

A Hybrid Theory of Evidence

by

Janet Michaud

A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Arts
in
Philosophy

Waterloo, Ontario, Canada, 2013

© Janet Michaud 2013

Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

In the literature on doxastic evidence, the phenomenon is regarded as either internal (Plantinga 1993, Feldman and Conee 2001, Turri 2009) or external (Armstrong 1973, Collins 1997, Bonjour 2008). Though the specifics of these views tend to vary, the two main categories are prominent. However, these views face various criticisms. Internalists claim that external evidence ignores relevant mental processes. Externalists claim that internal evidence is weak given its subjective nature. I will propose a remedy for both of these criticisms.

I will argue that evidence is internal, external, and social. That is to say, that there are three types of evidence: mental states, states of affairs, and that which has been produced by a rigorous social process. I will extract Helen Longino's method for establishing social knowledge (2002) and apply it to evidence; I will argue that her method produces social evidence as well. The social component of evidence is aimed towards strengthening internal and external theories of evidence by responding to the worries raised by the internalists and externalists.

First, I will argue that a theory that accommodates both internal and external evidence can absolve the worries raised to either theory alone. Moreover, a theory that can accommodate social evidence will be stronger insofar as a rigorous social process will add a further qualification which can only strengthen our evidence. Second, I will argue that social evidence is not reducible to either external or internal evidence. The external view cannot account for the mental processes that are evidently a part of the justification process and is therefore weak. Finally, though the internal view is compelling, it does not account for evidence which supports our usage of automatic, non-conscious mental processes (Bargh and Chartrand 1999; Aarts and Dijksterhuis 2000).

Acknowledgements

First, I owe my sincerest thanks to my supervisor, John Turri. His expertise and guidance made this project what it is now. His kind suggestions helped me sort out any issues that arose along the way. I am deeply grateful for his patience and encouragement throughout the writing process.

Second, I wish to thank the readers of my thesis, Katie Plaisance and Heather Douglas. Their thoughtful comments helped to improve this work in a number of ways. They offered an a novel perspective which I am grateful for.

Finally, I would like to thank Carla Fehr, whose mentoring and comments on earlier drafts of this project helped shape my ideas and gave me directions for further research.

Table of Contents

Author's Declaration	ii
Abstract	iii
Acknowledgements	iv
Table of Contents	v
Introduction	1
1: External Evidence	4
2: Internal Evidence	10
3: Longino's Method	15
4: Social Evidence	21
5: Hybrid Evidence	26
5.1: Bringing the Internal and the External Together	29
5.2: The Social Link	32
Conclusion	42
References	44

Introduction

Evidence is a diverse concept. Scientists search for evidence through experimentation and observation to confirm their hypothesis. Forensics teams sweep crime scenes in search of evidence in the form of finger prints and murder weapons. People point to evidence to backup their claims. Lawyers refer to evidence in courtrooms such as witness testimony. The list goes on. Certainly, evidence is an important concept. In this thesis, I offer a theory of what evidence is.

Evidence is a key concept particularly in two areas of philosophy: epistemology and philosophy of science. However, epistemologists and philosophers of science view evidence differently. For epistemologists, evidence is anything able to justify beliefs. In many cases, evidence is some variant of a mental state.¹ In other cases, evidence is some sort of physical phenomenon.² Philosophers of science, on the other hand, take evidence to be the kind of thing that confirms that a fact about the world is correct. For some, this can be a physical phenomenon that indicates the truth of some fact. For others, this is rooted in the social nature of practicing science.³ The main focus of this project is the epistemological notion of evidence: that which justifies belief.

Though evidence in epistemology is my focus here, that is not to say that evidence in philosophy of science is no longer of concern. There is a common thread between the two areas and the way they conceive of evidence. That is, evidence, loosely put, is support of some kind. This common thread that runs through both sub-disciplines suggests that theories of evidence in

¹ Feldman and Conee 2001, Turri 2009.

² Armstrong 1973, BonJour 2008.

³ Longino 1990 and 2002.

philosophy of science may be helpful while considering theories of evidence in epistemology, and vice versa. Therefore, my aim is to formulate a theory about the nature of evidence which unifies the current literature regarding evidence in both areas.

Given my concern with evidence as that which justifies belief, one might wonder why I am concerned with *evidence* and not *reasons for believing* (i.e. epistemic reasons⁴). My reasoning for this is simple: there is no important ontological difference between evidence and epistemic reasons. Evidence and reasons share many of their properties and functions, such as justifying or supporting beliefs. Mainly, they both indicate the truth of the belief in question. Given such fundamental commonalities, I see no problem with placing evidence and reasons under the same broader category of that which supports one's belief(s).⁵ I expect that most of my claims regarding evidence can extend to reasons. And when discussing evidence, I will rely on assumptions and engage with arguments from the literature on epistemic reasons.

My main question is what kind of thing evidence is. Is it external, internal, social, or some combination thereof? In the first three sections of this thesis I will survey arguments that advocate three main views: evidence is external, evidence is internal and evidence is social, respectively. In the subsequent section I will argue that, contrary to much of the literature, the two theories are not mutually exclusive. Evidence can be both internal and external. Moreover, a theory of evidence that allows for both internal and external components is more fruitful.

Then, as my crucial contribution to the literature, I will argue that evidence also has a social dimension. To help accomplish this, I borrow resources from Longino's social

⁴ John Turri refers to reasons for believing as epistemic reasons. I have taken this term from his article (2009). 490.

⁵ That being said, it may be the case that we have reasons for believing in addition to or separate from evidence. However, I take it that evidence still remains a reason to believe in this case. I am leaving this issue open to future research.

epistemology.⁶ In particular, I will be focusing on the claim that knowledge is a social accomplishment, formed through collective effort rather than mere individual activity. However, I will be applying those claims about knowledge to evidence. In the final subsection I will show that, though the internalist position is compelling as it aims to account for social interactions, the hybrid view is more advantageous. Unlike the internalist view, the hybrid view is able to account for the position of some social psychologists who claim that non-mental stimuli can directly and automatically cause belief without the believer being consciously aware.

⁶ Longino 2002.

1: External Evidence

Some hold that evidence is the type of thing one can point to or put in a bag; it is an external object, or some other external phenomenon, such as a sound. Among non-philosophers, this is the general consensus about evidence. A number of philosophers have argued for an external account of evidence as well,⁷ though these theories tend to classify evidence as facts or true propositions rather than individual objects. The external position, or a variation thereof, is widely accepted among philosophers of science. Epistemologists, on the other hand, remain divided and the position is therefore less common in epistemology.⁸

In this section, I will give a brief account of epistemological arguments in favour of evidence as external. I want to consider theories which argue that evidence is external such that it is in any way external to the cognizer — i.e., not a mental state. As I will show, there are different ways one can argue for the external position. What is most important to take away from this section is what it means for evidence to be external.

D.M. Armstrong's version of externalism⁹ includes a description of evidence as a law-like connection between a fact and a belief, such that the fact entails the truth of the belief. Armstrong is not only citing facts as evidence but also the relation between facts and beliefs. Appealing to the relation between the two is Armstrong's further qualification which he takes to be increasing the likelihood that one's belief is supported by the corresponding fact(s). In other words, his aim is to ensure that one's evidence is good. Thus, for Armstrong, evidence is external, such that it is the law-like relation between a fact, and a believer's mental state. Thus it

⁷ Achinstein 2000, Williamson 2000, Nozick 1981.

⁸ Kelly, Thomas. 2008.

⁹ Here I am referring to externalism about epistemic justification, however, as stated, I want the focus of this project to be externalism about evidence.

seems the believer would cite the relation between a fact and their belief as their evidence for believing.¹⁰

In Laurence Bonjour's charitable interpretation of externalism, he claims that evidence is not only the law-like relation between state of affairs and belief, but it is also a matter of not possessing any sort of evidence that contradicts those states of affairs or the relation between them and one's belief. Moreover, one must be aware of or have access to the relevant external facts. Bonjour is therefore introducing an external conception of evidence that is more strict and more complex than Armstrong's. Bonjour's adaptation contains two further qualifications, one negative and the other positive. To have proper evidence, not only must there be a fact in favour of one's belief (the external relation), but the believer must also be able to access that fact (whether or not they actually have access to the fact seems irrelevant still). Moreover, one must also *not* possess evidence that undermines that belief and supports its contradiction.¹¹ The three conditions constitute proper evidence.¹²

Alvin Goldman defends a particular externalist¹³ view called reliabilism. Goldman views evidence as the relation between a belief and a reliable belief-forming process. Reliable belief-forming processes are things such as memory, good reasoning, and perception, which tend to produce true beliefs rather than false ones.¹⁴ The relation in question is between one's belief and the fact that it has been produced by a reliable belief-forming process. In other words, when

¹⁰ Armstrong 1973.

¹¹ Bonjour 2008.

¹² Bonjour seems to be advancing a hybrid view insofar as the relation between fact and belief is external, and the remaining two qualifications are internal.

¹³ Again, here I am referring to externalism in terms of justification.

¹⁴ Goldman 2008, 338-40.

asked about one's evidence, one will reply "...because I believe so based on my memory", for instance. However, according to Goldman, the believer need not have cognitive access to the reliability of her belief-forming process for it to be evidence.¹⁵ The fact of the process being reliable is sufficient evidence.

Arthur Collins advocates an external view of evidence which depicts evidence as fact(s).¹⁶ On his view, any belief one may hold is supported by some fact which stands in causal relation to that belief. When pressed, one will ultimately cite the corresponding matter of fact as the evidence for that belief. Moreover, any explanatory doxastic claims one might make ('... because *I believe* that the grass is green.') are restatements of factual claims ('because the grass is green.'). Thus, regardless of whether one attempts to frame one's evidence in terms of mental states, one's evidence is always factual. According to Collins, it is misguided to believe that the grass is green if the grass is not in fact green.¹⁷ He seems to be claiming that the fact is what gives us reason to believe that the belief is true. Were the grass yellow, there is never a good reason to believe that it is green.

Similarly, Peter Achinstein begins with the premise that evidence is external, i.e., objective fact. He argues that science has consistently shown that this is the case. According to Achinstein, external evidence is the only type of evidence that is relevant in confirming or

¹⁵ I take this to be the reason why Goldman's view is an externalist one. The believer does not need to be aware that the relation is serving as their evidence for P, it simply needs to be the case.

¹⁶ Collins frames his project in terms of reasons, and more specifically reasons to act. As I stated previously, I see no important ontological difference between reasons and evidence. Moreover, I see no important difference between reasons to act and reasons to believe. As Collins claims, belief is the intermediary step between reasons and action. Therefore, Collins' claims about reasons to act map on to my discussion about evidence which supports belief(s).

¹⁷ Collins 1997, 110.

disconfirming a hypothesis; therefore, scientists and philosophers of science should not be concerned with anything but external evidence.¹⁸

Broadly construed, the apparent motivation for the external view is its objective nature. Evidence is less likely to be interpreted differently from believer to believer in this case. Evidence for one believer is potential evidence for any other believer; there is thus little qualifying involved when determining what counts as evidence. Collins' motivation for holding the external view appears to be its objective appeal, for instance. He claims that facts are much easier to ascribe truth-values to than beliefs.¹⁹ Therefore, it is much easier to determine whether or not a believer has good evidence. Goldman is motivated, on the other hand, by the inherent trustworthiness of the source of one's evidence. In other words, processes like memory and good reasoning are trustworthy across many, if not all, believers, and the likelihood of the process yielding true beliefs is high on the whole.

At this point, I will turn from the theories of external evidence to their criticisms. My goal in doing so is to expose the weaknesses of the view so that I can explain why combining the three theories of evidence which I discuss here into one allows me to account for these weaknesses.

BonJour identifies a problem with external evidence as Armstrong presents it. The problem, roughly, is that this relation-based definition of evidence is too lenient. BonJour claims that one may hold bad evidence on this interpretation, as there is no way to ensure that one's evidence is reliable. That is, no way to confirm that one's evidence is good evidence insofar as it supports a true belief, i.e., one that represents a matter of fact. Therefore, evidence can be poor

¹⁸ Achinstein 2000.

¹⁹ Collins 1997.

— i.e., supports a false belief — on this account, yet still be used as evidence which supports a belief. In other words, external evidence on Armstrong’s account is weak.²⁰

There are two main criticisms in Achinstein’s 2000 paper that are aimed at external theories of evidence. He argues that (external) philosophical theories of evidence are too weak in the sense that, 1) it is far too likely that bad evidence will fall through the cracks — bad evidence being weak reasons for believing,²¹ and 2) they are not empirical enough for science as they often rely on *a priori* reasoning. Thus, for Achinstein, objective fact is the strongest form of evidence because it is the only form which has an empirical basis that ensures that bad evidence cannot masquerade as good evidence. In other words, bad evidence cannot justify beliefs in this case.²²

Finally, Turri argues that externalism is weak because the externalist cannot appropriately explain their reasons for believing P. In order for someone to explain why they believe that P — in other words, explain their evidence — they must be able to show 1) that they have the relevant mental states and, 2) that they’ve formed the appropriate relations among those mental states. He claims that “having the relevant mental states in place and appropriately related is *both necessary and sufficient* for us to understand your reasons” — i.e., your evidence. Given that explaining one’s mental states and the relations among them are necessary and sufficient, it is redundant to point to external facts, as we can already understand why S believes P.²³

²⁰ Achinstein 2000, 367-8.

²¹ By ‘bad reasons for believing’ I take it that Achinstein is referring to inconclusive evidence, such as evidence E which may support P, even though there is stronger evidence E’ which supports not P, therefore overriding E. For example, the fact that it is raining outside overrides the evidence one may have gathered by checking the weather report earlier.

²² It is worth noting that many philosophers of science may not agree with Achinstein’s strong demands for evidence.

²³ Turri 2009, 503-4.

The views that I have presented here are only some among many theories of evidence which claim that evidence is somehow external in nature. This is by no means an exhaustive list of such theories. Each varies slightly, but the main concept remains: evidence for P is cognitively external to the believer; i.e., does not rely solely on the believer's mental state. The goal of this section was to show how different theories account for external evidence. Now I will turn to a theory which presents evidence as an internal phenomenon, rather than an external one.

2: Internal Evidence

The seemingly dominant view among epistemologists is that evidence is an internal phenomenon, i.e., a mental state. Mental states can be beliefs, perceptions, emotions, sensations, etc. The point is that one's support for P is something internal to the cognizer rather than something out in the world, like a fact or a relation. Though popular in epistemology, philosophers of science do not consider this theory of evidence closely, as it bears little relation to the function which they require evidence to have. In this section, I will discuss the internal view of evidence. I will review the motivation for internalism and offer some criticisms.

Alvin Plantinga, though he frames his argument in terms of warrant,²⁴ argues for an internal type of evidence. He holds that evidence consists in “factors or states internal to that person”.²⁵ Furthermore, evidence is internal such that one must not only be *aware* of one's evidence, but one must also have *special epistemic access* to it.²⁶ The special epistemic access Plantinga has in mind here is the particular cognitive access one has to their own mental states that one cannot have with external factors.

Feldman and Conee also defend the view that evidence is composed of various mental states.²⁷ On their view, what evidence is gets “settled by what goes on inside cognitive beings”.²⁸ Specifically, they claim that one's evidence is a mental state which points to or strongly suggests the truth of P.²⁹ Moreover, they point out that “[i]f any two possible individuals are exactly alike

²⁴ Plantinga's use of 'warrant' is akin to epistemic justification.

²⁵ Plantinga 1993, 5.

²⁶ *Ibid.*, 5-6.

²⁷ Feldman, Richard and Earl Conee 2001.

²⁸ *Ibid.*, 3.

²⁹ *Ibid.* 2004.

mentally,³⁰ then they will refer to the same evidence in support of the same beliefs.³¹ This is an attempt to show that no external environmental conditions are relevant to one's evidence on the internal account.³²

Richard Feldman argues that the possession of evidence, especially over time, depends on whether or not one can recall what that evidence is and the source it came from. So, for Feldman, evidence is an internal phenomenon — he most commonly refers to evidence as a belief, but he also claims that we should not rule out experiences and perceptual states counting as evidence.³³ He argues that one must be currently thinking of *P* in order for *P* to count as evidence.³⁴ In this case, evidence is a mental state as it must be present in the mind. If it cannot be recalled, Feldman suggests that one may no longer possess evidence for *P* in this case.³⁵ Feldman claims that his use of 'currently thinking of' is meant to be interpreted in a broad sense to incorporate dispositional beliefs³⁶ that can be recalled at will.³⁷

Let's take stock. Unlike the external account I reviewed in the previous section, internal evidence is the same thing in each one of these cases. An individual's various mental states, be they beliefs, memories, mental representations, etc., are evidence for some further belief they

³⁰ By 'exactly alike mentally' I take it that they mean two people who have the same mental states (i.e., beliefs, perceptions, etc.).

³¹ *Ibid.*, 2.

³² Apart from their defence of internalism more generally, Feldman and Conee also defend a particular sort of internalist theory called evidentialism.

³³ Feldman 1998, 88.

³⁴ *Ibid.*

³⁵ *Ibid.*.

³⁶ According to Feldman, dispositional beliefs are those beliefs that one has but that are not a part of one's current mental state (p. 87). Such beliefs are also commonly referred to as non-occurrent beliefs.

³⁷ Feldman 100.

hold. The key is simply that evidence is always cognitively internal and never external to the mind. For example, Susan believes that “there is a rabbit in the backyard.” When pressed, Susan claims that she believes this because she is experiencing a perception of a rabbit when she looks in the backyard. For the internalist, she is not referring to the fact that there is a rabbit in the backyard, but her own experience of the rabbit in the backyard, which is necessarily cognitively internal for Susan. When she tells us what evidence she has for her belief, she is explaining the cognitive process which led to her believing that there is a rabbit in the backyard.

What makes internal evidence compelling is its appeal to the cognitive process one undergoes when one forms a belief, or attempt to explain their support for a belief. When we reflect on our beliefs, or are asked to explain why we believe P is the case, we retrace the cognitive steps of our reasons for believing — i.e., we sort through our mental states which led to our belief. Moreover, we are attempting to explain that cognitive process to whomever asks us why we believe.³⁸ Though we may refer to a fact throughout the course of this explanation, it seems that we are also referring to our mental processes.

My aim in this section thus far was to explain the general idea behind epistemological theories that regard evidence to be an internal phenomenon. Moreover, my aim was also to make clear what it means for evidence to be only cognitively available, and give proper examples of what internal evidence can be. I will now present criticisms of this view.

On Collins’ view, it is problematic that internal views of evidence do not take into account the external factors which motivate corresponding mental states. A mental state without an external motivator “loom[s] as a piece of unintelligible absent-mindedness” for the cognizer.³⁹

³⁸ Turri 2009.

³⁹ Collins 1997, 110.

By relying solely on mental states for evidence, internalists disregard the reason(s) for those particular mental states to begin with. In other words, a mental state, such as a belief or a memory, requires an explanation which appeals to a matter of fact which motivated that mental state.⁴⁰ For example, say I suddenly remember that tomorrow is my nephew's birthday. I say that my memory is my evidence for believing that my nephew's birthday is tomorrow. Collins is saying that I am ignoring the reason why I had that memory at all — i.e., the fact that it is my nephew's birthday, or the fact that someone once told me what his birthdate was, etc. If it turned out that tomorrow was not my nephew's birthday, and I was never told that it was, I would have no reason to have that memory. It seems that Collins wants a theory of evidence that addresses the cause of mental states as well as the states themselves.

According to Achinstein, internal evidence is too weak insofar as it cannot offer “conclusive proof” — i.e., internal evidence is unable to guarantee the truth of a belief. Science, he claims, is a practice which results in clear-cut right or wrong answers, and there is no place for internal — i.e., subjective — evidence in a scientific domain, as it cannot perform the function scientists require of evidence. That is, internal evidence cannot offer sufficient support for a hypothesis. Therefore, for Achinstein, considering internal theories of evidence is a fruitless endeavor.⁴¹ I take this to extend to broader epistemic concerns. This problem also applies to evidence for believing, as it too cannot do what Achinstein wants evidence to do: leave little to no room for one to doubt that one's belief is true.

The views and criticisms I have presented in this section are by no means an exhaustive list. However, I have shown that internal evidence takes the form of various mental states. Those

⁴⁰ Ibid., 109-12.

⁴¹ Achinstein 2000.

mental states serve as support for our beliefs — i.e., our reasons for believing. Moreover, I have explained that others have cited the weakness of this view as 1) being unable to account for the causes of mental states, and 2) unable to provide a sufficient level of support. Therefore, internal evidence is a weak type of evidence that cannot carry out the epistemic objective we are searching for.

3: Longino's Method

In this section I will address a popular view in social epistemology, Helen Longino's *critical contextual empiricism*.⁴²⁴³ Longino argues that knowledge is social in nature. More specifically, knowledge is the product of a critical social process. Ideally, critical interactions take place amongst a diverse group of individuals, i.e., a community. The diversity within a community fosters discussion about dissenting points of view, which results in the community determining which information is fit to call knowledge.⁴⁴ I will discuss the key components of Longino's view on knowledge production.⁴⁵

My goal in this section is to explain how Longino's socially-based method of cultivating knowledge works, such that I am able to make a similar argument about evidence. Specifically, I will extend her method to apply to the gathering of evidence. In other words, I will argue that evidence is also social in nature insofar as it is gathered through a critical social process, which is then used to expose the bad evidence and lend further credibility to the good evidence.

In previous work, Longino has argued that specifically *scientific* knowledge is social, making her audience mainly philosophers of science.⁴⁶ However, in *The Fate of Knowledge*, Longino's intended audience spans wider than in her previous work to encompass not only scientific knowledge but all knowledge, which affects philosophers of science and epistemologists. Though her running example of scientific knowledge could appear to be

⁴² I chose to focus on Longino in this section as her detailed, forward-looking method is most apt for my project, however, there are a number of other social epistemologists who argue for the same general thesis, viz., knowledge (and justified belief) is social (Code 1981 1991, Harding 1982, Anderson 1995, Grasswick 2002).

⁴³ This section has been adapted from an earlier paper, however, significant changes have been made.

⁴⁴ Longino 2002.

⁴⁵ My exegesis of Longino mainly spans chapters 5, 6, and 7 of *The Fate of Knowledge*.

⁴⁶ Longino 1990.

misleading, she is clear that her work in this book has a broader reach. In other words, Longino is arguing about knowledge broadly speaking, and is using scientific knowledge in this book as a tool of explanation, rather than her main focus.

According to Longino, knowledge is social in a simple and fundamental way: the production and attainment of knowledge depends on critical social interactions within a community. ‘Community’ is a technical term for Longino. A *community* is a group of people that interact with one another about some common epistemic interest or goal.⁴⁷ Broadly speaking, it is this common concern that unifies these individuals into a community. Communities can vary and can encompass researchers, professors and citizens. Communal interactions take place in laboratories, classrooms and private sectors.⁴⁸ Longino claims that proper epistemic practices situate individuals “in their communities and situate those communities in the larger and partially overlapping communities of clients, funders, consumers, and citizens that sustain them”.⁴⁹ Thus a community is made up of a variety of individuals with differing backgrounds and various experiences. Moreover, “communities are characterized by heterogeneous, sometimes conflicting, interests and allegiances”.⁵⁰ This diversity is crucial amongst community members for producing knowledge.

⁴⁷ Some of Longino’s critics and allies define community membership in terms of expertise. That is, community members are a variety of experts in different fields who gather to critically discuss a common epistemic concern (Weil 2002, Solomon 2006). However, some chose not to define community membership in terms of expertise, as it can be problematic (Fehr 2011). I have chosen not to define community membership in terms of expertise because, aside from the unclear parameters of expertise, the term creates problems when applying Longino’s method to generalized knowledge, beliefs, and evidence. When considering commonly held beliefs and evidence it is difficult to determine who is an expert, or what it would mean for one to be an expert about said evidence. Basically, the term has little relevance in regards to my application of the method. Inasmuch as Longino does not make the term a necessary part of the definition of a community, excluding it from my interpretation is perfectly in keeping with her claims.

⁴⁸ This is not meant to be an exhaustive list.

⁴⁹ Longino 2002, 37.

⁵⁰ Ibid.

Longino refers to the aforementioned critical social interactions amongst community members as *communication*.⁵¹ Communication encompasses a variety of exchanges between two or more individuals, i.e., discourse in its many forms through conversation, literature, media, and so on.⁵² The interactions must be critical in the sense that they necessarily flow in both directions and foster positive change regarding one's views given both positive and negative feedback. In other words, communication involves a variety of criticisms which challenge one's views, evidence, methods, assumptions, etc.⁵³

In order for communication to function properly such that it produces knowledge in the proper way, Longino claims that four criteria must be satisfied. These criteria are the markers for an ideal cognitive community. Longino admits that communication takes place without all four of the conditions in place often. However, the result is knowledge that we cannot rely on to be accurate, as it will be biased and likely wrongheaded.

1) Venues

Venues are physical spaces in which community members can express their views so that a critical exchange of ideas can take place. "There must be publicly recognized forums for the criticism of evidence, of methods, and of assumptions and reasoning."⁵⁴ Communities require accessible venues in which their members may express their perspectives and have them critically evaluated. Moreover, venues ensure that all of these interactions are accessible by all members of the community. "This means that criticism of research ought to be articulated in the

⁵¹ 'Communication' is the second of two important technical terms for Longino.

⁵² For simplicity, I disregard any communication that takes place within the community that is not relevant to the advancement of a theory.

⁵³ Ibid., 104 and 161.

⁵⁴ Ibid., 129.

same standard and public venues in which “original research” is presented: journals, conferences, and so on”.⁵⁵ In other words, venues are as much for the presentation of the work as for the critical responses to and evaluations of that work. So, “critical activities should be given the same weight or near the same weight as is given to “original research”: effective criticism that advances understanding being as valued as original research that opens up new domains for understanding”.⁵⁶ Without venues community members are not able to express their views for all community members to engage.

2) Uptake

A view is met with uptake when it is heard, respected, and discussed. Not only does uptake call for community members to express their views, but for other members to engage critically with those views and respond in such a way that directly addresses the particular issue of concern. That is, “[t]here must be uptake of criticism”.⁵⁷ These responses are known as dissenting views which challenge the claims of others. When views meet dissent, this elicits positive change. A view evolves when met with criticism. For the production of knowledge, it is necessary that views and assumptions within the community withstand criticism from others within that community and from other overlapping communities. “The community must not merely tolerate dissent, but its beliefs and theories must change over time in response to the critical discourse taking place within it”.⁵⁸ Thus, uptake necessarily leads to conformation⁵⁹ and the transformation

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Longino 2002, 130.

⁵⁸ Ibid.

⁵⁹ Conformation — the reaching of sufficient consensus on an issue amongst the community, or “epistemological success of content (Longino 2002, 116) — is necessary for a view to transform.

of a view. A view will remain stagnant without uptake, as it never receives proper criticism and reflection. For Longino, uptake of criticism is a positive thing.

3) Public Standards

Public standards are the agreed-upon principles with which a community can assess views and their criticisms. “There must be publicly recognized standards by reference to which theories, hypotheses, and observational practices are evaluated and by appeal to which criticism is made relevant to the goals of this inquiring community”.⁶⁰ The standards themselves are also subject to assessment by the community. “[S]tandards are not a static set but may themselves be criticized and transformed”.⁶¹ In other words, the community can decide, through critical discourse, to change their views and the standards upon which they evaluate those views.

4) Tempered Equality

All community members, regardless of their status within the community (long-standing respected member, new member, etc.) should be able to express their views and have them receive uptake. All members within the community ought to respect all other members and treat them equally. That is, one’s position within the community should not determine whether or not their views and/or criticisms are respected.⁶² The entire community should be free to assess views and criticisms without being stifled by authority of any kind. In essence, tempered equality is something like equal opportunity to express one’s perspective. Without such an equal opportunity, dissenting views may go unheard, and views will not change accordingly.

⁶⁰ Ibid., 130-1.

⁶¹ Ibid.

⁶² Ibid, 131.

So, to take stock, for Longino, knowledge is determined by a specific rigorous social process which she describes as community-based interaction, necessarily involving criticism.⁶³

Her formal definition of community-based knowledge is as follows:

Some content *A* is *epistemically acceptable*⁶⁴ in community *C* at time *t* if *A* is or is supported by data *d* evident to *C* at *t* in light of reasoning and background assumptions which have survived critical scrutiny from as many perspectives as are available to *C* at *t*, and *C* is characterized by venues for criticism, uptake of criticism, public standards, and tempered equality of intellectual authority.⁶⁵

Longino's four criteria constitute the parameters in which critical discursive interaction can and ought to take place. A view that withstands this difficult process and reaches the desired degree of conformation is deemed knowledge by and for a cognitive community. This characterization of knowledge concentrates on the social relations involved in data observation, characterization, and critical analysis.

It is important to note that Longino's social method does not dissolve the individual in favor of the community. "The point of emphasizing the sociality of observation is not that an individual could not engage in experimentation or record perceptions on her own."⁶⁶ Rather, the community is where an individual's various observations and views are shared. "The claim of sociality is the claim that the status of the scientists's perceptual activity as *observation* depends on her relations with others, in particular her openness to their challenge to and correction of her reports."⁶⁷ So, knowledge is dependent upon, and not simply embedded in, our social structure.

⁶³ Ibid., 148.

⁶⁴ By 'epistemically acceptable' I take her to mean something along the lines of epistemically justified, but in a community-sense as opposed to an individualist-sense. Thus, the content is supported by one or more reasons which rule in its favour.

⁶⁵ Ibid., 135.

⁶⁶ Ibid., 102-3.

⁶⁷ Ibid., 103.

4: Social Evidence

Though Longino's method is appropriate to address the production of knowledge, the question remains: is it also a suitable method insofar as it applies to the attainment of evidence? I will argue that Longino's social method is useful to characterize how we acquire evidence. My goal in this section is to extract Longino's social method for the production of knowledge and apply it to evidence. I will explain how the social method applies to evidence. Moreover, I will explain what it means for evidence to be social.

The definition of a community which Longino offers will require some refinement in order for it to be a useful tool for my current project. Her definition is arguably biased towards professional epistemic communities, e.g., scientific communities, educational communities, etc. Her use of language such as "clients, funders, consumers, and citizens"⁶⁸ indicates a predisposition towards more formal and/or professional communities. However, these particular roles are much less common in more general and less formal types of epistemic communities such as the ones I am concerned with here.⁶⁹ Less formal communities, such as those communities that discuss more general and/or common beliefs and our evidence for them, have less clear community roles. That is to say, community membership is often ill defined in such cases. Therefore, we ought to pay strict attention to who may or may not constitute a member of our community.

Critics of Longino's view argue that Longino requires a more robust definition of *social*.⁷⁰ They claim that merely critical interactions within communities is not a sufficient way

⁶⁸ Ibid., 37.

⁶⁹ That is not to say, however, that I am not concerned with more formal epistemic communities as well.

⁷⁰ Solomon and Richardson 2005, Schmaus 2005.

to characterize the social as it applies to the actual and messy world in which science takes place. However, these criticisms are, I think, wrongheaded. The way in which Longino describes ‘social’ leaves room for it to be exemplified in a variety of ways. However, a more precise definition of ‘social’ will necessarily cut off certain avenues of the social role which may impact one’s epistemic goals.

To be more specific, Warren Schmaus claims that Longino’s definition of a community should be more precise such that her theory encompasses “some notion of social structure and of individuals occupying specific social roles, with specific sorts of well-defined social relations.”⁷¹ Her description of communities should account for the structure these communities necessarily operate within. Schmaus’s suggestion to narrow the description in this way seems to complicate the notion of a community without being helpful. The pre-existing social roles and relations seem to be precisely the problem for Longino. People in positions of power who abuse their status within the community are not benefitting knowledge/evidence production. Rather, social roles such as these cut off important critical discourse from others community members who occupy less prestigious roles within the community. Therefore, accounting for social structures, particularly restrictive ones, goes against her ultimate goal.

Admittedly, Longino’s definition of a community is vague. It sets few parameters for community membership, thus making it difficult to determine who ought to be a member of which epistemic community.⁷² However, its vagueness is arguably a virtue because it allows for the community to encompass all those that are involved in the epistemic goal at hand. I take this

⁷¹ Schmaus 2005, 105.

⁷² Longino uses the term ‘cognitive community’. However, for my purposes ‘epistemic community’ is a more apt term. Moreover, I think Longino would agree that there is no relevant difference between the two terms.

to be Longino's aim; to include as many individuals as possible so as to have sufficient diversity among community members, which will foster proper critical discourse. So, as opposed to Schmaus, my point is not that Longino's definition needs specification. Rather, we ought to pay close attention to community membership as it can be difficult to figure out who belongs in which epistemic community. Moreover, we should not limit our definition of a community such that it is too restrictive — i.e., excluding those who can and therefore should be participating members. Doing so will negatively impact our evidence-producing abilities. I can retain the inclusive asset while refining her definition such that it forces us to pay closer attention to community membership.

Though she claims that the following definition leads to many questions, Longino states that “[a] cognitive community is any group bound by some set of common goals and shared public standards regulating critical (knowledge-productive) discourse and the stabilization of representations as knowledge.”⁷³ ⁷⁴ Though this definition is more generalized than the one she begins with, it will not serve my present purpose. I propose the following definition of a community which is suitable to deal with evidential concerns: *a community is comprised of individuals who have a common epistemic goal which they necessarily engage in critical discourse about, in accordance with the relevant public standards.* This definition retains Longino's goals for a successful community while still abstracting it away from knowledge-productive communities specifically. It excludes no one who bears relevance to these

⁷³ Ibid., 145.

⁷⁴ This particular definition of a community is laid out after she outlines her entire theory, in a section addressing clarifications and responses. So, this is not the definition that she gives when developing her theory, however this is the more generalized definition she has in mind throughout.

communities, and includes only those who participate constructively in the discourse. Thus, it seems that this definition, though not a complex one, serves my present purpose.

Importantly, the four criteria that are crucial to Longino's method are useful in other epistemic domains as they stand. Communication as critical discourse involving venues, uptake, public standards, and tempered equality are not necessarily knowledge-productive in nature. These criteria apply easily to epistemic communities that gather to communicate effectively about evidence as well, as the main point of the community remains the same: to communicate effectively about our epistemic goals. More importantly, arguing that evidence is also social in nature seems to only further Longino's goals, i.e., exposing the social process embedded in our epistemic practices.⁷⁵

Longino's method revolves around critical communication amongst a community of individuals. She admits that one may have various beliefs about science, but until they are discussed with and agreed upon by a community, they do not constitute knowledge.⁷⁶ Something similar can also apply to evidence. That is, a member of a community may have access to relevant pieces of information, however, this will not constitute evidence for P until it has passed some measure of a social process which allows it to be such.

Other than some minor clarifications to her definition of a community, Longino's method is already such that it can be extracted and applied in other epistemic domains. Essentially, I have argued that communities need to encompass all of the individuals who, in accordance with public standards, interact critically about a particular epistemic goal. Apart from this, her method and

⁷⁵ In addition, Longino views observation as an activity which is inherently social. Insofar as observation plays an important role in the gathering of evidence — i.e., perception is in a sense dependent upon social processes (Longino 2002, 100) — it seems that Longino must view evidence as inherently social as well. Thus, her method ought to be well suited to apply to evidence.

⁷⁶ Longino 2002, 153-6.

particulars of it are generalizable as they stand. More precisely, her method is applicable to theories of evidence insofar as evidence is also social in nature. That is to say, evidence is social as it is produced through a rigorous social process which aims to expose the bad evidence and lend further credibility to the good evidence.

It seems rather evident that to some extent we use social phenomena as evidence on a regular basis. I rely on conversations with my peers and mentors to support certain beliefs I hold about course material, for instance. I see no reason why an internalist or externalist would disagree with this point. However, the problem lies in their characterization of the social phenomena. An internalist may claim: sure, social phenomena influences one's evidence; but one's mental state is what serves as evidence, not the social aspect itself. An externalist may claim: of course social phenomena plays an important evidential role, it is part of a body of external evidence. In what follows I will show that my account of social evidence is importantly different from internal and external accounts of evidence.

5: Hybrid Evidence

Prior to this section I have been concerned only with presenting prominent views in the literature; however, herein I will present my view about what evidence is. I will argue that evidence is a combination of the views I have presented above: external, internal, and social. I will not be arguing against the three dominant views in this paper. Rather, I will be combining these views into a hybrid theory of evidence. It is my position that the evidence which justifies our beliefs is either internal, external, social, or a combination of these three types of evidence. More specifically, I will argue that inasmuch as justification may come in degrees, gathering evidence is a process. Throughout such a process there are three types of evidence that may be gathered. That is to say, evidence is a complex concept such that evidence can be internal, external, or social.

Internalists and externalists alike present compelling definitions of evidence; this theory is aimed at retaining those compelling aspects combined into one account. I will begin this argument by showing why evidence as an external phenomenon and evidence as an internal phenomenon can exist simultaneously for the same belief. I will begin by briefly discussing the process of justification and explain why the evidence gathered throughout this process need not be homogenous. Moreover, I will explain why it is beneficial for evidence to be heterogenous. First, I will explain that internal evidence and external evidence are not mutually exclusive as the literature suggests.⁷⁷ Then, I will explain why social evidence as I have defined it is a separate type of evidence, rather than falling within the internal/external distinction. Finally, I will explain

⁷⁷ BonJour 2008.

why an inclusive view like this one is beneficial, and why we ought to adopt this view as opposed to strictly external or internal views.

Justification is, at least often times, a process. Justification can come in degrees, as we often collect evidence in stages. When we form a belief we may encounter pieces of evidence over time that support our beliefs. Once we have gathered a convincing amount of evidence, we form a belief. Moreover, justification is often an ongoing process.⁷⁸ Even though we hold a belief, we can encounter further evidence which supports it. Furthermore, in any situation where one has various pieces of evidence that support a belief, it is highly unlikely that all of these pieces will come at once.

For instance, I believe that ‘spinach is good for my health’. I gained this belief through a process which involved gathering various pieces of evidence that support this belief. Perhaps I heard this from my doctor first. Then, I read a study about the health benefits of spinach. Afterwards, I spoke to a friend who told me about an article they have read. Each time I gain further support for my belief and it becomes increasingly more likely that it is true. In this case, my belief is not supported by a single piece of evidence; rather, it is supported by multiple pieces of evidence that I have gathered over time.

That being said, each piece of evidence need not be of one type. That is, rather than claiming that evidence can only be one type of thing, as Achinstein does with respect to external evidence for instance, I am arguing that evidence may be more than one type of thing. Not only is this a more accurate theory of evidence, but more importantly it is a more profitable theory of

⁷⁸ Goldman (1979) also refers to justification as a process. The ‘belief-forming processes’ that Goldman emphasizes, such as memory and good reasoning, are instances of gathering or acquiring evidence which supports one’s belief.

evidence insofar as such a theory arguably allows more evidence to be considered when forming and justifying beliefs, quantity wise.⁷⁹

Moreover, adopting the view that evidence is diverse in type means not having to exclude any potentially relevant evidence introduced in the major theories I discussed.⁸⁰ Considering evidence in this inclusive light avoids the unnecessary exclusion of relevant evidence.⁸¹ This new account is inclusive enough to ensure that we can avoid marginalizing potentially relevant evidence, as doing so may negatively alter our beliefs. But, it is still critical enough to avoid bad or fruitless evidence, as this will also negatively alter our beliefs. My account will retain the scrutiny presented in these theories. While combining them I will still avoid disregarding relevant evidence simply on the basis that it does not fit with one's theory of evidence, regardless of the fact that that evidence is good evidence, and should be considered, but I will account for all three interpretations of evidence within the same theory and this will allow for a larger body of possible pieces of evidence.

The view I am adopting avoids the criticisms posed to internalists and externalists insofar as the view's inclusivity fosters a balance between the subjectivity and objectivity of evidence — i.e., the relevant mental states and relevant external factors. The main criticisms can be summed up roughly like this: strictly internal evidence is too subjective in the sense that there are no explanations for the causes of or standards upon which to judge evidence that is internal to a cognizer, and strictly external evidence is too objective in the sense that such account ignore the

⁷⁹ I will return to the topic of whether or not my inclusive account is able to ward off the consideration of bad evidence later in this section.

⁸⁰ What I mean to say is that if one adopts one theory, viz., that evidence is internal, one is not able to account for external evidence even though both kinds of evidence are compelling and fruitful for their own reasons.

⁸¹ By 'relevant evidence' I mean any evidence that lends support to a belief or, on the contrary, could disprove a belief.

mental states that necessarily accompany facts. Providing a theory that acknowledges subjective *and* objective types of evidence is, at the very least, a step towards striking the proper balance between the two in order to avoid these problems. My first step towards constructing said theory is to show that internal and external evidence can be present in a cognizer's body of evidence without conflict.

5.1: Bringing the Internal and the External Together

I have already explained what it means for evidence to be internal and, on the other hand, what it means for evidence to be external. I will be using the interpretations I presented in the first two sections of this thesis to explain why these accounts are descriptions of two different *types* of evidence, rather than being two different descriptions or interpretations of evidence altogether. What I mean by there being 'internal evidence' and 'external evidence' is that rather than regarding evidence as only one type of thing (*viz.*, a belief or a fact), there can be internal evidence *and* external evidence, and both can support the same belief for the same cognizer.

I say that the internal and external phenomena are different *types* of evidence rather than different interpretations of the same evidence because they are considerably different in kind. A mental state such as a belief is not the same type of thing as an external fact like an object or a sound. A mental state is psychological while a fact is physical. The former claim is stronger than the latter.

So, the question is: can evidence be both a mental state and a fact or state of affairs insofar as each is a separate piece of evidence, but nonetheless part of the same body of evidence which supports P? That is, is it possible that my evidence for P can be 1) my belief(s) that

support P, and 2) fact(s) which support P? Again, say I believe that ‘spinach is good for my health’. Not only can I refer to a fact which supports this belief — the fact that spinach is high in vitamins A, C, E, K, etc. — but I can also refer to other beliefs I have which support this belief, such as ‘spinach is rich in vitamin A’ and ‘vitamin A is good for my health’. Rather than causing any conflict, both of these types of evidence seem to support the belief *and* each other in this case.

In the example above, the pieces of evidence that I refer to are consistent with one another.⁸² Moreover, they support one another insofar as two pieces of evidence lend further credibility to the belief in question as opposed to one. In addition, the relation between the belief and the fact lend further credibility to the subsequent beliefs in the example and vice-versa, the subsequent beliefs make the relation between the fact and belief more likely to be true in the eyes of the cognizer. The more evidence one possesses, the more likely it is that the belief is true. Possessing more than one *type* of evidence only increases the likelihood that the belief is true. In this case, evidence comes closer to performing the function that others have argued it should perform, viz., guaranteeing the accuracy of the belief.

Similarly, Jacob Stegenga argues that for philosophers of science, the more evidence one has to support a theory and the more diverse that evidence is, the more likely it is that the theory is confirmed — i.e., the more likely it is that the theory is accurately representing the state of

⁸² I take it that as long as some beliefs can be justified by both types of evidence (as I will argue later, three types of evidence), then the theory I am proposing is a reasonable one. I am not claiming that all beliefs must be supported by the three types of evidence. However, I am claiming that all three types of evidence exist, and are able to justify beliefs. I see the two claims as very different ones. The former more of an epistemic claim, while the latter is more of an ontological claim about the nature of evidence; which, as I have mentioned previously, is my main concern here. The former claim is one I hope to tackle in future work.

affairs. He calls this state of plenty and diverse evidence the *robustness* of a theory.⁸³⁸⁴ I take it that the more evidence one has, and the more diverse that evidence is, the more robust a belief is. That is to say, the concept of robustness applies to beliefs as well as scientific theories.

The criticisms of internal and external theories of evidence are remedied by a theory that accounts for both types of evidence rather than one. Internalists claim that external theories struggle to explain the relevant mental processes which accompany the external phenomena regarded as evidence. Externalists claim that internal evidence is lacking the objectivity necessary in order to make judgements and/or assessments about the strength of the evidence. Roughly, externalists claim that internal evidence is lacking an explanation for the causes of mental states, while internalists claim that external evidence is lacking an explanation for those corresponding mental states.⁸⁵ When the two types of evidence are recognized by the same theory, these criticisms dissolve with the presence of each other. That is, an external component addresses the problems with internal evidence, and an internal component addresses the problems raised with external evidence. Hybrid evidence gives the proper balance between the internal mental processes and the external states of affairs, ensuring that one's evidence is subjective enough to account for any mental states which play a part in supporting one's belief, *and* objective enough to allow proper judgements of one's evidence.

A hybrid theory allows us to refer to internal and external states when forming and justifying our beliefs, when appropriate. Both play an important role in the process of belief

⁸³ Stegenga 2009, 651.

⁸⁴ For Stegenga, the concept of robustness is more complicated than I mention here. However, I do not take that to be relevant to my point.

⁸⁵ This is problematic because neither internalists nor externalists want to say that external facts or mental states, respectively, play *no* role in the justificatory process. Rather, they argue about which plays the primary role — i.e., what is able to directly justify belief.

formation and justification.⁸⁶ To return once again to the spinach example, my belief that ‘spinach is high in vitamins A, C, E, K, etc.’ as well as the fact that ‘spinach is high in vitamins A, C, E, K, etc.’ influence my belief that ‘spinach is good for my health’. The fact and the mental state support my belief. Furthermore, it is the case that many of our beliefs are supported by two components. A theory that can explain both influential factors seems only stronger than a theory that can only account for one. The criticisms raised by both internalists and externalists support my claim here. Unless I am presented with a compelling reason why the two are incompatible types of evidence, a hybrid theory seems to best express the evidence we appeal to for justification.⁸⁷

5.2: The Social Link

Aside from the internal and external, I will argue that there is a third type of evidence — viz., social evidence. In section 4 I presented a view of what social evidence is. In this section I will be supporting that definition by arguing that social evidence as I present it can account for evidence which internal and external views cannot. More precisely, I will argue that external evidence is not equipped to respond to the criticisms proposed by its opponents. I will point to research being done in social psychology on automaticity to show that, though the internalist view is compelling, it cannot account for evidence that is not mediated by internal states — i.e., external and/or social evidence.

⁸⁶ That is not to say that we always have internal and external evidence for every belief. But, it is at least *possible* to have both types for many of our beliefs.

⁸⁷ It goes without saying that I see no compelling reason why the two are not compatible.

On my view, any evidence that has not survived the rigorous social process that I outlined herein is not the particular type of social evidence that I wish to draw attention to. Evidence that may in some rough sense be social insofar as it is simply gained through testimony may not be evidence at all, or it may fall within either the internal or external categories. Were social evidence something that need not go through this process, it does not solve the problems posed to the internalists or the externalists. That is, such evidence is not the rigorous type of evidence one ought to search for. It is only through the specific type of communication which Longino describes that my definition of social evidence arises. Therefore, I am not arguing that any potential evidence can be necessarily social evidence — such evidence must fit Longino's criteria discussed in the fourth section.

Social evidence helps to mitigate the concerns raised with external and internal evidence which I identified earlier on. In sum, there are two main concerns, one for external evidence and one for internal evidence. First, external evidence is weak insofar as it ignores the relevant mental processes that accompany external phenomena. Therefore, it is likely that one can hold bad evidence — i.e., evidence that does not properly support a true belief — as mental processes ought to be a consequence of external influence. Second, internal evidence is weak insofar as one's evidence may be good — i.e., providing a good reason to believe — but whether or not this is the case it cannot be evaluated by external and objective standards. On this account, it is possible that bad evidence goes undetected.

Importantly, the point is that it is less likely that either of these problematic instances of evidence will pass the critical discursive test. That is, social evidence as I have described it so far is less likely to fall prey to the same problems as internal or external evidence, whether it starts

out as internal evidence, external evidence, or a combination of the two. Presenting one's evidence within a community and receiving dissenting views about that evidence, if it is in fact bad evidence, will likely expose that bad evidence and cause a change in what we consider to be evidence for a belief. In other words, the social process will help weed out the bad evidence. What we are left with is good evidence. Though this may not entirely guarantee that we have the *best* evidence, or that there is *no chance* that our evidence does not adequately support our belief(s), as Achinstein wants philosophical theories of evidence to do, this is the closest we have come thus far.

Furthermore, it is beneficial to adopt a theory that accounts for these three types of evidence insofar as social evidence can solidify internal or external evidence.⁸⁸ In other words, one may have internal evidence (or external evidence, or both), but it is not necessary that these types of evidence are directly confirmed by or discussed with others. However, one can enter into a critical conversation within one's community about said internal evidence and thus produce a second type of evidence, viz., social evidence. This new evidence can solidify or confirm the internal evidence by adding credibility to it. That is to say, accounting for three types of evidence is beneficial insofar as may strengthen our evidence, making the belief more likely to be true. The more evidence one has, specifically the more types of evidence that are accounted for in one's body of evidence, the stronger each piece becomes, and the more reliable our evidential body as a whole becomes. A belief is stronger when our mental state supports it, matters of fact support it, and yet again when our epistemic communities and the interactions we

⁸⁸ Moreover, one may argue that social evidence is a form of external evidence such that a relation holds between one's belief and an external factor, viz., the social interaction. However, I am not making the weaker claim that social evidence is a subtype of external evidence. I think social evidence is important enough to merit its own category. The critical social interactions I have discussed can influence our evidence and beliefs in such a fundamental way, as we involve ourselves in these interactions more often than one may think.

have within them support it. Moreover, our theory of evidence is stronger when it can make our justification stronger by accounting for more types of evidence.⁸⁹ In essence, three types of evidence as opposed to one makes our evidence as a whole stronger, which brings us closer to true beliefs than either of these theories does alone.

Up until this point I have addressed how social evidence is produced; now I will briefly discuss how social evidence works, viz., how it affects the justification of one's beliefs. Social evidence works in this way: our critical social interactions involving conversations, gestures, exchanges through literature, etc., between two or more people can serve as evidence on their own, such that social evidence can form and justify a belief on its own. It can also strengthen the evidence we already possess, meaning we can gain stronger justification when added to internal and/or external evidence. Finally, social evidence, if it contradicts with or challenges our previous evidence, may cause us to re-evaluate our evidence. Thus, social evidence functions the same way internal evidence and external evidence does when it comes to the justification and evaluation of our beliefs. The social interactions themselves serve as support for P. My main concern here, however, is not the details of social evidence as a justifier, but what it means for evidence to be social at all.

To review, evidence is social insofar as one gains said evidence through a critical social process. The critical social process that I am referring to is the same process which Longino argues is the process through which knowledge is formed. I am defending the view that evidence for P is attained in the same way. By this I mean that social evidence is formed by an epistemic

⁸⁹ For the same reasons that multiple types of evidence makes our justification stronger, arguably it also allows our theory of evidence to ward off bad and fruitless evidence. It is much less likely that our evidence (and beliefs) are misled if it is confirmed by additional evidence.

community if and only if the community adheres to certain criteria whilst doing so. Amongst community members, evidence for P is identified, tested, and discussed.

Communication is the most important aspect of this third category of evidence. In a very rough sense, communication in regards to evidence is simply a matter of who speaks to whom in a critical manner about the evidence they have, or potential evidence they may have.⁹⁰ Though this description may capture the general idea behind the concept of social evidence, it is of course only the beginning. This characterization is missing some key elements, such as Longino's four criteria for knowledge, viz., venues, uptake, public standards, and tempered equality. For effective communication to take place in regards to evidence these same characteristics also apply. That is, social evidence is produced in accordance with proper venues, sufficient uptake of criticism regarding the evidence, previously agreed-upon public standards for said communication, and tempered equality of authority among community members.

What makes evidence social as opposed to external or internal, is its production through a critical social process involving Longino's criteria. So, in this process there is a venue, that is the place and time when a conversation takes place, for example. The venue enables community members to express their views and criticisms. There is clear uptake among the individuals taking part in the conversation; no view points are ignored and they are all taken into consideration when determining what the evidence is in this situation, including any dissenting views. The community members are adhering to certain public standards which are already in place, but these standards are open for members to challenge if necessary — i.e., community members are able to critique and reevaluate the community's standards of/for evidence. Each

⁹⁰ The fact that communication is involved in the formation of the social type of evidence at all is, much like Longino claims, enough to call the evidence social. Keeping the definition of 'social' loose in this way is beneficial such that many exchanges can affect evidence.

member taking part in the conversation is treated with tempered equality; a senior member is not abusing her position of power, for example. The presence of Longino's four criteria in social interactions about evidence is beneficial.⁹¹ Moreover, that social evidence must be produced with this criteria to be properly social evidence; otherwise, it should not be considered social evidence at all — perhaps external or internal evidence instead, depending on the situation.⁹²

It will not be contested that among the three views I am dealing with here our relevant social interactions play some role in determining what is evidence for what belief. However, the exact role that this social dimension takes on is different among the three views. An externalist regards social interactions as a form of external evidence insofar as those interactions we have are external phenomena, i.e., matters of fact. An internalist regards social interactions as the basis upon which mental states come about, and those mental states that are prompted by the interactions serve as the evidence. I, and perhaps some social epistemologists, on the other hand, regard the social process as that which produces the evidence. Therefore, evidence is dependent upon the social dimension in a much more direct and fundamental way on my view.

Social evidence is not reducible to external evidence such that it does not align with the externalists ultimate goal for evidence: objectivity. Social evidence is static, because it, along with the community's standards for evidence, are subject to change as often as the community

⁹¹ Though they are certainly not always present in critical social interactions about evidence — such as a situation in which a senior community member is abusing her/his position of power — this is an ideal, as Longino claims. In such situations, however, bad evidence will possibly be produced. Arguably, the fewer criteria are present, the higher this possibility rises. Therefore, situations where all four criteria exist will produce better social evidence. However, the presence of the criteria need not be discussed or directly addressed. I take it that as long as there is no reason to believe that the criteria is missing from the exchange (e.g., dissenting views are not getting uptake), then any evidence which is produced from the critical social interaction is proper social evidence.

⁹² Evidence may also be considered as social evidence because the relevance of our evidence to a belief is determined by phenomena that are heavily influence by social processes — i.e., our background assumptions, theories, etc. If this is indeed the case, it would further support my point that evidence can be deeply social. Therefore, social evidence warrants its own category.

sees fit. However, factual (external) evidence is not static in this same way.⁹³ In other words, I am claiming that social evidence is more than simply external. It is important enough to warrant its own category. Social evidence can be composed of external and internal components. One can discuss external phenomenon and have accompanying mental states about those interactions. Both those internal and external phenomena can play a role while forming social evidence. In addition, social evidence focuses on the process through which the evidence was formed (or came to be regarded as evidence for P), and this is distinct from what the externalists are willing to argue.

The externalists seem unable to escape the criticisms they have been charged with. The external view cannot account for the mental processes entwined in the process of justification. One cannot deny that external evidence, though playing crucial a role in the process, cannot continue to go unmediated. Mental states and/or processes are evidently a part of the justificatory process, at least most of the time.

The internalists, on the other hand, seem to make a persuasive argument. A good case can and has been made for mental states being the proper and direct evidence for believing.⁹⁴ These accounts acknowledge external factors, but claim that external phenomena is mediated by internal processes, which in turn act as a justifier. Seemingly, the internalist can account for all types of evidence which I have drawn attention to. Moreover, the criticisms weighed against the internal view are easily responded to. Sure, internal evidence is subjective. It accounts for all the relevant mental processes attached to justification. However, it is not purely subjective.

⁹³ Though the facts themselves may not change, it is likely that one's interpretation of the facts is static. However, I will put this issue aside for further work, as it will not impact my argument here.

⁹⁴ See Feldman and Conee 2001 and Turri 2009.

Internalists are not claiming that external factors play *no* role in justification. Rather, external factors influence mental states, and those states in turn mediate the external world of facts and the cognitive process of justification. Therefore, external factors (including social factors) play an *indirect* role in the process.

So, it appears that we have reached a stalemate between the internal and hybrid views. Though the hybrid view looks like the more inclusive view, the internalist seems to have a ready response to the concerns I have raised thus far. That is, all external and social evidence is mediated by mental states, and those mental states are the evidence which justifies belief(s). However, social psychology literature on automaticity provides some relevant findings that speak in favour of the hybrid view.⁹⁵

Briefly, automaticity is the notion that in particular situations non-mental stimuli can cause us to skip the stage of mental mediation — which internalists rely upon for their argument — and external phenomena then goes unprocessed by our cognition. John Bargh and Tanya Chartrand argue that in their study “[t]hree major forms of automatic self-regulation are identified: an automatic effect of perception on action, automatic goal pursuit, and a continual automatic evaluation of one's experience.”⁹⁶ They claim that previously “the "causal self" was placed as a mediator between the environment and one's responses to it.” However, their research shows that this is not always the case. Essentially, according to their primed manipulation experiments, non-automatic or conscious processing requires a third more effort than automatic processes. Therefore, non-automatic mental processes cannot take place consistently for all the external stimuli in our day-to-day lives. So, we learn to perform routine cognitive functions

⁹⁵ See Bargh 1997, 2007; Bargh and Chartrand 1999; Aarts and Dijksterhuis 2000.

⁹⁶ Bargh and Chartrand 1999, 426.

automatically, thus make automatic judgements and reactions which take the place of some of our most common mental processes.⁹⁷

Henk Aarts and Ap Dijksterhuis argue that habits themselves, or repeated actions, show that automatic thought processes are often utilized by our cognitive faculties. They observed a pattern in the predictability of one's course of action according to the number of times the action was performed. "This pattern of results indeed confirms the assumption that when a behavior has been performed many times in the past, future behavior becomes increasingly under control of an automatized process."⁹⁸ In other words, the more frequently an action is performed — and, as I will argue shortly, the more certain mental processes are performed — the easier it becomes to automatically carry it out without undergoing a conscious mental process.⁹⁹

Belief(s) seem to fall within the categories of action, goal pursuits, and evaluation of one's experience — particularly in the latter group, perhaps.¹⁰⁰ In other words, beliefs are plausibly also subject to automatic mental processes influenced by external stimuli. Belief(s) may not always be the result of a conscious mental process. (I take it that external stimuli can refer to matters of fact and social interactions — i.e., external and social evidence.)

For instance, belief(s) that result from evaluations made about one's environment may be, according to the social psychology literature surveyed above, the direct result of external or social evidence, as opposed to the indirect influence of internal evidence. I may make an evaluation about my environment, viz., that the walls around me are green, but never be

⁹⁷ Ibid., 476.

⁹⁸ Henk and Dijksterhuis 2000, 53.

⁹⁹ Ibid., 60.

¹⁰⁰ I see no obvious reason why even those claims regarding action would not apply to beliefs as well.

consciously aware that I have made this evaluation. Arguably, it seems I have the belief that “the walls around me are green” without non-automatically reflecting on this belief; rather, the belief is the direct and unmediated result of external phenomena in my environment.

The same can be said for social evidence. I may make a judgement based on a critical social interaction I am involved in that results in a belief which is not mediated by a conscious mental process. For instance, a friend of mine tells me it is raining outside and we engage in a conversation about the weather. Though I may be consciously aware that I believe that it is raining, I may not be consciously aware that I believe that “if I go outside, I should bring my umbrella”. Nonetheless, I have formed that belief based on a social interaction happening in my environment without being directly aware of it. Therefore, the research done by social psychologists on automaticity seems to suggest that external and social types of evidence are not always reducible to mental states. Moreover, it is possible that one can be directly prompted to form a belief based on social and/or external factors.

So, my theory is importantly not reducible to the internal view insofar as social evidence merits its own category. Social psychology research on automaticity gives us reason to believe that external and social evidence cannot be subsumed under the category of internal evidence because external and social phenomena are not always and definitively mediated by mental states and/or processes. The three types of evidence I have acknowledged are evidently distinct types of evidence. Moreover, a view that is able to account for all of them leaves room for findings of social psychologists in our theory of evidence. Thus, if we are faced with adopting either an internal view of evidence or the hybrid evidence I have outlined herein, it seems that the hybrid view is the safest view to adopt.

Conclusion

Throughout the process of epistemic justification there are three types of evidence that may be uncovered. Epistemologists have introduced theories of evidence which claim that evidence can be either external, internal, or social, but never all three.¹⁰¹ However, it seems that the former two theories have been regarded as each necessarily excluding the other.¹⁰² Either of the three views I presented have only found one piece of the complicated puzzle.

These theories of evidence have survived for one reason: each type of evidence picks up on an intuition we have about how we justify our beliefs, viz., what we consider to be good evidence. For their own reasons, each one of these theories is correct in part, however, neither tells the entire story. In other words, the theories I discussed in the first three sections of this thesis are combined into one theory herein, as the three theories are strongest when combined insofar as they arguably produce the best and most accurate evidence when combined.¹⁰³ Adopting a hybrid theory of evidence allows us to account for the relevant external facts, mental processes, and social interactions that constitute our reasons for believing. As I have shown with the help of research in epistemology and social psychology, each of the three factors plays a direct role in the justificatory process.

My aim in proposing a hybrid theory of evidence has been to bring the aforementioned three theories together in order to produce a unified theory of evidence, one that accounts for all of our intuitions about justification, and captures all of the facets of evidence as that which justifies belief. My hope is to use this improved unified theory of evidence in future work

¹⁰¹ Bonjour 2008, Feldman and Conee 2001, Longino 2002.

¹⁰² This seems to be the case between internalists and externalists.

¹⁰³ By 'best evidence' I mean the evidence which justifies beliefs that are likely true.

focused more closely on epistemic justification. I plan to build on this theory of evidence by explaining, in a much more detailed manner, how the three types of evidence which I have identified herein work to justify our beliefs. In other words, I hope to propose a new theory of epistemic justification which takes into account a hybrid theory of evidence. My hope is to focus this theory on the role that evidence plays in justification; however, that is not to say that this potential theory will be a reproduction of evidentialism, of course.

References

- Aarts, Henk and Ap Dijksterhuis. 1999. "Habits as Knowledge Structures: Automaticity in Goal-Directed Behavior." *Journal of Personality and Social Psychology* 78(1): 53-63.
- Achinstein, Peter. 2000. Why Philosophical Theories of Evidence are (and Ought to be) Ignored by Scientists. *Philosophy of Science* 67(3): S180-S192.
- Armstrong, D.M. 1973. *Belief, Truth, and Knowledge*. London Press.
- Bargh, John A. and Tanya L. Chartrand. 1999. "The Unbearable Automaticity of Being." *American Psychologist* 57 (7): 462-79.
- BonJour, Laurence. 2008. "Externalist Theories of Empirical Knowledge." In *Epistemology: An Anthology*. 363-78. Originally published in *Midwest Studies In Philosophy* 5,1: 53-74. (Blackwell Publishing Ltd, 1980).
- Collins, Arthur. 1997. "The Psychological Reality of Reasons." *Ratio: An International Journal of Analytic Philosophy* 10 (2): 108-123.
- Feldman, Richard. 1998. "Having Evidence." In *Philosophical Analysis*. Springer Netherlands: 83-104.
- Feldman, Richard and Earl Conee. 2001. "Internalism Defended." *American Philosophical Quarterly* 38 (1): 1-18.
- Feldman, Richard and Earl Conee. 2004. "Evidentialism". In *Evidentialism: Essays in Epistemology*, 83-107. New York: Oxford University Press.
- Goldman, Alvin. 2008. "What is Justified Belief?" *Epistemology: An Anthology*.
- Kelly, Thomas. 2008. "Evidence." Edited by Edward N. Zalta. *The Stanford Encyclopedia of Philosophy*. URL = <<http://plato.stanford.edu/archives/fall2008/entries/evidence/>>.
- Longino, Helen E. 1990. *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry*. Princeton: Princeton University Press.
- Longino, Helen. 2002. *The Fate of Knowledge*. Princeton: Princeton University Press.
- Plantinga, Alvin. 1993. *Warrant: the Current Debate*. New York: Oxford University Press.

Schmaus, Warren. 2005. "What's So Social about Social Knowledge?" *Philosophy of the Social Sciences* 35,1: 98-125.

Solomon, Miriam and Alan Richardson. 2005. "A Critical Context for Longino's Critical Contextual Empiricism." *Studies in History and Philosophy of Science* 36A (1): 211-222.

Stegenga, Jacob. 2009. "Robustness, Discordance, and Relevance." *Philosophy of Science* 76, (5): 650-661.

Turri, John. 2009. "The Ontology of Epistemic Reasons." *Noûs* 43 (3): 490-512.