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Scepticism and the value of distrust

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ABSTRACT
Faced with urgent calls for more trust in experts, especially in high impact and politically sensitive domains, such as climate science and COVID-19, the complex nature of public trust in experts and the need for a more critical approach to the topic are easy to overlook. Scepticism – at least in its Humean mitigated form that encourages independent, questioning attitudes – can prove valuable to democratic governance, but stands in opposition to the cognitive dependency entailed by epistemic trust. In this paper, we investigate the tension between the value of mitigated scepticism and the need for trust in experts. We offer four arguments in favour of mitigated scepticism: the argument from loss of intellectual autonomy; the argument from democratic deficit; the argument from the normative failures of science; and the argument from past and current injustices. One solution, which we reject, is the idea that reliance, rather than trust, is sufficient for accommodating experts in policy matters. The solution we endorse is to create a 'climate of trust', where questioning experts and expertise is welcomed, but the epistemic trust necessary for acting upon information which the public cannot obtain first-hand is enabled and encouraged through structural, institutional and justice-based measures.

1. Introduction

> The uncritical tend to believe too much that is unsubstantiated, the overcritical tend to believe too little that is true. (Audi 2011)[1]

That there is a strong ethical dimension to what we believe, how we justify our beliefs and how or when we are willing to modify them is beyond dispute, but relatively little is said about the ethics of disbelief.

This paper focuses on one well known form of disbelief, namely scepticism, and connects it with the topic of epistemic trust, the type of trust that is frequently required in accepting the testimony of others. The paper has 5 sections: §2 discusses the value of moderate scepticism, what Hume had called 'mitigated scepticism', particularly for democratic governance; §3 applies these general considerations to the specific case of trust in experts and outlines four sources of sceptical doubt about scientific experts and their role in policy decisions; §4 discusses the imperative of trust in experts, particularly for cases that are pressingly urgent and require a great deal of specialist input; §5 entertains and rejects the idea that reliance on experts rather than a thicker normative attitude of trust is sufficient for accepting their testimony; §6 attempts to resolve the tension between trust and moderate scepticism we have outlined by suggesting that we need to create a collective climate of trust which can both accommodate and address justified scepticism about experts.

2. The value of scepticism

Scepticism as a philosophical problem, particularly in its Cartesian global version, has long been seen as a source of philosophical anxiety in need of resolution or dissolution, rather than a doxastic stance of any value. Indeed, the strong version of scepticism is beyond the reach of value judgements, for if all judgements are open to doubt, then *mutatis mutandis*, so are judgements about the value of scepticism. The more plausible versions of scepticism have better circumscribed domains and are motivated by specific arguments, as is the case with the mitigated scepticism advocated by Hume.

To Hume, mitigated scepticism, in contrast with the self-refuting radical or extreme scepticism, is invaluable because 'the greater part of mankind are naturally apt to be affirmative and dogmatical in their opinions … they see objects only on one side, and have no idea of any counterpoising arguments' (E 207). Mitigated scepticism counters such tendencies by encouraging non-dogmatism, fallibilism and intellectual humility, because it 'would naturally inspire [the dogmatists] with more modesty and reserve, and diminish their fond opinion of themselves, and their prejudice against antagonists (Hume 1975, Section XII, Part III, p. 161).

Moderate scepticism is valuable, not just as an intellectual virtue, but also as a civic virtue promoting democratic governance by facilitating non-dogmatism, tolerance and open mindedness. As Alan Hazlett

(2015) has argued, dogmatism and unwavering claims to knowledge can hamper political engagement with those of different persuasion, while willingness to acknowledge the possibility that we all know less than we think we do can facilitate more open and tolerant dialogues, because where 'disputants take themselves to know, entrenchment may ensue, whereas when disputants take themselves to be ignorant, or suspend judgment about whether they know, respectful engagement may be possible' (Hazlett 2015: 90). Motivated and self-conscious exercise of doubt is the starting point of both global and moderate scepticism, but doubt also is an effective antidote to political extremism. For this reason, Quassim Cassam (2021) sees doubt, and thereby presumably mitigated scepticism of the type we have discussed, as a corrective virtue in the public domain.

Scepticism towards political authorities, often manifesting itself in the form of distrust, can also be instrumental in propelling the citizenry into action. For instance, based on the example of the Black Civil Rights movement in America, Meena Krishnamurthy (2015) argues that it was distrust of the White moderates' willingness to act to promote racial justice that led Martin Luther King to start a campaign of direct action using new forms of political participation. The value of scepticism, in this case, lies in its 'tendency to bring about justice by tempering tyranny' (2015, 400).[2]

But mitigated scepticism can also have negative political and social impact. Climate and vaccine scepticism are currently the two most prominent examples as is, more generally, the type of scepticism toward authorities that breeds conspiracy theories. We will return to these below.

3. Scepticism and trust

There is a nascent tension between the value of scepticism, on the one hand, and the need for epistemic trust on the other. Trust is an essential ingredient of social life: by exercising warranted trust we can learn from each other, cooperate, collaborate with each other, and facilitate the much needed division of cognitive and other forms of labour (Alfano 2016) Scepticism, however, even in its mitigated form, is not always hospitable to cultivating an attitude of trust. Epistemic trust, the most relevant species of trust for this discussion, involves accepting and relying

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[2]Other examples can be found in the protests against the Iraq war, which were motivated in large part by scepticism of the American government's claims about the need for a war. The same considerations often apply to local-level politics where activism often starts with scepticism about the claims and deeds of political authorities. (We owe this point to Matthew Shields.)

on knowledge claims and testimony of others under conditions where one is not in possession of full facts or complete evidence and takes others to be more knowledgeable (Baghramian and Croce 2021). Scepticism, as we have known since Descartes, if not before, begins with the method of doubt. The absence of indisputable evidence and a justified horizon for doubt are crucial to the engine of scepticism.

Epistemic trust, is required exactly where we are not in possession of full evidence and have at least a residual doubt about the testimony we are to accept. To be sure, such trust does not need to be blind and fall into gullibility. Indeed, often, but not always, trust calls for a degree of vigilance and a low-level monitoring of the risks involved in our interactions with others (Sperber et al. 2010). But, when we are in full possession of all the relevant information, we do not need either to demand or to rely on trust. Trust, as Anthony Giddens argues, 'is only demanded where there is ignorance – either of the knowledge claims of technical experts or of the thoughts and intentions of intimates upon whom a person relies. Yet ignorance always provides grounds for scepticism or at least caution' (Giddens 1990: 89).

It is this acceptance of doubt that introduces an element of vulnerability in relation of trust: trust involves a risk, the risk of betrayal, being let down, not obtaining the outcome we had hoped for Becker (1996) and Baier (1986). In trusting, we give the benefit of doubt, rather than encouraging an attitude of doubt. Any resistance to scepticism includes trust in the information we receive – including self-trust about the reliability of our faculties that lead us to such information. In short, trust involves a willing acceptance of uncertainty: by contrast, the sceptical stance starts with taking uncertainty as a genuine challenge to the possibility of knowledge. For these reasons, trust and scepticism about the information we receive, and its sources cannot readily coexist.

Similar considerations have led philosophers to conclude that 'Doubt is the enemy of trust. To say that one doubts the motives or competence of one's political leaders or institutions is to say that one does not trust them' (Cassam, forthcoming, n.p.) and that scepticism is the antonym of trust (Scott 1999: 276). Yet the arguments in this paper do not depend on establishing such strong logical or conceptual opposition between trust and sceptical doubt. Rather, what we wish to emphasise is that the call for public and civic trust, so common to the political discourse of today, is not always compatible with the exercise of the type of scepticism that is both politically virtuous and of intellectual value. And that, as philosophers, we should be concerned about this incompatibility.

The incompatibility between scepticism and trust takes a practical turn in the context of the much-discussed requirement of epistemic trust in experts. Here, trust is not only demanded by individuals (the expert) but by groups and institutions (the scientific community). In this case, competence and sincerity have been identified as the main grounds of epistemic trust. But as Heidi Grasswick (2018) has argued, on the one hand, trusting expert's competence comes with trusting their judgment and their adherence to social ethical norms, avoiding misconduct; on the other, trusting their sincerity, in cases of epistemic trust when something important is at stake, also involves trusting that they care for us enough to select and deliver information accordingly, even if that requires putting aside their own specific interests.

Grasswick's observations about epistemic trust in experts apply significantly in the case of vaccine (dis)trust discussed in the paper. They introduce an ethical element that is at stake in both trust and distrust of experts. Further, given that in the case of vaccines experts assume the role of advisers on policy matters, in such circumstances epistemic trust takes on both ethical and political significance. For these reasons, much discussion has gone into how to build trust in experts occupying public policy roles, but the flip side of such trust should be considered too. What price might we pay in suppressing scepticism about the role and function, if not the findings, of experts?

These considerations suggest that we should take a look at the value of mitigated scepticism. As Hume, Russell, and Austin among others have pointed out, mitigated scepticism, like belief, needs to be justified – to avoid falling prey to what Torcello (2016) calls pseudo scepticism, a worthy companion to 'pseudoscience'. In what follows we outline four types of concerns regarding the position of experts, the consequences of trust in their role, and the grounds provided for their advice, which go some way towards showing the value of moderate scepticism and an attitude of distrust.

3.1. Argument from loss of intellectual autonomy[3]

As Sandy Goldberg puts it,

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[3]Linda Zagzebski (2013) has distinguished between epistemic and intellectual autonomy and thinks that while the former could be acceptable, the latter is not. Here we are bypassing the distinction for the simple reason that, at least when it comes to political decision making, some level of epistemic autonomy is a pre-condition for fully blown intellectual autonomy.

> an epistemically autonomous subject is one who judges and decides for herself, where her judgments and decisions are reached on the basis of reasons which she has in her possession, where she appreciates the significance of these reasons, and where (if queried) she could articulate the bearing of her reasons on the judgment or decision in question (Goldberg 2013, 169).

An autonomous person not only determines the course of their life for themselves (see Raz 1998), but as autonomous thinker she also decides the course of her thinking. The concern then is that in trusting the epistemic authority of experts who have policy and political roles we choose to make ourselves reliant on their judgements, and in the more extreme cases, intellectually subservient to them; in other words, we sacrifice our autonomy and compromise our ability for critical thought.[4]

It may be objected that the call for intellectual autonomy is not relevant to the case of trust in experts. After all, experts are by definition those people to whom we rightly attribute a special epistemic authority and rely on their judgment as the best source of information in a particular domain. If that is the case, the traditional tension between intellectual autonomy and trust, based on the argument that trusting makes us intellectually subservient or compromises our ability for critical thought, does not seem to apply here. Yet this objection depends on the assumption of an antecedent acceptance of the role of experts as a source not only of guidance, but also of decision making. And it is exactly the latter role that is being questioned: it is possible to acknowledge that individuals or groups have greater knowledge and competence in certain areas, while, at the same time, wanting to exercise intellectual autonomy – for instance, by insisting that we can learn from different expert sources and accept, reject or combine their recommendations.

The desire for retaining our intellectual autonomy and the value we put on it are evident in our daily conduct. Each time we resort to an internet search engine to check our doctor's advice, despite the medical profession's frequent recommendation to avoid reliance on online medical information, we show a desire for intellectual and epistemic autonomy by engaging in activities that rightly or wrongly seem to decrease our blind dependence on others – even though we may be just falling back on other, and less reliable, sources of information. The wish for intellectual autonomy is exploited shamelessly by conspiracy scams, such as QAnon, with their motto 'Do your own research'. The 'research' advocated has

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[4]The point is not new: philosophers have written about the value of epistemic autonomy as far back as Descartes (1968 [1637]), who forbids inquiring minds from relying on the ideas of others. Similar sentiments have been expressed by Locke and Kant.

some of the academic and scientific trappings of gathering evidence and confirming hypotheses; it promises autonomous expertise to its supporters and counters the feeling of intellectual subservience to experts with whose political positions they may disagree. While the intellectual autonomy promised by QAnon and its like is nothing but a sham, it is a sham that exploits a desire to retain intellectual independence or at least not to feel subservient – particularly to those who are seen as the elite in a system of governance that perpetuates, indeed creates, inequalities – both economic and epistemic.

Elizabeth Fricker (1994) has rightly argued that we should accept an assertion on the basis of testimony only if we recognise correctly that the testifier is epistemically better placed than we are in making that assertion. One important question facing us now is what and how much of our intellectual autonomy, and of the ability for critical thought that follows from it, we are sacrificing when we stop being sceptical about the hierarchies of knowledge and simply accept that members of certain groups are better placed to offer judgements on matters that affect us socially and personally. The second, and maybe an even more crucial question, is about the social and political costs of this recognition. Knowledge is power, as we know so well since Machiavelli (1940 [1640]), and by acceding the power of knowledge to experts in policy decisions, the fear is that we may be forfeiting at least some of our rights, and instead empowering unelected members of the society to have direct impact on policy decisions. When experts play a central role in public policy matters, to accept their intellectual authority involves relinquishing not just our intellectual but also our *political* autonomy. This is a dual concern: sacrificing one's intellectual autonomy to trust will also compromise our ability to deliberate critically about political and social matters. This worry links the concern about intellectual autonomy with a worry about democratic participation, to which we now turn.

3.2. Argument from democratic deficit

Experts' involvement in policy advice has become a constant feature of modern governance. For a time, *epistocracies* were seen as harbingers of a new era of politics, where ideologies would give place to technical problem solving and expert-driven, problem-oriented thinking would replace both the capitalist and the socialist states (e.g. Price 1965). While these high hopes proved ill founded, reliance on experts in policy decisions in a wide range of areas, from economics to health, from

technological know-how to agriculture, remains central to contemporary governance. The so-called 'knowledge economies' – where intellectual capital is a key source of economic growth, accentuates this reliance.

There are two interconnected concerns specifically about the role of experts in democratic governance: first, expert knowledge, by definition, is not open to assessment by non-experts and therefore the very idea of expertise is premised on epistemic inequality which will have social and political consequences. Second, experts, when they function as unelected contributors to political governance, are immune from the type of accountability we impose on elected members of governments. Experts, by definition, know more than the general public about their area of expertise, and particularly in knowledge economies those with greater epistemic resources and access to such resources are rewarded financially and accrue prestige and status – they become the new elites, the aristocrats of the intellect with all the power and prestige that go with the status. The top-down reliance on a small group of experts on policy decisions leaves less space for the participation of citizenry in political decision making.

This gives rise to democratic deficit of trust in experts: if policy decisions are to be taken based on advice from experts, and if the correct epistemic position towards experts is one of trust rather than critical questioning, then the space available not just for political contestation but also for political decision making will shrink in proportion to the extent that we allow expert-driven trust-based policies to become the guiding principle of political governance. These worries offer grounds for scepticism, and indeed distrust, of experts, not primarily because the content and sources of their advice, but because of the impact of their involvement in political decision making. Yet there is no easy distinction between these two reasons: in promoting trust in experts, the question of it's the entirety of its short and long-term impact is pertinent to our decision to trust.[5]

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[5]The danger of over-reliance on experts was known to John Dewey who worried, already in the early twentieth century, that the ever-increasing reliance on expert advice can diminish the scope of participation by ordinary citizens in the political process (Dewey 1927). A worry that was echoed, in even stronger terms, by Hannah Arendt (1972) and other members of the Frankfurt School (Habermas 1985) as well as Michel Foucault (2003) who, in their various ways, saw over-reliance on experts as a side-effect of the type of 'scientism' that holds Western societies in its grip, and constitutes an inherently ideological stance masquerading under the banner of objectivity. As Stephen Turner (2001) puts it, 'the political threat to democracy posed by the existence of expert knowledge [is that] expertise is treated as a kind of possession which privileges its possessors with powers that the people cannot successfully control, and cannot acquire or share' (Turner 2001, 123). Such inequality is not only detrimental but indeed inimical to the type of equality of participation that democracies presuppose.

As we will see in §4, there are measures to address the democratic deficit of reliance on experts in governance, but the growing easy dismissal of any sign of distrust in experts ignores the complexities of the role assigned to experts in democracies. At the same time, the reasons for such a dismissive attitude are easy to understand. In recent years, experts and expertise have been under attack by the worst of the right-wing populist leaders, attacks that have led to innumerable preventable deaths in the US and Brazil from COVID-19, to name just two cases, and have accelerated the threats of global warming. This new political order has turned the question of trust in experts into a liberal cause and politicised expertise unduly, turning it, particularly in the US, into a partisan political issue. But it is the very complexity of the standing of experts in a democratic governance that makes it open to exploitation by populist politicians. Ignoring the difficulty and simply calling for more trust in experts by offering further demonstrations of the professional trustworthiness of experts will not address the worries that fuel such scepticism.

3.3. Argument from the normative shortcomings of science

Science sceptics claim, on a variety of grounds, that science does not deliver the objective, interest-free knowledge it promises. Such scepticism may be directed at the corrupt practices of individual scientists, or it may be seen as inherent in the very methodology of science. Both types of criticism result in the accusation that the scientific theories and their resultant technical knowledge that inform policy decisions are never pure or value neutral, but to the contrary, they are often infused with personal and ideological biases that support the interests of the individual scientists and/or the existing economic and power hierarchies. We will look at each concern in turn.[6]

The simplest reason for scepticism and distrust of experts is the suspicion that their advice is informed by their personal and sectoral biases or financial interests. Examples of fraud, personal bias, and incompetence, while not widespread, are part of the landscape of expertise. Undoubtedly, there are bad actors among experts whose advice is motivated by personal or professional gain rather than the best scientific evidence, but moral or professional failures at this personal level are not a very

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[6]We should point out, maybe unnecessarily, that the mere uncertainty of the sort inherent in the methodology and practice of science, and readily acknowledge by scientists, is not a sufficient reason for scpeticism about scientific expert advice.

good reason for scepticism about the science/policy nexus. While blatant corruption is a sad social reality, there are reliable ways of detecting and addressing such corruption in scientific practice – for instance through peer review and expectations of the replicability of results, particularly where the results are surprising or indicate significant breakthroughs; whistle-blowers have also played an important role in exposing corrupt practices at institutional level. For these reasons, fraudulent practices within science are not very common.

There is a host of deeper and more subtle reasons for doubts about the purity and value neutrality of scientific advice, reasons that are embedded within the operational and theoretical frameworks of science rather than in the psychology or the proclivities of individual scientists. First, there are concerns about the underdetermination of scientific hypotheses by existing data, i.e. that there are empirically equivalent rival theories that are equally adequate in explaining experimental results or observations (Quine 1970, 179). Underdetermination poses the question of how scientists choose between different empirically adequate rivals and the extent to which values play a role in such decisions. The so-called Problem of Unconceived Alternatives, based on the historical evidence that 'typically [there] are alternatives to our best theories equally well confirmed by the evidence, even when we are unable to conceive of them at the time' (Stanford 2001, S9), shines a different light on the same problem. The 'new pessimistic meta induction' from past failures in imagining better theoretical alternatives opens the possibility that we may be in the grip of similar failures now, that our biases and values may not allow us to imagine and give preference to alternative scientific theories. Finally, the inductive risk argument (Hempel 1965; Douglas 2013), starts with the position that scientists never have conclusive proof for their theories or complete evidence for their hypotheses, but always face a degree of uncertainty regarding scientific knowledge, so they need to use their judgement to make a final call on how much uncertainty they are going to accept, and concludes that scientific judgements have strong normative elements.

What the three arguments show is that theory choice is not fully determined by available evidence, that scientists use their judgement, exercise their imagination and make risk assessments in prioritising a particular theory over and above alternatives, and in doing so they inevitably rely on value judgements. Moreover, contra Kuhn (1977), such judgements are not restricted to epistemic values only. As Heather Douglas (2013) has argued, values, both epistemic and moral, come to play an important

role in framing the problems scientists are addressing, deciding on the range of evidence they take into consideration, the scope they assign to a hypothesis, the levels of uncertainty they are willing to accept, and how they calculate the consequences of any error they may make. The optimists about science, and we think Douglas is among them, believe that scientists should, and are in a position to introduce values such as benevolence (or a concern for the welfare of others), the principles of least harm, and due diligence in assessing negative consequences of their decisions to ensure that the value gap in science is addressed in ways that are beneficial to the recipients of their advice. Pessimists, among them some feminist epistemologist, on the other hand, point out that scientists' theoretical choices are frequently coloured by unac-knowledged gender, race, class and other ideological biases. Moreover, in most cases, only a historic distance will allow us to detect the full range of pernicious values that are brought to bear on the choices of theory and evidence. On both accounts, the upshot is that, one way or another, theory choice is not value natural, and the values that are brought to bear on the scientists' choices, have not just an epistemic but also social and moral dimensions.

The sceptical concerns outlined in this section should not be seen as an invitation to science denial but as a valuable corrective to a range of per-nicious practices in science It is the illusion that science is value-free that often fuels pernicious science denialism. As Philip Kitcher writes, 'The deepest source of the current erosion of scientific authority consists in insisting on the value-freedom of Genuine Science while attributing value-judgments to the scientists whose conclusions you want to deny' (2011, 40). In fact, science denialism, be it in the shape of vaccine resist-ance or the rejection of climate science, is the exact opposite of scepti-cism, for it speaks of a certainty that the sceptic wishes to avoid, and it does so in the face of quite overwhelming evidence in favour of vaccines.

3.4. Argument from past and present injustices

Distrust of scientific experts is also often rooted in experiences of harm and suffering brought about through collusions between experts and pol-itical powers, where the damage has been inflicted, in particular, on the marginalised, the defenceless and the vulnerable. We do not need to revisit the horrors of Nazi Germany to find examples of injustices and suffering that can be directly linked with experts as policy advisers or as facilitators of nefarious state policies. Pharmaceutical companies

testing their new vaccines, without the mothers' consent, on children incarcerated in Irish Mother and Baby homes In Ireland well into the 1960s and 1970s (Ireland Department of Children, Equality, Disability, Integration and Youth 2021) or the Tuskegee experiments on Black subjects in the United States (Razai et al. 2021; Bajaj and Stanford 2021) are among fairly recent examples of how experts, with or without the intervention of the State, have abused their expertise as well as the position of trust accrued by it, to exploit the vulnerable and the unknowing for the sake of scientific advancement and possible societal good (or the good of part of society).

What differentiates these cases from the worries discussed in 3.3 is that the abuse of power by the state, its institutions, and scientists themselves, was not the result of values implicitly permeating theory choice, nor does it have to do with scientific fraud. Rather, these are instances of how science, even when potentially of benefit to the general public, is also a potential source of harm to the marginalised. As Naomi Scheman has observed, when institutions are unjust, the trustworthiness of what is embedded within those institutions suffers – and, she claims, *ought* to suffer – even when such associated or embedded practices and individuals are faultless (Scheman 2011, 223).

These cases illustrate the extreme end of Maya Goldenberg's (2016) advice not to take a paternalistic approach to the question of trust in experts in the context of vaccine hesitancy. Vaccine hesitancy, as Goldenberg points out, may not be driven solely by ignorance and stubbornness, but a distrust grounded in the failure on the part of experts to address people's particularistic concerns, as in the case she describes of parents' understandable concern about the health of their children. Karen Jones (2013) has spoken rightly of the epistemic and moral costs of misplaced distrust. But the cost of misplaced trust can be just as high, if not higher, and not just epistemically and morally, but as a matter of life and death: for all those subjected to vaccine trials and other medical experiments by members of the very profession they are now called upon to trust, distrust is not a sign of irrationality or epistemic failure, but a reasonable, and potentially valuable, stance.

4. The requirement of trust

The sceptical arguments in 3.1–3.4 show how the question of trust in expert advice could be seen as a legitimate terrain of both normative and political contestation. To withhold trust in experts, particularly in

the political domain, can be and often is a political act, but the act should not be dismissed only as a by-product of right-wing populism, even if in many instances, in recent times, it has been. The cumulative impact of 3.1–3.4 is to demonstrate that there are legitimate grounds for scepticism towards experts, particularly in the context of the roles they assume in public life. Yet it remains true that epistemic, as well as other forms of trust, are inescapable as well as beneficial features of our social life. Without epistemic trust we cannot learn from each other, nor can we enrich our collective intellectual life by allowing a division of epistemic labour where not everyone is expected to be in possession of all that is open to investigation. Equally inescapable is the need for expert advice on complex matters of health, safety, ecology, the environment, AI, and more, often at a global level. As the COVID-19 pandemic has demonstrated dramatically, the intervention of experts on policy decisions can be of great urgency and the need for their advice, literally, a matter of life and death. The point can be generalised beyond the current emergency and be applied to other threats facing us, with climate change and vaccination – for COVID-19 but also other diseases – being among the most notable examples.

In such instances, trust in experts takes on specific features, which are relevant to assessing its ethical significance. First, COVID-19 health advice and vaccination, like the science of climate change, are backed by widespread consensus within the scientific community, offering grounds for reduced scepticism. Second, the urgent need for action in the face of an imminent threat reduces the opportunity for independent reflection and assessment and heightens the need to exercise trust as a shortcut to immediate action. Third, trust is not just expedient but essential in these matters, because first-hand knowledge of medical and climate science among the public is scarce, and well-informed attitudes about these questions essentially depend on trust in the testimony of experts (see Almassi 2012). Furthermore, the requirements of compliance with expert advice for the public good in these cases is not just a question of individual autonomous choice, but a matter of significance to all members of society, in the local as well as global community. As Heidi Grasswick observes, this closer adherence of information and action at times of great uncertainty

> presents particular challenges for laypersons, who must find ways to responsibly trust scientific institutions, since the boundaries between the knowledge produced and policy implications begin to blur and with that, political interests play a prominent role in the development and presentation of the knowledge. (Grasswick 2014, 542–543)

In the case of vaccine hesitancy, while reluctance to accept vaccination is not something new, the mass vaccination campaign started at the end of 2020 to immunise against COVID-19 has brought the issue to the forefront, globally, as never before. From an ethical perspective, one of the most salient features of vaccine hesitancy is that, in countries with a high degree of diversity such as the UK and the US, minority groups are more likely to reject vaccination, based on lack of trust in the healthcare system (Laurencin 2021) yet, at the same time, minority groups are also among those who have suffered most from the impact of COVID-19[7]

Historical and current inequalities both motivate and exacerbate the consequences of vaccine hesitancy among these groups. As we have seen, vulnerable and marginalised groups have routinely received unjust treatment from the medical system, and in some cases have even had their human rights flagrantly violated. Such cases show, in a stark manner, the internal tension between rational and ethical distrust, in this instance based on experiences of overt injustices and more covert biases, and the potentially destructive consequences of the same distrust, lending further moral urgency to the question: how can we reconcile the requirement of trust with justified scepticism towards experts and their policy advice?

5. Possible resolution 1: replacing trust with reliance

One possible solution is to argue that, when it comes to scientific matters, trust is actually not a suitable doxastic or emotional attitude. Rather, in such contexts, the thinner notions of *epistemic deference* and *reliance* are the more appropriate stances. It seems natural to think that the vaccine hesitant simply refuses to rely on the advice of the medical experts and the climate sceptic does not rely on the predictions of the climate scientists when deciding on buying green cars or cutting down their consumption of beef. If this is true, any talk of trust or distrust over-complicates their attitudes towards science.

Another reason to reject the relevance of trust to matters of science policy is that trust is often seen as a stance we take towards individuals rather than groups or institutions, while scientific policy and advice are frequently the product of advisory groups and policy institutions. It is

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[7]In the UK, the impact on BAME communities has been more severe, with a 10–50% higher risk of death (Public Health England 2020). Black Americans are also 3.57 times more likely to die from COVID-19 than white people (Razai et al. 2021). As Razaiet al. argue in the recent *BMJ* editorial just mentioned, re-building their trust is key.

intuitively easy to think about trust in individuals, but less so to think of trust in groups, not least because some core features of trust – such as mutual relationships, personal acquaintance, feelings associated with trust such as betrayal – do not transfer easily to cases of institutional and procedural trust.[8] Inkeri Koskinen (2020) uses these ideas to claim that the ethical dimensions of trust are such that trust is not a fitting concept for science and the detached objectivity that science aims at. Arguing against those who believe that objectivity requires a shared basis for trust, and that trust is necessary on the part of the public to believe experts (e.g. Scheman 2011), Koskinen claims that the trust-based approach fails to distinguish between trust and reliance in the case of science, and that the latter is more properly applicable to scientific objectivity: identifying scientific information as objective enables us to rely on it, while trusting it would be a different and unwarranted step.[9]

This solution, however, does not work if we consider the situational demands of specific cases of the science/policy nexus under consideration here. Trust, rather than mere reliance, seems appropriate in the cases of COVID-19's stringent public policy measures, vaccination and climate change for they involve the acceptance of risk in the face of possible harm, or substantial sacrifice as cost of relying on expert advice. Unlike reliance, trust invokes a range of emotional and evaluative responses, including a sense of risk-taking, the possibility of feeling betrayed (Baier 1986), and an engaged attitude rather than a spectatorial one (Holton 1994), which are all at play in these cases. When we trust, we make ourselves vulnerable, and this is especially true when trust requires us to *act* in specific ways, and when these actions could affect our lifestyle or our health. Baier (1986) shows that there are degrees of vulnerability in trust-relationships (ranging from infant-parent relationships to the relative safety of contracts), but that in every case trust impacts power positions. Following Baier, Lawrence Becker (1996) has argued for a non-cognitivist account of trust in the political sphere, where trust involves 'confidence about the benevolence, conscientiousness, and reciprocity of others' (1996, 53). These moral value are also part of Grasswick's (2018) account of epistemic trust, which depends not only on expertise but also on the expert's willingness to protect the public's interests;

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[8]See also the discussion on trust in States and individuals representing States and other groups (e.g. Booth and Wheeler 2007) and organizational trust (e.g. Saunders 2010).

[9]Koskinen denies that we can trust science, but not that we can trust scientists. However, she introduces a difficulty insofar as the object of trust in scientists is science, and scientists are *representatives* of the scientific objectivity.

making correct but irrelevant information salient, for instance, may contribute to false beliefs, so value-based choices are part and parcel of the public role of experts.

Conversely, breaches of trust are harmful, in Becker's view, not only for individuals but also for societies, because our responses to them tend to be more 'volatile and disruptive' than responses to mere unreliability. The trust required, of course, is not blind, and is informed, among other things, by the reputation, the track record of past performances, and the success or failures of the experts. But, as noted above, in cases such as COVID-19, as well as climate change, the extent of the knowledge gap between the experts and lay people, coupled with the urgency of the decisions to follow scientific advice and the high stakes of such decisions, call for the richer attitudes of trust rather than mere informed reliance.

6. Possible resolution 2: towards a climate of trust

Reasoned scepticism about the role of science in policy decisions should be taken seriously, both because of the worries about the politics of trust raised above, and because distrust may signal and reveal social imbalances and wrongs in the way scientific knowledge is placed in the service of the political and social interests of some sectors of the society at the expense of others. In such instances, scepticism and indeed distrust is not only justified, but it may have the value of pointing in the direction of something that needs rectifying. As Grasswick (2018) argues, what is distinctive about 'impersonal' trust such as epistemic trust in the scientific community is the importance of the trustworthiness of the *practices* of the institution. If these practices are part of unjust structures, their trustworthiness is also eroded. In these cases, according to Grasswick, we can talk of 'epistemic trust injustice', where injustice lies not only in not being listened to, but in not possessing the resources to trust appropriately: it is not only a rational, but a social and ethical issue to be in a position to trust experts.

At other times, distrust is not a sort of protest against injustice, but stems from of a fear of losing autonomy and hence power.[10] This source of distrust is different, but it too points at social imbalances that need to be acknowledged. On the other hand, as we have seen, distrust of experts, even when it originates from experiences of injustice and long-

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[10]Such as the case of some climate sceptics, see McCright and Dunlap (2011).

standing grievances, becomes a source of concern when scientific advice plays a crucial and urgent role in securing the wellbeing of a population or a planet. The question is how to reconcile these Janus faces of distrust?

Much of the reaction to the real or perceived breakdown of trust in experts, over the last few years, has called for better communication or messaging by scientists and science journalists, (Lewenstein and Brossard 2006; Jasanoff 2014), greater scientific literacy on part of the general public (Lombrozo et al. 2008; Miller 1983; Miller 2004) and countering the impact of motivated cognition (Oberauer and Lewandowsky 2016). Addressing these flaws, it is assumed, will address issues of distrust in science. Others have rightly emphasised the need both to substantiate and to increase the trustworthiness of experts by demonstrating not just their knowledge and competence, but also their honesty in communication and their responsibility or responsiveness to the evidence (Anderson 2011, 145–146). But, as we have seen, distrust is not occasioned only by perceptions of incompetence or failures in performance. Nor it is only the result of normative and ethical failures, such as dishonesty or irresponsibility, on the part of experts.

Distrust arising from socially based concerns shows that what is at stake is not just professional credibility or competence, nor intellectual desire to master more information. In fact, distrust in experts in these cases can arise from the *rejection* of any information coming from a particular source, not simply because of worries about the accuracy of the information or the personal credibility of the experts responsible, but because of the background values and political structures within which the information is created and shared. What is at issue is not only the *content* of the message of distrust or scepticism, but also the *identity* of those who are distrustful,[11] as well as the social, political and historical factors influencing the creation and reception of the scientific message.

To reiterate the point, while ensuring the trustworthiness of the experts and policy makers who are advised by them is essential in countering unwarranted distrust, we also need to take into account the varying factors that go into legitimising distrust. To achieve the complex goal of countering the call of distrust, we argue, we need to create a climate of trust, a social and political environment where the concerns that motivate and legitimise distrust are acknowledged and, to the extent that is possible, addressed and where legitimate trust is allowed to flourish. Trust in

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[11]The approach follows the suggestion to take a 'situated' perspective advocated by feminist epistemologists such as Code (2006) and Wylie (2003).

experts, particularly but not only in cases where they guide policy decision, cannot be treated in isolation, for it is interwoven with other social and political forms and requirements of trust. For this reason, as Scheman (2011) has argued, the impersonal discourse of science, its universal concept of objectivity, and the impersonal demonstrability of trustworthiness that goes with it, are not enough in a context where social hierarchies exclude some individuals and groups from the production of knowledge and the exercise of power. Trust, as Scheman puts it, 'needs to be convincingly demonstrated – not just abstractly demonstrable', and justified belief in the trustworthiness of the scientific methods practiced by institutions depends on

> the justified belief that those institutions do in practice what they are supposed to do in theory: ground knowledge claims that are acceptable to all of us, not just to those of us with certain forms of privilege, who see the world through certain lenses, from certain biased perspectives. (Scheman 2011, 221)

A climate of trust will facilitate trust and trustworthiness at a collective level rather than focusing only on either the individual experts and their trustworthiness or the attitudes of trust or distrust evinced at individual level. Trustworthiness is a feature of that wider institutional practices that make the legitimate acts of trusting possible. It is often said that trust is the glue that binds the members of society. A climate of trust is what ensures that the glue is spread evenly, reaching all segments, and not excluding or marginalising particular groups or individuals.

While public trust is a collective phenomenon, it is worth noting that the requirement of trustworthiness is not spread equally across all members of the society: greater demands and more onerous conditions are placed on policy makers, the experts of various kinds, the media, and medical carers, to name a few. This does not, however, let individual consumers of expertise off the hook. Consumers of information, in particular, have responsibility to show due diligence in accepting the testimony of their sources or in transmitting such information to others.

In the remainder of the paper, we will briefly outline how elements of a climate of trust can address some of the worries, listed in 3.1–3.4, that give rise to justified scepticism about experts and even justified distrust.

6.1. Addressing the loss of intellectual autonomy

The Cartesian conception of intellectual autonomy was a product of an individualist conception of the mind; once we come to think of ourselves

fully as social animals, dependent on others physically, socially and linguistically, then the Cartesian view of autonomy as self-reliance begins to lose its hold. Acknowledging a desire for intellectual autonomy does not mean denying the place of epistemic dependence and co-dependence or the need for experts in facing the complexities of the world and its attendant knowledge landscape. What we hope to find is the possibility of a balance between reliance and even dependence on others, epistemic and practical, on the one hand, and the capacity for independent thinking and decision making, including the ability to engage in political contestation, on the other. The complexity of finding such a balance is often forgotten in the loud contemporary call for trust and trustworthiness. This means that independent thinking and decision making have to be protected, but not simply by offering more information and providing more transparency about the process of knowledge creation.

As Onora O'Neill (2002) has pointed out, we can retain and manifest our epistemic and intellectual autonomy by choosing with due diligence whom we rely on, or to whom we intellectually defer. In other words, the exercise of autonomy is prior to the act of trust or reliance.[12] Following O'Neill's strategy of distinguishing types of autonomy, Nguyen (2018) has argued that we can preserve autonomy in trust: the kind of intellectual autonomy that is threatened by trust in experts, according to Nguyen, is *direct autonomy*, where we seek to understand the information and process it by ourselves. However, there are two other kinds of autonomy which are consistent with trust: *delegational autonomy* and *management autonomy*. In the former, we trust others to provide information we cannot arrive at ourselves but remain autonomous insofar as our trusting is active, justified, and we take responsibility for it and for our choice to delegate; in the latter, we put together, for ourselves, information from different sources, and take responsibility for the whole system of knowledge rather than the constituent pieces of information. However, Nguyen's and O'Neill's conceptions of autonomy are not always equally available, but can be best exercised within a climate of trust where there are assurances that the sources of our knowledge, or the larger system of knowledge, are indeed trustworthy. Moreover, taking a leaf from the success of QAnon, to preserve intellectual autonomy, genuine alternative expert advice should be made available to the interested members of the public to enable them to do 'their own research'.

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[12]We would like to thank Ben Almassi for pointing out to the strength of this type of objection.

Expert bodies should acknowledge contrary scientific positions, where applicable, but also point out the extent to which there is a consensus among the scientific community at large on the position they are advocating. The result may not have the intoxicating game playing appeal of a conspiracy theory mystery, but it will be more respectful of the intellectual autonomy of those who are called upon to show trust in expert opinion. It may be argued that recent COVID-19 related examples of scientists sharing and discussing expert disagreement in the media could reduce trust in experts and be detrimental to the public debate.[13] But the pretence that scientists are in full agreement and the attendant denial of contrary voices not only is dishonest but can also undermine the very trust we wish to establish or strengthen.

6.2. Decreasing the democratic deficit

Citizen participation, at various levels of knowledge creation and transmission (or what Dewey calls popularisation of knowledge), is an essential element of creating a climate of trust. The point is echoed by many contemporary thinkers. Philip Kitcher (2011), for instance, argues that to counter value-based distrust we need more inclusive participation of the public in the workings of scientific research from the very beginning, including, in particular, the facilitation of a more transparent and open discussion about the values that inform such research.

An effective way of including the public in expert-informed policy making is the routine use of citizen assemblies and mini fora (Farrell and Suiter 2019), where experts and representatives of the general public engage in publicly accessible conversations and deliberations about the policy choices available. Making intellectual space for the contestation of dominant views, monitoring the performance of the experts and their commitment to honesty, transparency and good will are further means of both creating a climate of trust and enabling a participatory form of democracy where experts and policy makers are held answerable to the citizenry.

A division of epistemic labour is essential for the smooth running of any society, but the division does not need to be purely hierarchical. A horizontal model, where multidisciplinary panels, including lay members of society, share the responsibility for policy advice, is more in line with the egalitarian aspirations of democratic governance. Such

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[13]This point, as well as several others critical of our position was raised by Michel Croce.

'horizontal' models do not deny the role and significance of specialist knowledge in decision making, nor do they flatten the idea of expertise by placing their level of knowledge on par with the lay people's. Rather, they allow for input from and debate between a variety of sources and voices. The complaints about the elitism of experts, more often than not, are directed at the exorbitant financial rewards they receive, as well as the air of arrogance surrounding them, rather than the knowledge and information that they possess. The horizontal conception of the division of epistemic labour on expert panels can also have beneficial consequences for structuring the financial rewards that experts receive and thus address some of the grave economic inequalities that the knowledge economy has engendered. The horizontal model, put into action through citizens assemblies, is part of a move towards a more cooperative rather than hierarchical division of epistemic labour, which is also constitutive of the reciprocal nature of the demands and commitments that are part of a climate of trust.

6.3. Accommodating values

This element consists of two steps. The first step is to acknowledge the uncertainties of science and the value gap between evidence and theory, and to ensure that the gaps are filled in such a way that the well-being and best interest of those affected become central to the conduct of science. This transparency and acknowledgment of value would go some way towards addressing the concerns expressed in 3.3. The second step is the acknowledgment of the values which may inform the public's inclination, or disinclination, to trust specific scientific information. The creation of a climate of trust requires the awareness that distrust in scientists may be the result of a genuine difference between the public and the experts about the values that shape scientific research (Kitcher 2011). In what is presented as a purely scientific question, different values, priorities, and preferences are involved, and bringing them out may lead to a more respectful, but also more mutually trusting practice. Also helpful is addressing a lack of clear diversity and broad representation in the scientific community, and an insufficient acknowledgement of the plurality of values that determine trust and distrust in science. To take one example, climate sceptics appear highly susceptible to messages delivered by their own social group, particularly their political group. This demonstrates not only reluctance to change, but also the importance of group belonging when it comes to trust. Group belonging includes the

acknowledgement of shared values which in turn play an important role in whom to trust. For these reasons, David Hall (2019) has suggested that in order to address climate scepticism it is necessary to 'frame' the message without denying or eradicating the fundamental values of some groups. Drawing on Bernard Williams's (1979) 'internal reasons', Hall suggests a model of persuasion which is truthful, but also which acknowledges the plurality of people's motivations, connecting facts about climate change with people's 'subjective motivational sets' (Hall 2019, 41–42). Similarly, Feygina, Jost, and Goldsmith (2010) suggest that reframing pro-environmental change as, for instance, preserving, rather than challenging, the social system (e.g. the 'American way of life') may encourage those who are motivated to protect the system to take greater personal responsibility (2010, 333) (See also Kahan 2010).[14]

6.4. Addressing injustices created by differential power structures

The idea of a climate of trust involves addressing the root causes of distrust not only in the specific domains where distrust manifests itself, but also the different power structures in which these domains are articulated. It is not the just the conduct of science or the scientists that may be biased, but the broader social and political context within which science is practiced, communicated and used. Establishing a climate of trust requires acknowledging both the context and the full range of the causes of distrust, which observing the social positions of the sceptics reveals to be more than merely intellectual; and this, in turn, means being prepared to change deeply rooted social and political structures and practices. If distrust is at least partly fuelled by power inequalities and past and current discrimination, then consistent and visible efforts to rectify such inequalities are part and parcel of building a climate of trust. How can that be done?

Distrust, as we have noted, can have a beneficial effect, leading to a reconfiguration of unjust power structures. This is primarily the case when distrust is grounded in actual oppression: there distrust can represent a wake-up call, lead away from complacency and toward action for justice (see Krishnamurthy 2015). Even when it is grounded on

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[14]At the same time, it is important to take values into account in a way that does not deny their incompatibility with others and that does not distort the scientific message. Some values just are incompatible with pro-environmental behaviour and a just system. That is why the social situatedness of the untrusting needs to be taken into account, not only by experts who seek trust, but also by the untrusting themselves. This is Heidi Grasswick's (2014) proposal to address climate scepticism.

unwillingness to change and lose one's position of power, distrust can signal uneven power relationships, and can be acted upon accordingly.

The connecting element here is the vulnerability and disempowerment that are inherent in trust and *also* at the root of the distrust arising from experiences of injustice. The greater vaccine hesitancy among marginalised groups, to return to the example noted above, results in part from the extreme vulnerability that come from having trusted the medical establishment, with catastrophic consequences. To trust, as we saw, is to make ourselves vulnerable, but the added level of social vulnerability makes the act of trusting much riskier than it could otherwise be. We cannot remove the experience of vulnerability inherent in the act of trusting, but in building a climate of trust we can work towards addressing the excess of such feelings of vulnerability occasioned by experiences of social injustice.

Two possible ways of working with vulnerability, but changing its impact, are suggested by Katherine Furman (2020): sharing costs, and giving up power (on the part of the current elite). Taking as her example a doctor from Doctors without Borders in South Africa (narrated in Steinberg 2017), who drew his own blood in front of his patients to show that the HIV tests he was offering were safe, Furman suggests that spreading the perceived risk also flattens the hierarchical nature of the trust relationship. In the case of expertise, giving up power (on the part of the elites), or more properly re-balancing it, also means greater inclusivity in the expert class. In the case of vaccines in the US, having a more proportionate number of Black scientists as well as spokespersons increases the sense of both inclusion and in-group role models. According to Bajaj and Stanford (2021), the focus on current power relations, as opposed to past injustice, is a more positive way to address distrust, because it frames the problem in terms of everyday racism (which is present, and can be challenged) rather than 'immovable historical occurrences', which in their view undermines the efforts to combat distrust.

For instance, Alsan et al. (2021) have shown that Black Americans were more likely to act on COVID-19 prevention advice and seek further information when this was presented by Black doctors than white doctors (see also Wells and Gowda 2020). The point about seeking information is important: we do not in the slightest want to suggest that inclusivity is merely a means to achieve the ideal of full trust in experts by manipulating people into it. That would merely replicate the unquestioning call for trust we have criticised. Inclusivity, besides being a good in itself, promotes a desirable climate of trust insofar as it also makes room for

autonomous thinking. The tension identified in this paper can only be addressed if a climate of trust allows for vulnerability but also makes independent inquiry available.

In these ways, besides the obvious move toward greater justice, members of marginalised groups can feel that their vulnerability is shared, and not unduly focused on their group-membership. Only then can they be expected to accept the more reasonable degree of vulnerability that is part and parcel of justified trust in trustworthy experts.

7. Conclusion: on the value of distrust

Distrust, like trust, is valuable when it is exercised under the right conditions and directed towards the right individuals and organisations. In the right context, distrust can be valuable in ensuring individual autonomy and democratic participation. Distrust can also have deeper roots and be grounded in social and power dynamics that fundamentally determine the ways expert information is shaped and received. Distrust, in these cases, is not necessarily a problem; in fact, it can point towards inequalities that influence epistemic practices, and that need to be rectified. For this reason, we have argued, in cases where trust in experts is urgently called for, it is not sufficient to clarify information, share more data, and demonstrate experts' honesty and reliability. What is needed is a larger scale intervention, which we have suggested equals to the fostering of a 'climate of trust' in which the costs and vulnerabilities of trust are shared, and which enables and encourages the participation of various groups and the inclusion of differing values, not only in the production of knowledge, but in the process of the application of such knowledge which – in the cases examined – has such significant impact on everyone involved.

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