

# Is democracy fit for climate change? Science, empathy, and public deliberation in sustainable climate action

Aris Trantidis

## Abstract

Is democracy an obstacle to action on climate change? Will authoritarianism fast-track effective climate policies? I criticize eco-authoritarian and technocratic governance for creating an unrealistic separation between effective climate action and public acceptance of crisis management, failing to recognize that *political sustainability* is indispensable for the success of climate policy. I also argue that the design of effective policies requires proper consideration of all dimensions of a crisis, which includes diverse circumstances, experiences, ideas and grievances in society - what I call *social knowledge*. Democracies allow policymakers to retrieve that knowledge and consider it. I then examine how the current democratic setup can be reformed to better ensure that citizens will be well-informed and will not discount future consequences. I argue that deliberative processes, by integrating scientific knowledge in discussions in ways that facilitate knowledge acquisition and foster empathy for future generations, can create an enhanced decision-making environment on climate.

**Keywords:** climate change, climate politics, green institutionalism, democracy, crisis, eco-authoritarianism, technocratic governance

## Introduction

Is democracy a political system conducive to effective government action on climate change? Is an authoritarian type of technocratic governance a better alternative? Climate change is a critical test for political systems. Governments must act to prevent or mitigate the environmental, social, and economic impact of climate change. Climate action requires important behavioral adaptations as well as institutional reforms. However, policies on climate can trigger differentiated reactions in society, including disagreements, resistance, denial and protest, which may derail, obstruct or cancel their implementation. Given the high stakes and the developing urgency of the problem, a plausible concern is that public reactions may block effective policy action properly guided by scientific evidence. In addition, climate action poses a problem of intergenerational fairness. Citizens

may disregard the scale of the crisis which future generations will confront if the problem of climate change is not addressed early enough.

The question of whether and how democracy supports human societies in tackling environmental problems and climate change has been the topic of a burgeoning body of scholarship that has considered institutional deficiencies and has made proposals for institutional reforms (Eckersley 2019; Mert 2019; Tremmel 2019; Pickering, Bäckstrand and Schlosberg 2020). New institutional arrangements and forms of democratic engagement have been presented and discussed (Morrison 1995; Mason 1999; Bernstein 2001; Eckersley 2004; 2019; Schlosberg, Bäckstrand, and Pickering 2019; Willis 2020). Part of this debate concerns the risks and gains from politicizing or depoliticizing climate policy (Cf. Pepermans and Maesele 2016).

On the one side of the debate, authors have suggested that climate change requires serious enhancements and additions of democratic institutions (Goodin 1992; Dobson 2003; Smith, 2003; 2004; Baber and Bartlett, 2005; Wong 2016; Fiorino 2018; Hanusch 2018). A recommended direction is the introduction and upgrading of deliberative and participatory processes (Mason 2008; Baber and Bartlett 2005; Dryzek and Stevenson, 2011; Niemeyer, 2014; Fischer 2017). Democracy must enhance citizens participation in deliberative processes with a view to attaining a legitimate and effective response to the environmental crisis (Dryzek 2000; Baber and Bartlett 2005; Niemeyer 2014; Dryzek and Pickering 2019; Mert 2019; Schlosberg, 2016; Tremmel 2019). Deliberative processes should provide possibilities for both contestation and reflection (Dryzek and Stevenson 2014: 58). A degree of politicization is desired provided it unfolds in the more civil and refined conditions of a public dialogue. Participation in deliberative processes can then raise awareness among the public of the scientific data and projections of risk, and can foster a sense of responsibility, placing additional pressure on decision-making authorities to take proper action on all essential fronts (Willis 2020).

On the other side of the debate, there are sceptics and critics of democracy who argue that, as climate change is evolving into an existential crisis for humanity, democratic processes and political liberties act as serious distraction from effective and prompt action on the climate, something which human society cannot afford in view of the imminent catastrophe (Cf. Humphrey 2007; Shearman and Smith 2008; Blühdorn 2013). This criticism supports proposals for radical departures from representative democracy, ranging from substantially more powers to be given to technocratic management for designing and implementing long-term plans - a form of ecological *state dirigisme* (Giddens 2009) - to forms of *eco-authoritarianism* limiting democratic participation (Mittiga 2021. Cf. Jonas 1977;) and even suspending liberal democratic rights (Blühdorn 2013. Cf. Plumwood 1996; Ophuls 1977).

Both sides of the debate build up a body of *green institutionalism*, namely theory that is normative but non-ideal, attentive to both scientific data and empirical evidence from the social sciences, scrutinizing the performance as well as

potential of existing political institutions, and proposing institutional amendments or alternatives. In that sense, work in green institutionalism aims at facilitating effective climate action that can successfully prevent, stop or adequately mitigate the catastrophic consequences of climate change. At the same time, green institutional theory must scrutinize its own alternative proposals too, with reference to non-ideal observations. For example, a normative proposal for institutional reforms or regime change can be challenged if its assumptions are shown to be unrealistic or counterproductive.

In this paper, I start by emphasizing that the politicization of climate policy will be inevitable in any form of political regime. Then, I scrutinize the two assumptions underlying proposals for eco-authoritarianism that, in climate policy, the public has no epistemic contribution to make and that public reactions will mostly be a distracting and disruptive noise that *must* be suppressed and *can* be suppressed. Against these premises, I argue that efforts to depoliticize climate politics will cause fiercer public reactions, deeper skepticism, intense cynicism and, ultimately, backlash that can delegitimize and derail climate politics. Public legitimacy is indispensable for climate action to be politically sustainable. In addition, I argue that effective climate action requires policymaking to learn about, consider and address differentiated effects and experiences in the population related to climate change or triggered by climate policy, what I call *social knowledge*. I thus criticize proposals for climate authoritarianism and technocratic governance for failing to create a pathway for sustainable climate policy based on public acceptance and a broader knowledge of various dimensions of the crisis in society.

I redefine the notion of effective crisis management as reliant on public legitimacy and access to social knowledge. First policy effectiveness is intertwined with a public sense of fairness, as climate action can only be effective if it is politically sustainable as well as informed by science. I then argue that democracy allows the fullest possible discovery of society's differentiated experiences, needs, opinions, sentiments, and ideas on climate. However, a degree of politicization is desirable insofar it is conditioned by an ethos of learning, care and concern for future generations too. Democratic systems must provide processes that better inform the community about the stakes of the problem and engage citizens in decision-making with a commitment to considering the impact of their decisions on future generations. This means that democratic reform is necessary, and must help political societies handle:

1. the intersubjectivity of public attitudes,
2. the problem of public ignorance, and
3. the intergenerational dimension of the problem.

I thus requalify the benchmark for fairness and effectiveness, adding the development of a strong and mobilizing concern for the plight of future generations as a quality of a reformed democracy. At first glance, this stumbles at the premise that citizens are largely ignorant and will not care for future stakes.

This criticism strikes at the very model of ideal citizen and political system. In short, eco-authoritarians superficially summon a long-standing but conventional reading of Plato's ideas through which they express mistrust for ordinary citizen and praise for technocratic governance. Yet, as I show, Plato's work presents us with a developmental model of a citizen that refutes the idea of eco-authoritarianism. To harness the developmental potential that exists in the body of citizens, Plato emphasizes reasoning and philosophizing. Rather than an advocacy of technocracy and authoritarianism, Plato's work offers a foundation for exploring deliberative democracy as a developmental and pedagogical process. I argue that public deliberation will support knowledge acquisition if scientific facts and projections are presented in a context of a dialogue in ways that can trigger empathy for future generations. I argue that deliberative process can uniquely set in motion an interplay of knowledge acquisition, public reasoning and emotional affect, which will help citizens look ahead and develop a stronger sense of care and responsibility for future generations in ways favorable for effective climate action.

### **Eco-authoritarianism versus democracy**

Part of the value societies assign to democracy regards the generally good social outcomes citizens experience in democratic systems relative to authoritarian systems. If systems of government build legitimacy based on the quality of the decisions and outcomes they generate (Cf. Estlund 2007; Christiano 2009; Landemore 2012), empirical evidence indicates that consolidated democracies generally perform better than authoritarian regimes when assessed against the system-level benchmarks of human prosperity and security. Consolidated democracies are more successful at delivering economic and social welfare and protecting human rights. Still, public expectations of good performance tend to more demanding. Citizens expect the state to bring order in a complex world full of risk. In the event of a crisis, the capacity of the government to meet such expectation has been problematized. Moreover, in a crisis situation, there can be confrontations between science-backed action and the diverse preferences and deficient understandings amidst the citizens. If there is dissensus and clash, this may lead to serious policy fluctuations, postponements, suspensions and delays.

In climate change, prompt and comprehensive action is needed to prevent the projected catastrophic consequences of climate change (Gills and Morgan 2019). It is thus reasonable to closely examine the capacity of democratic systems to act promptly and effectively to prevent them. It is also tempting to ponder on whether democracy is a system that generates too much public noise and allows too much contestation that is likely to block the implementation of an effective strategy for crisis prevention, mitigation and management.

For some authors, this is a problem that makes a move to authoritarian forms of governance almost inevitable even though it is not desirable. Mann and Wainwright (2018), for example, argue that the future regime can take the form of a capitalist and securitizing structure of power, a 'Climate Leviathan', or a

suppressive and centrally coordinating ‘Climate Mao’ (Mann and Wainwright 2018). In that regard, one might say, a lower degree of authoritarianism now in the hands of a well-informed and well-intended technocratic governance is pragmatically speaking, a better pathway for societies to follow.

Other view is that climate change is a crisis whose prevention and mitigation urgently takes precedence over concerns with political liberty and citizens’ equal expression and participation. Recently, Mittiga (2021) argued that authoritarian climate governance should be seen as a legitimate political regime for combatting the climate crisis and its emergencies, on the grounds of what he called *foundational legitimacy* (FL), namely the requirement that citizens’ essential safety needs must be met first. This justifies relaxing and suspending democratic processes and individual rights which build up what he named as *contingent legitimacy*, the requirement that the power used by the government to secure and maintain FL, must be, in principle, ‘acceptable’ to those subjected to it:

‘...[p]rioritizing FL over CL in crisis moments may entail embracing authoritarian governance. In this sense, authoritarianism is *not* antithetical to political legitimacy; rather, legitimacy seems to require it, at least in exceptional circumstances (Mittiga 2021: 7).

In short, to address the climate crisis and prevent its escalation, normative priority is given to implementing effective climate policies informed by scientific expertise even if this requires imposing authoritarian controls on society. If mitigating action now proves to be inadequate, draconian action will later appear inevitable and will also be justified. This position is based on three basic assumptions: (a) policymakers and scientists alone know or will discover what effective climate action will be, (2) the public will most likely resist effective climate action and, therefore, its input into decision-making is counter-productive and must be seriously curtailed, and (3) the depoliticization of climate policy is desirable and possible to attain. At first glance, this view begs the question of how to create a proper new regime. Political societies are asked to create a new form of authoritarian power suitable for crisis management, but the argument excludes a scope for public debate about the nature and direction of this fundamental constitutional change. If we must not trust the public anyway, can we allow a public debate on eco-authoritarian alternatives? If not, who is entitled to decide? Will an enlightened political and technocratic elite alone take this fundamental decision about shaping the political system which it will then occupy and run on our behalf?

Another objection to this position is that science and technocracy cannot put an end to political contestation; they will actually enlarge it (Latour 1998). Scientific projections and prescriptions as well as policy agendas inevitably intersect with disagreements, diverse views, differentiated needs and conflicting values in society (Hoffman 2015: 110). Policies will unavoidably unsettle some, trigger social reactions and will reshape social actor preferences some of which will, in turn, challenge the policies themselves (Roberts et al 2018). As Ravetz puts it,

when science is carried into society, ‘the facts are uncertain, values in dispute, stakes high, and decisions urgent’, and this requires a more ‘extended peer review’ by all those affected by it (1999: 649). Perceptions of risk inevitably involve differentiated intersubjective views.

Mittiga’s position begs the question in another way too. Can we claim to be taking action for the benefit of the society without considering the meaning people would give to what is beneficial for society? If output legitimacy includes a definition of what safety is for human societies, this definition cannot be formulated independently of public perceptions. Citizens must view politics as an open and fair process that provides sufficient possibilities for them to express their concerns and articulate their views on perceived problems, policy proposals and outcomes (what is known as ‘input legitimacy’). This perception of fairness by inclusion conditions perceptions of ‘output legitimacy’. Because policy outcomes inevitably divide public opinion and remain contested, output legitimacy does not require that outcomes must be generally accepted by all; it means that they must be *acceptable* by the citizens on the grounds that decisions and outputs were and will remain the subject of discussion and contestation.

However, in the context of climate change, a strong objection to this position is that an extended public review of policies and outputs may disregard scientific projections and may discount measurable costs in the future. With projectable catastrophes, safety seems to be defined more objectively than intersubjectively, and also concerns the safety of future generations who are not yet with us to take part in our consequential decisions. Our neglect for the scale of the problem or ignorance about it will be harmful for them. At first glance, this objection seems to reinstate the normative separation between public legitimacy versus effective crisis management; the rift between input and output legitimacy becomes a question of knowledge and intergenerational fairness.

Climate politics is indeed problematizing the feedback relationship that inevitably connects government and society. In the next section, I will start building a response to this objection. Before doing so, I make one key concession to eco-authoritarianism about another assumption it relies upon. I will not be raising the serious objection that crisis management can be used by autocrats as an excuse to suppress political liberties and build a self-serving regime of corruption. Instead, I focus on showing that authoritarian governance suffers from a knowledge problem and argue that inclusion in current democratic systems offers governments an important epistemic advantage for effective crisis management.

### **Democracy’s epistemic advantage**

I start by asking whether differentiated public views are simply a noise that distracts or a contribution to the design of better policies. In politics, like any other complex system, we cannot assume that full knowledge of all the dimensions of a problem is accessible to any of us and discernible by governments and state

agencies. Instead, this knowledge, which concerns diverse life circumstances, experiences, sentiments and ideas, must be discovered through an uncensored and ongoing feedback process between government and society. I emphasize why this knowledge matters for the design of effective climate policy. I then show why existing democratic systems have an advantage in retrieving, processing and responding to this knowledge compared to authoritarian regimes.

The COVID-19 pandemic highlights these points. At the beginning of the pandemic, China's strict lockdown policies were praised as an indication of how effective a technocratic model is for crisis management. Yet the full scale of side-effects and trade-offs emerging from measures for the management of this crisis were not known to authorities. These effects included neglecting important health, social and economic dimensions of the pandemic. China, like other authoritarian regimes, stifled the voices from society that could have expressed concerns over various aspects of the policy. These voices could have given valuable early indications of side effects and differentiated outcomes. By prohibiting the expression of dissenting opinions, the authorities could only retrieve limited and censored feedback. They were working with a deficient and distorted image of the actual experiences, grievances and concerns building up in society. They were later surprised by some unintended and undesired consequences of their policies, and were also taken aback by outbursts of public dissatisfaction and feared social unrest, as the Shanghai lockdown screams revealed.

By contrast, in democracies, groups of citizens were freely asking governments to consider their situation. By expressing their needs, fears and anger about how pandemic-management measures affected their circumstances, they were offering information about what is going on in society. Public criticism included views that were scientifically unsupported, but most of the concerns were plausible. For example, was the initial response to the pandemic too relaxed in the United Kingdom? Were the measures taken unnecessarily restrictive, or have they lasted too long in Italy, France and Spain? Is adequate compensation available to businesses and employees affected by the lockdown in poorer countries? Among the hardest by the pandemic and by the restrictive measures were poor households, single families, older people, undocumented workers, fixed-term employees, the self-employed, geographically separated families, foreign students and the tourist industry.

A public policy response to a crisis cannot ignore the concerns of social, demographic, and economic groups whose economic and social welfare was hit differently and disproportionately. Crises are too complex for a single decision-making body to fully gauge the full range of various, health-related, economic, social and political dimensions, and policy implications and that knowledge of social circumstances is needed for effective policy action and coordination – what can be broadly conceived as *social knowledge* in any crisis situation.

The COVID-19 pandemic illustrates why politicization in crisis management is inevitable but free public expression guaranteed by democratic rights is beneficial

for retrieving and harnessing social knowledge. Free public expression allows those in charge of crisis management to build prompt, proportionate and diversified policies. Democratic governments enjoy this advantage. They can continually track and gauge uncensored signals from society about the differentiated impact of their response to a crisis.

In a similar vein, climate action elicits interventions into existing and evolving societal interactions, relations and norms, and this will have various environmental, health-related economic, social and political dimensions which climate scientists and official authorities cannot fully anticipate. Public authorities can consult scientific experts, but their recommendations may neglect important social and economic dimensions or downplay them or claim they are not qualified to evaluate them. But their decisions and policies are interventions in society that cannot be sustained if they ignore differentiated expectations from society and different interpretations of what policy effectiveness means and requires. While citizens will be expecting an efficient policy response (what is known as ‘output legitimacy’), what is a good output is socially constructed and will remain contested. Decisions overlooking the needs, views and suggestions of (some) citizens will worsen public distrust and sow the seeds of social protest. Rising social and political tensions can eventually derail action on climate. This is less likely to happen if early feedback from society is retrieved and considered. But if democratic expression is suspended, governments lose a way to continuously retrieve information about relevant dimensions of crisis management.

Coming back to the work of Mittiga, the point here is that the concept of *foundational legitimacy* collapses into the prerequisite of *contingent legitimacy* for epistemic reasons (1) because what constitutes safety for human societies is socially contested and multifaceted and (2) because proper actions and solutions from public and private authorities presuppose the kind of social knowledge generated by free expression - the full array of opinions, fears, questions, claims and judgments, as they evolve in society. For climate action to be sustainable, there must be both public acceptance at every single stage and deeper knowledge of several dimensions of the problem.

Moreover, if sustainable climate action depends on public perceptions that the decision-making process is inclusive and considerate of their varied and evolving opinions and experience, insisting on depoliticization is futile, and trying to impose a degree of depoliticization will eventually re-fuel the political arena by triggering mistrust, resentment and backlash (Goeminne 2012). In any type of political regime, social dissonance affects not only the process in which policy objectives and means are defined, but also the process of implementation and gauging, anticipating or responding to the consequences of these interventions. In that regard, pluralism, early signs of disagreement and contestation are not ‘noise’ or a distraction hindering effective climate action, but a valuable source of information which governments must gain in order to design and implement politically sustainable and effective climate policies. In other words, effective climate action and democratic inclusion are integral parts of the same objective:

climate action that both endures and works. They cannot be separated conceptually or pragmatically

An eco-authoritarian regime cannot genuinely retrieve this social knowledge early and promptly enough to design a holistic and sustainable climate policy. By definition, authoritarian regimes lack the knowledge-generation process built upon free expression, voting and collective action; they also lack the same source of public pressure and the electoral incentive to be attentive to the people's desires and wishes. Even if an authoritarian government would want to know and care about the opinions, fears, questions, claims and judgments of its population, there is no mechanism to get this continuous and uncensored feedback. Opinion polls or surveys in an undemocratic environment of surveillance, conformity and self-censorship at various levels could not generate genuine feedback. Still, authoritarianism does not do away with social dissensus and discontent. It suppresses it and adjusts the level of suppression in line with the welfare standards of the population. More affluent regimes, like the Middle Eastern monarchies currently need less suppression than poorer authoritarian regimes, like Indonesia in the 1960s, Paraguay in the 1980s and post-war Iraq in the 1990s. But climate action may change this.

This ignorance and neglect for people's circumstances also means that an authoritarian regime is likely to use its powers and resources to push technological innovation in a different direction than the much-needed technology for mitigation and comfort. It will overlook issues of distribution and may suppress desires for consumption far too much and, facing the specter of social unrest, it will make a bigger investment in technologies for surveillance and suppression, particularly if the scale of behavioral sacrifices to be asked will become more demanding and, consequently, the risk for political backlash quite high.

By contrast, democratic inclusion offers policymaking an epistemic advantage – a process of public expression and participation that generates useful knowledge relevant for the political sustainability of climate action. Moreover, the free expression of concerns, desires and grievances informs and prompts public sector as well as private entrepreneurs to invest in technological innovations that can reduce the consumption sacrifices and ease the behavioral restrictions needed for preventing climate change. Governments can retrieve genuine social feedback but must also respond to this type of knowledge too.

### **The problem of public ignorance**

The epistemic advantage of democracy unfolds in an environment in which both citizens and political decisionmakers make decisions and act based on partial and incomplete information. This is inevitable in a complex society (Wagner 2016: 39) but can become a key obstacle to the design and implementation of effective climate policies. Social feedback exposes problems of ignorance and bias amidst the population. If we are to assess a political system on epistemic grounds based

on how it handles the ‘intersubjectivity problem’ in the context of crisis management - public ignorance becomes a serious problem.

For Dale Jamieson (2014), democracies have failed to take prompt action on climate, and this failure partly reflects the general public’s ignorance of scientific facts, a disjointed linkage between science and politics, and the generally poor cognitive and affective state in terms of practical reason and ability to understand a complex, multidimensional and intergenerational problem. Less damning for democracy is the argument that citizens in systems with polarized political cultures are less likely to properly consider the available scientific evidence on climate change (Kahan 2012; Hoffman 2015). In both cases, there is a major reservation to democratic participation: the public is largely ignorant or too short-sided or too indifferent to properly consider scientific evidence and push for action based on this evidence.

Taking public ignorance and indifference as given, Shearman and Smith propose ‘a Platonic form of authoritarianism based upon the rule of scientific experts’ (2008: 2). This proposal is a variation of eco-authoritarianism, an *eco-epistocracy* where the most knowledgeable will lead societies or, to use Plato’s, words, will navigate the Ship of State. Plato’s positions on politics, as framed in his Socratic dialogue *The Republic*, have long indeed been invoked as an indictment of democracy and a foundation for epistocratic authoritarianism, but *superficially so*.

The problem of ignorance in politics is a paradox. Both political exclusion and political inclusion can create a problem of ignorance. Exclusion is depriving the government of social knowledge important for handling the multidimensional nature of a problem with public acceptance. Authoritarianism suppresses the input of social knowledge and, at best, achieves a suspension rather than a resolution to the problem of public ignorance. Inclusion, on the other hand, generates a social feedback process that exposes the problem of public ignorance. Governments are compelled to accommodate it. Is there a way out? A more careful reading of Plato may indicate where a convincing answer lies.

Plato’s position on justice in the *polis*, the political organization of the Greek city-state, reveals a more nuanced approach to the definition of knowledge and the direction societies must take for better governance. Plato has a critical stance on the adversarial nature of Athenian democracy. In the *Republic*, he posits that the political regimes of his time were corrupted. He discusses four unjust ideal types of political regimes: timocracy, oligarchy, democracy and tyranny. In timocracy, the ruling class holds personal property, disregards the common good and governs in its own interest exploiting the lower classes. Asymmetric enrichment transforms the polity into an exploitative oligarchy as social status is differentiated based on strength and wealth. Masses will eventually rebel and install a democracy with equal participation in political choice and freedom of speech. This system might not be incapable of discerning which claims are necessary or harmful, and impulsive public sentiments could generate a factional political landscape that will

descend into unruly mob rule. A tyrant will take advantage of public fears and anger to usurp power. He will rule by force, recruit the worst, eliminate the best and declare wars to distract his citizens.

In *Laws*, a later work on building a political constitution for a real, newly planned city, *Magnesia*, Plato fears a society ruled by a few with absolute power and argues that a free city must instead invest govern itself through persuasion addressing its citizens and the justification of the restrictive measures it will inevitably impose on them as a society of laws. Citing the stories of Sparta and Persia, he claims that we cannot trust that an oligarchic or autocratic political system will remain in the hands of benevolent and capable rulers, like Cyrus of Persia.

We recognize in Plato's work an analysis of the interplay between processes parallel to contemporary phenomena: authoritarianism, populism, factionalism, money in politics, rent-seeking and political ignorance. We also recognize the risk of social discontent and rebellion across all types of systems perceived as unjust.

Is Plato's rejection of authoritarianism an argument to reject technocratic governance? Plato's ideal of a *noocracy* stands in contrast to how all other types of regimes operate, including technocracy, because of his distinct definition of knowledge as philosophical enlightenment rather than technical expertise. In the *Republic (Politeia)*, Plato develops the idea of the 'Callipolis', an ideal city run by *philosophers*, not by technocrats or experts. In what was, at least primarily, a metaphor for how each of us should exercise self-control and cultivate our soul, Plato presents the ideal city in a division of labor based on citizens' own inclinations, with some citizens inclined to military training for the city's defense, others spirited enough to be occupied with the production of goods and services and some devoted to ruling the city because of their ability to become moral leaders, rather than knowledge of technical facts or special skills, which all citizens have and cultivate in their respective inclinations. Those who love learning and truth-seeking and are inclined to cultivate their own soul through philosophical reasoning must rule.

Despite the metaphoric nature of the Callipolis in the *Republic*, Plato places emphasis on the transformative role of education aiming at enhancing the capacity for reasoning and truth-seeking: getting people out of their own cave where they see distorting appearances into looking at the truth. Education into reasoning and truth-seeking is the highest virtue in Plato's ideal of governance.

In *Laws*, Plato reflects on how political institutions shape citizen's values and how virtue can be cultivated in the entire body of citizens. Plato places emphasis on how the law becomes legitimate in view of conflicting positions and emphasizes citizens' motivation to obey the law. He recognizes that actual citizens will differ in terms of interests and intellectual abilities, and suggests that the law-making process needs to be justified. This involves both rational reasoning to persuade citizens and appeals to emotion, insofar as emotions do not become extreme enough to overpower one's capacity for reasoned judgment.

In Plato's Socratic dialogue *Meno*, Socrates stresses the idea of dialectical reasoning (*aitias logismos*). The very Socratic method, which Plato consistently presents in his entire work, is a method of dialogue that investigates moral and political problems with questions and answers that eventually challenge and even transform the initial positions of the participants themselves. This form of philosophical deliberation is occasionally inconclusive, and we don't even know who ultimately wins the argument (*aporia*) but it is always, at the end of it, enlightening for all participants. This method of inquiry and dialogue stands in sharp contrast to the long monologues at Athens' Assembly, the *Pnyx*, which Thucydides cited as examples of occasionally inspiring rhetoric (Pericles' Epitaph) or opportunistic demagoguery (Alcibiades and the Sicilian Expedition).

Plato's emphasis on the role of philosophy and education highlights the potential of a particular type of political deliberation, a process that bridges democratic accountability with learning and reflection on the public good. In this regard, a more realistic and contemporary take on Plato's *noocracy* in the context of environmental governance seems to be a form of citizens' cultural enlightenment (Hoffman and Devereaux 2018) to be realistically achieved in a system of governance favoring the intake of scientific facts while inviting citizens in a formative dialogue. A decision-making system will not merely respond to society's concerns, ideas, suggestions, grievances and demands as they are at a given time; neither will it allow a few to dictate solutions, but it will provide citizens a form of public engagement as an opportunity to enlighten themselves and reconsider their views through challenging exchanges of information and the mutual scrutiny of opinions and ideas.

Coming back to climate politics, the current democratic structure of public participation and free expression creates necessary but not sufficient conditions for developing and sustaining an effective response to climate change. Current forms of representative democracy are offering governments the capacity to retrieve and fairly consider diverse opinions but falls short of helping citizens becoming more informed about scientific facts and revising their own views in view of this knowledge. Designing robust institutions for climate politics is about attaining informed and enlightened public participation. Citizens must engage with science, governments must consider the political and social aspects of climate agenda, and social heterogeneity must be steered towards attaining sustained and effective climate policies. This is essentially a developmental political process. It requires making considerable amendments to the existing democratic format that would assist societies in becoming more informed and responsible when addressing novel circumstances and challenges, such as climate change. Democratic reform is about creating a continuous context of reflection, revision and transformation of opinions, moral stances and political preferences for prompt and meaningful decisions on climate. In the following section, I explain how climate deliberation can achieve the following goals:

- a) by creating an environment that generates consequential policies informed by science next to innovations by technology, with public approval,
- b) by encouraging continuous reflection on consequences, risks, possible outcomes and effective action on the climate from both citizens and policymakers,
- c) by opening the potential for the transformation of ideas and opinions through discursiveness, coordination, uptake and reflexivity
- d) by inviting and structuring deliberations and decisions over a prospect for reform that will consider the standing of future generations

### **Deliberation, learning and reflection**

So far, I have recast the institutional problem of climate politics as follows. Depoliticizing climate policy is impossible as well as counterproductive in terms of the nature of the knowledge that is needed for effective climate action. Technocratic governance does not have full access to this type of essential knowledge, and authoritarianism precludes the uncensored expression of citizens' views, reservations and challenges. In the longer term, this will fuel public cynicism, recalcitrance, rejection, adversarial politics, factionalism, echo chambers and 'deaf ears' With no mechanism to ensure government accountability and against an agitated public, a technocratic and authoritarian government will fail for epistemic reasons alone. What Plato describes as the tyrants of his time can be a contemporary oligarchy of special interests (Cf. Stokes 2020).

At the same time, we must not disregard that the serious risks from extreme politicization too. If the public views science as merely a product of power politics, a growing level of public distrust will undermine the legitimacy of climate policy. If, as Machin puts it 'scientific knowledge should be received less as predictive truth-machine, and more as reality-based social and political heuristic' (2013: 94), we cannot help wondering if this stance will ever favor proper reflection on scientific knowledge. Environmental policy become just another arena of competitive and conflictual politics. In that case, rising politicization and the ensuing tensions and confrontations it brings could also trigger an authoritarian backlash. Extreme politicization will be portrayed as a problem by those who would like to justify an authoritarian response as necessitated and justified by emergency.

Hence, the question is about how policy and science can better intersect with society and the social knowledge people provide for sustainable environmental action? If political societies must avoid both extreme politicization and its authoritarian suspension, the perennial *Scilla and Charybdis* of politics, the best alternative is building a reformed process in which scientific knowledge and social knowledge constructively work together in support of a sustained and effective climate policy.

Traversing between contestability and consensus, deliberative democracy is a central concept in political thought that has been considered in the context of environmental governance too (Dryzek 2010; Dryzek and Stevenson 2011; 2014). Deliberation is not just a dialogue; it is a decision-oriented process (Thompson, 2008: 502). Unlike public consultation that helps governments and bureaucracies gather some information on public preferences, concerns and ideas on specific policy proposals, deliberative democracy is about engaging people with each other's varied experiences and understandings of vulnerability and risk (Dryzek, Norgaard and Schlosberg 2013: 91). This ideally unlocks a process of deeper, interactive, and reflexive, dialogue among citizens and between citizens and the authorities. For Dryzek and Pickering (2017), deliberation is not necessarily a search for a consensus but concerns how societies navigate the tension between diversity and commonality.

In the context of climate politics, deliberation must meet the demanding benchmark to perform well in three important dimensions of sustainable climate politics. It must raise government awareness of the public's stance on the climate and on climate policy. It must communicate scientific information for the public and make citizens duly consider the risks of climate change and the possible range of technological and policy responses. It must also cultivate a sense of responsibility for future generations too. This project will be aiming at revising and transforming views in dialogues that will be inclusive, discursive and reflexive, science-informed and future-oriented. Unleashing this transformative potential involves considering scientific advice, the life experiences of current generations as well as the standing of future generations who cannot be present in these decision-making processes (Cf. Eckersley 2004).

Is deliberation informed by science, realistically speaking, the closest we can go to creating a system of seeking the public good by reflection and learning? Can it create meaningful conversations for climate policy, close to the ideal situation of problematizing and philosophizing about society's needs and risks?

A key tenet of deliberative theory is that opinions and preferences can be transformed in deliberative processes through participation and communicative interaction (Habermas, 1996; Gundersen 1995; della Porta 2006, p. 340). Deliberation enhances and transforms social knowledge by allowing dissensus to be followed by discussion. This opens the scope for the expression of possible reservations and objections in the context of a civilized dialogue. In climate politics, citizens will be expected to frame their views and disagreements with reference to the high stakes of climate change, while acknowledging the points of others who have their own concerns, ideas and proposals too. Participation cannot be precluded as potentially involving 'denials' of science, but all views will be debated and can be criticized as such in the course of the dialogue.

This deliberative process stands halfway between the noisy and unstructured social arena, the *Agora*, the city market and meeting place of raw social interactions, casual discussions and fierce political confrontations which today

mostly take place in social media, and the *Pnyx*, the amphitheatrical hill of Athens that served as the assembly for collective decisions, where skillful orators and political leaders dominated with their monologues addressing the decision-making body; the modern-day parliament. It is precisely in a deliberative process where citizens are expected to meet the others and talk to others, rather than just shouting a rhetoric or clustering in echo-chambers of like-minded people. They are expected to consider other points of view and be heard too. This process is structured to demand participation as well as engagement with others.

The dialogical nature of deliberation, which Landwehr and Holzinger defined as *discursiveness* (2010), enables and promotes the exchange of views and the scrutiny of any expressed opinions and articulated reasons (Dryzek and Pickering 2017). Such a process activates a reflexive process as those who participate must contemplate on substantially different views in their interactions before addressing the audience. *Reflexivity* is triggered by exposure, debate and consideration in which participants must examine their own beliefs and consider their own stance next to a developing dialogue (Gundersen 1995: 10, 13). As citizens engage in dialogue with their fellow citizens, bringing forward as well as considering and revising their unique perspectives and testimonies through a dialogue with others, this process could enhance what Scudder defines as *uptake*, namely ‘the fair consideration of the arguments, stories, and perspectives that particular citizens share in deliberation’ (Scudder 2020: 504).

Deliberation is therefore a learning process as much as a decision-making process with the potential of transforming views and stances. Far from just serving as a forum for the expression and aggregation of set preferences, this is an action-oriented decision-making setting that triggers learning, reflection, and consideration of others and of the various dimensions of a problem, which included proposals for change of policy and norms (Cf. Jensen 2020). This can go as far as thinking about systemic weaknesses in terms of key norms and assumptions that shape public deliberation (Bohman, 1996; Dryzek, 2010: 12; Holdo 2020a), considering how the whole system is organized and which changes are needed (Dryzek and Stevenson, 2011, p. 1867).

What is important, however, is that deliberative processes must be structured to facilitate and encourage participation in ways that could foster the uptake of all views and collective reflexivity. Depending on the institutional characteristics of the process, communication can facilitate transformations or may have little or no effect (Landwehr 2010). As Chambers (2018) states, when designing deliberative processes with decision-making processes attention should be paid to both the inclusiveness and the *substance*, of the debate and deliberation.

Climate change poses a particular challenge for democratic reform. We must create deliberative institutions for a civil process of dialogue that will facilitate continuous uptake and meaningful reflection on scientific evidence. There are qualities in democratic deliberation that help in this direction. In this type of dialogue, participants expect from each other to surpass their narrow horizon of

self-centered calculation of interests and consider the position of others. This dialogue can thus be conditioned to encourage discussions about notions such as public good, justice, fairness and survival. To that end, deliberation on climate must incorporate scientific findings and projections in a clear language as part of defining the nature and scale of the problem and helping participants consider a proper course of action. Scientific data will act as a catalyst in deliberative processes, pushing participants to consider solid evidence when considering taking binding decisions.

### **Science, empathy, and concern for future generations**

I summarize here the three essential dimensions I identified of effective and sustainable climate action: informing decision-makers about the range of experiences, fears, grievances, demands and proposals in society, informing citizens about scientific facts and risk projections together with science-backed solutions, and cultivating a sense of responsibility amongst citizens for future generations. Decisions on climate are essentially forward-looking, meaning that they must seek to prevent more deleterious effects that will occur in the near future. This elicits a system of deliberation that will care about and consider how present decisions will affect future generations too.

Current decisions may ignore the risk future generations will confront. There is scientific knowledge about imminent consequences of climate change as well as plausible suggestions about ways to mitigate or avert them, but this may not fully reshape the current population's attitudes regarding what they should do now and will not automatically foster a stronger sense of responsibility towards future generations. If the aim of deliberation is to promote actual *coordination* for meaningful action (Cf. Landwerh 2010), in climate change, it confronts an intergenerational problem of fairness.

The problem of intergenerational fairness is not specific to climate action. Constitutions, for instance, constrain political societies for decades if not more, as the case of the US Constitution demonstrates, with provisions that are hard to revoke and with consequences that linger on in the legal system and legal culture for decades. When constitutional rules are challenged by those who see them as obsolete or unfair, these claims stumble at entrenched normative perceptions that find a strong anchor in the constitutional norms themselves and the procedural difficulties of revising them (Trantidis 2021).

In climate politics, the intergenerational effects and the difficulty of reversal is even graver. Inaction or inadequate action now will have irreversible consequences in the future. As the safety of future generations is at stake, the intergenerational problem can be seen as re-casting the connection between *foundational* and *contingent* legitimacy as a *rift in time*. What reassures us that political societies now will show responsibility towards future generations? Democracy seems flawed. Authoritarianism is ruled out for epistemic reasons, on top of its opportunism and suppression. Neither existing democratic institutions

nor any authoritarian alternative offers a reassurance that decisions now will show greater care for the plight of future generations.

The problem is that future generations cannot be present in democratic decision-making processes. We should place ourselves in their shoes. This is essentially the feeling of empathy. Emotions must not be overlooked as a way of raising a sense of public responsibility to others if they are based on facts. Can a deliberative process help us empathize with them? This question involves examining the role of emotions next to reasoning and scientific knowledge in cultivating a stronger sense of responsibility towards future generations.

Why do we care about others? How we are affected by looking at others's suffering has long been linked to how we experience suffering and fear for ourselves (Cf. Aristotle 2021). Empathy is both an emotional and cognitive response to someone else's emotional state, related to an understanding that something must be done. A perception of the emotional state of the other simulates our affective and cognitive mental states and can trigger empathy (Jankowiak-Siuda et al. 2011). Neuroimaging studies have shown that, when we observe emotions in others, the same areas of the brain are activated as when we experience our own emotions, even if these others are strangers to us (Craig 2002). Witnessing someone else experiencing great pain triggers an emotional and cognitive response along the lines of 'how can I help?' or 'how can we help?' (Cf. Ding and Liu. 2017).

Still, empathy is a dimension of politics that remains unharnessed by normative theory. What role did it play in the history of social progress and political liberation? Feelings of empathy with the plight of groups other than the one belongs to may have played an important role in societies in political processes that created democracy's celebrated record of civil rights and generous welfare state systems with public support and provisions for the less well-to do, the elderly, the children, and marginalized minorities. In environments where biases and racism were long entrenched in political and social norms, exploring the question why a majority came to support institutional reforms that created more inclusive structures of political rights and enhanced representation for groups such as women and minorities, cannot dismiss the role of emotion. In democracy, free expression enabled marginalized groups to openly express their grievances and publicize their suffering to raise awareness of the discrimination, bias, racism and exclusion they have been facing. In the US, black social activists in the 1950s used images of lynching victims in the American South and stirred an emotional uproar among a larger audience which had hitherto remained indifferent to, or ill-informed about the extent of the horrors which African Americans had been experiencing (Feimster 2009; Baker 2015). The struggle for civil rights was conditioned by the combined use of imagery and language with both emotionally charged and *true* information (Baker 2015).

In that regard, we cannot plausible claim that social and political change is only attributable to selfish calculations of interest for our own circumstances alone. It

seems more reasonable to appreciate the contribution made by an elevated level of compassion felt for others by those who came to be shaken by the plight of others, either by directly by observing it or, equally, by learning about it in books, theatre plays, films, TV documentaries, protest acts, speeches and other social events.

By the same token, emotions can sustain sense of collective towards the future other. This forward-looking concern is already discernible in the way many citizens and groups have pushed governments to protect part of the eco-system, by creating, for example, a network of national parks and reserved and protected land, with legislation banning or restricting profitable activities. People clam to do so for the sake of preserving nature for their children.

It is important to note that emotional responses can influence the political process for better or good. Likewise, emotions could or could not ‘rewire’ our political thinking, and they may or may not make us more willing to seriously consider the state of the others now or in the future. One-off or sporadic exposure to emotionally stirring messages may not necessarily cause preference changes or adaptations in behavior. Understanding the pain of others now and in the future may not develop into a deeper reflection and reconsideration of our own moral role and political and stance on a problem.

However, empathic concern for others can intersect with reasoning to trigger such reflection. While people tend to be biased in favor of information that reinforces their identities and deeply held worldview, and may avoid or reject information that challenges or threatens them, emotions can break patterns of cognitive biases. When there are emotional reactions to images of collective pain and suffering, this may reshape our opinions about what is important to address as a society. And, if this feeling is complemented by accurate information about the kind of responsible action needed from each of us and from all of us collectively, it can lead to substantive changes of identity.

Science can play a catalytical role in the interplay between cognitive and psychological processes. Scientific findings inform us about current and future stakes, creating *an informed dialogue* about how action or inaction today will cause a catastrophic situation for forthcoming generation. This information can dispel misconceptions and can work with emotional responses in triggering caring feelings and a drive for common action to address this distressing situation. Images of pain and suffering may break through existing biases and misconceptions, at least among some of us, provided that we regard this information as transparent and trusted. This information, if communicated in a clear and explicit, if not graphic way, will place us in a cognitive and emotional situation where participants will develop empathy for future generations. Most importantly, this emotion will be communicated to others in the context of a dialogue. The deliberative framework offers a venue for discussing climate policy in an inclusive and reflexive way. As part of a transparent conversation, scientific projections of

the plight of others will trigger emotional reflection about the moral consequences of our decisions, creating an *engaging* and *forward-looking* dialogue.

In that context, a deeper change on people's stance on climate partly is facilitated by (a) greater awareness and deeper understanding the problem with truthful *information*, which *scientific information* provides (b) the framing of relevant information, triggering an *emotional* and *cognitive* engagement with the problem, and (c) people's willingness to explore alternatives as a way to help others too, which *empathy* can trigger. Scientific information includes projections of the pain and suffering that climate change will cause in the coming years with catastrophic events, such as wildfires, flooding, landslides, extreme weather conditions, droughts, homelessness and migration, food poverty and starvation, which we can also face during our lifetime. In that sense, scientific evidence and projections trigger an emotional response next to raising cognitive awareness of what future generations will be more likely to experience, if prompt action does not take place.

## Conclusion

In this paper, I defend democracy against authoritarian and technocratic proposals for addressing climate change. I explain how democratic inclusion is an asset in crisis management in view of the unavoidable presence of diversity and dissensus in society. For the sake of the discussion, I have not added the problem of perverse incentives and opportunistic behavior that plagues authoritarianism. Instead, I focus on the epistemic dimension of crisis management.

Emphasizing that climate policies are inevitably politicized, I accept that dissensus can be disruptive and dilatory but this problem, I argue, is riskier for authoritarian regimes because they lack a genuine feedback process with society through which they could trail and consider growing dissensus and dissatisfaction. I also stress that knowledge of all dimensions of a crisis is what people also offer through free expression and political participation. This knowledge is not given to expert panels. It must be discovered through a feedback relationship with society in a free and uncensored way. Democratic rights and political inclusion build a feedback process that continuously informs decision-makers about multifaceted and evolving dimensions of a crisis, including unintended repercussions and undesired side effects from crisis management. This *social knowledge* is indispensable for the design and implementation of effective and sustainable climate policy. In that regard, I challenge the assumption that scientific knowledge suffices for effective action and must be kept outside the realm of democratic politics. Democracy and effective crisis management have a mutually reinforcing relationship.

However, I acknowledge that free expression and democratic participation in contemporary systems is a necessary but not a sufficient condition for effective climate policy. Effective climate action requires decisions that are forward-looking and involve an elevated degree of care for future generations too, which can be hindered by public ignorance or public indifference to the plight of future

generations. I therefore recast the question of which political system can best promote effective climate action into the question of how best to reform democracies for attaining effective climate action: what kind of democracy can both *elicit and sustain* effective climate action?

I challenge the proposition for an epistocratic system that is based on a categorical division of the population between the knowledgeable technocrats and the ignorant public. I do so by revisiting Plato, whose work has wrongfully served as the foundation of epistocracy. I found in Plato's thought, including the metaphorical interpretation of his ideal *polis*, an emphasis on the value of a pedagogical process that encourages citizens to seek knowledge and become more reflective on social problems in a formative process of dialogue. In contemporary systems, this ideal of philosophizing resembles a process of deliberation in which citizens and governments engage in a dialogue informed by science, which help them acquire knowledge and foster a sense of responsibility towards future generations.

In this dialogue, scientific knowledge and science-back solutions play a central part in moderating the expression of diverse opinions through an awareness of incoming risks and the emotional states this information will trigger. Deliberations, informed by sound and updated scientific knowledge and powered by the reactions they trigger can enhance the uptake of scientific projections and they elevate our sense of responsibility towards future generations. This form of forward-looking uptake is reinforced by the expectation, in a public dialogue, our comments, contributions and proposals must be articulated in terms that resonate with public concerns and an ethos of collective preparedness and action. In such a context, proposals and views are expected to be articulated in response to dire scientific information, and are more likely to consider ways for safeguarding future generations. In addition, scientific information can trigger emotional reactions amidst the participants. Emotions must not be considered as inherently irrational, and they are not if they are triggered by sound scientific data and filtered through a discursive context. The intersection of science, emotion and reasoning creates the most fertile ground possible for societies to agree on sustained and effective climate action.

Based on this benchmark, I propose a deliberative process that is *inclusive*, meaning that it invites all citizens to bring their individual perspectives on climate policies, *discursive*, meaning that all diverse ideas will be discussed, *science-informed*, meaning that the discussions will be informed by scientific data and projections, *iterative* meaning there will be continuous reflection in view of new scientific evidence and ongoing technological progress, and *emotive*, meaning that scientific information and the discussion will trigger emotional responses that will be part of the discussion and can enable citizens to develop a stronger sense responsibility and empathy for future generations.

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