

Distrusting Climate Science: A problem in practical epistemology for citizens

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ABSTRACT: I briefly present empirical findings suggesting that citizens in contemporary democracies face great difficulties in arriving at an accurate picture of the world and of the relevant policy options and in identifying trustworthy sources of information. Unfortunately, these difficulties do not seem to diminish with more education or with more effort and attention. I argue that a highly polluted information environment can defeat the sorts of strategies generally recommended to individuals under the label 'critical thinking.' Finally, I consider what sort of institutional or systemic conditions would be necessary to provide citizens with a manageable epistemic task.

KEYWORDS: citizens, climate change, cognitive bias, deliberation, expertise, experts, motivated reasoning, practical epistemology, social epistemology, trust.

1. INTRODUCTION

Citizens need to know something, on even the most minimal view of their role in a democratic society. Some would hold, ambitiously, that they ought to know enough to participate meaningfully in self-government. Others would say that it is enough if they can learn that the elites they have been passively allowing to rule (by voting or not voting) are no longer serving them well enough and it is time to 'throw the bums out'. Even this last minimal view, though, requires citizens to know when their interests are no longer being served and to know whether voting for an opposition party is more likely than not to improve the situation. And these things may not be so easy to know.

In this paper I briefly present findings from public opinion research, political psychology and media studies, suggesting that time-constrained citizens in contemporary democracies face great difficulties in arriving at even a minimally accurate picture of the world and of the relevant policy options. The problem is not just ignorance of the kind well documented by decades of political science research (the 'low-information voter'). There is also widespread misinformation and apparent immunity to disconfirming evidence. Unfortunately, these difficulties do not seem to diminish with more education or with more effort and attention. Given the presence in all of us of various cognitive biases, and of the processes lumped together under the label "motivated reasoning," and given the generally 'polluted' character of our information environment, even diligent efforts to inform ourselves are all-too-likely to entrench our prejudices instead of improving the accuracy of our beliefs. Public skepticism about climate science provides a case in point.

I argue that unfavorable epistemic conditions (a highly polluted information environment) can defeat the sorts of strategies generally recommended to individuals under the

label 'critical thinking,' at least when combined with plausible time and resource constraints and a realistic picture of human cognition. Finally, I consider what sort of changes in the information environment would be necessary to provide citizens with a manageable epistemic task.

2. GROUNDS FOR PESSIMISM (DEMAND SIDE)

I will not provide the standard rehearsal of voter ignorance. Suffice it to say, with Bartels (1996) that “The political ignorance of the American voter is one of the best-documented features of contemporary politics” Nor is there space here for a rehearsal of the debates over the significance of this ignorance—whether it is seriously disabling or whether most voters manage to make decisions that are ‘good enough’ despite it. I will just say that I am persuaded by writers like Bartels and Delli Carpini and Keeter (1996) that American voters are uninformed and misinformed to an extent that is consequential in a very clear sense: Election results would be different if voters were better informed.

My main thesis: In the current epistemic environment, no feasible improvement in the information-seeking efforts of individual citizens is going to enable them to acquire the needed knowledge; to improve the level of public knowledge we will need to improve that environment. “Feasible” here refers not to the reluctance of many citizens to engage with politics or to seek out political information. What I mean is that even those who are willing to put a considerable amount of time and energy into investigating candidates and policy issues will find themselves thwarted. Why?

First, “considerable” does not, of course, mean “infinite.” None of us has time to learn all that might be useful or relevant, and more time devoted to one issue means less to others. While anyone can learn the rudiments of political processes, parties, and ideologies (and thereby become better-informed than most American voters), many issues of public policy are complex and controverted and could absorb nearly unlimited investigative resources. To become even moderately well-informed on more than a few such issues is impossible. And what might be possible for a person with a good deal of leisure will not be possible for most citizens, who have relatively little time left over after work and family responsibilities are discharged. Inevitably most people will have to rely almost entirely on others (experts and intermediaries) to provide the needed information and analysis in a form that can be assimilated within the available time. And even policy experts will have to rely on others for everything outside their area of expertise. (Some of the consequences of this reliance will be crucial to my argument below.)

Further, more education and paying more attention to the news media don’t always seem to help. The data here are not as robust, but we do have examples like:

- (1) College-educated Republicans are more likely than less-educated Republicans to be global warming skeptics (Pew polls, 2008, 2010). While less-educated and less-informed Americans do not display much partisan polarization on this issue, more educated and better-informed Americans do. One might hope that higher education would provide better tools and more background information, so that, whatever the truth of the matter, more educated people would be more likely to converge on it. Not so.

- (2) For most broadcast media sources, people who watched or listened more frequently were more likely to believe one or more false things about the Iraq war of 2003 (That Saddam Hussein’s regime had ‘weapons of mass destruction.’ That most experts said he did. That Iraq materially supported Al Qaeda. That world public opinion favored the US invasion.) (Kull, et al., PIPA poll, 2003).
- (3) Friedman (2005), citing Converse (1964): “Converse’s most disturbing and under-remarked finding is that the relatively well informed compensate in dogmatism for their greater knowledgeability” (p. xxii).

Dogmatism may not be the best name for the underlying processes here. One psychological mechanism that may be at work is so-called “belief polarization.”¹ This has recently received a careful philosophical analysis by Thomas Kelly (2008). Kelly starts with an empirical finding: Two people, who hold opposite views on a policy issue, can look at the same (mixed) body of evidence, and each come away thinking that their view is better supported by that evidence than the other’s is. On the face of it, this is bad from an epistemic point of view, but what seems to be going on here is not simple dogmatism. Each is not simply dismissing the evidence that counts against her view and latching on to the evidence that supports it. Instead she is looking at the disconfirming evidence very carefully—so carefully that she finds good reasons to discount it (methodological flaws in studies, alternative explanations of unwelcome data). And Kelly suggests that it is not unreasonable to look harder at disconfirming evidence. He compares this to scientists who try harder to find explanations of anomalies than of phenomena that fit easily into existing theory. Given scarcity of investigative resources, this seems like a reasonable strategy. Moreover, he says, people pursuing this strategy are not violating the Principle of the Commutivity of Evidence (the anti-path-dependence principle, which says that the order in which you get various bits of evidence shouldn’t matter to your epistemic evaluations). They are, instead, arriving at different bodies of evidence (because my total evidence includes, for example, the methodological flaws I have noticed in the studies I have subjected to stricter scrutiny.) My body of evidence is, in fact, biased by this process, but my assessment of the upshot of that evidence is not. So, Kelly concludes, as long as I am unaware of this biasing process, I still count as a reasonable inquirer. When I become aware of this process (as you and I, dear reader, are now aware) then I ought to take account of the fact that my evidence is likely to constitute a biased sample. But the typical case (and the one relevant to my point here) is the case where the subject is unaware of the bias. This is bias, but it is not dogmatism, and it exemplifies a pattern that has other instances: apparently conscientious reasoning that leads nonetheless to epistemically poor results.

This phenomenon shades off into other sorts of cognitive bias and ‘motivated reasoning’. The literature on these subjects is vast. Here I will attempt only the briefest of summaries.² “Motivated reasoning refers to the unconscious tendency of individuals to process information in a manner that suits some end or goal extrinsic to the formation of accurate beliefs” (Kahan, 2011, p. 18). These goals can be various, but they are all non-epistemic. That is, they are not plausibly related to the goal of discovering the truth whatever it may be. Rather they serve other psychological needs: for self-affirmation, for a sense of group

¹ The *locus classicus* is a study by Lord, Ross and Lepper (1979). In their terms ‘biased assimilation’ leads to ‘attitude polarization’.

² This summary follows Kahan’s (2011) summary where a comprehensive set of references may be found.

belonging, for status, for security, etc.—or simple material self-interest. Beliefs can be an important part of social identity and change of belief can disturb important relationships. (Kahan speaks in this connection of “identity-protective cognition.”) Whatever the goal, the distorting processes include biased search (where information is sought selectively to bolster one’s beliefs), biased assimilation (where information and arguments are selectively filtered and evaluated) and biased assignments of credibility to sources of testimonial evidence (often on the basis of group membership).

One consequence of these processes is that partisan identification often trumps facts and issue-consistency. People who identify strongly with a particular political party tend to skew their beliefs about quite objective aspects of the economy depending on which party is in power (Achen & Bartels, 2006). They tend to believe, for example, that the unemployment rate or the budget deficit or the rate of inflation are lower (or are falling) when ‘their side’ is in charge and are higher (or rising) when the other side is in charge. Moreover, partisans will ‘agree’ with a policy position (more or less regardless of content) if they are told that it is the position of their party (Cohen, 2003). (Part of the picture here is that people will work hard to think of a reason why their party would be supporting an apparently discrepant policy position.)

Crucially, these processes go on below the level of conscious awareness. They are almost entirely unavailable to and denied by the subjects. Consequently, people tend to be far more aware of other people’s biases than of their own, and to interpret disagreement in pejorative terms, asking about partisans on the other side “Are they stupid or are they evil?” since it seems incomprehensible that an intelligent, well-motivated person could fail to see such obvious truths. (Kahan uses the term “naïve realism” to refer to this phenomenon.)

Can people be taught to do better than this, to become ‘critical thinkers’? It would be nice to think so, but there are reasons to doubt it. Philosophers (and others) who teach critical thinking often recommend a set of strategies of inquiry and evaluation like: consider the arguments on both sides of the question, look for fallacious reasoning and for inductively weak arguments, try to decide which side has the best case. Sometimes this can be effective, but, when the issues are complex and the assessment of evidence requires domain-specific expertise, it is not. As Neil Levy (2006) puts it, reading a book like Bjorn Lomborg’s *The Skeptical Environmentalist* is more likely to degrade your epistemic condition than to improve it. Why? Because it contains a large number of superficially plausible arguments which one is in no position to adequately assess (since one lacks the relevant expertise).

Nor should we expect that our determination to think critically and our use of the usual techniques will eliminate motivated reasoning. “Indeed, far from being immune from identity-protective cognition, individuals who display a greater disposition to use reflective and deliberative (so-called “System 2”) forms of reasoning rather than intuitive, affective ones (“System 1”) can be expected to be even more adept at using technical information and complex analysis to bolster group-congenial beliefs” (Kahan, 2011, pp. 20–21). As Hilary Kornblith argues in “Distrusting Reason” (1999), a rather plausible case can be made for regarding a great deal of apparently sincere and conscientious reasoning as no more than rationalization. Here, intelligence and reasoning skills work against us, by making our rationalizations more plausible to ourselves and to others. Achen and Bartels (2006, p. 44) write, “Most of the time, the voters are merely reaffirming their partisan and group identities at the polls. They do not reason very much or very often. What they do is rationalize. Every election, they sound as though they were thinking, and they feel as if they were thinking, as do

we all. The unwary scholarly devotee of democratic romanticism is thereby easily misled.” Finally, Kahan (2011, p. 22) reports findings that suggest that exhortations to be objective, to approach issues in a spirit of open-mindedness, and to set aside biases, tend to backfire by triggering the very group identifications one was hoping to defuse. When the issue of bias is put on the table, so to speak, defending the beliefs characteristic of one’s group becomes a matter of honor.

3. GROUNDS FOR PESSIMISM (SUPPLY SIDE)

So far I have been describing difficulties that seem to arise from human psychology. But we also have a highly ‘polluted’ information environment. Politicians and their advocates lie and spread misinformation. Industry sponsored think tanks and institutes, following a playbook initiated by the tobacco industry, try to sow doubt and confusion about, for example, the health effects of formaldehyde or the effects of CFC’s on the ozone layer (Jackall, 1988). More recently global warming has received a similar treatment (Oreskes & Conway, 2010; Anderson, 2011). Chain emails spread fabricated or misinterpreted stories. “Push polls” offer tendentious characterizations of issues and candidates in the guise of attempts to measure public opinions. Employers provide distorted information to employees about public affairs and legislation, urging them to contact their elected officials. And, of course, the media environment is saturated with advertising.

It would be possible for the press as an institution to help citizens sort through the smoke and the spin, and news organizations often claim to be aiming to play that role. (Even Bill O’Reilly of Fox News, who strikes many observers as a fairly crude purveyor of conservative propaganda, claims to be providing a “no spin zone,” in which politicians are held accountable to the public.) But, like many observers, I see a press that is serving the public rather poorly (Fallows, 1996). For one thing we have a set of media organizations that seem highly partisan (Fox News, the Murdoch-owned press more generally, right wing talk radio). For another, television has adopted an entertainment-focused model in which TV news shows are full of people talking very briefly, emphatically and unreliably about complex issues (evidently on the principle that controversy is more attractive to viewers than content).

But even in the more serious and ‘responsible’ quarters of the news business, all is not well. There are a number of unhelpful norms of journalistic practice. There is the often lamented (but never abandoned) emphasis on ‘horse race reporting,’ where the focus is on how statements and decisions will affect the political standing of officials with various groups (or their electoral fortunes), not on the truth of the statements or the effectiveness (much less the wisdom) of the decisions/policies. A closely related tendency is the conflation of perceptions and reality, where the fact that a certain action or policy will be seen in a particular way by some audience is more salient than whether or not that perception is accurate.³

But I want to focus mainly on the way that news organizations transmit and mediate the views of experts. There are two standard and contradictory practices, neither of them helpful.

³ An example: “Obama owns the economy” – no distinction is drawn between causal responsibility (his policies have made the economy worse) and political perception (voters will blame the President for the bad economy regardless of why it is bad).

1) In the first sort of case, journalists transmit the claims and judgments of experts and authorities to the public, without comment and without much attention to dissenting views. This seems to have been the case in the run-up to the invasion of Iraq by the US and its allies in 2003. The media did not provide much resistance to the Bush administration's effort to 'sell' the invasion of Iraq to the American public in 2002–2003. The case for war was made to the American people and to the world with a lot of very scary claims about the 'gathering danger' of Iraq—including the possibility that Saddam Hussein would give a nuclear weapon to terrorists who would use it to blow up an American city. As we subsequently learned,⁴ the evidence for most of their claims was much shakier than they led us to believe. And for the most part the US media simply relayed these claims to the American people, without much analysis and certainly without giving anywhere near the same kind of prominence to the views of people (many of whom had excellent credentials) who had a different view of the nature of the Iraqi threat and what would be the best way to deal with it.

As reporter Karen DeYoung put it: "We are inevitably the mouthpiece for whatever administration is in power. If the president stands up and says something, we report what the president said" (Kurtz, 2004). And if contrary arguments are put "in the eighth paragraph, where they're not on the front page, a lot of people don't read that far" (Kurtz, 2004).

The result is that even our best newspapers provide reasonably accurate coverage of important issues—at best—only to careful and diligent readers. Even the most casual reader learned from front-page headlines that the Bush administration repeatedly claimed that Iraq had WMD's and ties to al Qaeda. Only a reader who read to the end of the articles and searched the back pages for more could discover that many intelligence experts in and out of the government thought that the evidence for those claims was weak. This suggests that the key to helpful journalism is to make sure that reporting is 'fair and balanced' and gives equal time and equal prominence to opposing views. But my second example cuts the other way.

2) Media coverage of the global warming issue often conforms to a norm of 'balance.' But several researchers have found that this norm is, in this case, doing more to damage public understanding than to improve it. There is growing recognition that the norm of 'balance' as currently understood degenerates too easily into a practice of 'balance as bias' or 'he said-she said' journalism, leaving news consumers confused rather than enlightened. The problem is that readers (or viewers) who are presented with reports of scientific assessments of the nature and significance of global warming and who are then presented with a skeptical or critical response are left with the impression that these views are of roughly equal plausibility, that there is no consensus among the experts. (See Anderson, 2011, for discussion of the research on this point.) Declining public concern about global warming and declining willingness to endorse remedial measures seems to have been produced (in part) by this pattern of coverage.

But now it seems as though journalists are damned if they do (present "both sides of the story") and damned if they don't (by foregrounding the views they find most plausible at the time and ignoring the critics). The consumers of the news are poorly informed in either case. I will try to say something about how to resolve this dilemma in the final section of this paper.

⁴ <http://msnbc.msn.com/id/5403731/> -- *Senate Intelligence Committee report on pre-war intelligence failures in Iraq*

4. EPISTEMIC DEPENDENCE AND UNAVOIDABLE BUT UNFORTUNATE TRUST

I said above that we will inevitably rely on others for most of what we can claim to know. This is an instance of what Allen Buchanan (2004) calls “epistemic dependence.” Unavoidably, we will trust those who nurture us as children. They and others in our immediate social environment will (partly) set the starting conditions for all of our epistemic evaluations. What we can know and what we will fail to know will be affected drastically by those starting conditions and then by contingent facts about the other influences that come our way.

Some examples:

Example 1: Allen Buchanan on growing up racist:

I grew up in the American South during the 1950s and 1960s in a racist family culture embedded in a society of institutionalized racism. ... I was taught, by explicit dogma and by example, to regard blacks as subhuman. Unlike my mother, I never witnessed a lynching, but I did once see a desiccated, severed black ear of unknown provenance, proudly displayed by a white junior high school classmate. I also recall joking with my friends about the "Tucker telephone," a crank-operated dynamo that was used to deliver electrical shocks to the genitals of black inmates of a nearby penal farm. Largely through luck, I left this toxic social environment at the age of eighteen and came to understand that the racist world view that had been inculcated in me was built on a web of false beliefs about natural differences between blacks and whites. My first reaction was a bitter sense of betrayal: Those I had trusted and looked up to—my parents, aunts and uncles, pastor, teachers, and local government officials—had been sources of dangerous error, not truth. (Buchanan 2004)

Buchanan also claims that he was taught strategies for evading evidence that might have undermined his racist beliefs. Buchanan goes on to argue that the cultural and institutional features of liberal democracy offer our best protection against the possibility that our starting point is so deficient—by drawing us into exchanges with diverse others in a context where there is a presumption of epistemic equality. But what would have happened if he had stayed in his community of origin?

Example 2: Baurmann on “Rational Fundamentalism”

Baurmann’s argument (Baurmann 2007) is too complex to summarize here, but the intuitive idea is fairly simple: given the right kind of social environment it is (at least subjectively) rational to become and remain a fundamentalist. A fundamentalist is defined as someone who prioritizes salvation over worldly goods, regards his belief system as certain and not appropriately subject to doubt or criticism, and who divides the world into the good (who can be trusted) and the evil (who should be avoided, if not killed).

Two elements of Baurmann’s account are especially relevant to this paper:

- (1) *Particularistic trust*. The rule is: “distrust everyone who is not a member of your group.” When one is the member of a relatively isolated social group that is in hostile and/or conflict-ridden relationships with surrounding groups one will get enough confirmation of the untrustworthiness of members of other groups (they will treat one badly in various ways) that it is (again, subjectively) rational to continue to follow this rule (supposing it has been taught to one by those in one’s “personal trust network”—those one has come to trust on the basis of close personal relationships).

- (2) *Epistemic seclusion*. This is accomplished by the inculcation of norms granting epistemic authority to group leaders and sacred texts and by, as much as possible, keeping group members away from contact with alternative sources of information (e.g., home schooling, ostracism and expulsion of dissenters, forbidding dangerous literature). Particularistic trust helps here, too.

Again, the idea is that in this kind of environment it is subjectively rational for an individual to adopt and maintain a fundamentalist set of beliefs and norms. Baurmann, like Buchanan, emphasizes the fact that those of us who are in a more open-ended and ‘enlightened’ social environment, where we can extend our trust to the deliverances of science, are (epistemically) lucky, not particularly rational. The superior (objective) rationality “lies in the institutions of science and the culture of an open and liberal society and not in the individual rationality of the single citizen.”

Backing off a bit from the totalistic nature of the fundamentalist belief system and its social epistemology, we arrive at:

Example 3: Distrusting Climate Science.

We can think of this as a less drastic version of the previous example. (At least, it’s less drastic for the ‘climate change deniers’ who are not fundamentalists.) The social and epistemic isolation is not as complete and the beliefs are not as extreme. But there is still a version of ‘particularistic trust’. One is provided with reasons for disregarding the testimony of scientists, academics, and mainstream journalism. One is persuaded that only Fox can be trusted to give you accurate news reports. Everyone else is said to suffer from liberal bias, anti-Americanism, hostility to markets and to business, moral relativism and other epistemically-disabling conditions. Climate scientists, in particular, cannot be trusted because they have a strong conflict of interest: they want more money for their research, which will only come to them if they alarm the public and thus make it seem that their research is particularly urgent. In this way the denier is inoculated against conflicting evidence. And there is enough hostility, contempt and condescension coming from liberals and scientifically-minded people that the attitude of particularistic trust gets the support it needs.

Examples such as these seem to me to illustrate with particular force the dependence of the individual citizen on his or her epistemic environment. If we know better than the people described in these examples, then we are lucky.

X. MELIORATIVE STRATEGIES

After all this pessimism I wish I had a more persuasive (and less familiar) set of remedies. I do not. And though my main thesis is that we need to adjust our epistemic environment instead of expecting individuals to rise above it, I have no reason to think that the sorts of reforms suggested here (and by other like-minded scholars) have much chance of coming to pass. It might be just as reasonable to hope for a reform of human nature. Nonetheless ...

Journalism:

We need more effort to identify and give pride of place to genuine experts rather than flacks, politicians, generic commentators (Brooks & Shields) and horse-race handicappers. We, therefore, need reporters to develop the subject-area knowledge necessary to be reliable guides

to who the experts are, what the state of scientific (and other expert) understanding is, and who is likely to be telling us the truth.

We need serious efforts to assess the truth of statements by public officials and others who attempt to shape the public's understanding. (We need more than the sort of quick and perfunctory 'fact-checking' that is so widely practiced. This latter is better than nothing, but only if it employs reasonable standards of evidence. All too often, it does not, as a desire to appear even-handed leads to a refusal to decide which party to a dispute has the better case, and to sometimes-strained efforts to find all parties guilty of something.) This requires (again) more expertise on the part of the journalists, but also a different conception of their role: as fact-finders, not opinion conveyers (Cunningham, 2003.) To play this role, however, more is needed than better-educated and differently-oriented journalists. As noted above, the rationality of science lies in its institutions and practices more than in the virtues of individual scientists. Analogously, journalism cannot rely on the integrity and diligence of individual journalists. It needs some analogue of the institutions of peer review and scholarly debate.

Education:

We need to inculcate scientific and critical habits of mind. Every high school graduate should know enough about the nature of scientific inquiry and the practices and institutions of science to be an intelligent consumer of scientific reports and to have some idea about how to identify real expertise.

Media literacy (and now Web literacy) should be goals of instruction. This would include some awareness of the way journalistic practices (and search engine algorithms) can let us down.

We need to put less emphasis on argument analysis and evaluation and more emphasis on raising consciousness about cognitive and motivational biases. This flies in the face of my own training (as an analytic philosopher), but ironically, it seems to be where the best arguments and evidence lead us. However, there is considerable work left to do before we have a good set of tools for 'de-biasing'. As noted above, it does not seem to be effective to simply make people aware of these biasing processes and then exhort them to do better. Indeed, we have good reason to suspect that people will deploy their knowledge about cognitive and motivational biases in a biased way. What would seem to be required are procedures that will take these biases out of play. But such procedures may not exist for the sorts of knowledge we are worried about in connection with democratic politics.⁵

None of this can work unless the general cultural prerequisites are present: as they are not when religious leaders succeed in de-legitimizing all non-religious sources of knowledge, or when conservative 'thought-leaders' teach their followers not to trust academia, the mainstream media, or the institutions of mainstream science. So we need to find way to draw the epistemically segregated and mutually suspicious elements of our society into productive dialogue. Here there are some reasons to be hopeful. Hugo Mercier and Helen Landemore (Landemore & Mercier 2010, Mercier & Landemore 2012) have argued that the problems of

⁵ Consider an analogy: It is apparently futile to exhort people who are auditioning prospective orchestra players to be fair with respect to gender. If the evaluators are aware of the gender of the players, then their perception of the quality of the playing will be affected (to the detriment of female applicants). It is however possible and effective to put the auditioning players behind a screen, so that the evaluators cannot see them and are forced to judge purely on the basis of what they can hear. What sorts of procedures could do this kind of job in the realm of politics?

motivated reasoning and cognitive biases are most acute for solitary reasoners, and that they can be overcome when people reason together in a properly deliberative way. Building on Mercier's argumentative theory of reasoning, which suggests that the evolutionary basis for reasoning is in competitive social interaction and not in truth-seeking,⁶ they argue that people who exchange arguments can compensate for each other's cognitive and motivational biases. Solitary reasoners are likely to construct arguments supporting their pre-existing views, and they are not likely to subject those arguments to rigorous scrutiny. But two or more people reasoning together can check each other and thereby do better. What is necessary for this process to go well, according to Landemore and Mercier, is at least some degree of cognitive diversity among the participants (they cannot be too 'like-minded') and they must actually argue in an adversarial way, putting forward arguments for their views and subjecting the arguments of others to critical scrutiny.

Alas, I must end on a note of caution. A problem with the appeal to the idea of deliberative exchange is that, in the real world, there is no guarantee that any formal rules or procedures will prevent the subtler forms of interpersonal power from corrupting the process. "Discussion is repression" ran a slogan of the German student movement in 1968. The students had a point. Anne Phillips' account of the drawbacks of participatory democracy in the women's movement illustrates the problem (1991, pp. 120–146). In-face-to-face meetings, the emotional relationships of the participants become crucial. Phillips reports many women feeling afraid to voice disagreement, informal and unaccountable patterns of leadership, and the emergence of false consensus. I think these are real problems, and I see no possibility of an easy or permanent solution. It is possible to stipulate 'rules of engagement,' like taking turns and making sure everyone has a chance to contribute to agenda-setting. But nothing of this sort can guarantee that people will not be shamed or seduced in one way or another. Neither the formal features of an 'ideal speech situation' nor any specifiable set of rules can substitute for the (uncodifiable) virtues required for good deliberation.

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⁶ Crudely: the biological function of our reasoning ability is to persuade others and win arguments, not to discover truth.

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