
**Modest Pragmatic Lessons for a Diverse and Incoherent Environmental Law**

Ole W Pedersen∗

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**Abstract**

This paper seeks to contribute to ongoing debates on the nature and foundations of environmental law. In doing so, the paper accepts the claim made in much of the recent analytical environmental law scholarship that the discipline suffers from a lack of coherence. In a response to this claim, the paper probes the potential reasons behind this incoherence. In relying on recent scholarship in the disciplines of social psychology and cultural cognition, the paper argues that individual understanding of environmental risks in accordance with *a priori* held beliefs and values aided by cognitive biases, lends support to a scenario of multiple and diverse understandings of environmental problems. This diversity is in turn reflected in both the form and content of environmental law. In a response to this diversity and incoherence, the paper identifies the philosophy of pragmatism and argues that a modest interpretation of pragmatism has the potential to alleviate the biases and heuristics which give rise to the individual understanding of environmental risks.

1. **Introduction**

Having straddled the boundaries of other legal disciplines for years, environmental law has steadily emerged as a separate sub-discipline within law. With such emergence also comes more searching scrutiny. Appraisals of environmental law and environmental law scholarship are conducted on several levels, including that of methodological, conceptual and theoretical

∗ Newcastle Law School, ole.pedersen@ncl.ac.uk. I am grateful to Richard Mullender, Patrick O’Callaghan, Chris Rodgers, Jenny Steele, Ian Ward and the anonymous reviewers for helpful suggestions and encouragement. Any remaining mistakes and flaws are not for want of suggestions on their behalf.
One common theme to emerge from much of this work is that environmental law represents an incoherent and makeshift body of law. Recently, a number of influential scholars have argued that environmental law exhibits a distinct incoherence and that environmental law scholarship is widely perceived as suffering from a lack of ‘maturity’. This paper aims to answer the question of ‘why’ in relation to the claims of incoherence. That is, the paper aims to offer a diagnosis of why incoherence is particularly prevalent in environmental law. Resting on the assumption that, as environmental law matures as a result of scholarly examinations its sub-disciplinary foundations will slowly form, the paper argues that one reason for this prevalence of incoherence is found in the diversity of opinions and values which are at play in environmental debates. In order to scrutinise the reasons behind this diversity, the paper relies on recent research in the area of cultural cognition and social psychology. The paper argues that subjective understandings of environmental risks, in accordance with *a priori* held beliefs and cultural values aided by cognitive biases, lends support to a scenario of multiple and diverse understandings of environmental problems. This diversity influences and is reflected in both the form and content of the environmental law and regulation leading to an incoherent body of law. However, the paper argues that diversity is to be expected in a body of law such as environmental law and that such diversity is to be valued in its own right, as it assists us in developing the discipline. In a response to the diversity and incoherence, the paper suggests that we turn pragmatism and its lessons of anti-essentialism, inquiry and contingency.

Part 2 of the paper sets the scene by briefly setting out a definition of ‘environmental law’ while subsequently surveying recent debates concerning the disciplinary characteristics, the role and nature of, and theoretical background of environmental law as a distinct legal sub-discipline, thereby highlighting the diversity present in environmental law. In this, the


2 Fisher and others (n 1); Aagaard (n 1).

3 See Cass Sunstein, *Legal Reasoning and Political Conflict* (OUP 2000) 58 (arguing that, in ‘law, as in politics, disagreement can be a productive and creative force, revealing error, showing gaps, moving discussion and result in good directions.’) See also Christopher L Kutz, ‘Just Disagreement: Indeterminacy and Rationality in the Rule of Law’ (1994) 103 Yale LJ 997, 999 (arguing that ‘the conflict and indeterminacy that is inherent in the law is both ineradicable and deeply valuable to a self-scrutinizing moral and political culture’).
paper does not as such engage in methodological questions in relation to environmental law scholarship. Instead we are primarily interested in environmental law as a separate body of law and the reasons behind its claimed incoherence. In Part 3 we then go on to examine one reason behind this diversity – that of cultural cognition and cognitive bias. While other areas of law are potentially equally prone to plurality of opinion and diversity as a result of bias and heuristics, Part 3 argues that environmental law is particularly susceptible to such pitfalls, as environmental law intersects with questions of deeply held cultural and subjective predilections. In order to illustrate how these predilections influence and permeate environmental law, cultural theory and the concept of co-production are identified as potential explanations.

From there Part 4 goes on to examine how best to address these issues. This is done by way of reliance on the philosophy of pragmatism. In doing so, Part 4 makes use of the work by John Dewey, Richard Rorty and Richard Posner (among others), while arguing that the real strength of pragmatism is, however, found in the more modest interpretation put forward by Brian Tamanaha and Steven Smith. Before we move on to the substance of the paper, we should, though, sound a note of caution. The argument put forward in this paper will necessarily be pursued with some generality and rely on a number of different jurisdictions, examples and aspects of the environmental law in order to further the argument of pragmatism as an appropriate response to incoherence. The reason for this generality is found in the nascent nature of the debates on the conceptual foundations of environmental law and the hope that this paper may assist in furthering these debates.

2. Environmental Law and Debates on Diversity

Before engaging in an analysis of recent debates on incoherence and possible responses thereto, we ought to briefly consider what we actually mean by ‘environmental law’. Attempting to formulate a precise definition of ‘environmental law’ is, however, problematic. Because ‘environmental law’ is a merger of the two inherently illusive concepts

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4 One reason for favouring a more modest approach is that, as the disciplinary foundations of environmental law are still developing, we are better served by what Simmonds calls a minimalist approach or a ‘clarificatory enterprise’ seeking to provide ‘a foundation for conceptual clarification’. NE Simmonds, ‘Bringing the Outside In’ (1993) 13 OJLS 147.
‘environment’ and ‘law’ we are inevitably confronted with a broad concept. A literal reading would suggest it encompasses all law (statutory, common, and customary) pertaining to the elements of air, water, and land. Despite this expansive delineation, we can identify a number of characteristics central to a definition of environmental law.

Firstly, though not exclusively modern in origin, the comprehensive approach to regulation of environmentally harmful activities witnessed today indicates that environmental law as a sub-discipline within law is of a recent origin. While ad hoc legislative measures were taken throughout the 19th and early half of the 20th centuries (most notably the Smoke Nuisance Abatement (Metropolis) Act 1853, the Alkali Act 1863, the Rivers Pollution Prevention Act 1876, and the introduction of development control with the Town and Country Planning Act 1947), a concerted and coordinated government effort was not taken until the latter half of the 20th century. Consequently, we can characterise the early environmental law initiatives as interstitial in nature whereas more recent consolidated statutory initiatives, associated with the increased role afforded to governments in the second half of the 20th century, give rise to a distinct body of environmental law. Or, as one leading commentator puts it: from ‘uncoordinated design of legislation’ to ‘legal formalism in relation to pollution standards and objectives.’

Secondly, as a body of law, environmental law is becoming increasingly ‘public’ and administrative. That is to say, while the current body of environmental law is not exclusively regulatory and legislative in nature, it is increasingly so. A principal reason for this is likely to be found in the receptiveness of law-makers (domestic, international and federal) to the increase in public concern for the state of the environment as a result of increased affluence

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5 Richard Lazarus observes that ‘Environmental law cannot be a simple matter because the objects of its concern, the ecosystem and the human activities causing its degradation, are themselves not simple.’ Richard J Lazarus, The Making of Environmental Law (University of Chicago Press 2008) 6.
6 See Environmental Protection Act 1990, s 1(2).
7 See generally Stuart Bell and Donald McGillivray, Environmental Law (7th edn, OUP 2008) 20–23. See Lazarus, Making (n 5) for a US perspective.
8 In particular the creation of the US EPA in 1970 and the establishing of the Royal Commission Environmental Pollution in 1970 seem to fit this description. For policy and legislative initiatives see First Action Programme on the Environment of the European Community [1972] OJ C112 (EC); National Environmental Policy Act 42 USC § 4321; Clean Air Act 42 USC §7401; Control of Pollution Act 1974 (UK).
and urbanisation of large populations. Moreover, the growing body of environmental law is often of a complex and technical nature as a consequence of the regulation operating in a close relationship with science and technology. These developments have, in turn, influenced the role of the courts. This is not to say that the role of the judiciary in environmental matters has decreased but rather that it has perhaps changed from being that of an occasional ‘norm entrepreneur’, facilitating norms of environmental protection in want of legislative and executive initiatives, to one of oversight of administrative developments and decisions.\textsuperscript{10} We even find some judicial support for this in Lord Goff’s opinion in \textit{Cambridge Water}, where his Lordship observes that in light of the increase in environmental legislation, ‘there is less need for the courts to develop a common law principle to achieve the same end, and indeed it may well be undesirable that they should do so.’\textsuperscript{11} Borrowing from Rubin’s work on the ‘Administrative State’, this, then, gives rise to a distinction between ‘environmental law’ and ‘environmental legislation’.\textsuperscript{12} Through this distinction, we can consider ‘environmental law’ the broader of the two encompassing not just instrumental attempts to facilitate particular environmental outcomes through the use of law but also other areas of law which are not specifically aimed at environmental outcomes. These would, for instance, include the law of tort and parts of the criminal law as these are applied in environmental settings. ‘Environmental legislation’, on the other hand, aims at initiating government policies with a specified aim of environmental protection through the mobilisation of government power.\textsuperscript{13} A recent example is the comprehensive Environmental Permitting (England and Wales) Regulations 2010.\textsuperscript{14}

Thirdly, and linked to the point about environmental law increasingly taking the form of regulation, this development necessarily leads to a significant amount of discretion being afforded to statutory and regulatory agencies. This is primarily a result of the complexity of many of the issues which environmental legislation aims to deal with, making it difficult to draft precise rules.\textsuperscript{15} Again, this has an impact on the role played by the judiciary insofar as

\textsuperscript{10} An example of judiciaries playing the role of ‘norm entrepreneurs’ is arguably found in the ECJ’s decision in Case 240/83 \textit{Association de défense des brûleurs d’huiles usages (ADBHU)} [1985] ECR 531. In this case the court described environmental protection as an ‘essential aim’ of the Community despite it not being inserted into the Treaty until two years later. Francis Jacobs describes this as ‘judicial anticipation’ in Francis Jacobs, ‘The Role of the European Court of Justice in the Protection of the Environment’ (2006) 18 JEL 185.

\textsuperscript{11} [1994] 2 AC 264 (HL) [305] (Lord Goff).


\textsuperscript{13} ibid 372–74.

\textsuperscript{14} Environmental Permitting (England and Wales) Regulations 2010, SI 675 2010.

\textsuperscript{15} Rubin (n 12) 372–74.
in environmental matters the judiciary’s primary role becomes one of supervision aimed at principally ascertaining claims of illegality, unreasonableness and impropriety. These issues, most notably in relation to discretion, complexity and inevitable broad boundaries of the discipline, in themselves seem to contribute to a diverse and incoherent environmental law.

Not surprisingly, this diversity and incoherence is increasingly subjected to scholarly scrutiny. Most recently, Fisher et al contest that environmental law ‘has no single guiding logic, no overarching doctrinal framework or no ‘constitutional’ grounding.’ Setting their argument of incoherence in the context of environmental law scholarship (and not environmental law per se), the authors argue that efforts to find an ‘overarching intellectual paradigm’ for environmental law ends up taking the form of a grand narrative, a set of common principles, or a single purpose. This, however, ‘tend[s] to deny both the complex reality of the subject and the importance of plurality.’ They further argue that it is the ‘acceptance of that incoherence’ which marks the maturity of environmental law scholarship.

In similar fashion, Aagaard argues that there ‘are no core principles that unify all of substantive environmental law doctrine’ and Westbrook contends that ‘[d]espite being a burgeoning area of practice, environmental law is not a discipline, because it lacks the professional consensus on a coherent internal organization of materials a discipline requires.’ A similar line of argument is found in a recent report prepared by the UK Environmental Law Association (UKELA). Here it is argued that UK environmental law is

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16 Examples are arguably found in Levy v Environment Agency [2002] EWHC 1663 (Admin), [2003] Env LR 11; Secretary of State for Environment, Food and Rural Affairs v Downs [2009] EWCA Civ 664, [2010] Env LR 7. Another example can be seen in American Electric Power Co v Connecticut 131 SCt 2527, 2539 (2011), where Justice Ginsburg observes that the EPA ‘[is] best suited to serve as primary regulator of greenhouse gas emission. The expert agency is surely better equipped to do the job than individual district judges issuing ad hoc case-by-case injunctions. Federal judges lack the scientific, economic, and technological resources any agency can utilize.’


18 Fisher and others (n 1) 220.

19 ibid. In response to this, Fisher and others identify five steps that environmental lawyers should consider: reflecting on the relationship between choice of method and research questions asked, mapping the subject, engaging with more general debates over legal methodology, getting to grips with interdisciplinarity, and the need for a debate on how to assess the quality of environmental law scholarship. See Fisher and others (n 1) 215.

20 ibid 226.

problematic as a result of lack of coherence due to ambiguous and opaque drafting of important provisions, thereby laying the ground for misunderstandings.\textsuperscript{22}

In contrast to this, other scholars seek to identify an enduring foundation for environmental law. For example, Coyle and Morrow argue that environmental law has strong philosophical foundations resting on historical ideas of property.\textsuperscript{23} Instead of seeing environmental law as being made up of a series of piecemeal solutions aimed at ad hoc problems, Coyle and Morrow find that today’s understanding of environmental law is rooted in ideas of property, as put forward by, for example Locke.\textsuperscript{24} While we may find traces of Lockean ideas of property in parts of the law pertaining to the environment developed by the common law, the sheer volume of and variety within what would today count as environmental law (from regulation of waste to nature conservation to plastic bag levies) arguably indicates that attempts to offer a single foundational background to the plethora of environmental laws and regulations may be seen as ambitious.

The difficulties facing those attempting to establish coherent and theoretical foundations for environmental law become apparent when we recall Ruhl’s ‘The Case of the Speluncean Polluters’, built on Fuller’s seminal ‘The Case of the Speluncean Explorers’.\textsuperscript{25} Here Ruhl discusses a decision before the fictitious Supreme Court of Newgarth in the year 4310, where the Court’s justices deliver an individual and unique opinion each according to his or her belief. Ruhl thereby alerts us to an approach to environmental protection based on strict cost-benefit analysis, one based on free-market environmentalism, one opinion grounded in ideas of sustainability, one based on libertarian ideals of individual property rights supported by minimal government interference, an opinion drawing on ecology, and one based on egalitarian ideas of environmental justice. Not surprisingly though, Ruhl concludes that, ‘[i]n reality, of course, there are not six sharply differentiated ‘camps’ of

\textsuperscript{22} United Kingdom Environmental Law Association, \textit{The State of UK Environmental Legislation in 2011: Is there a Case for Reform?} (London 2011). The report points to the problem of defining a meaning of ‘waste’ as an example of incoherence.

\textsuperscript{23} Coyle and Morrow (n 1).


environmental perspectives. Rather, there is a spectrum of views’, thereby lending further support to a claim if incoherence and diversity.26

Naturally, this portrayal of environmental law should not be taken to mean that environmental law as a sub-discipline within law is in complete disarray. We should, at least to some extent, come to appreciate that when a body of law (e.g. environmental law) has to regulate a wide field, some incoherence is to be expected. From a disciplinary point of view, we can at least identify the field of environmental law as (broadly) aimed at preventing and/or rectifying environmental damage. In this light, we can identify the issues which are at the core of environmental law; that of environmental degradation. This, in turn, leads to the law being used as a means of coordination, or as a regulatory response. This application of the law, however, gives rise to a degree of internal and structural incoherence as we will see below. Often, however, the argument of incoherence and lack of a common, core foundation is not explicated in detail by critics.

A central but at times overlooked issue which may go some way to explain persistent claims of incoherence is that of diversity and variety of values. As pointed out by Aagaard: ‘environmental law reflects a balance among a variety of competing values and interests.’27 These values are often unstable and contestable, which further contributes to incoherence (for a specific example see below notes 75-77 and accompanying text).28 What, though, may explain this incoherence? The next part of the paper seeks to answer why environmental law is potentially structurally incoherent as a legal discipline. In doing so, we examine the diversity found in the cultural understanding of risk as a result of cognitive biases and heuristics as one possible explanation for the strong incoherence present in environmental law and policy. In an attempt to ascertain how these diverse values influence environmental law, it is argued that the understanding of various risks, in particular environmental risks, which is intricately linked to environmental values, gives rise to a wide range of entrenched opinions which in turn influence environmental law and policy debates (and thereby also the environmental law and regulation) by virtue of cultural theory and the tendency of these

26 Ruhl, ‘Speluncean Polluters’ (n 25) 370.
27 Aagaard (n 1) 256. See also Aagaard (n 1) 257, where he further argues that ‘these values and interest may conflict. Thus environmental protection is not monolithic’.
28 Aagaard (n 1) 278. See also Peter M Manus, ‘Our Environmental Rebels: An Average American Law Professor’s Perspective on Environmental Advocacy and the Law’ (2006) 40 New Eng L Rev 499, 518 (arguing that ‘every generation ...discovers for itself that we humans are one with the natural environment’).
values to be ubiquitous in those engaging in the developing and shaping of environmental law.

3. Diversity in Environmental Risks

This section argues that environmental law as a legal sub-discipline is particularly susceptible to a diversity of opinions. We will assert that the subjective and subconscious biases discussed below can be explained if we consider the role played by cultural theory in the shaping of social norms. Primarily, the basic assumptions underlying answers to central questions relevant for environmental law, such as questions of what values are we to attach to environmental protection, are profoundly subjective. Secondly, questions of balance between costs and benefits, perceptions of risk, and questions of trade-offs between such considerations are inherently heterogeneous. This is particularly relevant as ‘recognition of subjectivity, diversity, and even critical independence in respect of risk, has come hand in hand with increasing ambitions to achieve some sort of ‘control’ over hazard-creation’ in the area of environmental regulation. While instruments such as cost-benefit analysis and risk assessment are often portrayed as rational, independent and value-neutral (more about this below), this section will, through the use of work borrowed from the discipline of cultural cognition and social psychology, highlight that in particular the understanding of environmental values and associated environmental risks (and the valuation that subsequently goes with this understanding) is highly subjective. Additionally, subjective and subconscious biases and culturally defined norms will, at times, find their way into the environmental law and regulation through judicial decision-making.

The literature on risk perception and environmental attitudes is rich in empirical findings indicating a high rate of variation in individuals’ perception of risk and

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29 This point can be broken down even further highlighting the individualistic nature of such values. For example, what value should be attached to eg the individual animal forming a part of the wider ecosystem? Inevitably, some people are inclined to prefer ideas of intrinsic valuation or existence valuation when answering such questions whereas others would subscribe to ideas grounded in instrumental values.


31 Giddens observes that “[t]here is no risk which can even be described without reference to value...When there is a clash of different types of risk, there is a clash of values and a directly political set of questions.’ See Anthony Giddens, ‘Risk and Responsibility’ (1999) 62 MLR 1, 5. Heyvaert argues that the ‘process of risk identification is therefore simultaneously one of selection, involving controversial normative judgement’. See Veerle Heyvaert, ‘Governing Climate Change: Towards a New Paradigm for Risk Regulation’ (2011) 76 MLR 817, 822.
environmental values. Variances in risk perceptions according to sex, race and socio-economic background have been demonstrated in a series of studies (although some evidence indicates that variances in environmental attitudes are more pronounced in some countries). Variances have been identified in perceptions of environmental risks according to sex, indicating that women are more concerned with risk associated with hazardous waste than men, risk associated with soil pollution, and less supportive of nuclear power. Likewise, differences have been identified in perceptions of risk associated with air pollution across race. Often, research indicates that in particular white males perceive environmental risks to be lower, compared to white women, black men and black women. In addition, research suggests that black and other non-white people are more concerned with risks associated with nuclear power, solid and toxic wastes, whereas white people are more concerned with risks associated with ozone depletion and climate change.

Alongside these differences, a growing body of research, partly seeking to explain the disparities in risk perception, indicates that other factors influence the way people interpret and consider issues of risk, danger and harm associated with e.g. environmental issues. In general, this body of research draws on sociology and social psychology, and highlights a number of important heuristics and biases, thus further accentuating the heterogeneous nature of environmental issues. Research carried out as part of the Cultural Cognition Project at

40 We should note, however, that not all biases and heuristics are necessarily counterproductive. In fact, some might be inherently beneficial. See eg Susan A Bandes, ‘Emotions, Values, and the Contraction of Risk’ (2008) 156 U Pa L Rev 421, 423 (arguing that such emotions perform important roles in some instances: ‘in much simpler times, crude categories based on fear of strangers or tribal loyalty might have adequately identified who

Electronic copy available at: https://ssrn.com/abstract=2353284
Yale Law School indicates that cultural and social worldviews and understandings play a more central role in risk perception compared to, for instance, issues such as political affiliation and religious beliefs.41

In a number of studies, researchers have sought to confirm the so-called cultural theory of risk perception, stating that an individual’s ‘perceptions of risk reflect and reinforce their commitments to how society should be organised.’42 As a consequence, the theory indicates that an individual will afford credibility to a given claim in accordance with how well it conforms to or defies his/her cultural norms.43 While this perhaps confirms what many may have suspected, the research is particularly relevant for environmental debates.44 By way of ascertaining an individual’s worldview according to whether it is egalitarian or hierarchical and communitarian or individualist, the research indicates that, as far as environmental risks are concerned (nuclear power generation, climate change and environmental pollution in general), ‘the more hierarchical and individualistic respondents’ worldview became, the less serious they took putative environmental risks; and the more egalitarian and communitarian their worldview, the more concerned they were.’45 Importantly, these findings indicated that worldview was a better indicator of risk perception than political party affiliation and ideology.

This culturally anchored understanding or risk, which has since been expanded upon, dates back to the early work done by anthropologist Mary Douglas on cultural cognition and her collaborative work with Aaron Wildavsky on risk and culture according to which

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42 Kahan and others, ‘Culture’ (n 41) 468. For the cultural theory of risk see Mary Douglas and Aaron Wildavsky, Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers (University of California Press 1982).
43 From a philosophical point of view, this has strong similarities with what Derek Parfit calls ‘agent-relative’ theories. This is used to describe the situation where the moral aims of a normative theory are contingent upon the agent rather than being a common theory. See Derek Parfit, Reasons and Persons (OUP 1984) 27; Thomas Nagel, The View from Nowhere (OUP 1986) 152–53.
44 The cultural theory of risk is in this sense linked to the concept of motivated reasoning. See Ziva Kunda, ‘The Case for Motivated Reasoning’ (1990) 108 Psychological Bulletin 480 (proposing that prior motivation influences reasoning).
45 Kahan and others, ‘Culture’ (n 41) 483. The findings were largely echoed across questions relating to gun control, abortion, and commerce and technology.
worldviews are classified into the two dimensions of ‘group’ and ‘grid’. The ‘group’ dimension relates to the individual’s relationship to the group, i.e. it indicates the degree to which an individual is bonded to a social group. The ‘grid’ dimension ‘concerns the nature of society’, i.e. the extent to which an individual is restricted by an externally enacted order.

46 See eg Douglas and Wildavsky (n 42); Mary Douglas, ‘Cultural Bias’ in Mary Douglas, In the Active Voice (Routledge Kegan Paul 1982); Mary Douglas, Natural Symbols: Explorations in Cosmology (Routledge 2003) ch 4.

Figure 1*Kahan and Braman⁴⁸

Grid

Hierarchist

Group Individualist Communitarian

Egalitarian

⁴⁸Kahan and Braman (n 47).
The ‘group’/’grid’ dimensions are further contextualised if we consider the seminal work on environmental discourses developed by John Dryzek. In this work, Dryzek identifies four different discourses which are particularly prominent in environmental debates. While Dryzek’s discourses are somewhat narrower than the cultural matrix developed by Douglas and Wildavsky, Dryzek’s argument that the discourses are alike to ‘story lines’ is of explanatory value as we can come to understand both the discourses and the worldviews as different narratives in accordance with which experiences are perceived and opinions formulated and interpreted.

These different orientations partly serve to explain the lack of consensus and perception of incoherence in environmental law, particularly as cultural cognition has also been shown to be at play when it comes to beliefs about scientific evidence, which plays a prominent role in environmental law. Research indicates that an individual’s perception of whether experts agree that climate change is occurring and whether it is caused by humans is to a large degree contingent upon that individual’s worldview (again, according to whether it is egalitarian and communitarian or hierarchical and individualist). Thus, individuals of a hierarchical and individualist orientation are more likely to assume that there is little scientific consensus about global average temperatures increasing and whether this is as a result of human activities than individuals of an egalitarian and communitarian inclination. Somewhat worryingly, the research also indicates that, when asked to review whether a (fictitious) scientist is a knowledgeable and trustworthy expert, individuals provide answers correlating with their own cultural outlooks and beliefs. That is to say, individuals would find an expert trustworthy if the expert conforms to the individual’s beliefs (regardless of credentials) and less trustworthy if the expert does not.

50 The four discourses are: Environmental Problem Solving (which is anchored in maintaining a political-economic status quo); Survivalism (which maintains that continued economic and population growth is unsustainable); Sustainability (which seeks to combine economic and environmental values); and Green Radicalism (which rejects the basic ethos of an industrial society). See Dryzek (n 49) 12–15.
51 Dryzek (n 49) 15–16.
53 These findings were echoed in another study relating to the risk associated with the HPV vaccine. See Dan M Kahan and others, ‘Who Fears the HPV Vaccine, Who Doesn’t and Why? An Experimental Study of the Mechanisms of Cultural Cognition’ (2010) 34 Law and Human Behavior 501.
Nowhere are these heterogenic risk perceptions more clearly expressed than in relation to the problem of climate change – a central challenge facing environmental lawyers and policy-makers. With specific application to climate change, research highlights that when questioned about the risk of climate change, individuals with an egalitarian/communitarian worldview view risk associated with climate change as higher than individuals with a hierarchical/individualist worldview. These findings in turn have implications for how climate change is framed as a regulatory problem and therefore on what form and shape regulation ought to take. For example, is climate change seen as a market failure or as a risk amendable by technological innovation? Or is climate change perhaps considered a problem of over-consumption or international justice? The response to these questions will have significant effect on the regulatory responses adopted and the role which environmental law is seen to fulfil. Moreover, the latter study highlights that even where scientific consensus is strong, cultural cognition still dominates risk perceptions. It arguably also points to the fact that an increase in scientific support for the argument that climate change is anthropogenic is unlikely to significantly alter perceptions (or at least do so very slowly). Disconcertingly, it likewise seems that some of these biases are also found among scientists and experts as well.

The tendency to interpret risk information in accordance with a priori worldviews and cultural virtues is often aided and compounded by a series of cognitive biases, which further highlight the plurality of opinion present in environmental debates. First, the tendency to maintain prior impressions and opinions despite contrary evidence challenging these ideas has been well-documented and partly explained by reference to so-called cognitive dissonance. For some of the original studies, see Leon Festinger, *A Theory of Cognitive Dissonance* (Stanford University Press 1957). For an overview of cognitive dissonance, see Scott Plous, *The Psychology of Judgment and Decision Making* (McGraw-Hill 1993).

56 For a particularly enlightening input into this debate see Mike Hulme, ‘You’ve Been Framed: Six New Ways to Understand Climate Change’ (The Conversation, 5 July 2011) <http://theconversation.edu.au/youve-been-framed-six-new-ways-to-understand-climate-change-2119> accessed March 1 2012.
presented with information which challenges preconceived ideas and attitudes. When confronted with conflicting information (i.e. a dissonance) the easiest way for the individual to reduce this dissonance is simply to avoid and ultimately deny the dissonance-inducing information.\(^\text{59}\) That is to say, the dissonance produces discomfort which the individual will seek to reduce or eliminate. The magnitude of the dissonance depends on the importance which the individual attaches to the extant belief.\(^\text{60}\) In other words, ‘[d]issonance theory is the theory of blind spots’\(^\text{61}\) whereby individuals ‘[e]ffectively blind themselves’.\(^\text{62}\) This compounds the individual nature of environmental values, as such values and issues are often points which individuals invest a great deal of effort, capital and emotion in.\(^\text{63}\)

In turn, this gives rise to a series of biases whereby individuals criticise, distort or dismiss disconfirming evidence and opinions which differ from the ones they hold themselves.\(^\text{64}\) Such behaviour of disapproval is arguably a form of ‘naive realism’, whereby people are more inclined to believe that the opinions they hold themselves are the most reasonable ones and that these are arrived at as a result of rational processes. In other words, if people ‘disagree with us, they obviously aren’t seeing clearly.’\(^\text{65}\) This in-group dynamic results in a situation where individuals increasingly come to rely on information which consolidates their pre-existing ideas and dismiss opinions and evidence from outside the

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\(^\text{59}\) The classic example is the smoker denying that smoking is an unhealthy practice despite a wealth of evidence supporting this. See Elliot Aronson, Timothy Wilson and Robin Akert, *Social Psychology* (Prentice Hall 2002) 176. While such behaviour seems prima facie irrational, it may be deemed rational in certain situations. For example where the denial of dissonance-inducing information takes place in a group setting and the group values such information, the denial of dissonance-inducing information may lead to the individual gaining a higher status within the group. See eg Ole W Pedersen, ‘“Climategate”, Group Polarisation and Hockey Tricks’ (2010) 18 Environmental Liability 11.


\(^\text{61}\) Carol Tavris and Elliot Aronson, *Mistakes were Made (But Not by Me)* (Pinter Martin 2008) 42.

\(^\text{62}\) Festinger, Riecken and Schachter (n 60).

\(^\text{63}\) This is particularly prevalent in certain geographical areas and certain income groups. See eg Steven E Sexton and Alison L Sexton, ‘Conspicuous Conservation: The Prius Effect and Willingness to Pay for Environmental Bona Fides’ (2011) unpublished manuscript on file with author; Vladas Griskevicius, Bram Van den Berg and Joshua M Tybur, ‘Going Green to be Seen: Status, Reputation, and Conspicuous Conservation’ (2010) 98 J Personality & Social Psychology 392.

\(^\text{64}\) Tavris and Aronson (n 61) 18. In worst case scenarios this behaviour may even lead to so-called ‘monologue creep’. cf Patrick O’Callaghan, ‘Monologism and Dialogism in Private Law’ (2010) 7 J Jurisprudence 405, 422–23.

\(^\text{65}\) Tavris and Aronson (n 61) 42. See also Joyce Ehrlinger, Thomas Gilovich and Lee Ross, ‘Peering into the Bias Blind Spot: People’s Assessment of Bias in Themselves and Others’ (2005) 31 Personality and Social Psychology Bulletin 68; Kahneman (n 40) 103–04 (terming this the ‘affect heuristic’).
group. Gradually, this dynamic will lead to the biases and heuristics becoming self-reinforcing.

Having portrayed the various biases, heuristics and values encountered in environmental debates, we need to account for a way in which they influence the environmental law. Rather than assuming a straightforward linear relationship whereby diverse values automatically lead to incoherent environmental law, there are several ways in which these viewpoints influence the law.

First and foremost, one way in which we can explain the link between the cultural and psychological biases, heuristics, values and the environmental law and regulation is through cultural theory. Cultural theory, partly developed in response to the pervasiveness of rational choice theory, is the idea that knowledge and institutions are a result of social validation rather than the sum of individual preferences. In other words, cultural cognition often becomes the defining feature for the creation of norms; ‘culture, rather becomes the essence, the universal solvent through which politics, technology and social choice are all dissolved into one another.’ If we map cultural theory onto the matrix of viewpoints discussed above, cultural theory can explain how these different viewpoints and values make their way into environmental law. That is because environmental risks are (as indicated above) culturally defined and a ‘cultural approach can make us see how community consensus relates some natural dangers to moral defects’ thereby leading societies to produce their ‘own selected view of the natural environment, a view which influences its choice of dangers worth attention.’, i.e. the ones worth affording regulatory and legislative attention. This, in turn, can partly explain the increase in environmental law and regulation witnessed in the last 30-40 years. As a result of cultural consensus in cultures with a high degree of social contact (that would be egalitarian and communitarian ones on the matrix) cultural validation is afforded to norms of environmental protection and such norms are likely to be

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66 In effect, this amounts to individuals operating according to so-called exclusionary reasons, providing ‘grounds for excluding other relevant reasons from consideration when deciding how to act in particular situations’. Richard Mullender, ‘Law, Morality and the Egalitarian Philosophy of Government’ (2009) 29 OJLS 389, 391.


69 Douglas and Wildavsky (n 42) 7–8.
institutionalised in the law. As Douglas tells us: ‘[t]his is indeed how we build the institutions, squeezing each other’s ideas into a common shape so that we can prove rightness by sheer numbers of independent assent.’ In other words, the values and preferences are endogenous to the social institution that is environmental law in that these are constructed from within the institution and very much define the institution.

This is not to say, however, that the culturally defined values and preferences are static nor that they are not subject to challenges. Different norms will be validated in different cultural settings. Similarly, norms favoured by social settings that are egalitarian or communitarian will likely be challenged by social settings grounded in the individualist worldview. At times, these different views will exert joint pressure on particular social institutions, including the environmental law, giving rise to an incoherent body of law. One such example is arguably found in the recent changes made to the regulatory system set up to regulate industrial pollution in England and Wales. This system, which arguably has a long history that sits well with the communitarian and egalitarian outlooks of preventing pollution in order to protect human health and the environment, has recently been subject to a major overhaul in the attempt to alleviate the costs of compliance for industrial actors as part of the Government’s ‘Better Regulation’ agenda. This agenda arguably sits well with the individualist worldview which favours a market-orientated outlook thereby highlighting the normative pressure (which gives rise to incoherence) under which the environmental legislation finds itself.

Another illustrative example is found in the use of emissions trading as a regulatory tool. While the overarching aim of any emissions trading system is to lower the overall amount of a regulated substance while fostering technological innovation, the interpretation and understanding of the underlying problem which the trading system seeks to address is ‘inescapably linked to the way in which emissions trading, as a regulatory strategy, is

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70 Here we can forge a link to what Brian Tamanaha calls the ‘mirror thesis’ used to describe the situation where the law reflects societal norms and customs. cf Brian Z Tamanaha, A General Jurisprudence of Law and Society (OUP 2001) 1–3.
71 Mary Douglas, How Institutions Think (Syracuse University Press 1986) 91.
73 See eg O’Riordan and Jordan (n 47).
74 Environmental Permitting (England and Wales) Regulations 2010, SI 2010/675.
75 See Explanatory Memorandum to the Environmental Permitting Regulations (England and Wales) 2010, SI 2010/675, para 7.5.
perceived.'\(^{76}\) In other words, emissions trading can be perceived in a number of different ways (e.g. as being based on grounds of economic efficiency whereby the free market is used to set a price, on grounds of private property rights used as a replacement for government control, or as subtle command and control system whereby the regulator comes to rely partly on the market), which, in turn, have significant effects on the perception, implementation and interpretation of emissions trading as a regulatory instrument.

In light of this, we see that the environmental law is a reflection of the society in which it is developed and operates; that is, the law is ‘co-produced’ by a number of influences, norms, subjective values and biases.\(^{77}\) Co-production is here taken to provide a further link between the culturally identified norms and the institutionalisation (in our case in the shape of environmental law) of such norms. Co-production is the proposition that ‘the ways in which we know and present the world (both nature and society) are inseparable from the ways in which we choose to live in it.’\(^{78}\) If so, we have reason to believe that this is perhaps a feature which is more pronounced in environmental law than in other disciplines of law. One reason for this is, as noted earlier, that environmental law operates in a context influenced by science and technology which are themselves considered social constructs subject to cultural cognition.\(^{79}\) This means that the influence of science and technology on the environmental law, which has traditionally been considered linear, likewise operates in a context of cultural cognition and social constructions.\(^{80}\) An illustrative example of how the environmental regulation is susceptible to more than just the law-makers will is found in Lange’s account of what constitutes best available technique (BAT) in the drafting of so-called Best Available Technique Reference Documents (BREFs) for the purposes of the


\(^{79}\) See Jasanoff (n 78) (arguing that ‘nothing significant happens in science without concurrent adjustments in society, politics or culture’); Schwartz and Thompson (n 68) 1 (arguing ‘our view of politics, technology and social choice is one in which their clear separation is impossible…because they all hinge crucially upon cognition’).

\(^{80}\) Sheila Jasanoff, ‘Afterword’ in Sheila Jasanoff (n 78) 277. See also Roger Pielke Jr, The Honest Broker (CUP 2007) and the works cited therein.
integrated pollution and prevention directive (IPPC). Here we learn how a traditional linear model of independent and impartial scientific and technological advice fed to regulators in order to inform decisions is in effect substituted for a procedure whereby industry and other representatives each seek to achieve a result closest to their values and worldviews.

Another way in which subjective preferences and biases influence environmental law is through the use of cost-benefit analysis, where such methods form part of the regulatory process. That is, the diversity and presence of biases in relation to risk is in turn likely to effect the valuation individuals afford to, for example, the environment as a good and the potential value derived from environmental protection when weighed against other benefits, such as, for instance, a perceived increase in commerce or other economic benefits. Through the use of benchmarks such as willingness to pay and willingness to accept, biased and subjective norms which an individual attaches a high value to can influence the weighing of benefits and costs preceding the regulatory initiatives. In other words, the culturally biased values and heuristics which are fed into the cost-benefit analysis can potentially exude significant influence on such exercises and regulatory decisions – notwithstanding the claim that cost-benefit analysis brings coherence to decision-making – as a result of the high value attached to a particular norm (be it for or against environmental protection).

A perhaps more direct way for the above identified worldview, biases and heuristics to influence the development environmental law is where such views form part of judge-made environmental law. While we have not here specifically discussed the relationship between cultural cognition and judicial reasoning, there is a growing literature on the role played by biases in judicial reasoning. This literature points out that, while it is impossible to establish whether judges deliver all of their judgments in accordance with such subconscious biases (as opposed to prejudicial partisanship) it would be surprising if they at least

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81 Bettina Lange, Implementing EU Pollution Control: Law and Integration (CUP 2008).
82 See eg Environment Act 1995, s 39, which makes it a statutory duty for the Environment Agency to take into account costs and benefits when exercising its powers.
83 See also Douglas A Kysar, Regulating From Nowhere: Environmental Law and the Search for Objectivity (Yale University Press 2010) 11. Kysar observes that ‘[b]eneath omnipresent and seemingly innocuous invocations of “economic analysis and sound science” lie enormously challenging moral and political quandaries—quandaries that not only are inadequately resolved by the economic paradigm but also are beclouded by the paradigm’s very presence.’

Electronic copy available at: https://ssrn.com/abstract=2353284
were not (like the rest of us) prone to biased thinking at least from time to time.\textsuperscript{85} Indeed it would seem that in certain types of decisions where controversial issues are at stake and judges are asked to take into account empirical evidence which is hard to verify by objective methods, some judges inevitably ‘fall back on their intuitions, because the empirical challenges to their intuitions do not have the force required to dislodge those intuitions.’\textsuperscript{86} An example of this is arguably found in the dissenting opinion delivered by then Vice President of the ICJ Judge Weeramantry in the Court’s \textit{Gabčíkovo-Nagymaros} judgment.\textsuperscript{87} Here Judge Weeramantry finds that the principle of sustainable development constitutes a principle of customary law partly through an assessment of Buddhist sermons and ancient methods of irrigation in Sri Lanka.\textsuperscript{88} While this may strike critics of international adjudication as peculiar, it highlights the point which Posner makes in the context of environmental law adjudication. Traditionally an assessment of whether a norm amounts to customary international law would require an extensive assessment of state practice as well as an analysis of the reasons behind such state practice (\textit{opinio juris}) – a ‘Herculean task’, in the words of Bodansky.\textsuperscript{89} Faced with this empirically immense task, Weeramantry seemingly falls back on his sub-conscious preference for the principle of sustainable development and its environmental basis.

While the identified biases and heuristics are perhaps not surprising – after all, issues of risk, weighing of costs and benefits, and the science of environmental issues are all complex, highly technical matters which people cannot be expected to be fluent in – they draw our attention to the fact that what often comes across as factual observations instead becomes highly charged normative issues. In some respects, disputes over environmental problems and risks are in essence ‘the product of an ongoing debate about the ideal society.’\textsuperscript{90} What do we do, however, when we are faced with this plurality of opinions and diversity of environmental values? The next part of the paper identifies a number of uses derivable from pragmatism when faced with incoherence as a result of plurality of opinions and multiple values.

\textsuperscript{85} Secunda (n 84) 111.
\textsuperscript{86} Richard A Posner, \textit{How Judges Think} (Harvard University Press 2008) 116. See also Kahan (n 84) 34–41.
\textsuperscript{87} \textit{Gabčíkovo-Nagymaros Project (Hungary/Slovakia)} (Separate Opinion of Vice President Weeramantry) [1997] ICJ Rep 7, 88 [104].
\textsuperscript{88} \textit{Gabčíkovo-Nagymaros} (n 87) 97–104.
\textsuperscript{90} Douglas and Wildavsky (n 42) 36.
4. Pragmatic Lessons

We are alerted to the value of pragmatism in a setting where we encounter heterogeneous and multiple values when the definition of pragmatism rendered by C I Lewis is recalled:

    Pragmatism could be characterised as the doctrine that all problems are at bottom problems of conduct, that all judgments are, implicitly, judgments of value, and that, as there can be ultimately no valid distinction of theoretical and practical, so there can be no final separation of questions of truth of any kind from questions of the justifiable ends of action.91

Broadly speaking, though, we can take pragmatism as encapsulating three overlapping features. First, we encounter philosophical pragmatism, which has its origin in the late 1800s and early 1900s, and includes among its leading thinkers, philosophers such as Charles Sanders Pierce, William James and John Dewey, and more recently, philosophers such as Richard Rorty and Hilary Putnam.92 Second, we find applied pragmatism, as this is most prominently developed by the influential and prolific Judge Richard Posner, applying pragmatism in the context of judicial decision-making93 Third, we find a form of commonsensical, less reflective pragmatism which is, at times, referred to as everyday pragmatism.94 This section examines these strands (admittedly somewhat interchangeably) and argues that all of them hold important lessons for environmental law.

    Starting with the philosophical background of pragmatism, it should be noted that the early pragmatists did not explicitly write about environmental issues or legal problems.95

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92 For a contextual analysis of pragmatism in its early forms see Louis Menand, The Metaphysical Club (Flamingo 2002). For a succinct overview, see Anthony Kenny, Philosophy in the Modern World (Clarendon Press 2007). Due to his claim that the validity of a hypothesis is defined by subjecting it to hostile challenges and experimenting, John Stuart Mill is seen by some as harbouring pragmatic traits (see eg Richard A Posner, Law, Pragmatism, and Democracy (Harvard University Press 2003) 32). What is more, James dedicates his Pragmatism to Mill while observing that 'there is absolutely nothing new in the pragmatic method' (see William James, Pragmatism (Longmans, Green and Co 1907) 50).
93 Posner, Pragmatism (n 92) 4. Generally Posner argues that philosophical pragmatism has little to contribute to law while still grounding his arguments in the works of in particular Dewey (see Posner, Pragmatism (n 92) 35, 41).
94 Posner, Pragmatism (n 92) 13.
95 Two exceptions are John Dewey, ‘Logical Method and Law’ (1924) 10 Cornell LJ 17; John Dewey, ‘The Historic Background of Corporate Legal Personality’ (1926) 35 Yale LJ 655. For an application of some of the work by Dewey to environmental issues see Kelly A Parker, ‘Pragmatism and Environmental Thought’ in Andrew Light and Eric Katz (eds), Environmental Pragmatism (Routledge 1996).
Instead, pragmatism emerged as a response to the two leading schools of philosophy dominating that time: the German rationalism grounded in the European Enlightenment and the British empiricism.\footnote{Brian Z Tamanaha, \textit{Realistic Socio-Legal Theory} (OUP 1997) 26.} In contrast to these two lines of thought, a central feature of pragmatism is its strong anti-foundationalist and anti-essentialist focus. Pragmatism denies that there are such things as absolutes.\footnote{Tamanaha, \textit{Realistic} (n 97) 26.} As a consequence, the pragmatic philosophers reject searches for epistemic foundations as futile.\footnote{See Larry A Hickman, ‘Nature as Culture: John Dewey’s Pragmatic Naturalism’ in Light and Katz (eds) (n 95) 55.} Summed up by Rorty, the ‘first characterisation of pragmatism is that it is simply anti-essentialism applied to notions like “truth”, “knowledge”, “language”, “morality”, and similar objects of philosophical theorising.’\footnote{Richard Rorty, ‘Pragmatism, Relativism and Irrationalism’ in Christopher J Voparil and Richard J Bernstein (eds), \textit{The Rorty Reader} (Wiley-Blackwell 2010) 112. Grey refers to this as pragmatism’s ‘theory-guilt’ whereby ‘theory runs alongside rather than ruling over worldly practice’. See Thomas C Grey, ‘Hear the Other Side: Wallace Stevens and Pragmatist Legal Theory’ (1990) 63 S Cal L Rev 1569.} In so doing, the pragmatists strike a chord with the argument of heterogeneity we have identified in environmental law (as we will discuss in detail below).

Alongside the scepticism towards ‘truth’, the pragmatists also harbour a suspicion of metaphysical questions, as these are considered of limited utility. In place of metaphysical thinking, Rorty sought to highlight the contingency of matters while, at the same time, trying to ‘cure us of our deep metaphysical need’.\footnote{Richard Rorty, \textit{Contingency, Irony, and Solidarity} (CUP 1989) 46.} Strongly linked to this argument of contingency and anti-foundationalism, we find an association between pragmatism and Darwin’s work on evolution.\footnote{Rorty observes that pragmatists favour anti-essentialism for two reasons: i) it makes it impossible to formulate a lot of the traditional philosophical problems ii) it makes it easier to come to terms with Darwin. See Richard Rorty, \textit{Philosophy and Social Hope} (Penguin Books 1999) 66. For a particularly eloquent link between Darwin and pragmatism see Menand (n 92) 120–28.} Rorty argued that, along the lines of the Darwinian foundations of the pragmatism espoused by James and Dewey, ‘we should think of ourselves as just one more among nature’s experiments, not as the culmination of Nature’s design’.\footnote{Rorty, \textit{Contingency} (n 100) 45.}

In light of this rejection of absolute metaphysical meanings and origins, pragmatists instead maintain that philosophy ought to direct itself towards more practical issues. James defined the function of philosophy as being ‘to find out what definite difference it will do to you and me.’\footnote{James (n 92) 50.} In this respect, pragmatism aims to be value-neutral – it stands ‘for no
particular results. It has no dogmas, and no doctrines save its method.104 This is not to say that pragmatism is value-free but merely that pragmatism accepts that values are socially defined in accordance with culture and time.105 Pierce consequently found that the ‘rational purport’ of an action or word is conveyed by its bearing upon life.106 Rorty, although less inclined towards the scientific method of Dewey, argued that philosophy ought to be problem-solving.107

This practice-orientated focus of pragmatism leads us to its method. In this respect, the pragmatists maintain a strong focus on inquiry, deliberation and experience.108 To the pragmatist, the statements and normative assumptions are to be subjected to continuous reassessment and open inquiry in order to ascertain whether the particular idea is likely to work. The goal of such inquiry is to achieve agreement among human beings about what to do, in order to facilitate compromise ‘on the ends to be achieved and the means to be used.’109 Importantly, the goal of such inquiry is not absolute ‘truth’ as the existence of such is denied by the pragmatists. Seeking to find absolute truth would require one to step outside the universe and observe whether it corresponds to one’s observations.110 Instead, to the pragmatist, attention is turned to what works in a given situation and the key in achieving this is disinterested and impartial inquiry.111 In doing so, pragmatism alerts us to a ‘marketplace of ideas’ among the various values which are at play in environmental debates.112

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104 James (n 92) 54.
105 As a result, Dewey argues that moral values change over time and must therefore be periodically reviewed. In this light, Dewey does not consider the questioning of moral values a sign of decay but rather a need. See Jennifer Welchman, ‘Dewey’s Moral Philosophy’ in Molly Cochran (ed), The Cambridge Companion to Dewey (CUP 2010).
107 Rorty, Philosophy (n 101) xxi. In this, Rorty kept an eye on the future in asserting that the worth of a particular good is derived from its utility. This is taken to mean it being ‘useful to create a better future’ (Rorty, Philosophy (n 101) 27).
108 We find a similar emphasis on experience in certain quarters of the CLS movement. See eg Allan C Hutchinson, Dwelling on the Threshold (Sweet & Maxwell 1988) 13 arguing ‘there is no truth nor knowledge outside the dramatic context and idiom of history’. See also Peter Gabel in Peter Gabel and Duncan Kennedy, ‘Roll over Beethoven’ (1984) 36 Stan L Rev 1, 44–55 (where Gabel notes that ‘a dominant change in that person’s perception of the world—can only come through participation in a social movement, or a social group of some kind’ 44).
109 Rorty, Philosophy (n 101) xxv.
110 Posner, Pragmatism (n 92) 100. That is, to Rorty, ‘no description of how things are from a God’s-eye point of view, no skyhook provided by some contemporary or yet-to-be-developed science, is going to free us from the contingency of having been acculturated as we were’. See Richard Rorty, Objectivity, Relativism, and Truth (CUP 1991) 13.
111 Tamanaha, Realistic (n 96). See also Rorty (Philosophy (n 101) 7), who saw truth as being a property of linguistic arrangements.
Pragmatism thereby assists us in reconciling the inconsistent and conflicting values we find in environmental law.

The question of how to establish whether a particular value or proposition works in order for it to be of use in a given context is, to the pragmatist, a question strongly linked to science.¹¹³ Central to the inquiry aiming at establishing the utility of a particular statement or proposition is the idea of ‘fallibilism’.¹¹⁴ Putnam argues that ‘for the pragmatist, the model is a group of inquiries trying to produce good ideas and trying to test them to see which ones have value’.¹¹⁵ In this, pragmatism has similarities with the philosophy of science developed by Thomas Kuhn and Karl Popper.¹¹⁶ In particular, Popper’s emphasis on verification by falsification is central as it assists us in finding a path through the ‘marketplace of ideas’ which we encounter in environmental settings. To Popper, propositions and proposed solutions ought to be subjected to vigorous attempts to falsify them.¹¹⁷ In other words, theories and propositions should be open to criticism and falsifiability in order to establish their practical utility.¹¹⁸

This should be done through critical discussion and continuous debating in order to ascertain the plausibility and robustness of a proposed solution. This is not to say that propositions cannot be validated or that we are to carry on indefinitely attempting to falsify a proposition or claim. But, as Dewey himself identified, the ability to suspend conclusion and to ‘maintain the state of doubt and to carry on systematic and protracted inquiry’ are essential aspects of thinking.¹¹⁹ This means instead that knowledge is prospective insofar as there is no guarantee that a given outcome of a deliberation will not at some point in the future be proven false.¹²⁰ In other words, the propositions which have been proved (temporarily)

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¹¹³ A particularly lucid example of this is found in Dewey’s analysis of the act of thinking. Here Dewey alerts us to a process which shares obvious traits with the scientific method: ‘Upon examination, each instance reveals, more or less, clearly, five logical steps: (i) a felt difficulty; (ii) its location and definition; (iii) suggestion of possible solution; (iv) development by reasoning of the bearings of the suggestions; (v) further observation and experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief.’ See John Dewey, How We Think (Dover Publications 1997) 72.


¹¹⁵ Cited in Tamanaha, Realistic (n 96) 29.

¹¹⁶ Posner, Pragmatism (n 92) 37.

¹¹⁷ Karl R Popper, The Logic of Scientific Discovery (Hutchinson 1959) 16.

¹¹⁸ Dewey argues that this ‘partly depends upon the presence of rival conjectures as to the best course to pursue or the probable explanation to favour, cultivation of a variety of alternative suggestions is an important factor’. See Dewey, How We Think (n 113) 75.

¹¹⁹ ibid 13, 73–75.

resistant to fallibilism have been confirmed or, to James, ‘bagged’. Rorty argues ‘you cannot aim to be at the end of inquiry, in either physics or ethics’. To this we may add discussions pertaining to environmental law.

One example which serves to highlight the relevance of this pragmatic method and line of argument in relation to environmental law is arguably found in the attempt to adopt regulatory responses to the problem of climate change. First, when alerted to the problem caused by the emission of greenhouse gases, international law makers turned attention to a regulatory framework, which had proved highly successful in the past; that of a general framework convention light on legal obligations to be followed by an additional protocol laying down specific emission reduction targets. The model for this outline is to be found in the regime set up to regulate the trade in chlorofluorocarbons (CFCs) in the mid-1980s, which is widely credited with having played an important role in reducing the trade in ozone destructing gasses. It is perhaps not surprising that international negotiators would seek to base the international regime aimed at addressing anthropogenic climate change on the experiences with a system which had proved its value and thereby arguably been ‘bagged’.

Nevertheless, while the regulatory solution adopted in the name of protecting the ozone layer proved to be successful in its own context, it has turned out to be much less so in the context of anthropogenic climate change. Despite this, we still find a pragmatic trait in the attempts to adopt a new set of binding targets in place of the Kyoto Protocol’s commitment period, which will have run out by the end of 2012. Facing increasing evidence that the chances of adopting a new joint set of legally binding emission reduction requirements are slim (for various reasons), the international community has, as a result of deliberation and dialogue (partly also aided by a strong dose of unwillingness), changed its focus in accepting an approach which leaves room for unilateral implementation of reduction targets.

121 Dewey, ‘Development’ (n 106) 8. See also Hilary Putnam, Pragmatism (Blackwell 1999) 70–73.
122 Rorty, Philosophy (n 101) 83.
125 Bodansky calls this the bottom-up approach which is contrasted by the Kyoto Protocol’s top-down approach. See Daniel Bodansky, ‘A Tale of Two Architectures: The Once and Future UN Climate Regime’ (2011) 43 Ariz St LJ 697.
Consequently, the Copenhagen Accord and the Cancun Agreement facilitate a framework under which individual states are allowed to adopt their own paths towards decarbonising their economies.\textsuperscript{126} That is to say, these instruments have been designed in a non-descriptive, open-textured way allowing for different approaches being developed in different jurisdictions (including the continuation of the Kyoto setup for a number of willing states following the Durban conference).

Pragmatism is of assistance in the attempt to analyse these developments. Firstly, the process itself leading to the adoption of the UNFCCC and the Kyoto Protocol (based on past, successful experiences), and the subsequent change in regulatory setup away from binding emission reduction targets towards an open-textured and flexible system, can be explained by reference to the pragmatic method. More importantly, pragmatism is of use when encountering the various preferences and values held by states in relation to what regulatory method to adopt (from doing nothing to continuing with a Kyoto-like setup) as it allows us to recognise these multiple interests and recognise them in a regulatory outcome which allows for different approaches.

This example brings to light the relevance of and the role played by the pragmatic approach to environmental law and regulation in general, and in particular in situations of diversity and uncertainty. In other words, the diversity and subjectivity, which is omnipresent in environmental debates, shape important questions of relevance for the environmental law on, firstly, what subjects and actions to regulate (i.e., its content) and, secondly, how to regulate (i.e., the form of environmental law).\textsuperscript{127} In the next part we will gain further analytical purchase on the relationship between pragmatism and environmental law by examining the more modest role of pragmatism in the plurality of values at play in environmental debates as identified in Part 3.

5. Relevance to Environmental Law

Upon further examination we will see that despite the pragmatists themselves being silent on the topic of environmental law and regulation, it would seem that pragmatism has a number


\textsuperscript{127} For a general and highly illuminating discussion on this matter see the contributions in Tim Jewell and Jenny Steele (eds), \textit{Law in Environmental Decision-Making} (Clarendon Press 1998).
of lessons for environmental law. In pursuing this line of thought we will draw on the more modest interpretation of pragmatism rendered by Brian Tamanaha and Steven Smith. In his attempt to come up with a realistic socio-legal theory of law, Tamanaha argues that the real contribution of pragmatism is found in its (positive) constructive inclination, with its emphasis on dialogue, attention to context and search for a middle way.\textsuperscript{128} In light of the diversity identified in environmental debates and associated values in Part 3, this trait seems eminently applicable.

When faced with the plurality of values which we find in environmental law, pragmatism reminds us that the best way to strike a balance is often through fallibilistic inquiry, focusing on the middle ground, while paying attention to what is practicably possible. On this reading, pragmatism can assist us in the theoretical and normative discussions on the role of environmental law insofar as pragmatism urges us to keep an eye on what works in practice (as identified in Part 4), and maintain a willingness to continuously question norms and values. The willingness to periodically review opinions and suspend conclusion is particularly relevant in environmental debates where, as a result of the diverse opinions, achieving consensus will, at times, present a challenge. Likewise, we can utilise pragmatism to avoid, or at least take into account, the heuristics and biases identified in environmental debates.\textsuperscript{129} In this way, pragmatism can exhort us ‘to avoid intellectual vices’\textsuperscript{130} and remove the ‘blinders of existing habits, custom, and convention by way of testing’ as identified in Part 3.\textsuperscript{131} Dewey himself was alert to this in his support for inquiry when he warned against ‘thought’s natural tendency to go astray, [...] because social influences exist that tend to form habits of thought leading to inadequate and erroneous beliefs.’\textsuperscript{132}

However, recalling Rorty’s argument that the purpose of the pragmatic inquiry is to strive towards consensus, the role of pragmatism as a facilitator of inquiry aimed at what works in practice (as suggested in the examples above), in an attempt to find a way through a

\textsuperscript{128} Tamanaha, \textit{Realistic} (n 96) 35. Tamanaha observes though that the strive for the middle way is likely to be unacceptable to those seeking a radical reform of the law as it inevitably leaves certain structures intact.


\textsuperscript{130} Steven D Smith, ‘The Pursuit of Pragmatism’ (1990) 100 Yale LJ 409, 446.


\textsuperscript{132} Dewey, \textit{How We Think} (n 113) 29.
maze of diversity, would seem straightforward. One could, with some force, point out that such inquiry is already taking place and is well-established in the law. In fact, Rorty himself pointed out that ‘by now pragmatism is banal in its application to law.’ To this, however, we can assert that, even so, pragmatism arguably has a role to play. A role for pragmatism would in this instance be if we understand pragmatism more modestly as an exhortation. In Smith’s words, pragmatism’s ‘function is not to say things that lawyers and judges do not know, but rather to remind lawyers and judges of what they already believe but often fail to practice.’ The point here is that simply urging more inquiry and reflection will, to many, seem straightforward and trivial. But as highlighted in Part 3, empirical evidence indicates that far too often people (this would include environmental lawyers and environmental policy makers) are prone to falling into convenient heuristics and biases. In this light, pragmatism can remind us of the virtues of aiming for consensus rather than maintaining old habits and customs.

Secondly, pragmatism is useful to a subject like environmental law where scientific knowledge of risks, harms and likely environmental effects of certain actions are rapidly changing and often entail unintended consequences. One example of the ‘moving knowledge frontier’, as Farber terms it, is arguably found in the allegations that one unintended consequence of the Clean Development Mechanism, established under the Kyoto Protocol, has had the negative side-effect of leading to increased production of HCFC-22 (a potent greenhouse gas) due to the off-set credits producers are awarded under the CDM when destroying another greenhouse gas (HFC-23 which is a by-product of HCFC-22). To be exact, due to the credits awarded to producers as part of the CDM, more of the dangerous gasses are produced than would arguably otherwise have been the case.

Thirdly, and going beyond Tamanaha’s interpretation of the primary application of the pragmatic outlook, pragmatism’s emphasis on anti-foundationalism and contingency lends support to its use in environmental settings. As we saw in Part 2, environmental law as

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133 Rorty, Philosophy (n 101) 93.
134 Smith (n 130) 411.
135 Farber demonstrates how the ‘moving knowledge frontier’ is a phenomenon acutely present in environmental issues. See Daniel Farber, Eco-Pragmatism: Making Sensible Environmental Decisions in an Uncertain World (Chicago University Press 1999) 174.
a legal discipline is susceptible to multiple influences, truth claims, justificatory backgrounds and diversity. Posner reminds us that pragmatism ‘flourishes in a context of heterogeneous values due to its lessons of tentativeness’. That is to say, in a discipline susceptible to multiple and competing truth claims proceeding from a range of epistemological standpoints, the appreciation of contingency found in pragmatism lends support to its application. The diversity of influence and value is consequently highly compatible with the warning against absolutes so central to pragmatism. One example is found in the writings of James, who when travelling in the mountains of North Carolina came across a number of small valleys between the hills in which the forest had been cleared. James observes: ‘The forest had been destroyed and what had “improved” it out of existence was hideous, a sort of ulcer, without a single element of artificial grace to make up for the loss of Nature’s beauty.’ However, upon encountering the farmer in charge of the clearing, James realises that, to the farmer, the clearing of forest is a necessity in order to be able to cultivate the land. James comes to appreciate that:

In short, the clearing which to me was a mere ugly picture on the retina, was to them a symbol redolent with moral memories and a very paean of duty, struggle and success. I had been as blind to the peculiar ideality of their conditions as they certainly would also have been to the ideality of mine, had they had a peep at my strange indoor academic ways of life at Cambridge.

This example further brings out the contingency inherent in the wider environmental debate in which environmental law operates. What may seem a factual assertion is often open to a wide range of interpretations as a result of the values involved. The point to be made is thus: pragmatism’s central tenet of contingency and non-absolutes serves as a background against which we can assess environmental issues. As highlighted in James’s example, what appears to be a barren land of little value to one person is an area percolated in history and value to another. Again, pragmatism can remind us that in situations like these we should be weary of dismissing one opinion in favour of another in an attempt to conjure futile absolutes and categorical imperatives.  

137 Posner, _Pragmatism_ (n 92) 34.
138 Cited in Rorty, _Contingency_ (n 100) 38.
139 ibid.
140 Hirokawa argues that pragmatism is useful in environmental debates as ‘such debates can be characterized as competing, irreconcilable perspectives that suggest conflicts between paradigms’. See Keith Hirokawa, ‘Some Pragmatic Observations about Radical Critique in Environmental Law’ (2002) 21 Stan Envtl LJ 225, 253. For a
Rorty argues that the infinite and equally valuable ways to lead a human life ‘cannot be ranked in terms of degrees of excellence’. Accordingly, we should be careful not to assume that all shared ends and values have been identified and all there is left to do is to identify the technical means best suited to achieving these goals.

Principally, the pragmatists would warn against the risk of conflating private values with public opinion. In this, Rorty’s emphasis on liberal ironist theory is of use. To Rorty, the ironist is someone who constantly maintains doubt with regard to her vocabularies (‘a set of words which [humans] employ to justify their actions, their beliefs, and their lives’), while conceding that her vocabulary is not necessarily closer to reality than those of others. This entails being ready to accept that one’s opinions and assumptions may turn out be mistaken in light of the fallibilistic inquiry. In other words, ‘accepting what matters most to you may well be something that may never matter much to most people’.

Consequently, pragmatism again reminds us that in environmental debates, we are faced with a ‘marketplace of ideas’ and the exercise of ranking these is often demanding if not impracticable. What we instead ought to bear in mind is a sense of humility. This means that taking part in environmental policy debates and drawing up regulatory and legal responses, entails responsibilities upon the participants. These responsibilities would...

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142 Rorty, Philosophy (n 101) 268.
144 Farber (n 135) 39 (who argues that certain environmental organisations often confuse private preferences with public opinion). Again, here the use of cost-benefit analysis becomes relevant as critics of such practices may point out that a cost-benefit analysis only succeeds on measuring private values while overlooking public goods. Dewey himself was sceptical of ‘the idea that reason or thought should be reduced to being a servant of any interest which is pecuniary or narrow’ (Dewey, ‘Development’ (n 106) 4).
145 Rorty defines ‘final vocabularies’ further by noting that these ‘are words in which we formulate praise of our friends and contempt of our enemies, our long-term projects, our deepest self-doubts and our highest hopes. They are the words in which we tell, sometimes prospectively and sometimes retrospectively, the story of our lives.’ See Rorty, Contingency (n 100) 73.
146 Rorty, Philosophy (n 101) 13. See also Kenny above (n 92) 35. Feldman argues ‘Pragmatism rejects the very idea of radical doubt but they embrace the possibility of mistake. We can have erroneous beliefs. We can have outmoded beliefs. In fact, absolutely any of our beliefs could turn out to be wrong.’ See Feldman (n 114) 18.
147 cf Simmonds (n 4). See also Kahan (n 84) 58–66; Secunda (n 84) 140–48 (putting forward an argument for judicial humility).
148 See also Steele (n 30) 189 (arguing that engagement in certain debates entails responsibilities on behalf of the participants. Primarily in relation to ‘weigh[ing] possibilities and probabilities in order to determine which course of action best suits their purpose’). This would, in addition, go some way towards avoiding polarisation of environmental debates. See eg Douglas A Kysar and James Salzman, ‘Environmental Tribalism’ (2003) 87...
primarily relate to, as noted already, a sense of humility, an obligation to the practice of genuine deliberation allowing for the inclusion of counterarguments and a willingness to suspend judgment.\textsuperscript{149} We should also bear in mind that the values which we each bring to the fore are more likely to be socially contingent ‘rather than stable objective realities’.\textsuperscript{150}

In addition to this, we ought to consider the value found in exposure to dissimilar points of view when we encounter values grounded in cultural worldviews. If we remain alert, by way of relying on pragmatism as discussed above, to the biases and heuristics described in Part 3, we are likely to gain a higher level of tolerance for opposing views.\textsuperscript{151} The point being that, as we are unlikely to ever rid ourselves of bias in its entirety, we at least ought to familiarise ourselves with it and make every effort to take it into account.\textsuperscript{152} While such points of moderation may not sit well with those favouring immediate and urgent responses to environmental problems, we likewise ought to heed pragmatism’s argument of lack of absolute certainty while recognising the complexity of many of the issues which environmental law seeks to regulate.\textsuperscript{153} As a result, we should come to expect an incoherent environmental law as it is likely to be subjected to critical inquiry and ventures of fallibilism for a foreseeable future. While this may be disconcerting for those seeking solid foundations, it will likely lead to maturity in the long term as certain assumptions, claims and values will be ‘bagged’, whereas others will be discarded.

All of this is to say that pragmatism, with its emphasis on inquiry, fallibilism, anti-foundationalism, and temporary and contingent knowledge, holds valuable lessons for environmental law. Naturally that is not the same as saying that pragmatism and its methods holds the answer to every question and problem we face in environmental debates. On the contrary, making such assertions would indeed be un-pragmatic insofar as swearing to the

\textsuperscript{149} Popper argues that in these processes ‘the other fellow has a right to be heard, and to defend his arguments’. See Karl R Popper, \textit{A Pocket Popper} (David Miller ed, Fontana Press 1987) 43. See also Diana C Mutz, \textit{Hearing the other Side} (CUP 2006).


\textsuperscript{151} See also Mutz (n 149) ch 3 (who also argues that this plays an important role in promoting democratic values).

\textsuperscript{152} Schwartz and Thompson note that ‘everything is bias’ and that we are likely to be worse off without it. See Schwartz and Thompson (n 68) 61.

\textsuperscript{153} See eg Kahan (n 84) 62–66.
infallibility of pragmatism would amount to some form of formalism. 154 Likewise, pragmatism has its influential and forceful critics. These often argue that pragmatism’s moral emptiness is a slippery slope towards relativism; 155 Dworkin likens pragmatism to moral nihilism; 156 and Haack considers pragmatism a ‘desperately confusing scholarly mare’s nest.’ 157 Pierre Schlag points out how pragmatism means different things to different people: 158 to Posner pragmatism embodies an ‘intellectual expression of an empirical, scientific, instrumentalist approach’, while to Dan Farber it is ‘the intellectual support for an enlightened common sense kind of doctrinal instrumentalism’. 159 To the pragmatist, though, this is hardly surprising. Endorsing one meaning of pragmatism as the sole and only definition is not pragmatic. Recalling James: pragmatism stands ‘for no particular results. It has no dogmas, and no doctrines save its method.’ 160

6. Conclusion

The central thesis advanced in this paper is that environmental law as a legal sub-discipline is particularly susceptible to claims of incoherence and diversity of opinion. As a result, we have set out to answer the question of ‘why’ in relation to these claims and suggested pragmatism as a highly suitable response. We have identified the diversity of culturally ingrained values and understandings of environmental risks in accordance with cultural worldviews as these were originally defined by Douglas and Wildavsky and subsequently developed by others (individualist, hierarchical, egalitarian and communitarian) as significant and contributing factors.

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154 See eg Smith (n 130) 425 (criticising Posner’s pragmatism for being akin to formalism). See also Louis Menand (ed), Pragmatism: A Reader (Random House 1997) xxv (arguing that ‘it is part of the nature of pragmatism to decline the honour of becoming a “school of thought”. Pragmatists have always been wary of the danger that pragmatism will turn into a discipline, that it will become just another one of the things professional thinkers “do”.’)

155 See eg Brian Z Tamanaha, Law as a Means to an End (CUP 2006) 64.

156 Ronald Dworkin, Justice in Robes (Harvard University Press 2006) 82.


158 This point is vividly summed up in Jack Balkin, ‘The Top Ten Reasons to be a Legal Pragmatist’ (1991) 8 Const Comment 351, 351. Balkin states that where the reasons include ‘if you’re left-wing, you can finally find something to agree with Richard Posner about’ and ‘if you’re right-wing, you can finally find something to agree with Frank Michelman about’.


160 James (n 92) 54.
These cultural worldviews, which are aided and reinforced by cultural biases and heuristics, exert significant influence on perceptions of risk which in turn reflect and reinforce commitments to how society should be organised. These predilections influence the environmental law and regulation primarily through their pervasiveness and ubiquitous presence in the culture which the environmental law operates in and partly is a mirror image of. When faced with this plurality of values, useful assistance may be found in the philosophy of pragmatism. The strength of pragmatism (in the modest exhortative way it is defined here) is that it alerts us to the biases that run as an undercurrent in the environmental law and, more importantly, it offers us a procedural tool with which to strike a balance between competing claims. This is because pragmatism identifies fallibilism in the context of deliberation as the most promising tool with which to identify what works in practice thereby alerting us to the blinders of existing habits and custom. Moreover, pragmatism points us towards the need for responsibility and humility when we engage in debates pertaining to the development and implementation of environmental law in the attempt to overcome the identified predilections and biases.

This responsibility relates to the appreciation of the possibility of mistake in our own predilections and the contingency of our own values. We should, likewise, be wary of being drawn to the idea of absolutes and instead come to acknowledge the incoherence of environmental law which flows from the diversity of values and opinions embedded in the discipline. We should appreciate that such diversity can be useful in that it potentially assists us in advancing our understanding of legal concepts, regulatory choices, practices and institutions thereby aiding the maturing of the environmental law discipline.

While it is on occasions claimed that environmental law is under-theorised or in the need for further theorising, the argument made here in support of pragmatism’s contingency and anti-foundationalism is not to be taken as an argument against theorising. On the contrary; we should bear in mind that theorising is often essential in the attempt to


162 Posner, rightly points out that pragmatism is not per se against theory or theorising. See Posner, Pragmatism (n 92) 77.
secure a maturity of a given subject. As Nagel reminds us; ‘philosophy is the childhood of the intellect, and a culture that tries to skip it will never grow up.’\textsuperscript{163}

\textsuperscript{163} Nagel (n 43) 12. I am grateful to Richard Mullender for alerting me to this point. Dewey further reminds us that one central contribution of philosophy in this is to deliver ‘criticism’. See John Dewey, \textit{Experience and Nature} (Dover 1958) 411–13.