

# Experts, Public Policy and the Question of Trust

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## Abstract

This chapter discusses the topics of trust and expertise from the perspective of political epistemology. In particular, it addresses four main questions: (§1) How should we characterise experts and their expertise? (§2) How can non-experts recognize a reliable expert? (§3) What does it take for non-experts to trust experts? (§4) What problems impede trust in experts?

## 0. Introduction: Experts and their political function<sup>i</sup>

In our daily lives we routinely depend on experts of various kinds, their skills and their advice. From matters of health to technology, weather forecasts to air-travel, even in mundane matters of dealing with blocked drainpipes or broken washing machines, experts have a ubiquitous role in our lives and guide our choices. Experts and our reliance on them become a political matter when they are involved in policy formation and implementation. Cognitive experts (Goldman 2001: 91) in different fields, experts who have epistemic

competences in some domain of enquiry, rather than *practical* or performative expertise (Watson 2018: 40), are increasingly called upon to provide data and evidence in the service of governmental policy goals. We review and briefly address four questions on experts and their role from the perspective of political epistemology: (§1) How should we characterise experts and their expertise? (§2) How can non-experts recognize a reliable expert? (§3) What does it take for non-experts to trust experts? (§4) What problems impede trust in experts?

Recent years have seen a sharp turn towards populist politics with leaders claiming to represent the univocal "will of the people" and to stand against "liberal elite" enemies and the privileged cosmopolitan educated classes (e.g. Canovan 1999). This anti-elitist rhetoric has put the scientific advisory process under serious stress (OECD 2015). Policy advice on health and environmental issues has proven particularly controversial and led to partisan political debates and confrontations, not just in the US, but across the world. While headline figures in recent surveys on trust in scientific expertise do not indicate a drop in trust levels—unlike trust in politicians and the media—the public discourse around expertise has noticeably changed and there is evidence of a breakdown of trust in specific policy areas such as vaccination and climate change (Facciola et al., 2019).

## **1. What is expertise?**

The term "expert" is defined in various ways. At first blush, and very roughly, an expert is a person with a high level of knowledge in a particular domain. Predictably, though, the question of how to understand the notion has generated lively and timely discussions among social epistemologists.

Alvin Goldman's 2001 paper has become a classic of the field and almost all subsequent debates on the topic define their position in relation to it. His theory of expertise is grounded in a conceptual analysis approach and has two main features: it is a veritistic and realist theory of expertise, where *veritistic* means that expertise is measured by the amount of true beliefs one possesses in a given domain—more precisely, by the ratio of true to false beliefs in the domain—and where *realist* means that one's possession of expertise does not depend on social recognition within one's community or attribution by one's clients (Collins and Evans 2007: 2-3). Briefly put, on Goldman's view, experts are those who get things right in a domain of inquiry more often than most members of a community.

Over the last decade, an upsurge of alternative views of expertise has challenged the main features of Goldman's theory. One influential approach—embraced by Goldman in more recent work— identifies experts in terms of their socio-epistemic functions, or the service they provide within an epistemic community. Functionalist accounts cash out the notion of expertise “by reference to what experts can do for laypersons by means of their special knowledge or skill” (Goldman 2018: 3) and (only) then assess the “categorical states” that underpin the functional requirements of expertise (4). The question about the function of an expert may be seen as complementary to the definitional question about what an expert is—Goldman does not seem to take a clear stand on the issue, though others tend to favour a functionalist approach over a realist one (e.g. Quast 2018).

Novice-oriented accounts (Goldman 2018; Quast 2018) capture the idea that a community relies on experts to ensure that laypeople receive the help required to acquire reliable information in domains in which they are incompetent. If we stick to John Greco's characterization of social epistemology (2020: §2), it could be argued that experts have a

prominent role in *knowledge distribution*, in that they make available information accessible to lay members of the community.

In contrast, research-oriented accounts (Croce 2019) capture the idea that a community relies on experts to ensure “epistemic progress” by, among other things, addressing extant problems and answering new questions in various disciplines. Experts, seen in this light, perform a “*gatekeeping* function” (Henderson 2009) insofar as they take care of the business of acquiring, selecting and introducing new information within an epistemic community. Grundmann (forthcoming) has recently argued against functionalist views of expertise, instead defining experts as those who possess better evidence in a given domain as well as more reliable reasoning skills compared to other members of an epistemic community (*ibid*).<sup>ii</sup> Other attempts to broaden Goldman’s veritistic approach have been offered by proponents of what Grundmann calls “the gnostic account”, where the epistemic superiority of experts is cashed out in terms of their superior knowledge and understanding in a given domain (Croce 2019; Jäger 2016). There are also those who argue that expertise does not simply reduce to epistemic superiority within a community, but that part of experts’ competence has to do with their epistemic—if not moral—character, that is, with how they conduct their inquiries, their impartiality, intellectual honesty, epistemic autonomy, open-mindedness, etc. (Croce 2018; Grundmann 2017; Collins 2014; Shapin 2008).

Sociological discussions of expertise, at least in their descriptive versions, are an important source of critiques of the realist views. Sociologists and social theorists tend to endorse a *relational* view of expertise, according to which expertise is not a status one possesses in virtue of one’s epistemic achievements in a domain, but one conferred or attributed by others—typically by experts’ clients rather than their peers (Grundmann

2017). Expertise on this view comes down to a specific form of social recognition that individuals receive as a result of their services within the community.

This view of expertise is important not only because it departs from the realist approach, but because it shows that analysis of experts should not be reduced to that of “pure scientists”—those who care only about acquiring and sharing knowledge and show no interest in how their information addresses concrete issues (Pielke Jr 2007, Douglas 2009). A key limitation of the traditional model is that the role expert knowledge plays in collective and personal decision-making processes is inadequately considered. While questions about the nature of expertise may be separate from those about the social roles of experts, in discussing expertise in the context of policy decisions, a characterisation of what experts are that does not account for their specific role in the epistemic landscape of their society is bound to be incomplete. Relational accounts attempt to address this particular deficit.

This dimension of expertise, we believe, is key to placing the notion in a social and political context. While it may be plausible to contend that an epistemic community expects its competent members to fulfil functions such as maximising its overall epistemic welfare, teaching or conducting research, and that it recognises members as experts in virtue of such roles, experts in policy-making contexts are given more limited and tightly delineated roles. Expert advice at the political level takes a variety of forms: experts are frequently part of statutory national and international science advisory committees, academic bodies or think tanks that produce policy reports and advise governments (Holst 2019), with their advice elicited on an ongoing basis or on specific occasions. Individual experts are also invited to act as advisors in a formal or informal capacity for specific purposes. Their advice is used to design and implement policy but also to boost policy

credibility. Occasionally, they are used as scapegoats for policy failures.<sup>iii</sup> The engagement of experts with policy matters often gives them an advisory or consultative role, which does not require first-hand research on their part, even if their advice is expected to be informed by the most up to date research. Jasanoff (2011: 21) characterises the role of experts, in this context—as translators or mediators between knowledge and decision-making professionals, bridges between science and policy.

On those occasions when experts involved in policy advice are required to undertake new research, they are often expected to produce what Salter et al. (1988) have called “mandated science”, i.e. the type of research that is commissioned or supported by governmental or other public bodies for specific purposes. Mandated science, more so than pure or autonomous research should, it is argued, work for the benefit of the society and its members (Powys Whyte and Crease 2010; Scheman 2011). This expectation introduces a normative dimension to the politics of expertise.

This line has been strongly pursued by political scientists investigating the political functions of expert knowledge. Christina Boswell (2009), for instance, has argued that in addition to a standard *instrumental* function of improving the quality of political decision-making by grounding policies in sound reasoning and empirical data, institutional appeal to expert knowledge in public policy decision-making helps to enhance the credibility of organizations and their policies. This symbolic role boils down to two specific socio-epistemic functions: a *legitimizing* function, in that relying on expert knowledge endows institutions with epistemic authority; and a *substantiating* function, in that relying on expert knowledge gives credibility to an organization’s policy preferences and contributes to undermining the policies of rival organizations (2009: 7). A substantiating function is particularly helpful in cases of contested policies and widespread professional

disagreement, because it allows the organization to move the discussion from the level of values, interests, and public opinion to the level of scientific evidence and well-founded reasoning (81).

Importantly, however, despite recent attempts to bridge the disciplinary gaps (Baghramian and Martini 2018), not enough has been done to develop a unified—or, at least, multi-faceted—account of experts and expertise that captures both the epistemic and political dimensions of their work and role. Certainly, the proposed considerations about the understanding of expert knowledge in politics, especially in highly contested domains, call for further inquiry into the rational criteria for identifying experts. As we shall show in the next section, several problems complicate the matter, but none completely undermines the possibility of recognizing whose expertise should be trusted.

## **2. Expertise and the Credentials Problem**

All societies' knowledge economies operate on the basis of division of epistemic labour—that we do not all know the same things and are not equally knowledgeable about the same issues (Goldberg 2011). The division of labour will operate smoothly only on the assumption of epistemic trust, that is, our willingness to accept others, under appropriate conditions, as sources of authority on matters where we presume they are more knowledgeable. The ever-increasing scope and depth of cognitive specialization makes us epistemically dependent on others, and this dependence highlights the need for trust.

Considering the role experts play in policy decisions, the key debates or disagreements are not normally about what class of people count as experts. Policy-makers

frequently seek expert advice by choosing from the top tiers of Elizabeth Anderson's (2011) hierarchy of expertise:

- (a) Scientists whose current research is widely recognized by other experts. This can be determined by considering factors such as citation counts, impact factors of the journals in which they publish, and record in winning major grants.
- (b) Scientists who are leaders in the field – who have taken leading roles in advancing theories that have won scientific consensus or opened up major new lines of research, or in developing instruments and methods that have become standard practice. In addition [...], leadership is indicated by election to prestigious positions in the field's professional societies, election to honorary scientific societies, such as the National Academy of Science, and receipt of major prizes in the field, such as the Nobel Prize. (146-147)

The disagreements come at later stages, over whether a particular person meets these qualifications, and more significantly, over how to choose between experts with similar qualifications who provide contradictory advice, and relatedly, over when and how much should the general public and policy-makers trust experts and their advice.

This recognition problem for expertise (Watson forthcoming) boils down to at least two questions. The first, typically called the credentials problem (Cholbi 2007) or the novice/expert problem (Goldman 2001), asks how a novice can come to recognize an expert. The second question, typically called the problem of conflicting expert testimony (Ballantyne 2019: 222) or the novice/2-experts problem (Goldman 2001), asks how a novice can decide what to believe when the experts disagree on the matter at issue.<sup>iv</sup>



Both questions are extremely complex and discussions around them show no signs of attenuation. However, while expert disagreement might justify a prudent suspension of judgment in laypeople and force them to cope with some level of uncertainty, a list of criteria to work around the credentials problem—even if imperfect—is needed by epistemically dependent beings like us. For this reason—and given constraints of space — we shall focus on the credentials problem and postpone discussion of conflicting expert testimony to another occasion.<sup>v</sup>

Let us set aside situations in which novices have direct or first-order evidence in favor of an expert opinion and can verify the reliability of expert opinion by checking how things are in the world, for instance by following an expert's directions and seeing where they lead or by figuring out whether a practical expert succeeds in repairing a defective mechanism (Goldman 1999: 269). The relevant cases are those in which novices can only rely on indirect or second-order evidence of an expert's trustworthiness. In such circumstances, assessing one's expertise requires more cognitive effort on the novice's part. Elizabeth Anderson has identified four main dimensions of an expert's trustworthiness—namely, expertise, honesty, epistemic responsibility, and consensus—which we can consider as criteria laypeople should rely on to decide whom to trust (2011).<sup>vi</sup>

Indirect evidence concerning someone's *expertise* in a given domain D is provided at least by the following factors (Goldman 2001; Grundmann forthcoming; Martini 2019; Watson forthcoming): (i) a track record of accurate predictions or other kinds of success depending on the specifics of D (see also Collins and Evans 2007); (ii) one's qualifications and reputation within D, which can be derived from one's CV and professional position, and one's status within a community of peers, such as citations, impact factor, grants and awards, and reputation in general (e.g., Origgi 2019); (iii) one's argumentative skills,

including the ability to present evidence supporting one's judgments, the ability to distinguish between similar but not equivalent cases, and the ability to offer consistent judgments; and (iv) one's dialectical skills, including the behavioral reaction—in terms of smoothness, quickness, and confidence—one is able to offer to such challenges.

The proposed list of markers is far short of necessary and/or sufficient conditions for identifying experts. Though most scholars agree on track record as a key requirement, they have different takes on the other markers. For example, Grundmann suggests *the selection by the procedural standards of science*—including conditions about the required talent, training, critical thinking and character traits of its members, but also about science's openness to diversity, free competition, independent peer review—as the only consideration that makes it sufficiently likely that a member of the scientific community is a genuine expert. Collins and Evans (2007: 67) dispute the reliability of (ii), in that it unduly restricts the notion of expertise to professional roles, but include (vi) experience, which they define as the familiarity one has with the questions arising in D and the methods deployed to address them. Origgi and colleagues seem to agree with the aforementioned markers but would include one's *popularity*, intended as one's capacity to generate actions in other people (Branch, Morisseau, Origgi 2020).

As regards *honesty*, novices can at least be sensitive to negative markers or cues of misbehavior, such as conflicts of interests, plagiarism, cherry-picking data or misrepresenting views of other experts (Anderson 2011: 147). Anderson proposes a similar approach to the evaluation of the *epistemic responsibility* of experts: novices should be on the lookout for cues of blunt irrationality (e.g., sticking to views proven false), evasion of peer-review standards, and *epistemic trespassing* - the practice of passing along judgments in areas outside of expertise (Ballantyne 2019). Finally, *consensus*, where the opinions of a

putative expert are backed by a notable proportion of peers, gives lay people a good reason to consider this person an expert. Cues of a consensus among experts in a domain D include surveys of trustworthy sources within D, reviews of the available literature, and official reports by leaders and well-established institutions in D.<sup>vii</sup>

To conclude our analysis of the credentials problem, none of these factors, taken individually, ensures that a novice is in a position to individuate experts reliably; rather, at best a combination of these criteria—depending on the specifics of context under consideration—increases the likelihood that a layperson would successfully identify someone as a genuine expert. Our analysis has moved from the (esoteric) contents of expert testimony and the mode of communication of such contents to the trustworthiness of experts and the manifestation of character traits such as honesty. As noted above, the moral dimension of scientific expertise becomes particularly important where experts take part in informing policy decisions and take on a wider range of socio-epistemic responsibilities (Hardwig 1991; Rolin 2020). We will return to this point in the next section, when discussing the question of trust in experts.

### **3. A Question of Trust**

As we saw, epistemic dependence on experts is bound up with the question of trust. The peculiar form of trust at stake in discussing the relationship between experts and non-experts is epistemic trust or trust that applies to agents' beliefs and the reasons provided for their beliefs, rather than their actions (Hardwig 1991: 697). Epistemic trust in general, and trust in experts in particular, often take the form of testimonial trust, i.e. trusting what the experts tell the non-experts as well as the policies that are based on these

recommendations. The considerations offered in the previous section illustrated what kinds of indicators non-experts should look for to individuate whom is worthy of their trust. However, recognizing a trustworthy source is one thing, while trusting a trustworthy source is another. In this section, we inquire into the nature of the trust-attitude that non-experts should have towards experts.

Three main families of views—predictive accounts, normative accounts, and combined accounts (Dormandy 2020)—dominate current discussions of the philosophy of trust. Predictive accounts argue that to trust someone amounts to forming a positive expectation—if not a belief—that they will behave as agreed or required by the situation (Hardin 1993). Normative accounts, by contrast, argue that to trust someone involves expectations about how the trustee ought to behave (Holton 1994; Jones 1996; Faulkner 2007; Darwall 2017). In other words, trust presupposes a normative demand that the trustee will behave as expected because the trustor is not just predicting but also counting on the trustee to do so. A weak version of this view concedes that one can trust another while suspending judgment about the likelihood that they will behave as expected, but, does not concede that one can have negative expectations towards the trustee (e.g., Holton 1994). In contrast, the strong version of the normative account is compatible with negative predictive expectations, in that all it takes for one to trust another is to place normative expectations on their behavior and to be optimistic about their fulfillment (Jones 2004).

When it comes to trust in experts in the policy domain, it looks as though a purely normative account is a non-starter, in that such accounts concede that one can trust another even when one believes that the trustee will not act as agreed or expected. We can make sense of this account in the context of a relationship, say, between parents and

children, but surely it cannot apply to the domain of policy expertise, where no institution would request consultation from someone they consider unable or unwilling to deliver the requested outputs. To put it differently, there seems to be little room for *therapeutic trust* in the context of expert advice and policy making (Faulkner 2007; Nickel 2007).

The predictive account of trust fares better because it accommodates the intuitive idea that non-experts and institutions select experts to provide policy advice based on the aforementioned credentials, that is, based on a considered—and likely reliable—esteem that such experts are able and willing to fulfil their function. Crucially, they predict that the experts will deliver the expected results. Predictive expectations take numerous forms, ranging from placing a high degree of confidence in the information provided, relying on the information provided, ascribing credibility to sources of information (including the person testifying) and having justified expectation of accuracy, usually cashed out in terms of truth. What these kinds of predictive expectations have in common is their epistemic goal—namely the production of epistemic goods such as knowledge, justified beliefs, understanding, and inquiry (Grasswick 2020).

One reason we might want to go beyond a purely predictive view of trust, even in the policy domain, is that this view reduces trust to mere reliance (e.g., Goldberg 2020), where the latter—unlike the former—requires no commitment on the part of the trustee to display an appropriate reaction to the trustor's attitude. Yet, it could be argued that when non-experts and institutions put their trust in a policy advisor, they expect both that the trustee will act as predicted and that the trustee will do so because of a normative stance that the trust-relationship creates.

This normative stance can be cashed out in various ways. Some regard it as an expectation of the trustee's goodwill (Almassi 2012; Baier 1986; Cogley 2012 Frost-Arnold

2013; Wilholt 2013); others as a participant stance according to which the trustor treats the trustee as a person who bears responsibility for their actions (Holton 1994); others, finally, as a mere responsiveness of the trustee to the fact that the trustor is counting on them to act as expected (Faulkner 2017). Normative and affective expectations, unlike predictive ones, lead to feelings of betrayal and not just disappointment when the trust is broken (Baier 1986: 285). A plausible way to account for this normative dimension of a trust-relationship in the context of expert advice involves requiring that experts at least comply with the ethical and epistemic norms of scientific practice, or, that they display honesty, integrity, and the other moral-epistemic virtues we require from scientists.<sup>viii</sup> A willingness to act in the interest of the recipients of their advice is also seen as a feature of the integrity expected of the experts and such willingness is taken as an indicator of their benevolence (see Hawley 2017 for contrary view). These normative and affective expectations are the reassurances that we need in the face of the risks we take in trusting and justify the hope and confidence we place on those we trust. As we will see in the next section, not fulfilling such expectations is one of the reasons for the breakdown of trust in experts.

#### **4. The Breakdown of Trust**

Mistrust of experts is a source of socio-political concern and a topic of philosophical interest. This section briefly examines some of the reasons for withdrawals of trust from experts.

Mistrust of experts, like trust, has many sources and explanations. Trust can justifiably be withdrawn from experts who are judged to have made serious mistakes or have been dishonest, untruthful or biased. The legitimacy of these concerns, at least in principle, is acknowledged by experts and non-experts alike. But it is easy to imagine that adequate training, professional vigilance and public monitoring of the markers of intellectual *integrity*, as well as vigilance around the institutional norms governing the work of expert bodies—e.g. rigorous review mechanisms, political independence, etc. *could address* such concerns. Serious disagreement among experts is thought to have an impact on the perceptions of the trustworthiness of their advice, but the exact scope of this concern is in question (Dellsén 2018).

The question remains why large numbers of people reject scientific consensus on crucial issues like climate change (in the US) and vaccination (UK and US). Scepticism about expert advice in such cases rarely comes down to the details of the scientific evidence or the methodology scientists employ, but is linked to social, psychological and broadly normative considerations (Levy 2019).

Let us consider the psychological aspects first. At an individual level, traditional cognitive biases such as confirmation bias, desirability bias, and motivated reasoning obstruct trust-relationships whenever there is a clash of opinions between the expert and the lay person (e.g., Nichols 2017). At a collective level, the opportunity to establish immediate connections with people who share one's own worldview—typically online, via social media—makes novices prone to group polarization, that is, the tendency to take one's beliefs to extremes when participating in a group of individuals who share one's views (Sunstein 2017). Combining these factors, we can easily make sense of Kahan and colleagues' *cultural cognition thesis*, namely, that people tend to form beliefs about

societal risks and factual information that sustain their personal values, and *political motivated reasoning*, that is, the idea that people trust those experts who appear to share their values and distrust those who seem to hold diverging views (2010). The icing on the cake is offered by the *Dunning-Kruger effect* (Kruger and Dunning 1999), that is, the tendency of novices to overestimate their ability in a given domain; as Ballantyne (2019) and Brennan (2020) point out, this psychological phenomenon is particularly relevant in cases where laypeople seem unable to acknowledge who is epistemically superior in a given domain.

Socio-epistemic structures such as epistemic bubbles and echo chambers, which reinforce ideological exclusion in different ways (Nguyen 2018), strengthen psychological support for mistrust (see also chapters xx, xxx, xxx in this volume). Their combination leads us to increase in in-group trust and higher levels of distrust of outsiders regardless of their expertise.

A further, but no less threatening aspect, has to do with the suspicion, if not outright disdain, shown towards experts and their advice by populist politicians. The negative attitude of populist leaders towards experts is unsurprising. Populists wish to govern directly, establishing an unmediated, emotionally replete bond with the “real people”. Experts, with their evidence-based policy recommendations, aspirations of cool-headed objectivity, high educational achievements, and unabashed desire to be among the elite in their field, stand in stark contrast to the populist vision of politics and become ready targets of their ire.

Finally, there is the broader worry concerning the role of experts in democratic governance and the extent of their influence (Landemore 2017; Moore 2017). Briefly put, the question is not whether we should trust expert advice in particular domains, but



whether we should accept the prominent role given to experts in policy decisions. The worry is around a possible tension between the ideals of autonomy and freedom, embedded in the liberal democratic tradition, and the deference that lay persons are expected to afford experts. The point is not new—the problem was discussed by John Dewey (1917) in countering the journalist Walter Lippmann’s enthusiasm for the technocracy of a “bureau of experts” (See Heather Douglas’s chapter in this handbook) and was reiterated by Hannah Arendt who warned against the steadily increasing prestige of “scientifically minded brain-trusters” in the government councils (Arendt 1972: 108). The worry is that by trusting experts to guide our policies, in an important sense, we are not only relinquishing autonomy but also, contrary to democratic principles, we are accepting the authority of unelected persons and bodies.

Concern around the democratic deficit in experts’ roles has a strong ethical dimension. Naomi Scheman (2011) has argued that epistemic trust in scientists involves reliance on scientific institutions’ ability to take responsibility, not merely for epistemic justice, but more broadly for social justice. When the trustworthiness of scientists is understood to require goodwill towards those who are epistemically dependent on the scientists, scientists may lack trustworthiness in the eyes of marginal social groups even when they are honest and competent. The lack of trustworthiness may be due to historical connections between science and social injustices (e.g., past uses of science against the interests of particular social groups, the unjust underrepresentation of particular social groups within professional science, and the abuse of members of particular social groups in scientific research). As Scheman (2001: 43) argues: “It is, in short, irrational to expect people to place their trust in the results of practices about which they know little and that emerge from institutions -universities, corporations, government agencies - which they

know to be inequitable.” We also know that invocation of experts has not always been benevolent and included unwelcome examples such as the US administration’s reliance on expert psychological advice on enhanced interrogation tactics in the years 2002-2006 (Washington Post, October 13, 2017).

## **Conclusion**

Despite these concerns, it remains unquestionable that we need experts to advise our institutions, provide novices with manageable information, and facilitate epistemic progress. Proposed remedies to local or global breakdown of trust in experts, on the novice side, range from steps to enhance laypeople’s intellectual character—e.g. increasing their sensitivity to cognitive biases (Cassam 2019)—to suggesting changes in the infrastructures of social networks and other epistemic landscapes that obstruct trust-relationship between novices and experts (e.g., Rini 2017; De Cruz 2020). What is required of the experts, on the other hand, is greater transparency, intellectual humility and openness to direct public scrutiny—in other words, genuine efforts to prove their trustworthiness.

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<sup>ii</sup> Grundmann deploys the tools of network analysis, which starts “by giving a list of common platitudes about experts, and then proceed by checking whether the standard definitions of experts match these platitudes” (forthcoming: xx).

<sup>iii</sup> For a detailed study of use of experts in specific policy contexts see Owens (2015).

<sup>iv</sup> For an alternative presentation of the two problems, see Martini (2019: 119-120).

<sup>v</sup> For a discussion of the latter problem see, among others, Lane (2014); Dellsen and Baghrarian (2020 forthcoming).

<sup>vi</sup> See Johnston, Mills, and Landrum (2015) for empirical evidence partly supporting Anderson’s diagnosis.

<sup>vii</sup> Critical discussions of Anderson’s criteria for identifying experts are offered in Brennan (2020), Brown (2014), Guerrero (2017), and Lane (2014).

<sup>viii</sup> Those who do not buy into the combined account of trust may locate trust in the prudential, rather than moral, domain. There are distinct social, financial and personal advantages in being judged reliable and trustworthy (Frost-Arnold 2013: 302, Rolin 2020). “A self-interest account of trust shifts the focus away from an individual scientist’s moral and epistemic character to the social practices of scientific communities and the institutions of science. When the social practices and institutions of science are well-designed, there are incentives for scientists to behave in a trustworthy way, and prudential considerations are likely to ensure that they will actually do so” (Rolin 2020).