find the tie-breaker interpretation mistaken will therefore also doubt what we will call the *Dichotomy Model* of the relationship between cognitive and social values, which we have already seen that Longino has argued that feminist and social epistemology should deconstruct rather than accept. With her call for moving philosophy of science beyond the rational/social dichotomy, Longino clearly wants us to avoid the model of complete, exhaustive divide, and watch of these authors take this as a crucial step in the reconstruction. This would mean rejecting the positivists' explanatory dualism that implied that sociological factors are 'redundant' in episodes of rational theory change, and so can be safely ignored. It would also mean rejecting the radical explanatory monism of the "strong programme" in SSK, in which the same types of causes—sociological ones—are the only naturalistically-respectable explanation for science's successes as well as its failures.

Yet Longino is still read by some as coming too close to the tie-breaker interpretation, especially in her account of contextual values. Machamer and Osbek for example claim that she adopts a kind of "supplementary strategy," holding that contextual values 'add to' the cognitive criteria already in place, tipping the scales and leading to scientific change. Longino emphasizes

not just the inadequacy of purely logical means of bringing closure to situations of local underdetermination, but also the “gap” in justification that logic leaves and the door it leaves for social values to enter into the core of scientific practice.²⁷

Intemann ably defends Longino and Anderson from association with the tie-breaker interpretation. She and Heidi Grasswick also try to articulate what the alternative interpretation should be. Intemann calls it a “normative interpretation,” while Grasswick develops it as an interpretation that denies the whole premise of “purely” epistemic reasons and reasoners. So there is great need for a sounder interpretation of how values relate to the different aspects of scientific practice and science policy debate. In our terms, that sounder interpretation starts with rejecting both the *dichotomy* and *reduction* models of the relationship between cognitive and social values. There is room at the bottom between these models. If the impasses of objectivism and relativism cannot be resolved on the tie-breaker interpretation, then what is supposed to motivate it—the *dichotomy* and *reduction* models—are also philosophically suspect.

But another problematic model that can motivate the tie-breaker interpretation is the *Reduction Model*. This model better describes those of ‘all-is-ideology’ persuasion. That social and not purely epistemic reasons are what ‘really’ explains why we believe what we do, everything is ideology, or politics by other means, including both science and its products. Laying our *Dichotomy* and *Reduction* models out on a spectrum, one at each end, we could place between them any number of alternative models of the relationship between cognitive and social

²⁷ Longino argues that “the variable ways in which we judge relevance and significance in weighing the adequacy of evidence will be affected not only by our background assumptions but by the project we are engaged with at the moment.”

values. These will be the most social and feminist epistemology-friendly models. We will not try to give these alternative models very specific labels, but will highlight family resemblances as well as some differences between those we can call *entanglers* and *disentanglers*. What proponents of these models share is that they view scientists' interactions as a source of both scientific error *and* scientific objectivity. Those who lean upon the tie-breaker interpretation are not wrong to reject the value-from view, but they tend to misdiagnose *how and why* values play a legitimate roles in scientific reasoning. Entanglers want us to acknowledge and sometimes even to encourage overlaps and interconnections between cognitive and social values in scientific practice. Impurities, interactions, ecological adjustments, and of course entanglements of facts and values, and of different kinds of values, are all ideas associated with entanglers.

Disentanglers may find such entanglement descriptively accurate, but highlight normative ways of parsing values with the goal of improving science of science policy deliberation.

Disentanglement represents attempts of all kinds to fine-tune the scientific traffic with values through ways of sorting values. The proposed ways are numerous, including sorting by stage within the scientific process, the, social role of the agent, etc. These too are increasingly being discussed as important concerns.

Some further examples of entanglers and disentanglers might illustrate the current state of the debate. Social and feminist philosophers like Grasswick and Machamer and Osbeck are entanglers. They take issue with views that still maintain the independence of cognitive and social virtues, and they urge us to embed the epistemic within the social in a quite thorough-going fashion. Machamer and Osbeck say that all learning takes place within the *socio-cognitive*: “[T]he social is built into the very conception and application of objectivity, and hence

into the scientific ideal and canons of practice,” such that it is ultimately “impossible to determine where the social begins and the cognitive ends.”²⁸

Contextualist feminists like Longino, Linda Martin Alcoff and Heidi Grasswick can also be seen as entanglers. Martin Alcoff holds that “It is not simply that epistemic agents have political and non-epistemic motivations and aims, but that our research projects, contextual values, theoretical constructs, and even our ontologies of truth are embedded within, and partly constituted by, our social domains.”²⁹ Given this claim, which associates contextualist feminism with constructivist views about knowledge, we cannot keep epistemological factors tidily separate from social and political interests in inquiry. Contextualism prescribes awareness of and interest in the contexts in which we pursue knowledge and truth. This may differ with domain, since feminist and social epistemologies acknowledge the varied character of scientific content. Martin Alcoff gives the example of trying to measure or explain gender differences in the brain or in moral intuitions. The intended object of study, gender differences, cannot be taken for granted but must be part of what we normatively evaluate. Contextual empiricism as described by Longino and Alcoff holds that “the variable ways in which we judge relevance and significance in weighing the adequacy of evidence will be affected not only by our background assumptions but by the project we are engaged with at the moment.” What we view as relevant, consistent, or sufficient evidence for a knowledge claim may be affected. Contextual value

²⁸ Machamer and Osbeck (2004), 85, 88. Salmon is another male philosopher of science known to hold that interpretations of empirical data can be bound up with a variety of values judgments and not just cognitive ones.

²⁹ Linda Martin Alcoff (2013).

judgments are sometimes necessary to give us evidentially good reasons for judging a theory to be justified.

Grasswick treats epistemic purity as a will-of-the-wisp: “The antidote to subjectivism and personal whim comes not from purity in method, but from comparison and dialog among various views within an open community of scholars.”³⁰ Feminist epistemology is a normative enterprise. It is normative in that it concerns critical assessments of epistemic practices, and also in that it concerns itself with its improvement: “The normative task of feminist epistemology involves concerns about how to practice good inquiry.” For this reason, “an adequate feminist model of epistemic subjects needs to include a viable model of epistemic *agency*—an understanding of subjects as active agents of inquiry” (89). Grasswick writes that the inquiry-focused approach to epistemology “provides a sense of epistemic agents as active reflective inquirers, capable of transforming and improving knowledge-seeking practices.”

Epistemic agency is impure in terms of the limited degree of choice we have as individuals while exercising this agency. It is also impure in the sense of “always being integrated with other ethical concerns as we make decisions regarding how to know...” But “blurring” and “impurities” are both negative terms. The point can also be put in the more positive language of responsibility and virtuous habits of inquiry. Thought of this way, “Normative epistemic assessment ... will become a matter of assessing social practices in an epistemic *light*, rather than trying to clearly mark off what is or is not part of an epistemic practice. There will be no “pure” epistemic practices” (100). Rather than some factor being either intrinsically epistemic or non-epistemic, as looks to be the case when the focus is on epistemic states and standings, a focus on active agency needs to treat theoretical and practical as intimately inter-connected, with traffic

³⁰ Grasswick (2003).

moving in both directions. Building on Lorraine Code's feminist naturalism³¹ which is also concerned with developing models of how to practice good inquiry, Grasswick writes that, "It is very important for feminists to develop an epistemology within which the concept of epistemic responsibility holds a central place." Yet this focus she thinks will also have the effect of blurring the distinction between cognitive and ethical evaluation.

Projects of disentanglement are just as important for some feminists as demonstrating entanglements and epistemic impurities are for others. Disentanglers need not reject the claim that community agreements on norms and theories are partly constitutive of standards of epistemic and metaphysical objectivity. But they offer regulative epistemologies and are more likely to be critical of decisionist views than entanglers are. Disentanglers also urge a clearer differentiation between descriptive and normative claims in the debate over science and values. They hold that the role of values both in scientific research and in science policy matters needs to be studied in more contextually specific ways. Anderson insists that the entanglement of fact and value in scientific research "does not mean that factual and value judgments play the same roles

³¹ Code has sometimes criticized the value of objectivity, but she can be read as recently embracing reconstruction of the concept and developing her own account of "rationality-as-objectivity," even articulating its use in articulating Amnesty International's mandate. Her main objection with appeals to objectivity as with appeal to rights is that they often presuppose liberal selves, where this values individual autonomy, self-reliance, and choice without outside interference. Rights are not things simply inhering in us like natural properties, and human beings are not cognitively self-sufficient. Code's intention "is to extract both modes of discourse—rights and objectivity—from their intrication with the implausible individualism at the core of liberal discourses of self-ownership and epistemic autonomy" (2006, 204).

in inquiry, much less that all claimed facts are political or ideological. Value judgments guide inquiry toward the concepts, tools, and procedures it needs to answer our value-laden questions. But facts—evidence—tell us which answers are more likely to be true” (2004, 19).

The more contentious problem is that of whether cognitive and social values can always be clearly distinguished, or whether the distinction does more harm than good. Some but not all disentanglers think the distinction remains important, even if their concern lies more with improving scientific process and policy deliberation than in defending the fundamental rationality or authority of science. We need to evaluate the different ways, many quite appropriate and helpful, that values might be deployed in inquiry. “So long as they [cognitive and social values] are distinct, the active direction of scientific inquiry by value judgments is not only legitimate, but indispensable.”³²

Disentanglers often appeal to stages of the scientific process, allowing social values a role primarily in the initial (question-framing) and end (practical application) phases of research, but proscribing such value from playing a role in the core of science (understood traditionally as the context of justification). Or they divide the “acceptance” (epistemic status) and “endorsement” (pursuit) of a theory in such a way that only the former is a properly scientific judgment, and the latter, involving social as well as cognitive values, is not strictly scientific. Some disentanglers are actually proponents of a modified value-free view, while others are not. Hugh Lacey, who debates Douglas, holds that “there is a significant distinction between cognitive and social values”; he takes this distinction as “crucial for properly interpreting the results of scientific research and for...reflection on how neutrality might be defended as a value of scientific

³² Anderson (2004), 23.

practices....” (2006, 25). Lacey allows values into science, but only the right *kind* for the right *place* in the scientific process. Without the distinction between cognitive and social values, he argues, inquiry will never be allowed to surprise us. It will always be interpreted as reinforcing our evaluative preconceptions. Collapsing these two kinds of value disempowers rather than empowers criticism and reevaluation: There is no need to try to disentangling facts to admit only the right kind of value into each stage of the process, where this is deemed impossible in principle.

If Lacey’s version of disentanglement as just described still supports the value-free view of scientific objectivity, Douglas version captures the spirit of feminist disentanglers who reject that view. Douglas makes the strong claim that for purely descriptive scientific claims, values—including even cognitive values when distinguished from “base-level” scientific norms of empirical adequacy and internal consistency—should never be taken to either prescribe or proscribe acceptance. Like the constructive empiricists, only the directly epistemic factors can do that. Her departure from van Fraassen’s constructive empiricist account is that she tries to show how ethical and social values sometimes raise the threshold of warrant necessary for responsible acceptance or endorsement of a scientific theory. This results in a unique form of feminist empiricism still true to Longino’s rejection of the rational/social dichotomy. Douglas writes, “The boundary that protects science is ... not a boundary about the kinds of values in science, but a boundary about what role these values play in our reasoning. We do not need to strictly sort the cognitive from the ethical. We need, rather, to keep clear the distinction between beliefs and actions, and the distinction between values as reasons in themselves and values for weighing the sufficiency of evidence” (13). Douglas here rejects the value-free view of objectivity but insists

on two other distinctions she thinks help us disentangle proper from improper roles for values in the scientific process.

Firstly, for Douglas, there is this basic difference between theoretical and practical reasoning: values can be an independent reason to act or abstain from acting, but can never similarly be independent reasons to believe or not believe some descriptive claim. That an action would be unethical is a reason not to do it; but that we don't wish something to be the case is never an epistemically good reason not to believe it. This basic asymmetry between action and belief is already enough to forestall any claim that social and ethical values play a legitimate, *direct* role in theory-acceptance (as the ideological and decisionist views claim).

Secondly, for Douglas, social and ethical as well as cognitive values often play an indirect role in scientific reasoning by contributing to the determination of the sufficiency of evidence, or the threshold of responsible acceptance. Douglas acknowledges the anxiety over the integrity of science that follows rejection of the value-free view brings. But she insists that science is the better for it: not the exclusion of values but the distinction between the *roles* for values in science is what is crucial to scientific objectivity: "The rational integrity of science depends not on excluding some values and including others in the reasoning process, but of constraining all values to their proper role in belief acceptance." The consideration of proper roles leads to a considerably more complex account than one that merely insists that theory acceptance excludes all but cognitive values.³³ Mistaken beliefs often have social and ethical implications, and sufficiency of evidence is not merely a probabilistic relation but must make allowance for the possibility and costs of error. "Ethical values help weigh the broad social consequences of error that would result with mistaken theory acceptance (or rejection), thus determining the sufficiency

³³ Douglas (2006).

of evidence.” But this acknowledgment of the importance of ethical values becomes problematic for scientific objectivity only when conflated with the notion (associated with the tie-breaker model) that those values are an *independent* source of epistemic warrant.