From virtue epistemology to abilism: theoretical and empirical developments[*]

John Turri
john.turri@gmail.com

Abstract: I review several theoretical and empirical developments relevant to assessing contemporary virtue epistemology's theory of knowledge. What emerges is a leaner theory of knowledge that is more empirically adequate, better captures the ordinary conception of knowledge, and is ripe for cross-fertilization with cognitive science. I call this view *abilism*. Along the way I identify several topics for future research.

1. Introduction

The basic idea behind what is nowadays called "virtue epistemology" is ancient. The basic idea is that we are endowed with certain cognitive powers, such as perception, memory and inference. When we accurately represent and accept information through the operation of these powers, we have knowledge. That's what knowledge is. On my reading, this basic idea has been endorsed by Aristotle, Hume, Reid, Peirce, Russell, Sellars and others in the history of philosophy. On the contemporary scene, the basic idea has been elaborated and defended in various ways, most notably by Linda Zagzebski (1996, 2009), Ernest Sosa (1991, 2007, 2011), John Greco (1993, 2010), and myself (2010, 2011). If contemporary virtue epistemology had to be boiled down to a simple slogan, it could be this: knowledge is true belief manifesting intellectual virtue. Intellectual virtues are defined as (some subset of the) reliable cognitive abilities or traits (for overviews of the field, see Greco & Turri 2011 and Greco & Turri 2012; for alternative takes on virtue epistemology, see Kvanvig 1992, Roberts & Wood 2007, and Baehr

---

[*] This is a draft (12/29/13) of a paper forthcoming in a volume for The Character Project. Comments welcome. Please check before citing.

2011).

Virtue epistemologists have identified three main theoretical benefits of their view. First, it explains why knowledge is better than mere true belief, which has been a central philosophical issue ever since Plato's *Meno* (for an overview, see Pritchard & Turri 2011). We value achievement over mere success, at least when the outcome is good or neutral. For example, compare a canvas painting whose pleasing lines manifest the painter's artistic powers to a painting whose pleasing lines are due to a janitor accidentally spilling some cleaning supplies on it (example adapted from Sosa 2003). The former is better than the latter. Similarly, compare a stretch of cognition whose eventual true belief manifests the agent's cognitive powers to a true belief due to a lucky guess or quirky intervention. The former is better than the latter (Riggs 2002).

Second, virtue epistemology places knowledge attribution in a familiar pattern, which is thought to be important because understanding the logic and purpose of knowledge attributions is arguably the most prominent theme in contemporary epistemology (e.g. Austin 1956; Stroud 1984; DeRose 1996; Turri 2013a). Whether it's art, athletics, oratory or inquiry, we're keen to assess how outcomes relate to the relevant abilities or powers. Knowledge attributions are thus similar to other credit attributions (Greco 2003).

Third, virtue epistemology solves a stubborn problem about the relationship between knowledge and luck, "the Gettier problem," which analytic philosophers have discussed since the early 1960s, (Gettier 1963; Zagzebski 1996; Greco 2003; Sosa 2007; for an overview of the problem, see Turri 2012a). Gettier cases are conjured by following a recipe (Zagzebski 1994; compare Sosa 1991: 238). Start with a belief sufficiently well formed that it would ordinarily qualify as knowledge. Then add an element of bad luck that would ordinarily prevent the well formed belief from being true. Finally add a dose of good luck that "cancels out the bad" so that the belief ends up true anyhow. Philosophers claim that the irresistible intuition is that

the agent in such a case lacks knowledge. Virtue theory offers an explanation for why knowledge is absent: the true belief doesn't manifest the agent's intellectual powers. This fits seamlessly into a more general pattern of "manifestation failure," in which the outcome does not manifest the relevant power or ability (Turri 2011a, Turri 2012b).

Several challenges face virtue epistemology. For example, it purports to explain certain intuitive facts about knowledge, but recent work has challenged the robustness and significance of the relevant intuitions (Hazlett 2010, 2012; Myers-Schulz & Schwitzgebel 2013; Murray, Sytsma & Livengood forthcoming; Turri forthcoming d; Starmans & Friedman 2012). Moreover, some charge that it presupposes an empirically false cognitive psychology (Alfano 2011; Olin & Doris 2013). And some complain that a key component of the theory, "manifestation," is uninformative, obscure, or intuitively inadequate to the task (e.g. Murphy 1988; Levin 2004; Roberts & Wood 2007; Pritchard 2009; Church 2013; Jarvis 2013; Pritchard & Kallestrup forthcoming).

This chapter describes several theoretical and empirical results relevant to assessing these challenges and identifying areas for future research. Virtue epistemology, in its most popular and recognizable contemporary forms, does not survive the ordeal. Instead, what emerges is a leaner theory of knowledge that is more empirically adequate, better captures the ordinary conception of knowledge, and is ripe for cross-fertilization with cognitive science. I call this view *abilism*.

2. Truth, belief and reliability

Leading virtue epistemologists defend the view that knowledge is *true belief* manifesting *reliable* intellectual virtue or ability (Zagzebski 1996; Sosa 2007; Greco 2010). But recent work in philosophy and psychology challenges the three italicized aspects of this theory of knowledge: truth, belief, and reliability.

2.1. Truth

Allan Hazlett (2010, 2012) argues that the ordinary concept of knowledge does not require truth. In other words, the ordinary concept of knowledge is not *factive*. In support of this view, Hazlett appeals to patterns in ordinary judgments about knowledge, which seem to involve natural and familiar non-factive usage (e.g. "At that moment, I knew I was about to die — but then I was saved"). Hazlett argues that a charitable interpretation of this data involves a non-factive conception of knowledge. Based on this, Hazlett proposes that knowledge is (roughly) reliably produced belief and that epistemologists should not concern themselves with ordinary usage or the ordinary concept of knowledge, because the philosophically interesting notion of knowledge is factive.

Virtue epistemologists could accept Hazlett's argument at face value and satisfy themselves with investigating knowledge in some technical sense that does require truth. But I seriously doubt that this will seem attractive to them. Rather, my sense is that they are interested in theorizing about the epistemic status we ordinarily think about, talk about, and value — namely, knowledge. For my part, this is what I'm interested in.

There are several more direct responses available. First, one might show that a charitable interpretation of the data needn't involve positing literal and competent applications of a non-factive conception of knowledge. I have done this on theoretical grounds (Turri 2011b) and recent experimental studies have yielded corroborating results (e.g. Buckwalter, under review). Second, one might show that knowledge ordinarily understood doesn't resemble reliably produced belief and, moreover, that truth is an extremely important part of knowledge ordinarily understood. Recent work supports this claim (Turri & Friedman 2014; Turri forthcoming a). Third, one might argue that even if knowledge is non-factive, we can still achieve the benefits of standard virtue-theoretic definitions of knowledge. I have developed this approach, arguing that it is, at worst, a very small concession to allow

knowledge of literally false but approximately true claims (Turri forthcoming b, forthcoming c). Indeed, I suspect that allowing for such approximation better approximates the actual features of knowledge. No argument has ever been given for supposing that knowledge requires strict truth, rather than approximate truth.

The first amendment I propose to the standard virtue-theoretic definition, then, is this: knowledge is *approximately* true belief manifesting intellectual virtue.

2.2. Belief

For decades contemporary epistemologists have treated it as an intuitive datum that knowledge entails belief (e.g. Chisholm 1989). But this assumption is not uncontroversial in the history of epistemology (e.g. Radford 1966, Plato's *Republic* 477ff). And recently several philosophers have made a strong case that knowledge does not entail belief. Multiple experimental studies have shown that people are often perfectly willing to ascribe knowledge in the absence of belief (Myers-Shulz & Schwitzgebel 2013; Murray, Sytsma & Livengood forthcoming). In some cases, the *vast majority* of people who attribute knowledge decline to attribute belief. Unless people are deeply confused about knowledge and belief, then these results provide strong evidence that knowledge does not entail belief. And if knowledge does not entail belief, then standard virtue-theoretic definitions of knowledge are false.

How might virtue epistemologists respond? They could accept the findings at face value and satisfy themselves with theorizing about knowledge in some technical sense that does require belief. But, as mentioned above, I am unaware of any support for this type of response among virtue epistemologists. In any event, I am uninterested in such a response. Virtue epistemologists could argue that the findings should be discounted because they are untrustworthy, the result of noisy data or suspect methodology. But the results have been replicated multiple times by different research teams using

diverse stimuli and experimental designs. Virtue epistemologists could argue that the findings should be discounted because they result from error and confusion. If error and confusion are responsible, it runs deep and wide. But no evidence has been produced that this is happening. In any event, I strongly prefer to avoid positing an error theory of disturbing proportion.

Subsequent work has made considerable progress in explaining the concept of belief, why knowledge does not require belief and, more importantly, what knowledge does require (Buckwalter, Rose & Turri forthcoming; see also Rose, Buckwalter & Turri under review; Turri, Rose, & Buckwalter under review; Buckwalter & Turri under review a; Buckwalter & Turri under review b). Belief ordinarily understood is connected with *feeling* or *emotional commitment* in a way that knowledge is not. As William James wrote, "In its inner nature belief . . . is a sort of feeling more allied to the emotions than to anything else" (James 1889: 21; see also Hume 1748 on belief as a *feeling*). It turns out that knowledge is not essentially connected with feeling in this way, which is why it does not — indeed, cannot — require belief. But even though knowledge does not require belief in this sense, there is every indication that it does require a "thinner" assertive representational state. This thinner state corresponds with what might ordinarily be described as *thinking that something is true*. If you know something, then although you might not *believe* it's true, you nevertheless must *think* it's true. For convenience, this thinner state has been stipulatively dubbed *thin belief*.

The second amendment I propose to the standard virtue-theoretic definition, then, is this: knowledge is approximately true *thin* belief manifesting intellectual virtue.

2.3. Reliability

Decades of research in social psychology taught us counterintuitive but valuable lessons about the determinants of human behavior. Situational factors influence our behavior to an extent that commonsense wouldn't predict

and which is shocking upon reflection (e.g. Hartshorne & May 1928; Milgram 1974; Darley & Batson 1973). Although people's behavior is fairly consistent over time in very similar situations, it can be highly inconsistent across situations that differ in ways that we might ordinarily think are insignificant (Mischel & Peake 1982). Moreover, the predictive value of situational variables can exceed the predictive value of (what we take to be) a person's traits such as honesty or generosity. Indeed the predictive value of traits can be startlingly low (Ross & Nisbett 1991: 95).

It's been two decades now since philosophers began seriously coming to grips with the social psychological findings (Flanagan 1991; Doris 1998; Harman 1999; Doris 2002). Gilbert Harman and John Doris clarified the findings' dramatic importance for ethical theory, especially traditional forms of virtue ethics which presuppose that people have character traits underwriting long-term, stable, and robust dispositions to be motivated and act in particular ways. Do people have such character traits, such as honesty and compassion? Harman and Doris boldly suggested that decades of psychological science are relevant to answering this question, and they concluded that the science warrants a negative verdict.

Philosophers have recently extended the situationist challenge from virtue ethics to virtue epistemology (Alfano 2011; Olin & Doris 2013). They claim that cognitive psychology provides evidence that human cognition is highly contextually variable and, in many cases, unreliable. Just consider the litany of biases and foibles enumerated in textbooks on judgment and decision making — the availability bias, the confirmation bias, the anchoring bias, the false consensus effect, base-rate neglect, the conjunction fallacy, etc. If situationists are right about this, then standard virtue-theoretic definitions of knowledge have implausible skeptical consequences. For these definitions say that knowledge requires intellectual virtue, and intellectual virtues must be reliable. If we aren't reliable, then we don't have virtues; and if we don't have virtues, then we don't have knowledge. In short, just as traditional virtue ethics presupposes an empirically inadequate moral psy-

chology, it looks like (non-skeptical) virtue epistemology presupposes an empirically inadequate cognitive psychology.

I am not convinced that cognitive psychology shows what these situationists say that it shows (Turri forthcoming c). But suppose that situationists dig deeper and convince us that our best cognitive science shows that we get things wrong more often than not. Certainly this is possible and, in fact, I wouldn't be too surprised if it turned out to be true. Would we conclude that a wide-ranging skepticism is true?

I wouldn't, for two reasons. First, there is no evidence that knowledge must be reliably produced. Philosophers have simply assumed that knowledge requires reliability, without offering any evidence in support of this assumption. Second, there is good evidence that unreliably produced knowledge is not only possible but actual (Turri forthcoming d; Turri 2012c). On the one hand, lots of our knowledge is due to explanatory reasoning and explanatory reasoning seems to get it wrong at least as often as it gets it right. On the other hand, many achievements in life much more impressive than knowledge don't require reliable abilities, so it stands to reason that knowledge doesn't require reliable abilities either. Knowledge needn't proceed from intellectual virtues. Instead it can also proceed from cognitive powers or abilities that are less reliable and more common than intellectual virtues.

Some philosophers have suggested that "commonsense" or "folk" epistemology is implicitly a form of proto-reliabilism (Dretske 1981: 92ff, p. 249, n.8; Sosa 1991: 100; Goldman 1993: 271). If true, this proto-reliabilist hypothesis would provide some motivation for its namesake in the professional literature. But an actual investigation of commonsense knowledge judgments revealed strong evidence against the proto-reliabilist hypothesis (Turri under review). It turns out that folk epistemology fully embraces the possibility of unreliable knowledge.

I accept the following metaphysical thesis about powers in general:

If a person possesses an ability/power to produce an outcome (of a certain

type and in conditions of a certain sort), then when he exercises that ability/power (in those conditions), he produces the relevant outcome at a rate exceeding chance.

The basic intuition here is that abilities and powers are understood relative to a baseline of chance. Being unreliable obviously differs from being unable and, on any plausible way of approximating the chance rate, there is going to be a margin between chance rates of success and succeeding reliably. You are *enabled* or *empowered* to produce an outcome to the extent that your prospect of producing it exceeds chance. If you succeed at a rate no better than chance, then you lack the relevant ability or power. And if you succeed at a rate worse than chance, then you are *disabled* or *enfeebled*: you're better off just trusting to luck than relying on your own efforts. Approaching matters from a slightly different angle, when relying on luck is your best strategy, you are *helpless*. Empowerment is the antithesis of helplessness. To the extent that you are enabled or empowered, your helplessness diminishes.

Applied to cognition, this theory of powers yields the following view:

If a person possesses a cognitive ability/power to detect the truth (of a certain sort when in certain conditions), then when she exercises that ability and forms a (thin) belief (on relevant matters and in relevant conditions), she will form a(n approximately) *true belief* at a rate exceeding chance.

This leads to the third and final amendment I propose to the definition we began with: knowledge is approximately true thin belief manifesting *cognitive ability*. I endorse this theory of knowledge, which I call *abilism*.

3. Knowledge and luck

3.1. Gettier cases

Abilism and virtue epistemology solve the Gettier problem in exactly the same way. In each case, the diagnosis is that the Gettier subject has a true

belief, but the true belief does not manifest the subject's intellectual virtue or cognitive ability.

This solution presupposes that a Gettier subject does not know. Many philosophers have long maintained that this verdict is completely obvious. But some philosophers have dissented (Sartwell 1992, Hetherington 2013, and, in a different way, Turri 2012b). Moreover, recent work has suggested that the dissident minority represents the ordinary way of understanding Gettier cases (Starmans & Friedman 2012). In particular, people tend to attribute knowledge when a "Gettier subject" initially detected a truth-maker for her belief, even if the explanation for why her belief remains true changes in dramatic and unnoticed ways. The basic finding has been replicated multiple times in followup work (Turri 2013b; Nagel, San Juan & Mar 2013, in light of Starmans & Friedman 2013). Is this a problem for abilism?

It needn't be a problem, for three reasons. Each of these reasons is supported by theoretical and empirical findings. First, perhaps it's easier than philosophers have supposed for a true belief to manifest cognitive ability. That is, it could be that the definition of knowledge is correct but philosophers incorrectly applied it to these cases. Second, and relatedly, the "Gettier" cases in question differ importantly from Gettier's original cases, so what is obviously true about Gettier's originals might not be obviously true, or true at all, of the cases in question (as Starmans and Friedman explain; see also Turri, Buckwalter & Blouw under review). Indeed, philosophers have been shockingly careless in continually lumping cases with radically different structures under the heading of "Gettier case" (Blouw, Buckwalter & Turri forthcoming). Third, these cases inevitably involve complex explanatory relations, so perhaps people's knowledge attributions signify a failure to process important details, at least to some extent.

This third point requires some elaboration. As mentioned above, we can think of Gettier cases as having a tripartite structure: start with a belief sufficiently well formed that it would ordinarily qualify as knowledge, then add an element of bad luck that would ordinarily prevent the well formed

belief from being true, followed by a dose of good luck that cancels out the bad. In order to help people appreciate the underlying tripartite structure of Gettier cases, I conducted an experiment where one group of people to read a story presented in three stages, which thematized the underlying tripartite structure, while a control group read the same case presented all at once instead of in three stages. Whereas people in the control group attributed knowledge roughly half the time (48%), people who read the tripartitioned story attributed knowledge significantly less frequently (29%) (Turri 2013b). This is some evidence that virtue epistemologists have correctly identified the relevant causal structure of Gettier cases that inhibits knowledge.

3.2. Fake barn cases

A common objection to the standard virtue-theoretic definition of knowledge is that it faces a class of obvious and stubborn counterexamples known as "fake barn" cases (Goldman 1976 introduced the case into the literature; it is credited to Carl Ginet). In a fake barn case, the agent ("Henry" in the original) perceptually detects an object (a barn in the original) and this perceptual relation remains intact throughout. It is then revealed that the agent currently inhabits an environment filled with numerous fakes ("papier-mâché facsimiles of barns" in the original), which look just like real ones. Some philosophers claim that we are "strongly inclined" to deny knowledge in such cases (Goldman 1976; see also Chisholm 1989: 93, Pritchard 2005, Prichard 2014: ch. 6). But because the agent forms a true belief by exercising his highly reliable perceptual faculties, virtue epistemology and abilism entail that the agent has knowledge, which is interpreted as a straightforward counterexample to the view (Pritchard 2009, 2012).

Virtue epistemologists have addressed such cases at length, by either trying to show why their view does not deliver a verdict of knowledge (Sosa 1991: 238-9; Greco 2010: 76ff; see also Jarvis 2013), or developing explana-

tions for why a verdict of knowledge might seem counterintuitive despite being correct (Sosa 2007: lectures 2 and 5). But the correct response is to simply point out that knowledge is present in such cases and that there is nothing counterintuitive about this verdict (Turri 2011). It is intuitively correct and perfectly natural to attribute knowledge in such cases. The critic's intuitive judgment is idiosyncratic and mistaken.

This is not mere speculation or an intuitional stalemate. Intuitions about fake barn cases have been tested directly and people tend to attribute knowledge (Colaco et al. forthcoming). More generally, in cases where an agent perceives something that makes her belief true, and this perceptual relation remains intact, people overwhelmingly attribute knowledge, even when lookalikes pose a salient threat to the truth of the agent's belief (Turri, Buckwalter & Blouw under review). Indeed, commonsense basically views these as *paradigm instances* of knowledge, with rates of knowledge attribution often exceeding 80%.

Abilism and virtue epistemology both predict that agents in fake barn cases know, which turns out to be the correct verdict. From a certain perspective, this can seem like a bold prediction whose surprising truth redounds greatly to the theory's credit. But to claim such credit would be cheating, I think, because the perspective in question is warped through overexposure to discussion of fake-barn cases in contemporary epistemology. Claiming credit here grants far too much weight to a perspective constituted by idiosyncratic intuitions about fanciful cases. We make no progress in inquiry by catering to such intuitions. They who blind themselves by walking willfully into the darkness become no more perceptive by stumbling back into the light.

4. Commonsense metaphysics and causal cognition

Standard virtue epistemology and abilism both define knowledge as a certain sort of representational state (belief or thin belief) that manifests a rele-

vant feature of the knower (reliable virtue or cognitive ability). Some commentators have wondered whether the *manifestation* relation is clear enough to bear the theoretical load assigned to it (Levin 2004) or, worse, whether it is just superfluous jargon (Jarvis 2013: 549, n. 4). As far as I can tell, neither charge withstands scrutiny.

But let me first say that I attach no importance to the name 'manifestation'. It is a convenient label for an certain intimate relation that obtains between powers and outcomes, and I'm happy to relinquish it if comes across as jargon that interferes with effective communication or theorizing. In my own experience, there seems to be widespread agreement on when the relation is present and when it isn't. Indeed, I suspect that the competent use of transitive verbs in natural language presupposes skill at recognizing the relation.

Abstractly put my view is that, for at least many transitive verbs, V, there is a difference between V-ing something and merely causing it to be V-ed. The former entails the latter, but not vice versa. V-ing something consists in the relevant outcome manifesting the agent's relevant power, whereas merely causing it to be V-ed does not. To take a specific example, consider the verb 'break'. Breaking something is one thing, causing something to be broke another. The former entails the latter, but not vice versa. If I smash the vase into the wall, I break it; it's shattering manifests my physical strength. By contrast, if I, physically incapacitated, pay you to smash it into the wall, you break it, not me, even though I caused it to be broken. Similar remarks apply to countless other verbs, such as 'trap', 'paint', 'count', 'heat', 'lift', etc.

I submit that 'know' is just another verb that works this way (a point anticipated in Turri 2011a, 2011c, and 2012b). 'Know' is the most general verb we have for picking out a cognitive relation of interest to us, namely, having one's cognitive abilities manifest in the acquisition of (approximately) true thin belief (compare Williamson 2000: ch. 1). Verbs naming more specific cognitive relations of this sort include 'detect', 'discover' and

'remember'. A correct theory of knowledge features the manifestation relation because the correct theory of the relation picked out by 'know' implicates the manifestation relation. The fact that 'know' fits this pattern makes the inclusion of *manifestation* in a theory of knowledge informative and non-superfluous.

Personal experience, reflection, and social observation make me confident of my claims here about the use of transitive verbs and the intuitive relation of manifestation. But more is, and should be, required to substantiate my claims to the community of researchers working on these questions. To that end, I conducted a preliminary experiment to test whether people reliably apply verbs in the way my view predicts.

The experiment focused on ordinary non-epistemic verbs and the results are encouraging. In a between-subjects design, people read a simple story about an artifact, either a microwave or a trap. The microwave story was based on thought experiments I proposed in earlier work (e.g. Turri 2012b: 256). It begins with a glass of water sitting in a microwave. The "normal" and "abnormal" versions of the story then continue differently.

> (Normal) The microwave starts and draws electricity through its power cord. The microwave sends microwaves that enter the glass and penetrate the water molecules. Soon the water is very hot.

> (Abnormal) The microwave short-circuits and the electrical outlet starts on fire. The fire spreads quickly through the kitchen and engulfs the glass of water. Soon the water is very hot.

People were then asked which option better described what happened in the story:

> The microwave heated the water.

> The microwave merely caused the water to get hot.

The first option uses the transitive verb 'heat' to describe the microwave's relation to the water. The second option uses a derivative causative con-

struction instead.

On my view, the microwave heats the water in the normal case but not in the abnormal case. Moreover, on my view, the correct application of 'heat' implicates recognition of the manifestation relation. So I predict that people will tend to select the first option for the normal story, whereas they will tend to select the second option for the abnormal story. And this is exactly what happened: 71% of people selected the first option for the normal story, compared to 14% for the abnormal story. A very similar pattern of response emerged for the normal and abnormal versions of the cage story: 75% of people said that the cage "trapped" a rat in the normal story, compared to 11% for the abnormal story. (Email me for more details on this work-in-progress.)

The work on Gettier cases discussed earlier provides evidence that people apply 'know' in the way my theory predicts. Indeed, I view Gettier's original cases as the epistemic analogues of the "abnormal" artifact cases described above. While further investigation into the matter is required and ongoing, I suspect it's no coincidence that typically around 10-15% of people attribute knowledge in cases like Gettier's originals, whereas about 80% attribute knowledge in closely matched control cases. This is remarkably similar to the rates at which people used, or withheld use, of the non-epistemic transitive verbs in the experiment reported above. Overall, the current evidence supports my view that 'know' is the verb we use to mark the presence of the familiar manifestation relation for cognitive performances.

More importantly, this all points to an intriguing possibility related to recent work by Fiery Cushman and Liane Young (2011). Cushman and Young provided evidence that representations, distinctions and patterns exhibited in moral judgment derive from general non-moral psychological mechanisms, including processes of causal cognition. My view is that something similar is true for epistemological judgment, namely, that it inherits some of its most important properties from general non-epistemological psychological mechanisms and representations, such as *manifestation* and *ex-*

planatory nondeviance. Questions in this area will remain at the top of my research agenda moving forward.

5. Conclusion

My current view is that the theory of knowledge proposed here, abilism, captures the ordinary concept of knowledge and is the clearest, most accurate, and informative philosophical definition of knowledge available. But even if this is correct, it certainly does not mark the end of inquiry into knowledge, because abilism is also a thoroughly naturalistic theory. It identifies in broad outline a real, objective relation suited for scientific investigation: powers producing outcomes. Further insight into the nature of knowledge and knowledge-attributions will come from theoretically informed cognitive science. If I am right, then something akin to Quine's (1969, 1990) vision for epistemology is upon us, though for reasons quite unlike those Quine identified.

Word count: 4850

References

Alfano, M. (2011). Expanding The Situationist Challenge To Responsibilist Virtue Epistemology. *The Philosophical Quarterly*, 62(247), 223–249.

Austin, J. L. (1956). A plea for excuses. *Proceedings of the Aristotelian society*, 57,

1–30.

Baehr, J. S. (2011). *The inquiring mind : on intellectual virtues and virtue epistemology*. Oxford : Oxford University Press.

Blouw, P., Buckwalter, W., & Turri, J. (forthcoming). Gettier cases: a taxonomy. In R. Borges, C. de Almeida, & P. Klein (Eds.), *Explaining knowledge: new essays on the Gettier problem*. Oxford: Oxford University Press.

Buckwalter, W. (under review). Factive verbs and protagonist projection. University of Waterloo.

Buckwalter, W., Rose, D., & Turri, J. (forthcoming). Belief through thick and thin. *Noûs*. doi:10.1111/nous.12048

Buckwalter, W., & Turri, J. (under review a). In the thick of moral motivation. University of Waterloo.

Buckwalter, W., & Turri, J. (under review b). Action, truth and knowledge. University of Waterloo.

Chisholm, R. (1989). *Theory of knowledge* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Colaco, D., Buckwalter, W., Stich, S., & Machery, E. (forthcoming). Epistemic Intuitions in Fake-Barn Thought Experiments. *Episteme*.

Cushman, F., & Young, L. (2011). Patterns of Moral Judgment Derive From Nonmoral Psychological Representations. *Cognitive Science*, 35(6), 1052–1075. doi:10.1111/j.1551-6709.2010.01167.x

Darley, J. M., & Batson, C. D. (1973). "From Jerusalem to Jericho": A study of situational and dispositional variables in helping behavior. *Journal of Personality and Social Psychology*, 27(1), 100. doi:10.1037/h0034449

DeRose, K. (1996). Knowledge, assertion and lotteries. *Australasian Journal of Philosophy*, 74(4), 568–580.

Doris, J. M. (1998). Persons, situations, and virtue ethics. *Noûs*, 32(4), 504–530.

Doris, J. M. (2002). *Lack of character: personality and moral behavior*. Cambridge University Press.

Flanagan, O. (1991). *Varieties of moral personality*. Cambridge, Mass: Harvard University Press.

Gettier, E. L. (1963). Is justified true belief knowledge? *Analysis*, 23(6), 121–123.

Goldman, A. I. (1976). Discrimination and perceptual knowledge. *Journal of Philosophy*, 73(20), 771–791.

Greco, J. (1993). Virtues and vices of virtue epistemology. *Canadian Journal of Philosophy*, 23(3), 413–432.

Greco, J. (2003). Knowledge as credit for true belief. In M. DePaul & L. Zagzebski (Eds.), *Intellectual virtue: perspectives from ethics and epistemology*, pp. 111-134.

Greco, J. (2010). *Achieving knowledge: A virtue-theoretic account of epistemic normativity*. Cambridge: Cambridge University Press.

Greco, J. & Turri, J. (2011). Virtue epistemology. The Stanford encyclopedia of philosophy (Winter 2013 Edition). Ed. E.N. Zalta. <http://plato.stanford.edu/archives/win2013/entries/epistemology-virtue/>

Greco, J., & Turri, J. (2012). Introduction. In *Virtue epistemology: contemporary readings*. Cambridge, Mass.: MIT Press.

Harman, G. (1999). Moral philosophy meets social psychology: virtue ethics and the fundamental attribution error. Proceedings of the Aristotelian Society, 99, 315–331.

Hartshorne, H., & May, M. A. (1928). *Studies in deceit. Book I. General methods and results. Book II. Statistical methods and results*. Macmillan.

Hazlett, A. (2010). The myth of factive verbs. *Philosophy and Phenomenological Research*, 80(3), 497–522.

Hazlett, A. (2012). Factive Presupposition and the Truth Condition on Knowledge. *Acta Analytica*, 27(4), 461–478.

Jarvis, B. (2013). Knowledge, Cognitive Achievement, and Environmental Luck. *Pacific Philosophical Quarterly*, 94, 529–551.

Kallestrup, J., & Pritchard, D. Forthcoming. Virtue Epistemology and Epistemic Twin Earth. *European Journal of Philosophy*.

Kvanvig, J. L. (1992). *The Intellectual Virtues and the Life of the Mind*. Lanham, MD: Rowman & Littlefield Publishers.

Levin, M. (2004). Virtue Epistemology: No New Cures. *Philosophy and Phenomenological Research*, 69(2), 397–410.

Milgram, S. (1974). *Obedience to authority: an experimental view*. New York: Harper Perennial.

Mischel, W., & Peake, P. K. (1982). Beyond déjà vu in the search for cross-situational consistency. Psychological Review, 89(6), 730–755.

Murphy, M. C. (1998). Review of *Virtues of the Mind*. *Philosophical Books* 39.3: 210–212.

Murray, D., Sytsma, J., & Livengood, J. Forthcoming. God knows (but does God believe?). Philosophical Studies. doi:10.1007/s11098-012-0022-5

Myers-Schulz, B., & Schwitzgebel, E. (2013). Knowing that P without believing that P. *Noûs*, 47(2), 371–384.

Olin, L., & Doris, J. M. (2013). Vicious minds. *Philosophical Studies*. doi:10.1007/s11098-013-0153-3

Pritchard, D. (2005). *Epistemic luck*. New York : Oxford University Press.

Pritchard, D. (2009). Apt performance and epistemic value. *Philosophical Studies*, 143(3), 407–416.

Pritchard, D. (2012). Anti-luck virtue epistemology. *Journal of Philosophy*, 109(3), 247–279.

Pritchard, D. (2014). *What is this thing called knowledge?* (3rd ed.). New York: Routledge.

Pritchard, D. & Turri, J. (2012). The value of knowledge. The Stanford encyclopedia of philosophy (Winter 2012 Edition). Ed. E.N. Zalta. <http://plato.stanford.edu/archives/win2012/entries/knowledge-value/>

Quine, W. V. (1969). Epistemology naturalized. In *Ontological relativity and other essays*. New York: Columbia University Press.

Quine, W. V. (1990). Norms and Aims. In *The Pursuit of Truth*. Cambridge,

Mass.: Harvard University Press.

Radford, C. (1966). Knowledge — by examples. *Analysis*, 27(1), 1–11.

Riggs, W. D. (2002). Reliability and the value of knowledge. *Philosophy and Phenomenological Research*, 64(1), 79–96.

Roberts, R. C., & Wood, W. J. (2007). *Intellectual virtues: An essay in regulative epistemology*. Oxford: Oxford University Press.

Rose, D., Buckwalter, W., & Turri, J. (under review). When words speak louder than action: delusion, belief and the power of assertion. Rutgers University, New Brunswick.

Ross, L., & Nisbett, R. E. (2011). *The person and the situation: Perspectives of social psychology*. London: Pinter & Martin.

Sosa, E. (1991). *Knowledge in Perspective*. Cambridge: Cambridge University Press.

Sosa, E. (2003). The place of truth in epistemology. In M. DePaul & L. Zagzebski, *Intellectual virtue: perspectives from ethics and epistemology*, pp. 155-79.

Sosa, E. (2007). *A virtue epistemology: Apt belief and reflective knowledge*, volume I. Oxford University Press.

Sosa, E. (2011). *Knowing full well*. Princeton: Princeton University Press.

Starmans, C., & Friedman, O. (2012). The folk conception of knowledge. *Cognition*, 124(3), 272–283.

Starmans, C., & Friedman, O. (2013). Taking "know" for an answer: A reply to Nagel, San Juan, and Mar. *Cognition*, 129(3), 662–665.

Stroud, B. (1984). *The significance of philosophical skepticism*. Oxford: Clarendon Press.

Turri, J. (2010). On the relationship between propositional and doxastic justification. *Philosophy and Phenomenological Research*, 80(2), 312–326.

Turri, J. (2011a). Manifest failure: the Gettier problem solved. *Philosophers' Imprint*, 11(8), 1–11.

Turri, J. (2011b). Mythology of the factive. *Logos & Episteme*, 2(1), 143–152.

Turri, J. (2011c). Believing For a Reason. *Erkenntnis*, 74(3), 383–397.

doi:10.1007/s10670-011-9271-5

Turri, J. (2012a). In Gettier's wake. In S. Hetherington (Ed.), *Epistemology: The key thinkers*. Continuum.

Turri, J. (2012b). Is knowledge justified true belief? *Synthese*, 184(3), 247–259.

Turri, J. (2012c). Review of *Achieving Knowledge: A Virtue-Theoretic Account of Epistemic Normativity*, by John Greco. *Mind*, 121(481), 183–187. doi:10.1093/mind/fzs032

Turri, J. (2013a). Knowledge guaranteed. *Noûs*, 47(3), 602–612.

Turri, J. (2013b). A conspicuous art: putting Gettier to the test. *Philosophers' Imprint*, 13(10), 1–16.

Turri, J. (forthcoming a). The problem of ESEE knowledge. *Ergo*.

Turri, J. (forthcoming b). Knowledge as achievement, more or less. In M. Á. F. Vargas (Ed.), *The present and future of virtue epistemology*.

Turri, J. (forthcoming c). Epistemic situationism and cognitive ability. In M. Alfano & A. Fairweather (Eds.), *Epistemic situationism*. Oxford: Oxford University Press.

Turri, J. (forthcoming d). Unreliable knowledge. *Philosophy and Phenomenological Research*. doi:10.1111/phpr.12064

Turri, J. (under review). Ordinary unreliable knowledge. University of Waterloo.

Turri, J. Buckwalter, W., & Blouw, P. (under review). Knowledge and luck. University of Waterloo.

Turri, J., & Friedman, O. (2014). Winners and losers in the folk epistemology of lotteries. In J. R. Beebe (Ed.), *Advances in experimental epistemology*. Continuum.

Turri, J., Rose, D., & Buckwalter, W. (under review). Choosing and refusing: doxastic voluntarism and folk psychology. University of Waterloo.

Williamson, T. (2000). *Knowledge and its limits*. Oxford: Oxford University Press.

Zagzebski, L. (1994). The inescapability of Gettier problems. *Philosophical*

Quarterly, 44(174), 65–73.

Zagzebski, L. (1996). *Virtues of the mind: an inquiry into the nature of virtue and the ethical foundations of knowledge*. Cambridge: Cambridge University Press.

Zagzebski, L. (2009). *On epistemology*. Belmont, CA: Wadsworth.