

What's Epistemically Wrong with Conspiracy Theorising?

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Abstract

Belief in conspiracy theories is often taken to be a paradigm of epistemic irrationality. Yet, as I argue in the first half of this paper, standard criticisms of conspiracy theorising fail to demonstrate that the practice is invariably irrational. Perhaps for this reason, many scholars have taken a relatively charitable attitude toward conspiracy theorists and conspiracy theorising in recent years. Still, it would be a mistake to conclude from the defence of conspiracy theorising offered here that belief in conspiracy theories is on an epistemic par with belief in other theories. I argue that a range of epistemic errors are pervasive among conspiracy theorists. First, the refusal of conspiracy theorists to accept the official account of some target event often seems to be due to the exercise of a probabilistic, and fallacious, extension of *modus tollens*. Additionally, conspiracy theorists tend to be inconsistent in their intellectual attention insofar as the effort they expend on uncovering the truth excludes attention to their own capacities for biased or otherwise erroneous reasoning. Finally, the scepticism with which conspiracy theorists tend to view common sources of information leaves little room for conspiracy theorists to attain positive warrant for their preferred explanations of target events.

Introduction

Conspiracy theorising is often regarded as a paradigm of epistemically irrational behaviour. Yet it is strikingly difficult to identify the epistemic errors, if any, characteristic of conspiracy theorising. In fact, many of the supposed faults associated with conspiracy theorising are not faults at all, and some are common in well-respected theoretical domains. Hence, as I argue in the first half of this paper, the faults standardly associated with conspiracy theorising do not warrant the sort of criticism to which the practice is often subjected. It is perhaps due to the resilience of conspiracy theorising to standard criticisms that many scholars have taken a relatively charitable attitude toward the practice in recent years.

It would be a mistake to conclude from the defence of conspiracy theorising offered in the first part of this paper that the practice is above criticism. Given the pernicious effects of widespread

conspiracy theorising on society,¹ there is reason to be wary of the conclusion that conspiracy theorising is epistemically innocent. Of course, any adverse social or political effects of widespread belief in conspiracy theories are irrelevant to the *epistemic* merits of conspiracy theorising. However, I argue in the latter half of this paper that there are epistemic defects characteristic of conspiracy theorising. Belief in conspiracy theories often involves a probabilistic, and fallacious, extension of *modus tollens*. Moreover, conspiracy theorists often exhibit a degree of intellectual attention that is inconsistent insofar as this effort does not extend to the subject's own potential for biased or otherwise erroneous reasoning. Finally, the suspicion conspiracy theorists exhibit toward official accounts of target events deprives conspiracy theorists of a basis on which to justify their preferred explanations. There is reason to think these errors are more prevalent among conspiracy theorists than their counterparts. The upshot is that criticism of conspiracy theorising is typically – though not invariably – warranted.

1. Conspiracy Theories and Conspiracy Theorising

It will be essential, for what follows, to establish some terminology. First, we require an adequate definition of 'conspiracy theory'. There is a great deal of ambiguity surrounding the term, within the philosophical literature and without. Hence, it will be useful to stipulate a definition for the sake of clarity. As I will use the term, a conspiracy theory:²

- (1) Posits an explanation for a target event or set of target events that is alternative to the official account of the event(s).
- (2) Claims that the event(s) was/were brought about by one or more conspirators.

¹ These effects, including distrust of scientific authorities and the stoking of racial resentments, are emphasized by Cass R. Sunstein and Adrian Vermeule in 'Conspiracy Theories: Causes and Cures', *Journal of Political Philosophy* 17.2 (2009), 202–227.

² The stipulated definition owes much to Brian Keeley's definition of 'unwarranted conspiracy theories' in Brian Keeley, 'Of Conspiracy Theories', in *Conspiracy Theories: The Philosophical Debate*, (ed.) David Coady (Farnham: Ashgate, 2006), 45–60, as well as Susan Feldman's definition of 'explanatory conspiracy theories' in Susan Feldman, 'Counterfactual Conspiracy Theories', *The International Journal of Applied Philosophy* 25.1 (2011), 19.

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- (3) Posits that the architects of the event(s) are involved in promoting the official account.
- (4) Has greater explanatory power than the official account.

To take a prominent example, one conspiracy theory surrounding the events of September 11, 2001 posits that the World Trade Center buildings were brought down by agents within the United States government, rather than members of Al-Qaeda, and that the latter narrative was devised and disseminated by the true conspirators.

This definition calls for several comments. First, the definition offered here is narrower than the one preferred by some philosophers interested in conspiracy theories. As (1) makes clear, only those theories that run counter to the official account of some target event will be counted as conspiracy theories on this definition. Matthew R.X. Dentith, seemingly concerned that the condition that conspiracy theories always run counter to official theories stacks the deck against the rationality of belief in conspiracy theories, proposes to eschew any condition of this sort from the definition.³ Indeed, Dentith suggests that the proper definition of 'conspiracy theory' would extend to all theories that explain events by reference to conspiracies.

I find Dentith's case for broadening the definition of 'conspiracy theory' unconvincing. While one of Dentith's aims is to show that conspiracy theories may or may not be official, his evidence for this claim helps to establish only that the officialness of a given theory need not indicate that it is well-supported by evidence. Moreover, as Dentith acknowledges, admitting official theories as conspiracy theories is a departure from common usage of the term.⁴ For instance, on Dentith's proposal, the claim that Al-Qaeda conspired to bring down the World Trade Center buildings would be considered a conspiracy theory. Finally, even some philosophers that adopt a highly charitable attitude toward conspiracy theories and conspiracy theorists acknowledge that official accounts of events are not regarded as conspiracy theories, even when those official accounts explain events through reference to conspiracies⁵. So, insofar as our project is to evaluate those theories typically considered to be conspiracy theories, and belief therein, we ought to focus on those theories that run counter to official explanations of events.

³ Matthew R. X. Dentith, *The Philosophy of Conspiracy Theories* (Basingstoke: Palgrave Macmillan, 2014), 123.

⁴ Dentith, *The Philosophy of Conspiracy Theories*, 123.

⁵ David Coady, *What to Believe Now: Applying Epistemology to Contemporary Issues* (Oxford: Wiley-Blackwell, 2012).

Even if one accepts that conspiracy theories are invariably contrary to official theories, one might maintain that the definition offered here is excessively narrow. On the present account, conspiracy theories always centre on explanations of events. Certain theories labelled as conspiracy theories – the claim that the Earth is flat, for instance – are not centred on the explanation of events.⁶ My own view is that the assimilation of such theories under the label ‘conspiracy theories’ involves a loose use of the term, but the issue need not divert us here. At the least, the definition above picks out a broad and important subclass of conspiracy theories. Those that prefer a broader definition may proceed with the caveat that the remarks to come are primarily directed at this subclass of conspiracy theories. Even if one prefers the broader definition, some of the remarks to follow will apply to theories excluded from the narrower definition.

The inclusion of (1) in the definition above has interesting consequences with respect to what counts as a conspiracy theory. The officially-accepted explanation of some target event may vary over time. Thus, through mainstream acceptance, a theory that was once a conspiracy theory may achieve official status and thereby cease to be a conspiracy theory. What theories are official, and thus what theories count as conspiracy theories, may differ across geographical regions as well as over time.⁷ The official account of some event in the United States may differ from the account officially accepted in Russia, for instance. Consequently, a theory that counts as a conspiracy theory in the United States may not count as a conspiracy theory in Russia, and vice-versa. Additionally, (1) makes it likely that the processes whereby one comes to believe a conspiracy theory will differ from the processes whereby one comes to believe the official accounts of some event. One will generally not believe a conspiracy theory, for instance, based on official testimony. This is crucial for present purposes, as our ultimate focus will be on evaluating the intellectual traits and reasoning processes that lead individuals to believe conspiracy theories, rather than evaluating the theories themselves.

⁶ Although the theory that the Earth is flat is not itself a claim about the correct explanation of some event, endorsement of the flat Earth theory will typically be attended by a host of conspiracy theories intended to explain recalcitrant data.

⁷ The suggestion that what counts as a conspiracy theory may vary across countries is explicitly criticized by Charles Pidgen, ‘Conspiracy Theories and the Conventional Wisdom’, *Episteme* 4.2 (2007), 229. However, the absurd consequences that Pidgen associates with this view arise only on the supposition that belief in conspiracy theories is invariably irrational and so such criticism need not concern us here.

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It is worth explaining why (3) and (4) are included in the definition above. From the perspective of the conspiracy theorist, it is natural to expect that the true conspirators behind the event to be explained will have a strong incentive to disguise their involvement. One means of doing so is to disseminate or at least allow the dissemination of a false explanation of that event – this being the official account. Hence, part of the explanatory power of a conspiracy theory consists in its ability to explain the prominence of the official account. Official accounts, in contrast, tend not to explain attendant conspiracy theories. Moreover, as we will see, much of the supposed justification for accepting conspiracy theories is derived from the seeming ability of such theories to explain data left mysterious by the official account.

With a definition of conspiracy theory in place, we may now define 'conspiracy theorising'. As I will use the term, conspiracy theorising simply consists in the belief-forming practices or reasoning processes whereby individuals come to believe conspiracy theories.

2. The Evaluation of Conspiracy Theorising

I wish to emphasize here that the aim of the definition provided above is not to pick out a class of theories that, by their nature, one cannot rationally believe. As others have noted,⁸ some previous work on conspiracy theories has attempted to find a blanket argument that, analogously to David Hume's attack on the rationality of belief in miracles,⁹ shows belief in conspiracy theories to be invariably irrational. For reasons I discuss below, I believe that any such attempt is doomed to failure.

Even if no argument shows that belief in conspiracy theories is invariably irrational, there might be reason to think that conspiracy theorising typically involves errors of reasoning. Here it may be useful to make some clarificatory remarks about the strength of the conclusion I intend to support here. It may be useful to invoke a distinction sometimes made by discussants of conspiracy theories in the philosophical literature. Joel Buenting and Jason Taylor distinguish between two approaches to the evaluation of conspiracy theories.¹⁰ According to the *generalist* view, conspiracy theories may be

⁸ Keeley, 'Of Conspiracy Theories', 47.

⁹ David Hume, *An Enquiry Concerning Human Understanding: 2nd Edition*, Eric Steinberg (ed.) (Cambridge: Hackett, 1993).

¹⁰ Joel Buenting and Jason Taylor, 'Conspiracy Theories and Fortuitous Data', *Philosophy of the Social Sciences* 40.4 (2010), 567–578.

evaluated as a class, without regard to the details of any particular conspiracy theory. In contrast, *particularists* hold that the merits and demerits of individual conspiracy theories must be considered independently. We may construct a corresponding distinction between generalist and particularist evaluations of the rationality of conspiracy theorising.

Neither view aligns well with the position taken here nor, I suspect, with the best existing critiques of conspiracy theorising. A generalist view, according to which conspiracy theorising is invariably irrational, is plainly unfounded. Some conspiracy theories are true. That some such theories are true does not, by itself, ensure that it is sometimes rational to believe conspiracy theories or to engage in conspiracy theorising, as the truth of a theory is in general logically independent of whether any individual rationally believes that theory. However, there are plainly instances of rational belief in conspiracy theories and rational conspiracy theorising. Parties to a conspiracy, for instance, are rational to believe at least one conspiracy theory. Similarly, dedicated investigators may amass sufficient evidence to rationally believe certain conspiracy theories.

Yet the alternative position, according to which whether conspiracy theorising is irrational must strictly be evaluated on a case-by-case basis, fails to recognize the extent to which conspiracy theorising may involve problematic reasoning patterns. If there are problematic traits or reasoning strategies characteristic of conspiracy theorising, there may be *prima facie* grounds for scepticism about the epistemic merits of conspiracy theorising even if certain instances of conspiracy theorising are epistemically unimpeachable. There is good reason to think that there are traits or reasoning strategies characteristic of conspiracy theorising. Belief in a given conspiracy theory strongly predicts belief in other conspiracy theories,¹¹ even in cases where the conspiracy theories are incompatible.¹²

The central task of the remainder of this paper is thus to consider whether there are *negative* epistemic traits and processes characteristic of conspiracy theorising. My focus is on whether popular and academic criticism of conspiracy theorists and conspiracy theorising is warranted, and thus I focus on those traits and processes for which conspiracy theorists could reasonably be considered blameworthy.

¹¹ Ted Goertzel, 'Belief in Conspiracy Theories,' *Political Psychology* 15.4 (1994), 731–742.

¹² Michael J. Wood, Karen M. Douglas and Robbie M. Sutton, 'Dead and Alive: Beliefs in Contradictory Conspiracy Theories.' *Social Psychology and Personality Science* 3.6 (2012), 767–773.

3. Conspiracy Theorising and Epistemic Vice

One possibility is that conspiracy theorising is a manifestation of epistemic vice.¹³ Broadly speaking, there are two branches of virtue epistemology. Virtue reliabilism, the branch of virtue epistemology endorsed by, for instance Ernest Sosa and John Greco, understands epistemic virtues as well-functioning faculties along the lines of perception, memory, and so on.¹⁴ In contrast, virtue responsibilism, as endorsed by Linda Zagzebski and Jason Baehr, among others, understands epistemic virtues as character traits like open-mindedness, diligence, and so on.¹⁵

While virtue reliabilists and responsibilists offer radically different accounts of epistemic virtue, both traditions typically allow that certain traits of character constitute epistemic vices. That virtue responsibilists regard certain traits of character as epistemically vicious is hardly surprising, given that the responsibilist ontology of epistemic virtues is populated by character traits. It is more surprising that virtue reliabilists likewise tend to understand certain character traits as intellectual vices.¹⁶ Ernest Sosa, for instance, cites haste and inattentiveness as obstacles to attaining knowledge.¹⁷ Baehr points out that such obstacles are best understood as either character traits or manifestations of character traits, rather than faculties.¹⁸

Hence it seems that for virtue reliabilists and responsibilists alike certain traits of character are epistemically vicious. Importantly for present purposes, an agent can be blameworthy for exhibiting epistemically vicious traits of character.¹⁹ This is in contrast to agents that

¹³ This possibility is suggested by Quassim Cassam, 'Vice Epistemology', *The Monist* 99.2 (2016), 159–180 and briefly suggested by Feldman, 'Counterfactual Conspiracy Theories', 22.

¹⁴ Ernest Sosa, *A Virtue Epistemology: Apt Belief and Reflective Knowledge* (Oxford University Press, 2007); John Greco, *Achieving Knowledge: A Virtue-Theoretic Account of Epistemic Normativity* (Cambridge: Cambridge University Press, 2010).

¹⁵ Linda Zagzebski, *Virtues of the Mind: An Inquiry into the Nature of Virtue and the Ethical Foundations of Knowledge* (Cambridge: Cambridge University Press, 1996); Jason Baehr, *The Inquiring Mind: On Intellectual Virtues and Virtue Epistemology* (Oxford: Oxford University Press, 2011).

¹⁶ Baehr, *The Inquiring Mind*, 55.

¹⁷ Ernest Sosa, *Knowledge in Perspective* (Cambridge: Cambridge University Press, 1991), 229.

¹⁸ Baehr, *The Inquiring Mind*, 55.

¹⁹ Guy Axtell, 'Epistemic Luck in Light of the Virtues', in Abrol Fairweather and Linda Zagzebski (eds.), *Virtue Epistemology: Essays on*

have difficulty forming true beliefs due to deficiencies in their faculties, rather than character traits. It seems *prima facie* plausible that conspiracy theorising typically involves the manifestation of epistemic vice, understood thusly. Hence, it is worth considering in greater detail whether conspiracy theorists exhibit intellectual vices in such a way as to be worthy of epistemic criticism that does not apply equally to their counterparts.

To some extent, any answer to this question must await empirical study, and so the answer given here will be speculative. Nonetheless, strong considerations militate against the idea that conspiracy theorists exhibit familiar epistemically vicious character traits to a greater degree than their counterparts. To see this, consider the paradigmatic conspiracy theorist, who goes to great lengths to investigate the target event and amasses evidence that they take to undermine the official account of that event. Such an individual devotes a great deal of time – considerably more than non-conspiracy theorists – to uncovering the truth.²⁰ Indeed, conspiracy theorists are often more knowledgeable about the circumstances surrounding target events than their counterparts, and this is plausibly a result of greater devotion to uncovering the truth, a hallmark of intellectual virtue in the responsibilist tradition.²¹ Far short of exhibiting epistemically vicious traits of character, the paradigm conspiracy theorist exhibits a great deal of epistemically virtuous traits of character. If conspiracy theorists are worthier of epistemic criticism than their counterparts, it is not clear that it is because they exhibit epistemic vice in a way their counterparts do not.

It may be argued here that this defence of conspiracy theorists is too quick. Even if conspiracy theorists exhibit some intellectual virtue, they may also exhibit intellectual vice. It seems plausible, for instance, that conspiracy theorists often exhibit a sort of closed-mindedness – an unwillingness to earnestly engage with other perspectives. I consider this suggestion in greater detail in section five. For now, it suffices to note that it is far from clear that conspiracy theorists exhibit intellectual closed-mindedness to a degree their counterparts do not. It is probably true that conspiracy theorists exhibit closed-

Epistemic Virtue and Responsibility (Oxford: Oxford University Press, 2001), 162.

²⁰ Steve Clarke, 'Conspiracy Theories and Conspiracy Theorizing' in David Coady (ed.), *Conspiracy Theories: The Philosophical Debate*, (Farnham: Ashgate, 2006), 77–92.

²¹ Zagzebski, *Virtues of the Mind*.

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mindedness with respect to the testimony of proponents of the official account. But adherents to the official account are likewise not likely to take conspiracy theorists seriously. Hence, this criticism is not, on its own, sufficient to show that conspiracy theorising is subject to a sort of epistemic criticism to which endorsement of official accounts of events is not.

The defence of conspiracy theorising provided here rests on a sort of parity between conspiracy theorists and their counterparts vis-à-vis closed-mindedness. Quassim Cassam rejects this supposed parity, noting that while both conspiracy theorists and their counterparts dismiss evidence from certain sources, only the conspiracy theorist fails to give proper weight to the sources they dismiss.²² The suggestion here seems to be that the sources favoured by conspiracy theorists are epistemically dubious, while the sources favoured by their counterparts are not. I concur with this claim, as far as it concerns the objective epistemic merit of each category of source. However, from the perspective of each agent, it is not immediately clear that the non-conspiracy theorist has more grounds to dismiss conspiracist sources than the conspiracy theorist has to dismiss non-conspiracist sources. The quality of the sources that each epistemic agent dismisses is external to their epistemic agency in such a way that differences on this score cannot ground differences in the epistemic rationality of conspiracy theorising and acceptance of the official account.

4. Conspiracy Theories and the Evidence

A striking feature of beliefs in conspiracy theories is that such beliefs are difficult to shake. Indeed, such beliefs are arguably *too* difficult to shake. A criticism of conspiracy theorising can be developed on this basis along the following lines. Conspiracy theories are empirical theories. Hence there ought to be, in principle, some observations that would be inconsistent with any given conspiracy theory. But conspiracy theories, unlike other empirical theories, can accommodate any observation. In short, conspiracy theories are unfalsifiable. It is irrational to believe unfalsifiable theories. Therefore, belief in conspiracy theories is irrational. This line of argument has been criticized elsewhere.²³ Nonetheless, it will be useful for what follows to

²² Cassam, 'Vice Epistemology'.

²³ Keeley, 'Of Conspiracy Theories', 55–56. Keeley's central response to the present objection to belief in conspiracy theories is that conspiracy

develop a response to this criticism of belief in conspiracy theories in detail.

First, it is crucial to understand why one might take conspiracy theories to be unfalsifiable. We may illustrate with the following simple example. Suppose that Sam, like many in his community, suspects that his mayor and the mayor's associates staged an assassination attempt to garner political support. The local police department concludes that the assassination attempt was genuine. Most members of Sam's community are convinced by the police department's testimony, but not Sam. Sam instead concludes that the police department is in cahoots with the mayor. A journalistic investigation further corroborates the mayor's story. Sam is still not satisfied. He comes to believe that the mayor, the police, and the local paper are in league together.

It seems clear that there is something wrong with Sam's reasoning. However, it is worth first pointing out a few ways in which Sam's reasoning is plainly *not* irrational. First, at each point in the sequence, Sam's beliefs form a coherent set. This would not be the case if, for instance, Sam accepted the conclusion reached by the police while retaining his belief in the mayor's guilt. Sam maintains the coherence of his beliefs though a process of updating. He first updates his attitudes toward the police, then toward the local paper. In short, he adjusts his belief to accommodate new evidence. Sam's behavior is therefore consistent with another requirement of rationality. Sam's mistake, if he makes one, is that he updates his beliefs in an inappropriate way. Rather than abandoning his conspiracy theory, he instead alters his other beliefs to make that theory fit his observations.

The problem with Sam's theory, one might think, is that no conceivable evidence could conflict with it. Indeed, pieces of evidence that seemingly point toward opposite conclusions support Sam's theory equally. The fact that the police uncovered no hint of wrongdoing suggests to him that there is a conspiracy, albeit a wider conspiracy than Sam originally thought. But if the police *had* found something, we might imagine that Sam would still have taken his

theorists have good grounds for thinking that those individuals responsible for a given target event will attempt to cover it up by generating data that appears to conflict with the conspiracy theory. Keeley thus suggests that, while falsifiability is a reasonable criterion of goodness in the case of hypotheses in the natural sciences, the fact that conspiracy theories are unfalsifiable is not a strike against them. I concur with Keeley that the unfalsifiability of conspiracy theories is not enough to dismiss them. In what follows I argue that the sort of straightforward falsifiability at work in this objection is too much to expect of any theory, not just of conspiracy theories.

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initial theory to be vindicated. All conceivable evidence points toward the same conclusion.

Sam's case, contrived though it is, illustrates epistemic behavior characteristic of conspiracy theorising. Some collection of individuals – the conspirators – are taken to have an interest in obscuring the truth. As a result, evidence that appears to conflict with a conspiracy theory poses no threat to the theory. Indeed, such evidence, insofar as it is what one would expect to encounter, given the existence of a conspiracy, goes some way toward confirming the theory. Brian Keeley²⁴ puts the point as follows: 'conspiracy theories are the only theories for which evidence *against* them is actually construed as evidence in favor of them.' I would put the point differently. The apparent problem with many conspiracy theories is that there can be no evidence against them and, indeed, conspiracy theories seem to illicitly derive support from what appear to be conflicting observations.

On the face of it, the unfalsifiability of many conspiracy theories seems to constitute a strike against such theories and, derivatively, those that accept them. However, resilience to falsification is hardly unique to conspiracy theories. Scientific theories in general are resistant to falsification. This point is emphasized by Imre Lakatos, among others.²⁵ As Lakatos emphasizes, the reason for the resilience of scientific theories to falsification is that scientific theories are not tested in isolation. A scientific theory on its own makes few, if any, substantive claims about the world. For this reason, as Lakatos writes, the research programme – not the theory – is the 'typical descriptive unit of great scientific achievements'.²⁶ Research programmes include a 'hard core' of theories, as well as a more dispensable set of auxiliary hypotheses. Lakatos writes, for example, that a Newtonian astronomer's predictions would rely not only on some central theories to which he was deeply committed, but also on some more peripheral hypotheses about, for instance, atmospheric refraction of light.²⁷ More generally, auxiliary hypotheses play a vital role in research programmes, conjoining with theories to derive testable predictions.

The need to conjoin theories to auxiliary hypotheses to derive testable predictions ensures that scientific theories are not straightforwardly falsifiable. To borrow Lakatos's illuminating metaphor, auxiliary hypotheses form a 'protective belt' around scientific

²⁴ Keeley, 'Of Conspiracy Theories', 54.

²⁵ Imre Lakatos, *The Methodology of Scientific Research Programmes*, (Cambridge: Cambridge University Press, 1989).

²⁶ Lakatos, *The Methodology of Scientific Research Programmes*, 4.

²⁷ Lakatos, *The Methodology of Scientific Research Programmes*, 4.

theories.²⁸ When a given prediction is not borne out, this may indicate a mistaken auxiliary hypothesis, rather than a mistaken theory. Auxiliary hypotheses therefore enable testing of scientific theories, but the need for auxiliary hypotheses renders the strict falsification of scientific theories by empirical test impossible – at least on the assumption that auxiliary hypotheses cannot be independently verified.

The upshot for present purposes is this. If there is an epistemic problem with conspiracy theories, and belief in them, it is not that such theories are unfalsifiable. Scientific theories are similarly resistant to falsification, and it is hardly plausible that scientific theorising is generally irrational.

Perhaps there is a related problem with conspiracy theories – or at least a subset of them. Scientific theories are generally not subject to straightforward falsification, but there nonetheless comes a time at which adherence to a scientific theory becomes unreasonable. This occurs when a scientific theory is embedded in a research program in a persistent state of degeneration. Perhaps some conspiracy theorists are, as Steve Clarke²⁹ suggests, comparable to scientists who cling too long to degenerating research programmes. To assess this criticism, it is necessary to answer two questions. First, what distinguishes a healthy research programme from one in a state of degeneration? Second, do conspiracy theories, in conjunction with the worldviews surrounding them, exhibit the features of degenerating research programmes?

A central criterion for the health of a research programme is, according to Lakatos, the ability to predict novel observations.³⁰ A degenerating research programme, in contrast, can accommodate novel observations through manipulation of auxiliary hypotheses, but generally fails to predict observations before they occur. Plausibly, there comes a point at which adherence to a degenerating research programme becomes unreasonable – even though such a point is bound to be vague.

Clarke concurs with the worry about vagueness, but contends that ‘there clearly are cases where a research programme has degenerated beyond the point where it is reasonable to hold on to it’.³¹ Perhaps conspiracy theories tend to reach a similar state of degeneration, and perhaps this is what accounts for the irrationality of belief in

²⁸ Lakatos, *The Methodology of Scientific Research Programmes*, 48.

²⁹ Clarke, ‘Conspiracy Theories and Conspiracy Theorizing’, 81.

³⁰ Lakatos, *The Methodology of Scientific Research Programmes*, 49.

³¹ Clarke, ‘Conspiracy Theories and Conspiracy Theorizing’, 82.

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many such theories. On the face of it, this seems to be precisely what is wrong with Sam's epistemic attitudes. However, there are difficulties with comparing conspiracy theorists to scientists that cling to degenerating research programmes.

First, it seems that belief in conspiracy theories may allow one to predict novel facts. Consider a simple variation on Sam's case. Suppose Sam began with the suspicion that many prominent members of his town were in cahoots with the mayor. Then, he would have predicted that neither the police nor local journalists would uncover any incriminating evidence. More generally, the truth of a given conspiracy theory would ordinarily suggest that there are individuals actively working to shield the conspiracy from discovery. Hence, conspiracy theorists may predict that evidence apparently conflicting with the conspiracy theory will be presented, and such predictions will ordinarily be borne out. Hence, it would be inaccurate to claim that conspiracy theories are not capable of predicting novel observations.

Even if one denies that conspiracy theories can predict novel facts, it is not clear that this would be a strike against such theories. As Keeley points out, the objects whose behavior is described by conspiracy theories are unlike the objects of ordinary empirical sciences insofar as the objects of conspiracy theories can be expected to actively resist investigation.³² Thus, even if one does not interpret the absence of evidence of a conspiracy as evidence of that conspiracy, one may maintain that the absence is consistent with the truth of the conspiracy theory.

The criticism that conspiracy theorising is analogous to clinging to a degenerating research programme struggles on two scores. First, it is not clear that conspiracy theories, like degenerating research programmes, are incapable of predicting novel facts. Second, it is not clear that the ability to predict novel facts is a reasonable criterion of goodness for a conspiracy theory. If there is a reason to criticize conspiracy theorising on epistemic grounds, it must be located elsewhere.

5. What's Epistemically Wrong with Conspiracy Theorising?

Standard criticisms of conspiracy theorising are misguided. It is perhaps in virtue of the failure of such criticisms that many scholars have taken a relatively charitable attitude toward conspiracy

³² Keeley, 'Of Conspiracy Theories', 55.

theorising in recent years³³. This turn is, I now argue, premature. An implication of my account of conspiracy theories is that belief in a conspiracy theory involves two distinct theoretical stances. First, adherence to a conspiracy theory involves the rejection of some official account of an event. Second, adherence to a conspiracy theory involves acceptance of an alternative explanation. I now argue that both theoretical stances involved in conspiracy theorising typically involve epistemic errors.

5.1. Probabilistic Modus Tollens

Keeley suggests that conspiracy theorising typically involves placing significant evidential weight on what he calls *errant data*.³⁴ This suggestion, common in academic discussions of conspiracy theories, is reinforced by recent psychological findings suggesting that conspiracy theorising is strongly correlated with illusory pattern perception.³⁵ A plausible explanatory hypothesis to account for these experimental findings is that conspiracy theorising involves the perception of illusory patterns in sets of errant data.

Errant data comes in two forms, according to Keeley. *Unaccounted-for data* is data that the official account simply fails to explain. As an example of an unaccounted-for datum, Keeley cites the fact that no Bureau of Alcohol, Tobacco and Firearms employees were in the targeted building at the time of the Oklahoma City bombing. *Contradictory data*, in contrast, is data that ‘if true, would contradict the received account’.³⁶ That Timothy McVeigh fled the scene of the bombing in a car without license plates is, according to Keeley, an example of a contradictory datum.

An initial concern for Keeley’s discussion of errant data is that it is unclear that data ever contradict official accounts. Official accounts of events, like scientific theories, assert little about the state of the world

³³ David Coady, ‘Are Conspiracy Theorists Epistemically Irrational?’, *Episteme*, 4.2 (2007), 193–204; Dentith, *The Philosophy of Conspiracy Theories*; Charles Pidgen, ‘Complots of Mischief’, in David Coady (ed.), *Conspiracy Theories: The Philosophical Debate* (Farnham: Ashgate, 2006), 139–166.

³⁴ Keeley, ‘Of Conspiracy Theories’, 52.

³⁵ Jan-Willem van Prooijen, Karen M. Douglas and Clara de Inocencio, ‘Connecting the Dots: Illusory Pattern Perception Predicts Belief in Conspiracies and the Supernatural’, *European Journal of Social Psychology* 48.3 (2018), 320–335.

³⁶ Keeley, ‘Of Conspiracy Theories’, 53.

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in the absence of background hypotheses. Thus, it is difficult to conceive of data that literally contradict an official account. That McVeigh fled in a car without license plates certainly does not do so. More generally, it is implausible that conspiracy theorists typically rely on contradictory data, as there may well be no such data even when the official account is false. Thus, to the extent that conspiracy theorists rely on errant data, they must rely on unaccounted-for data.

Keeley's definition of unaccounted-for data requires revision. Every theory fails to account for a great deal of data, especially data concerning systems unrelated to the theory. For instance, even the best biological theories fail to account for astronomical facts. It would be uncharitable to conspiracy theorists to suppose that these individuals take the inability of the official story to account for data concerning unrelated systems to be a strike against the official account. We therefore require a revised definition of unaccounted-for data.

Fortunately, such a revision is easy enough to perform. Conspiracy theorists do not merely maintain that there is a body of data for which the official story fails to account. Conspiracy theorists maintain that their own theories better account for some such data. We may thus understand unaccounted-for data as data for which the official story, but purportedly not the conspiracy theory, fail to account. We may make this definition more precise by appeal to conditional probability. Unaccounted-for errant data is data that has a low probability conditional on the truth of the official account, but purportedly has a high probability conditional on the truth of the conspiracy account. Because data rarely if ever outright contradicts a theory, I focus in what follows on unaccounted-for data as defined here. Subsequent references to errant data should be understood as references to unaccounted-for data.

Keeley suggests that there is something wrong with the role errant data plays in conspiracy theorising. He writes that '[o]ne's theory should not fit all the available data because not all the available data are, in fact, true'³⁷. I concur with Keeley's assessment that conspiracy theorists are often wrong to think that errant data undermines the official account, but not simply because such data may be false. Even if there is genuine data that is errant with respect to the official account, as I am understanding such data here, this need not indicate that one ought to abandon the official account or even to assign it a low

³⁷ Keeley, 'Of Conspiracy Theories', 55.

probability. In fact, to suggest otherwise would be to rely on a deeply problematic form of inference, *probabilistic modus tollens*.

Some valid inference rules have legitimate probabilistic counterparts. Consider *modus ponens*. *Modus ponens* allows one to infer q from the propositions p , and $p \rightarrow q$. *Modus ponens* has a legitimate probabilistic counterpart. If it is true that if p , then q is probable then, if p is true, q is indeed probable. But *modus tollens* does not have a parallel legitimate probabilistic counterpart.³⁸ Suppose that if p is true, it is enormously improbable that q . Now suppose that one observes that q . Does it follow that p is improbable? No. A simple example brings out the point. If any given lottery with many participants is fair, it is improbable that any particular entrant will win. However, it would be absurd to conclude, once a winner is named, that the lottery was probably unfair. This remains the case even if the lottery was not guaranteed to have a winner and even if one compares the hypothesis that the lottery was fair against the hypothesis that the lottery was rigged in favour of the individual that won.

The observation of errant data is, I suggest, analogous to the observation that some lottery entrant has won. The observation of errant data is improbable – perhaps extremely improbable – given the official account, but this alone does not provide reason to abandon the official account. To see this, consider the following real-world errant datum:

At 4:54 Eastern Time on the afternoon of September 11, 2001, a BBC correspondent in New York City, with the distant, smoking ruins of the Twin Towers in shot behind her, reported that a third skyscraper had just collapsed – World Trade Center Building 7. The only problem with the report was that Building 7 hadn't collapsed. In fact, it could be seen in the background of the shot, over the reporter's shoulder, still very much standing. If that had been the end of the report, the mistaken report would have probably been long forgotten. But twenty-six minutes later, at 5:20 – and just five minutes after the reporter's satellite feed to the BBC's London studio had mysteriously cut out – the building came down.³⁹

Given that the official account of the September 11 attacks is true, it is highly improbable that the mistaken report would occur. On the face of it at least, the mistaken report would be considerably more

³⁸ Elliott Sober, 'Intelligent Design and Probability Reasoning', *International Journal for Philosophy of Religion* 52.2 (2002), 65–80.

³⁹ Rob Brotherton, *Suspicious Minds: Why we Believe Conspiracy Theories* (London: Bloomsbury Publishing, 2015).

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probable if, for instance, the conspiracy theory positing that the September 11 attacks were carried out by American operatives and aided by various media outlets were true. The mistaken report hence constitutes an errant datum with respect to the official account. This errant datum cannot be dismissed as false – the report did indeed occur. Nonetheless, the report does not demonstrate that the official account is probably false. It was highly improbable, given the official account, that the reporter would assert that the tower had already collapsed, rather than that it would collapse. But only an application of probabilistic *modus tollens* would lead one, on this basis alone, to conclude that the official account is probably false.

One may object that I have misrepresented the sort of reasoning involved in conspiracy theorising. The conspiracy theorist does not notice a single errant datum and conclude, on this basis, that the official account is probably false. Rather, the conspiracy theorist notices a pattern of errant data, which jointly undermine the official account. But this objection is not enough to block the present criticism of conspiracy theorising. A set of errant data does not tell against the official account in a fundamentally different way than a single errant datum does. The observation of any single errant datum is improbable if the official account is true, while the observation of a set of errant data is even more improbable. Nonetheless, to reject the official account because it would make one's observations improbable would be a mistake in either case.

Here it is worth considering a related objection. In discounting the ability of errant data to undermine the official account, have I not advocated an absurd sort of epistemic conservatism? After all, recalcitrant data plays a vital role in the progress of science. However, it is not clear that errant data can play, for conspiracy theories, a role equivalent to the one recalcitrant data performs in the context of science. When a given datum supports one theory over another, it is because the former theory would, if true, make the datum more probable than the latter would. But it is typically not clear what conspiracy theories predict⁴⁰. One interpretation of a given conspiracy theory may predict certain observations that are errant with respect to the official account, while another interpretation may predict that the conspirators will be sufficiently competent to disguise any potential errant data. For instance, the mistaken BBC report may or

⁴⁰ For more on the inability of many conspiracy theories to generate specific predictions, see Steve Clarke, 'Conspiracy Theories and the Internet: Controlled Demolition and Arrested Development', *Episteme* 4.2 (2007), 167–180.

may not have been probable conditional on the conspiracy theory that the attacks were carried out by American operatives aided by members of the media, depending on whether or not one expects members of the BBC to flawlessly enact the plan. More generally, because the likelihood ratio between an official account and its conspiracy theory counterpart(s) with respect to errant data is typically indeterminate, errant data generally cannot support a conspiracy theory over the official account.

It is worth emphasizing here that the import of errant data for an official account depends on relative likelihoods, and therefore on a comparison with the conspiracy theory, only because the implications of the official account will typically be probabilistic. If, by contrast, the official account entailed some deductive consequence, p , but $\sim p$ were observed, one could determine the falsity of the official account, even absent knowledge of the conspiracy account's predictions vis-à-vis p .⁴¹ However, given that the official account will typically only imply what is likely to happen, rather than what will happen, errant data could motivate abandonment of the official account only through a fallacious application of probabilistic modus tollens or through an appeal to relative likelihoods – which will typically be undefined. Hence, errant data ordinarily does not provide a reason to reject the official account.

5.2. The Risks and Rewards of Conspiracy Theorising

If the argument developed in the previous section is correct, then conspiracy theorising is often irrational insofar as it involves a misuse of errant data. But belief in a conspiracy theory does not consist merely in the rejection of the official account, conspiracy theories also assert the truth of some alternative explanation of the target event. I now argue that this second theoretical stance is likewise fraught.

In section three, I noted that conspiracy theorists are not so epistemically vicious as one might ordinarily suppose. Conspiracy theorists exhibit a sort of intellectual diligence, a motivation to uncover the truth, that seems downright praiseworthy. But the fact that conspiracy theorists exhibit some epistemically virtuous behaviour is consistent with conspiracy theorists likewise exhibiting some epistemic vices. Plausibly, conspiracy theorists are typically guilty of a sort of closed-mindedness – especially an unwillingness to take proponents of the official account seriously. Relatedly, and in perhaps more

⁴¹ Sober, 'Intelligent Design and Probability Reasoning', 70–71.

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familiar terms, it seems plausible that conspiracy theorists tend to be susceptible to confirmation bias. They exhibit intellectual diligence, but this diligence is specifically directed toward evidence that supports their theory. They are not likely to pursue evidence that might tell against their preferred theory and, even if they encounter such evidence, are likely to either assimilate the evidence under their theory or discount its importance.

But the susceptibility of the conspiracy theorists to these intellectual shortcomings is not, I would suggest, a dimension in which conspiracy theorists are clearly distinguished from their counterparts. The ubiquity of confirmation bias is well-documented and is manifested in a range of behaviours that tend to exaggerate the significance of confirming evidence while downplaying the significance of recalcitrant evidence.⁴² More to the point, while conspiracy theorists are unlikely to seek out evidence against their own theories or to place much weight on testimony proffered by proponents of the official account, adherents to the official account are likely to exhibit comparably dismissive attitudes toward conspiracy theorists and the sources they endorse. Crucially, critics of conspiracy theorising do not simply wish to show that the practice is irrational, they wish to show that the practice is irrational in a way that endorsement of the official account is not. Thus, to the extent that proponents of conspiracy theories and official accounts alike are both prone to confirmation bias and closed-mindedness, appeals to such things cannot fully ground the relevant sort of criticism of conspiracy theorising.

Although vulnerability to confirmation bias and intellectual closed-mindedness are apparently not sufficient to ground epistemic criticisms of conspiracy theorists that do not apply equally to non-conspiracy theorists, such traits may figure into a more nuanced criticism that applies primarily to conspiracy theorists. The reason for this disparity, in my view, is precisely the fact that conspiracy theorising typically involves a greater degree of intellectual activity than that involved in acceptance of an official account. Conspiracy theorists put considerable effort into developing and motivating their theories, while downplaying the possibility that their conclusions are due in large part to the exhibition of intellectual vice and reliance on unreliable sources of information. In short, the fact that conspiracy theorists' enthusiasm for the pursuit of truth is not matched by a correspondingly heightened sensitivity to their own cognitive

⁴² For a thorough survey of experimental evidence of confirmation bias, see Raymond Nickerson, 'Confirmation Bias: A Ubiquitous Phenomenon in Many Guises', *Review of General Psychology* 2.2 (1998), 175–220.

biases and potential for error exposes conspiracy theorists to unique epistemic criticism.

It may be objected that this criticism places an unfair burden on the shoulders of the conspiracy theorist. Why should the level of intellectual effort exhibited by the conspiracy theorist saddle her with greater epistemic responsibilities than her non-conspiracy theorist counterpart? In short, greater intellectual effort in general has the potential to go awry if it is not matched by greater intellectual caution. The collection of additional evidence may leave one worse off, epistemically, when that evidence is drawn from a biased pool. The epistemic results of active but biased inquiry are particularly negative in the case of conspiracy theories. The official account, promoted by mainstream sources, is subjected to at least some degree of truth-oriented filtering. The mere fact that mainstream sources enjoy more attention ensures that, at least when it comes to simple questions of fact, errors are comparatively likely to be noticed and corrected. Moreover, mainstream purveyors of information have a powerful incentive to avoid errors and to correct erroneous reporting, as uncorrected errors are likely to lead consumers to defect to alternative sources in the media marketplace.⁴³ Because sources outside of the mainstream depend on consumers to seek them out – an act that requires some degree of commitment on the part of consumers – it is unclear that such sources are subject to comparable competition. Thus, when one pursues evidence of a conspiracy from outside of mainstream sources, one encounters a significant risk of drawing evidence from a biased pool that is subject to minimal scrutiny.

The point here is not that the conspiracy theorist deserves epistemic criticism simply for relying on sources of information outside of the mainstream. As I noted in section three, the relative unreliability of conspiracist sources is external to the epistemic agency of conspiracy theorists in such a way as to preclude conspiracy theorists from being blameworthy simply for their reliance on such sources. However, the conspiracist's comparatively greater devotion to inquiry – manifested in their pursuit of inquiry beyond mainstream sources of information – is incongruous with her lack of attention toward her own biases and potential for error. Significantly, the comparatively intellectually passive non-conspiracy theorist displays no such incongruity in his failure to consider his own potential for error.

⁴³ Nicola Mößner, 'Trusting the Media? TV News as a Source of Knowledge', *International Journal of Philosophical Studies* 26.2 (2018), 205–220.

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One way to put the present point is that conspiracy theorists exhibit a sort of higher-order epistemic vice – a cocktail of intellectual traits that jointly impede successful inquiry. Some of these traits – e.g. closed-mindedness – are themselves vicious. But these traits might well be had in common with non-conspiracy theorists. Other traits in the cocktail – e.g. devotion to inquiry – may be virtuous in themselves but produce negative results in conjunction with the attendant vices. Cassam makes a similar point regarding the intellectual traits of conspiracy theorists, noting that ‘intellectual curiosity and a proclivity for new ideas would normally be regarded as intellectual virtues, but they become vices when unconstrained by good judgement and a healthy dose of skepticism’.⁴⁴ Plausibly, it is in part some such combination of traits – rather than any standard intellectual vice or cognitive bias – that may render her susceptible to criticism that does not apply equally to her counterpart.⁴⁵

5.3. *Acceptance of a Conspiracy Account*

There is a final criticism of conspiracy theorising worth making here. As I have emphasized, the behaviour constitutive of conspiracy theorising does not simply consist in rejection of the official account. It also involves acceptance of some alternative account. It is difficult to understand, however, how the conspiracy theorist might motivate this latter theoretical stance.

First, just as evidence for the official account is primarily filtered through the testimony of media and public figures, evidence for the conspiracy account will typically be filtered through the testimony of various sources. But, given the level of scepticism that conspiracy theorists must adopt toward certain sources of information, it is unclear how a conspiracy theorist can maintain trust in the alternative sources needed to derive warrant for their preferred conspiratorial explanation. We may illustrate the present point with an historical analogy. Consider René Descartes’ epistemic position at two points

⁴⁴ Cassam, ‘Vice Epistemology’, 172.

⁴⁵ Note that it is consistent with conspiracy theorists exhibiting epistemic vice in a way that their counterparts do not that there might be other vices more prevalent among non-conspiracy theorists, as suggested by Charles Pidgen in ‘Are Conspiracy Theorists Epistemically Vicious?’, in Kasper Lippert-Rasmussen, Kimberly Brownlee, and David Coady (eds.), *A Companion to Applied Philosophy* (Oxford: Wiley-Blackwell, 2017), 120–132.

in the *Meditations*.⁴⁶ At the close of the first meditation, Descartes has apparently adopted an extreme form of scepticism. We may regard this theoretical stance as impractical, but not inconsistent. Many commentators believe the project goes awry only when Descartes seemingly conjoins his skepticism to a reliance on the accuracy of clear and distinct perception. Similarly, bracketing the criticisms I have developed earlier in this section, it is often not the conspiracy theorist's skepticism that appears epistemically objectionable. Rather, what is objectionable about conspiracy theorising is that such skepticism is often attended by, and even motivated in part by, a dogmatic acceptance of certain sources of information as reliable.

Moreover, even setting aside this concern, a second problem for deriving positive warrant for conspiracy explanations has to do with the way in which conspiracy explanations account for the evidence. The conspiracy theorist posits that some group of conspirators is responsible for the occurrence of some event, the official account of some event, as well as data that is errant with respect to the official account. But if one seeks to provide explanations of this sort, any number of conspiratorial explanations will fit the data, and hence will be equally supported. Thus, the conspiracy theorist has no basis for determining that some particular group of conspirators, as opposed to some other group, is responsible for the event in question.⁴⁷ Any data that appears to favor one explanation over its competitors can of course be understood as a red herring planted by the true conspirators. Thus, even if one grants that the conspiracy theorist is rational to reject the official account, there often remains no motivation for the conspiracy theorist to adopt the second theoretical stance constitutive of conspiracy theorising. Because any number of conspiratorial explanations can be constructed, all of which account for the data equally well, the conspiracy theorist often lacks sufficient warrant for belief in any particular conspiratorial explanation.

6. Concluding Remarks

Conspiracy theorists have often been subjected to a rather dismissive attitude on the part of academics and those in the public realm. This

⁴⁶ René Descartes, *Meditations on First Philosophy: with Selections from the Objections and Replies*, John Cottingham (ed.) (Cambridge: Cambridge University Press, 2015).

⁴⁷ Feldman raises a similar objection to what she calls 'counterfactual conspiracy theories' in her 'Counterfactual Conspiracy Theories', 20.

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attitude might be justified if conspiracy theorists were generally delusional, or otherwise guilty of extraordinary epistemic fault. We have seen that the errors typically made by conspiracy theorists are subtler than one might expect. But, contra recent trends toward a more charitable attitude toward conspiracy theorising, there are epistemic errors heavily implicated in conspiracy theorising. I do not mean to suggest that *all* conspiracy theorists commit the sort of errors described in the preceding sections. However, there are epistemic grounds on which to criticize those that do.⁴⁸

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⁴⁸ I am deeply indebted to the participants of the 2017 Harms and Wrongs in Epistemic Practice conference for their invaluable feedback on an early version of this paper. I owe additional thanks to the conference organizers and an anonymous referee for their thoughtful comments on later versions.