

Citizenry incompetence and the epistemic structure of society¹

Incompetência cidadã e estrutura epistêmica da sociedade

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ABSTRACT

The epistemic structure of society, with its division of epistemic and cognitive labour, can help us deal with the citizenry incompetence threat that many contemporary conceptions of democracy suffer as long as a certain intellectual character is possessed by the citizens.

Keywords: expert testimony, collective deliberation, intellectual virtue, democracy.

RESUMO

A estrutura epistêmica da sociedade, com sua divisão do trabalho epistêmico e cognitivo, pode nos ajudar a lidar com a ameaça da incompetência dos cidadãos que muitas concepções contemporâneas de democracia sofrem, desde que um certo caráter intelectual seja possuído pelos cidadãos.

Palavras-chave: testemunho de especialistas, deliberação coletiva, virtude intelectual, democracia.

Introduction

In this paper I argue that the epistemic structure of society, more particularly, part of its division of epistemic and cognitive labour, can help us deal with the citizenry incompetence threat that many contemporary conceptions of democracy suffer as long as a certain intellectual character is possessed by the citizens.

In what follows I introduce part of what I call the epistemic structure of society by focusing first on expert testimony as an instance of the division of epistemic labour. It is noted that this division of labour promotes knowledge illusions which stop us from taking advantage of it and which can be counteracted by means of the intellectual virtue of humility. Next, collective deliberation is introduced as an instance of the division of cognitive labour and its potential benefits appreciated. The intellectual virtue of autonomy which plays a key role in realizing that potential is introduced and it is noted that both virtues are required to take advantage of the divisions of labour considered. Finally, the citizenry incompetence threat that main contemporary conceptions of democracy face is introduced and it is noted that expert testimony and collective deliberation

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help us deal with the epistemic and cognitive limitations that such threat exploits, as long as the appropriate intellectual character is possessed.

Expertise and the epistemic structure of society

Reliance on the expertise of others is a pervasive feature of modern life. We live in societies with hyper-specialized knowledge, which distribute the epistemic work among different people. Moreover, given that no one can know everything (or that much, for that matter) and given our social and cooperative nature, we would expect such reliance on experts.^{3,4} But this dependence requires some epistemic vigilance or monitoring with regard to both the selection of the source (say, a putative expert) and the acceptance of the content testified, since people can and sometimes do deliberately mislead us (say, due to interest) or can be wrong (say, due to unrecognized incompetence or mere fallibility).⁵ Of course this monitoring has its complications when dealing with putative experts given the layperson's substantial ignorance regarding the

domain of expertise and in particular when putative experts disagree among themselves, as they sometimes do (Goldman, 2001; Coady, 2012). However, learning to epistemically monitor testimony⁶ is of course a more manageable problem than having to learn various different fields of knowledge. So it's desirable to learn the relevant skills, attitudes and dispositions for the successful monitoring of testimony.

However, at least since Descartes, the focus on epistemology (in part of the Western tradition) has been very much on the individual. Descartes takes an extreme version of epistemic autonomy as a fundamental epistemic value.⁷ For Descartes, it's only one's own epistemic achievement that can render some belief knowledge, and only for oneself: knowledge is a personal feat. The Cartesian ideal of autonomy (metaphorically, that the individual epistemic agent ought to stand on her own epistemic feet⁸) that lies behind this picture is what seems to motivate the individualism adopted by the tradition. Descartes sets out the view that knowledge can be achieved only if one isn't influenced by traditions or the community (Descartes, 1984, AT VI 9, 17): knowledge requires autonomy as absence of external interference. And traditional analytical epistemology remains since then firmly individualistic in this Cartesian way.

³ Minimally, a genuine expert (and not merely a putative one) has at her disposal an extensive and integrated body of specialist knowledge, relating both to facts and relevant methodologies. An epistemic authority has some knowledge that the receiver of testimony seeks but needn't be an expert (cf. Zagzebski, 2012, p. 109). For example, someone might be an epistemic authority for one with regard to some particular topic within some field simply by having attended a relevant talk on it. An expert, although an epistemic authority, possesses a significantly greater store of knowledge about the relevant subject matter than most people (in one's community). Moreover, some non-comparative threshold of knowledge must be possessed, as well as the capacity to form true beliefs for new questions which may be posed within the subject matter (Goldman, 2001; cf. Coady, 2012). So the expert is clearly the epistemic superior of a layperson (on the area of expertise).

Now, as any philosopher knows, it's very difficult to say what knowledge is. Fortunately, we don't need, for present purposes, to attempt to do so. However, let me note that one can find in the literature two senses of knowledge: *weak* knowledge understood as true belief and *strong* knowledge understood as true belief plus some further epistemic conditions (Goldman 1999).

⁴ More generally, we would expect reliance on any epistemic authority. It seems that we have a fundamental need for truth in order to negotiate our environment successfully: a universal and inescapable need that is part of our nature (e.g. Dretske, 1989, p. 89). One's behaviour is partly based on one's beliefs, so if one's beliefs are false then one is more likely to act in ways that undermine one's goals (e.g. one's false belief about sedentariness not causing health-related problems undermines one's attempt to preserve one's health). Moreover, there is no denying that we are inherently social creatures: we live in social groups in which we form strong relationships and coalitions and, importantly, cooperate with each other (e.g. Bowles and Gintis, 2011). So in a socially interdependent lifestyle the other members of the community can be sources of truths, which would be particularly beneficial for one in those cases in which they enjoy some "positional advantage" and/or expertise which one doesn't (one enjoys a positional advantage when one is better positioned, spatially and/or temporally, to find out whether *p*—Williams, 2002, p. 42). That is, given our nature, our need for truth can be more effectively addressed by the pooling of truths within the community (that is, by the gathering of truths from others: having a testimonial practice), as well as using our "on-board" capacities (Craig, 1990, p. 11; see also Williams, 2002). This seems a plausible (but not uncontroversial) explanation as to why, given our nature, there is a ubiquitous testimonial practice. But, of course, not much hangs on the truth of this explanation. What matters, for present purposes, is that the practice is a natural and universal one and, as we'll see, a significant part of the epistemic structure of society.

⁵ This vigilance toward the source and content of testimony is widely accepted as a normative condition for the legitimate acceptance of testimony (see e.g. Welbourne, 1986; Fricker, 1987; Coady, 1992; Audi, 1997; cf. Burge, 1993). Moreover, since testimony (from experts and otherwise) is advantageous to human beings but makes them vulnerable to misinformation, there is strong pressure for developing a suite of mechanisms for the epistemic monitoring of defeating conditions (regarding both rebutting and undercutting defeaters—Lackey, 2008, p. 44). Indeed, developmental psychologists have begun to provide evidence that children, already at a very young age, engage in this monitoring of their interlocutors (e.g. Brosseau-Liard et al., 2014; see also Goldberg, 2007, p. 201-203).

⁶ That is, to discriminate between trustworthy and untrustworthy sources (including experts and other epistemic authorities) and plausible and implausible contents.

⁷ This can be seen as a reaction to the intellectual crisis of his times. Given the fall of the Textual Tradition in the 16th Century and of the Aristotelian Science in the 17th Century, many thinkers of this period were particularly wary of the testimonial practice.

⁸ Better put, a given belief can only have a positive epistemic status for its possessor if such status is achieved through the possessor's epistemic capacities (e.g. perception, memory and reason).

But one overlap between (much) contemporary social and feminist epistemology is their emphasis on the importance of the social/communal aspects of knowledge-yielding practices, *contra* Descartes (De Brasi, 2017). For them, a solipsistic knower is implausible: there is no viable “Robinson Crusoe” conception of knowledge.⁹ The main focus of dissatisfaction with traditional epistemology derives from its neglect of our epistemic interdependence. But taking this dependence seriously is not just a matter of recognizing our testimonial dependence, but also the more complex practices of interdependence found in our *division of epistemic and cognitive labour* that aren’t reducible to transmitting knowledge or some other epistemic good.¹⁰ It’s a mistake to take information sharing as exhausting the forms of epistemic dependence to which our beliefs are subjected (Goldberg, 2011; Pritchard, 2015; Townley, 2011). In fact, in epistemic communities, members not only share information but also act as exemplars, co-operators and trainers, among other things. Some are exemplars and mentors for me as a knower; some enable me to fine-tune and improve my epistemic standards and practices; some assist each other generating and calibrating their arguments and reasons for beliefs.

So our epistemic reliance on others needn’t be limited to instances in which one exploits an inter-personal knowledge-yielding procedure, such as testimony. It can be, and it is (e.g. Aikin and Talisse, 2014; De Brasi, 2015a; Mercier and Sperber, 2017; Simon, 2015; Wagenknecht, 2017), much more pervasive. In fact, what we could call the *epistemic structure of society* with its range of social and institutional arrangements, including (importantly for our purposes) its division of epistemic and cognitive labour, doesn’t require the teaching of all the facts to everyone and people thinking only on their own.¹¹ Given our social and cooperative nature, one would expect some such structure to be in place in order to help us overcome the epistemic and cognitive limitations we have (e.g. De Brasi, 2015b; Kitcher, 2011).¹² So, in the case of experts (and other epistemic authorities), they are there to be exploited to overcome our ignorance. To ignore expert advice is simply not a realistic option, at least due to the fact that no one can know everything (or much) and the hyper-specialization found in modern societies. Each one of us is ignorant (or has very little knowledge in relation to experts) about many different domains of knowledge. But this (partial) ignorance isn’t malign given the division of epistemic labour, where each

⁹ Relying on others seems to be cognitively fundamental for beings like us (Burge, 1993—more on this below). So any investigation into human knowledge should be at odds with this Cartesian ideal and its accompanying individualist framework. See also Kvanvig (1992, p. 177-178); Sosa (1991, p. 190); Welbourne (1986, p. 83).

¹⁰ I understand the *division of epistemic labour* as the distribution, across people, of cognitive work to separately and unidirectionally perform distinct epistemic tasks required for some positive epistemic status. For example, in testimony, the speaker and the hearer perform different but complementary tasks (i.e. competent inquiry and legitimate acceptance, respectively) in order for the hearer’s testimonially-based belief to be justified or knowledge. Having said that, it would be a mistake to think that the division of epistemic labour merely concerns the *transmission* of some epistemic good (more on this immediately below). This division can take place, for example, with regard to the epistemic norms or procedures that one exploits (De Brasi, 2015a). Nevertheless, below I’ll focus on the (less controversial) knowledge-transmission aspect of the division of epistemic labour. I understand the *division of cognitive labour* as the distribution, across people, of cognitive work to jointly and bidirectionally perform a given epistemic task required for some positive epistemic status. For example, in deliberation of the interpersonal form, the interlocutors exchange and evaluate reasons and arguments in order to acquire some epistemic good, e.g. knowledge about some issue (the phenomenon is properly introduced in § 4). In this natural and ubiquitous sort of deliberation, the interlocutors are jointly tackling the same epistemic tasks. Here I focus on this sort of divided but joint production of epistemic goods via deliberation, which is found in much collaborative work (from hunting decisions to scientific research; see e.g. Mercier and Sperber, 2017; Wagenknecht, 2017).

¹¹ These divisions of labour are two central social arrangements of the epistemic structure of society, which are instantiated across society including in its many epistemic institutions (such as science—where both divisions of labour can be very easily appreciated) and which seem to occur in every society. Some appreciation of this organization is shown quite early in childhood (see e.g. Lutz and Keil, 2002; Keil, 2006; Keil *et al.*, 2008). Moreover, according to some (e.g. Mercier and Sperber, 2017, p. 283-284), reason evolved to function in an *interactive* back-and-forth (indeed, bands of hunter-gatherers make group decisions based on public deliberations). So these divisions of labour seem to be very important (indeed, the idea that the division of labour is necessary for a society to be productive isn’t new—e.g. Durkheim, 1997) and natural facets of the structure of society. Another significant and universal social arrangement of the structure is the educational one (e.g. Heyes, 2018; Sterelny, 2003; Zawidzki, 2013), accompanied, in many cases, of its various formal and comprehensive educational institutions, such as the primary, secondary and tertiary ones. In what follows, I focus on two particular (widely recognized) aspects of the epistemic structure of society (and so I don’t here present a full description of it—which would anyway require a sociological study): namely, our testimonial and deliberative practices. This specific focus on transmission of epistemic goods and production of them via deliberation (which are instances of the division of epistemic and cognitive labour, respectively; see fn. 10) is enough to show, together with certain character education (required for exploiting them, as I’ll argue), how at least part of this structure can help us deal with the citizenry incompetence threat that concerns us.

¹² We’ve seen (fn. 4) how, in the case of our testimonial practice, that might be the case. With respect to the pervasive interpersonal deliberative practice that concerns us here, consider the following. Social life is rife with disagreements: we disagree about different issues (i.e. we have different opinions) and we have different reasons for holding one thing rather than another. But given coordination and cooperation among ourselves, we often need to decide what to do and how to do it, and that often means trying to resolve disagreements. Moreover, given that believing the truth is important to increase the chances of successful coordinated and cooperative action, we engage in interpersonal deliberation (as opposed to, say, bargaining) to solve the disagreement. For related, plausible explanations of the universality of this practice to help us overcome some cognitive shortcoming, see Aikin and Talisse (2014) and Mercier and Sperber (2017). But, again, not much hangs on the truth of these explanations and what matters is that the practices are natural and universal ones.

one of us can, in principle, rely on others for the specialized knowledge one doesn't possess. So one should learn how to do so in order to avoid certain shortcomings (and so promote a healthy epistemic community). For this, it's important to be able to recognize that others can know more than oneself about certain things: the domains that they specialize on and one doesn't. More precisely, one ought to be able to recognize one's ignorance and be capable of depending epistemically on others in certain circumstances.

Ignorance, knowledge illusions and the division of epistemic labour

Having said that, one often lacks the capacity required to recognize one's ignorance. This can generate an illusion with regard to the amount of knowledge one possesses, which is sometimes referred to as a *knowledge illusion*. This phenomenon is widely observed and due to the division of epistemic labour, given that people tend to confuse what experts and others know with what they know (Sloman and Fernbach, 2017, p. 127-129). So those who suffer from knowledge illusions are overconfident about how much they know (2017, p. 263).¹³ But, to make things worse, this overconfidence increases as our ignorance does. We all suffer from an overconfidence bias (e.g. Hoffrage, 2017), by which we have the impression to be better informed than we are and become more confident about our views than we should. But leaving aside this general tendency, there is the particular, well-documented Dunning-Kruger effect that the more ignorant (and, in general, incompetent) one is, the more confident one tends to be that one isn't actually ignorant (Kruger and Dunning, 1999). Ignorant people (understood as the ones that lack significant knowledge on some domain compared to the expert) crucially often lack knowledge about what they don't know.¹⁴

So ignorant people, given this lack of second-order knowledge, are particularly blessed by overconfidence in their domains of ignorance.¹⁵ Not only do they reach erroneous conclusions (and so make unfortunate choices) but also, and more importantly, their ignorance robs them of the ability to realize how ignorant they are and this in turn allows them to grow in confidence.

Given the above, the worst enemy of knowledge isn't ignorance but the illusion to know (i.e. wrongly believing to possess knowledge). For human beings living in hyper-specialized knowledge communities, ignorance is inevitable. But, to repeat, this ignorance isn't malign given the epistemic structure of society with its division of epistemic labour. The means are there to outsource knowledge. So, given one isn't ignorant about the extent of one's ignorance with respect to some domain (i.e. one doesn't suffer from a knowledge illusion on a given domain) and about the outside suppliers of knowledge (as well as having the skills to discriminate between sources), ignorance (about some domain) isn't the worst state to be in. To be in a knowledge illusion is, given that such an illusion would deter one from exploiting the epistemic structure in place to overcome the relevant ignorance.

Moreover, to be able to exploit this particular division of epistemic labour and in turn fight knowledge illusions, an intellectually humble character seems necessary given that, as seen, one should be able to recognize one's ignorance and be capable of depending epistemically on others in certain circumstances. This is so if intellectual humility is understood as the virtuous mean between epistemic arrogance and self-deprecation: neither does the intellectually humble person overestimate her knowledge and epistemic capacities, nor does she underestimate them.¹⁶ In particular, the intellectual virtue of humility reduces epistemic arrogance (without underappreciation of one's knowledge and epistemic capacities) by promoting a skeptic attitude due to the recognition of our fallibility (due to biases, etc.) and our knowledge limitation (due to finitude of cognitive power, time, etc.).¹⁷ This dimension

¹³ Indeed, we even seem to suffer from knowledge illusions after having searched the web, even if it was on some unrelated topic and even after a few minutes of engaging in such behaviour. Engaging in such searches (which reminds us of the ease by which we can access information) increases people's cognitive self-esteem (Fisher et al., 2015). Given how our lives are increasingly mediated by these information technologies, this electronic version of the illusion is particularly worrisome. For more on the particular challenges that this technology introduces in relation to the competence of the citizenry, see De Brasi (*forthcoming*).

¹⁴ The standard view on ignorance in the philosophical literature is that ignorance is the opposite of knowledge, so ignorance is understood as lack of knowledge (see Le Morvan and Peels, 2016). Generally, this notion is applied to particular propositions. So if one is ignorant about p then one doesn't know that p . Here, however, we are concerned with domains of knowledge (set of propositions), and if one is ignorant about some domain then one, at least, lacks much knowledge that the expert on that domain possesses. Just as being an expert on some domain has a comparative element (fn. 3), so does being ignorant on some domain. And just as one needn't have absolutely all the knowledge on some domain to be an expert, one needn't lack all of it to be ignorant on that domain.

¹⁵ See also Collins (2014, p. 115-116). Notice we all lack significant knowledge on some domain compared to the expert, so this claim applies to all of us. But notice further that, given the division of physical labour (there are doctors, lawyers, engineers, etc.), many have a specialist expertise.

¹⁶ Roberts and Wood (2007, p. 236ff.) can be interpreted as understanding intellectual humility as being opposed to arrogance and neglecting the self-deprecation extreme. But it seems that one can be too humble (and so self-deprecating) and, in that sense, their view seems incomplete.

¹⁷ A virtue is here understood as consisting of attitudes and dispositions of the agent which "perfect" a natural human faculty or correct for proneness to dysfunction and error in certain situations (Roberts and Wood, 2007, p. 59).

of intellectual humility makes clear how it can help us recognize one's ignorance (both about some particular proposition and, more generally, about some domain). Moreover, this virtue also seems to involve a disposition to change and make up one's mind even due to others' opinions. After all, it seems that if the recognition doesn't impact on one's opinions then it is difficult to think of it as such. This dimension of intellectual humility makes clear how it can help us depend epistemically on others in certain circumstances. Given the above, intellectual humility can, at least, be understood as some sort of confidence management (of one's beliefs and epistemic capacities) that allows us to make epistemically proper use of others (cf. Baehr, 2015; Church and Samuelson, 2017; Kidd, 2016). In particular, and importantly for our purposes, this intellectual virtue contributes to our successfully exploiting the division of epistemic labour, not least by combatting the knowledge illusions that the very same division of labour helps generate.

Bias, deliberation and the division of cognitive labour

However, our epistemic reliance on others, as noticed above, isn't limited to the transmission of epistemic goods. We can also depend on others in the generation of them. This is most clearly appreciated in researchers' close collaborations, such as co-authoring papers. Of course, collaborative relations within a group can be multifarious. For example, two or more people can co-author a paper by delegating work (say, each one writes a section), but the close collaboration here alluded to involves interactional, collective work (say, they all write together each section). This latter form of collaboration doesn't allow for different parts of the work to be attributed to different individuals. Instead, the group's members are jointly tackling, say, the writing by each providing reasons to write one thing rather than another, and the end result depends on the quality of the reasons provided by each of them. But one needn't be part of a research group (or co-author a paper) to engage in this sort of close collaborations. Indeed, in different contexts and about different issues, we often deliberate together by presenting different reasons for and against some claim. These *collective deliberations*¹⁸ are a sort of division

of cognitive labour¹⁹ and, as I'll now argue, they significantly increase our epistemic performance.

Before that, let's first say more about the process of deliberation that concerns us. Collective deliberation is the process by which individuals sincerely weight the merits of competing reasons and arguments in discussion together. In particular, the individuals, conversing together, jointly explore the plausibility of some claim, typically each bringing a slightly different perspective to bear. The individuals are meant to defend those perspectives, which are challenged by their interlocutors. These challenges cannot be ignored and reasons and arguments (some of which are tailored to specific objections raised) are evaluated in this exchange. For example, one may advance a reason R_1 in favour of some claim and another one may respond by introducing a counter-reason or defeater D that speaks against the claim, then the first one may introduce a defeater of the defeater DD or concede R_1 has been defeated—or weakened significantly—and perhaps introduce some new reason R_2 , and eventually they weight the reasons for and against to see how strong is the case for the claim.²⁰ As a result of this, the individuals make up their own minds with regard to the plausibility of the targeted claim. So, why is this collective deliberation epistemically better than deliberating on one's own? In particular, why is “thinking together in a communicative way”, as Estlund (2008, p. 177) puts it, likely to increase our epistemic performance? One reason has to do with the dispersal of knowledge. Different people, as one would expect (given the previous discussion), often bring to the discussion different knowledge. This additional flow of information can bring to the discussion new reasons and defeaters and so increase the chance that erroneous views be corrected (Fearon, 1998). But people can be diverse in other ways too. For example, people can also vary with respect to cognitive skills and methods of inquiry they exploit to target some issue.²¹ And this too can serve that purpose. For example, by pooling our limited and fallible cognitive abilities, we increase the chance to pick out errors either because you think (on your own, given your abilities), say, some possibility that I wouldn't have thought of (and vice versa) or because some possibility is put forward that is the brainchild of our abilities and interaction (and neither of us could have thought of it on our own) (cf. Fearon, 1998). So, as one would expect given the above, when the correct-

¹⁸ In fn. 10 I referred to these deliberations as being “of the interpersonal form” to differentiate them from personal ones, but I'll use the expression “collective deliberation” from now on. Although immediately below I introduce the phenomenon more precisely, see also Christiano (1996, p. 116-123); Estlund and Landmore (2018); Fishkin (2011, p. 33-43); Landmore (2013, p. 89-97).

¹⁹ See fn. 10. Of course, given the present interdisciplinary nature of much research, this division of labour is also likely to rely on some sort of division of *epistemic* labour, which is likely to concern the epistemic procedures that they exploit but also a more complex and less transparent transmission of knowledge (see e.g. Green, 2017, p. 135ff.). For a different, community-wide division of *cognitive* labour (which doesn't concern us here), see e.g. Kitcher (2011).

²⁰ Here I mean the epistemic weighting of reasons. Each party attempts to rationally persuade the other parties by them seeing the quality of the reasons and arguments (not by, say, manipulating or bargaining with them).

²¹ For example, when considering arguments, some might be better at coming up with counter-examples to premises, while others might be better at recognizing some fallacious forms, such as *ad hominem*. And some might be better at producing certain kinds of explanations and not others, while others might be more holistic, as opposed to analytical, in their approach to issues. For relevant research and reviews on cognitive and metacognitive diversity, see e.g. Lloyd (2007); Proust and Fortier (2018).

ness of some claim is demonstrable, although it's difficult to reach the demonstration, diverse groups are much more likely to identify the truth than individuals on their own (Moshman and Geil, 1998; Larson, 2010).²²

Another, but related, reason has to do with neutralizing cognitive shortcomings. To appreciate this, let me first introduce one of the many forms of faulty thinking that have been identified that is among the best catalogued: the confirmation bias. This is the long-recognized phenomenon regarding the tendency to seek and collect reasons and arguments that support one's beliefs and ignore those that contradict them, for which there is ample evidence that permeates the population (e.g. Mercier, 2017; Nickerson, 1998). Specifically, it's the natural and pervasive tendency to find reasons and arguments for one's beliefs and against beliefs one opposes.²³ And importantly for our purposes, as Mercier (2017) shows, this bias doesn't apply to the evaluation of reasons and arguments.

But collective deliberation involves both producing and evaluating reasons and arguments. And when it comes to evaluating reasons and arguments that one opposes, we scrutinize them for longer and subject them to a much more extensive refutational analysis than those that agree with our prior beliefs (e.g. Edwards and Smith, 1996). So we are more inclined to detect errors in reasoning for a conclusion with which, to begin with, we disagree.²⁴ This means that one is a more rigorous evaluator of opposing views (leaving aside the fact that, given the confirmation bias, one is unlikely to find defeaters for one's view). However, none of this means that one cannot recognize and concede to a good reason or argument against one's view. In fact, even when people are extremely confident about some view, they change it if the reasons and arguments suggest it.²⁵ But, of course, it does suggest that one probably cannot alone come up with some such reason or argument against one's view and so collective deliberation can again prove itself epistemically useful given that it allows for the interaction of individuals with disagreeing views.

Given this interaction, both the confirmation bias and the tendency to evaluate more rigorously opposing reasons and arguments become part of an elegant and useful way of dividing cognitive labour.²⁶ On the one hand, the confirmation bias makes each individual come up with a (relevantly strong) case in favour of their own views. One won't search for reasons and arguments against one's view, but the other, who disagrees with one, will. So, like opposing lawyers in a trial, each presents the best case for and against some view. On the other hand, the evaluating tendency makes each individual a rigorous judge of the other's reasons and arguments. One doesn't scrutinize one's reasons and arguments assiduously, but the other, who disagrees with one, does: each one controls the quality of the reasons and arguments provided by the other. So, given that we can recognize and concede to a better reason or argument, the better, more reasonable and plausible, case (given all the available evidence) is likely to prevail.²⁷

This interactive process of production and evaluation of reasons and arguments involves a division of cognitive labour that renders these natural, and otherwise epistemically harmful, tendencies into useful features of the mind. In other words, in collective deliberation we aren't merely neutralizing these systematic tendencies that prevent us from deliberating responsibly if done individually (since they decrease our chances of recognizing bad reasons and arguments for one's views), but also taking advantage of them (by exploiting each other's tendencies) in order to achieve a more reasonable and plausible position. We can get rid of these "bugs" by thinking together and so, in so far as deliberation is pursued cooperatively, increase our epistemic performance.²⁸

So collective deliberation can lead to epistemically good outcomes, but whether it does so depends on the setting. We have already seen that diversity of knowledge, cognitive skills and methods of inquiry are required for the deliberation to bring these benefits. But notice too that diversity of opinion is also required if people are to search for different reasons and

²² Notice that the above epistemic benefits don't depend on the truth of the so-called "diversity trumps ability" theorem (Hong and Page, 2004). Some have exploited it to argue that inclusive deliberation is better at tracking the truth than a group of experts (e.g. Anderson, 2006; Landemore, 2013; see also Estlund and Landemore, 2018). But serious doubts about its truth have been raised, see Thompson (2014, 2015); Quirk (2014) and Kuehn (2017).

²³ So Mercier (2017) talks instead of the "myside bias" and rightly points out that "confirmation bias" is a misnomer. I'll continue anyway to refer to the bias with its more established (though misleading) label.

²⁴ Also, interestingly, Moshman and Geil (1998) show how groups do significantly better than individuals at the famous Wason selection task (the success rate for groups is 70% while for individuals it is 5%). While individuals tend to proceed mainly in a confirmatory way when testing the hypothesis, groups are much more likely to proceed in a disconfirmatory way (as their significantly superior performance shows).

²⁵ Mercier and Sperber (2017) conducted a series of experiments to show this. See also Fishkin (2011) and Hess and McAvoy (2015).

²⁶ For more on this and a plausible evolutionary story supporting it, see Mercier and Sperber (2017).

²⁷ This process increases our chances to detect errors and neutralize biases, hence increasing the likelihood of the resulting view. Moreover, it should be straightforward to appreciate that dialectical justification (i.e. a justification one can offer in support of one's view) is also an epistemic good that is promoted in this process. And I take it that one's view is reasonable if and only if one possesses unbiased, dialectical justification. Of course, *reasonableness* is here understood as a term of art and it will become apparent below why these epistemic properties are grouped together.

²⁸ I use the inverted commas because it's unlikely that, say, the confirmation bias is a mere bug of the mind, as opposed to a feature, given how strong, universal and pervasive it is (as well as pleasurable—Gorman and Gorman, 2017, p. 134). Having said that, if this natural tendency isn't exploited in an interactive setting, it becomes epistemically harmful.

arguments and to assiduously evaluate opposing views. Indeed, collective deliberation seems to be epistemically harmful in the absence of this diversity. Homogenous groups may fail to produce defeaters against their shared beliefs and members may provide each other with additional evidence supporting them. And this of course promotes group polarization: that is, the members of the group end up with more extreme beliefs than they had prior to deliberation (e.g. Isenberg, 1986).²⁹

Moreover, the individuals in collective deliberation need to possess a certain intellectual character. For example, they need to be willing to engage in collective deliberation although their views seem right to them³⁰ and to revise their views in response to the reasons and arguments brought forward (otherwise, collective deliberation, with its back-and-forth of reasons and arguments, would just be a futile exercise). So, to be able to exploit this division of cognitive labour, one needs an intellectually humble character that allows one to be open to collective deliberation and to the possible revision of opinion that goes with it. However, to take advantage of the benefits of this division of labour, not only is the individual required to be intellectually humble but also intellectually autonomous. Intellectual autonomy is here understood as the virtue that reduces sheer epistemic dependence on others by promoting a willingness and ability to think critically for oneself in judging views, without capitulating to hyper-individualism (cf. Baehr, 2015; Roberts and Wood, 2007, p. 257ff.; Siegel, 2017, p. 89ff.). So, given that, as mentioned, each party controls the quality of the reasons and arguments provided by the opposing party and tailors their reasons and arguments to the objections raised, this virtue also plays a central role in collective deliberation.

Now, note that the aforementioned Cartesian ideal of autonomy promotes one of the vicious extremes: hyper-individualism or sheer epistemic independence (the other one being sheer epistemic dependence). It's worth noting this since one might otherwise think that intellectual autonomy is in tension with intellectual humility. But intellectual autonomy

involves some sort of dependence management: after all, this virtue enables us to discriminate between the good and bad contributions of others. So not only is intellectual autonomy not in tension with intellectual humility (the former involves the management of our epistemic dependence and the latter of our epistemic confidence so as to be open to epistemic dependence), but also it is required to identify trustworthy sources. The aforementioned epistemic monitoring required in order to successfully, epistemically speaking, exploit the above division of epistemic labour involves the critical skills that intellectual autonomy promotes. So both intellectual virtues, humility and autonomy, seem required for us to take advantage of the division of epistemic and cognitive labour.³¹

Citizens in a democratic society

The epistemic structure of society embraces at least some of our epistemic and cognitive limitations and offers us a way to overcome them by means of its division of epistemic and cognitive labour. However, to take advantage of these benefits, a particular intellectual character is required. It's important to make clear that none of the above is limited to certain beliefs or opinions. In all domains of life (given our need for truth and our limitations), we are meant to be able to exploit the above divisions of labour. To both consume and produce knowledge and other epistemic goods, we depend on others. So the proper regulation of our beliefs goes hand in hand with certain attitudes and dispositions that the intellectually humble and autonomous subject possesses.

This regulation is important in all aspects of life but it's extremely consequential to ourselves as members of democratic societies when it comes to our political beliefs. Democracy requires its citizens to be, at least, minimally competent. To be so, they need to be at least well-informed on a range of issues (economic, educational, emigrational, etc.) and be able to form reasonable opinions.³² Nevertheless, there exists

²⁹ And, as one would expect, members of groups with diverse opinions tend to depolarize (Vinokur and Burnstein, 1978).

³⁰ People in general believe much of what they do for the same reason: namely, it seems true to them. In other words, something seeming true is nearly always the proximate cause for forming beliefs, whatever the distal cause is. But our beliefs have different distal causes, and not all of them are epistemically proper ones. Assuming the primary epistemic aim of belief is truth and that (good) evidence for some belief makes the belief more likely to be true, non-evidential causes of belief such as biases and emotional factors don't count as epistemically proper distal causes (of course, not all non-evidential causes need to be excluded as epistemically proper causes, as any reliabilist would argue). These non-evidential factors don't increase the likelihood that the belief is true. But most beliefs seem true to one, regardless of their distal cause. So their seeming correct to one shouldn't render the collective deliberation pointless to one nor should it put to rest the challenges raised against them.

³¹ More precisely, at least part of them; see fn. 10.

³² Some main contemporary conceptions of democracy, such as aggregative and deliberative conceptions in their epistemic and non-epistemic versions, require, for their justification or legitimacy or as an enabling condition of some sort, that citizens be minimally competent. Indeed, since the introduction of deliberative democracy in the late 80s as a solution to the problems encountered in aggregative democracy (Manin, 1987), it has established itself as a powerful democratic theory (Bohman, 1998). The deliberative account of democracy highlights the importance of "public argument and reasoning among equal citizens" (Cohen, 1997, p. 72, my emphasis; see also Gutmann and Thompson, 2004, p. 7). Martí (2006) and Estlund (2008) argue that deliberative democrats implicitly subscribe to, at least partially, an epistemic conception of democracy that values democracy and democratic outcomes due to certain epistemic properties (of course, this isn't to suggest that aggregative and other non-deliberative forms don't do so too; see e.g. Dahl (1989, p. 111-112), which requires "enlightened understanding:" roughly, adequate and equal opportunities for *discovering* and *validating* decisions that best serve the citizens). Moreover, some deliberative democrats explicitly require that the deliberative process be informed and

a long-standing anti-democratic tradition (Roberts, 1994). This tradition dates back to Plato's argument that politics should be left to the experts: ordinary people are no more qualified to guide "the ship of the state" than they are to navigate a real ship (Plato, 1997, *Republic* VI 488a-9a). Indeed, in the *Gorgias*, Plato contended that democracy is defective because it adopts policies based on the views of the ignorant masses and neglects the better-informed counsel of philosophers and other experts. And Aristotle, who was more optimistic about the political knowledge that the people could collectively have, argued that women, slaves, manual labourers and others whom he considered incapable of achieving adequate levels of virtue and political knowledge should be excluded from political participation (Aristotle, 1987, *Politics* III.iv-v, xi). Even John Stuart Mill, a liberal political theorist generally sympathetic to democracy, feared the incompetence of the people and argued that it justified giving extra votes to the better-educated and more knowledgeable (1958, p. 140-142).

This concern about citizenry incompetence is raised by political theorists of all sorts: citizens are thought to be misinformed and display biases, such as the above confirmation and overconfidence biases, which promote the polarization of opinions (see e.g. Brennan, 2016; Caplan, 2007; Delli Carpini and Keeter, 1996; Somin, 2016). So if citizens are meant to be the masters of the democratic society, they must overcome those epistemic and cognitive shortcomings.³³ As one would expect (given the above discussion), political deliberation

among diverse citizens who exploit experts and who possess the intellectual character to exploit the division of epistemic and cognitive labour can address this challenge.³⁴ The participants in this sort of collective deliberation that outsources specialized knowledge end up better informed, with more articulate positions, a deeper understanding of other people's point of view and change their minds according to the evidence. Importantly, their opinions tend to converge toward an epistemically reasonable compromise and are more likely to be accurate. This process doesn't induce the polarization that we are nowadays accustomed to see and remedies the misinformation and biases that we possess as individuals. As one would expect, deliberation among diverse citizens that outsource knowledge and instantiate intellectual humility and autonomy works well in avoiding those shortcomings (Fishkin, 2011, 2018; Hess and McAvoy, 2015).

So, in current large-state democracies where citizens elect their representatives to make policy decisions as opposed to making them themselves (e.g. Christiano, 1996; Dahl, 1989),³⁵ citizens, who are required to be minimally competent (i.e. to be at least well-informed on a range of issues and be able to form reasonable opinions), should engage, with diverse people, in collective deliberation that outsources specialized knowledge prior to exercising their right to vote for their representatives as a means of avoiding incompetence.³⁶ Perhaps not even all citizens need to do so.³⁷ A random sample of them, big enough to be repre-

reasonable; in particular, to be guided by reasons that can, in principle, be accepted by all (e.g. Christiano, 1996, p. 116-123). Anyhow, in recent years, democrats have started to take an overt interest in the epistemic value of the democratic decision-making process in order to (partly) justify democracy or legitimize its results (e.g. Anderson, 2006; Estlund, 2008; Gaus, 1996; Goodin, 2003; Peter, 2009; Talisse, 2009). These epistemic democrats (whether they hold a veritistic, pragmatist or proceduralist epistemology; Peter, 2009) seem to require minimally a citizenry that can engage in this sort of informed and reasonable process of decision-making. Reasonableness, given the minimal epistemic commitments of the different approaches, is understood as unbiased, dialectical justification (fn. 27). Veritistic epistemic democrats, of course, also require truth-promotion, so below I will in passing refer to it.

³³ After all, democracy is, as Abraham Lincoln famously said, "government of the people, by the people, for the people." Experts, on the other hand, are the servants of a democratic society. They play a key role in the division of epistemic labour to help citizens make informed decisions (although this role has been much undermined of late (see e.g. Collins, 2014); even by politicians—consider the recent Brexit campaign) but aren't there to make those decisions themselves (except *qua* citizens). As C.S. Lewis (1958, p. 3) says, "Let the doctor tell me I shall die unless I do so-and-so; but whether life is worth having on those terms is no more a question for him than for any other man".

³⁴ Christiano (1996) recommends "rational [social] deliberation *with experts*" (p. 125, my italics) due to the "political division of labour" (p. 123), understood as the division of *epistemic* labour (fn. 10). We have complemented his view by noticing *how* the division of cognitive labour (in particular, collective deliberation) greatly increases our epistemic performance and the intellectual character that citizens ought to have to take advantage of these divisions of labour.

³⁵ Both aggregative and deliberative democrats appreciate this need for representativeness.

³⁶ Of course, this can involve a series of deliberations with different, diverse people over time. As long as all citizens have potential access to information (particularly, from experts) and can interact with each other to discuss political issues, we needn't create any new spaces for them to satisfy this process. Certainly, we needn't create an all-encompassing Deliberation Day (Ackerman and Fishkin, 2004). Also, I take it that the sort of diversity required can be easily found in a society; we just need the disposition to face it (see fn. 41, for some evidence as to how the required virtue training can promote it).

³⁷ Of course, no epistocracy is being suggested here. An epistocracy could easily avoid the incompetence challenge that democracies face (for different variants, see e.g. Brennan, 2016, p. 208-222). However, we are here considering what *we qua democrats who face the incompetence challenge* (fn. 32) can do to overcome the challenge (which Winston Churchill, in a remark attributed to him, put perspicaciously: "the strongest argument against democracy is a few minutes conversation with any voter"). And, although the idea that democracy is the only legitimate political arrangement is widely accepted since the second part of the 20th Century (Dunn, 2005), if nothing could be done about this challenge, then democracy, as long as it requires the above citizenry competence, might need to give way to some other form of government. Having said that, although I'm not here interested in determining what sort of factors justify political arrangements, it's likely that they won't just be epistemic but a combination of epistemic and moral ones, so weakening the case for an epistocracy.

sentative of the citizenry,³⁸ could be selected to elect the representatives and an artificial collective deliberation, like (but not exactly) a Deliberative Poll (Fishkin, 2011, 2018), could be encouraged.³⁹ In the Deliberative Polls, the randomly selected citizens get together for a weekend for deliberation in randomly assigned smaller groups with trained moderators and for outsourcing knowledge in plenary sessions with experts. All of them are given, at the beginning, balanced and vetted briefing materials and they vote, at the end, in secret. Of course, these Polls are specially designed to artificially overcome the incompetence of the citizens. In particular, the pre-arranged informative plenary sessions and the moderated discussions are there to make sure that people (who might lack the relevant virtues) exploit adequately the division of epistemic and cognitive labour (more specifically, expert testimony and collective deliberation). But, leaving aside issues of randomly selecting a non-diverse group (within any one dimension on which diversity is required—fn. 38) and the financial incentive that one would need to provide these people to participate having already read the briefing materials, it isn't clear that moderators can reproduce the sort of deliberation that would take place among relevantly virtuous citizens. In fact, some have argued that moderators have a negative effect by biasing the outcomes (e.g. Humphreys *et al.*, 2006; Spada and Vreeland, 2010). Also, given that the selection of expertise and experts from which the selected people are to gather further information is done by some select group, this sort of control suggests a guided democracy which seems as antidemocratic as it would seem if some group (even an elected one) controlled the flow of

information available to the citizens. Each citizen ought to be the curator of information.

If the above is correct, the deliberative meeting of the random sample shouldn't involve trained moderators of deliberation and select curators of information. So it seems that, even if some random sample of citizens were to elect the representatives, we would still need to equip the citizens (all of them, given random selection) with the virtues to exploit the division of epistemic and cognitive labour (in particular, expert testimony and collective deliberation).⁴⁰ So, regardless of whether the process of collective deliberation that outsources specialized knowledge is carried out by all citizens or some randomly selected ones, democratic citizens ought to be intellectually humble and autonomous to harvest the benefits of the division of epistemic and cognitive labour.

So, given that the above intellectual virtues seem to be essential for a healthy democratic life, the democratic society should focus on the development of citizens' intellectual characters so to instantiate the relevant attitudes and dispositions.⁴¹ If we succeed in teaching those attitudes and dispositions, we would have succeeded in teaching citizens how to work epistemically well with others and so in that way address the competence concerns of the anti-democratic tradition.⁴²

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³⁸ Both in terms of values (given value pluralism) and cognition. We have seen what the diversity required for epistemic reasons consists of but, given that political decisions are value-related, society's values should also be properly represented. Also, notice the complexity of determining the specific number of randomly selected representatives, since one would have to be aware of the diversity that exists (within all relevant dimensions) with regard to the different issues that such selected group might have to face. In particular, it isn't clear who should be responsible for setting that issue (see De Brasi, *forthcoming*). For more on random selection in public decision-making, see Stone (2011).

³⁹ Alternatively, as Estlund (2008, p. 181-182) notices, we could let all discuss and have only some randomly selected citizens vote. But the feasibility costs of everyone voting aren't significant. Having the citizenry deliberate before voting is what might bring doubts for some, hence the focus on Deliberative Polls. But see fn. 41, for some evidence regarding the required virtue training that can start to assuage these doubts as well as doubts about exploiting testimony.

⁴⁰ Also, as noticed, experts sometimes disagree, especially about the sort of controversial issues that they would testify about in these meetings, so the (selected) citizens would anyway need to be equipped appropriately to deal with disagreeing expert testimony (e.g. Goldman, 2001; Coady, 2012). Given this, Collins and Evans (2017) seem to be over-optimistic about the role that what they call "Owls", who provide policy-makers and citizens with the best available assessment of scientific consensus, can have.

⁴¹ Notice that it's feasible to train people so as to equip them with these virtues. For example, some things can be done inside the classroom to promote their acquisition. One thing is for students to engage in student-to-student discussion of controversial issues more than 20% of the lesson time, having prepared in advance. This "Best Practice Discussion" (BPD) renders students significantly more likely to be willing to listen to and to engage with those who disagree (and to consider this important), compared to students who don't engage in BDP (Hess and McAvoy, 2015). So BPD promotes aspects of humility. Another thing is for students to be divided into groups to become "experts" (within their class) in different domains and then regroup the students (one from each previous group) to solve some problem (Brown, 1997). This teamwork in learning, where "expertise" is deliberately distributed, creates better consumers of information in general by learning to exploit others and not capitulate to hyper-individualism. This strategy promotes aspects of autonomy. For more on the acquisition of these virtues, see e.g. Baehr (2015, p. 164ff.); Battaly (2016); Church and Samuelson (2017, p. 105ff.); Kidd (2016) and Roberts (2016).

⁴² So, provided citizens manage to develop that intellectual character, the fact that democratic theory has recently evolved in a more participatory and deliberative direction (fn. 32), involving, ideally at least, the public as an active political agent (after all, as Sen points out, many dictators "have achieved gigantic electoral victories even without any overt coercion in the process of voting, mainly through suppressing public discussion and freedom of information"; 2009, p. 327), is indeed a welcome move.

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