

# Chapter 6

## Conspiracism as a Litmus Test for Responsible Innovation



Eugen Octav Popa and Vincent Blok

### 6.1 The Edges of Inclusion

The inclusion of stakeholders in scientific and technological decision-making lies at the heart of many contemporary approaches captured under the umbrella term of *responsible innovation*. For example, inclusion is central to the ‘standard’ responsible innovation approach (Grunwald, 2011; Owen et al., 2013; van den Hoven et al., 2014), to technology assessment in its various versions (Grunwald, 2009; Hellstrom, 2003), ethics of technology (Groves, 2009; Hansson, 2017), and very clearly in the field of public engagement with science (Selin et al., 2017; Stilgoe et al., 2014; Wilsdon & Willis, 2004). While these approaches are different from each other in various ways, there is a strong consensus around the idea that non-scientific stakeholders should be included in innovation. Moreover, there are pragmatic reasons for it, since innovation thus becomes better and more sustainable, and moral ones, since innovation emerges from a democratic process of participation.

Are conspiracists part of this new deal? By ‘conspiracists’, we mean simply someone who believes or defends a conspiracy theory regarding a specific public product – in our case, a scientific theory or technological product. The conspiracist claims that the event in question results from hidden forces that conspire to pursue

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E. O. Popa (✉)

Department of Science Technology and Policy Studies University of Twente,  
Enschede, The Netherlands

e-mail: [o.popa@utwente.nl](mailto:o.popa@utwente.nl)

V. Blok

Department of Communication, Philosophy and Technology, Wageningen University  
and Research, Wageningen, The Netherlands

e-mail: [Vincent.Blok@wur.nl](mailto:Vincent.Blok@wur.nl)

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M. J. Dennis et al. (eds.), *Values for a Post-Pandemic Future*, Philosophy  
of Engineering and Technology 40, [https://doi.org/10.1007/978-3-031-08424-9\\_6](https://doi.org/10.1007/978-3-031-08424-9_6)

their (usually malevolent) interests.<sup>1</sup> Of the many questions that the COVID-19 pandemic has brought to the fore, one of the most relevant one for the field of responsible innovation is whether conspiracists are part of this new inclusive deal. If they are, it is necessary to understand how to approach the conflict between conspiracism and science. But if conspiracists are not part of this new deal, then we must ask under what conditions conspiracists have indeed forfeited their right to inclusion. In either case, all those who have sung the anthem of inclusion will probably see conspiracism as a challenge and perhaps a litmus test of how far the new deal can be extended.

The topic of conflict between various publics and science is not foreign in the field of responsible innovation. In the process of engaging stakeholders with different institutional and psychological profiles in science, ‘friction’ and competition between incompatible perspectives (*agonism*) is bound to occur (Popa et al., 2020b). Acknowledging this, some scholars have pressed the point that conflict must be not avoided, but in fact, sought and encouraged for its practical and moral benefits (Jasanoff, 2003; Cuppen, 2012; Timmermans & Blok, 2018). But even scholars that are generally welcoming of inter-stakeholder conflict tend to restrict their view to standard conflicts that are manageable in principle, and that can be traced back to a discernible difference in the knowledge that the parties have or the values that they accept (for a discussion of this limitation, see Blok, 2019). Such standard conflicts can undoubtedly be satisfactorily managed with our existing tools for participation: stakeholder workshops, consensus conferences, panels, focus groups and the like.

By contrast, conspiracists reside at least *prima facie* at the edges of and perhaps even outside the above-described concept of inclusion. Their opposition to mainstream science institutions – either in general or concerning a specific scientific output – is much more definitive than that of the typical sceptic (Byford, 2011; Coady, 2006). For conspiracists, the game is not played to their disadvantage; the game is altogether rigged. In a post-truth society of ‘alternative facts’, the conspiracist position is increasingly being taken and thus increasingly normalised (Fuller, 2018). So how can the game of responsible research and innovation be played with those who believe that the game of research and innovation is rigged? Understanding the relationship between conspiracism and responsible innovation is necessary in order to understand the unvisited corners of the science-society interface in the post-pandemic future.

In this paper, we argue that pluralism can provide insights on how to tackle these questions. We maintain that conspiracists *qua* conspiracists have not forfeited their right to inclusion, first because the occurrence of conspiracies is not a logical impossibility – every so often conspiracies do occur – and second because they can, generally speaking, share common values with scientists as well as the rest of society. They might not always share the scientist’s method of truth-finding and truth-testing, but by and large they are driven by worries that we can recognize, e.g.,

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<sup>1</sup>This definition is generally in line with literature on conspiracism, but scholars sometimes need to make more precise terminological distinctions between sub-groups defined by specific aims or beliefs (Byford, 2011; Coady, 2006; Dentith, 2014, 2018).

power monopolies, media not providing a faithful representation of reality, inequality between different social groups, health risks. If conspiracists are indeed part of this new deal, as we think they are, then pluralism can therefore provide insights to foster this inclusion. Specifically, we want to argue that pluralism is a beneficial philosophical starting point from which to strike a balance between two possible monist responses to conspiracists: *over-inclusion* of conspiracists (in which conspiracists are included by ignoring their radical conflict with, and distrust of, science) and *over-exclusion* of conspiracists (meaning that conspiracists are excluded as if their right to inclusion has been forfeited). In both cases, the monist response is an oversimplification. To illustrate what it means to approach the relationship between science and conspiracism from a monist perspective and to describe what it means to work towards a pluralist perspective, we discuss a real-life example of a *monist* response to conspiracism – the 2021 European Commission policy against conspiracism – and we explain what a *pluralist* alternative would look like.

In Sect. 6.2, we provide a general description of conspiracism. We focus on the conspiracist phenomenon as it occurred concerning the COVID-19 pandemic (a topic that will serve as a case in point for comparing monist and pluralist responses in Sect. 6.4). In Sect. 6.3, we outline pluralist philosophy to elucidate what it means to put forward a pluralist response to conflict. In Sect. 6.4, we take as a case in point a policy that illustrates the *monist* approach – the E.U. Commission guidelines for dealing with conspiracists in the case of the COVID-19 pandemic. In Sect. 6.5, we bring pluralist insights to bear on this case and show how the field of responsible innovation can mount a pluralist response to conspiracism. Finally, in Sect. 6.6, we compare pluralism and monism and discuss further challenges.

## 6.2 Conspiracism and Its Recent Occurrence During COVID-19 Pandemic

As mentioned above, we take the term ‘conspiracism’ in its broadest sense, including individuals who advance and argue for conspiracy theories (i.e., ‘conspiracy theorists’) and those who simply believe in the theories advanced by others (for general overviews and philosophical perspectives, see Coady, 2006; Dentith, 2018). But what is a conspiracy theory?

At first sight, the term ‘conspiracy theory’ requires little explanation: a conspiracy theory is a theory about a conspiring group of individuals. In this definition, we typically allow the term ‘theory’ to cut both ways: conspiracy theories are *theories*<sub>1</sub> in that their epistemic function is to *explain* an event (or events), but they are also *theories*<sub>2</sub> in the sense that they are not established facts but ‘mere theory’, that is, hypotheses (Coady, 2006; Dentith, 2018). Despite the concept of ‘conspiracy theory’ posing no particular semantic difficulties, it has been repeatedly pointed out that identifying conspiracy theories in real-life situations is hardly a straightforward task (Dentith, 2014, 2018). For example, not all groups with morally questionable

intentions form a conspiracy and not all hypotheses about large-scale deceit count as conspiracy theories. It is not within the scope of this paper to work out these problems of denotation. Still, it is crucial to draw attention to them in order to understand the scope of the claims we will advance.

There is, however, one feature of conspiracy theories that has been recognised by nearly all who have tackled the subject in the past: conspiracists *are sometimes right*. This is particularly true in science, where the harmful effects of many products were uncovered after many years and with them the realisation that those who stood to profit from those products were very much aware of those harmful effects. Classic examples are asbestos, leaded gasoline, halocarbons, diethylstilboestrol (DES) and Tributyltin (TBT) (Gee, 2001; Harremoës et al., 2013). Admittedly, these cases might not fit the cliché picture of a macabre conspiracy for world domination. Still, they fit the definition of a small group of people with (mainly) economic interests, suppressing or ignoring evidence against the broader public. So, for example, if you had been a conspiracist in the 1960s claiming that the big oil companies such as Standard Oil and General Motors are suppressing evidence regarding the damaging effects of leaded gasoline and that the research confirming the safety of leaded gasoline was faulty and muddled by the interest of those companies if you had claimed that the companies were aware of alternative gasoline additives that were safer but less profitable yet decided to invest in (tetraethyl)lead instead causing long-term environmental problems that continue to the present day, you would have been correct, however improbable these claims may have sounded then (Needleman & Gee, 2013).

For the present purposes, all this is relevant because it constitutes the *prima-facie* case for the claim that conspiracists are part of the new inclusive deal. Conspiracists do not fall qua conspiracists outside the realm delineated by the core values we share (truth, fairness, safety etc.), conspiracists are sometimes right, and this seems to be a sufficient reason for including conspiracists in the ideal of ‘science *with and for society*’ (Owen et al., 2013). At the same time, we cannot forget that that conspiracy theorists can endanger the deployment of beneficial policies and thus lead to hazards and even the loss of human lives (Naeem et al., 2021; Romer & Jamieson, 2020). A case in point of such risks is the recent COVID-19 conspiracism.

By ‘COVID-19’ conspiracism, we mean the variety of conspiracy theories propounded between December 2019 and August 2021 around the COVID-19 pandemic. In March 2020, as the COVID-19 pandemic was advancing without any solution or vaccine in sight, the hashtag #FilmYourHospital was used on Twitter for user footage of hospitals or testing locations that were deemed too empty or too calm for a global pandemic. This footage, some users claimed, showed that the COVID-19 pandemic was either a hoax, meaning that the governments and scientists were lying about its existence, or, at the very least, that the pandemic was much less acute than the mainstream media and science had us believe. In one of these videos, a man is filming a relatively inactive testing location and repeatedly asks: “Where are all the sick people?”. A Twitter account, now banned, sparked a debate in early February 2020 with the following text:

The survival rate of Coronavirus is nearly 98%. When you count young, healthy adults, it is closer to 99.5%. Why is this being marketed as The Black Plague? Democrats get to crash the economy, and the Chinese get protesters off the streets of Hong Kong (quoted in Pummerer et al., 2020)

All this happened in the beginning months of the COVID-19 pandemic. But as the pandemic progressed, actions of this kind continued and expanded in complexity. Just about every aspect of the pandemic has sprung some form of conspiracist thinking from the more garden-variety allegations of inflated death counts to the surprisingly resilient theory that the virus was released intentionally to secure Chinese economic supremacy or, the other way around, that the CIA created the virus to ‘keep China down’.

Indeed, conspiracy theories around epidemics and pandemics are not a novel phenomenon, but it seems that the COVID-19 conspiracism was exacerbated by the widespread use of social media (Cinelli et al., 2020; Douglas et al., 2019; Enders et al., 2021; Ferrara et al., 2020; Larson, 2018; Naeem et al., 2021). The term ‘info-demic’ has been coined to draw a parallel between the spread of the COVID-19 virus, or viruses in general, and the spread of misinformation primarily through social media. Thus, not only is COVID-19 conspiracism more *present* in the public arena compared to past outbreaks of, say, AIDS, SARS and H1N1 (Lee, 2014), but its effect on actual policy and governmental responses is amplified (Naeem et al., 2021). Present-day conspiracism is just like its relatives from the past, but it is, to put it simply, both bigger and stronger. As a result, institutional *responses to* COVID-19 have been correspondingly more visible and more drastic in their rejection of whatever the conspiracists were claiming (see also below Sect. 6.4). Nevertheless, in what follows, we want to argue that conspiracists can be included in research and innovation – as we *prima facie* established they have a right to – but that this process requires the adoption of a pluralist philosophical stance. Therefore, we must introduce the notion of pluralism and explore the contrast between pluralism and monism in responding to conspiracism.

### 6.3 Pluralism and Monism

We claim that you must be a pluralist if you want to do justice to the conspiracist’s *prima facie* right to inclusion. But what does it mean to be a pluralist? Pluralism can best be described as the philosophy that stands halfway between rationalism and relativism (Crowder, 2021, pp. 218–220). If rationalism is the conception that Reason must guide our answers to life’s essential questions and relativism the notion that nothing is subject to such an ideal, pluralism is the conception that there are many ideals of Reason and that these multiple ideals can be incompatible with one another. The pluralist believes, as the rationalist does, that some choices are better than others – because they conform to an ideal or not –, but they also believe, as the relativist does, that there is no common, fundamental overarching ideal (Lassman, 2011). Although pluralism stands philosophically between rationalism and

relativism, pluralists are constitutionally closer to relativism than rationalism. The historical roots of pluralism can be found in the relativism of Protagoras and the Skeptic school, yet pluralists do not deny the possibility of rational choices (Berlin, 1998; Kekes, 1993).

In contemporary philosophy, it was the work of Isaiah Berlin that has reignited the discussion on pluralism. Berlin advanced pluralism as an alternative to the reductionism characteristic of both those who always seek to follow Reason and those who always seek to undermine it. Later commentators have noted – and Berlin eventually confirmed – that Max Weber was a precursor in many of these ideas. Nowadays, scholars herald Weber as the first contemporary pluralist in Western philosophy that has worked out the consequences of a plural conception of the good (for overviews of this historical development, see Crowder, 2021; Lassman, 2011).

As one might expect, there is a plurality of versions of pluralism. These were developed primarily in political philosophy (Crowder, 2021; Hampshire, 2018; Kekes, 1993; Oakshott, 1991; Walzer, 1983). More recently, the ideas developed in political philosophy have been applied to not only policymaking at various levels (Galston, 2005; Paxton, 2020) but to the study of the interface between science and society (Popa et al., 2020a; Stirling, 2008). The scope of this chapter doesn't need to elucidate all these evolving pathways. Instead, a general overview of several key ideas will be more helpful.

### Basic Values

Pluralists start by acknowledging that there is a set of fundamental (or 'primary') values that are valid universally and are shared at a fundamental level between all members of society to leave little or no room for deviation (Crowder, 2021, pp. 118–122; Kekes, 1993, pp. 118–120). Plurality is thus said to be *restrained* by the idea that all reasonable human beings will agree on a baseline of human decency, meaning that “the protection of life, physical security, and some freedom to do as we please are normally good in all historical and cultural contexts” (Kekes, 1993, p. 119). The values are thus basic, yet they are not absolute. They are not absolute because: (i) some might not hold in extraordinary circumstances; (ii) we might choose one over the other in case they conflict; and (iii) there will be a diversity of interpretations of them across cultures and time periods. These three points, however, do not “extend so far as to call into question the truisms embodied in deep conventions that all conceptions of a good life require the protection of life, physical security, and some freedom from undeserved violations” (Kekes, 1993, p. 120)

There are thus various conceptions of the good life, but there is also something that all conceptions of the good life share, namely basic values. Pluralists do not deem it necessary to offer a complete description of this common core. (After all, the statement that ‘There exists a common core’ can be logically confirmed by even one singular example). For instance, according to Hampshire, there is a unifying conception of fairness shared by all cultures, which is formed around the principle of *audi alteram partem*, meaning that when a conflict arises, all involved parties must be allowed to state their case (Hampshire, 2018). Others point towards the shared value of life, which all traditions must protect one way or another, or some

degree of individual liberty to live and do as one pleases. These are examples of fundamental values that constitute the core of social cohesion and thus a starting point for dealing with conflict.

### **Beyond Basic Values: Agonism and Contingency**

Conflict is thus an inherent part of our social and political life, if only because of the mentioned incompatibility and incommensurability between ‘basic values’: the value of life will at times oppose the value of justice, the value of liberty will at times oppose the value of equality etc. The pervasiveness of this conflict is explained by the fact that many different conceptions of the good life satisfy various subsets of basic values. The most pressing question for a pluralist is understanding and criticising human behaviour under such conditions of plurality.

First, pluralists point out that rationalist dichotomies (truth/falsity, right/wrong, knowledge/opinion) constitute one facet of the social relationships developed between the parties involved in the conflict (Crowder, 2021, p. 75). It might seem like a truism to say that social relationships stand or fall based on something more than who’s right and who’s wrong. Yet, by claiming this, pluralists reject the age-old rationalist idea that that conflict must be approached rationally, neutrally, from what was referred to as the ‘view from nowhere’ (Nagel, 1986). It equally means that conflict must *not* be regarded as a Socratic, dialectical battle of the minds where speakers put forward rational argumentation, and the cases are being judged ‘on the merits’. Instead, pluralists look for alternatives to this *cognitive* orientation towards conflict, alternatives that can justify the idea that there are many versions of the good life (Blok, 2019).

More important than ending up on the wrong side of truth is the risk of destroying or defusing the *agonism* between the parties involved (Blok, 2019; Mouffe, 2005; Paxton, 2020). Agonism refers to the adversarial relationship between individuals (or groups) who see each other as opponents but acknowledge their legitimacy in participating in opposition. Some prototypical examples: boxers in a ring are in a state of agonism; political parties in a parliament are, *de jure*, in a state of agonism. But agonism can ‘decay’ into a state of *antagonism* where the parties see each other not as adversaries but as enemies, meaning that one party allegedly defends the home base legitimately. In contrast, the other is the illegitimate intruder (in our case, mainstream Science defends truth legitimately while conspiracists are the illegitimate purveyors of fake news). The antagonistic relationship is characterised by division and fundamental distrust, usually maintained on both sides. Unlike adversaries, enemies are not just *different* claimants at the throne of reigning consensus; they constitute *the other* who needs to be eliminated from the prevailing consensus. It should be mentioned that pluralists recognise that antagonism is “ineradicable”, meaning there will always be insiders and outsiders relative to a particular symbolic line surrounding groups, institutions, societies, nations etc. Our fundamental political duty is to find democratic orders through agonism despite this underlying remnant of antagonism (Mouffe, 2005).



### Responding to Conflict: Monism Versus Pluralism

The philosophy of pluralism has direct implications for our approach to the conflict between conspiracists and mainstream science. Monism prescribes that those engaged in conflict – both representing the reigning consensus and contesters – must follow the rules derived from this one overarching good. In our case, people engaged in a conflict about a conspiracy theory must follow the rule of Reason, and they must do so without deviant (“irrational”) discussion tricks or fallacies (Hansen & Pinto, 1995). Pluralists appreciate this but point out that being reasonable is not just a matter of avoiding fallacies but also resisting the temptation to view the conflict as “a crisis produced by our adversary’s stupidity, wickedness, or perversity” (Kekes, 1993, p. 24). Furthermore, avoiding fallacies is not the same as recognizing the other as a legitimate adversary, that the parties seek the origin of the conflict, that they respect each other’s identity etc. Being reasonable in this monist sense applies only to the parties’ behaviour *within* the discussion whereas, as explained above, the pluralist urges us to look ‘above’ the discussion to the origin and the effects of that discussion on the parties’ relationship.

By taking the larger view suggested by conceptions of a good life or by traditions, we come to see the conflict at hand in a different light. We shall not merely ask: what should we do here and now? We shall ask instead: what should we do here and now so that we could resolve this conflict in a way that would be best from the point of view of the system of values we, as disputants, share? And if we are reasonable, we shall answer by stepping back from the immediacy of the conflict in which we participate in order to reflect on what would be best not here and now but in the long run, given the values of our tradition or our conception of a good life (Kekes, 1993, p. 25).

A pluralist approach to conflict means that the monist concept of a reasonable discussion (alignment with reason) becomes just one of the many ideals animating the discussion. It does so to maintain agonism and with an eye for the basic values shared by the parties involved.

The reader will have gathered from the above that a pluralist approach to conflict is not a ready-made method for conflict *resolution*. To be a pluralist about conflict is not to follow a particular method towards resolution, nor does it involve any particular longing for resolution. Instead, it focuses on responsiveness towards others – particularly those who have a worldview that differs from yours radically (Blok, 2019). It also involves interpreting what is happening – conflict – in a different way, not as a clash between someone who is right and someone who is wrong, or between someone who is informed and the other who is misinformed, but rather as a dialogue between two different, and possibly incompatible, identities (Kekes, 1993). Instead of ‘fact checking’ and ‘fallacy finding’ and ‘debunking’, the pluralist looks at the other as formulating an ethical demand in such a way that a response does not annul any of the identities engaged in the dialogue.



## 6.4 Monism in Policy Responses to COVID-19 Conspiracism

The European Commission and national governments within the European Union,<sup>2</sup> the World Health Organization<sup>3</sup>, and social media organisations such as Twitter<sup>4</sup> and Facebook<sup>5</sup> have responded to the identified threat of COVID-19 conspiracism in remarkably similar ways. Yet, despite their difference in origin and field of application, what unites these policies is their *monism*. What does this mean? For illustration, we will take a closer look at the policy advised by the European Commission concerning conspiracism. The monist features illustrated here are the following:

- (i) A rationalistic framing of the discussion, focusing on one dominating value
- (ii) A binary representation of truth (true vs false)
- (iii) Discarding opponents as not just wrong but morally wrong
- (iv) Formal invocation of pluralist toleration

A first feature is that the policy is cast in a rationalistic mould of truth-finding, fact-checking, debunking, fallacy identification, evidence testing, refutation and the like. Truth is the name of the game, and conspiracists are the ones losing. As examples of a discourse of rationalistic orientation, consider the italicised passages in the quotes below:

Conspiracies [...] require to strengthen the commitment of the whole society, including competent authorities, media, journalists, fact-checkers, civil society and online platforms, and include, for example, *prompt debunking, demotion, possible removal or action against accounts* (“Tackling COVID-19 disinformation – getting the facts right”, 2020)

DEBUNKING – *Facts and logic* matter (“Identifying conspiracy theories”, 2021)

Of course, conspiracists also speak of truth and facts, but their orientation towards these rationalistic values is misguided. For example, consider the scare quotes around the term ‘evidence’ in the first quote below and the subtle addition of the adjective ‘scientific’ in the following quote:

Conspiracy theories have these 6 things in common: (1) An alleged, secret plot.; (2) A group of conspirators; (3) ‘*Evidence*’ that seems to support the conspiracy theory; (4) They falsely suggest that nothing happens by accident and that there are no coincidences; nothing is as it appears and everything is connected; (5) They divide the world into good or bad; (6) They scapegoat people and groups. (“Identifying conspiracy theories”, 2021)

Be careful, conspiracy theories are deceptive: they *ignore scientific evidence and falsely blame individuals and groups that are not responsible for the pandemic* (“Identifying conspiracy theories”, 2021)

The game is designed as a process of error elimination and thus is organised around the application of Reason to human affairs. Conspiracists are

<sup>2</sup> [https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/fighting-disinformation\\_en](https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/fighting-disinformation_en)

<sup>3</sup> <https://www.who.int/news-room/feature-stories/detail/fighting-misinformation-in-the-time-of-covid-19-one-click-at-a-time>

<sup>4</sup> <https://help.twitter.com/en/rules-and-policies/medical-misinformation-policy>

<sup>5</sup> <https://www.facebook.com/formedia/blog/working-to-stop-misinformation-and-false-news>

A second feature, compatible with the rationalist orientation identified above, is the inclination to work with a *binary representation* of the discourse space in which the conflict occurs. Claims are either true or false, facts are opposed to non-facts, and standpoints are either ‘in’ or ‘out’. There is very little wiggle room. Evidential support does not come in degrees. Individuals are either on the right side of the story, or they are hopelessly mistaken. Some examples are highlighted with italics below:

Information circulating includes *dangerous hoaxes and misleading healthcare information*, with *false claims* (such as ‘it does not help to wash your hands’ or ‘the Coronavirus is only a danger to the elderly’). Such content is not necessarily illegal but can directly endanger lives and severely undermine efforts to contain the pandemic (“Fighting disinformation”, 2021)

To address this trend, the European Commission and UNESCO are publicising a set of ten educational infographics helping citizens identify, *debunk* and *counter* conspiracy theories. (“Identifying conspiracy theories”, 2021)

[On a section dedicated to journalists:] Emphasise *core facts*, not *conspiracy theories* in headlines; Reinforce core facts in the main text, using verified information (“Identifying conspiracy theories”, 2021)

A third feature is that conspiracists attacking the existing consensus are not just epistemically wrong; they are *morally* wrong. This is generally because conspiracists destabilise and endanger the application of the rational solution to the problem. Conspiracy theories are morally blameable barriers concerning public goals such as health, safety, truth, trust etc. Particularly telling in this regard is the term ‘infodemic’, a portmanteau of information and pandemic (or epidemic), coined in the early 2000s during the SARS outbreaks. The term has been widely used for the COVID-19 conspiracism and more generally for spreading false information on various aspects of the pandemic. The World Health Organization went further and organised the “1st WHO Infodemiology Conference”.<sup>6</sup> The semantics leave no room for ambiguity as to the interpretation of the term: false information is to truth what the viruses are to human health. For example:

Conspiracy theories that may endanger human health, harm the cohesion of our societies and may lead to public violence and create social unrest (for example conspiracies and myths about 5G installations spreading COVID-19 and leading to attacks on masts, or about a particular ethnic or religious group being at the origin of the spread of COVID-19, such as the worrying rise in COVID-19 related anti-Semitic content) (“Tackling COVID-19 disinformation – getting the facts right”, 2020)

At times, a second layer of moral culpability can be discerned. For example, conspiracy groups appear in mainstream discourse to share many of the traits we, in fact, associate with conspirators (see Sect. 6.2). This is quite ironic because conspiracists are seen as blameworthy precisely for thinking that others are forming a conspiracy. And yet, their behaviour is described as “coordinated manipulative behaviour”:

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<sup>6</sup><https://www.who.int/teams/risk-communication/infodemic-management/1st-who-infodemiology-conference>

Platforms need to *curb coordinated manipulative behaviour* and increase transparency around malign influence operations. (“Tackling COVID-19 disinformation – getting the facts right”, 2020)

We want to highlight a final feature that the monist policy response makes an effort to appear as a pluralist response that allows counter-claims and open discussion. Compared to the previous three, this last feature is more difficult to identify because we must distinguish between the spirit of the policy and its letter. The former is monist even when the latter is pluralist. Yet it stands to reason, we think, that after conspiracists are associated with ‘misinformation’, ‘false news’, ‘manipulative behaviour’, ‘infodemic’ and the like, the following are nothing but lip service appearing at the end to maintain a tolerant appearance:

All of the above remedies should be implemented in full respect of fundamental rights, in particular freedom of expression (“Tackling COVID-19 disinformation – getting the facts right”, 2020)

So, what can you do? Encourage open debate and questions; Ask detailed questions about their theory in order to trigger self-reflection. [...] Don’t ridicule. Try to understand why they believe what they believe. (“Identifying conspiracy theories”, 2021)

After several infographics portraying conspiracism as outsiders who do not share mainstream standards of science and evidence, we cannot help thinking the advice is vacuous.

## 6.5 A Pluralist Alternative within Responsible Innovation?

Is it possible to approach the conflict between science and conspiracists from a pluralist perspective within the field of responsible innovation, and, if so, what would this response look like? First, we will argue that a pluralist response is possible within responsible innovation and, in fact, expected on moral and practical grounds that have spurred the field in the first place. Then we will show that a pluralist response to conspiracism can start by negating the four features of monism illustrated above.

That the field of responsible innovation is committed to some form of pluralism can be deduced both from its kinship with constructivist approaches to science such as STS and ethics of technology (Owen et al., 2013) and its aforementioned commitment to activate silent and critical publics. The pluralist suggestions advanced here will also not be strange to those who, standing on the shoulders of Weber, Berger and Latour, are quick to affirm that science is socially constructed, and thus facts are subject to discussion. And as already mentioned, the advice to turn our engagement machinery toward hard critics of science has been voiced in various ways since the field’s inception (Felt & Fochler, 2010; Goodin & Dryzek, 2006; Selin et al., 2017; Wynne, 2007). Without these critical publics, including stakeholders already part of a reigning consensus would be nothing more than a self-fulfilling prophecy. The participatory process would only confirm pre-existing

assumptions regarding the scientific process or product under discussion. Including critical voices is not just a good idea it is the choice that confers meaning to the inclusion process in the first place.

Has the field of responsible innovation lived up to the promise of including critics? It has to some degree, but practitioners seem primarily focused on what might be called *mild* critical sentiments. The resulting conflicts are moderate both in their force and in their effects. From selecting stakeholders to the actual involvement exercises, the process is shielded against deep disagreements between fundamentally different worldviews and interruption of already established pathways (Blok, 2019). It is sometimes said that stakeholders brought together in the dialogue on innovation must exhibit ‘optimum cognitive distance’ (Cuppen, 2012; Nootboom et al., 2007). The participatory process can, in other words, be ‘spoiled’ if the invited stakeholders are too far away from each other (cognitively speaking). But the hypothesis of optimal cognitive distance is, in fact, developed with an eye on the company and/or group performance (Nootboom et al., 2007). Optimal cognitive distance is needed for a group to perform well, but it can hardly be claimed that ‘group performance’ is the aim of participatory exercises. If the objective of the participatory game is to place a particular innovation process in context, to enrich the spectrum of perspectives on it, to broaden the central narrative around this process – in short, if responsible innovation is about *diversity* and not efficiency, then the requirement of optimal cognitive distance does not seem to apply. Indeed, the field of responsible innovation might be morally committed to seeking *maximum* cognitive distance: the parties should be just about as different as they can be (while still being part of the same world, morally speaking) in order to ensure diversity of views.

Conspiracists constitute precisely this faraway group towards which the field of responsible innovation seems committed to be responsive. But, of course, both over-inclusion (including conspiracists when it is better not to) and under-inclusion (not including conspiracists when it is better to include them) remain risks in the process. Keeping these risks in mind, we must ask whether a pluralist response to COVID-19 conspiracism can be formulated and what a pluralist response would look like. Given the four aspects highlighted in the previous section, we can formulate a provisional answer to the question: a pluralist response would amount to a negation of the four monist features identified above.

The first aspect illustrated was the rationalist narrative in which the policy response was framed. The policy exemplifies what following Blok (2019) was referred to as a ‘cognitive response’ to the appearance of the Other – a response that emphasises the cognitive dimension of the conflict. The policy is concentrated exclusively on facts, evidence, science etc., effectively promoting the value of truth as standing above others. A pluralist approach would not deny the importance of truth but would highlight the importance of other values, social obligations and institutions. Matters of happiness, virtues, social cohesion, justice, freedom, institutional trust, citizenship, and many more can come into play in the discussion on the COVID-19 pandemic without any one of these functioning as the central point to which all others converge.

In practice, the responsible innovation scholar would seek to create moments of interaction where all these alternative narratives can be unfolded and brought into a relationship with one another. These would be neither debunking sessions nor debates; the interaction would not be a rationalist exchange of arguments, although, of course, factuality and truth are not to be excluded from the discussion altogether. The pluralist policy or intervention can compensate for the apparent difference in authority and social status between scientists and their interlocutors. Even when the scientific community is on the right side of the argument (and there is a reigning consensus on the ‘facts of the matter’), the factual aspects are but one dimension of the relationship between conspiracists and the group representing the mainstream consensus. By selecting stakeholders, topics, and interaction formats, the responsible innovation scholar can bring into practice the multi-dimensionality that a complex problem (such as a world pandemic) deserves. The conspiracists might still be wrong in the end; the scientists might still be correct. But the pluralist engagement exercise need not revolve exclusively around this one Archimedean point.

The second observed aspect is the binary representation of truth: claims are either true or false. Perhaps logical and mathematical truth must remain binary in this sense (although many-valued logics have been developed since the beginning of the 20th century). Nevertheless, the reality around complex or ‘wicked’ problems will resist such reduction. As Fuller puts it:

[...] fundamental to the governance of science as an ‘open society’ is the right to be wrong. This is an extension of the classical republican ideal that one is truly free to speak their mind only if they can speak with impunity. [...] The underlying intuition of this social arrangement, which is the epistemological basis of Mill’s *On Liberty*, is that people who are free to speak their minds as individuals are most likely to reach the truth collectively. [...] In a post-truth world, this general line of thought is not merely endorsed but also intensified (Fuller, 2018, p. 151)

Thus, even when it is true that the vaccine against COVID-19 reduces chances of hospitalization by a certain per cent, it is not clear that anything short of this statement will necessarily be false and must be discarded. After all, the statement needs to be qualified in terms of age group, method of administration, sample rates, rare but possible side-effects, statistical accuracy, epistemic assumptions etc. These variables do not altogether change the acceptability of the vaccine as a solution. Still, they do create a moral obligation to understand the broader context within which statements about the vaccine are made. In the examples given above, we have seen that policy-makers are quick to throw in terms such as ‘false’ and ‘fake’. Still, complex situations would perhaps be better tackled with notions that allow for degrees or at least the possibility of a spectrum. There are no such things as alternative facts, but people might be more or less in the right or the wrong, people might have more or less of a point (even *malgré eux*), people might make more robust or weaker testimonies, a solution might be more or less efficient etc. There are sufficient terminologies out there to understand facts incrementally, in terms of verisimilitude, rather than categorically, in binary terms of truth versus falsity.

The third aspect referred to above was portraying those outside the consensus as morally culpable for various reasons, e.g., slowing down the roll-out of public health measures and manipulating the weak. If conspiracists appear as enemies from a forgotten tribe that has not yet enjoyed the benefits of rationalist illumination, then surely there are very few ethical demands we share with such individuals. But conspiracists are generally speaking, born and educated in the same system that is now so adamantly making a case for their moral culpability. They are part of the same social media platforms as those who defend the reigning consensus and are just as free to reject some as bogus and accept some as facts. Conspiracists might not be on the right side of truth this time, but they share with us the value of truth and other values, which means that their ethical demand for responsiveness is still valid. What does it mean to be responsive to someone who is supposedly wrong? As explained in Sect. 6.3, the responsible innovation scholar can focus on finding and formulating this common ground of core values and maintaining the agonism between the parties involved, i.e., portraying them as worthy adversaries. Argumentative discussions in various deliberative formats might be needed to find this common ground. Still, they would then function as tools for exploring the other party's views rather than testing them against the criterion of truth and Reason. The parties would debate *in order to* understand each other, not *because* they already understand each other and want to identify who's right and who's wrong.

The fourth aspect concerned the formal, tip-of-the-hat praises of pluralism and tolerance. In the current debate on COVID-19, conspiracism, pluralism, and diversity take the form of a forgotten remark at the end of an otherwise monist policy response. In this situation, the pluralist alternative would be to revert matters to their original pluralist state. In everyday life, everyone is ready to admit that there are various versions of the good life – that as a value, truth, and rationality stand alongside happiness, tradition, wealth, love, office, creativity, freedom, family, and many other more values each with its own meaning and criterion of distribution (Walzer, 1983). A pluralist response would involve taking this plurality as a starting point for the discussion rather than adding it as a supplementary remark at the end.

## 6.6 Conclusion

“The inclusion of stakeholders” is a phrase on many people's lips these days. The intellectual heritage of the field of responsible innovation suggests that the field is already animated to some extent by pluralism. But can this inclusive, tolerant attitude withstand the test of conspiracism? We believe it can, and we have contributed with suggestions on how this can be put into practice. In Table 6.1 below, we summarize the main differences between a monist and pluralist response to conspiracism.

**Table 6.1** Monism vs pluralism in response to conspiracism

Monist response to conspiracism	Pluralist response to conspiracism
Cognitive/Rationalizing approach to conflict with an emphasis on arguments	Ethical approach to conflict with an emphasis on starting points (common ground) as well as blind spots
Binary representation of the discourse space	Non-reductionist approaches to truth
Antagonism (groups as enemies)	Agonism (groups as legitimate adversaries)
Pluralism as an end-remark	Pluralism as a starting point

The possibility of pluralism within the field of responsible innovation shows that our ideal of stakeholder inclusion does not have to leave out conspiracists, despite their radical dissensus with mainstream institutions of science (either in general or concerning a particular innovation). This does not mean, of course, that a pluralist response to conspiracism, acceptable as it might be from a responsible innovation perspective, is always the best response. There are indeed limits to inclusion set by fundamental (constitutional) rights, what Isaiah Berlin called “the great goods”, and conspiracists can forfeit their right to inclusion by going against those goods. But conspiracists *qua* conspiracists appear to be ‘includable’ if a pluralist philosophy underpins the inclusion process. From a monist perspective, conspiracists will appear as outsiders and might be kept afar under the assumption that their views are wrong or dangerous or, in some other sense, illicit. From a pluralist perspective, accepting conspiracism as a stakeholder group and being responsive to them does not mean accepting conspiracists theories as true (or, for that matter, as false). Instead, it means following the ideal of ‘science *with and for society*’ to its ultimate, if unexpected, consequences.

## References

- Berlin, I. (1998). *The first and the last*. New York Review of Books.
- Blok, V. (2019). From participation to interruption: Toward an ethic of stakeholder engagement, participation, and partnership in corporate social responsibility and responsible innovation. In R. von Schomberg & J. Hankins (Eds.), *International handbook of responsible innovation* (pp. 243–259). Edward Elgar. <https://doi.org/10.1007/s13347-020-00430-7>
- Byford, J. (2011). *Conspiracy theories: A critical introduction*. Houndmills, Basingstoke, Hampshire. Palgrave Macmillan.
- Cinelli, M., Quattrocioni, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., ... Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports*, 10(1), 16598. <https://doi.org/10.1038/s41598-020-73510-5>
- Coady, D. (2006). *Conspiracy theories: The philosophical debate*. Ashgate.
- Crowder, G. (2021). *The problem of value pluralism: Isaiah Berlin and beyond*. Routledge.
- Cuppen, E. (2012). Diversity and constructive conflict in stakeholder dialogue: Considerations for design and methods. *Policy Sciences*, 45(1), 23–46. <https://doi.org/10.1007/s11077-011-9141-7>
- Dentith, M. R. X. (2014). *The philosophy of conspiracy theories*. Palgrave Macmillan.



- Dentith, M. R. X. (Ed.). (2018). *Taking conspiracy theories seriously: Collective studies in knowledge and society*. Rowan.
- Douglas, K. M., Uscinski, J. E., Sutton, R. M., Cichocka, A., Nefes, T., Ang, C. S., & Deravi, F. (2019). Understanding conspiracy theories. *Political Psychology*, 40(S1), 3–35. <https://doi.org/10.1111/pops.12568>
- Enders, A. M., Uscinski, J. E., Seelig, M. I., Klofstad, C. A., Wuchty, S., Funchion, J. R., ... Stoler, J. (2021). The relationship between social media use and beliefs in conspiracy theories and misinformation. *Political Behavior*, 1-24, 10.1007%2Fs11109-021-09734-6.
- Felt, U., & Fochler, M. (2010). Machineries for making publics: Inscribing and de-scribing publics in public engagement. *Minerva*, 48(3), 219–238. <https://doi.org/10.1007/s11024-010-9155-x>
- Ferrara, E., Cresci, S., & Luceri, L. (2020). Misinformation, manipulation, and abuse on social media in the era of COVID-19. *Journal of Computational Social Science*, 3(2), 271–277. <https://doi.org/10.1007/s42001-020-00094-5>
- Fighting disinformation. (2021). Retrieved from [https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/fighting-disinformation\\_en](https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/fighting-disinformation_en)
- Fuller, S. (2018). *Post-truth: Knowledge as a power game*. Anthem Press.
- Galston, W. A. (2005). *The practice of liberal pluralism*. Cambridge University Press.
- Gee, D. (Ed.). (2001). *Late lessons from early warnings: The precautionary principle 1896–2000*. EEA.
- Goodin, R. E., & Dryzek, J. S. (2006). Deliberative impacts: The macro-political uptake of mini-publics. *Politics and Society*, 34(2), 219–244. <https://doi.org/10.1177/0032329206288152>
- Groves, C. (2009). *Future ethics: Risk, care and non-reciprocal responsibility*. Taylor and Francis.
- Grunwald, A. (2009). Technology assessment: Concepts and methods. In A. Meijers (Ed.), *Philosophy of technology and engineering sciences* (pp. 1103–1146). North-Holland.
- Grunwald, A. (2011). Responsible innovation: Bringing together technology assessment, applied ethics, and STS research. *Enterprise and Work Innovation Studies*, 31, 10–19. <http://hdl.handle.net/10362/7944>
- Hampshire, S. (2018). *Justice is conflict*. Princeton University Press.
- Hansen, H. V., & Pinto, R. C. (1995). *Fallacies: Classical and contemporary readings*. Pennsylvania State University Press.
- Hansson, S. O. (2017). *The ethics of technology: Methods and approaches*. Rowman and Littlefield International.
- Harremoës, P., Gee, D., MacGarvin, M., Stirling, A., Keys, J., Wynne, B., & Vaz, S. (Eds.). (2013). *Late lessons from early warnings: Science, precaution, innovation* (Vol. 1). European Environmental Agency.
- Hellstrom, T. (2003). *Systemic innovation and risk: Technology assessment and the challenge of responsible innovation*. Elsevier Ltd. [https://doi.org/10.1016/S0160-791X\(03\)00041-1](https://doi.org/10.1016/S0160-791X(03)00041-1)
- Identifying conspiracy theories. (2021). Retrieved from [https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/fighting-disinformation/identifying-conspiracy-theories\\_en](https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/fighting-disinformation/identifying-conspiracy-theories_en)
- Jasanoff, S. (2003). *Technologies of humility: Citizen participation in governing science*. Kluwer Academic Publisher.
- Kekes, J. (1993). *The morality of pluralism*. Princeton University Press.
- Larson, H. J. (2018). The biggest pandemic risk? Viral misinformation. *Nature*, 562(7726), 309–310. <https://doi.org/10.1038/d41586-018-07034-4>
- Lassman, P. (2011). *Pluralism*. Polity.
- Lee, J. D. (2014). *An epidemic of rumors: How stories shape our perception of disease*. University Press of Colorado.
- Mouffe, C. (2005). *The return of the political*. Verso.
- Naem, S. B., Bhatti, R., & Khan, A. (2021). An exploration of how fake news is taking over social media and putting public health at risk. *Health Information and Libraries Journal*, 38(2), 143–149. <https://doi.org/10.1111/hir.12320>
- Nagel, T. (1986). *The view from nowhere*. Oxford University Press.

- Needleman, H., & Gee, D. (2013). Lead in petrol ‘makes the mind give way’. In EEA (Ed.), *Late lessons from early warnings: Science, precaution, innovation* (Vol. 1, pp. 46–79). European Environmental Agency.
- Nooteboom, B., Van Haverbeke, W., Duysters, G., Gilsing, V., & Van den Oord, A. (2007). Optimal cognitive distance and absorptive capacity. *Research Policy*, 36(7), 1016–1034. <https://doi.org/10.1016/j.respol.2007.04.003>
- Oakeshott, M. (1991). *Rationalism in politics and other essays*. Liberty Fund.
- Owen, R., Stilgoe, J., Macnaghten, P., Gorman, M., Fisher, E., & Guston, D. H. (2013). A framework for responsible innovation. In R. Owen, J. Bessant, & M. Heintz (Eds.), *Responsible innovation* (pp. 27–51). Wiley.
- Paxton, M. (2020). *Agonistic democracy: Rethinking political institutions in pluralist times*. Routledge.
- Popa, E. O., Blok, V., & Wesselink, R. (2020a). An agonistic approach to technological conflict. *Philosophy and Technology*, 34(4), 717–737. <https://doi.org/10.1007/s13347-020-00430-7>
- Popa, E. O., Blok, V., & Wesselink, R. (2020b). A processual approach to friction in quadruple helix collaborations. *Science and Public Policy*, 47(6), 876–889. <https://doi.org/10.1093/scipol/scaa054>
- Pummerer, L., Böhm, R., Lilleholt, L., Winter, K., Zettler, I., & Sassenberg, K. (2020). Conspiracy theories and their societal effects during the COVID-19 pandemic. *Social Psychological and Personality Science*, 19485506211000217, 10.1177%2F19485506211000217.
- Romer, D., & Jamieson, K. H. (2020). Conspiracy theories as barriers to controlling the spread of COVID-19 in the U.S. *Social Science and Medicine*, 263, 113356. <https://doi.org/10.1016/j.socscimed.2020.113356>
- Selin, C., Rawlings, K. C., de Ridder-Vignone, K., Sadowski, J., Altamirano Allende, C., Gano, G., ... Guston, D. H. (2017). Experiments in engagement: Designing public engagement with science and technology for capacity building. *Public Understanding of Science*, 26(6), 634–649. <https://doi.org/10.1177/0963662515620970>
- Stilgoe, J., Lock, S. J., & Wilsdon, J. (2014). Why should we promote public engagement with science? *Public Understanding of Science*, 23(1), 4–15. <https://doi.org/10.1177/0963662513518154>
- Stirling, A. (2008). “Opening up” and “closing down” power, participation, and pluralism in the social appraisal of technology. *Science, Technology, and Human Values*, 33(2), 262–294. <https://doi.org/10.1177/0162243907311265>
- Tackling COVID-19 disinformation – getting the facts right. (2020). [Press release]. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020JC0008&from=EN>
- Timmermans, J., & Blok, V. (2018). A critical hermeneutic reflection on the paradigm-level assumptions underlying responsible innovation. *Synthese*, 198(19), 4635–4666. <https://doi.org/10.1007/s11229-018-1839-z>
- van den Hoven, J., Doorn, N., Swierstra, T., Koops, B., & Romijn, H. (Eds.). (2014). *Responsible innovation 1: Innovative solutions for global issues*. Springer Science + Business Media Dordrecht.
- Walzer, M. (1983). *Spheres of justice: A defense of pluralism and equality*. Basic Books.
- Wilsdon, J., & Willis, R. (2004). *See-through science: Why public engagement needs to move upstream*. Demos.
- Wynne, B. (2007). Public participation in science and technology: Performing and obscuring a political–conceptual category mistake. *East Asian Science, Technology and Society: An International Journal*, 1(1), 99–110. <https://doi.org/10.1215/s12280-007-9004-7>

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