

THE VIRTUES NEEDED BY EXPERTS IN ACTION

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The current Covid-19 pandemic is illustrative of both the need of more experts and of the difficulties that can arise in the face of their decisions. This happens, we argue, because experts usually interact with society through a strongly naturalistic framework, which often places experts' epistemic authority (understood as neutrality and objectivity) at the centre, sometimes at the expenses of other pluralistic values (such as axiological ones) that people (often non-experts) cherish.

In this paper, we argue that we need to supplement such a strong naturalistic framework used to promote epistemic authority with a number of virtues -both intellectual and ethical- which include i. intellectual humility, ii. courage, iii. wisdom and cares, as well as iv. relational autonomy. To illustrate this claim, we discuss these ideas in the context of the Covid-19 pandemic and analyse a set of real-life examples where important decisions have been delegated to experts merely based on their epistemic authority.

We use the illustrative failures described in the case studies above-mentioned to call for a revision of current understandings of expertise (merely based on epistemic soundness). Specifically, we argue that in social contexts we increasingly need "experts in action"; that is, people with certified specialist knowledge, who can however translate it into practical suggestions, decisions, and/or public policies that are ethically more balanced and that ultimately lead to fairer, more inclusive, and more representative decisions.

Keywords: experts, virtues, epistemology, policy making



ДОБРОДЕТЕЛИ ДЛЯ ЭКСПЕРТОВ-В-ДЕЙСТВИИ

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С экспертами советуются и следуют их рекомендациям, особенно, когда дело идет о чрезвычайной ситуации. Современная пандемия COVID-19 иллюстрирует как важность экспертизы, так и то, что при принятии экспертами решений могут возникать трудности. Как мы показываем, это происходит потому, что эксперты взаимодействуют с обществом через сциентистскую сетку понятий, которая ставит в центр авторитет эксперта (понимаемый как объективный и нейтральный) за счет иных моральных ценностей, которые люди (часто неэксперты) также принимают в расчет.



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В данной статье мы обосновываем тезис о том, что необходимо дополнить преимущественно сциентистскую схему, используемую для обоснования эпистемического авторитета, набором добродетелей – как моральных, так и интеллектуальных, – которые включают в себя интеллектуальную скромность, мужество, мудрость, заботу, а также реляционную автономию. Чтобы проиллюстрировать это утверждение, мы анализируем два примера из реальной жизни в контексте пандемии COVID-19, где важные решения были делегированы экспертам исключительно на основании их эпистемического авторитета. Первый пример связан с политикой британского правительства во время первой фазы пандемии COVID-19 в начале 2020 г. Второй пример касается принятия решений по обеспечению пациентов аппаратами ИВЛ в законодательных актах и клинической практике.

Мы показываем, что характерные неудачи экспертов в рассмотренных ситуациях, указывают на необходимость ревизии существующего понимания экспертизы (основанной на принципе эпистемической обоснованности). В частности, мы утверждаем, что в социальных контекстах мы все больше нуждаемся в экспертах-в-действии, т.е. людях с сертифицированными специальными знаниями, которые, тем не менее, способны адаптировать это знание для принятия практических решений и реализации публичной политики. Экспертное сопровождение должно быть этически сбалансированным, чтобы способствовать более справедливому, инклюзивному и репрезентативным решениям. Мы обращаем внимание на то, что эксперты могут занимать ложно-нейтральную и ложно-объективную позицию, и считаем, что эксперты должны обладать определенными добродетелями, которые делают их более мудрыми с эпистемической точки зрения и более моральными – с этической. Эксперты-в-действии, как мы утверждаем, смогут эффективно взаимодействовать с другими гражданами, поиск эффективности и объективности будет соотноситься и с моральными ценностями.

Ключевые слова: эксперты, добродетели, эпистемология, принятие решений

Introduction: Experts in Action

Experts are consulted, and their recommendations are followed, especially when it comes to dealing with emergency situations. Indeed, it seems to be commonly accepted that, for a great part of our personal and collective experience, we should rely on experts, both on the cognitive and on the operative level. Obviously, there are different types of experts as well as various types of expertise, and the epistemic criteria characterizing different types of experts vary enormously [Lavazza, Farina, 2021].

For example, physicists can measure radioactive emissions with special instruments (such as the Geiger counter) and based on their knowledge, they can then tell or predict what level of radiation may destroy human biological tissues. In this situation, we have a clear case where



the knowledge applied to a particular phenomenon is as objective as possible. That is, it refers to standard experimental canons characterizing scientific endeavours and it is subject to hypothetical intersubjective verification. For obvious ethical reasons, it is not desirable to test the effects of radiation on humans. In this sense then, physicists are experts that can tell us when it is safe or recommended to approach a particular substance that emits radiation.

Doctors too are the bearers of a very specialized technical knowledge that is not readily available to most people and which we most often need for practical purposes. This knowledge is also based on scientific experimentations and its results are broadly applied to the treatment of alterations in the physiology of human bodies. However, this type of knowledge, given the particular epistemic status of biology, differs in the degree of objectiveness and epistemic certainty from the kind of knowledge we discussed above. More specifically, it differs from it because doctors' recommendations are subject to a greater variability of effects, the often-unpredictable responses of human's organism to treatments as well to a certain degree of interpretability and subjectiveness, which are intrinsic to the medical discipline¹.

Art historians can also be considered experts. This is because they also are the bearers of a specialized knowledge, which allows them – for instance – to attribute a certain work of art to one author instead of another. This type of expertise may have very relevant economic consequences for the value of the artwork at stake or even for the prestige of the institution that holds it. Think, for example, about the economic consequences that a local museum may face upon discovering – thank to the work of a brilliant art historian – that it possesses a masterpiece by Caravaggio instead of a painting from an anonymous painter. However, the knowledge of art historians is based on epistemological criteria that are not fully objective or scientific. This is because the judgement of an art historian has an ineliminable subjective component that does not emerge by simply following the principles of the scientific method; rather, it depends – quite heavily – on the credibility of the expert as well as on her personal authority, which is often established through previous positive assessments.

In each of the three cases we discussed, it is obvious that we are dealing with knowledge that is not readily available to most people (so with experts' knowledge), except in simplified and crystallized forms (introductory manuals). In this sense then, experts can be considered as epistemic agents [Palermos, Pritchard, 2016; Pritchard, 2009], people whose

¹ Physics too is interpretable, of course. For instance, think about the various interpretations of quantum mechanics. However, the degree of subjectivity involved in the analysis of most of its findings (such as the case we discussed) is significantly lesser than that observed in the medical practice.



opinions and inquiries are generally reliable and influential with respect to their relevant subject matter.

Recent works in social epistemology demonstrated how difficult it is to offer a universally accepted definition of a cognitive expert [Watson, 2018]. Yet, on the practical/pragmatic level, it is of paramount importance to be able to distinguish trustworthy subjects – who increase the epistemic welfare of their communities – from those untrustworthy individuals, who instead do not deserve our epistemic credit [Croce, 2019].

Alvin Goldman has been trying to settle this matter for more than 20 years [see 2001]. Goldman argued that “an expert in domain D is someone who possesses an extensive fund of knowledge (true belief) and a set of skills or methods for apt and successful deployment of this knowledge to new questions in the domain” [2001, p. 91] According to Goldman, the main function of an expert is thus sharing some knowledge for the benefit of someone else. Goldman’s view of expertise, although influential, has received some criticism.

For instance, Elizabeth Fricker [2006] – in critical reference to Goldman- developed an interesting and perhaps complementary notion of expertise. For Fricker, ‘S is an expert about P relative to H at t just if at t, S is epistemically well enough placed with respect to P so that were she to have, or make a judgment to form a conscious belief regarding whether P, her belief would almost certainly be knowledge; and she is better epistemically placed than H to determine whether P’ [2006, p. 233]. Thus, an expert, at a minimum, is an individual who is epistemically placed with respect to a proposition P in such a way that any beliefs she will form about that proposition P will be more likely true than not true.

We do not have the space to engage further with the relevant literature in social epistemology and hence explore the important ramifications of this definition of an expert; however, this brief discussion is instrumental in the economy of this paper because it allows us to set up the stage and introduce our own definition of “experts in action”.

“Experts in action are individuals with above average knowledge, certified and achieved in the most objective and repeatable way possible, in a specific field, who use their skills and methods to translate this knowledge into decisions, actions, or suggestions for decisions (or actions) that concerns a community larger than that of the experts themselves”.

We believe that the recent Covid-19 pandemic has brought to the fore aspects characterizing the notion of expertise that deserve renewed attention, which potentially bear promise for formulating and outlining an improved and – perhaps – more complete understanding of the notion of expertise as a sociological, ethical, and epistemological concept. During the current pandemic in fact, quite often epistemological, ethical, and even socio-political features have entered in conflict or have given rise to



dilemmas (more on this below) that proved to be hard to solve within classical regulatory frameworks, such as those deployed in normative epistemology [Lavazza, Farina, 2020; Farina, Lavazza, 2020; 2021b].

Experts in Actions and Axiological Values

Consider first as an illustration of such a clash the health policy adopted by the British government in the very first phase of the Covid-19 pandemic, at the beginning of 2020. The political authorities, based on experts' recommendations (that is, health advisers and epidemiologists in office at that time), adopted an approach known as herd immunity [Fine, 1993]. This is the idea according to which a virus that is not excessively lethal is allowed to spread uncontrolled in the population, until most people develop antibodies and the virus itself disappears or almost disappears because it does not find new hosts to proliferate in. This health policy strategy can work when there is adequate care for sick people and hospitals are equipped to receive and treat all those who need it.

Most health systems, however, found themselves utterly unprepared to fight against the SARS-CoV-2 virus at the beginning of 2020. There was no effective treatment for hospitalized patients and since the virus spread rapidly among large swathes of society, hospitals had very serious difficulties in admitting and caring for all those patients suffering from severe forms of respiratory failure. In this context the British government's decision was strongly contested [Horton, 2020] because it risked causing thousands, if not tens of thousands, of deaths among the most fragile and least protected sectors of society (such as the elderly and medical personnel). It was only after many experts and the public opinion persuaded by them demanded a change, that the prime minister overturned the health strategy, imposing non-pharmacological interventions (such as the closure of commercial activities and sporting events) to contain the spread of the infection [Pietrini, Lavazza, Farina, In Press].

Another socially controversial element concerning some experts' suggestions during the Covid-19 pandemic concerns decisions regarding the allocation of care and emergency relief interventions (such as intensive care units), in both state laws and regulations and in clinical practice. For example, the UK Mencap charity denounced that "throughout the pandemic many people with a learning disability have faced shocking discrimination and obstacles to accessing healthcare, with inappropriate Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) notices put on their files and cuts made to their social care support"².

² <https://www.theguardian.com/world/2021/feb/13/new-do-not-resuscitate-orders-imposed-on-covid-19-patients-with-learning-difficulties>(last accessed September 2021).



Similarly, in the United States out of 36 states that made their criteria known, a dozen explicitly mentioned considerations regarding intellectual capacity among various other conditions that could lead to a lesser recognition of disabled people's rights to care as opposed to other patients³. In the Alabama guidelines, for instance, it was claimed that "persons with severe intellectual disability, advanced dementia or severe traumatic brain injury may be poor candidates for ventilator support"⁴; and that "persons with severe or profound intellectual disability, moderate to severe dementia, or catastrophic neurological complications such as persistent vegetative state are unlikely candidates for ventilator support".

These medical protocols were made either by experts (hospital doctors) or by lawmakers based on experts' advice. Generally, these are decisions that fall within a perspective believed to be "neutral" with respect to values, uniquely based on objective data, and poised to enhance efficiency and effectiveness; that is, such guidelines can be understood as objective and neutral procedure to follow when experts are called upon to deal with complicated issues that affect the overall well-being of society.

Specifically, the two cases we mentioned above sparked a wide debate, protests and even requests for changes in the policies adapted, so that new rules with respect to allocation of care and emergency relief interventions were adopted by the political decision-makers. Crucially, these are not cases in which experts have been challenged as such or from an epistemological point of view; but examples of scenarios in which the epistemic authority of experts was challenged in practice, in its specific application. These two cases are particularly instructive, we believe, because they afford us the possibility to describe our proposal for a revised normative model of expertise that takes into account considerations of virtue epistemology and of virtue ethics [Farina, Lavazza, 2021a].

Before we go on to make our proposal more explicit, we would like to clarify an important point. Our discourse does move on a different level than that of denialism and distrust of experts and of their knowledge [Nichols, 2018]. This phenomenon, which is very worrying and widespread in Western countries these days, seems to be 'justified', mainly, by two types of reasons.

The first is linked to a devaluation of intellectual activity and research, which do not have immediate practical consequences. As such, such activities (involving purely cognitive elements of inquiry) are disqualified as substantially useless and mainly seen as functional to create an elite that can benefit from privileges and aspire to direct and govern the lives of other people, thanks to a scarce asset that only the

³ <https://www.nytimes.com/2020/03/31/us/coronavirus-covid-triage-rationing-ventilators.html>(last accessed September 2021).

⁴ <https://int.nyt.com/data/documenthelper/6846-alabama-triage-guidelines/02cb4c58460e57ea9f05/optimized/full.pdf#page=1> (last accessed September 2021).



elite possesses, precisely that specialist knowledge that most people do not master.

The second kind of reason underlying expertise denial is typically connected to the assumption that everyone in today's world may be able to get and use specialist knowledge, thanks to the widespread accessibility of digital media. It does not seem a coincidence that there is an increase in the Dunning-Kruger effect [Dunning, 2011]; the cognitive distortion due to which individuals with little expertise in a field tend to overestimate their abilities and consider themselves experts, while according to objective criteria they are not. As a result, incompetent people often tend to invade public debate with an arrogant and closed-mind attitude, which prevents awareness of one's ignorance and the acquisition of new and real skills.

The growing complexity of post-industrial societies, based on knowledge economy, increasingly divided into areas in which specialized skills are needed to navigate successfully and not end up on the side-lines, is not extraneous to this dynamic. For instance, strong feelings of no longer having control over one's life, primarily in the context of work, are widely experienced these days. Such feelings directly feed on this growing complexity of post-industrial societies and are well known factors that cause revolts against experts and their alleged positive role in society. This typically happens because experts are deemed to be responsible for the tendency to put specialized skills as barriers to prevent people from acquiring the knowledge and skills they may need, hence are blamed for creating some very advantageous positions only reserved for a minority, an elite, those alike them.

The Epistemology of Experts in Action

In their action, experts typically rely on naturalism, which is a theoretical framework that can be reasonably used to describe experts' role in society. Naturalism is a broad church and many different definitions have been proposed to characterise it [Papineau, 2007]. Here we wish to rely on a strong definition of naturalism, according to which "naturalism is a species of philosophical monism according to which whatever exists or happens is natural in the sense of being susceptible of explanation through methods (...) paradigmatically exemplified by the natural sciences" [Danto, 1967, p. 448]. And these methods and explanations are, or should be, strictly empirical. As a consequence, naturalism also implies that "scientific inquiry is, in principle, our only genuine source of knowing or understanding. All others alleged forms of knowledge (e.g., a priori knowledge) or understanding are either illegitimate or are reducible in principle to scientific knowing or understanding" [De Caro, Macarthur,



2010, p. 4]. Therefore, for naturalism, any acceptable explanation can in principle be traced back to as scientific explanation.

In this context, an expert in action – by exploiting naturalism – may refer to some objective, or scientific (naturalist) knowledge that may not be shared or clash with some values that the community (or part of it) with which the expert interacts may deem to be defended with different degrees of priority. The two cases presented above, which occurred during the Covid-19 pandemic, clearly indicate how apparently neutral and objective decisions can achieve a shared goal – in that case overcoming a health emergency – in ways that, however, may sacrifice some other values or objectives considered, by some or many, to be equally worthy of protection. In these two cases, the objectives involved were the safeguarding of the greatest number of lives and the protection of physically and cognitively disabled people. The adoption of this form of naturalism often implies the adoption – albeit often implicitly – of a naturalized Quinean epistemology.

Epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science. It studies a natural phenomenon, viz., a physical human subject. This human subject is accorded a certain experimentally controlled input – certain patterns of irradiation in assorted frequencies, for instance – and in the fullness of time the subject delivers as output a description of the three-dimensional external world and its history. The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology: namely, in order to see how evidence relates to theory, and in what ways one's theory of nature transcends any available evidence... But a conspicuous difference between old epistemology and the epistemological enterprise in this new psychological setting is that we can now make free use of empirical psychology [Quine, 1969, pp. 82–83].

According to Quine, naturalism entrusts normative epistemology to science. In other words, natural science tells us that information about the world comes solely from physical impacts on our sensory receptors. This claim is normative, since it makes us distrust those who state to do – for instance – divination or telepathy. If a more technical normative content is requested than pure sensory inputs, we can resort to mathematical statistics. However, these epistemic norms, according to Quine, always remain at the level of science [cf. Quine, 1990]. In this sense, experts refer to science and to its method and put into practice an epistemology that sees a justified belief as that belief that has been produced through a reliable method. A reliable method, from the perspective of science, is the method that has a high probability of generating true beliefs. A justified belief can thus be defined as a belief causally supported by another belief, where the propositional content of the first makes the propositional



content of the second more likely true than false. So, the normative question of what we should believe is interpreted in the scientific terms of causality and probability [Canseco, 2012].

It is mostly, as mentioned, a naturalized epistemology on the basis of a shared but not precisely defined scientific method, which is recognized above all by its practical success. Experts are therefore those who advance practical knowledge in their field and are called upon to give suggestions on how society should apply specialist knowledge in specific contexts that are not those of pure research. In the first section of this paper, we distinguished three types of experts whose expertise can be singled out based on the degree of naturalism they resort to. In this sense, art historians and other researchers who fall into the same category are the least involved in the possible conflict between epistemological criteria, application of the scientific method, and social values. Physicists' and doctors' knowledge is significantly more dependent upon naturalism. However, the distinction is quantitative and not qualitative, and a difficult one to draw because experts are by definition bearers of a knowledge that – at least partially – refers to scientific objectivity.

Yet, when a conflict arises between the recommendations of experts and the values or goals of society, a way to settle the disagreement ought to be found. If the disagreement persists, there is a risk of fuelling distrust of experts or endorsing decisions that are not based on evidence and can be highly inefficient or even dangerous.

Virtue Epistemology and Ethics for Experts in Action

For this reason, we believe that it is possible to resort to some basic tenets of virtue epistemology and virtue ethics to construct an improved normative model of expertise in action; one that can overcome the dilemma raised by naturalism, which we described above. In particular, one can think of improving and refining the *de facto* naturalized epistemology that experts in action bring to the public arena with some epistemic norms and ethical values to make experts' recommendations no less scientific but more compatible with the pluralism required and needed in contemporary liberal societies.

A general tendency of virtue epistemology is “to view intellectual agents and communities as the primary source of epistemic value and the primary focus of epistemic evaluation. This focus includes not only individuals and groups, but also the traits constitutive of their cognitive character (...). Virtue epistemology explains a cognitive performance's normative properties in terms of the cognizer's properties, such as whether a belief results from hastiness or excellent eyesight, or whether



an inquiry manifests carelessness or discrimination” [Turri, Alfano, Greco, 2019].

In this sense, some specific virtues seem suitable for supplementing the epistemology of experts in action. Intellectual humility is, we believe, one of such virtues. Intellectual humility can be defined as the “disposition not to adopt epistemically improper higher order epistemic attitudes, and to adopt (in the right way, in the right situations) epistemically proper higher order epistemic attitudes” [Hazlett, 2012]. As many authors before us noticed [e.g., Roberts, Wood, 2007] intellectual humility has both a personal and social character or dimension.

At the level of the single cognitive agent, intellectual humility can be a motivating trait or factor that may lead to re-evaluate one's own beliefs in light of available evidence. So, it can be argued that intellectual humility can allow experts to better familiarize with findings (such as findings on psychological mechanisms involved in cognitive processes; cf. [Samuelson, Church, 2015]) that help them relying less on automatisms that are perhaps heuristically suitable when judging things in their own specialized field, but which can be misleading when the expert must translate and apply her knowledge to a complex, socio-cultural context. Furthermore, intellectual humility, when making a relevant judgment, also forces one to consider, assess, and take into account the many cognitive limitations that each of us inevitably manifests. In addition, intellectual humility in reducing experts' confidence in their own cognitive abilities invites them to seek further confirmations for their ideas/proposals – for instance – in the evaluation and critical appraisal of other cognitive agents' abilities.

Christen, Alfano and Robinson [2014] characterised a cognitive agent endowed with intellectual humility with three important attributes. These are: i. being “sensitive”; that is, open to new ideas and ready to embrace them responsibly; ii. being “inquisitive”; that is, willing to look for new views and hypothesis driven by curiosity and exploration skills; iii. being “discreet”; that is, open to other cognitive agents without pretentiousness, especially in cases where there is disagreement.

This third virtuous attitude is particularly important on Christen et al.'s account because it is pitched in opposition to the vices of underrating other cognitive agents and overrating themselves. This virtuous attitude thus acts as a bridge between intellectual humility at a personal level and that kind of humility, which is typically manifested at the social level.

Roberts and Wood [2007] also praised the many virtues of intellectual humility and defined it in opposition to intellectual vices (such as arrogance or vanity), which they describe as “striking or unusual unconcern for social importance, and thus as kinds of emotional insensitivity to the issues of status”. An expert in action, if she wants to cultivate the virtue of intellectual humility at least, should thus realistically consider her own status and her own social importance, especially in the context in which she is temporarily or provisionally considered as an expert. She should



therefore confront herself with the pre-existing knowledge in that specific domain and evaluate how such a knowledge can stand or relate to others' knowledge, thus enhancing the epistemic status of the specific field. However, if the expert in action wishes to become a virtuous cognitive agent, she cannot ignore other virtues, beyond intellectual humility. In other words, intellectual humility is not sufficient per se to become a virtuous cognitive agent.

Another relevant virtue, that an expert in action (so a cognitive agent) must possess, is courage [Alfano, 2013; Medina, 2013]. In the public sphere, this virtue serves to resist attempts to streamline disagreement and align it with mainstream interpretations as well as to escape any pressure towards a single epistemic point of view, imposed by authorities or by social norms motivated by political, ideological, economic, or religious reasons. In the specific case of experts in action during the Covid-19 pandemic, this sort of epistemic courage could be observed in i. attempts to counter any strategy implemented by governments to reach herd immunity or ii. mass protest to counter discrimination in treatment against disabled people. In the first case, it could be argued that the majority of scholars were sceptical about the possibility of achieving herd immunity. Thus, the experts had to contradict the political authorities by showing them some courage. This sort of courage is what allowed experts to reaffirm their knowledge and values, even when those on power threatened to silence them. This type of courage is a specific kind of a courage that is aimed at defending scientific truth.

An important concept that lies at the edge between virtue epistemology and virtue ethics – the concept of justice – can act as a bridge between the virtues that should characterize an expert in action. Epistemic justice [Fricker, 2003; 2007; Medina, 2013] mainly concerns the field of testimony and can be applied to situations where the credibility of marginalized and less privileged people is systematically underestimated and the credibility of other, more powerful, subjects is – on the contrary – overestimated. In the case we discussed above involving those individuals with learning disabilities (and those who defend their interests) with respect to access to life-saving care, there was certainly an epistemic underestimation of their requests, while there was an initial overestimation of the judgment of some experts. This judgment prevailed until other epistemic agents entered the field, fought it back, and eventually overturned the epistemic injustice.

However, in this case it would probably be reductive to talk only about epistemic virtues, because equally relevant are the ethical virtues that can play an important role for experts in action in a pluralistic society [Foot, 2002; Crisp, Slote, 1997; Hursthouse, 1999]. *Phronesis* or practical wisdom or prudence is one of such virtues, and possibly the one that is most needed when specialized knowledge is to be applied. Aristotle [1954] defined *phronesis* in the *Nicomachean Ethics* as “a true and reasoned



state of capacity to act with regard to the things that are good or bad for man” [1140b5]. However, *phronesis* is not “a knowledge of general principles only: it must also take account of particular facts, since it is concerned with action, and action deals with particular things” [1141b].

MacIntyre [1981] stressed the difficulty of predicting human behaviour exclusively on the grounds of scientific theories or instruments and emphasised the importance of practical experience if we want to achieve an effective knowledge of human beings and of their affairs (which is the ultimate goal of experts in action, insofar as their intervention is aimed at making people flourish – albeit indirectly). With respect to this point, Hacker-Wright [2015] also maintains that “any candidate for practical wisdom must take into account very general facts about human beings; these facts shape what counts as good practical reflection, not because human nature is intrinsically normative, but because it is part of the inevitable background against which we understand ourselves”. This *phronetic* approach linked to virtue ethics has been translated into social science [Flyvbjerg, Landman, Schram, 2012], economics [Rindermann, 2018] and medical ethics [Kristjánsson, 2015].

In comparison to virtue ethics, deontological metaethics is firmly anchored to principles (categorical imperatives) that do not admit exceptions. Thus, when it comes to specific normative prescriptions, following Kantian metaethics, one may well end up adopting a moral vision that may not be shared by the whole (or the majority) of society. If a consequentialist metaethics (one that is perhaps more in keeping with the naturalized epistemology of experts in action we described above) is adopted, one would probably end up issuing moral judgments based on aggregate welfarist calculations of costs and benefits that in certain circumstances, as in the case of disabled people, produce consequences that are not morally or ethically acceptable, for at least part of the society. In this sense then, *phronesis* or practical wisdom, understood as the ability to make the experience of human life and human beings one's own and to understand which elements of situation are the most important from a moral viewpoint, is the best option on the table as it allows one to move respectfully and with flexibility in a society, which is pluralistic both in terms of sensitivity and values [Hursthouse, Pettigrove, 2018].

Ethical virtue as a disposition to be a certain person and act in a certain way can surely be flanked by the epistemic virtues we outlined above, so as to complete the ideal character of an expert in action. This set of epistemic and ethical virtues combined together will help providing the best service to society when the expert has the goal to use her specialized knowledge to solve a problem or formulate some public policies. This is because the expert, who is generally only guided by the naturalistic approach that guarantees her a presumptively neutral epistemic authority (as we have seen above), can often end up favouring non-neutral outcomes that damage or displease parts of society the expert should instead serve.



It can therefore be argued that an improved normative conception of experts in action (such as the one we proposed here) will be more oriented towards a responsible conception of virtue, according to which the intellectual virtues are understood not as reliable faculties, but as an excellent trait of character that contributes to the active and intentional search for truth, or at least, for the best knowledge available. It is not surprising that Zagzebski's responsibilism [Zagzebski, 1996] strongly refers to Aristotle's model of ethical virtues, and defines virtues as traits of character that must be cultivated through education and the continuous execution of virtuous acts [Croce, 2017].

Furthermore, the epistemic virtues considered (intellectual humility, courage, and epistemic justice) make the individual adopting them morally better. As noticed above, open-mindedness, intellectual perseverance and courage require an intentional action of the subject other than the automatic use of perceptual skills and place the agent who possesses such traits in a better position when it comes to moving in specific epistemic environments. For example, this stance will be epistemically beneficial in environments where there is a strong tendency to follow interpretations advocated by socially dominant groups or established scientific paradigms that are extremely difficult to challenge.

Thus, the phronetic approach we described here, in pushing the traditional boundaries of epistemology, allows us to focus on the flourishing of the individual, on the interactions between moral and epistemic virtues as well as on the complex dynamics underlying intellectual goals, processes, and epistemic practices.

Conclusion

The epistemic and ethical model of expertise in action which we proposed can (due to lack of space) only be preliminary sketched out here. However, its crucial tenet is that a bearer of certified specialist knowledge (an expert), which she acquired mainly with an implicit naturalistic methodology, must be open and humble to embrace and integrate – with intellectual perseverance – additional normative and axiological traits, when needed. She must also possess the courage to pursue epistemic justice. More generally, the expert must pursue excellent traits of character that may contribute to the active and intentional search for truth, or at least, to the formulation of the best, most inclusive, and fairest decisions possible [Farina, Lavazza, 2021a]. These traits are – in our opinion – the traits that experts in action need to successfully operate in a pluralistic society. Thus, such traits seem necessary and quintessential elements that must be in place to allow an expert in action's contribution to be more easily valued, shared, and accepted.



Our contribution in this paper was to highlight how experts can be bearers of a falsely neutral knowledge and therefore should necessarily equip themselves with those virtuous traits that can make them wiser from the epistemic viewpoint and more ethical, from the moral viewpoint. This kind of expert – we have argued – may end up being more capable of interacting positively in a pluralist society, without creating tensions or divisions due to choices and decisions that are presented as aimed only at effectiveness and efficiency, but which might be not neutral with respect to their axiological value.

Thus, in our view, epistemic and moral virtues complement each other without limiting each other. In accordance with our definition of expertise in action, the expert should advise or decide on the basis of her knowledge, which is gained through the cultivation of epistemic virtues. However, the expert in action should also translate their knowledge into actions, guided by moral virtues, which are sort of preconditions for fairer and more representative choices and decisions. Obviously, in any decision-making process that involves experts in action, these two stages can be often distinguished only theoretically or analytically and therefore these two kinds of virtues practically end up acting together, each though, in their specific domain.

Supplementing the quasi-naturalized epistemology of experts in action with a set of moral and ethical virtues can also prevent creating a mistrust and a rejection of their specialist knowledge, seen as a technocratic imposition to the detriment of values cherished by specific groups of citizens. This seems important because a virtuous expert in action can also be a barrier to growing expert denialism.

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