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## What is left of irrationality?

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### ABSTRACT

In his recent book *Bad Beliefs and Why They Happen to Good People*, Neil Levy argues that conspiracy theories result from the same rational processes that underlie epistemic success. While we think many of Levy's points are valuable, like his criticism of the myth of individual cognition and his emphasis on the importance of one's social epistemic environment, we believe that his account overlooks some important aspects. We argue that social deference is an active process, and as such can be helped or hindered by epistemic virtues and vices. With this in mind, holders of bad beliefs acquire more responsibility than is considered by Levy.

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## Introduction

Conspiracy theories and misinformation are widespread phenomena. Claims on which the scientific community has long reached a consensus, like anthropogenic climate change, evolution, or the efficacy of vaccinations, are disputed by unreliable sources whose alternative stories are believed by large parts of the population despite the lack of evidential support. The story according to which vaccinations are an elaborate masterplan by pharmaceutical companies to implant chips into members of the population has been repeatedly rejected by experts and yet, it remains for many a more attractive theory of the purpose of vaccinations than the mainstream view. Why would a rational agent believe such a far-fetched, convoluted and discredited story rather than one that is linear, simple and largely supported by evidence?

A popular answer to this question is that people often do not act as rational agents. Since the Enlightenment, rationality has been characterized as a largely individual process: our capacity to collect first-order evidence, weigh it appropriately and come to the most plausible conclusion, with the help of epistemic virtues such as being open-minded, tenaciously logical,

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conscientious, humble, and so on. According to this conception, accepting conspiracy theories and other bizarre beliefs is a failure of rationality that is to be blamed on individual biases, epistemic vices and reasoning errors which affect people's capacities to deal with first-order evidence. Bad beliefs are the result of irrational processes.

In his book "Bad Beliefs: Why They Happen to Good People", Neil Levy (2021) presents an alternative account that sees these bizarre beliefs as resulting from the same rational processes that underlie epistemic success. Levy argues that much of human cognition does not rely on first-order evidence as much as it does on social deference and higher-order evidence. Most people do not have the resources or background knowledge necessary to assess the first-order evidence for or against anthropogenic climate change, for example. Both the scientifically-minded individual and the conspiracy theorist need to trust second-order sources of information which have already analyzed and interpreted first-order evidence. The only difference between the two individuals is where they place this trust.

According to Levy, this means that conspiracy theories are not to be blamed on individual epistemic agents, but on the epistemic environment they are immersed in. It is a rational choice to defer to trusted sources of information on topics where the first-order evidence is too complicated to deal with yourself. However, the polluted epistemic environment we live in makes it so that the higher-order sources that are more present and vocal in the lives of many are not the ones that should be trusted. Thus, if we want to combat the rise of conspiracy theories, we need to clean up the epistemic environment first; by making it so that people who are not experts cannot exhibit expert status, and by increasing credibility signals of the scientifically supported opinion. This way, we can make it easier for people to know and recognize which higher-order sources to trust.

A lot of Levy's points are timely and well-taken. We appreciate Levy's project of showing that the average person is not a stupid irrational being, but someone who makes choices which make sense to them. We also appreciate the emphasis on just how significant and important one's social epistemic environment is, and that knowledge production is very much a fundamentally shared enterprise. However, we believe that his account can overlook some important parts of the story: the social aspect of epistemic virtues and vices, and the role of active choice in belief formation. When considering these aspects, we think that falling for conspiracy theories and bad beliefs acquires more epistemic responsibility than Levy allows.

In part one, we take a closer look at some of the examples discussed by Levy and consider how they affect what rationality, and opposingly, irrationality, mean. These examples look rational with hindsight but don't involve comprehensive understanding. Sometimes, we want more than this; we want to innovate the processes and conclusions we acquire socially

by altering them and improving them and this takes closer engagement. This is especially true when it comes to high-stakes beliefs about climate change, or the safety of vaccines. We also consider that epistemic virtues can play a more valuable role here than Levy allows. In part two, we argue that belief formation is an active process of picking sides based on one's self-conceptions, rather than a passive process where beliefs that are prevalent in our environment "happen" to us. This puts responsibility back into the picture and suggests that cleaning up the epistemic environment won't be enough to solve the problem of bad beliefs.

### Part 1: Rationality as luck

Levy provides a convincing and comprehensive account of how some of our strangest beliefs and practices can in fact be understood as rational. However, we worry that in managing to rationalize such practices, we start to lose out on a useful picture of *irrationality*. We'll look at two of Levy's examples to demonstrate this. Firstly, Levy discusses the Naskapi hunters who heat a caribou shoulder over coals until it cracks, and then decide where to hunt on the basis of how the pieces fall. Secondly, Indigenous American peoples who cooked corn with wood ash or ground sea shells or lime, and so subsequently the corn did not give them Pellagra, which was a disease affecting corn-eaters elsewhere. Both practices are just "the done thing", with both populations having little grasp of the mechanisms by which they work. In the former case, the random nature of how the bone fragments fall ensures that the hunters don't fall prey to the tendency to get superstitious and see illusory patterns in which hunting spots are best. In the latter case, the added ingredients to the corn were alkalis which released the niacin in the corn, which in turn meant that the corn did not give people the Pellagra disease (caused by niacin deficiency).

Levy describes both of these practices as perfectly rational and reflective of the crucial role of culture in knowledge production. He emphasizes the severe costs if individuals break away from doing "the done thing" here and question the practices; they are less successful and risk illness or even death. Because the individual who breaks away from these practices and questions them risks so much and neglects such valuable social knowledge, it is a better epistemic position to be in to just go along with the practices even if the mechanism isn't understood. Levy describes these practices as therefore manifesting "intelligence" (2021, 49). It is a special skill of humans to imitate every step of a routine shown to them even if some steps are clearly functionally redundant. Chimpanzees will not do this, skipping out the unnecessary steps. This is, in Levy's view, to their loss because it gets in the way of accumulating very valuable cultural knowledge over time and generations, which would be

impossible for individuals working alone. However, he also says that “we owe our success to the fact that we are in some ways less – or at any rate less directly – rational animals than chimps.” (2021, 45) This hints at the possibility of what is rational and what is “successful” or “intelligent” coming apart, but it is by these same processes that Levy goes on, throughout the book, to defend bad beliefs as rational.

Our worry is that these practices manifest intelligence from an external point of view, of mother nature, perhaps. They work, in the long run. But this doesn’t tell us very much about people and rationality, with the latter turning into a matter of luck. Specifically, luck with regards to whether you are an Indigenous American with the custom of cooking corn with ash or shells or lime, or if you are based elsewhere and do not do this. Irrationality becomes no fault at all, but just “wrong place wrong time”. At first this fits Levy’s picture to some extent – people are not irrational, just their environments are unideal and either they have good customs or they don’t – but Levy also allows that within the same culture, some cultural practices will be “shallow” and require straightforward imitation, whereas others will be “deep” and require *innovation* in order to achieve the valuable cultural knowledge accumulated over time.

Returning to the shells example, we want the Indigenous Americans not to question their corn-cooking practices, but for the Europeans to do so. How are we ever to know which position we are in? Levy describes the intelligence of the caribou-shoulder burning as the overriding of the human disposition to lose signal in noise by seeing illusory patterns, but the practice around corn-cooking would have *initially* been a pattern which could have been just as illusory as the superstitions which damage hunting prospects – because there is no understanding of the underlying mechanism to guide this decision-making process. These cooking practices clearly turn out to be worthwhile, but from the point of view of the human beings involved, it’s a poorly understood ritual that they are “falling prey to” in the same way that the hunters would be “falling prey to” biases of superstition.

Medical professionals were in this position when investigating why rates of Pellagra were so high outside of the Indigenous American population, and asking questions about the mechanism (or, innovating) is what brought answers. This is where we want good old fashioned individual rationality to come in; in ascertaining when to question and innovate, and when to go with the flow and imitate faithfully. Investigating the underlying mechanism and ascertaining how “illusory” the pattern really is will be crucial to this. Levy acknowledges that we do sometimes respond to hints in deciphering this; if the person we are imitating seems to be acting very intentionally we are less likely to innovate. If the person we are imitating seems to be distracted or getting around another problem (their hands are full, for example), we are more likely to innovate and not straightforwardly imitate.

But this is difficult to apply to helping us know when we are dealing with shallow or deep cultural knowledge. It is difficult to apply to cases of individuals faced with the question of whether climate change is real, or whether they should support figures like Donald Trump. Levy describes how in the latter case of Never Trumpers especially, it is the social outsourcing of beliefs and falling in line with what those around us believe because they are perceived to be “people like us” (and perhaps also as prestigious) which explains how the seemingly irrational change of opinion is ecologically rational. In other words, it’s a mechanism which usually gets us good and well-supported beliefs, but in these kooky epistemic environments they get us bad beliefs. We accept that these individuals often have good reasons for rejecting the mainstream view given their epistemic environment and peer group, but nevertheless the option of innovation surely doesn’t go away. Levy says that innovation is appropriate for *shallow* cultural knowledge, as opposed to deep cultural knowledge, but this merely pushes the question one step along to – how do we know whether an issue pertains to shallow or deep cultural knowledge? Given that Levy appears to allow for the issue of whether to support Trump, and other beliefs which *feel* personally deep, to in fact be shallow (2021, 65) because they are abandoned relatively quickly in response to social pressure, this is a sticky problem. But importantly it surely makes it possible that beliefs regarding the truth of climate change can also count as shallow and the option of innovation remains. We are suggesting that some epistemic responsibility may come into the picture in ascertaining this; whether we should innovate or imitate, even if perfectly rational processes can lead us astray once we pluck for one of these.

The next question is likely to be, what does “innovation” look like in the face of considering whether to accept the truth of climate change? Levy warns against individualistic solutions; “doing your own research” or having epistemic virtues. We look at each of these in turn.

We accept that innovation does not have to be an individualistic affair, and can instead be just as socially embedded as Levy’s picture of rational processes is. This is in contrast with his description of “doing your own research” as being very individualistic. He describes agents as facing a choice of either shrugging their shoulders, or “doing their own research” and digging into argumentation, when they come across surprising or bizarre conclusions such as that climate change is not real. He suggests that they ought to shrug their shoulders and move on (2021, 94), given the risks which the individual incurs when engaging in questioning (such as in the cases of Indigenous Americans who would question cooking corn in their traditional way, and Naskapi hunters who would question why they use caribou shoulder fragments to pick where to hunt). However, we think this is too simplistic. Firstly, both these options are individualistic; shrugging

shoulders or engaging and trying to tackle spurious arguments ourselves. But Levy criticizes only the second for being individualistic. We also do not think this option has to be individualistic. It only looks this way when we needlessly limit the time span we are looking at, to the immediate aftermath of coming across a strange conclusion and/or argument. In reality, we think there is a path between the two options of shoulder shrugging and individual research. This is something like, holding the strange idea in the back of our minds, and seeing what happens in the near future. Do you notice other people mention it? Do other people ask you about it? Do you come across specific people you think could give really valuable insight? Does it pop up on twitter or in meetings? Perhaps you follow up on that when you might not have before. We hope it's clear to see the role that other people play here in tackling a surprising new idea. But it is not an attempt to, independently, master complex expert literature or "science the shit" out of something, nor is it a passive shoulder shrug given that we already know what we and our peers think about some issue.

Zooming out, our picture is one of agents, over time, sometimes finding themselves alone with a new idea and perusing argumentation behind it, reflecting on how it strikes them, and being in moments where they have no choice but to be individualistic. But at others, they draw on the thoughts and ideas of others consciously or subconsciously, perhaps to then think about privately again later. In this cycle, there are individualistic moments which Levy captures but eschews, whereas we think they can still have a part to play in a broader process which draws on social influences at other times.

We think something similar is the case with Levy's account of epistemic virtues. He thinks that epistemic virtues are not as risky as doing your own research, but still worries that they are too individualistic to help - "they appear to aim to bring us each to inculcate the virtues in ourselves and then, guided by our intellectual excellences, to tackle hard problems largely on our own" (2021, 91). He would prefer something which better enables apt deference to others. However, we see a much closer link between epistemic virtues and exactly this - apt deference to others. Things like open-mindedness, humility, arrogance, sociability, can all have a significant role to play in ensuring apt deference to others. If we are arrogant, we are unlikely to take much of what anyone else says seriously. If we are humble, we are more likely to take seriously what we hear from others, and not just people who look like us or are familiar to us. If we are sociable, we're likely to be in more, and more intimate contact with a wider variety of other people from all walks of life, and therefore be more likely to come across lots of valuable information from them. In many ways, the virtue epistemologist has to battle the same problems as the virtue ethicist in accepting that unideal environments - particularly unideal social environments - do place individuals at significant disadvantages in their epistemic, or ethical,

development. They both hope that agents will respectfully defer to others, have relevant trustworthy epistemic institutions – or moral role models – available to them, and have relevant educational experiences to learn from. They are both concerned not just with ways of analyzing and interpreting first-order evidence (of what to believe or how exactly to act), but of being well disposed such that you're in a good position to defer aptly to others when needed and bring what is learnt there to bear on relevant situations.

So, we do not see “doing your own research” or virtue epistemology as individually as Levy seems to. Although this lets into the picture all the ways that unideal social environments can create bad beliefs, much of Levy's description of which we are on board with, we still also think there are some opportunities here for slightly more independent choice and rationality to be exercised.

## **Part 2: Beliefs, action and responsibility**

Levy's take on rationality hinges on some underlying assumptions about how we form and sustain beliefs. Beliefs “happen” to people; the title itself implies that belief formation is not an active process of choosing the most rational option after analyzing the available first-order evidence, but it is a somewhat passive process that can be reliably predicted given certain environmental factors. If the prevalent sources of information that hold epistemic authority in my environment says that *x*, the belief that *x* will likely “happen” to me. Rationality does not need to involve active thinking or choosing, but imitating practices and deferring to one's social environment. If the epistemic environment is polluted and filled with misinformation, the otherwise rational act of social deference will fail and conspiracy theories will proliferate.

This has important consequences for Levy's proposed solution to the proliferation of conspiracy theories and bad beliefs. If the environment is the primary force determining beliefs, we can artificially generate better beliefs by cleaning up the epistemic environment. Specifically, by making clear which are the mainstream, scientifically supported views and nudging people towards credible positions, we will counterbalance the rise of conspiracy theorists and produce more successful epistemic agents.

Levy does capture something important here. The environment and the available evidence are certainly reasons for epistemic success or failure. Someone growing up in a family of scientists is probably less likely to succumb to conspiracy theories than someone whose social bubble is made entirely of flat-earthers. Having credible information available and easily recognizable is an important prerequisite to forming good beliefs, and our current epistemic environment is not ideal in this sense. Unless one has learned a fairly complicated set of skills to help them recognize which



sources to trust, the amount of contradicting and (at least at first sight) credible-looking information around is not easy to navigate.

However, talking about beliefs in this way ignores another very important aspect of belief formation. We do not only form beliefs by passively absorbing information – we actively select and choose what or who we want to trust in based on our personality, epistemic strategies, identity and core beliefs. Making it obvious what views are mainstream and scientifically credited will only help people who have already made the choice of trusting mainstream, scientific views.

A devoted Christian will likely keep believing in creationism even if they end up in an epistemic environment where the most prevalent sources of information say otherwise, like a largely non-religious city or a science class. A left-leaning scientist will keep believing in climate change if they move to a very conservative town where everyone thinks green politics are a hoax. Both epistemic agents are perfectly capable of ignoring the mainstream position in their current environment in favor of a minority position. More importantly, they do so in spite of all pointers of epistemic authority (it being taught at school, for example) because of a background choice about their values and who they are. They know who the epistemic authority is in their social environment; they just decide to reject it because they perceive it as conflicting with or not speaking to their own values. In extreme cases, they might come to reject any view that comes to their attention that is labeled as epistemically authoritative, even if they know nothing about it, precisely because it is presented as the consensus in an epistemic environment they feel strongly averse to. They think that 'this is the narrative of the system; I do not fit in the system; so this is not my narrative'.

This is in contrast to Levy's description of even deeply held (or so it seems) beliefs about the self being shallow and often being outsourced – as he suggests is the case with the "Never Trumpers" who denounce Trump but then ended up supporting him, in line with the rest of the social group they saw themselves as being a part of. Instead of having robust inner models of ourselves and our beliefs, we off-load these onto the outer world and tend to more so just respond to triggers when the time comes. In the most stark example of this, choice blindness studies show individuals explaining their recently expressed belief or choice *x* when prompted to by researchers, even though they actually expressed belief or choice *y*. So, they used this prompt by researchers as a trigger which told them what they actually thought/believed, which demonstrates how shallow and impoverished our inner models are.

However, an alternative interpretation of this is that we actually see quite how tightly people cling to inner models of themselves. Individuals react to these prompts in this way because of some of their other self-related beliefs.

Particularly, for example, that they are consistent, that they know what they said a minute ago, that they are the ultimate authority on their own views. This is a strange scenario in which deeply held beliefs about one's own consistency does cause inconsistency, given that evidence to the contrary is being overlooked. But this is still in the light of enjoying a particular self-image.

So, for similar reasons, a Flat Earther will likely not abandon their convictions just because the epistemic environment gets depolluted and the mainstream view is clearly indicated. This is because this depolluting doesn't contribute anything to the self-relating beliefs which the agent practically enjoys having, because they speak to their being consistent but also interesting and contrasting. Even more than religion or science, many conspiracy theories thrive in an "us versus them" dynamic. Such polarization cannot only be explained by looking at a polluted epistemic environment and the difficulty in telling the scientific information apart from the unfounded sources. It is, in the first place, an active choice to pick one side rather than the other. We will briefly talk about which factors might influence this choice, and the consequences for moral and epistemic responsibility.

We believe that this is an area where epistemic virtues can actually be helpful. In particular, for example, it seems that a common epistemic vice among conspiracy theorists is a need for uniqueness (Douglas et al 2019, 9) – a desire to place oneself above others in terms of one's epistemic capacities and knowledge, to hold the essentially contrasting minority position and defend controversial views in order to appear different from the majority. This could be thought of as a sort of, propensity to be an "epistemic special snowflake" and emphasizes how something that looks quite a lot like a vicious trait, has knock-on effects for aptly deferring to good sources and paying them the attention they deserve.

Accepting some wacky beliefs that might contradict one another at a superficial level is a worthy sacrifice to maintain stability in one's core beliefs at a deeper inner level. People who feel rejected and alienated by the system are much more likely to develop conspiratory beliefs (Pierre, 2020). Losing faith in the system develops into actively researching narratives outside of it, which further fosters the feeling of opposition: we are smarter than them, we know something that they are trying to hide. This opposition is not only epistemic, but is often also experienced as moral, social and political. One recent example are COVID deniers (Bisiada, 2021). Refusing to comply with governmental policies led to them being pointed to as responsible for the continuation of the pandemic by people who were practising social distancing, wearing masks and getting vaccinated. In turn, being painted as ignorant led to further grudge and distrust toward the official narrative from people who were skeptical, uninformed or just

unable to deal with the social and economical consequences of social distancing.

The deeper issue with many instances of adherence to conspiracy theories is not to be found in misinformation itself, but in the reasons why misinformation is picked and believed. In all these cases, mainstream views are rejected not because it's hard to know which view is the epistemically authoritative view in an epistemically polluted environment, but precisely because of the signals of authority they display. If this is true, cleaning up the epistemic environment will not have the impact that Levy hopes for – highlighting with banners and pointers what the consensus of epistemically authoritative sources is will not make these people gain trust in those authorities, rather it will make it easier to recognize which positions to reject, because adopting them does not emphasize and enhance the individual's self-conceptions. Without deeper work on the socio-political environment to stop fueling “us versus them” narratives, increase trust in science and prevent groups from feeling marginalized, these efforts to contrast the rise of bad beliefs will be limited.

## Conclusion

Where does this leave rationality and responsibility? We have argued that social deference can be rational not in virtue of a passive mechanism of absorbing or repeating the prevalent practice or opinion within one's immediate environment, but in virtue of a powerful active component: one's capacity to adequately pick who to trust. This choice is strongly influenced by one's identity and can be led astray by epistemic vices like a need for uniqueness, and alternatively helped by epistemic virtues like humility, and therefore it is not free from epistemic responsibility. At the same time, Levy is right in arguing that to change people's beliefs, we need to start from changing their environment. Rather than a simple epistemic depolluting, though, we suggest that social changes are necessary in the first place to prevent people from developing anti-scientific identities and consequently picking anti-scientific beliefs.

## Disclosure statement

No potential conflict of interest was reported by the authors.

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