



Reconsidering Environmental Policy: Prescriptive Consequentialism and Volitional Pragmatism¹

DANIEL W. BROMLEY

Department of Agricultural and Applied Economics, University of Wisconsin-Madison, 427 Lorch Street, Madison, WI 53706, USA (e-mail: bromley@aae.wisc.edu)

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Abstract. Prescriptive consequentialism informs current assessments of rational action in economics. Choice is alleged to start with stable and known preferences over alternative outcomes, and rational agents choose actions that maximize well being with respect to these preferences. Evidence suggests that this formulation fails as an accurate and reliable description of how individuals make choices, and this formulation seems particularly at odds with collective decision making with respect to environmental policy. Pragmatism, an important branch of philosophy, offers a theory of human action that economists would find helpful. This promise is especially pertinent to efforts devoted to the assignment of values to parts of nature, and to environmental policy in general.

Key words: collective action, consequentialism, environmental policy, pragmatism, volitional pragmatism

1. The Challenge Ahead

I seek here to motivate some reflection and discussion among environmental economists concerning consequentialism² as a basis for *prescriptive assertions* about what is best (right, proper, correct, socially optimal) to do in the realm of environmental policy. To stimulate this discussion I will offer an introduction to the pragmatic philosophy of Charles Sanders Peirce, William James, and John Dewey. This introduction seems important for several reasons. First, there is underway a major revival in pragmatic thought among philosophers, and this revival in pragmatism is now regarded as one of the more exciting and promising realms of philosophic enquiry – especially with the recent contributions of Richard Rorty, Hans Joas, and Robert Brandom. Second, pragmatism is related to the empiricism of David Hume and the Oxford philosopher F. C. S. Schiller. Finally, the founders of the American Economic Association (especially Richard T. Ely) were much influenced by the pragmatism of Peirce, James and Dewey in the last decades of the 19th century (Hoover 1994). John R. Commons, and to a lesser extent Thorstein Veblen, the founders of institutional economics, understood the importance of Dewey's insistence that the foundation of all knowledge is experience. What follows, therefore, is a conversation about pragmatism and consequentialism (with

its strong ties to positivism) – with particular reference to the prescriptive urge among many environmental economists.

Most economists imagine that they know a great deal about positivism, though if they learned their “positivism” from Milton Friedman they have been misled. But it seems safe to assume that few practicing economists know very much at all about pragmatism. This is puzzling since in pragmatism one will find a theory of human action that draws on foundational work in the neurosciences and in psychology. And since economics claims to be about human choice, and since most economists will insist that they study human action (choice), it cannot possibly be a bad thing if economists – but especially environmental economists – might learn just a little about what psychology and philosophy have to say about human choice. Before getting to pragmatism, let us address, briefly, the legacy of prescriptive consequentialism in environmental economics.

2. Consequentialism and Positivism

I have elsewhere commented on the debilitating circularity of economic efficiency as a consequentialist guide to what is thought best to do (Bromley 1990, 1997a), on the conceptual and empirical flaws in efforts to assign monetary values to the manifold and unknown (and usually unknowable) contributions of natural systems (ecosystems) to sustaining life as we know it (Vatn and Bromley 1994), and on the nature of models of externalities (Vatn and Bromley 1997). To a large extent this literature has been part of a continuing effort to show that the institutional foundations – the norms, the working rules, the habits of mind and thought, and the property relations – of an economy are (in Veblen’s and Commons’ theory of cumulative causation) collectively and serially reconstituted in an evolutionary process of contending with new scarcities, new tastes and preferences, new ethical premises, new technical opportunities, new unwelcome outcomes (chemical contamination, species disappearance, assaults on green space), and the general degradation of what we now call “environmental quality” (Bromley 1989a, 1989b, 1991, 1992a, 1992b, 1993, 1995, 1997b, 1998, 2000; Bromley and Hodge 1990; Larson and Bromley 1990).

This present effort is, therefore, the logical and inevitable extension of a line of work that spans some three decades of research on how environmental economists come to the policy arena with particular epistemological convictions that comprise the grounds for our consequentialist prescriptions about socially “optimal” policies.³ Common examples of such “truth claims” include the following:

Policy X should be pursued because it will thereby increase social welfare.

Policy Y should *not* be pursued because its net present-valued benefits are negative.

Policy Z is socially desirable because it can be shown that the gainers from that policy could compensate the losers from that policy (though of course actual compensation need not occur).

Economic institutions will change when it is efficient for them to change. If it is not efficient for them to change then they will not – and should not – change.

While these are general “truth rules” for applied economists, the immediate motivation for this paper goes back somewhat less than a decade to a debate in the *Journal of Economic Perspectives* over what has now come to be called the “Porter Hypothesis”. Those who have followed this controversy have had a lesson in how science progresses – albeit by small and hesitant steps. Recall that Michael Porter and his co-author Claas van der Linde offered the following proposition:

the environmental-competitiveness debate has been framed incorrectly. The notion of an inevitable struggle between ecology and the economy grows out of a static view of environmental regulation, in which technology, products, processes and customer needs are all fixed. In this static world, where firms have already made their cost-minimizing choices, environmental regulations inevitable raise costs and will tend to reduce the market share of domestic companies on global markets . . . However, . . . The new paradigm of international competitiveness is a dynamic one, based on innovation . . . internationally competitive companies are not those with the cheapest inputs or the largest scale, but those with the capacity to improve and innovate continually . . . in this paper we will argue that properly designed environmental standards can trigger innovation that may partially or more than fully offset the costs of complying with them. Such “innovation offsets” . . . can not only lower the net cost of meeting environmental regulations, but can even lead to absolute advantages over firms in foreign countries not subject to similar regulations. Innovation offsets will be common because reducing pollution is often coincident with improving the productivity with which resources are used. In short, firms can actually benefit from properly crafted environmental regulations that are more stringent (or are imposed earlier) than those faced by their competitors in other countries. By stimulating innovation, strict environmental regulations can actually enhance competitiveness. (Porter and van der Linde 1995, pp. 97–98)

What has come to be called The Porter Hypothesis is found in the latter part of this quote: *strict environmental regulations can actually enhance competitiveness*. As we know, the Porter Hypothesis was met with incredulity by most environmental economists. For several years following this exchange there were sessions at the annual meeting of the European Association of Environmental and Resource Economists devoted to discussions of – and some consternation about – the Porter Hypothesis. How can this possibly be? Indeed, in a companion article to the Porter-van der Linde paper in the *JEP*, several highly respected environmental economists

dismissed the Porter Hypothesis as “astonishing” (Palmer, Oates and Portney 1995, p. 119). Plausibly speaking for many environmental economists, these authors expressed “shock” that Porter and van der Linde had “turned their back on a long tradition of benefit–cost analysis” in attempting to determine whether environmental regulations are in the public interest. Their attack on the Porter Hypothesis took two forms: (1) a rather familiar deductive appeal to a simple static model of a competitive firm into which environmental regulations are imposed; and (2) a rather standard assertion (a value judgment, actually) about how environmental policy *ought to be decided*. That is, these authors asserted that proper environmental policy was correctly decided by carefully weighing the benefits and costs of environmental regulations compared to a world in which regulations were absent.⁴ Only in this way would the over-eager bureaucrats and regulators be made to keep a safe distance from the economy (Samuels 1974, 1989).

To no one’s surprise, intellectual progress soon revealed that the static model of the opponents of Porter and van der Linde was simply not up to the task for which it had been deployed (Altman 2001; Alpay et al. 2002; Gabel and Sinclair-Desgagné 1998; Mohr 2002). However, what has *not* been addressed by environmental economists is the insistence by Porter’s opponents that environmental policy *ought to be* decided on the basis of *a priori* consequentialism. How can we explain this particular silence? Why is there so much serious intellectual curiosity in formal models, but so little intellectual curiosity in the value judgments at the core of consequentialism and its false claim to revealing socially preferred actions?

It seems possible that silence on this aspect of the Porter Hypothesis is explained by the fact that most environmental economists do not believe that an *ought* statement of this sort (“proper environmental policy *ought to be* decided . . .”) violates the standard professional injunction against offering “normative” propositions. This injunction is usually explained (justified) to students of economics with an example such as: “the distribution of income *ought to be* made more equitable”. Or, “the quality of the environment *ought to be* enhanced”. We teach our students that economists can *describe* (what *is*) the level of inequality in income, or we can *describe* (what *is*) the level of environmental quality, but then silence must rule if we are to retain our status as pure and “objective” scientists. This injunction is thought to provide the necessary protection against rogue economists advocating, on the basis of their idiosyncratic personal beliefs, a different distribution of income, or a cleaner (or dirtier) environment.

Notice something interesting here. There is no professional injunction against all environmental economists issuing *ought* statements. Nor is there any problem when a very few of them do so and claim to be representing the views of *all* environmental economists. The professional injunction seems to apply only *to individual* economists who issue ought statements that differ from the received wisdom of the entire field of environmental economics. Apparently, as long as ought statements seem to reflect the conventional wisdom of a particular subfield of a discipline (environmental economics, labor economics, health economics, agri-

cultural economics) then a prescriptive declaration (an assertion, a “truth claim”) about how particular policy *ought to be* decided is quite acceptable.

There is something else worthy of notice. Specifically, the “shocking” thing about the Porter Hypothesis is that it might induce regulators to bring about an environment that is not “too dirty” but, of all things, “too clean”. And it seems as if the environment can only get “too clean” if consequentialist truth rules are *not* invoked to prevent precisely that outcome. Notice that the present institutional setup is apparently quite sufficient for the environment to become “too dirty” in the eyes of many citizens, but not to those who presently enjoy agreeable cost savings from the ability to dispose of their waste products in someone else’s lake, atmosphere, or river. Suddenly the standard story in environmental economics becomes a bit problematic.

Many environmental economists will probably insist that their fear of Porter and his “astonishing” hypothesis is not that the *wrong level* of environmental quality will result without the deployment of consequentialist truth rules. They will likely insist, instead, that if environmental regulators manage to acquire the quite dangerous idea that such decisions can be made *in the absence of consequentialist truth claims* then chaos will reign as the political process runs amok in its “interference” with the economy.⁵ But of course we see immediately the embedded normative (valued-laden) nature of this line of reasoning. The normative position here is that the “right” level of environmental quality can be known *only* with the aid of insights of environmental economists armed with our consequentialist truth rules. In instrumentalist language, there is only one tool that can reveal the “truth” about the socially optimal level of environmental quality – and that tool happens to be owned by environmental economists. If you want to know what is right (optimal) to do with respect to the environment then you must ask us – and you must rely on our tool for that answer.

This belief among environmental economists apparently arises from the universal conviction that economics is the “science of choice”. Since most decisions about environmental quality are, in democratic societies, of paramount interest to ordinary citizens, their elected representatives, and many agencies in the executive branch, we should not be surprised to learn that others may not share our convictions concerning the essential centrality of our particular prescriptive truths to what is socially preferred. Indeed, we should not be surprised to learn that political scientists might have their own theory of “optimal environmental policy” that could differ in important ways from how we calculate social optimality in this realm. Moreover, it seems hard to sustain an argument that when it comes to human action – volitional choice – economics is more central than, say, philosophy, psychology, or even sociology. We like to tell ourselves this, but few scholars in these other disciplines can hear such confident pronouncements and still manage to keep a straight face.

Given the circularity in revealed preference theory, and in light of the failure of rational choice theory to offer clarity about individual choice, one would expect

environmental economists to be somewhat humble in our confident assertions about social optimality (Akerlof 1970; Akerlof and Dickens 1982; Bowles 1998; Field 1979, 1981; Holland 2002; Johansson-Stenman 2002; Lawson 1997; Norton 2002; Rabin 1998; Shackle 1961; Vatn 2002). For the most part we have ignored this profound literature – and for good reasons. To ponder this literature might induce some of us to alter our beliefs accordingly, and this reconsideration would have unhappy implications for the agreeable prospects of attracting consulting contracts and grants from executive branch agencies who still imagine themselves in need of “economic analysis” in order to permit them to proceed to do what it is they know they need to do to keep the policy process moving forward. We fool ourselves twice if we imagine that our analytical work does anything at all but provide external justification for decisions reached by other means. It is called apologetics (or validationism).

Indeed, we here encounter one of the important insights of pragmatism. The pragmatist would ask: *for what purposes would it be useful for environmental economists to hold the particular beliefs they happen to hold?*⁶ Two candidate hypotheses emerge from this question. Perhaps most environmental economists imagine that these particular welfaristic beliefs are *constitutive*? That is, if we are to *be* an environmental economist then we have no choice but to believe in consequentialism. This puts us in touch with the general idea that if one is to *be* a Catholic then one must believe certain things. Or if one is to *be* a Tory one must believe certain things. Or if one is to *be* an evolutionary biologist then it is quite necessary for one to believe certain things.

The second hypothesis is not constitutive but *instrumental*: *perhaps holding these particular beliefs is instrumental to the achievement of some desirable ends?* William James talked of beliefs having “cash value” if they were instrumental to a particular purpose. Little did he realize how well his metaphor fits this second hypothesis. If holding the belief that consequentialism (and benefit–cost analysis) is the *sine qua non* of “correct” environmental policy then it puts many of us in the quite agreeable position to acquire remunerative research contracts and consulting opportunities. The belief in consequentialism is profoundly instrumental, and we know that academics do not let go of their beliefs easily. Indeed, the German physicist Max Planck is said to have observed, approximately, that new ideas in science rarely win over the established practitioners. Rather, scientific progress must wait until the established opponents gradually die out so that new entrants into the discipline are exposed to new ideas from the beginning. Planck’s observation has been popularized as: “science progresses funeral by funeral”. Moreover, when agreeable income streams are associated with adherence to particular beliefs, it becomes doubly difficult to reconsider those beliefs on instrumental grounds.

Pragmatism reveals to us that there are both constitutive and instrumental reasons why we might be led to hold on to our beliefs about the merits of prescriptive consequentialism. But pragmatism also offers a theory of human action,

and a theory of how we come to hold the beliefs we imagine to be true. To that I now turn.

3. Pragmatism and Public Policy

If we are to understand the contrast between consequentialism and pragmatism we must first understand that all public policy (including environmental policy) is properly understood as *collective action in liberation, restraint, and expansion of individual action*. Note that “collective action” in economics is ordinarily concerned with individuals coming together voluntarily to accomplish that which they are unable to accomplish through individualistic behavior in markets. Indeed some economists regard collective action as a sign of some market failure. By way of contrast, the concept of collective action I use here is taken from John R. Commons who regarded collective action as that which occurs in the legislature, the executive, and the courts. The decisions of these governmental entities are *collective* because these entities speak *for* and *to* the political community in their legislation, in their administrative rulings, and in their judicial decrees. All members of a nation-state are implicated in these decisions, and in that sense we are each liberated, constrained, and reconstituted by the actions of the collective authority of the legislature, the executive, and the judiciary. With this view of collective action, let us now turn to pragmatism and action.

3.1. PRAGMATISM AND INDIVIDUAL ACTION

Most scientists imagine that there are but two ways of gaining knowledge (of fixing belief) – induction and deduction. However, there is a third way of fixing belief and it is called the method of hypothesis or *abduction*. The pragmatic theory of action is grounded in abduction – a method of inference that Aristotle called diagnosis. Abduction brings together particular observed phenomena (*results*) with particular accepted axioms (*rules*) to suggest hypotheses and assumptions (*cases*) that seem to offer plausible reasons for the observed results. Abduction offers promise as an epistemology because it is the only form of inference that introduces novel hypotheses into the search for *reasons for particular events* (Peirce 1934, 1957). When we can identify reasons for events we have a plausible basis for advancing explanations of those events, and for making predictions about those events. In contrast to abduction, deduction is an epistemology devoted to defense of the rule (the core axioms of a discipline). When economists use those axioms as the “scientific” basis for policy prescriptions that are claimed to be “welfare enhancing” or “efficient” or “socially preferred” then deduction becomes the basis of normative prescriptions about – and the basis for validation of – what is thought best to do. When there is little effort to ascertain the truth content of the axioms of deduction (the core premises) then deduction becomes a defense of received truth.

As above, the pragmatic theory of action is based on abduction. As sapient beings, we are continually observing particular settings and circumstances (*results* to the pragmatist) about the world around us. Coincident with this apprehension is a process of navigating our situatedness in those apprehended impressions of the world around us. Notice that this navigation is fundamentally a *diagnostic* (abductive) activity and the observations and interpretations we form about that activity comprise the foundation for the formulation of abductive inferences about those settings and circumstances – and our relation to them. Indeed, our observational and interpretive interest in those settings and circumstances is driven by the realization that the *essence of living is incessant doing*.

Pragmatists insist that our apprehensions of the settings and circumstances within which we are situated are necessarily limited to *impressions* of the world around us. And most importantly, different persons necessarily hold different impressions. There are, to be sure, objects and events “out there” in the world, but there are no universal and objectively “true” descriptions of the objects and events in that world – there are simply impressions. To put the matter another way, claims about “truth” about the world around us is a property of statements *about that world*. This means that truth is not a property of objects and events – the “thing in itself”. Rather, truth is a property of *statements about objects and events*. Individuals do not discuss (and argue about) objects and events – they discuss and argue about statements about, and descriptions of, objects and events.

Each of us apprehends settings and circumstances within which we are situated, but especially as we move through new settings and circumstances. These apprehended phenomena become our *impressions* of those settings and circumstances. Such impressions are just that – acquired sensory signals (signs) as we contemplate our situatedness in the constellation of settings and circumstances that constitute, in the words of Jürgen Habermas, our “lifeworld”. These impressions are the raw material of our understanding of our lifeworld, but they are of little value until they have been transformed into stories that we can express to ourselves – and to others. When we describe these impressions to ourselves (or to others) these descriptions constitute *expressions* about the world around us. In other words, individuals create *expressions* of their lifeworld. These expressions are the stories we tell to ourselves and to others. More importantly, these expressions form the mental stage on which we live. This stage constitutes our individually perceived and individually constructed “reality”.⁷

We spend our waking hours apprehending impressions and formulating expressions of those apprehended signs. The instigator of our impressions is *surprise*. Surprise is the necessary condition for us to take notice of the world around us and to process received impressions. After all, if one fails to notice particular settings and circumstances then this disregard implies familiarity and hence the observation is both fleeting and of little moment. Notice that settings and circumstances are either ignored (itself an action that dismisses the impressions without further action) or they are processed as novel impressions. Those novel impressions

become new expressions. Why is that car turning toward me? What does that house look like on the inside? I have never noticed those weeds before – why are they so profuse? Why is my roof leaking? We see that surprise triggers mental processes that confront settled habits of mind and induce us to form abductive syllogisms. Individual thought and action is abductively informed and animated. Indeed, Peirce insisted that , “. . . the action of thought is excited by the irritation of doubt, and ceases when belief is attained; so that the production of belief is the sole function of thought” (Peirce 1957, p. 36).

As we form abductive syllogisms about our apprehended lifeworld we are at the same time reckoning our situatedness in the multitude of those impressions. From the conjunction of these impressions and inferences about the world being experienced and our “place” in that world – and from the *meanings* we then attribute to these impressions, inferences, and situatedness – we abductively construct plausible inferences about the “need” to act, and about the “best” actions to take in the light of the abductive belief just formulated. It is here that I make use of G. L. S. Shackle’s concept of *created imaginings* (Shackle 1961). Expressions are stories we tell ourselves about our *present* lifeworld. Imaginings are stories we tell ourselves about possible *future* lifeworlds.

The essential function of expressions is to constitute (to construct) the mental stage onto which we project our imaginings of future outcomes to see how they will “play out” – plausibly materialize. The central idea here is not just the positing of created imaginings in the abstract. It is, rather, our created imaginings *projected onto* the stage of our emergent expressions. It is here that we formulate the reasons to select from among the array of plausible created imaginings. Individual choice (action) is, therefore, a contest between expressions and imaginings. We are necessarily situated in an apprehended reality (an expression), and we continually reflect on alternative created imaginings. This deliberation consists in checking them against our expressions of the present and of the future. Pragmatists insist that we act when we find a created imagining that satisfies expectations about situated outcomes in the future. And of course we also act when we reject all created imaginings and decide to stick with our current action trajectory. To do nothing is to do something.

3.2. PRAGMATISM AND JOINT ACTION

With this account of individual action in hand, let us focus on the problem of action involving more than one individual. The challenge should be obvious. The foremost encumbrance in joint action is found in the necessity to deal with *contending expressions*. It is in the nature of being *individuals* that we necessarily formulate and hold individualized expressions of our world. Of course most of us will agree that lamps are lamps, but the more pertinent issues go beyond this superficial identification of what the object appears to be. Is that lamp an antique? Does that lamp give enough light for reading? Why does that lamp tilt? Did that lamp cost as

much as it would appear? How can he afford such a fine lamp? Is that lampshade dirty or is that its “real” color? Why would he have such an outrageous lamp in an otherwise tasteful room?

Notice the constituents of expressions in this string of questions – antique, light, tilt, income, cost, ambiguous lampshade, outrageous, and tasteful. We see that a lamp is not merely a lamp. Instead, a lamp is a series of effects constituting impressions to differentially situated observers. Beauty is not a property inherent in certain objects – the thing in itself. Rather, pragmatists regard beauty as an effect *produced* by some objects (but not by other objects). And of course this produced effect will strike different individuals quite differently. Similarly, different individuals will ask themselves quite different questions about that lamp. It is in this sense that the lamp will comprise quite different impressions to different people. As Charles Sanders Peirce insisted, *the meaning of an object to us is nothing but the sum of its effects* (Peirce 1934). Only then do we form our expressions by collecting, sorting, and re-describing to ourselves the sum of our impressions of the effects of the subjects of our apprehended senses. And of course different individuals will ask themselves quite different questions about that lamp. It is in this sense that the lamp will comprise the grounds for quite different expressions to different people. Is a lamp just a lamp?

The obvious difficulty in joint (collective) action is that everyone else is doing the same thing, although to quite different effect. It follows that each of us will apprehend slightly different lifeworlds and thus each of us will have quite distinct expressions about the world “as it is” – and about our situatedness in that world. It could not be otherwise since we are, by definition, different sapient beings. In the context of joint action this means that there is not a single stage (expression) upon which our quite independent and disparate created imaginings are projected. Instead, there are as many “stages” as there are participants in the community whose task it is to ascertain but a single course of action for the future. Which brings us to the equally plentiful multitude of created imaginings being projected onto the multiple stages by those holding quite distinct expressions. And we wonder why collective action is contentious? Collective action forces all participants to agree on the many aspects (effects) of the lamp.

We see that the central challenge in collective action is for the decision group to work out a reconciliation of the multitude of expressions and imaginings about the future. Notice that the issue here is not one of discovering the “right” expression out of the multitude of contending expressions. Nor is the issue to discover the “right” created imagining *to fit* the “right” expression. Indeed the notion of “rightness” is the wrong description of the process followed by those faced with the necessity of collective choice.

The task, instead, is to focus on the various reasons for the disparate expressions, and for the disparate imaginings. Joseph Raz would say that deliberation is not a process of discovering what we want, but a process of reflecting upon what there is the *most reason* to want (Raz 1997). And pragmatists insist that progress in

such difficult matters is to be found in reasoned debate. We tend to put the matter as *the asking for and giving of reasons* (Brandom 1994, 2000). Those who come to the choice problem with their mind made up tend to invoke absolutes where reasons are in order. And the only thing to be said for such absolutes is that they give us a moral holiday from having to think hard about the difficult choices we face. Only in pragmatism are individuals forced to do the hard analytical work of figuring out what seems better, at the moment, to do. Absolutists know what is best (not merely better) by way of *a priori* revelations. Pragmatists insist that those who advance absolutist claims share with us the reasons for their convictions. To quote Hans Joas:

In pragmatism, precisely because it considers all psychical operations in the light of their functionality for action, it becomes impossible to hold the position that the setting of an end is an act of consciousness per se that occurs outside of contexts of action. Rather, the setting of an end can only be the result of reflection on resistances met by conduct that is oriented in a number of different ways. Should it prove impossible to follow simultaneously all the various guiding impulses or compulsions to action, a selection of a dominant motive can take place which then, as an end, dominates the other motives or allows them to become effective only in a subordinate manner . . . action is teleological only in a diffuse fashion. Even our perception is shaped by our capacities and the possibilities for action. (Joas 1993, p. 21)

We see here recognition of the many *images of action*, and we see that the *setting of ends outside of the context of action is psychologically impossible*. That is, the prior specification of created imaginings is impossible until those who must act are in a position (a context) to act. And for collective action, being *in the context of action* means being surrounded by others with divergent expressions, yet resolutely on the way to formulating their own unique and divergent created imaginings. Why would we assume that individuals should have identical expressions of the world in which they find themselves? Joint action is contentious, *ab initio*, because of the reality of contending expressions. Because joint action must ultimately result in but a single choice (coordinated and coincident action), contending expressions are inevitably confronted by contending created imaginings. Small wonder that collective action – public policy – is so contentious. The participants in that process bring differing expressions about the *status quo ante* and quite different created imaginings about the prospects for the future.

When a consensus emerges from this process of reconciling contested imaginings, there is a question of how we might look upon that synthesis and how we might describe it. And this brings us to the benediction applied to that decision. This synthesis, the emergent decision, has but one pertinent property – its *acceptance* by those charged with formulating a course forward.⁸ What, precisely is signified by that acceptance? Would we say that the process – and the many participants – generated a decision that no one wanted? This is doubtful. The more likely description is that the decision represented the “consensus” of the

body making the decision. And what exactly is meant here by *consensus*? The pragmatist would suggest that this word is simply another way of saying that the decision seemed, to all (most?) participants, to be the *best thing to do under the circumstances*. Is this but another way of saying that this particular act seemed, at the moment, the *right* thing to do? If this action is the “best” and it is “right” then what is left for us to say about it? The pragmatist would suggest, without irony, that we might as well bestow the ultimate benediction on the decision. On the way to doing that, the pragmatist might well regard the decision as evidence of the emergence of settled beliefs about what ought to be done. Recall that truth is not a property of objects and events. Truth is, instead, a property of propositions and claims about objects and events. We have, in other words, the emergence of a collective commitment to a way forward, the truth content of which is no longer in dispute.

Can we call this decision “the truth” concerning the best way forward? We can certainly refer to it as a *truth claim*. That is, this decision and the action it entails is a *good thing* to do. Because truth is a property of propositions and statements, the claim that this act is (or seems to be) the best thing to do under the present circumstances constitutes a statement *about* something. It is a proposition with truthful content. Pragmatists insist that “truth” is the compliment we pay to our settled deliberations.

3.3. PRAGMATISM AS A THEORY OF TRUTH

... one may say that truth is a matter of collective judgment
and that it is stabilized by the collective actions which
use it as a standard for judging other claims.

Steven Shapin, *A Social History of Truth*, p. 6

Notice that the pragmatic theory of individual and joint action sees the decision process as one of reconciling contending expressions and imaginings as an essential activity leading to the formulation of what seems best, in the eyes of the individual (or of the group), to do. Individuals and groups *work out what they want by working out what it seems reasonable and possible to have*. The process entails not only working out the “best” *available means* but also the “best” *available ends*. Notice that this account is at odds with the linear decision process as envisaged by most economists. Indeed, recent work suggests an ironic aspect of rational choice theory, and one that holds important implications for the subsequent development of a pragmatic theory of action. That is, rational choice theory works best when there is little choice to make. Specifically:

we believe that rational-choice explanations are most plausible in settings in which individual action is severely constrained ... In the absence of strong environmental constraints, we believe that rational choice is a weak theory, with limited predictive power ... rational-choice explanations are

more powerful when their object is the behavior of political parties as opposed to voters. The primary reason for the asymmetry of explanatory success is that consumers and voters face less competitive environments than firms and parties. We fully realize the irony of our contention: the theory of rational choice is most powerful in contexts where choice is limited. (Satz and Ferejohn 1994)

It may be helpful to connect these ideas of choice and action from pragmatism with the current interest in applying contingent valuation techniques to environmental policy decisions. The original belief in this line of research, informed by the prevailing rational choice literature at the time, was that there exist some *true* monetary valuations among the population and the job of the applied economist is to *discover* (uncover, recover) those true values so that environmental policy might thereby be correctly informed. The intellectual history of this work reveals a continual effort to refine the elicitation techniques so that this process of *discovery* is gradually improved – and the economist gets ever closer to the “true” monetary value. Here we see the positivist agenda of insisting that correct decisions necessarily follow from the correct methods of discovering the “truth” about monetary values of nature and nature’s many services.

On the other hand, more recent work – usually informed not by economics but by psychology – has insisted that contingent valuation approaches are concerned with the *construction of preferences* about nature and nature’s services (Gregory et al. 1993; Payne et al. 1999; Slovic 1995; Slovic et al. 1990). This work is often awkward for economists because we have been taught that preferences are fixed, stable, known, and dispositive of rational choice. Preferences are, after all, the data over which agents are said to maximize. If “preferences” are not known *a priori* but must be constructed, how can maximization and rationality be taken seriously?

And this is precisely the point of work in psychology and philosophy, and it is the essential message of pragmatism. That is, other scholars insist that there is no such thing as a *a priori* truth about preferences or about what various parts of nature are “worth” – either structurally, functionally, or monetarily. Individuals must sit down together and figure out what things *seem to be worth*. We need to learn about these various commodities and services, and we need to understand the “work they do” before we can possibly come to understand their meaning and thus, in some sense, their “value” to us and to the rest of nature. In assessing the more general choice problem G. L. S. Shackle was moved to comment:

Conventional economics is not about choice, but about acting according to necessity. Economic man obeys the *dictates* of reason, follows the *logic of choice*. To call this conduct choice is surely a misuse of words, when we suppose that to him the ends amongst which he can select, and the criteria of selection, are given, and the means to each end are known . . . Choice in such a theory is empty, and conventional economics should abandon the word. Is the only alternative to a theory of necessary action a theory of non-rational, of arbitrary action? The escape we have suggested consists not in abandonment

of rationality, not in abandonment of the adoption of the means which will lead to the selected end, but in abandonment of the postulate that the available ends are given. The escape from necessity . . . lies in the *creation of ends*, and this is possible because ends, so long as they remain available and liable to rejection or adoption, must inevitably be experienced by imagination or anticipation and not by external occurrence. Choice, inescapably, is choice amongst thoughts, and thoughts . . . are not *given*. (Shackle 1961, pp. 272–273)

In short, human choice is choice amongst thoughts, and thoughts are not given but must be worked out – created – from impressions and imaginings. Shackle’s theory of choice, articulated in his *Decision, Order, and Time*, is consistent with the pragmatic theory of action spelled out here. What remains is to extend that theory to address the matter of whether or not “correct” and “rational” decisions can be said to emerge. In other words, the problem now becomes one of judging the policy decisions reached – such judgment being essential before we will know if consequentialist truth claims can be (or ought to be) relied upon to rectify the allegedly flawed decisions that would otherwise emanate from individuals and groups.

We know that the standard economic approach is to identify the correct decision protocols for reaching the correct decision. The logic here is that if the right decision protocols are followed the resulting decision will, by definition, be correct.⁹ That is, correct decision protocols are the *cause* of correct choices (decisions), and correct decisions are the *effect* of employing correct decision protocols. Pragmatists would insist, however, that this standard economic approach conflates cause and effect. Rather, pragmatists insist that the identification of the *correct* decision is something that occurs in the process of working out what seems best (or reasonable) to do. Here the *cause* of the correct decision is not some external truth rule (a “correct” decision protocol) but rather the incessant working out of – the diligent searching for – what seems the better thing to do in the current setting and circumstances. Once that has been worked out, the emergent choice *becomes the correct choice* by virtue of having been worked out. After all, would it not be surprising to discover that an individual (or a group) decided to undertake an action that had been identified as clearly *not* the best thing to do at the time? A belief is that upon which we are prepared to act – and few rational people are prepared to act on “false” beliefs. Charles Sanders Peirce, the founder of pragmatism, insisted that:

The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth, and the object represented in this opinion is the real. That is the way that I would explain reality. (Peirce 1934, p. 405)

The arrival at a consensus about what is better (best) to do is always predicated upon a clear but evolving notion of the purposes of the future – an outcome in the future for the sake of which action must be taken today. Philosophers call this *final cause* (Russell 1945). Purpose is the core of pragmatism, and settled beliefs about

both purpose and how to get there represent the essence of “correct” thoughts and beliefs about the appropriate action to be taken.

4. Warranted and Valuable Assertions

Let me finally turn to the role of prescriptive assertions of the sort encountered in much of the literature in environmental economics. Included here would be the assertion from critics of Porter and van der Linde about how “correct” environmental policy *ought to be* conducted and evaluated. I will often refer to such assertions as truth claims, in that they presume to inform the listener/reader to the “truth” about what is best to do. In the case of the Porter Hypothesis, the pertinent truth claim is that coherent environmental policy cannot possibly emerge from the political process in the absence of *a priori* consequentialism (as embodied in a thorough benefit–cost study) as usually carried about by environmental economists.

Pragmatism insists that when thinking about prescriptive assertions we must consider the provenance of the proffered prescription, and we must consider the audience to whom such prescriptive assertions are directed. Consider first the issue of the provenance of such prescriptive assertions.

4.1. WARRANTED ASSERTIONS

When I discuss the provenance of prescriptive assertions I have in mind the issue of whether or not those assertions constitute *warranted belief*. By warranted belief pragmatists mean that particular prescriptive assertions can be justified to all (most?) members of the discipline out of which those assertions emerge. Earlier I mentioned the interesting paradox that individual economists are enjoined from offering *ought statements* about particular policy options, but that a group of economists may regularly issue ought statements without a second thought. The astonishment at the Porter Hypothesis, and confident assertions about how environmental policy ought to be decided, would seem to reflect this idea of a few environmental economists speaking for the entire sub-discipline. But is a small subset of the discipline of economics thereby authorized to issue prescriptive assertions and to have those claims stand as the “truth” as seen through the eyes of the entire profession?

Pragmatism accords the status of *warranted belief* (or warranted assertion) *only* to the settled deliberations of an entire community of scholars (a discipline or a particular interpretive community). When an entire discipline speaks with clear consensus on a particular scientific matter then pragmatists insist that the rest of us regard these truth claims as constituting warranted assertions. On the contrary, when that disciplinary consensus begins to dissipate then the associated truth claims cannot be justified within the discipline and they thereby lose their warrantability and their legitimacy to the larger community to which they are addressed.

As we ponder prescriptive consequentialism it cannot be said that such “truth claims” constitute *warranted assertions* (Blackorby and Donaldson 1990; Boadway 1974, 1976; Boadway and Bruce 1984; Brock and Colander 2000; Bromley 1989a, 1990, 1997a; Chipman and Moore 1978; Coate 2000; Cooter and Rappoport 1984; Diamond and Hausman 1994; Field 1979, 1981; Gillroy 1992; Gorman 1955; Graaff 1957; Hahn 1970; Lewin 1996; Little 1949; Mishan 1969, 1980; Samuels 1971, 1974, 1989; Samuelson 1950; Tribe 1972; Vatn and Bromley 1994).

Recall that warranted assertions (warranted belief) imply that a particular discipline – an interpretive community – has reached a working consensus about concepts, relations, and their implications. This agreement is internal to the discipline and as such this agreement can be said to represent, at this time, the *settled deliberations* of that particular interpretive community with respect to the specific theoretical issue under consideration. Members of the discipline speak with one voice about particular matters under consideration and that unanimity constitutes the necessary and sufficient conditions for what pragmatists call *warranted belief* or *warranted assertions* from that particular discipline. We might even suggest that their agreement represents specific *truth claims* emanating from the discipline.

But consequentialism – because it lacks general acceptance within the larger discipline (economics, not just environmental economics) from which it emerges – fails the necessary condition for settled deliberations. In other words, the concepts, relations, and entailments of consequentialism are deemed seriously flawed by a significant portion of economists who have explored that particular body of economic theory, and by the theorists who stand as the ultimate arbiters of the legitimacy of the truth claims of a discipline with both applied and theoretical practitioners. It cannot be said that prescriptive consequentialism constitutes warranted assertions. There is, therefore, no solid conceptual basis for the truth claims advanced by environmental economists about how environmental policy ought to be evaluated and conducted. Some of us may take great comfort in the thought that 300–500 environmental economists remain committed to prescriptive consequentialism. However, these convictions are of little account before the larger body of economic theorists (and other applied economists) for whom consequentialism lacks both constitutive and instrumental properties. At the risk of putting too fine a point on it, applied economists who still believe in consequentialism as the true guide to correct public policy are seen as out of touch with the recent advances in economic thinking – and they have been for at least two decades now.

4.2. VALUABLE ASSERTIONS

The second principle of pragmatism concerns *valuable belief*. The adjective “valuable” can only be applied by those who are the intended consumers of particular assertions (truth claims) – that is, the consumers of those assertions find them valuable, useful, pertinent, informative, dispositive. When environmental economists

offer specific consequentialist prescriptions about collective choice – indicating which decisions are efficient, correct, rational, best, and socially preferred – we see truth claims from a particular sub-discipline of economics projected onto the individual and collective stage of contending expressions and contending created imaginings about what is best for the future of those persons (and their descendants) responsible for these contested expressions and contested created imaginings. The pragmatist would wish to know: can those specific truth claims be *justified* to all members of the particular community to whom they are directed? If that justification is possible then the truth claims are *valuable*. They are valuable because the community into which they are projected finds such assertions helpful, useful, edifying, and instrumental to improving the working out of what seems best to do in the current setting and circumstances. If those truth claims cannot be justified to the members of the pertinent community then such claims are counterfeit. They are counterfeit precisely because the community to whom they are directed finds them to be impertinent to the task they currently face.

We encounter a bit of a paradox here. Some environmental economists will insist that consequentialist prescriptions indeed constitute valuable assertions since executive branch agencies – and perhaps private companies – continue to commission the work on which such prescriptions of benefits and costs are eventually based. These claims of evidence for the acceptance of such prescriptive assertions cannot be taken seriously because the agencies commissioning this work – and the ones eager for the findings of such work – are not the ultimate consumers of the prescriptive assertions. Rather, the commissioning organizations are mere instrumental agents in the middle of a process that pits, for instance, developers against those committed to preservation, or polluters against those who seek a cleaner environment. In most instances these organizations seek quantitative answers to contentious policy issues because they continue to imagine that such results will help to resolve the matter. The recent skirmish in the United States over the Value of a Statistical Life in air quality policy is an exemplar of this issue.

The issue here is not that the Environmental Protection Agency, or the Ministry for the Environment, finds such work empirically edifying and conceptually coherent. The issue is that they find such work *instrumental* to their current struggles. In other words, environmental economists and environmental economics are being used by the political process for its own purposes.¹⁰ The pertinent question concerns the acceptance or rejection of such consequentialist prescriptions by the political community into which they are projected as a truth rule for “rational” choice. This question is important because the persistent disregard for consequentialist prescriptions (see note 10) is cause for some environmental economists to comment on the irrationality, the inscrutability – indeed the venality – of the political process in democratic market economies. But what if the claimed “irrationality” of the policy process is simply an artifact of the disciplinary protocols used by environmental economists to assert how public decisions *ought* to be carried out? Indeed, if the policy process in democratic market economies has its

own internal logic and legitimacy – and here I suggest that the pragmatic account of action be considered plausible – then judgments about, and indictments of, that process from any group of disciplinary practitioners, including environmental economists, lack justification.

Pragmatists insist that prescriptive assertions from a community of disciplinary adherents are hardly a sufficient condition for the immediate acquiescence of the rest of us. Indeed, the public's acquiescence in the alleged "truth claims" must rest on a separate set of arguments and reasons from those to which the discipline alone is privileged. Lacking this, disciplinary practitioners are not entitled to expect the general population to accept their particular truth claims on faith. The prescriptive assertions (truth claims) from consequentialism are concerned with telling the citizens of a political community which actions will enhance aggregate welfare, and therefore which actions are "socially preferred". Why are economists surprised and dismayed when the citizenry ignores such claims?

It is important to notice that the issue here is not "truth" but justified claims or justified belief. The pragmatist would ask whether economic "truth claims" are capable of being *justified* to an audience of individuals who are the objects of our interest in improving their lot with our "socially preferred" or "optimal" policies. The pragmatist would want to discuss the sovereign nature of truth claims emanating from environmental economics. By sovereign I mean here the *ruling* nature of economic truth rules about social optimality. Specifically, the pragmatist would ask the following question: "why, exactly, are the truth claims of environmental economics more pertinent to this particular choice setting than, say the truth claims of psychology?" And the pragmatist would be quick to rule out of bounds the reply that economics is "the science of choice". Such tendentious claims raise their own pragmatic challenge. Specifically, is it a *true* statement that "economics is the science of choice"? Could this particular assertion (claim) be sustained before an audience of psychologists, sociologists, and psychiatrists? A slight modification would enhance the odds of the true: "economics is *one of* the sciences of human decision making, along with philosophy, psychiatry, and psychology". It is likely that this latter proposition could be justified to a larger community.

Economists need not feel singled out for special disregard here. After all, there are a variety of disciplines and specialized practices that also have structured prescriptions about what is the best thing to do in that particular choice situation. We might imagine hydraulic engineers, biologists, epidemiologists, planners, lawyers, and water chemists each offering particular disciplinary prescriptions about what is best to do in matters of water pollution. But because economists have come to regard our discipline as *the* science of choice, having our truth claims ignored by decision makers, or the public at large, probably strikes deep into our collective confidence, and often leads to charges of inscrutability on the part of policy makers or the general public. Of course there are economic issues at stake in environmental policy – just as there are in all policy matters. But the presence of

economic implications does not, by that fact alone, authorize economics to become the dominant realm of reason.

We have here a debate about the *true* and the quest to *justify claims about the true*. I have earlier pointed out that pragmatism insists that the word *true* does not apply to events and objects in the world around us. Rather, the word *true* applies to *statements about* events and objects in that world. In other words, truth is not a property of perfect correspondence between propositions (words) and particular events and objects to which those propositions (words) refer – between language and things. Truth is not denotative. Truth is, instead, a property of particular statements (words) about specific events and objects – between contending linguistic claims. Truth is connotative.

With this in hand we must reconsider the truth claims of environmental economists with respect to statements about policies that are optimal, rational, efficient or socially preferred. The pragmatist would ask whether those terms are properly denotative of present or future states in the “real” world? That is, can one stipulate that there is a clear and valid connection between specific descriptive words such as “optimal” and specific events (new institutions such as a specific effluent tax) that might be enacted and then the logical and necessary entailments of those new institutions? Unfortunately there is no such correspondence. Such terms of art cannot possibly describe actual outcomes in the “real” world. Instead, these terms (optimal, efficient, rational, socially preferred) refer to properties of the analytical engines (deductive models) constructed by environmental economists to divine the optimal (or the efficient or the socially preferred) policy. Such truth claims are entirely reflexive – they are self-referential.

5. Implications for Environmental Economics and Policy

Pragmatism offers economists a theory of human action that accords nicely with the emerging recognition in contingent valuation research that preferences for nature and environmental outcomes are not discovered but are, instead, created (constructed). Rather than there being some “true” value out there awaiting discovery by economists, individuals come to value nature and nature’s services as part of a process of figuring out what seems reasonable to revere and thus to value. This process occurs only when individuals are faced with the need to choose.

Pragmatism offers a way to view the prescriptive assertions emanating from the consequentialist research program of environmental economics. Warranted assertions are those that can be justified to the larger disciplinary community – here the keys are conceptual coherence and empirical tractability. Valuable assertions are those that a community of sapient agents finds useful and reasonable to the decision problem now before them. Consequentialism fails the test of warrantability within the broader discipline of economics, and its acceptance among the general population seems no more compelling. That is, consequentialism fails the test of valuable

assertion (valuable belief). Individuals do not choose and act as we allege they do in economic theory. Many economists appear to wish that this were not the case, but economics is the study of how individuals choose and act, not how they *should* choose and act. To insist otherwise is to fall prey to the prescriptive urge that has gripped applied economics for the past five decades.

My main purpose here has been to draw on the collective “astonishment” over the Porter Hypothesis to motivate a reconsideration of environmental policy. I have offered a pragmatist’s account – a description – of how individuals and groups come to grips with the necessity of choice, and thus how we *arrive at decisions*. If there is plausibility to this description then it puts in new light the criticism from environmental economists that the process of collective action is “irrationally” resistant to the optimality prescriptions from consequentialism. If, in fact, individual and collective action is not as it is imagined by many environmental economists, then the “astonishment” at the thought of the Porter Hypothesis must be reconsidered. The description advanced here will allow us to assess if there are indeed logical flaws in the decision process that somehow lead to “wrong” decisions in the absence of prescriptive assertions from environmental economists. The urgent intellectual challenge, therefore, is to offer a plausible description of how environmental policy *actually proceeds* in most democratic market economies. I believe that the above account of individual and joint action comprises the general outlines of that necessary description. Notice that this has not been a normative account about how collective choice *ought to* proceed. It is descriptive in that it provides concepts and relations that might help us to get a grip on how the process of choice actually unfolds.

The core idea here is that human choice and action are properly characterized as *prospective volition* – the human will in action, looking to the future, trying to determine how that future ought to unfold. As this process evolves, individuals (and groups of individuals) bring contending expressions and imaginings to the task of choice and action. Individuals (and groups) do not know precisely what they want until they work out what they can have. Surprise motivates action. This process of working out plausible futures entails the consideration of plausible imaginings in conjunction with existing expressions about current and future settings and circumstances. Group action is more complicated than individual action because it requires reconciliation of disparate and contending individual expressions and imaginings until a consensus emerges – the properties of which are that this consensus is regarded as: (1) feasible; and (2) the best thing to do at this particular time. This process can be thought of as an exercise in pleading, resistance, persuasion, cautious acquiescence, and eventual emergence of a consensus. Commons would call it *instrumental* or *reasonable valuing* (Hiedanpää and Bromley 2002). I call it *volitional pragmatism*.

The two properties of that consensus – *feasible* and *best at this time* – represent judgments reached by those individuals who are responsible for collective action. Notice that this judgment is something that can only emerge as individuals and

groups contend with the need to reconcile disparate expressions and imaginings. In the realm of environmental policy, the first step in this process of working out an emergent consensus is necessarily confined to legislators, administrators, and judges. As we know, this process may be aided by input from economists. At this stage, our audience consists of legislative and executive branch staff, and perhaps the courts. It is here that the first test of valuable assertion is encountered. In a democracy, going beyond this level entails the critical step of *justifying* particular decisions or decrees to the larger political community – here that would include polluters, victims of pollution and others who care about nature – whose individual actions will be liberated, restrained, and expanded. In the absence of this justification collective action will lack legitimacy. This justification to the larger political community necessarily entails the *giving of reasons* for the decision reached. The process of giving reasons must be carefully crafted so that the reasons given match as closely as possible the *asking for reasons* that is expected from the political community to whom the collective action is directed.¹¹ This activity is properly thought of as *justification in the service of emergent consent*.

Pragmatists insist that, even if particular truth claims are deemed coherent by the discipline (or indeed from the court chamber or the parliament) from which they spring, the projection of those truth claims into social choice situations is irrelevant (impertinent) unless there is widespread acceptance on the part of those to whom the truth claims are directed. Individuals in contemporary life retain the authority to reject – for their own reasons – the truth claims from any source.¹² Recall that the status of *valuable belief* is a property bestowed upon prescriptive assertions by those to whom such claims are directed. Valuable belief is not a property that can be assigned to prescriptive assertions by those who produce those assertions. All that the producers of prescriptive assertions (“truth claims”) can justifiably affirm is that their assertions (claims) share wide agreement within the interpretive community out of which they arise – that they are warranted.

I have argued here that consequentialism fails the pragmatist’s conditions on both counts. Consequentialism fails the test of coherence within the broader discipline of economics, and the truth claims from environmental economists about “optimal” or “socially preferred” policies are routinely ignored by many decision makers – and the public at large – to whom they are directed. This does not mean that economic concepts and relations cannot provide valuable information to the process of working out what seems best to do at this particular time about specific problematic situations. But it does mean that economics must remain silent concerning what is *best to do* on the authority of economics alone. And it means that economists must abandon the rather common practice of criticizing decisions for being irrational, inefficient, non-optimal, or socially inferior to other more “welfare enhancing” policies.

Pragmatism insists that public policy in general – and environmental policy in particular – cannot legitimately be held hostage to the truth claims imposed on it by economists (or those from any other discipline). Pragmatism employs *abduction*

to work out the reasons for particular policy choices. When we find reasons for choices we will be on our way to the development of a theory of environmental policy. That theory will require explicit recognition of the concepts of impressions, expressions, and created imaginings. That theory will require recognition that joint action in the policy arena entails the working out of contending expressions and contending created imaginings. It will require recognition that human agents cannot possibly articulate coherent and salient wants in isolation from the specific context of choice in which they learn about those wants as they learn about what they can have. Outside of this context, expressions of wants are mere “cheap talk”.

Environmental policy – like all public policy – seeks to modify individual domains of choice by restraining, liberating, and expanding the capacities of each of us to engage in particular activities. Policy is concerned with modifying fields of individual (and group) action. Policy is not some alien “intervention” into the otherwise wondrous “free market” of such appeal to some writers. Indeed what some are pleased to call “the market” is simply the constructed artifact of prior collective action. Policy is nothing but a word we apply to a continual process of redefining – reconstructing – new fields of individual and group action. Public policy has been unnecessarily mystified by virtue of its having been embedded in the fictional logic of rational choice. If we could but see policy as a word that describes the incessant quest for contending with surprise in the human condition, we would see that policy is not at all mysterious. Policy is simply choice and action in which groups of individuals work out what seems better (what seems reasonable), at the moment, to do. The citizenry does not need, nor does it appear to want, environmental economists telling it which of those plausible futures is socially preferred. They will figure that out for themselves as they go about figuring out how to reconcile their contending expressions and imaginings. Pragmatism helps us by offering reassurance that it is perfectly acceptable to be unsure about what seems better to want and to do. Doubt and surprise are the starting points of working out what seems better, at the moment, to do.

Pragmatism helps us to get in touch with the emerging work in complexity. My colleague Buz Brock, very much involved with ecologists and other natural scientists in studies of complex lake ecosystem, has written that:

... the complexity vision takes away the reference point for theory's defense of the market. In the complexity vision there is no proof that the market solves problems. There is no unambiguous way of stating what is and what is not an externality, and there is no guarantee that the market leads to the most desirable equilibrium. Thus deductive theory cannot provide a basis for the defense of *laissez faire*. (Brock and Colander 2000, p. 82)

We see that complexity in human affairs denies to economists the essential tractability and predictability we need in order to advance our tendentious prescriptions about what is optimal to do in the realm of collective action. Complexity in economics is clear acknowledgment that we cannot possibly know, *a priori*, what we want. Doubt and surprise put us in the frame of mind to think about what we

want. And as Shackle insists, choice is nothing but choosing among thoughts. And true thoughts are those that, having been worked out, seem right and good and useful and valuable and instrumental. Truth is the compliment we pay to our settled deliberations.

Notes

1. An earlier version of this paper formed the basis of seminars in the Autumn of 2002 at Cambridge University, The University of East Anglia (CSERGE), the University of York, University College London, and the University of Antwerp. I am grateful to participants in these seminars for valuable comments and criticism. In addition, I have benefited from comments of two anonymous reviewers, as well as Richard Bishop, Buz Brock, Emery Castle, David Colander, Juha Hiedanpää, Marty Luckert, Jouni Paavola and David Simpson.
2. In an earlier version I referred to this as “consequentialist welfarism” in which the economist places “... exclusive reliance on individual utilities to judge *social* goodness and right actions” (Sen 1993, p. 521). One reviewer pointed out the difference – and the common confusion between – preference utilitarianism and welfarism. Not wishing to elaborate this difference and carry us away from the main point here, I have chosen to use the term *prescriptive consequentialism* (or simply consequentialism) to capture preference utilitarianism *and* welfarism. The point here is to contrast my approach with what can be thought of as *a priorism* in the formulation of “best” actions. Volitional pragmatism stands in contrast to the *a priorism* of prescriptive consequentialism – whether preference utilitarianism or welfarism.
3. Part of this work is the subject of a book by a philosopher comparing my approach to the standard prescriptive consequentialism as embodied in the distinguished career of my friend David Pearce (Deblonde 2002).
4. This assertion was, in fact, the second effort in 1995–1996 concerning the *right* way to design the correct environmental policy (Arrow et al. 1996).
5. Peirce tells the story of a friend who urged him not to read a certain newspaper lest it cause him to change his mind on something.
6. Rorty likens it to asking: “for what purposes would it be useful to load this particular program onto my computer”.
7. For a detailed account of the neuropsychological aspects of this process see Damasio (1999, 2000).
8. The fact that there may not be unanimity about the best way forward is a minor issue for many decisions. Indeed societies construct rules of majority precisely to acknowledge the differential significance of particular decisions.
9. We see here an element of the discussion in economics about substantive and procedural rationality.
10. Norman Glass, the former Minister for the Environment in Great Britain, assured a number of us at a conference in 2001 that he was unaware of any environmental decision that had been taken in light of the findings of a benefit–cost study.
11. See Brandom (1994, 2000) for an explicit treatment of asking for and giving reasons.
12. Of course if we are discussing legal rules from courts or parliaments then adherence is assured, even in the absence of those rules having been justified. But, the essence of democracy is that even rule-giving bodies such as courts and parliaments understand the practical value of justifying their decisions.

References

- Akerlof, G. (1970), 'The Market for "Lemons": Quality Uncertainty and the Market Mechanism', *The Quarterly Journal of Economics* **84**(3), 488–500.
- Akerlof, G. and W. T. Dickens (1982), 'The Economic Consequences of Cognitive Dissonance', *American Economic Review* **72**(3), 307–319.
- Alpay, E., S. Buccola and J. Kerkvliet (2002), 'Productivity Growth and Environmental Regulation in Mexican and U.S. Food Manufacturing', *American Journal of Agricultural Economics* **84**(4), 887–901.
- Altman, M. (2001), 'When Green Isn't Mean: Economic Theory and the Heuristics of the Impacts of Environmental Regulations On Competitiveness and Opportunity Cost', *Ecological Economics* **36**(1), 31–44.
- Arrow, K. J., M. J. Cropper, G. C. Eads, R. W. Hahn, L. B. Lave, R. G. Noll, P. R. Portney, M. Russell, R. Schmalensee, K. V. Smith and R. N. Stavins (1996), 'Is There a Role for Benefit–Cost Analysis in Environmental, Health, and Safety Regulation?', *Science* **272** (12 April), 221–222.
- Blackorby, C. and D. Donaldson (1990), 'A Review Article: The Case against the Use of the Sum of Compensating Variations in Cost–Benefit Analysis', *Canadian Economics Journal* **3** (August), 471–494.
- Boadway, R. W. (1974), 'The Welfare Foundations of Cost–Benefit Analysis', *Economic Journal* **84**, 926–939.
- Boadway, R. W. (1976), 'Integrating Equity and Efficiency in Applied Welfare Economics', *Quarterly Journal of Economics* **90**, 541–556.
- Boadway, R. W. and N. Bruce (1984), *Welfare Economics*. Oxford: Blackwell.
- Bowles, S. (1998), 'Endogenous Preferences: The Cultural Consequences of Markets and Other Economic Institutions', *Journal of Economic Literature* **36** (March), 75–111.
- Brandom, R. B. (1994), *Making it Explicit: Representing, and Discursive Commitment*. Cambridge, Massachusetts: Harvard University Press.
- Brandom, R. B. (2000), *Articulating Reasons*. Cambridge, Massachusetts: Harvard University Press.
- Brock, W. A. and D. Colander (2000), 'Complexity and Policy', in D. Colander, ed., *The Complexity Vision and the Teaching of Economics*. Cheltenham, UK: Elgar.
- Bromley, D. W. (1989a), *Economic Interests and Institutions: The Conceptual Foundations of Public Policy*. Oxford: Blackwell.
- Bromley, D. W. (1989b), 'Entitlements, Missing Markets and Environmental Uncertainty', *Journal of Environmental Economics and Management* **17**(2), 181–194.
- Bromley, D. W. (1990), 'The Ideology of Efficiency: Searching for a Theory of Policy Analysis', *Journal of Environmental Economics and Management* **19**(1), 86–107.
- Bromley, D. W. (1991), *Environment and Economy: Property Rights and Public Policy*. Oxford: Blackwell.
- Bromley, D. W. ed. (1992a), *Making the Commons Work: Theory, Practice, and Policy*. San Francisco: ICS Press.
- Bromley, D. W. (1992b), 'The Commons, Common Property, and Environmental Policy', *Environmental and Resource Economics* **2**, 1–17.
- Bromley, D. W. (1993), 'Regulatory Takings: Coherent Concept of Logical Contradiction', *Vermont Law Review* **17**(3), 647–682.
- Bromley, D. W. (1995), 'Property Rights and Natural Resource Damage Assessment', *Ecological Economics* **14**, 129–135.
- Bromley, D. W. (1997a), 'Rethinking Markets', *American Journal of Agricultural Economics* **79**(5), 1383–1393.
- Bromley, D. W. (1997b), 'Constitutional Political Economy: Property Claims in a Dynamic World', *Contemporary Economic Policy* **15**(4), 43–54.

- Bromley, D. W. (1998), 'Searching for Sustainability: The Poverty of Spontaneous Order', *Ecological Economics* **24**, 231–240.
- Bromley, D. W. (2000), 'Can Agriculture Become an Environmental Asset?', *World Economics* **1**(3), 127–139.
- Bromley, D. W. and J. Paavola, eds. (2002), *Economics, Ethics, and Environmental Policy: Contested Choices*. Oxford: Blackwell.
- Chipman, J. S. and J. C. Moore (1978), 'The New Welfare Economics: 1939–1974', *International Economic Review* **19**(3), 547–584.
- Coate, S. (2000), 'An Efficiency Approach to the Evaluation of Policy Changes', *The Economic Journal*, **110** (April), 437–455.
- Cooter, R. and P. Rappoport (1984), 'Were the Ordinalists Wrong about Welfare Economics?', *Journal of Economic Literature* **22** (June), 507–530.
- Damasio, A. R. (1999), *The Feeling of What Happens*. New York: Harcourt Brace.
- Damasio, A. R. (2000), *Descartes' Error*. New York: Harper Collins.
- Deblonde, M. (2002), *Economics as a Political Muse: Philosophical Reflections on the Relevance of Economics for Ecological Policy*. New York: Kluwer Academic Publishers.
- Diamond, P. A. and J. A. Hausman (1994), 'Contingent Valuation: Is Some Number Better than No Number?', *Journal of Economic Perspectives* **8**(4), 45–64.
- Field, A. J. (1979), 'On the Explanation of Rules Using Rational Choice Models', *Journal of Economic Issues* **13** (March), 49–72.
- Field, A. J. (1981), 'The Problem with Neoclassical Institutional Economics: A Critique with Special Reference to the North/Thomas Model of Pre-1500 Europe', *Explorations in Economic History* **18**, 174–198.
- Gabel, H. L. and B. Sinclair-Desgagné (1998), 'The Firm, its Routines and the Environment', in T. Tietenberg and H. Folmer, eds., *The International Yearbook of Environmental Economics: 1998–1999* (Chapter 3). Cheltenham, UK: Edward Elgar.
- Gillroy, J. M. (1992), 'The Ethical Poverty of Cost-Benefit Methods: Autonomy, Efficiency, and Public Policy Choice', *Policy Science* **25**, 83–102.
- Gorman, W. M. (1955), 'The Intransitivity of Certain Criteria Used in Welfare Economics', *Oxford Economic Papers* (new series) **7**(1), 25–35.
- Graaff, J. de V. (1957), *Theoretical Welfare Economics*. Cambridge: University Press.
- Gregory, R., S. Lichtenstein and P. Slovic (1993), 'Valuing Environmental Resources: A Constructive Approach', *Journal of Risk and Uncertainty* **7**, 177–197.
- Hahn, F. H. (1970), 'Some Adjustment Problems', *Econometrica* **38** (January), 1–17.
- Hiedanpää, J. and D. W. Bromley (2002), 'Environmental Policy as a Process of Reasonable Valuing', in D. W. Bromley and J. Paavola, eds., *Economics, Ethics, and Environmental Policy: Contested Choices* (Chapter 5). Oxford: Blackwell.
- Holland, A. (2002), 'Are Choices Tradeoffs?' in D. W. Bromley and J. Paavola, eds., *Economics, Ethics, and Environmental Policy: Contested Choices* (Chapter 2). Oxford: Blackwell.
- Hoover, K. D. (1994), 'Pragmatism, Pragmaticism, and Economic Method', in R. Backhouse, ed., *Contemporary Issues in Economic Methodology*. London: Routledge.
- Joas, H. (1993), *Pragmatism and Social Theory*. Chicago: University of Chicago Press.
- Johansson-Stenman, O. (2002), 'What Should We Do with Inconsistent, Nonwelfaristic, and Undeveloped Preferences?', in D. W. Bromley and J. Paavola, eds., *Economics, Ethics, and Environmental Policy: Contested Choices* (Chapter 7). Oxford: Blackwell.
- Larson, B. A. and D. W. Bromley (1990), 'Property Rights, Externalities, and Resource Degradation: Locating the Tragedy', *Journal of Development Economics* **33**(2), 235–262.
- Lawson, T. (1997), *Economics and Reality*. London: Routledge.
- Lewin, S. B. (1996), 'Economics and Psychology: Lessons for Our Own Day from the Early Twentieth Century', *Journal of Economic Perspectives* **34** (September), 1293–1323.

- Little, I. M. D. (1949), 'A Reformulation of the Theory of Consumer's Behaviour', *Oxford Economic Papers* **1**, 90–102.
- Mishan, E. J. (1969), *Welfare Economics: An Assessment*. Amsterdam: North-Holland.
- Mishan, E. J. (1980), 'How Valid Are Economic Evaluations of Allocative Changes?', *Journal of Economic Issues* **14** (March), 143–161.
- Mohr, R. D. (2002), 'Technical Change, External Economies, and the Porter Hypothesis,' *Journal of Environmental Economics and Management* **43**(1), 158–168.
- Norton, B. (2002), 'The Ignorance Argument: What Must We Know to be Fair to the Future?', in D. W. Bromley and J. Paavola, eds., *Economics, Ethics, and Environmental Policy: Contested Choices* (Chapter 3). Oxford: Blackwell.
- Palmer, K., W. Oates, and P. R. Portney (1995), 'Tightening Environmental Standards: The Benefit–Cost or the No–Cost Paradigm?', *Journal of Economic Perspectives* **9** (Fall), 119–132.
- Payne, J. W., J. R. Bettman and D. A. Schkade (1999), 'Measuring Constructed Preferences: Towards a Building Code', *Journal of Risk and Uncertainty*, **19**(1.3), 243–270.
- Peirce, C. S. (1934), *Collected Papers: Vol 5*. Cambridge, Massachusetts: Harvard University Press.
- Peirce, C. S. (ed. by V. Tomas) (1957), *Essays in the Philosophy of Science*. New York: The Liberal Arts Press.
- Porter, M. E. and C. van der Linde (1995), 'Toward a New Conception of the Environment–Competitiveness Relationship', *Journal of Economic Perspectives* **9** (Fall), 97–118.
- Rabin, M. (1998), 'Psychology and Economics', *Journal of Economic Literature* **36** (March), 11–46.
- Raz, J. (1997), 'Incommensurability and Agency', in R. Chang, ed., *Incommensurability, and Practical Reason*. Cambridge, Massachusetts: Harvard University Press.
- Robbins, L. (1932), *An Essay on the Nature and Significance of Economic Science*. London: Macmillan.
- Rorty, R. (1979) *Philosophy and the Mirror of Nature*. Princeton: Princeton University Press.
- Rorty, R. (1982), *Consequences of Pragmatism*. Minneapolis: University of Minnesota Press.
- Rorty, R. (1999), *Philosophy and Social Hope*. London: Penguin Books.
- Russell, B. (1945), *A History of Western Philosophy*. New York: Simon and Schuster.
- Samuels, W. J. (1971), 'The Interrelations Between Legal and Economic Processes', *Journal of Law and Economics* **14** (October), 435–450.
- Samuels, W. J. (1974), 'The Coase Theorem and the Study of Law and Economics', *Natural Resources Journal* **14** (January), 1–33.
- Samuels, W. J. (1989), 'The Legal-Economic Nexus', *George Washington Law Review* **57**(6), 1556–1578.
- Samuelson, P. A. (1950), 'Evaluation of Real National Income', *Oxford Economic Papers* (new series) **2**(1), 1–29.
- Satz, D. and J. Ferejohn (1994), 'Rational Choice and Social Theory', *The Journal of Philosophy* **91**(2), 71–87.
- Sen, A. (1993), 'Markets and Freedoms: Achievements and Limitations of the Market Mechanism in Promoting Individual Freedoms', *Oxford Economic Papers* **45**, 519–541.
- Shackle, G. L. S. (1961), *Decision, Order, and Time in Human Affairs*. Cambridge: Cambridge University Press.
- Shapin, S. (1994), *A Social History of Truth*. Chicago: University of Chicago Press.
- Slovic, P. (1995), 'The Construction of Preferences', *American Psychologist* **50**, 364–371.
- Slovic, P., D. Griffin and A. Tversky (1990), 'Compatibility Effects in Judgment and Choice', in R. M. Hogarth, ed., *Insights in Decision Making: A Tribute to Hillel J. Einhorn* (pp. 5–27). Chicago: University of Chicago Press.
- Tribe, L. H. (1972), 'Policy Science: Analysis or Ideology?', *Philosophy and Public Affairs* **2**(1), 66–110.

- Vatn, A. (2002), 'Efficient or Fair: Ethical Paradoxes in Environmental Policy', in D. W. Bromley and J. Paavola, eds., *Economics, Ethics, and Environmental Policy: Contested Choices* (Chapter 10). Oxford: Blackwell.
- Vatn, A. and D. W. Bromley (1994), 'Choices Without Prices Without Apologies', *Journal of Environmental Economics and Management* **26**(2), 129–148.
- Vatn, A. and D. W. Bromley (1997), 'Externalities: A Market Model Failure', *Environmental and Resource Economics* **9**, 135–151.

