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What Rationality? A Comment on Levy's "Is Conspiracy Theorising Irrational?"

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Neil Levy (2019) provides several new angles on the long-standing question about the rationality, or lack thereof, of people who accept objectively unwarranted conspiracy theories. Levy's position rests on two arguments. First, accepting conspiracy theories is *subjectively rational* for many people because they satisfy that person's personal epistemic standards. Second, those personal epistemic standards, while objectively leading the agent astray, are "in some sense rational, perhaps even *objectively rational*" (66).

Summary of Levy's Argument

Levy invokes social factors in support of both arguments. Concerning the first argument, members of a low status group—who are particularly likely to accept conspiracy theories (Uscinski and Parent 2014)—tend to be at the mercy of forces over which they have little control. In consequence, suspicion and hypervigilance might be adaptive—and hence "subjectively rational"—because they permit early detection of adverse actions and events based on minimal evidence. For many people, the suspicion that "management" or the law or government are "out to get them" may occasionally afford a true positive. The inevitable concomitant increase in the number of false positives may incur only a small cost, if any, to the agent.

Concerning the second argument, ultimately all of us rely on *testimony* to acquire knowledge of the world. None of us can observe climate change first hand, so we must trust others to provide us with relevant information. Thus, what differentiates people who accept unwarranted conspiracy theories from others is simply *whom* they trust to provide accurate testimony. Most scientists may trust other scientists to tell us about climate change. However, given that mainstream climate science, like many other "official accounts", is promulgated by members of the "elite" (e.g., government, universities), people who are (or feel) excluded by that elite may have an incentive to be receptive to alternative sources. Perhaps the neighbor who claims to have disproven climate change in a backyard experiment is more trustworthy than a remote Oxford academic.

Levy's invocation of social factors is laudable and fits perfectly within the theme of this special issue. In particular, Levy heeds the editors' call that we need to develop a "philosophical model of secure trust" that takes into account the structure of epistemic networks (Alfano and Klein 2019, 1). We nonetheless take issue with Levy's particular instantiations of both arguments.

Subjective "Rationality"

Levy never satisfactorily explains what he considers to constitute rationality, whether subjective or otherwise, other than by noting that "such ideation is subjectively rational inasmuch as it is the best that very limited agents, who find themselves in potentially threatening environments, can achieve" (Levy 2019, 69). This loose definition runs the risk of being circular because it allows *any* action, from kneejerk reflex to deliberate cognition, to

be considered “subjectively rational” by simply assuming that it represents “the best” that an agent can do. The term is therefore vacuous as currently defined.

It does not follow, however, that the notion of subjective rationality presents an inescapable conundrum. Indeed, we suggest that “subjective rationality” might coordinate well with other recent arguments about human rationality that have questioned the role of classical logic and expected utility theory as the universal benchmarks for rationality (Schurz and Hertwig, 2019). We begin with the common postulate that rationality designates a connection between one’s actions, beliefs, or decisions and their underlying reasons (Kozyreva and Hertwig 2019). As Nozick (1993) put it, “rationality is taking account of (and acting upon) reasons” (120). This connection must not be arbitrary but must be meaningful and justifiable. In the conventional account of rationality, justifiable connections arise when beliefs or decisions are supported by evidence, formal logic, or, when applicable, rational norms, such as utility maximization.

An alternative, consequentialist account argues that actions can also be considered rational if they lead to successful outcomes for the individual, given that person’s cognitive capacities and structures of their task environments. On this view, a strategy “is ecologically rational to the degree that it is adapted, in the context of the task, to the informational and statistical structure of an environment” (Schurz and Hertwig 2019, 10). In short, cognition is rational to the extent that it is cognitively successful. Cognitive success is defined “in terms of successful predictions, assuming a comprehensive meaning of prediction that includes, besides the predictions of events or effects, predictions of possible causes (explanatory abductions) and in particular *predictions of the utilities of actions* (decision problems)” (Schurz and Hertwig 2019, 16, emphasis added).

By this criterion, people have been found to exhibit cognitive success across a wide range of circumstances, including esoteric prediction tasks such as estimating the duration of the reign of Egyptian Pharaohs (Griffiths and Tenenbaum 2006; Lewandowsky, Griffiths, and Kalish 2009). Even seemingly biased behaviors, such as the over-reliance on extreme events when judging probabilities (e.g., Lichtenstein, Slovic, Fishhoff, Layman, and Combs 1978), take on a rational sheen when considered in light of cognitive resource limitations (Lieder, Hsu, and Griffiths 2014). In a systematic comparison of resource-efficient cognitive strategies against conventional normative benchmarks, some simple strategies nearly reached benchmark performance (Hertwig, Woike, Pachur, and Brandstätter 2020).

We suggest that “subjective rationality” can be operationalized in a manner that escapes circularity and appeals to the cognitive success of mental operations. Acceptance of this operationalization, however, causes difficulty for Levy’s argument because unwarranted conspiracy theories are generally not cognitively successful (see, e.g., Lewandowsky, Lloyd, and Brophy 2018). To illustrate, consider Levy’s claim that conspiracist ideation can be viewed as an adaptive response to a threatening or vicious environment. In those environments, so the argument goes, false positives can be an acceptable price to pay to deal with threats. However, this idea of adaptive false positives cannot explain their inevitable

corollary, namely that the beholders of conspiracy theories wilfully “miss” true positives. Acceptance of a conspiracy theory inevitably entails rejection of an alternative official account. Why, then, is endorsement of an anti-vaccination conspiracy a “subjectively rational”—in a threatening environment—false positive if it is accompanied by the rejection of overwhelming scientific evidence for the safety and benefits of vaccination? Why is conspiracist climate denial (e.g., Lewandowsky et al., 2013b, 2013a; Uscinski, Douglas, and Lewandowsky 2017) adaptive if it entails wholesale rejection of the actual threat from climate change? If, as Levy claims, “accepting bizarre conspiracies is the price agents pay for being alert to real dangers” (68), then why are real dangers being systematically ignored in favor of chimerical threats?

Moreover, Levy’s appeal to threat detection cannot explain why people cling to these purportedly adaptive false positives in the face of continuous corrections and mounting contrary evidence. A core component of conspiracist cognition is its inherently self-sealing nature: that is, evidence that counters a theory is re-interpreted as evidence *for* the conspiracy (e.g., Bale 2007; Keeley 1999; Sunstein and Vermeule 2009). This arises from the theorists’ conviction that the stronger the evidence against a conspiracy (e.g., the FBI exonerating a politician from allegations of having misused a personal email server), the more the conspirators must want people to believe their version of events (i.e., the FBI is therefore part of the conspiracy to protect the politician). Neither normative nor subjective notions of rationality can be reconciled with the systematic inversion of evidence.¹

At a broader level, evidence abounds against cognitive success of conspiracist cognition. In an examination of the possibility that conspiracy theorists might be rational, rather than gullible, van Prooijen (2019) strongly rejected that possibility: “The more strongly people believe conspiracy theories, the more likely it is that they also endorse implausible non-conspiratorial beliefs including paranormal phenomena, superstition, pseudo-science, and pseudo-profound bullshit. Furthermore, conspiracy beliefs predict an increased susceptibility to a range of common cognitive biases, including the conjunction fallacy, illusory pattern perception, and hyperactive agency detection” (327).

In summary, we reject Levy’s notion of “subjectively rational” conspiracy theorists even if we scaffold the notion with the necessary rigorous operationalization based on cognitive success. Levy’s suggestion that conspiratorial false positives may be an acceptable price to pay for threat detection runs afoul of the massive cost associated with the inevitable misses of true positives. The threat-detection notion also fails to account for the self-sealing cognition that renders conspiracy theories immune to falsification. Any future attempt to postulate a “subjectively rational” account of conspiracy theorizing has to operationalize rationality in a testable manner (e.g., by appealing to cognitive success; Schurz and Hertwig 2019), and has to demonstrate that all known attributes of conspiracist cognition (as

¹ We note that weaker forms of self-sealing reasoning, such as belief polarization, have been modeled using Bayesian networks, implying that normatively rational reasoning can give rise to divergent interpretations of evidence under some circumstances (Cook and Lewandowsky 2016; Jern, Chang, and Kemp 2009).

summarized by, e.g., Lewandowsky et al. 2015; Lewandowsky et al. 2018) satisfy this criterion of rationality.

Rational Testimony

Levy's second argument relates to source credibility. Ultimately, virtually all knowledge is based on testimony—none of us can measure global temperature on our own and we must instead rely on the data collected and published by meteorological agencies. The reliance on testimony *per se* therefore does not differentiate conspiracy theorists from scientists—what differentiates the two is the differential receptivity to sources of testimony. Levy correctly notes that people rationally prefer testimony based on cues to reliability and benevolence, arguing that it is “adaptive to prefer the testimony of those who have our best interests at heart to those who might seek to exploit us or be indifferent to our welfare” (70). It follows that people who feel marginalized in society may quite rationally believe that the government is not a benevolent actor, and may therefore discount the testimony from official sources. By the same token, if one's neighbor has a long track record of benevolence then there may be rational grounds to prefer his testimony over that by government agencies, even if considerations about reliability would point in the opposite direction.

Believing a conspiracy theory can be rational also because they may contribute to the agents' social fitness. Conspiracy theories, like scientific theories, are socially produced. Belief in a theory thus achieves feelings of identification and solidarity with other believers, and agents may revel in their shared heroic isolation from mainstream opinion (e.g., Kalichman 2009). Given that the truth value of conspiracy theories about remote events (e.g., whether NASA faked the moon landing) is of no consequence in everyday life, the social benefits of clinging to a false conspiratorial belief may outstrip its negligible epistemic cost.

These arguments are nonetheless problematic, for several related reasons. First, conspiracy theories are sometimes created and spread by influential sources. For example, Donald Trump has repeatedly tweeted conspiratorial content relating to climate change, from claiming that “scientists have manipulated data on global warming” to proposing that the “concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive” (Matthews 2017). Thus, not all conspiracy theories originate from marginalized individuals—on the contrary, they can be designed by highly influential politicians to direct attention away from the actions and events that genuinely affect people in low status groups. Climate change will affect the poor more than the rich, and given that exposure to conspiracy theories about climate change reduces people's willingness to reduce their carbon footprint (Jolley and Douglas 2013), the belief that climate change is a hoax is therefore particularly counter-productive for the marginal groups for whom Levy (2019) ascribes rational benefits in believing such theories.

Second, the fact that sometimes the hermeneutics of suspicion is rational gives us no reason to attribute rationality to conspiracy theories. The hermeneutics of suspicion must be applied to the right target, and that depends on knowing who has the power and the wealth: Who funds think tanks and who funds the conspiratorial disinformation that is spread about, for

example, climate change (Bohr 2016). Conspiracy theories certainly involve a lot of mistrust but that mistrust is applied very selectively, and arguably against the best interests of marginal groups. Levy (2019) correctly notices this seemingly paradoxical co-existence of distrust in official sources and high trust in *un*official sources, but his conclusion that “agents more prone to conspiratorial ideation do not manifest cognitive dispositions that are rationally criticisable” (73) does not follow. The only argument he offers in support is “indirect evidence that those who are prone to accepting conspiracy theories also exhibit a high degree of something like trust in others” (73). Just because someone trusts a Macedonian website that claims the Earth is flat does not render that person’s cognitive disposition immune to criticism. On the contrary, the dismissal of all socially engineered collective sources of reliable belief (note that reliable does not mean infallible), such as traditional media, science, the legal system, and democratic governments, constitutes an epistemic vice whatever its—imagined or actual—social benefits may be to the agent.

Pragmatic Rationality

In closing, we suggest that there is indeed a rational element to conspiracist cognition. However, this rational element does not relate to epistemology or cognitive success, but to social pragmatics. As one of us has argued elsewhere, “conspiracist cognition and rhetoric violate the epistemic standards that underpin science. Ironically, this violation of epistemic standards renders conspiracy theories useful as a rationally deployed tool that serves political purposes” (Lewandowsky 2020, 2). For example, conspiracy theories permit agents to dismiss scientific evidence that is in conflict with their worldview or deeply-held personal beliefs. To illustrate, Lewandowsky (2020) reported a study that showed that people would invoke conspiratorial causes for the existence of a scientific consensus (on climate change, vaccinations, and the link between HIV and AIDS) to an extent determined by the strength of their worldview-based opposition to the science. Thus, extreme free-market libertarians who are known to oppose climate science because mitigation would interfere with the current economic model, explain the scientific consensus by appealing to conspiratorial motives (e.g., scientists in pursuit of a hidden agenda). The same participants accept the scientific consensus on HIV-AIDS as being evidence-based rather than conspiratorial. Thus, like climate denial generally (Lewandowsky, Cook, and Lloyd 2016), conspiratorial rhetoric may be deployed for entirely rational political purposes, namely to preserve the economic status quo. However, this pragmatic level of rationality must not be confused with epistemic rationality, whether normative, ecological, or subjective.

References

- Alfano, Mark and Colin Klein 2019. “Trust in a Social and Digital World.” *Social Epistemology Review and Reply Collective* 8 (10): 1–8.
- Bale, Jeffrey M. 2007. “Political Paranoia *v.* Political Realism: On Distinguishing Between Bogus Conspiracy Theories and Genuine Conspiratorial Politics.” *Patterns of Prejudice* 41 (1) 45–60. doi: 10.1080/00313220601118751.
- Bohr, Jeremiah. 2016. “The ‘Climatism’ Cartel: Why Climate Change Deniers Oppose Market-Based Mitigation Policy.” *Environmental Politics* 25 (5): 812-830.

- Cook, John and Stephan Lewandowsky. 2016. "Rational Irrationality: Modeling Climate Change Belief Polarization Using Bayesian Networks." *Topics in Cognitive Science* 8 (1): 160–179. doi: 10.1111/tops.12186.
- Griffiths, Thomas L. and Joshua B. Tenenbaum. 2006. "Optimal Predictions in Everyday Cognition." *Psychological Science* 17 (9): 767–773.
- Hertwig, Ralph, Jan K. Woike, Thorsten Pachur, and Eduard Brandstätter. 2020. "The Robust Beauty of Heuristics in Choice Under Uncertainty." In *Taming Uncertainty* edited by Ralph Hertwig, Timothy J. Pleskac, Thorsten Pachur, and The Center for Adaptive Rationality, 29–50. Cambridge, MA: MIT Press.
- Jern, Alan, Kai-min Chang, and Charles Kemp. 2009. "Bayesian Belief Polarization." In *Advances in Neural Information Processing Systems 22* edited by Yoshua Bengio, Dale Schuurmans, John D. Lafferty, Christopher K. I. Williams, and Aron Culotta, 853–861. <https://papers.nips.cc/book/advances-in-neural-information-processing-systems-22-2009>.
- Jolley, Daniel and Karen M. Douglas. 2013. "The Social Consequences of Conspiracy: Exposure to Conspiracy Theories Decreases Intentions to Engage in Politics and to Reduce one's Carbon Footprint." *British Journal of Psychology* 105 (1): 35–56. doi: 10.1111/bjop.12018.
- Kalichman, Seth C. 2009. *Denying AIDS: Conspiracy Theories, Pseudoscience, and Human Tragedy*. New York: Springer.
- Keeley, Brian L. 1999. "Of Conspiracy Theories." *The Journal of Philosophy* 96 (3): 109–126. doi: 10.2307/2564659.
- Kozyreva, Anastasia and Ralph Hertwig. 2019. "The Interpretation of Uncertainty in Ecological Rationality." *Synthese* doi: 10.1007/s11229-019-02140-w.
- Levy, Neil. 2019. Is Conspiracy Theorising Irrational? *Social Epistemology Review and Reply Collective* 8 (10): 65–76.
- Lewandowsky, Stephan. 2020. *Hannah Arendt and the Contemporary Social Construction of Conspiracy Theorists*. Manuscript Submitted for Publication.
- Lewandowsky, Stephan, John Cook, and Elisabeth Lloyd. 2016. "The 'Alice in Wonderland' Mechanics of the Rejection of (Climate) Science: Simulating Coherence by Conspiracism." *Synthese* 195, 175–196. doi: 10.1007/s11229-016-1198-6.
- Lewandowsky, Stephan, John Cook, Klaus Oberauer, Scott Brophy, Elisabeth A. Lloyd, and Michael Marriott. 2015. "Recurrent Fury: Conspiratorial Discourse in the Blogosphere Triggered by Research on the Role of Conspiracist Ideation in Climate Denial." *Journal of Social and Political Psychology* 3 (1): 142–178. doi: 10.5964/jspp.v3i1.443.
- Lewandowsky, Stephan, Gilles E. Gignac, and Klaus Oberauer (2013a). "The Role of Conspiracist Ideation and Worldviews in Predicting Rejection of Science." *PLOS ONE* 8: e75637. doi: 10.1371/journal.pone.0075637.
- Lewandowsky, Stephan, Thomas L. Griffiths, and Michael L. Kalish. 2009. "The Wisdom of Individuals: Exploring People's Knowledge About Everyday Events Using Iterated Learning." *Cognitive Science* 33: 969–998. doi: 10.1111/j.1551-6709.2009.01045.x.
- Lewandowsky, Stephan, Elisabeth A. Lloyd, and Scott Brophy. 2018. "When THUNCing Trumps Thinking: What Distant Alternative Worlds Can Tell Us About the Real World." *Argumenta* 3 (2): 217–231. doi: 10.23811/52.arg2017.lew.llo.bro.

- Lewandowsky, Stephan, Klaus Oberauer, and Gilles E. Gignac. 2013b. "NASA Faked the Moon Landing—Therefore, (Climate) Science Is a Hoax: An Anatomy of the Motivated Rejection of Science." *Psychological Science* 24 (5): 622–633. doi: 10.1177/0956797612457686.
- Lichtenstein, Sarah, Paul Slovic, Baruch Fischhoff, Mark Layman, and Barbara Combs. 1978. "Judged Frequency of Lethal Events." *Journal of Experimental Psychology - Human Learning and Memory* 4 (6): 551–578. doi: 10.1037//0278-7393.4.6.551.
- Lieder, Falk, Ming Hsu, and Thomas L. Griffiths. 2014. "The High Availability of Extreme Events Serves Resource-Rational Decision-Making." In *Proceedings of the 36th annual Conference of the Cognitive Science Society* edited by Paul Bello, Marcello Guarini, Marjorie McShane, and Brian Scassellati, 2567–2572. Austin, TX: Cognitive Science Society.
- Matthews, Dylan. 2017. "Donald Trump has Tweeted Climate Change Skepticism 115 Times. Here's All of It." *Vox*. Retrieved from <https://www.vox.com/policy-and-politics/2017/6/1/15726472/trump-tweets-global-warming-paris-climate-agreement>.
- Nozick, Robert. 1993. *The Nature of Rationality*. Princeton, N.J.: Princeton University Press.
- Schurz, Gerhard and Ralph Hertwig. 2019. "Cognitive Success: A Consequentialist Account of Rationality in Cognition." *Topics in Cognitive Science* 11 (1): 7–36. doi: 10.1111/tops.12410.
- Sunstein, Cass R. and Adrian Vermeule. 2009. "Conspiracy Theories: Causes and Cures." *Journal of Political Philosophy* 17 (2): 202–227. doi: 10.1111/j.1467-9760.2008.00325.x.
- Uscinski Joseph E., Karen Douglas, and Stephan Lewandowsky. 2017. "Climate Change Conspiracy Theories." In *Oxford Research Encyclopedia of Climate Science*. doi: 10.1093/acrefore/9780190228620.013.328
- Uscinski Joseph E. and Joseph M. Parent. 2014. *American Conspiracy Theories*. Oxford, UK: Oxford University Press.
- van Prooijen, Jan Willem. 2019. "Belief in Conspiracy Theories." In *The Social Psychology of Gullibility: Conspiracy Theories, Fake News and Irrational Beliefs* edited by Joseph P. Forgas and Roy Baumeister, 319–332. Abingdon, UK: Routledge.