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*Ends, Means, Beginnings:
Environmental Technocracy, Ecological
Deliberation or Embodied Disagreement?*

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ABSTRACT. Technocratic attitudes suggest that decisions about environmental policy should be led by scientific experts. Such decisions, it is expected, will be more rational than any arrived at by a democratic mediation between the narrow, short-term interests and uninformed preferences of the general public. Within green political theory, deliberative democracy has emerged as the dominant repro to technocracy, offering an account of how democratic polities can deal with complex scientific and technological decisions through the emergence of communicative rationality. This article argues that neither appeals to expert knowledge, nor communicative rationality, are likely to deliver the optimal green outcomes that proponents suggest, but rather will cover up the inevitable disagreements over environmental policy making. Instead the article suggests that more ecologically-sensitive and democratic decision making about complex scientific and technological issues can emerge if we acknowledge the differently embodied perspectives of decision-makers – from scientists to citizens. This prioritises democratic means over green ends, yet incorporates the environment at the beginning of the decision-making process. The article aims to sketch out the theoretical and practical implications of such an embodied turn for responding to the anti-democratic tendencies of environmental technocracy.

KEYWORDS. Environment, democracy, political agonism, embodiment, Tully, deliberation, technocracy

I. INTRODUCTION

Should decisions about environmental issues be entrusted to democratic politics? Many are weary of the facile squabbling between self-interested sectional interests and power hungry politicians, who appear unable to prioritise the decisive action needed to ensure long-term sustainability. While despair at the slow and tortuous process of democratic

decision-making is common, for some the failure to act decisively has led to a denouncement of democracy itself.

This latter response precipitated the emergence of ‘eco-authoritarianism’, which reared its head in the 1970s in response to concerns about the exponential growth of the human population (Hardin 1972; Ophuls 1977). Receding from prominence for a few decades, the eco-authoritarian argument has recently revived, albeit in response to different concerns (Dobson 2010). The scientist James Lovelock, for example, claims that democracies impede the urgent action needed to tackle climate change: “We need a more authoritarian world. We’ve become a sort of cheeky, egalitarian world where everyone can have their say [...] it may be necessary to put democracy on hold for a while” (Lovelock 2010).

This threat of eco-authoritarianism is often linked to a rising tendency towards technocracy, which suggests that decisions should be left to those with relevant scientific and technical expertise: this, it is implied, will speed up decision making and generate more effective green outcomes. Yet many of these experts *themselves* strongly reject the notion that they can agree upon the ‘right’ decision. What is required is that environmental policy-making is sensitive to the insights of experts while these insights are also open to challenge. On what basis might it be argued that a democratic system, which recognises the legitimacy and standing of inputs from experts and non-experts alike, can produce ecologically-orientated decisions? How, in other words, might democracy be made ‘greener’?

The loudest defence of democracy within green political thought has come from proponents of deliberative democracy who attempt to show that democratic means do not necessarily preclude decisive and rational green ends. By drawing experts and non-experts, including those who have traditionally been excluded from politics, into fair and equal forms of communication the expectation is that decisions will be more environmentally sensitive.

In the present contribution, we will examine the claims made by both technocrats and deliberative democrats. We find both are inadequate,

since both fail to adequately acknowledge the implications of two inter-related features of political decision making: first, the embodiedness of all political perspectives; second, the inevitability of disagreement in the democratic process.

Following the insights of ecological, phenomenological and feminist thinking, we stress the importance of recognising that human perspectives are always *embodied*. While a focus upon material and ecological situatedness opens new ways of fostering mutual understanding and coalition-building, it simultaneously reveals the irreducibility of political difference. Recognition of the interrelationship between corporeal existence and political perspective challenges the suggestion that it is possible to reach rational agreement between experts (technocracy) or in a more inclusive discussion (deliberative democracy). Foregrounding the body and its environment appends a question mark to the possibility of suppressing or transcending disagreement. While technocrats attempt to rid politics of the inevitable disagreement arising in a democracy by explicitly shutting it out, deliberative democrats often aim to manoeuvre past such dissent. We propose an entirely different orientation towards disagreement, an agonistic one that recognises its inexorableness and accepts that any agreement is only partial and temporary.

Though embodiment draws attention to disagreement, it nevertheless helps us to acknowledge the significance of the environment for any political project and collective from the outset. It is entirely possible, therefore, that more ecologically-sensitive decision making occurs when inevitable disagreement between differently embodied political identifications is acknowledged. Instead of a focus on green *ends* or on democratic *means*, we assert the importance of attentiveness to differentially embodied *beginnings*.

The article divides into three sections. First, we offer a critique of technocracy and the problematic expectations it has regarding expert knowledge and green ends. Second, we consider deliberative democracy and its attempt to remove disagreement through democratic means.

Finally, we tentatively offer a vision of green democracy in which we acknowledge the inevitability of disagreement between differently embodied perspectives. We conclude by suggesting that technological expertise should not dominate decision making, but ought rather to be recognised as a respected part of democratic interaction that is sensitised, politicised and ‘greened’ through an emphasis on embodied disagreement.

II. TECHNOCRATIC TENDENCIES AND RATIONAL GREEN ENDS

The belief that technological experts should be given a privileged position in the political process to define policy is often a reaction to the perceived failure of our democratic institutions to act decisively in the face of environmental threats such as climate change. Technocracy can be understood in at least two senses. First, a tendency within democratic governance to give ever more influence in political decision-making to those with particular forms of scientific and/or technological expertise. A second understanding is technocracy as a form of political organization: the normative position that it is such experts themselves who should be making relevant political decisions. Technocracy as a form of political organization is by its nature a form of authoritarianism: the democratic process is surrendered to those with particular forms of scientific and technical knowledge.

Arguably the most prominent anti-democratic voice in environmentalism is that of James Lovelock, who believes it is too late to try to mitigate climate change. For him, adaptation is urgently needed, but democratic politics is simply taking too long: “[...] the only clear conclusion we can draw from the changing climate and people’s response to it is that there is little time left to act [...]. In theory we could eat less and save energy but in practice we never will, unless made to do so” (2009, 934). He warns that democratic government may need to be replaced by an eco-authoritarianism in which the necessary measures are forced upon populations: “[...] orderly survival requires an unusual degree of human understanding

and leadership and may require, as in war, the suspension of democratic government” (2009, 1154). For Lovelock, climate change is a war situation, and scientists should be conscripted to serve their governments. He echoes the words William Ophuls spoke 40 years ago in response to the concern about the pressures put on natural resources by a growing population: “The kind of democracy that we have – laissez-faire, mass democracy characterized by muddling through – is out. It is not going to work [...]. Because you simply cannot have the man on the street making decisions about nuclear technology” (Ophuls 1974).

David Shearman and Joseph Wayne Smith explicitly advocate the introduction of “[...] a platonic form of authoritarianism based on the rule of experts” (2007, 2). They point out that individuals are never going to vote for a reduced standard of living, leading them to the conclusion that “[...] democracy itself is a big problem” (2007, xv). They reject all forms of democracy: “[...] democratic institutions are not suited to deal with crisis case situations” (2007, 15). Environmental authoritarianism is understood here to be necessary for the survival of humanity and is a discourse that has always haunted green political theory (Beeson 2010; Dryzek 2012).

Explicit support for technocratic authoritarian rule remains rare. What is more common is support for privileging the voice of technological experts in political decision-making. While our attention tends to focus on natural scientists and engineers, the increasing influence of (neo-classical) economists also falls into this category of technocracy. We only need to reflect on the number of economists within government departments compared with other forms of social researchers to realise the influence this form of expertise has on the democratic process (note also that relevant departments tend to distinguish between economics and social research committees, with the former more extensively staffed and hence influential). The publication of *Blueprint for a Green Economy* and similar texts in the late 1980s marked the beginning of an influential movement to systematically extend the toolkit of economists into the

world of environmental valuation and political decision-making (Pearce *et al.* 1989); the privileged role of economists in the assessment of ecosystem services being just the latest example.¹ The existence of economic advisors in itself is not necessarily anti-democratic, however the elevation of their advice above other forms of knowledge and, too often, above political contestation surely is.

There are a number of reasons to be concerned about technocracy both as a form of political organisation and as a tendency within contemporary governance. A standard response to any conception of enlightened authoritarian rule is why proponents believe that this particular set of rulers will remain enlightened: in this case ecologically enlightened. The history of authoritarianism is one of corruption of power and scientific experts are no less immune to corruptive tendencies than any other citizens. Similarly, Bob Taylor argues: “If policy is defined and controlled solely by experts, elites, ideological minorities or philosopher kings, it necessarily represents the interests, concerns and values of only a fraction of the community” (1996, 101). Revoking democratic processes removes the very mechanisms through which the corruption of political power can be checked.

The more environmental decisions are placed in the hands of experts, whether entirely or partially, explicitly or covertly, the less opening there is for important warnings to be heard and valid alternatives to be seen. The obvious safeguards provided by democracy mean that there are few advocates of technocracy as a form of political organisation. The tendency to funnel decision making towards experts is more discernible, our earlier discussion of the role of economists being one prominent example. Here, democracy is still ostensibly supported while slowly and steadily it is being hollowed out of political contestation and filled in by claims of certainty and knowledge. Expertise is expected to provide solutions to environmental problems and to reveal the ‘facts’ regarding an environmental issue. This depoliticises the issue while it is at the same time a deeply political move. Technocracy elides technological knowledge with political and

ethical judgement, obfuscating the incommensurability between scientific knowledge, economic valuation, and political decision (Pielke 2004).

As Shelia Jasanoff points out, science only gives us part of the picture when it comes to collective decision making: “[...] science cannot tell us where and when disaster will strike, how to allocate resources between prevention and mitigation, which activities to target first in reducing greenhouse gases or whom to hold responsible for protecting the poor” (2007). Unease is therefore generated by the ‘politicisation of science’ by both politicians and scientists. Politicians have been accused of misappropriating scientific evidence to either obfuscate or close down policy options (Demeritt 2001; Hillerbrand and Ghil 2008). But challenges have been directed towards scientists too for arguing that their results compel particular policies (Pielke 2004). In both cases science “[...] becomes a convenient and necessary means to removing certain options from a debate without explicitly dealing with disputes over values” (Pielke 2004, 409).

A parallel elision is discernible in much environmental economics: to try to equate non-market and market values is a ‘category mistake’. This is obvious in the increased use of economic valuation techniques within government decision-making processes that assumes the full capture of relevant environmental values (Keat 1997; O’Neill 1993; Smith 2003, 29-51). Not only is there concern that utilitarian valuation techniques misrepresent the plural and often incommensurable values we associate with the environment, but that economists’ technical expertise shrouds what are often political judgements from public scrutiny. Smith highlights how public inquiries in the UK have dismissed challenges to politically dubious judgements about the value of life and time savings within the Department of Transport’s cost-benefit analysis; judgements that provided the rationale for major environmentally destructive road construction programmes (see Smith 2003, 45-48). As Michael Sandel warns, economists can tell us about some of the implications of political decisions, but they cannot tell us what decisions to make or how to make them (2009).

Scientists have often been quick to point out the limits of their own sphere of expertise – a trait that is less obvious amongst economists! For example, the climate scientist James S. Risbey argues that scientists cannot simply state at what levels greenhouse gases are ‘safe’ or ‘dangerous’. He urges us to: “[...] acknowledge at the outset the arbitrary and conditional nature of any specific choice or definition of what is dangerous and what is not” (2006, 527). Similarly, a report by the august Royal Society notes: “[...] policy choices about climate change have to be made in the absence of perfect knowledge. Even if the remaining uncertainties were substantially resolved, the wide variety of interests, cultures and beliefs in society would make consensus about such choices difficult to achieve” (2010, 13).

Silvio Funtowicz and Jerome Ravetz have responded to the rise of urgent issues for which both facts and values are disputed by promoting a different way of practising science. Their ‘post-normal science’ does not attempt to *banish* uncertainty, but rather to *manage* it. Turning eco-authoritarian arguments on their head, Funtowicz and Ravetz suggest that decisions should be *more* rather than *less* inclusive. Rather than limiting participation to scientific elites as a way of ensuring better decision making, the response to issues such as climate change they suggest requires an extension of the decision-making community to new participants. In particular ‘post-normal science’ requires the integration of local knowledge into scientific investigation in order to enrich scientific expertise: “Knowledge of local conditions may determine which data are strong and relevant, and can also help to define the policy problems” (Funtowicz and Ravetz 1993, 753).

The more conservative Royal Society comes to similar conclusions in discussing adaptation to climate change: “Countries must be prepared to adapt to climate change by using scientific and technological expertise allied to local knowledge” (2009). The Brundtland Report offers a comparable analysis: “The law alone cannot enforce the common interest. It principally needs community knowledge and support, which entails

greater public participation in the decisions that affect the environment” (WCED 1987, 63). Again, other international documents, such as the Aarhus Convention, offer similar support for increased participation.

III. DELIBERATIVE DEMOCRATIC MEANS

While recognising the deficiencies of actually-existing democratic governance, many greens have turned to deliberative democracy rather than technocracy as the most suitable form of political organisation for dealing with complex scientific and technological issues. Deliberative democracy has established itself as a new-orthodoxy within democratic theory and has found a high degree of support among green political theorists (Barry 1999; Dryzek 2000; Smith 2003).

James Bohman provides us with a widely accepted definition of deliberative democracy: “Deliberative democracy, broadly defined, is [...] any one of a family of views according to which the public deliberation of free and equal citizens is the core of legitimate political decision making and self-government” (1998, 401). Deliberative democracy is typically contrasted with aggregative forms of democracy in which collective decision making progresses through the aggregation of preferences. For deliberative democrats there has been a failure within democratic theory to consider how preferences have been formed; and how they might legitimately be transformed. As Seyla Benhabib argues: “[...] the formation of coherent preferences cannot precede deliberation; it can only succeed it. Very often individuals’ wishes as well as views and opinions conflict with one another. In the course of deliberation and the exchange of views with others, individuals become more aware of such conflicts and feel compelled to undertake a coherent ordering” (1996, 71).

Greens are attracted to deliberative democracy for a number of reasons (Smith 2003). Three will suffice here. First, deliberative democracy has epistemic value. Deliberation leads to the improved flows of information

and social learning that is necessary for dealing with complex environmental problems. Deliberation increases the problem-solving capacity of democratic institutions (Dryzek 1987; Barry 1999, 229). Second, it has ethical value. David Miller terms this the ‘moralising effect of public discussion’: narrowly self-regarding preferences that aim to defend environmental despoliation for the gain of sectional interests are difficult to advance in the public arena (Miller 1992, 61; Benhabib 1996, 72). Third, deliberative democracy is inclusive. The voices of those often excluded and marginalised from the democratic process – and with local, direct experience and knowledge of their environment – are heard. As Bob Pepperman Taylor, argues: “[...] there are good reasons to believe that increased democratic opportunities at the most local levels of our societies will increase demands for environmental protection” (1996, 104). For many green political theorists, such characteristics of deliberative democracy mean that expert and lay knowledge and environmental values will be articulated and carefully considered in political decision-making. Communicative rationality is ‘ecologically-rational’ (Dryzek 1987).

The role of scientific and technological expertise is a subject of much consideration with deliberative democracy – theorists are sensitive to the potential tension between inclusiveness and claims to expertise. After all, citizens typically do not have the time, capacity or inclination to continually scrutinise scientific developments. Mark Warren has pointed to the importance of “a critical and attentive public”, including public pressure groups and universities amongst other bodies in debating and challenging research agendas and emerging findings (1996, 56); Thomas Christiano has explored the way in which a deliberative system can manage the division of labour between citizens and their political representatives who are responsible for setting social goals and experts who bring their knowledge to bear on the development and implementation of policy options (Christiano 2012). As the green political theorist John Barry puts it in more colloquial terms, “[...] experts ought to be ‘on tap, not on top’” (1999, 200). He goes on to explain: “Whereas techno-optimistic arguments

are largely prefaced on the assumption that experts find solutions to ecological problems with little or no input from the non-expert population, the incorporation of science within green politics assumes that the application of science is *within* rather than *beyond* democratic regulation” (1999, 203; italics original).

A practical insight into the way in which deliberative democrats conceive of the role of expertise can be garnered from the institutional forms often discussed within this literature. Take, for example, consensus conferences originally established in Denmark where a small group of (near) randomly selected citizens are brought together over a number of days to deliberate on a controversial scientific or technological issue. Competing experts are given the opportunity to present to the citizen body and are then subject to questions. Once their evidence has been presented, the citizens deliberate amongst themselves and produce a report. In other words, deliberation enabled by expertise with decisions left in the hands of citizens (Fischer 2000; Smith 2003). Other mini-public designs share a similar division of labour between citizens and experts and are often seen as an institutional embodiment of deliberative democracy’s approach to expertise (Smith 2009).²

However, while deliberative democrats attempt to include diverse voices, criticism has emerged of the role that consensus performs (either explicitly or implicitly) within their conceptualisations of democracy (Machin 2012). For ideal theorists such as Cohen (1989) and Benhabib (1996) the *telos* of agreement is precisely what makes the democratic discussion rational and inclusive. In recent developments within deliberative democracy, many theorists have accepted that consensus is unlikely to be achieved and also extend their conceptions of forms of communication beyond a strict interpretation of reason-giving as rational argumentation (Smith 2003; Tully 2004; Mansbridge 1999). Yet the degree to which accounts of deliberative democracy still view consensus as a regulative ideal, and the extent to which this continues to affect consideration of democratic arrangements, remains a pertinent question.

Tully is a particularly eloquent critic of deliberative democracy, explaining why reasonable agreement cannot be expected on the outcomes of political discussions. He highlights the impact of such factors as asymmetries of power that structure access to decision making; limitations of time; the modification of identities through engagement; and the ‘room for manoeuvre’ in interpreting and acting on any agreement (2004, 96). But he goes further than this and points out that disagreement is not limited to *outcomes*, but also extends to the *procedures* through which democratic decisions are made. In what is a highly significant critique, he remarks that while deliberative democrats have generally recognized that outcomes are subject to dissent, they have tended to assume that there could be consensus on democratic procedures (2004, 96). Why should reasonable disagreement not also apply to the ‘procedures of negotiation’ and what is recognised as a ‘reasonable claim’ (2004, 97)? In any decision about policy or procedure, disagreement is inevitable.

This then raises a challenge for green politics where, as Barry puts it, consensus is often “[...] the preferred, or indeed procedurally required result of any decision-making process” (2012, 268). Work within environmental ethics and politics that recognises the plurality of incommensurable and incompatible values we associate with the environment challenges any simple assertion of the possibility of reaching consensus (Smith 2003, 7-28). As Soper argues, it is necessary to challenge the common assumption amongst greens that the plurality of values to which they appeal are mutually compatible: “The ecology movement, when viewed as a whole, draws its force from a range of arguments whose ethical underpinnings are really quite divergent and difficult to reconcile” (1995, 254). Tully reveals that such dissent is not a matter of the trivial grumbling of disgruntled fools, but is entirely *reasonable* disagreement: “[...] in any agreement we reach on procedures, principles, ethics, scientific studies or policies with respect to the environment [...] there will always be

an element of reasonable disagreement, and thus the possibility of raising a reasonable doubt and dissent” (2001, 162).

Part of Tully’s critique is the question of the extent to which we are able to offer rational justification of our perspectives – and to fully comprehend the perspectives of others. Such communicative rationality is a foundation stone to most accounts of deliberative democracy, and in the hands of green deliberative theorists such as Dryzek can be extended into the non-human world: “[...] communicative interaction with the natural world can and should be an eminently rational affair” (Dryzek 2000, 149). Leaving aside the attempt at rendering the communications of nature rational, the notion of communicative rationality assumes that we can come to understand ourselves, each other and our relation to nature through the exchange of reasons (or other forms of communication). This appears to imply a degree of individual and collective transparency of motivations that is difficult to sustain (Coole 1996).

Tully draws on Wittgenstein to challenge the idea that participants in a political discussion are always able to give reasons to justify their particular perspectives and positions: reasons cannot be given for everything we do and think; at some point our reasons for doing something give out. But this is not evidence of irrationality: “[...] the exhaustion of reasons – the inability of reasons to underpin the grounds – is not in any way irrational or epistemically defective” (Tully 1989, 181). In fact, the practice of giving reasons itself necessarily involves conventions that we are not required to give reasons for: “[...] our most sophisticated forms of reflection, including reflection on language games of reflections, are practices in the sense that participation in them presupposes customary ways of acting with or using words” (Tully 1989, 182). Our giving reasons *presupposes* the tacit agreements that arise from sharing a way of life and allow us to understand each other. What gives force to an argument is not its objective correctness, but the agreements we share with the person who presents it.

Reaching agreement, then, is not simply a matter of clearly communicating with one other; it does not involve building an indubitable tower of blocks, each balanced upon the one below. Agreement involves an intertwining net of conventions and values in which each element supports the other with none providing the base. These conventions and values can each be called into question, of course, but doing so would still require a set of background assumptions. We can transform this net, but we cannot disentangle ourselves from it entirely. The implication here is that expectation and desire for a rational political agreement is deeply problematic. Any substantive agreement will rest upon particular shared conventions that can always be contested. Denial of this is likely to result in the ongoing exclusion and marginalisation of those who do not share these conventions.

Instead of an orientation towards inclusive and rational agreement, therefore, we support an orientation towards inclusive *disagreement*. Such an orientation gestures away from environmental technocratic, eco-authoritarian and green deliberative democratic accounts towards an ‘agonistic’ approach. It is difficult to regard the disparate theorists of agonism as a ‘school’, but we could group Tully along with Mouffe (2000; 2005; 2013) Connelly (1991) and Honig (1993) as united in their challenge of the notion of foundational political agreement (Edwards 2012, 93). Mouffe’s agonism, in which conflict is *constitutive* of the political realm, holds invaluable insights for environmental politics (Machin 2012; 2013). Mouffe incorporates bodies in her agonism to the extent that she highlights the role of passions, a bodily matter ignored by rationalist accounts (2005, 25). However, we concentrate here primarily on the agonistic orientation of Tully as he has gone further in contemplating the situatedness of human beings within ecological forms of life. Although Tully advocates what Mouffe would call an “agonism without antagonism” (2013, 9), his conception of agonism is also helpful in considering the pressing question of democratic institutional design that incorporates yet does not unnecessarily privilege technological expertise.³

IV. EMBODIED BEGINNINGS

In this final section, following the work of Tully and ecological, feminist and phenomenological thinkers, we consider in more detail the inevitability of disagreement in political debate over environmental issues. We suggest that environmental disagreement is importantly *conditioned* by the *embodiment* of political perspectives and that this should be acknowledged. Further, we propose that acknowledgement of embodiment might ‘green’ the political debate from the very outset.

As we began to show in the last section, Tully explains that individuals are not able to simply transcend their forms of life, to agree rationally and autonomously on universal norms of justice for example. Ecologists, he notes, are often acutely aware of the impossibility of agreeing on one conception of justice since they are aware that humans are not purely autonomous beings but rather that “[...] humans exist within, are dependent upon, and are members of the web of life, the innumerable ecosystems which make up the living world” (Tully 2001, 149).

Although he has not written extensively on environmental philosophy, Tully’s work echoes strongly the ecological insight that human forms of life are *a part of*, not *apart from*, their material environments. As one scientific ecologist writes: “Life and the environment are one thing, not two, and people, as all life, are immersed in the one system. When we influence nature, we influence ourselves; when we change nature, we change ourselves” (Botkin 2012, 324; see also Grosz 1994; Plumwood 1991; Shiva 1989; Soper 1995). To think ecologically is to notice that the forms of life in which humans act, think, speak, identify and feel have a *material* reality. What is often overlooked in much mainstream political theory is that our material environment is not distinct from or opposed to human consciousness, but is entangled with our forms of life and indelibly influences us, corporeally, affectively and often unconsciously.⁴

We are not crudely claiming here that people’s viewpoints are somehow simplistically determined by their environment. It is not that the

individual is entirely indistinguishable from ‘nature’ as deep ecologists might have it, but that individuals and groups are importantly *connected*, in various ways, to their environments (Plumwood 1991). Living within a particular place and time indelibly impacts our preconscious existence, although in no fixed and predictable way. Those living in a flood-prone area, for example, have concerns that are immediate to them in ways that they are not to others, but people react differently to these existential dangers. The connection between perspective and situation works symbiotically: forms of life are always embedded within an environment, but the meanings and values that arise within a form of life sculpt the material world around it: “While humans build the environments in which we live, work, worship and play, those environments, in turn, shape our understandings of ourselves” (Gabrielson and Parady 2010, 381). The construction of flood barriers, both material and ideological, for example, informs the particular viewpoints of people who construct them. There is an eternal entanglement, an interminable interrelationship between human perspective and material environment. “Subjectivity, including political subjectivity, is fleshly, is made out of flesh” (Beasley and Bacchi 2000, 344).

Focusing upon the term ‘embodiment’ helps us grasp this interrelationship between subjectivity and environment. We understand ‘embodiment’ as the peculiar existence of human beings in the world. Bodies are at once part of material environment yet are also at the very centre of subjective perspectives. As phenomenological investigation has shown, bodies, socially constituted, have an intentionality and a pre-reflective or pre-personal agency of their own: “[...] the body is never merely a passive transmitter of messages but plays an active role in the generation of perceptual meaning” (Coole 2005, 128). Bodies are not passive *things*, they *actively* influence consciousness with knowledge and affect: “Bodies are not inert; they function interactively and productively. They act and react. They generate what is new, surprising, unpredictable” (Grosz 1994, xi; see also Young 2005). The body situates actors within material and affective

reality and “[...] underlines the particular, passionate and perspectival nature of all claims” (Coole 2005, 129).⁵

The environment, then, does not only throw up political *issues*, it also conditions political *perspectives*. However, we cannot assume, as some greens might wish, that bodily position within their environment provides human beings with one common ‘green’ outlook. Shared bodily experience can indeed reveal and communicate collective identifications (Coole 2005, 134; Alcoff 1999). But environmental and corporeal differences can also augment conflicting perspectives with which participants in politics apprehend and affect the world. Attention to embodiment reaffirms the specificity of meaning and values that arise within a particular ecological form of life. Urban metropolises, rural villages, polar expanses and arid desert; these are diverse environments that are themselves variously experienced through differently positioned bodies.

Acknowledging our embodied existence, therefore, sharpens the challenge to any presupposition that as reasoning beings we simply step out of our different forms of life to an entirely abstract and transcendental position from which to survey our political options. This disturbs the apparent assumptions and hopes of many technocrats and deliberative democrats that individuals are able to evacuate their forms of life, putting their individual capacity for reason ahead of the conventions with which they live day to day. As Tully writes: “There is no view from nowhere” (1995, 56).

If agreement can never be full and final, should we give up on democratic discussion and simply focus on power and interests? Does this lead us back towards the anti-democratic stance of environmental technocracy? Tully does not advocate closing down political interaction; quite the opposite. He recognises that democratic discussion can free individuals from their narrow understandings: through “intersubjective dialogues” he suggests that participants “[...] come to acquire and appreciate the cultural and biological diversity of our interdependent relationship to all relevant aspects of the web of life” (2001, 159). Listening, in

Tully’s account of dialogue, is as important as speaking (see also Dobson 2012). Through attentive listening and responding we can come to better understand our own (and others’) ‘sedimented’ perspectives, to build connections with others, and to better understand the nature of difference and conflict. Tully explains that in any debate about environmental issues, understanding what others are saying is not a matter of conforming to an allegedly universal rationality, but rather grasping their alternative *practices*. He takes the example of the interaction of Western and indigenous perspectives on environmental issues: “[...] the objective of these discussions is not to exchange Western and indigenous worldviews on the environment, but to understand the different practices in which Western environmental knowledge and the traditional ecological knowledge of indigenous peoples are embodied” (2001, 160). The aim here is not to reach agreement, but to expand awareness, open up alternatives and to ensure that decisions are not deemed full and final.

Grasping a different perspective does not just involve *thinking* harder or *speaking* more clearly; conscious rational reflection can only take us so far in grasping the perspectives of others and ourselves (Coole 1996). By attempting to comprehend another’s form of life and bodily reality by *experiencing* their way of life we can further broaden our own perspectives and question our own presuppositions and positions. By bodily entering a different material reality, perspectives are inevitably altered. Travelling to and from a heavily polluted city, we become conscious of the air we breathe. By being parched in a drought or battered in a hurricane, we gain a certain bodily awareness of new surroundings and our own physical frailty and dependency. Although these corporeal experiences are understood within socially and culturally conditioned limits, they also allow the individual to reflect upon those limits, revealing alternative practices and meanings. They open up possibilities of transforming our own identifications and forming alliances with others. Bodies condition the individual’s viewpoint, but they also allow the individual to contest conventional

understandings. Yet we can never expect to replicate or fully grasp another's particular experience; we cannot parachute into a different reality. Shannon Sullivan notices the specificity of every single body and urges that we do not readily assume that we fully understand another: "I am not claiming that people can never understand one another through bodily gestures or that people's intentions never duplicate one another [...]. But not always, and even when they do, my understanding of another is an accomplishment and a process, rather than a ready-made given provided by the body" (2002, 207).

In revealing the limits of any particular perspective, the priority for Tully is to preserve what he calls the 'dialogic civic freedom' of citizens to be able to contest both democratic procedures and solutions (1994, 99). It is this very participation in the struggle that helps create a 'second order' identity and loyalty to political institutions. Tully's argument resonates with claims that civic bonds arise not through any shared features or virtues of citizens nor any common substantive concept of 'the good', but rather through participation in the conversation that is valued in different ways (Kahane 1999). Mouffe offers a similar account of the importance of a shared loyalty to democratic values that nevertheless will be understood differently (2005, 31). Disagreement over the meaning of 'freedom' and 'equality' she explains "[...] provide the very stuff of democratic politics" (2005, 31). This insight shows how disagreement can actually foster and underpin political engagement and can protect democracy rather than threaten it.

In addition, instead of hindering environmental policies, embodied disagreement could potentially 'green' democracy from the outset. By bringing bodies to attention, the environment, understood in multiple and diverse ways, is brought to the fore in our individual and collective considerations (Machin 2013). A turn to embodiment can thus 'green' democracy in the sense that individuals and groups become more conscious of their own bodily positions and connections within their environments, and the significance of their surroundings. Bennett suggests

that attentiveness to materiality could herald a more ecologically sound politics (2010). And Teena Gabrielson and Katelyn Parady explain in their discussion of corporeal citizenship that integrating environment into accounts of citizenship makes the concept *inherently* green (2010). We reiterate their point here with regards to democracy. By starting with embodiment, democratic engagement is ecologically grounded from the beginning, moving us away from the obsession with green ends that guides environmental technocracy. It does not hope for any *guarantee* of green outcomes but, as we have pointed out, nor is such guarantee provided by deliberative democracy or technocracy. We argue, in short, that recognition of the importance of bodies can both *green* democracy and *reinvigorate* it.

V. CONCLUSION: EXPERT DISAGREEMENT AND ENVIRONMENTAL POLITICS

These reflections upon embodied disagreement lead us to re-consider the role of experts in environmental politics. Regarding scientists and economists not as disembodied minds but as living and breathing human beings disturbs many of the technocratic assumptions about objective facts and rational decision-making and the translation of science into politics. Scientists, economists and other experts think and communicate within forms of life, and their values and interests inform their work (Lahsen 2005). Experts are embodied differently in their particular situations and in their overlapping and interconnecting roles as citizens, lovers, parents and so on. The crucial observation here is *not* that science should not be valued and heeded, but rather that science cannot decree policy. Science broadens many policy options between which there is no given or ‘correct’ choice (Pielke 2004). The relationship between the laboratory and the forum is not value free: both the construction of research projects and their interpretation in the political field are open to contestation (Demeritt 2001). The concept of ‘embodied disagreement’, we argue, complements these points by drawing attention to another, material,

dimension of difference. But it also extends the discussion by noting how an awareness of embodiment pulls the contested concept of environment into expert opinion from the beginning of the construction of knowledge claims.

Expert knowledge cannot produce an ideal solution and a full agreement, as Tully warns: “[...] in any agreement we reach on procedures, principles, ethics, scientific studies or policies with respect to the environment, including any ecological paradigm, there will always be an element of reasonable doubt and dissension” (2001, 162). Technocratic tendencies prioritising expert knowledge encroach upon the civic freedom that Tully argues underpins political participation. For Barry, too, prioritising technocratic or elite consensus endangers politics itself; it is crucial that decisions should never be regarded as final and should be the subject of contestation: “[...] the affirmation of contestation [...] affirms the priority of politics and values over technocratic, elite, administrative, economic, or scientific decision-making processes” (Barry 2012, 269). Rather than assuming ‘once and for all solutions’, an orientation towards disagreement recognises that: “All agreements are revisable, settlements can be re-examined afresh, re-argued and re-negotiated in the light of new circumstances, empirical or scientific evidence, or new normative or political claims” (Barry 2012, 269). Acknowledging the existence of political dissent does not hinder democracy, but reinvigorates it; noticing our embodied differences does not obstruct green ends, but rather heightens environmental awareness.

This orientation challenges the preoccupation with agreement, and points instead to the importance of creating political strategies and institutions that enable encounters between peoples with different worldviews (within and between cultures) such that they are better able to grasp their own and others’ ecological embodiment. This involves not only debating in different arenas, but direct experience of others’ material realities through which individuals and collectives can contest and transform their forms of life.

How might this understanding of agonistic and embodied green democracy speak to questions of democratic institutional design and the role of expertise? There is much to be learnt from scholarship and practice influenced by deliberative democracy in the way that a division of labour between citizens and experts is arranged in mini-publics: not only in terms of the protected space that citizens are afforded, but also the explicit strategy of bringing together citizens with very diverse perspectives. But we should also note the importance of direct experience of others' material embodiment. Here, the example of a citizen's jury in Australia engaged in deliberations over access to an area of rain-forest is pertinent: the participants were taken on a field-trip to experience first hand the lived reality of locals and the broader ecological and social context, both of which affected their collective judgements (Niemeyer 2004). A second illuminating example from another field of activity is the practice of 'caravans of priorities' in participatory budgeting in Latin American cities. Here community delegates charged with prioritising demands from different neighbourhoods visit other localities to better understand the lived realities of that community. Delegates' perspectives are significantly altered through this first hand experience, changing the outcome of decisions (Smith 2009, 58).⁶ The focus in democratic institutional design on voice and rhetoric over direct experience suggests one reason why environmental issues have been poorly served and hints at how new institutional forms that support a green democratic agonism and the necessary dialogic civic freedom might be designed.

To conclude, this paper suggests an alternative way of bringing environmental considerations into political decision-making. Rejecting democratic process in favour of technocracy will not ensure green outcomes. Neither is a focus on rational deliberative means a way of ensuring ecologically-sensitive democracy. Our suggestion is rather that a green democratic project requires recognition of the constitutive nature of both differential ecological embodiment and political disagreement.⁷

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NOTES

1. <http://uknea.unep-wcmc.org>.
2. The example of mini-publics is only illustrative. There are plenty of other institutional designs that interest deliberative democrats beyond these decision-recommending forums, both traditional and innovative (Fung 2003; Steiner *et al.* 2004; Warren 2010)
3. The move towards agonism is supported in Barry's recent book, *The Politics of Actually Existing Unsustainability*, in which, in contrast to his earlier alignment with deliberative democracy, he now briefly asserts an 'agonistic republicanism' (Barry 2012, 270-272). Note that Barry does not draw on Tully's work, but rather that of Mouffe (Barry 2012, 267-272). This is a rather strange theoretical choice given that the details of the political strategy and republican arrangements that he clearly prefers are closer to that of Tully than the more adversarial political strategies associated with Mouffe. A comparison of the implications of different accounts of agonism for green political theory will have to wait for another occasion.
4. This corresponds to the opposition between 'human' and 'culture' to 'nature'. Yet as Kate Soper importantly observes, 'nature' is confusingly regarded both as separate from ourselves yet also something we are within (Soper 1995, 21).
5. Jane Bennett goes even further to suggest that non-human objects themselves have a certain material agency (2010).
6. Additionally, celebrated examples of participatory budgeting realise a degree of reflexivity and revisability in relation to the rules of engagement (Smith 2009, 49) that will be attractive to those who hold that democratic procedures themselves must be open to negotiation.
7. We would like to thank Stijn Neuteleers for organizing the CREIDD workshop and also the two anonymous reviewers for their comments.