

SOCIAL EPISTEMOLOGY (11/01/11)

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Introduction

Until recently the orientation of both historical and contemporary epistemology has been heavily individualistic. The emphasis has been on choices between belief, disbelief, and agnosticism (suspension of judgment) that confront individual epistemic agents. Such agents are assumed to observe the world (or their own minds) and reflect on the resulting evidence via their own cognitive powers. Such a perspective was dramatized by Descartes roughly 350 years ago and it has continued to dominate the epistemological scene. However, a “socializing” movement has recently emerged that seeks to redress the imbalance that results from undue neglect of the social dimensions of knowledge. The movement does not reject a concern for individual epistemic decision-making, but it finds at least equal importance in the study of epistemic decision-making in social contexts. What does this mean? In what sense is social epistemology social? A three-part answer is offered. First, social epistemology continues to reflect on optimal methods for individual belief formation but specifically considers evidential inputs from other people -- their opinions, assertions, and arguments (*interpersonal* social epistemology). Questions therefore arise as to how epistemic agents should respond to the testimony of others and how they should modify their doxastic attitude toward a given proposition upon learning that others have a different attitude toward it. Second, social epistemology commonly acknowledges the existence of collective doxastic agents such as juries, committees, and other group agents, who make judgments as a function of their members’ judgments (*collective* social epistemology). Third, social epistemology considers communities and societies as systems and institutions with system-level properties that often influence the intellectual outputs of their members (*institutional* social epistemology). The ways they organize the epistemic labor, the ways they open or close channels of communication for eager or reluctant speakers, thereby encouraging or discouraging assorted modes of information or disinformation propagation, are enormously significant to the knowledge state of a society. For example, the degree to which laypersons manage (in the maelstrom of conflicting chatter) to learn and understand the current state of science as it bears on public issues is a topic that belongs on the epistemological agenda. The criteria for epistemic assessment in social epistemology need not depart dramatically from individual epistemology. Knowledge, truth, rationality, and justification can remain the benchmarks or standards by which to assess both social and individual methods. But social epistemology introduces a new class of methods and systems to analyze and evaluate in epistemic terms.

(1) General Perspectives on Social Epistemology

There are two main kinds of approaches to social epistemology – *classical* and *anti-classical* approaches. *Classical* social epistemology retains the focus of traditional epistemology on truth and the normative question of how agents should behave epistemically. It is social in that it focuses on social practices and institutions and their epistemic effects on the pursuit of truth. Goldman 2011 offers a survey and classification of classical social epistemology. Goldman 1999 is a seminal defense and articulation of classical social epistemology. Craig 1990 is an early defense of the importance of taking the social into account for the projects of traditional epistemology. Fricker 1998 insists on the political dimensions of classical social epistemology. *Anti-classical* social epistemologists, by contrast, reject or ignore traditional epistemology’s concerns with truth, knowledge and justification. Kuhn 1970 had a major influence on the development of anti-classical social epistemology, even though Kuhn himself did not accept such an interpretation of his work. Fuller 1988 is an influential articulation of anti-classical social epistemology which abandons traditional epistemology’s focus on truth. Kusch 2002 offers a

version of social epistemology rejecting realist and objectivist stances on truth and justification. Epistemic relativism and social constructivism are species of anti-classical social epistemology. (See *Epistemic Relativism* and *Social Constructivism*).

Craig, Edward. *Knowledge and the State of Nature*. Oxford: Clarendon Press, 1990.

Argues that understanding our concept of knowledge requires examining how it fulfills fundamental social needs. Argues that our concept of knowledge arises from our need for action-guiding true beliefs, which in turn gives rise to a need for "good informants". Examines the implications of this hypothesis for familiar themes in traditional epistemology (skepticism, externalism, etc.).

Fricker, Miranda. "Rational Authority and Social Power: Towards a Truly Social Epistemology." *Proceedings of the Aristotelian Society*, 98 (1998): 159-177.

Argues that our need for good informants (see Craig 1990) gives rise to certain norms of credibility. In particular sociopolitical contexts, these norms can give rise to unfair distributions of credibility. Fricker emphasizes the importance of studying this kind of *epistemic injustice*, and on the consequent political dimension of social epistemology.

Fuller, Steve. *Social Epistemology*. Bloomington: Indiana University Press, 1988.

An exposition and defense of anti-classical social epistemology, very influential in the social studies of science. Fuller is concerned with the normative question of how the institution of science should be organized, and what scientific strategies best foster knowledge production. However, he parts company with traditional epistemology in rejecting the claim that knowledge is truth-entailing.

Goldman, Alvin. *Knowledge in a Social World*. Oxford: Oxford University Press, 1999.

A seminal work arguing that social epistemology should be seen as complementing rather than replacing traditional epistemology: on this view social epistemology retains traditional epistemology's normative focus on how epistemic practices can foster the production of true beliefs. Examines several social practices and systems in terms of their ability to produce "veritistic value" (the kind of value we place on having true beliefs).

Goldman, Alvin. "A Guide to Social Epistemology." In *Social Epistemology: Essential Readings*. Edited by Alvin Goldman and Dennis Whitcomb, 11-37. New York: Oxford University Press, 2011.

A survey of (classical) social epistemology. Distinguishes between three kinds of social epistemology concerned respectively with the social evidence that individuals can acquire, the judgments of collective doxastic agents, and the epistemic effects of certain social systems and institutions.

Kuhn, Thomas. *The Structure of Scientific Revolutions*, 2nd edition. Chicago: Chicago University Press, 1970.

Kuhn's work is a major influence on anti-classical social epistemology (although he himself did not accept such a reading of his work). The notion of incommensurability

has been used to develop a relativist view of scientific knowledge, and many sociologists of science have relied on the concept of a paradigm shift to insist on the primacy of social factors over the “pure” search for truth in explaining scientific change.

Kusch, Martin. *Knowledge by Agreement*. Oxford: Oxford University Press, 2002.

A work in anti-classical social epistemology arguing for a “communitarian epistemology” on which groups are the primary bearers of knowledge. Kusch parts company with traditional epistemology in endorsing a form of relativism about truth and justification.

(2) Anthologies

Social epistemology is a relatively young field and anthologies (on social epistemology generally or on special topics) have started to appear only in the last two decades. Schmitt 1994 is an early collection of essays in social epistemology. Goldman and Whitcomb 2011 and Haddock, Millar and Pritchard 2010 are two recent collections of papers on a wide variety of topics in social epistemology. Antony and Witt 1993 is an anthology of feminist essays containing several pieces on epistemology. Selinger and Crease 2005 is a collection of papers on expertise. Sosa and Lackey 2006 is an anthology on testimony. Feldman and Warfield 2010 is a collection of essays on the topic of disagreement.

Antony, Louise, and Charlotte Witt, eds. *A Mind of One's Own. Feminist Essays on Reason and Objectivity*. Boulder, Westview Press: 1993.

An anthology of feminist essays; section II focuses on feminist approaches to epistemology.

Feldman, Richard and Ted Warfield, eds. *Disagreement*. Oxford: Oxford University Press, 2010.

A collection of papers on the topic of disagreement.

Goldman, Alvin and Dennis Whitcomb, eds. *Social Epistemology: Essential Readings*. New York: Oxford University Press, 2011.

A collection of fifteen essays, many of which are very influential in the field. Contains sections on general approaches to social epistemology, trust in testimony and experts, peer disagreement, judgment aggregation, and the epistemology of epistemic systems.

Haddock, Adrian, Alan Millar and Duncan Pritchard, eds. *Social Epistemology*. Oxford: Oxford University Press, 2010.

A collection of fifteen new essays on various topics in social epistemology, with particular focus on testimony, peer disagreement and the nature of social epistemology.

Lackey, Jennifer and Ernest Sosa, eds. *The Epistemology of Testimony*. Oxford: Oxford University Press, 2006.

A collection of twelve essays on testimony by leading epistemologists.

Schmitt, Frederick, ed. *Socializing Epistemology*. Lanham: Rowman and Littlefield, 1994.

The first important collection of essays on social epistemology. The introduction by Frederick Schmitt is a general discussion of the nature and aims of social epistemology.

Selinger, Evan and Robert Crease, eds. *The Philosophy of Expertise*. New York: Columbia University Press, 2005.

A collection of essays on the nature and epistemology of expertise, by analytic and continental philosophers.

(3) Testimony

A huge amount of what we believe is based at least partly on a distinctively social kind of evidence, namely the testimonies of other people. Although early epistemologists like Hume or Reid recognized this fact, only recently has testimony as a source of justification and knowledge become a central topic in epistemology. Two main questions in the epistemology of testimony are whether testimonial justification is basic or derived (see *The Reductionism/Non-Reductionism Debate*) and whether testimony can generate or only transmit knowledge from the testifier to her audience (see *The Transmission/Generation Debate*).

(3A) General Issues

Coady 1992 is a seminal discussion which heavily contributed to the recent wave of interest in testimony among epistemologists. Lackey 2008 and Goldberg 2010 are two recent book-length treatments of testimony. These three books contain discussions of the nature of testimony and its importance for our epistemic lives. Moran 2006 offers a distinctive general perspective on testimony, on which the kind of evidence provided by testimonies is importantly different in nature from the evidence provided by other sources. Lipton 1998 offers a “best explanation” theory of testimony.

Coady, C.A.J. *Testimony: A Philosophical Study*. Oxford: Oxford University Press, 1992.

An important discussion of the nature of testimony, which was influential in making testimony a central topic in contemporary epistemology. Coady defends antireductionism about testimonial justification and knowledge, and offers discussions of the role of testimony in history, law, mathematics and psychology.

Goldberg, Sanford. *Relying on Others*. Oxford: Oxford University Press, 2010.

Drawing on anti-individualism in the philosophy of language and mind, argues that a believer’s epistemic justification often depends upon irreducibly social factors. Also contains an important discussion of “coverage” – a distinctive way in which we can acquire knowledge that not- p by recognizing that if p were true we would have heard it by now.

Lackey, Jennifer. *Learning from Words*. Oxford: Oxford University Press, 2008.

An in-depth examination of the nature of testimony and testimonial knowledge. Argues that what makes a testimony a source of knowledge is the reliability of the testifier as a *speaker*, not her reliability as a *believer*. Also contains arguments for the view that

testimony can generate knowledge, and offers a novel theory of the justification of testimonial beliefs.

Lipton, Peter. "The Epistemology of Testimony." *Studies in the History and Philosophy of Science* 29 (1998): 1-31.

Offers a "best explanation" theory of testimony, on which we are justified in accepting a testimony as true when the truth of the statement is part of the best explanation for the speaker's testimony.

Moran, Richard. "Getting Told and Being Believed." In *The Epistemology of Testimony*. Edited by Jennifer Lackey and Ernest Sosa, 272-306. Oxford: Oxford University Press, 2006.

Argues that the kind of epistemic reasons we can have for believing a piece of testimony is essentially different from the kind of epistemic reasons provided by ordinary evidence. On Moran's view, a speaker *constitutes* her testimony as a reason for belief by explicitly assuming responsibility for the truth of her statement.

(3B) The Reductionism/Non-Reductionism Debate

Reductionism is the view that testimony-based justification does not arise from a basic principle of testimonial justification, but from principles involving perception and memory. Hume 1977 is a classic defense of reductionism. Wilson 2010 offers a new interpretation of Hume's reductionism. Lyons 1997 offers arguments for reductionism. Fricker 1995 makes an important distinction between global and local reductionism, and argues for local reductionism. Non-reductionism, by contrast, holds that there is a basic principle of testimonial justification. Reid 1983 is a classic defense of non-reductionism against Hume. Burge 1993 offers a seminal articulation and defense of non-reductionism which remains very influential in contemporary debates. Faulkner 2000 and Lackey 2006 offer hybrid views of testimonial justification that integrate key insights of both reductionism and non-reductionism.

Burge, Tyler. "Content Preservation." *Philosophical Review* 102 (1993): 457-488.

A seminal defense of non-reductionism. Argues for the existence of an "Acceptance Principle" which entitles us to accept testimonies as true unless there are stronger reasons not to do so. On this view, testimony, just like perception, is a basic source of justification.

Faulkner, Paul. "The Social Character of Testimonial Knowledge." *Journal of Philosophy* 97 (2000): 581-601.

Contends that Burge 1993's argument fails to recognize crucial epistemological differences between testimony on the one hand and perception and memory on the other hand. Offers a hybrid theory of testimonial justification combining central elements of reductionism and non-reductionism.

Fricker, Elizabeth. "Telling and Trusting: Reductionism and Anti-Reductionism in the Epistemology of Testimony." *Mind* 104 (1995): 393-411.

Introduces a crucial distinction between two forms of reductionism (global and local) and argues against Coady 1992 that while global reductionism is implausible, local reductionism is an attractive position.

Hume, David. *An Inquiry Concerning Human Understanding*. Edited by E. Steinberg. Indianapolis: Hackett, 1977.

A classic defense of reductionism about testimonial justification. Originally published in 1748.

Lackey, Jennifer. "It Takes Two to Tango: Beyond Reductionism and Non-Reductionism in the Epistemology of Testimony." In *The Epistemology of Testimony*. Edited by Jennifer Lackey and Ernest Sosa, 160-191. Oxford: Oxford University Press, 2006.

Argues that both reductionism and non-reductionism face important problems, and offers an alternative view of testimonial justification which integrates key elements of both reductionism and non-reductionism.

Lyons, Jack. "Testimony, Induction and Folk Psychology." *Australasian Journal of Philosophy* 75 (1997): 163-178.

A defense of a Humean reductionist view according to which our justification for believing testimony is inductive: testimonial belief is justified because we have non-testimonial inductive evidence that testifiers are generally reliable.

Reid, Thomas. "Essay on the Intellectual Powers of Man." In *Thomas Reid's Inquiry and Essays*. Edited by Ronald Beanblossom and Keith Lehrer. Indianapolis: Hackett, 1983.

A classic statement of the non-reductionist view that we are entitled to accept a testimony as true unless we have stronger reasons not to do so. Originally published in 1785.

Wilson, Fred. "Hume and the Role of Testimony in Knowledge." *Episteme* 7 (2010): 58-78.

Against Coady 1992, argues that Hume does not claim that our testimonial beliefs can only be justified by non-testimonial evidence for the reliability of testimony in general. Rather, Hume's account of what Wilson calls the "reasonable knower" recognizes that belief in the general reliability of testimony may be justified by testimonial evidence.

(3C) The Transmission/Generation Debate

Most writers hold that knowledge and justification are only transmitted, not generated, by testimony. Welbourne 1981 and Audi 1981 offer defenses of the transmission-only thesis. Critics of the transmission-only thesis include Graham 1999 and Lackey 2000. Adler 2006 offers a useful survey of the debate.

Adler, Jonathan E: "Epistemological Problems of Testimony." In *The Stanford Encyclopedia of Philosophy*. Edited by Edward Zalta, 2006. URL = <<http://plato.stanford.edu/archives/spr2006/entries/testimony-episprob/>>.

A thorough survey of the literature on the epistemology of testimony, focusing on the transmission/generation debate (among other topics).

Audi, Robert. "The Place of Testimony in the Fabric of Knowledge and Justification." *American Philosophical Quarterly* 34 (1997): 405-422.

Argues that for someone to learn a proposition on the basis of a testimony, it is necessary (and sufficient) that the testifier knows the proposition under consideration: testimony can only transmit knowledge, and not generate it.

Graham, Peter J. "Transferring Knowledge." *Nous* 34 (2000) 131-152.

An argument against the transmission thesis. Argues that for a subject to learn a proposition on the basis of a testimony, it is not necessary (nor sufficient) that the testifier knows the proposition under consideration. What is necessary is that the subject's basis for accepting the proposition that *p* carries the information that *p*.

Lackey, Jennifer. "Testimonial Knowledge and Transmission." *The Philosophical Quarterly* 49 (1999): 471-490.

An influential defense of the view that testimony can generate (not only transmit) knowledge.

Welbourne, Michael. "The Community of Knowledge." *The Philosophical Quarterly* 31 (1981): 302-314.

An early defense of the view that for someone to learn a proposition on the basis of a testimony, it is necessary (and sufficient) that the testifier knows the proposition under consideration, and thus that testimony can only transmit knowledge.

(4) Learning from Experts

In our highly complex and specialized world, we constantly rely on experts to form beliefs on various topics. Expertise, then, is a prime source of *social* evidence on which individuals rely, and experts are endowed with a special epistemic authority in our society. The social epistemology of expertise examines the nature of this epistemic authority and the epistemic properties of beliefs formed by relying on experts. Hardwig 1985 examines the epistemic nature of our reliance on experts. Conee 2009 examines which attitudes disagreeing experts themselves should adopt. An important epistemological question regarding expertise is the question of how non-experts can distinguish between genuine and fraudulent experts. This is an early question in philosophy which was raised by Plato in the Charmides (see Hardy 2010 for Plato's view on expertise). Goldman 2001 and Coady 2006 examine this question in the guise of what Goldman 2001 calls the "novice/2-experts problem" in which a novice must decide which of two disagreeing experts to trust. (See also *Evidence in the Law*).

Coady, David. "When Experts Disagree." *Episteme* 3 (2006): 68-79.

Argues that Goldman 2001's argument against "going by the numbers" relies on a "non-independence principle" which is not in general true, and examines the consequences of the failure of this principle for the question of what attitudes novices should adopt when experts disagree.

Goldman, Alvin. "Experts: Which Ones Should You Trust?" *Philosophy and Phenomenological Research* 63 (2001): 85-109.

Offers a definition of what *constitutes* an expert and examines the question of what novices should believe regarding a topic on which experts disagree. Rejects the

strategy of “going by the numbers” (counting and comparing the numbers of experts who agree on a certain issue) and examines other strategies such as finding the experts’ track records.

Hardwig, John. "Epistemic Dependence." *Journal of Philosophy* 82 (1985): 335-349.

Argues that “blind” reliance on expert authority is a source of knowledge (one, moreover, that plays an essential role in our lives), and examines the consequences of this claim for the nature of knowledge and rationality.

Hardy, Joerg. "Seeking the Truth and Taking Care for Common Goods - Plato on Expertise and Recognizing Experts." *Episteme* 7 (2010): 7-22.

Examines Plato’s conception of expertise. Argues that on Plato’s view an expert must have truth and avoidance of error as her main epistemic goals, and caring for the common goods as her overarching goal.

Conee, Earl. "Peerage." *Episteme* 6 (2009): 313-323.

Argues that experts involved in a longstanding scholarly disagreement are not epistemically justified in taking sides in the controversy.

(5) Peer Disagreement

An important way in which we can get *social* evidence relevant to our beliefs is by learning that other people agree or disagree with us on a certain question. Suppose, in particular, that you form an opinion as to whether p , and then learn that somebody with roughly the same level of cognitive abilities as you and who has been exposed to roughly the same evidence disagrees with you. (Let’s call that person your *epistemic peer*). When you learn that your peer disagrees with you, should you revise your degree of confidence in p , and if so, by how much? This is the question with which the vast and growing literature on peer disagreement is concerned. The field has been divided primarily between conformist views (*The Conformist (or Equal Weight) View*) and non-conformist views (*The Nonconformist View*). Recently, mixed views and views that examine some of the assumptions and setups of the debate have emerged (*Mixed Views and Complications*).

(5A) The Conformist (or Equal Weight) View

An influential view in the literature on peer disagreement is the conformist (or equal weight) view. On this view, upon learning that an epistemic peer who has been exposed to the same evidence disagrees with me as to whether p , I am rationally required to substantially revise my degree of confidence in p . Specifically, I should give as much weight to my peer’s view as I give to my own, such that (for example) if I believe that p and my peer believes that not- p , we are both rationally required to suspend judgment about p . On this view, two epistemic peers cannot rationally disagree. Feldman 2010, Elga 2007 and Christensen 2007 are influential defenses of the equal weight view. Elga 2010 revises the equal weight view to exclude from its scope cases where epistemic peers disagree about the epistemic significance of disagreement itself. Jehle and Fitelson 2009 examines and criticizes various precisifications of the equal weight view in a Bayesian framework.

Christensen, David. "Epistemology of Disagreement: The Good News." *The Philosophical Review* 116 (2007): 187-217.

A defense of the conformist view, on which when I disagree with a peer who has the same evidence as I have, I should substantially revise my belief in the direction of my peer.

Elga, Adam. "Reflection and Disagreement." *Nous* 41 (2007): 478-502.

Defends the Equal Weight View, according to which when somebody whom you take to be your peer disagrees with you about a given proposition, you should give her view the same weight as your own.

Elga, Adam. "How to Disagree About How to Disagree." In *Disagreement*. Edited by Richard Feldman and Ted Warfield. Oxford: Oxford University Press, 2010.

Argues for a restricted version of the Equal Weight View, according to which when somebody whom you take to be your peer disagrees with you about a given proposition, you should give her view the same weight as your own, *except when the topic is disagreement itself*.

Feldman, Richard. "Reasonable Religious Disagreements." In *Philosophers Without Gods*. Edited by Louise Antony, 194-214. New York: Oxford University Press, 2007.

A seminal paper which started the debate about peer disagreement. Argues that a given batch of evidence justifies one and only one doxastic attitude toward a proposition (Uniqueness Thesis), and thus that epistemic peers who have shared their evidence regarding a proposition p cannot reasonably disagree about p .

Jehle, David and Branden Fitelson. "What Is the 'Equal Weight View?'" *Episteme* 6 (2009): 280-293.

Examines several precisifications of the Equal Weight View formulated in a Bayesian framework. Argues that many of these versions yield unsatisfactory updating rules and are therefore untenable, and that the tenable versions of the Equal Weight View are not necessarily desirable.

(5B) The Nonconformist View

According to nonconformist views, peers who disagree as to whether p are not (or not always) rationally required to revise their original degrees of confidence in p . This opens up the possibility that two peers may disagree without both of them (or maybe either of them) being irrational. Rosen 2001 is an early defense of this view. Sosa 2006, Moffett 2007, Wedgwood 2007, Bergmann 2009 offer various arguments for nonconformism. Kelly 2010 provides several influential arguments for a specific version of nonconformism (the Total Evidence View). Bergmann 2009 argues that two peers can rationally disagree while thinking that the other may be rational too. White 2009 argues that treating my and others' beliefs as more or less reliable indicators is consistent with nonconformism.

Bergmann, Michael. "Rational Disagreement after Full Disclosure." *Episteme* 6 (2009): 336-353.

Considers whether two disagreeing epistemic peers who have fully disclosed their evidence to one another can rationally continue to disagree while thinking that the other

may be rational too. Bergmann distinguishes between an internal and an external kind of rationality and argues that for both kinds the answer to this question is 'yes'.

Kelly, Thomas. "Peer Disagreement and Higher Order Evidence." In *Disagreement*. Edited by Richard Feldman and Ted Warfield. Oxford: Oxford University Press, 2010.

Provides several influential arguments against the equal weight view, and defends an alternative, the Total Evidence View. According to this view, the rational attitude to adopt in cases of peer disagreement depends on the total evidence possessed by the peers.

Moffett, Mark. "Reasonable Disagreement and Rational Group Inquiry." *Episteme* 4 (2007): 352-367.

A defense of the nonconformist view of peer disagreement which appeals to the underdetermination of theory by evidence coupled with a principle of epistemic conservatism, according to which we are justified in holding our beliefs when we become aware of alternative equally well-supported beliefs.

Rosen, Gideon. "Nominalism, Naturalism, Epistemic Relativism." *Philosophical Perspectives* 15 (2001): 69-91.

An early defense of the view that epistemic peers who have carefully reviewed their evidence can rationally disagree.

Sosa, Ernest. "The Epistemology of Disagreement." In *Social Epistemology*. Edited by Adrian Haddock, Alan Millar, and Duncan Pritchard. Oxford: Oxford University Press, 2010.

Argues that full disclosure of evidence is uncommon, and thus that cases of disagreement where each peer is rational in sticking to her view are possible.

Wedgwood, Ralph. *The Nature of Normativity*. Oxford: Oxford University Press, 2007.

Argues that it is rational to have an "egocentric epistemic bias" in favor of one's own intuitions, and thus that in cases of peer disagreement, we are justified in giving our own view more weight than the view of our peers, simply in virtue of the fact that it is *our* view.

White, Roger. "On Treating Oneself and Others as Thermometers." *Episteme* 6 (2009): 233-250.

Argues that the "thermometer model" (on which my and others' beliefs are treated as more or less reliable indicators of facts) does not entail conformism about peer disagreement.

(5C) Mixed Views and Complications

Recently, several theories of peer disagreement have emerged which are not easily classified as either conformist or nonconformist. Lackey 2010 offers such an alternative view. Various complications in the debate on peer disagreement have also begun to be examined. Feldman 2009 examines whether evidentialism is compatible with several principles relied upon in the literature on disagreement, and answers in the positive. Feldman 2009, Roush 2009 and

Christensen 2010 examine the nature of higher-order evidence (evidence about the reliability of my judgmental capacities), of which the evidence I acquire when I discover that a peer disagrees is an instance.

Christensen, David. "Higher-Order Evidence." *Philosophy and Phenomenological Research* 81 (2010): 185-215.

Examines the nature of higher-order evidence (evidence about evidential relations) and argues that this kind of evidence is "toxic" in the sense that when an agent acquires it, she is bound to fall short of some epistemic ideal.

Feldman, Richard. 'Evidentialism, Higher-Order Evidence, and Disagreement.' *Episteme* 6 (2009): 294-312.

Argues that evidentialism is compatible with several principles relied upon in the literature on peer disagreement and argues that epistemic puzzles about peer disagreement are puzzles about the nature and impact of higher-order evidence.

Lackey, Jennifer. "A Justificationist View of Disagreement's Epistemic Significance." In *Social Epistemology*. Edited by Adrian Haddock, Alan Millar, and Duncan Pritchard. Oxford: Oxford University Press, 2010.

Argues that both conformist and nonconformist views are inadequate, and develops a justificationist view of peer disagreement, on which how one should react in a case of peer disagreement depends on the degree of justified confidence in one's belief.

Roush, Sherrilyn. "Second Guessing: A Self-Help Manual." *Episteme* 6 (2009): 251-68.

Provides a framework, based on the Principal Principle, for representing and dealing with higher-order evidence, and examines several consequences of this framework for the question of peer disagreement.

(6) Collective Social Epistemology

We often speak of collective entities as having doxastic attitudes: for example, we might say that the jury believes the defendant to be guilty. Collective social epistemology studies the epistemic properties of group beliefs and judgments – in particular, it examines whether and how group doxastic attitudes can be rational and constitute knowledge. List 2005 examines these questions from the point of view of judgment aggregation theory – the theory of how groups aggregate the judgments of their members to produce collective judgments. Wray 2010 is a collection of essays on collective knowledge in science. Tollefsen 2008 shifts the focus by examining how group testimonies can not only *be* justified but *provide* justification. Collective social epistemology is predicated on the assumption that social groups literally have doxastic attitudes – in other words, that the claim that group *X* believes that *p* does not simply mean that most or all members of *X* believe that *p*. Gilbert 1989, Pettit 2003, Tuomela 2007 and List and Pettit 2011 offer systematic defenses of this assumption. Thagard 2010 argues that ascriptions of doxastic attitudes to social groups are literally false but nonetheless useful to capture the dynamics of belief-formation among the members of the group.

Gilbert, Margaret. *On Social Facts*. London: Routledge, 1989.

An influential defense of the claim that certain social groups have beliefs (and other mental attitudes) of their own. Gilbert examines the structure of such groups and

argues that for them to exist, their members must stand in a certain relation which she calls "joint commitment".

List, Christian and Philip Pettit. *Group Agency: The Possibility, Design, and Status of Corporate Agents*. Oxford: Oxford University Press, 2011.

Argues that groups which face certain rationality constraints are doxastic and intentional agents in their own right. Examines the structure of such groups and the normative implications of their status as agents.

List, Christian. "Group Knowledge and Group Rationality: A Judgment Aggregation Perspective," *Episteme* 2 (2005): 25-38.

Introduces the theory of judgment aggregation (the theory of the procedures for aggregating individuals' judgments into a collective judgment), and examines various aggregation procedures with respect to their abilities to produce consistent and true group judgments.

Pettit, Pettit. "Groups with Minds of Their Own." In *Socializing Epistemology*. Edited by Frederick Schmitt. Lanham: Rohman and Littlefield, 1994.

Argues that groups that are under pressure to make their judgments consistent are likely to make judgments that are starkly discontinuous with their members' beliefs, and that such groups thereby constitute persons with mental states of their own.

Tollefsen, Deborah. "Group Testimony." *Social Epistemology* 21 (2008): 299-311.

Defends the claim that groups, not only individuals, can be testifiers in their own right. Argues that some versions of reductionism about individual testimony can be extended to explain how our beliefs can be justified on the basis of group testimonies.

Tuomela, Raimo. *The Philosophy of Sociality: The Shared Point of View*. Oxford: Oxford University Press, 2007.

A defense of the view that social groups can have mental attitudes of their own. Argues that there is a mode of believing and reasoning (the "we-mode") characteristic of social collectives, and provides an in-depth analysis of the relations between collective mental states and the mental states of groups' members.

Thagard, Paul. "Explaining Economic Crises: Are There Collective Representations?" *Episteme* 7 (2010): 266-281.

Argues that organizations and communities do not literally have mental representations. Rather, ascriptions of representations are "metaphorical pointers" indicating the existence of a complex of social and psychological mechanisms relevant to how members of the group form beliefs.

Wray, K. Brad ed. Special issue on "Collective Knowledge and Science." *Episteme* 7 (2010).

A special issue of *Episteme* devoted to the social epistemology of scientific groups.

(7) Epistemic Relativism

Social epistemology at large emphasizes that social systems have *causal* effects on whether doxastic agents acquire and maintain justified beliefs. Epistemic relativists claim that social systems have a further, *constitutive* effect on justification. According to epistemic relativism, there are no objectively correct norms or principles of justification (epistemic anti-objectivism): rather, an epistemic norm is correct only in the context of a certain culture or society. Insofar as a belief's justification depends on its conformity to epistemic norms, it follows on this view that epistemic justification is relative to the doxastic agent's culture or society. Epistemic relativism thus represents an anti-classical approach to social epistemology (see General Perspectives on Social Epistemology) which rejects (at least some of) the main tenets of traditional epistemology. Epistemic relativism has been influential in certain currents of the sociology of science (see Barnes and Bloor 1982 for the classic statement) and has been defended in philosophy by Rorty: see Rorty 1991. Boghossian 2006 critically examines arguments for and against Rorty's epistemic relativism. Goldman 2010 offers an account of justification on which epistemic objectivism is made compatible with a certain form of relativism about justification.

Barnes, Barry and David Bloor. "Relativism, Rationalism, and the Sociology of Knowledge." In *Rationality and Relativism*. Edited by Martin Hollis and Steven Lukes. Cambridge, MA: The MIT Press.

A defense of the claim that there are no supra-cultural, objectively correct norms of rationality. Very influential in the sociology of science.

Boghossian, Paul. *Fear of Knowledge*, chaps. 5-6. New York: Oxford University Press, 2006.

Chapter 5 provides a clarification of the main tenets of Rorty's epistemic relativism, and examines a (prima facie) strong argument for it. Chapter 6 rejects several responses to Rorty's relativism but endorses a (prima facie) strong argument against it.

Goldman, Alvin. "Epistemic Relativism and Peer Disagreement." In *Disagreement*. Edited by Richard Feldman and Ted Warfield. Oxford: Oxford University Press, 2010.

Argues for a non-standard form of epistemic relativism that is compatible with the existence of objective, supra-cultural epistemic norms and principles. On this basis, Goldman distinguishes between two kinds of evidence (material evidence and norm evidence) and argues that peers who have shared all their material evidence can still reasonably disagree.

Rorty, Richard. *Objectivity, Relativism and Truth: Philosophical Papers Vol. 1*. Cambridge: Cambridge University Press, 1991.

A collection of essays presenting and defending Rorty's influential version of relativism about epistemic justification.

(8) Social Epistemology of Science

Social epistemology of science arguably originated with functionalist sociology of science, which was concerned in part with examining how the properties of science as a social institution foster or hinder the research of truth. Merton 1973 is a major example of research in this tradition. Many contemporary philosophers of science have pursued this line of inquiry. Kitcher 1990 and Kitcher 1993 examine the epistemic benefits of the division of labor among scientists. Strevens 2008 argues that the rule for allocating prestige in science is epistemically beneficial. Albert 2011 examines the presence of common methodological standards in science and their

effects on the quality of scientific research. Beatty and Moore 2010 argues for the epistemic value of dissensus in scientific communities. Post-functionalist sociology of science has tended to adopt a skeptical and revisionary view of science, insisting that scientific research is swayed by political and social motives and biases that have nothing to do with the “pure” search for truth. A lot of contemporary work in the social epistemology of science can be seen as a response to this line of thought. Longino 2002 and Solomon 2003 offer general treatments of the social dynamics of science showing social interactions among scientists who are not (or not only) truth-seeking is actually beneficial for scientific progress. (This is also an important theme in Kitcher 1990 and 1993).

Albert, Max. "Methodology and Scientific Competition." *Episteme* 8 (2011): 165-183.

Argues that the average quality of scientific research is so high because scientists converge on and maintain high common methodological standards – a fact which Albert explains by the hereditary nature of scientific production (the quality of research used as input by a scientist significantly determines the quality of her own work).

Beatty, John and Alfred Moore. "Should We Aim for Consensus?" *Episteme* 7 (2010): 198-214.

Argues that lack of consensus in a scientific community is not a good reason to reject the community's epistemic authority, and that the quality of scientific deliberation is fostered by the existence of a vocal dissenting minority.

Kitcher, Philip: "The Division of Cognitive Labor," *Journal of Philosophy* 87 (1990): 5-22.

A seminal study, arguing that scientific progress is maximized when the scientific community encourages its members to pursue different strategies, and that the personal motives of the scientists can be exploited by scientific institutions so as to maximize scientific progress.

Kitcher, Philip. *The Advancement of Science*, chap. 8. New York: Oxford University Press, 1993.

Expands the approach of Kitcher 1990 by further exploring the model of the division of cognitive labor presented in Kitcher 1990, and presents several results on how various scientific organizational schemes can foster scientific progress. Also contains a discussion of the role of authority in scientific research.

Longino, Helen. *The Fate of Knowledge*. Princeton: Princeton University Press, 2002.

Argues that the “science wars” between philosophers of science and constructivist sociologists of science relies on the false assumption that social forces are solely sources of bias and irrationality, and offers an in-depth defense of the claim that social interactions among scientists actually contribute to securing scientific knowledge.

Merton, Robert K. "Priorities in Scientific Discovery." *American Sociological Review* 22 (1973): 635-659.

Shows the existence of a priority rule in the social organization of science: scientists who first make a discovery are rewarded at the expense of all others working

towards the same discovery. Argues that this rule is a pathology of the social organization of science and does not contribute to scientific progress.

Solomon, Miriam. *Social Empiricism*. Cambridge, MA: The MIT Press, 2001.

Defends a version of empiricism on which scientific communities are rational insofar as they accept maximally empirically successful theories. Argues that the judgments of a scientific community can be rational despite (and even thanks to) its members being irrational. Also contains a discussion of the value of dissensus in science.

Strevens, Michael. "The Role of the Priority Rule in Science." *Journal of Philosophy* 100 (2003): 55-79.

Argues contra Merton 1973 that the priority rule is not a pathology of science: allocating prestige within the scientific community in accordance to the priority rule maximizes the benefits of scientific research to society.

(9). Evidence in the Law

One of the main aims of legal institutions is *epistemic* in nature. One of the goals of a criminal trial, for example, is to arrive at *true* judgments about the nature and authorship of a crime. It is therefore surprising that epistemology and legal analysis (including philosophy of law) have ignored each other for so long. The social epistemology of law attempts to bridge this gap. Social epistemologists of law examine how rules (in particular, rules regarding evidence) and standards of proof built into current legal systems hinder or foster the discovery of truth in trials, as well as whether and how these rules and standards should be revised to make legal systems epistemically better. Cohen 1977 is an early study of the epistemology of legal reasoning. Goldman 1999 and Laudan 2006 offer general discussions of the social epistemology of law and critical assessments of contemporary legal systems in terms of their epistemic properties. A lot of current work in the social epistemology of law focuses specifically on the rules of evidence in contemporary legal systems (mostly the American one). Sinnott-Armstrong and Schauer 2008 is a collection of essays on evidence in the law. Brewer 1998, Mnookin 2008, Haack 2008 focus particularly on how evidence from scientific experts is and should be assessed by judges and juries. Nance 2008 examines certain current legal theories of the burden of proof.

Brewer, Scott. "Scientific Expert Testimony and Intellectual Due Process." *The Yale Law Journal* 107 (1998): 1535-1681.

Examines the procedures by which judges and juries assess the reliability of scientific experts' testimonies. Argues that these procedures are often unreliable and violate a norm of intellectual due process to which many legal systems are committed.

Cohen, L. Jonathan. *The Probable and the Provable*. Oxford: Oxford University Press, 1997.

A seminal work in the epistemology of law, which argues that reasoning in judicial matters is not a species of probabilistic reasoning. Cohen develops an alternative account (in terms of "inductive probabilities") of judicial reasoning, on which different standards apply to different kinds of judicial proofs.

Goldman, Alvin. *Knowledge in a Social World*, chap. 9. Oxford: Oxford University Press, 1999.

Argues that producing true judgments is and should be one of the main goals of judicial systems. Provides a comparative evaluation of the common-law and civil-law traditions in terms of their abilities to accomplish this goal, and argues (tentatively) that the latter fare better than the former.

Laudan, Larry. *Truth, Error, and Criminal Law*. Cambridge: Cambridge University Press, 2006.

Starting from the assumption that finding the truth is one of the main goals of criminal trials, Laudan examines the procedures and rules of evidence that should be adopted in order to attain this goal, and sharply criticizes the standards of proof currently in place in the American criminal judicial system.

Sinnott-Armstrong, Walter and Frederick Schauer, eds. Special issue on Evidence in the Law. *Episteme* 5 (2008).

A special issue of *Episteme* devoted to the social epistemology of law.

Haack, Susan. "Warrant, Causation, and the Atomism of Evidence Law." *Episteme* 5 (2008): 253-266.

Argues that a combination of pieces of evidence may collectively warrant a legal conclusion even if none of them individually warrants such a conclusion. On this basis, Haack shows that the requirement (laid out in *Daubert vs. Merrell Dow*, 1993) that each item of scientific expert testimony be individually screened for reliability hinders the discovery of truth in trials.

Mnookin, Jennifer. "Of Black Boxes, Instruments, and Experts: Testing the Validity of Forensic Science." *Episteme* 5 (2008): 343-359.

Using latent fingerprint examination and breath tests as examples, Mnookin argues that courts should be more concerned with whether a forensic technique has been experimentally tested and validated rather than (as they currently are) with whether experts can offer plausible descriptions and explanations of their methods.

Nance, Dale A.: "The Weights of Evidence," *Episteme* 5 (2008): 267-281.

Examines Keynes' concept of evidential weight (new evidence might decrease the probability of a hypothesis, but it also increases its Keynesian weight – roughly, the amount of evidence relevant to the probability of the hypothesis) and critically examines attempts to integrate this concept in a theory of the legal burden of proof.

(10) Epistemology and Democratic Theory

Democratic procedures can be seen as devices for aggregating individual beliefs into collective judgments. For example, assuming that there are facts about which candidate would best serve the common interest, the majority rule in democratic elections can be seen as a procedure for aggregating individual beliefs into collective judgments about those facts. The epistemology of democracy examines how well such democratic procedures and institutions fare epistemically.

(10A) General Issues

A major historical figure in the epistemology of democracy is Condorcet, who showed in his "Jury Theorem" that, under the majority rule, a body of voters has a strong propensity to produce correct judgments as long as each voter is minimally reliable. Much contemporary

work pursues Condorcet's project of evaluating the epistemic properties of judgment-aggregating rules. List and Goodin 2001 extends the Condorcet Jury Theorem; Bradley and Thomson 2012 shows that a variant of the majority rule fares better epistemically than the simple majority rule.

Through his Jury Theorem, Condorcet opened the prospect of an *epistemic approach* to democracy – a defense of the value of democratic procedures on the basis of their epistemic (truth-tracking) properties. The epistemic approach to democracy is alive and well: Estlund 2008, for example, offers an in-depth defense of democracy on which democracy is justified by its superior ability to get at the truth. Anderson 2006 also offers an epistemic defense of democratic procedures – one which relies on Dewey 1930's approach to democracy, on which democratic procedures are seen as *experimental* procedures for getting at the truth. Building on the epistemic approach to democracy, Ackerman and Fishkin 2004 makes a concrete proposal for bettering American democracy. Kitcher 2001 focuses on a different topic: the proper place of science in a democratic society, and the way in which scientific agendas should be determined by the interests of society's members.

Anderson, Elizabeth. "The Epistemology of Democracy." *Episteme* 3 (2006): 8-22.

Presents Dewey's account of the epistemic virtues of democracy, and argues that this account is superior to others in virtue of its capacity to model the epistemic functions of certain crucial features of the democratic process.

Bradley, Richard and Christopher Thompson. "A (Mainly Epistemic) Case for Multiple-Vote Majority Rule." *Episteme* 9 (2012).

Argues that multiple-vote majority rule (a procedure on which individuals weigh their votes in accordance with how competent they are) achieves a better balance of epistemic reliability and equality of participation than other rules (including simple majority rule).

Dewey, John. *The Public and Its Problems*. New York: Holt, 1927.

A classic examination of the epistemic virtues of democracy. Insists on the crucial role of discussion and information sharing between epistemically diverse agents in the democratic process, and offers an experimentalist account of democracy. On this view, democratic procedures are a forum by which societies can determine what their goals should be and arrive at true judgments about how best to achieve those goals.

Estlund, David. *Democratic Authority*. Princeton: Princeton University Press, 2008.

Offers an in-depth epistemic defense of democracy. Democratic authority and legitimacy are grounded not in the intrinsic value of democratic procedures, but in their epistemic value – their superior tendency to produce and spread decision-guiding true beliefs.

Kitcher, Philip. *Science, Truth, and Democracy*. Oxford: Oxford University Press, 2001.

An examination of the proper role of science in democracy. Argues that science does not pursue mere truth but significant truth, where significance is determined by the impact of research on human practical interests. Defends the idea that scientific research should be guided by the refined preferences of members of the society.

List, Christian and Robert Goodin. "Epistemic Democracy: Generalizing the Condorcet Jury Theorem." *Journal of Political Philosophy* 9 (2001): 277-306.

Shows that the Condorcet Jury Theorem can be extended from majority voting over two issues to plurality voting over many issues. Also compares the truth-tracking properties of different social decision rules in contexts when there are more than two options to choose between.

Ackerman, Bruce and James Fishkin. *Deliberation Day*. New Haven: Yale University Press (2004)

A proposal for making American democracy more deliberative, building on the arguments for the epistemic value of democracy. Proposes the institution of a "Deliberation Day" before presidential elections which would bring small groups of voters together to discuss key political issues.

(10B) Free Speech

An important (and early) focus of the social epistemology of democracy has been the principle of free speech. Mill 1999 offered an influential defense of the free speech principle based on its *epistemic* benefits. On this approach, allowing the expressions of true and false opinions to "compete" freely in society promotes the elimination of error and the diffusion of truth in society. Schauer 1982 and Goldman and Cox 1996 criticize Mill's argument.

Goldman, Alvin and James Cox. "Speech, Truth, and the Free Market for Ideas." *Legal Theory* 2 (1996): 1-32.

Argues against the thesis (defended in particular by Mill 1999) that a policy of "free market" in speech (that is, a policy with no restrictions on the expression of opinions in society) is an optimal institution for promoting true beliefs.

Mill, John Stuart. *On Liberty*. Peterborough: Broadview Press, 1999.

A classic defense of free speech. Mill's case for free speech is partly epistemic: the free speech principle, by fostering the critical exchange of ideas, promotes the production and diffusion of true beliefs in society. Originally published in 1859.

Schauer, Frederick: *Free Speech: A Philosophical Enquiry* (1982)

An examination of the justifications for free speech. Argues against Mill's epistemic defense of free speech by rejecting the claim that free speech promotes the discovery of truth.

(11) Internet Epistemology

The emergence of the internet has led to the development of various mass-collaborative devices (e.g. online encyclopedias or prediction markets) designed to aggregate information disseminated in a large mass of individuals who may or may not be experts about the topic at hand. Social reaction to these developments has oscillated between strong optimism (e.g. the hope that they will soon make our reliance on experts obsolete) and the fear that these widely-used Web devices are far less reliable than (and will soon destroy) sources of information like traditional encyclopedias and media. Internet epistemology contributes to this debate by examining the epistemic effects of Internet-based epistemic devices. Sunstein 2006 is a book-

length optimistic assessment of the epistemic effects of the internet. Thagard 2001 is a positive assessment of their impact on scientific research. Bragues 2009 and Fallis 2011 offer rather positive epistemic evaluations of prediction markets and Wikipedia respectively. Goldman 2008 raises epistemic worries about the practice of blogging as a substitute for traditional journalism. Coady 2011 offers a response to these charges.

Bragues, George. "Prediction Markets: The Practical and Normative Possibilities for the Social Production of Knowledge." *Episteme* 6 (2009): 91-106.

Surveys the history, mechanisms and uses of prediction markets. Argues that prediction markets have shortcomings but nonetheless offer a promising way of improving the quality of organizational decisions.

Coady, David. "An Epistemic Defence of the Blogosphere." *Journal of Applied Philosophy* 28 (2011): 277-294.

Defends blogging against the charges raised by Goldman 2008, and argues that the existence of the blogosphere improves our epistemic and democratic practices.

Fallis, Don. "Wikipistemology." In *Social Epistemology: Essential Readings*. Edited by Alvin Goldman and Dennis Whitcomb, 297-313. Oxford: Oxford University Press, 2011.

Offers a (mostly positive) evaluation of Wikipedia's epistemic properties. Argues that common epistemic concerns about the reliability and verifiability of Wikipedia are misplaced, and that Wikipedia displays many other epistemic virtues.

Goldman, Alvin. "The Social Epistemology of Blogging." In *Information Technology and Moral Philosophy*. Edited by Jeroen van den Hoven and John Weckert. Cambridge: Cambridge University Press, 2008.

A comparison of the epistemic features of blogging and traditional media. Lays out the complexities involved in such a comparison, and argues that blogging raises epistemic issues in that it lacks the filters and the balance present in traditional media.

Sunstein, Cass. *Infotopia: How Many Minds Aggregate Knowledge*. Oxford: Oxford University Press, 2006.

An examination of the epistemic properties of mechanisms (often Internet-based) for aggregating information disseminated in a mass of individuals, such as prediction markets, wikis and blogs. Argues for their superiority over deliberative procedures.

Thagard, Paul. "Internet Epistemology: Contributions of New Information Technologies to Scientific Research." In *Designing for Science*. Edited by Kevin Crawley, Christian Schunn and Takeshi Okada. Mahwah, NJ: Erlbaum, 2001.

Examines the epistemic properties of various Internet technologies (email, open source software, etc.) and argues that their development has had a significant positive impact on scientific research.

(12) Computer Simulations of Social Epistemology

Computer simulations are widely used to study the dynamics of social systems in general, and it is therefore natural that this methodology be used in social epistemology to study the dynamics of populations of truth-seeking agents. The articles in this section all make use of this methodology. All of them start by building formal models to represent the dynamics of belief-formation in populations of agents and provide results about the properties of these dynamics (e.g. how fast a population of agents can converge on the truth). The best-known model of belief-formation dynamics is due to Hegselmann and Krause (see Hegselmann and Krause 2009) and is extended by Riegler and Douven 2009. Weisberg and Muldoon 2009, Zollman 2010 and Zollman 2011 focus on the dynamics of belief-formation in scientific communities.

Hegselmann, Rainer and Ulrich Krause. "Deliberative Exchange, Truth, and the Cognitive Division of Labor." *Episteme* 6 (2009): 130-144.

Presents a model of belief formation in a group of truth-seeking agents who interact with one another and respond to the evidence they receive. Derives several results about the conditions under which such agents can attain the truth.

Riegler, Alexander and Igor Douven. "Extending the Hegselmann-Krause Model III: From Single Beliefs to Complex Belief States," *Episteme* 6 (2009): 145-163.

Presents a model of belief-formation peopled by agents endowed with more complex belief states than in Hegselmann and Krause 2009's model, and examines the conditions under which such agents can converge on the truth.

Weisberg, Michael and Ryan Muldoon. "Epistemic Landscapes and the Division of Cognitive Labor." *Philosophy of Science* 76 (2009): 225-252.

Offers a model of the division of cognitive labor in which scientists divide their tasks in order to explore a new research topic. Examines and compares the epistemic properties of several strategies that scientists might adopt to explore the topic.

Zollman, Kevin J. S. "The Epistemic Benefit of Transient Diversity." *Erkenntnis* 72 (2010): 17-35.

Presents a model of the division of labor among scientists, and argues that scientific communities are better off when the epistemic diversity of their members is temporary rather than permanent.

Zollman, Kevin J. S. "The Communication Structure of Epistemic Communities." In *Social Epistemology: Essential Readings*. Edited by Alvin Goldman and Dennis Whitcomb, 338-350. Oxford: Oxford University Press, 2011.

An analysis of a model of information-transmission in scientific communities. Argues that restricting information transmission sometimes makes a community better off epistemically and that there is a trade-off between the reliability of a community and the speed at which it reaches a correct conclusion.

(13) Argumentation and Dialectical Justification

One important social epistemic activity is the practice of *argumentation* – the process in which agents present arguments for their claims to an audience. The social epistemology of argumentation examines the norms and principles of good argumentation and the ways in which these norms and principles enable the practice of argumentation to achieve its epistemic goals. Habermas 1984/1987, Siegel and Biro 1992 Goldman 1999 are three important theories of the goal and norms of argumentation. Mercier and Sperber 2011 offers a theory about the proper evolutionary function of reasoning on which reasoning is primarily an argumentative device.

Some authors argue that taking argumentation into account is crucial to understand what it is for a doxastic agent to be justified in believing that p . On Brandom 1994's view of justification, an agent's being justified in believing that p depends in part on the agent's capacity to offer arguments for her claim to justification to an audience, when the audience itself is warranted in raising questions about the agent's grounds for justification. On this view justification is partly dialectical – it consists partly in the ability to respond to certain social epistemic challenges. Williams 2008 develops this view of justification and builds a case against skepticism on this basis. Fricker 2010 links this account to Craig 1990 in order to strengthen Williams' case against skepticism. Wittgenstein 1969 also defends a social theory of epistemic justification.

Brandom, Robert. *Making It Explicit*. Cambridge, MA: Harvard University Press, 1994.

Offers a “default and challenge” model of justification, on which we are justified in believing that p as long as certain default conditions are met and as long as we are prepared to answer warranted questions that might arise about the existence of these default conditions. Brandom thus offers a social theory of justification, on which justification depends partly on our ability to answer certain appropriate social challenges.

Fricker, Miranda. “Scepticism and the Genealogy of Knowledge.” In *Social Epistemology*. Edited by Adrian Haddock, Alan Millar, and Duncan Pritchard. Oxford: Oxford University Press, 2010.

Argues that Craig 1990's social genealogy of the concept of knowledge can be used to explain core features of epistemic justification as conceived by the Brandom 1994 default and challenge model and to strengthen Williams 2008's case against skepticism.

Goldman, Alvin. "Argumentation and Social Epistemology." *Journal of Philosophy* 91 (1994): 27-49.

Examines the norms and principles that govern argumentation, and argues that these norms arise from the nature of argumentation as a social process directed at finding and communicating truths.

Habermas, Jürgen. *The Theory of Communicative Action*, Vol. II. Translated by T. McCarthy. Boston: Beacon, 1987.

Argues for the existence of a distinctive kind of collective action (communicative action) in which the goal of the participants is to reach mutual understanding through argumentation. Develops a theory of argumentation on which the quality of a communicative practice (e.g. a democratic deliberation) is evaluated by its proximity to an “ideal speech situation” (a situation in which no participant is excluded or coerced).

Siegel, Harvey and John Biro. "Normativity, Argumentation, and an Epistemic Theory of Fallacies." In *Argumentation Illuminated*. Edited by Frans van Eemeren, Rob Grootendorst, Anthony Blair and Charles Willard, 85-103. Amsterdam: Sicsat, 1992.

Argues that the aim of argumentation is justified belief: an argumentation for a conclusion p is successful insofar as it makes it epistemically rational for the audience to adopt the belief that p . Offers a theory of fallacies based on this theory of the goal of argumentation.

Williams, Michael. "Responsibility and Reliability." *Philosophical Papers* 37 (2008): 1-26.

Argues that Brandom's "default and challenge" model of justification appropriately integrates reliabilist and deontological insights about epistemic justification, and uses it to mount a case against skepticism. On this view, skeptical challenges do not constitute appropriate challenges to claims of justification.

Wittgenstein, Ludwig. *On Certainty*. Edited by Elizabeth Anscombe and George von Wright. Oxford: Blackwell, 1969.

Defends a distinctively social theory of justification, in which having justified beliefs is a matter of participating in certain social practices of giving reasons for one's claims to other participants. To be able to engage in such practices, participants must share a common "form of life". The consequences of this view for traditional topics such as skepticism or relativism are a matter of controversy.

Mercier, Hugo and Dan Sperber. "Why Do Humans Reason? Arguments for an Argumentation Theory," *Behavioral and Brain Sciences* 34 (2011): 57-74.

Argues that reasoning evolved as an argumentative device designed to evaluate and devise arguments in order to persuade others. The authors appeal to evidence in social psychology to support their thesis and use it to explain various biases in reasoning. An example of psychological research relevant to social epistemology.

(14) Moral Social Epistemology

Moral social epistemology is concerned with two main types of questions. First, just as moral epistemology is concerned with how agents acquire justified beliefs about morality, moral social epistemologists study how *social* institutions and practices foster or hinder the acquisition of justified beliefs about morality (and factual beliefs insofar as those play a role in right actions). Buchanan 2002 argues that moral social epistemology so understood is an important part of applied ethics; Buchanan 2004 examines how liberal institutions hinder the acquisition of morally damaging beliefs. Secondly, moral social epistemology examines the *morality* of our social practices and actions regarding knowledge and truth, for example, the practice of telling the truth (see Williams, 2002) or the action of lying (see Fallis 2009). Fricker 2007 is an important account of the unfairness distinctive of certain epistemic norms and practices (e.g. giving little credibility to testimonies by members of racial or sexual minorities).

Buchanan, Allen. "Social Moral Epistemology." *Social Philosophy and Policy* 19 (2002): 126-152.

Argues that applied ethics should incorporate social moral epistemology, defined as the study of social practices and institutions that facilitate or impede the formation and transmission of true beliefs, insofar as these beliefs play a role in right action.

Buchanan, Allen. "Political Liberalism and Social Epistemology." *Philosophy and Public Affairs* 32 (2004): 95-130.

Argues that our deep epistemic dependency on others puts us at moral and prudential risk by making us vulnerable to adopt morally damaging false beliefs. Offers a defense of liberal institutions based on the argument that such institutions significantly reduce this risk.

Fallis, Don. "What is Lying?" *Journal of Philosophy* 106 (2009): 29-56.

Argues that lying is saying what one believes to be false when one also believes that the Gricean conversational norm "Do not say what you believe to be false" is in effect.

Fricker, Miranda. *Epistemic Injustice*. Oxford: Oxford University Press, 2007.

Argues that there is a specific *epistemic* kind of injustice, in which persons are wronged in their capacities as knowers. Fricker explores two main kinds of epistemic injustice – *testimonial* injustice (in which people are harmed in their capacities as knowers) and *hermeneutical* injustice (in which people are harmed in their capacities as subjects of social experiences).

Williams, Bernard. *Truth and Truthfulness*. Princeton: Princeton University Press, 2002.

Offers a fictional genealogy of our practices regarding truth, designed to explain the need for truth and truthfulness in our social lives. Williams uses this genealogy to defend the value of truth and truthfulness against postmodernist skeptics.

(15) Social Constructivism

Social constructivism is an influential current in the social studies of science. According to strong social constructivism about science, scientific facts, entities and truths do not exist independently of scientists' activities and beliefs: rather, they are metaphysically constituted by the activities and collective judgments of the scientific community. Strong social constructivism is a species of anti-classical epistemology in that it rejects the main tenets of traditional epistemology and philosophy of science (see *General Perspectives on Social Epistemology*). On this view, science as a social activity does not *discover* but *constitutes* ("constructs") scientific facts; it is a matter of social and political negotiation rather than discovery. Latour and Woolgar 1986 is an influential statement of strong social constructivism about science, and Foucault 1965 an influential constructivist account applied to the case of modern psychiatry. Searle 1995, Kukla 2000, and Boghossian 2006 offer detailed examinations and rebuttals of strong social constructivism. Hacking 1998 defends a moderate form of social constructivism, on which certain epistemic projects in the human sciences causally shape the kinds of entities that they study.

Boghossian, Paul. *Fear of Knowledge*, chaps. 2-3. New York: Oxford University Press, 2006.

Chapter 2 presents social constructivist views of knowledge and contrasts them with traditional pictures of knowledge. Chapter 3 addresses the thesis that facts are socially constructed, and presents several arguments against this thesis as it has been defended by Goodman and Rorty.

Foucault, Michel. *Madness and Civilization*. Translated by Richard Howard. New York: Pantheon, 1965.

A study of the emergence of the concept of mental illness, arguing that the conceptualization of madness arose from the need to control threats to the social order. This is (arguably) a constructivist view of madness, on which psychiatry creates rather than discovers truths about mental illness by promoting standards of normality which are in turn used to shape and control people's behaviors.

Hacking, Ian. *The Social Construction of What?* Cambridge, MA: Harvard University Press, 1999.

Offers a critical examination and clarification of strong social constructivist claims in the social sciences. Building on Foucault's work (see Foucault 1965), Hacking argues for a moderate version of social constructivism on which scientific theories about human kinds often causally produce the traits that they ascribe to those kinds.

Kukla, Andre. *Social Constructivism and the Philosophy of Science*. London: Routledge, 2000.

A survey of philosophical work on the thesis that science is socially constructed, more sympathetic to social constructivism than other philosophical discussions. Argues that many of the objections often raised against strong versions of social constructivism are unsuccessful, but offers new arguments against strong social constructivism.

Latour, Bruno and Steve Woolgar. *Laboratory Life: The Construction of Scientific Facts*. Princeton: Princeton University Press, 1986.

An influential statement of social constructivism about scientific facts. Through an ethnographic study of scientists' laboratory work, Latour and Woolgar argue that scientific facts and entities exist only in virtue of the existence of a consensus among scientists.

Searle, John. *The Construction of Social Reality*. New York: The Free Press, 1995.

An influential account of the nature of social facts, which includes an examination and rebuttal of strong social constructivists' attacks on the notions of realism and truth.

(16) Feminist Social Epistemology

Feminist epistemologists inquire into the ways in which gender roles and conceptions of gender interact with epistemic theories and practices, and argue for the importance of such an inquiry for understanding knowledge in general. Insofar as it studies the influence of certain *social* (namely gender) roles on epistemic conceptions and practices, feminist epistemology can be seen as a branch of (or a particular approach to) social epistemology. Anderson 1995 offers such an interpretation of feminist epistemology, and Haslanger 1999 argues that such an approach can contribute to progress in epistemology by illuminating the nature and role of our concept of knowledge. Feminist epistemologists particularly emphasize two ways in which social gender roles matter for the study of epistemic practices. First, feminist standpoint theory argues that certain social roles (including gender roles) afford certain epistemic privileges with respect to certain fields of knowledge: see Harding 1993 and Wylie 2003 for expositions and defenses of feminist standpoint theory. Secondly, feminist epistemologists emphasize that dominant social epistemic practices are harmful and unfair to women in various ways. Langton 2000 examines the claim that dominant epistemic practices can harm and exclude women.

Anderson, Elizabeth. "Feminist Epistemology: An Interpretation and a Defense." *Hypatia* 10 (1995): 50-84.

Argues that feminist epistemology should be seen as a branch of social naturalized epistemology. On this view feminist epistemology examines the influences of gender norms, concepts and experiences on knowledge production. Argues that feminist epistemology so understood can contribute to epistemological progress and raises deep challenges for traditional epistemology. .

Harding, Sandra. "Rethinking Standpoint Epistemology: What is Strong Objectivity?" In *Feminist Epistemologies*. Edited by Linda Alcoff and Elizabeth Potter, 49-82. New York: Routledge, 1993.

A presentation and defense of feminist standpoint epistemology, according to which certain social statuses (e.g., being of a certain gender) offer certain epistemic privileges in particular fields of knowledge.

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Defends the idea that analyzing the concept of knowledge requires reflecting on the purposes and epistemic values that it promotes, and that feminist inquiries into our social and cognitive lives are highly relevant to such a reflection.

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A survey of feminist approaches and contributions to epistemology, focused particularly on the claim that dominant epistemic social practices harm and exclude women (e.g. by failing to recognize them as proper subjects of knowledge).

Wylie, Alison. "Why Standpoint Matters." In *Science and Other Cultures: Issues in Philosophies of Science and Technologies*. Edited by R. Figueroa and S. Harding. New York: Routledge, 2004.

A presentation of feminist standpoint epistemology (see Harding 1993), insisting on the fact that which social locations afford which epistemic privileges is an empirical question. Argues that feminist standpoint epistemology has an important role to play in the philosophy of science, and can complement the approaches of Longino 2002 and Solomon 2001 (cited in *Social Epistemology of Science*).