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The Ideology of Efficiency: Searching for a Theory of Policy Analysis*

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The potential Pareto improvement criterion and other measures of economic efficiency do not pass the test of consistency and coherence within economic theory, nor do such measures accord with what public decision makers seek in policy advice from economists. Such efficiency measures are, nonetheless, durable components of the ideology of economics in general, and benefit–cost analysis in particular. The objectivity of the policy scientist has been confused with the objectivity of the science. While economic efficiency has no claim to objectivity, the policy scientist can be an objective analyst of policy choices.

I. ON IDEOLOGY

Ideology can be thought of in two quite distinct ways. One connotation is as an *emotional* or *propagandistic* position held by someone. The ideologue is one who engages in a variety of means—some subtle, some not—in order that others might be swayed. Indeed, one synonym of ideology is creed, which immediately leads one to such terms as religion, faith, cult, and persuasion. In economics one is thought, on this definition, to be a "market ideologue" or a "collective-action ideologue." This particular dimension of ideology is perhaps foremost in our minds when we strive to avoid letting subjectivity and the taint of our personal values have an influence on economic analysis. We are taught from an early age that objective (positive) analysis is both the goal of economics, and the relentless burden of the good economist. It is said that we must avoid, at all cost, allowing ideology—by which is meant *value judgments*—to color our analysis.

The second facet of ideology receives much less attention from the social scientist—curiously, since this other version accords rather closely with what the social sciences are supposedly about. Here I have in mind ideology as an overall view of, or attitude toward, something. On this interpretation, ideology is a shared system of meaning and comprehension. It is a structure within which information is supplied and processed, directions are given and justification for certain behavior is provided.[1] Of course this dimension can be comprehended under the first meaning of ideology. We can easily understand how a religion represents a shared

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[1]For a treatment of ideology in this vein see Appleby's "Economic Thought and Ideology in Seventeenth-Century England" [1].

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system of meaning and comprehension, how it supplies and aids its adherents to process that information, how it gives sanction regarding certain behaviors, and how it offers justification for other behaviors.

I wish to focus on the second—and more subtle—notion of ideology here, suggesting that it represents a useful metaphor within which to discuss behaviors and thought processes within a scientific discipline. Recall that ideology is a shared system of meaning and comprehension, and that it is a set of norms for certain behaviors. To be Kuhnian for a moment, an ideology is a paradigm. Normal science is an ideology in that the recognized body of practitioners hold similar *beliefs* about phenomena and processes that define the accepted domain of enquiry. Indeed the very act of acquiring training in a particular scientific discipline is to understand and accept its ideology in this latter sense. To be "trained" is to be socialized into the paradigm. To talk of the ideology of a scientific discipline is not to imply fervor, propaganda, or preying (and praying) cults. It is, instead, to recognize that the very essence of a discipline is shared beliefs about the meaning of events, about how to process information about those events, and about how to add to the body of systematic concepts that ultimately differentiate one discipline from another.

One abiding truth about a shared belief system is that it appears different depending on whether one regards it from within, or instead checks it against the external world. A view from within asks just two things of an ideology—is it consistent, and is it coherent? That is, does it meet the test of logical validity, and does it comprehend all of the phenomena to which it claims relevance? An ideology—or a paradigm—is thus rather like a syllogism in logic, in that its validity is determined by a set of rules that have nothing at all to do with its truthfulness. An argument can be valid by the rules of logic and still have no connection with the real world; validity says nothing about truth content. When one moves from internal concerns to external matters attention shifts to the problem of concordance—how closely a model or theory corresponds to the world it purports to explain.

My purpose here is to explore the ideology of efficiency, both with respect to its consistency and coherence within economics, and with respect to its correspondence to the reality with which it must connect. More particularly, I want to discuss an aspect of the ideology of economics with respect to the emergence of *efficiency as an objective truth rule*. By an "objective truth rule" I have in mind an accepted behavioral norm that allows the economist to offer up an efficient outcome as both evidence of a "good" thing, and—more importantly for the ideology—as proof of the *scientific objectivity* of that particular finding of goodness. I hope to convince the reader that "economic efficiency" has no logical claim to "objectivity." And, if efficiency has no secure claim to objectivity, then its recommendatory value for determining "goodness" is immediately undermined; it survives as a mere value judgment of the economist who recommends it.

If this is the case, what then is the resource economist to do in the face of an apparent demand for insights regarding appropriate policy responses to problematic situations? Does the loss of an alleged objective truth rule render the economist irrelevant to the policy process? I will argue that, quite to the contrary, the abandonment of the usual efficiency norm liberates the economist to focus evaluation and analysis on those aspects of policy choices that matter most to those in a position to decide. Finally, I will propose that we recognize the important

distinction between the objectivity of the science, and the objectivity of the scientist, a step that increases the scope for economic input into policy analysis.

II. THE EMERGENCE OF EFFICIENCY AS AN OBJECTIVE TRUTH RULE

The Early Positivists

The idea of the scientific objectivity—the ethical neutrality—of economics has its grounding in the methodological writings, dating back to the latter part of the 19th century, of Nassau Senior [45], John Stuart Mill [32], John Cairnes [14], and Walter Bagehot [5]. These writers were united in the belief that economics was, to quote John Neville Keynes, "positive as distinguished from ethical or practical, and in its method abstract and deductive" [31, p. 75]. Keynes, building on Comte's positivism, seems to have popularized the now-familiar distinction between *positive* and *normative*, the former being synonymous with scientific objectivity, the latter connoting value-laden arguments we know as methaphysics. To state what every economist holds dear, positive economics speaks to what is or what might be, normative economics speaks to what ought to be.[2]

The elder Keynes defined economics as the study of "... those human activities that direct themselves towards the creation, appropriation, and accumulation of wealth; and by economic customs and institutions... of human society in regard to wealth ... *Political economy* or *economics* is a body of doctrine relating to economic phenomena in the above sense..." [31, p. 70]. At the time Keynes was writing, political economy and economics were synonymous, and Keynes saw them as providing information as to the probable consequences of given lines of action, but not passing moral judgments or pronouncements about what ought to be done. At the same time, however, he argued that "... the greatest value is attached to the practical applications of economic science; and... the economist ought... to turn his attention to them—not, however, in his character as a pure economist, but rather as a social philosopher, who, because he is an economist, is in possession of the necessary theoretical knowledge.... [I]f this distinction is drawn, the social and ethical aspects of practical problems—which may be of vital importance—are less likely to be overlooked or subordinated" [31, p. 76].

A little over a decade after Keynes's writing, Lionel Robbins published his most influential book entitled "An Essay on the Nature and Significance of Economic Science" [37]. Robbins had been much influenced by the logical positivists of the Vienna Circle and he drew upon their ideas to stress several methodological points

[2]George Stigler, no doubt speaking for a number of economists, has declared that "Economics as a positive science is ethically neutral" [46, p. 522]. From this one can reach two quite distinct conclusions. If Stigler meant by "economics" the entire body of economics embodied in, say, the accepted textbooks of the day then he should have said, "economics *is* a positive science and therefore it is, by definition, ethically neutral." Alternatively, if Stigler meant that there is a part of economics that is "positive" then he should have said "that part of economics which is a positive science is, by definition, ethically neutral." Under the first interpretation *all* of economics is declared to be ethically neutral, while under the second definition only a subset of economics—the "positive" part—is ethically neutral. Either way Stigler is offering us either a tautology—a definition—or his personal views; neither is compelling for there are no external criteria to which Stigler can turn for proof of his assertion.

that survive today. Of foremost pertinence here, Robbins took from logical positivism the idea that there were only two kinds of propositions that could be countenanced in a science—those that were true by definition (tautologies), called analytical statements, and those that were empirical propositions (called synthetic statements). Propositions that did not fit these two classes were said to be lacking truth content and hence were value-laden. It is usually held that since the "scientific part" of economics consists exclusively of descriptive statements—either tautologies or empirical propositions that can be tested—economics cannot have any ethical entailments, and is therefore value-free.

Ends and Means

Unlike Neville Keynes before him, Robbins insisted that economics was the study of the allocation of scarce means among competing ends, such ends being beyond question to the economist. "Being neutral, the argument proceeds, economics does not choose between or pronounce value-judgments on different ends, and it is implied that no value-judgments are involved in recommending 'means' to given 'ends' " [27, pp. 110–111]. To remain objective, economists should not choose between different ends, but must restrict themselves to recommending "means" so as to accomplish given "ends." A close reading of Robbins reveals that he used the word "means" to refer to factors of production or financial resources that could be allocated to alternative employments. That is, Robbins envisioned an economics that was very much like the theory of the firm. Robbins's definition of economics —that it is the study of choice involving scarcity in which conflicting means are considered to reach given ends—is still the most common definition of our discipline. The principal burden of Robbins's work was an attempt to demarcate the scientific part of economics from the value-laden part. He relied upon the distinction between means and ends to effect this demarcation. The acceptance of Robbins's definition of economics, in which economists are said to study choice among scarce means to accomplish given ends, places a central burden on our ability precisely to differentiate ends from means. To make a clear differentiation between ends and means, however, it is necessary to invoke some external criterion so that the distinction—and the linkage—between the two is placed in context. That is, one cannot distinguish between ends and means without first having a theoretical basis upon which to ground that distinction. At the most abstract level, we might follow Robbins by suggesting that an "end" is something that enters into an individual's utility function, while a "means" would not be found there. This is simply a definition; it fits the positivist idea of an analytical statement—that is, a tautology. But having thus differentiated means from ends what has been accomplished? In one sense, a very helpful analytical start has been made; ends are those things that individuals care about, means are mere instruments, of no special notice, for accomplishing desired ends.

On closer inspection, however, it is seen that a criterion external to the investigator is required to determine whether or not something is "in" the utility function of an individual, or a group of individuals. It cannot be *our* determination for that is to impose the value system of the investigator into the analysis. While it might be possible to ask all those affected by a particular policy whether there is complete agreement on our analytical distinction between ends and means, this is rarely—if ever—done. Indeed, in most instances the respondents would be hard

pressed to make a clear-cut distinction. Hence, the dichotomy upon which Robbins based his edifice of scientific objectivity against the insidious effects of metaphysics is nothing more than a convenient assumption. In a simple world, where the distinction between means and ends may be thought clear, it is necessary to regard the means as simply factors of production or commodities in which there is no intrinsic merit attached to the components of either. This distinction is meaningless, however, in the real world of policy analysis in which there are few—perhaps no—policies (institutional arrangements) that can be assumed to be neutral means without intrinsic value of their own [27].

Utility and Ophelimity

Robbins regarded the means–ends distinction as central to the discussion of interpersonal utility comparisons in that to discuss ends one must make such comparisons, while to discuss means is to be ethically neutral. The old welfare economics made use of the idea of social utility as a summation of individual utilities so as to discuss the general well-being of the community via something called "material welfare." To these economists, utility was an individual concept, while welfare was an aggregate concept. Utility, on this definition, meant usefulness—rather like the current dictionary definition [17]. Jevons [28] transformed the term "utility" into a synonym for "desires" or "preferences," a notion that Pareto had referred to as "ophelimity." Prior to Jevons, utility—unlike ophelimity—was not subjective. Once the term "utility" took over both meanings—usefulness and desires—its practical content diminished. When the old welfare economists—Pigou and Marshall—thought of interpersonal comparisons of utility they thought in terms of the general well-being of people, and the usefulness of policies to address their problems. Public programs for the deprived certainly had utility in that they were useful to the needs of the homeless or the ill-fed. But to ponder and to ascertain the *desires* of people for public housing programs introduced a serious complication. Hence, the old welfare economists could be concerned with the general usefulness of alternative social states for accomplishing certain social objectives. On this definition of utility, Pigou could argue that the material welfare of the homeless could be increased more than the loss in material welfare of the rich if taxes were raised some small percentage to provide housing for the poor. It is difficult to say that under the current definition of utility.[3]

Building on Jevons's work, Robbins further muddied the distinction between ophelimity and utility [17]. With the assistance of early ordinalists such as Hicks and Allen, he applied the term utility to the notion of desires and preferences, thereby purging from economics any discussion of usefulness. Henceforth

[3]In this regard, Peter Hammond has observed that "Many succeeding welfare economists completely misinterpreted Robbins and took a particularly unfortunate step that proved to be a major handicap throughout the ensuing thirty years. In an entirely misguided attempt to be 'scientific', in Robbins' sense, many welfare economists saw fit to exclude even the slightest possibility of making interpersonal comparisons" [21, p. 406]. See Ng [36] for a discussion of different types of interpersonal utility comparisons—not all of which are value laden. Hammond has earlier shown that "... if interpersonal comparisons of a certain kind are introduced, it is possible to construct a generalized social welfare function (GSWF) satisfying appropriately modified forms of the Arrow conditions" [22, p. 799].

economists could talk only of desires—or states of desire. It was then easy to claim that economists could not make interpersonal comparisons of utility since utility now referred to unobservable preferences. Recall that the logical positivists regarded unobservable phenomena to be outside the domain of science. Robbins's admonition about interpersonal comparisons of utility carried the day and thus seemed to undermine any hope for a scientific welfare economics.

Policy Analysis

It was about this time that the formal field of policy analysis was born, bringing with it a renewed interest in the ability to pronounce on what would be "good" public policy. Policy analysis got its start, at least in the United States, with the Flood Control Act of 1933 (amended in 1936) in which it is stated that the government would undertake public works on rivers and harbors if "the benefits to whomsoever they may accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected" [18, p. 2]. At the time of passage it was not immediately obvious what constituted a "benefit," while costs were rather better understood as the necessary expenditures to bring about the planned project.

While creating a new branch of applied economics, which we know as benefit–cost analysis, the legislation also compelled all government agencies to make "explicit estimates of the gains and losses to be expected from their proposals, and to defend the proposals in the light of these estimates" [18, p. 3]. About this same time the field of welfare economics was greatly influenced by the work of John Hicks [26] and Nicholas Kaldor [30]. The combined effect of their work was to revive welfare economics in its "new" version via the expedient of a consumer theory based on preferences and the concept of indifference, rather than on utility of the old kind. The key to Kaldor's method was to separate production from distribution, a task that Pigou could not accomplish because of his utilitarianism. To Kaldor, splitting production away from distribution avoided the problem of interpersonal comparisons of utility since production dealt only with outputs per unit of input, and every economist "knows" that people prefer more to less. This accomplishment tended to reinforce the point that economics was about production (or about efficiency), while distributional matters were for others to worry about.[4] This transition to output, being consistent with Robbins's increasingly accepted concept of the boundaries of economics, tended to reinforce the idea that economics was not about increasing satisfaction of the citizenry directly, but rather economics was about increasing the production of goods and services which—when consumed—gave satisfaction. That is, economics ceased to be about people and their relationships to one another as it had been before, and *began to be about commodities*. Economics came to be about the production of commodities and the "utility" those commodities could impart in consumption. The distribution of income which determined one's ability to acquire commodities, and so the relative welfare of members of society from those commodities—or from other sources—may be of concern to the political scientist and the sociologist, but the

[4]For a good discussion of the conflation of productivity with efficiency in economic history research see Saraydar [39].

objective economist had nothing to contribute here. Economic efficiency came to mean the passage of the potential Pareto improvement test.[5]

> Kaldor was thus able to argue that a scientific welfare economics was possible, this being one which analyzed situations with a view to establishing whether or not it was possible to make everyone better off. This left the issue of distribution to be settled outside economics, for, he argued, it was "quite impossible to decide on economic grounds what particular pattern of income distribution maximizes social welfare." [4, p. 302]

Only later would it be realized that one did not know—indeed, one could not know—the *value* of production independent of the distribution of income and the associated price vector that provided the weights to the various physical quantities being produced. That is, the new welfare economics showed the value of an unambiguous Pareto optimum, but in the absence of old-fashioned utilitarianism, economists were unable to say exactly what it was that had been optimized at the Pareto optimum point [4]. To put it more bluntly, "... Pareto optimality is optimal with reference to those value judgments that are consistent with the Pareto principle" [36, p. 30]. Put another way, "The Pareto criterion is not a complete preference ordering except in uninteresting societies where all individuals have identical preferences" [21, p. 424]. If a preference ordering is not complete, it cannot be consistent or coherent. Samuelson [38] soon showed that we cannot even be certain that group A is better off than group B even if A has collectively more of everything. It was beginning to seem that the very essence of economics—that more is preferred to less—was suspect.[6]

The Emergence of Efficiency

The transition from "positivism" as a behavioral norm for scientific activity, to efficiency as evidence of that objectivity, was aided by those searching for an apparently "value-free" way to participate in just this type of policy debate. Friedman's confused writings on "positivism" were instrumental in furthering this transition [20].[7] For a time it seemed as if the potential compensation test of Kaldor, as modified by Hicks, would offer an escape from the nihilism prescribed by Robbins. But first Scitovsky, and later Samuelson would show that it was not to be.[8] Around this time Kenneth Arrow offered his own unique contribution to the evolution of economic thought—and policy analysis—by proving that there was no possible mechanism that would allow us to aggregate over individual choices to arrive at consistent and coherent collective choices. Arrow, in the very first sentence of his famous book, posed the alternatives: "In a capitalist democracy there are essentially two methods by which social choices can be made: voting, typically used to make 'political' decisions, and the market mechanism, typically used to make 'economic' decisions" [2, p. 1]. In the remainder of his book he

[5]The potential Pareto improvement test has been met if the gainers from a change are *potentially* able to compensate the loser and still have some retained surplus. Notice that the compensation need not actually occur; it is only necessary that it be capable of occurring. See Boadway and Bruce [7].

[6]Hammond [21] reminds us that full Pareto efficiency is not even a necessary condition for a true welfare optimum since Pareto efficiency ignores incentive constraints.

[7]In spite of what Friedman claims about being a positivist, he is actually a "methodological instrumentalist." See Caldwell [15] for a discussion of Friedman's position on "positivism."

[8]See also Chipman and Moore [16].

proceeded to prove that to rely on voting would lead to inconsistent choices.[9] The message, though most probably unintended, was clear—markets are the only way that consistent choices can be made. The essence of markets is efficiency, and therefore analysis that focuses on changes in economic efficiency is "objective science."

The new welfare economics—after seeming to promise so such—had reached the conclusion that it was not possible to say unambiguously that a new policy was better or worse than the status quo. And Arrow's conclusions represented yet another blow to the idea that economics was, or could be, a policy science. Since it was impossible, on utility grounds, to know what should be done, and since voting would produce inconsistent results, there was only the market to rely upon. Just short of two centuries after Adam Smith's intuitive celebration of the invisible hand, his ideas were confirmed by the best minds in the profession. While no one could say that the market was the best of all possible worlds, future Nobel Prize winners were proving that it was at least as good as—if not better than—meddling bureaucrats. Markets at least produced consistent and efficient results. In spite of the findings of Samuelson [38], Scitovsky [40], Mishan [33], Boadway [9], Chipman and Moore [16], and others, the Pareto test survives as the last best hope of those who would engage in policy analysis as "objective scientists." To abandon the Pareto test is said to cast the economist loose from the alleged "objectivity" of efficiency analysis. It is, apparently, thought better to stick with a conceptually flawed approach simply because its methodological *bona fides*—scientific objectivity—seem so compelling. That is, because efficiency derives from production, because greater production of goods and services is thought not to imply any value judgments, and because production can be weighted by market prices—which themselves are considered to be neutral—efficiency became synonymous with objective analysis.

Bolstering the Faith

But of course there were still the inconvenient market failures, and the tendency of politicians to want to undertake "inefficient" programs and regulations. In the face of all of this public sector activity, there was a real demand for economic advice on what would be "best" to do. Indeed, it had become quite impossible to follow Neville Keynes' stricture that economists should avoid the policy arena except as "social philosophers."[10] It was generally held that economists could do

[9]One may ponder the precise language used by Arrow in this first sentence. To say that *social choices* can be made in the political arena by voting or in the economic arena by markets gives a rather new meaning to the term "social choices." It would seem that when one talks of social choices one has in mind rather conscious and explicit acts of choosing particular courses of action. For instance, a social choice is whether to prohibit Alar and other insecticides, whether to stiffen the legal liability for oil spills, or whether to subsidize agricultural producers in the interest of soil conservation. But to say that the market will make decisions about whether to prohibit Alar, or to stiffen legal liability for oil spills, or to subsidize agricultural producers is nonsense. The market does not make social choices—rather it reflects the outcomes of millions of individual choices. Hence, Arrow cast the argument in a somewhat specious manner.

[10]Early in the Reagan era the White House issued Executive Order 12291 which called for a benefit–cost analysis of all government regulations. Those behind the requirement reflected the prevailing ethic of the day that held government to be "interfering" in the private business of firms and families. If such meddling (regulation) could be found to be "inefficient" via benefit–cost analysis there would, presumably, be a strong case for eliminating such interference in individual "freedom."

worse than to advise about which courses of action would be efficient.[11] Yet, there were, from time to time, concerns about the applicability of a strict efficiency test for passing judgment on collective action.[12] About this time, Arnold Harberger, in a self-admitted "tract," felt compelled to reassure the timid, and to bolster the irresolute. Fearing that there was unnecessary diffidence among applied economists, Harberger offered the "Three basic postulates for applied welfare economics" [24]. There he noted, with some apparent concern:

> In an era when literally thousands of studies involving cost-benefit analysis or other types of applied welfare economics are underway at any given moment, the need for an accepted set of professional standards for this type of study should be obvious... while the highway engineer can apply professional standards to such characteristics as thickness of base, load-carrying capacity, drainage characteristics, and the like, characteristics such as scenic beauty are beyond their competence as professional engineers. In the same way, any program or project that is subjected to applied-welfare-economic analysis is likely to have characteristics upon which the economist as such is not professionally qualified to check the opinion of another. These elements—which surely include the income distributional and national-defense aspects of any project or program, and probably its natural-beauty aspects as well—may be exceedingly important... but they are not a part of that package of expertise that distinguishes the professional economist from the rest of humanity. And that is why we cannot expect to reach a professional consensus concerning them... economists should probably participate more rather than less in the public discussion of such matters, but hopefully in a context that recognizes the extra-professional nature of their intervention. [24, pp. 3–4]

Had Harberger thought a little more about this statement he would have seen the obvious fallacy. It is clear that landscape design has little to do with the proper engineering of a road. But welfare theorists have long known that the economist cannot separate the way in which income is distributed from the efficiency implications via the potential Pareto improvement test. Harberger introduced a red herring when he equated the distribution of income with the particular shrubbery that is placed along a highway. And then to argue that it is inappropriate for the economist to comment on the former—just as it is for the engineer to comment on the latter—is to compound his error. Harberger likens the economist to the engineer—a technician checking the drainage, the quality of the base, and so on. Just as the engineer has no professional skills in landscape design, the economist is said to have no professional skills in income distributional matters. The proper domain for both engineer and economist is said to be where precise performance standards exist, and where consensus might be forthcoming. Building a proper road is good science about which all engineers can agree; landscaping is for others to worry about. According to Harberger, counseling efficiency is good science about which all economists can agree; income distribution is for others to worry about.

Notice that the burden of Harberger's argument rests on "skills" and "consensus." That is, he says that the economist has no skills in income distribution, just as the engineer has no "skills" in matters of landscape design. While "skill" can be taken to mean a number of things, it is difficult to imagine a social science that is as well equipped technically as economics to explore matters of income distribution as a dimension of public policy. On the matter of consensus Harberger

[11] D. H. Robertson, early on, laid down the gauntlet in terms of urging that economists "stick to one's last"—meaning, of course, that efficiency to the economist was like a bootmaker's last.

[12] See Bromley and Bishop [12], Mishan [34], Sen [42], and Tribe [48].

is on firmer but—alas for his case—shifting ground. True enough, there is no consensus among economists on what the distribution of income should be, though there is certainly the possibility of consensus on the impacts of certain policies on the distribution of income. Like the engineer, who can count on professional consensus—codified over time into design standards—regarding proper road construction, economists are claimed by Harberger to enjoy a consensus on determining what is efficient. It is this apparent consensus which legitimizes, to Harberger, efficiency as an objective truth rule. In terms of the ideology of a scientific discipline, Harberger is merely confirming that efficiency is part of the widely shared belief system in economics. The fact that belief in the objectivity of efficiency is widely shared does not make it so.[13] Harberger's appeal to consensus requires that we take this evidence of shared beliefs—ideology—as "proof" of the scientific credentials of efficiency. This is, I am afraid, not a very solid basis for something that claims to be scientific.

Several years later, Harberger, apparently to satisfy himself that his earlier position was unassailable, attempted to apply the idea of different distributional weights to analyze investment projects and to determine an optimal tax structure [23]. This was done, we are told, out of its appeal "to those nurtured in the grand tradition of economics"—by which we must assume he meant the material-welfare school of Pigou and Marshall. Upon concluding this effort with less than satisfactory results, Harberger argued that:

> In the end, then, we cannot condemn as crass or unfeeling the idea [of] our profession's possibly moving toward a "consensus" based on the traditional criterion of efficiency. On the contrary, such a result might well reflect a greater and more sensitive understanding of the value systems of our citizens and our societies, as well as a more modest and realistic appreciation of our own professional role. [23, p. S119]

To suggest, as Harberger does here, that a professional consensus on sticking to efficiency analysis reflects a correct reading of social mores, simply on the basis of his unsuccessful attempt to discover "proper" distributional weights for certain public programs, may charitably be thought of as a conclusion that overreaches both his model and his data. Still Harberger has ample company. Many economists will insist that it is not a value judgment to assume that income is properly distributed and they can therefore ignore distributional concerns in their efficiency analysis. The rationale for this position is as follows: the current distribution of income *must* be the appropriate one for otherwise the politicians would change it.[14] This rather surprising declaration of faith in politicians is the only time that an economist will admit to any confidence in the outcome of the political process. On all other matters politicians are said to cater to the special pleadings of all manner of ne'er-do-wells. Why, in this isolated instance, do we suddenly regard politicians to have made the correct choice? I suggest that the answer is found in the fact that it manifestly serves our special interests to make that assumption. More specifically, the assumption then allows us to proceed with the delusion that we are being objective analysts, and that we are thus acting consistently with prevailing social

[13]There are millions of adherents to the world's dominant religions and received truth—consensus—to one group surely differs from consensus to another.

[14]There is a crucial difference between a distribution of income that is merely "appropriate" and one that is "optimal." To say that income is optimally distributed is to suggest that the marginal utility of income across all individuals is equal. For a treatment of the impossibility of separating efficiency from its distributional dimension see Azzi and Cox [3].

preferences. This is precisely the conclusion that Harberger reached after (or was it before?) his "unsuccessful" attempt to find proper distributional weights.

I conclude that the putative scientific objectivity of efficiency fails in terms of consistency and coherence. But what of concordance with the external world? Is Harberger correct that we do the polity no great disservice—indeed that we confirm their values—by counseling efficiency? Are policy makers, and the citizenry at large, impressed with our alleged "objective truth rule"?

III. POLICY ANALYSIS RECONSIDERED

> The concept of Pareto optimality and the associated concept of PPIs [Potential Pareto Improvements] *should* not be confused with theorems of positive economics. If this implies that economists must give up the notion that there are purely technical, value-free efficiency arguments for certain economic changes, and indeed that the very terms "efficient" and "inefficient" are terms of normative and not positive economics, so much the better; immense confusion has been sown by the pretense that we can pronounce "scientifically" on matters of "efficiency" without committing ourselves to any value judgments. [6, pp. 147–148]

The voluminous writing in welfare economics over the past several decades has concerned such issues as the various surplus measures and the reliability of indicators of gain from moves to new social states. On surveying this literature one is reassured to learn that (1) efficiency, via the Pareto test, lends itself to rather precise measurement; and (2) economic efficiency seems to require "the fewest value judgments" on the part of the researcher. Less reassuring are (1) the persistent debate over which welfare criterion is appropriate—Kaldor, Hicks, Scitovsky, Little, Mishan, or various combinations thereof; and (2) the Boadway Paradox, in which the ability of the gainers to compensate the losers does *not* lead to an unambiguous improvement in social welfare [9]. More seriously, in all of this prodigious elegance, rarely is there recognition that the Pareto test remains what it has always been—an analytical construct (inconsistent and incoherent at that) with no special claim to legitimacy beyond the tautological domain out of which it arose. Only Mishan, it seems, has concerned himself with the very real problem of whether or not there is a discernible social consensus for economic efficiency via the Pareto test [33]. He finds, not unexpectedly, that there cannot be such a consensus for the very same reasons elucidated by Arrow some 30 years ago.

Having failed on consistency and coherence grounds, we still may inquire as to whether efficiency nonetheless accords with the world into which it is imposed. The central issue, then, is whether the Pareto test comprehends what the public and its decision makers *need and expect* from economists. I submit that the record of economic input into many public decisions over the past 40 years does not indicate that the public sector is especially enamored of the efficiency advice offered by economists.[15] There are a number of others who have reached the same conclusions [13, 18, 33, 34, 35, 48]. It seems safe to argue that Congress, when it

[15]There is one contemporary exception to this claim, in which, interestingly enough, economists have been openly exploited by politicians for the latter's own ideological agenda. I have in mind Executive Order 12291, mentioned in a previous note, requiring a benefit-cost analysis of all government regulation. Many economists, in the grand tradition of wanting to believe that we had something useful to offer the public policy process, took this as evidence of the belated acceptance of efficiency among politicians. In fact, it was a cynical opportunity to use economists—and economics—to "prove" what the political "right wing" had been claiming since Barry Goldwater rose to national prominence, namely that the economy was "over" regulated.

first called for an assessment of the benefits and costs of public works projects, had rather more in mind than an analysis of potential Pareto improvements. Yet policy analysis over the years has evolved under the influence of those who imagined that welfare economics could bring a satisfactory reductionist decision rule to something as complex as collective choice. Dorfman argues that the history of benefit–cost analysis demonstrates the futility of a simple economic criterion for guiding political choice [18]. If benefit–cost analysis is no broader than the Pareto test then, in the interest of intellectual honesty, we ought to refer to it as *potential Pareto improvement analysis*. Otherwise, the term "benefit–cost analysis" is an elaborate pun.

Bogus Science, Bad Advice

Curiously, the identification of benefit–cost analysis with efficiency via potential Pareto improvements has come despite overwhelming evidence from within economic theory of the logical fallacies inherent therein. These theoretical problems are thought to be minor in comparison with the loss of putative "scientific objectivity" should the Pareto test be abandoned. Still uncomprehended, apparently, is that *it is a value judgment* for the economist to claim that economic efficiency *ought to be* the decision rule for collective action. In the absence of a clear social consensus for the Pareto test, efficiency via this metric is advocated by economists quite without support from the collective unit onto which it is being imposed. In Dorfman's terminology, benefit–cost analysis has evolved as an effort to impose an economic approach onto a political problem. Economists who have persevered in this tradition seem content to overlook the logical inconsistencies in welfare economics, this obduracy apparently being justified on the grounds that a little economic analysis—even if indefensible on theoretical grounds, and therefore bogus—is better than a political process left to its own devices. Bad economics is offered up as being superior to politics. While the disciplinary imperialism is not surprising, it is more than a little disconcerting in view of the large number of pressing social phenomena on which economists—as "objective scientists"—are said to be unable to comment. We seem to have developed a refined capacity for selective perception concerning when it is acceptable to be normative.

Toward Policy Analysis

What then is to become of policy analysis if it is freed from the false objectivity of economic efficiency by means of the Pareto test? A reasonable place to start is with a simple word—"analysis." Somehow, over time, economists have come to associate the word with at least two possible connotations. The first, as in "analytical," conveys the idea of rigor and precision. Analytical thus becomes a code word for "good" or "solid," and it is used to invite scientific respect. The other usage, as in "benefit–cost analysis," has come to mean a directed search for a decision rule by which good decisions might be demarcated from bad ones. Progress in policy analysis would seem to follow from an understanding that the term "analysis" does not mean that the economist must produce an objective truth rule for identifying "good" decisions. To undertake *analysis* is to elaborate and to study the different parts of something—in this instance a proposed policy change. To *analyze* something is not to reduce all of its components to dollar estimates of

surplus, or to changes in net national income. While these measures may clearly be *one part* of a complete benefit–cost analysis, to analyze a proposed policy is to attempt to understand who the gainers and losers are, how they regard their new situation *in their own terms*, and what this means for the full array of beneficial and harmful effects.[16]

If the issue of drinking-water safety is under consideration it seems most unlikely that the policy maker wants to be told the willingness to pay for certain levels of risk—or the compensation demanded to be free of certain levels of risk. The economist ought to elucidate the full array of impacts arising from different risk environments and let the political process determine—on the basis of economic analysis and other input—what will be done about Atrazine or Aldicarb. An economic analysis along these more inclusive lines can be informative in that choice, but it cannot expect to drive the choice. In the domain of preservation of unique habitats it would seem that the Pareto test is the last place one ought to look for guidance on particular policy choices.[17] The public policy problem here is concerned with perceptions of entitlements across generations—a problem to which economists can make a relevant contribution by suggesting how to frame the question.[18] But reductionist analysis, in which economic surpluses are conjured up, would seem to comprise but a minor—and possibly irrelevant—part of the necessary information in this policy problem. In the matter of soil erosion, little serious misallocation would seem to result from the fact that a collective decision through the political process—rather than via the potential Pareto test—mandates that greater efforts to reduce sedimentation ought to be undertaken. Once that decision is taken, there is ample scope for economists to advise on the most efficient means whereby that objective might be attained. We know this approach as "cost-effectiveness analysis." That this particular policy initiative is undertaken in the absence of proof that the potential economic surplus therefrom will be positive is interesting, but hardly decisive. The collective has always undertaken actions for which the monetary benefits are unclear, but thought to be large enough to justify action.

I used, immediately above, the phrase "in their own terms" with reference to the effects of policy alternatives impacting individuals and groups. This phrase will no doubt be troublesome to some, and yet it goes to the heart of policy analysis. It is tautological that "benefits" and "costs" have no meaning without reference to a specific objective function—whether that objective function is explicitly stated or merely assumed. When economists advocate efficiency as measured by the potential Pareto test, the implicit objective function is one that regards "benefits" and "costs" in terms of willingness to pay for something, or willingness to accept

[16]I have been told, for instance, that without reference to the Pareto test in benefit–cost analysis one has mere "analytical mush." Exactly what is meant by "analytical mush" was not made clear. It seems safe to conclude, however, that the speaker had in mind an absence of "rigor" (or of "theoretical content" or of "sophistication"), and possibly the absence of a "bottom line" in terms of economic surplus by which the economist would be able to declare a particular policy as efficient or otherwise.

[17]I note with interest a recent report from the New York Botanical Garden suggesting that the economic product from the Amazonian rain forests is higher in their natural state than if the trees are removed. This form of "efficiency analysis" was met with sighs of relief from those looking for ways to justify preservation, and with contempt from those intent on timber exploitation. Which will prevail over the long run cannot be foreseen.

[18]See my paper "Entitlements, missing markets, and environmental uncertainty" [11].

compensation to be deprived of something. While some situations may indeed fit this assumption, it is by no means clear that this is so for all settings. Relying on the potential Pareto test rules out the possibility that individual utility is independent of this revealed measure.[19] There is no empirical basis for this assumption. When I say that we must begin to assess policy impacts in terms that are relevant to those affected, I mean only that we must begin to expend more effort to ascertain exactly how individuals regard the benefits and costs of certain policy alternatives. This would stand in contrast to the current approach which regards pertinent benefits and costs to be those that we—as economists—happen to be proficient in measuring.[20]

Some will no doubt argue that to abandon efficiency and the narrow quantification (in monetary terms) of benefits and costs is to lose control of the policy process; an argument that presumes economics was ever "in control" of that process. Many economists, in spite of a professed desire to avoid the normative position of indicating what ought to be done, do not hesitate to suggest the decision rule that ought to be used in differentiating good policies from bad. It is to be expected that we will not sacrifice—without a struggle—the high-priest role of passing praise or scorn on policy choices. Some will declaim that without the discipline of efficiency, the government will enact all manner of controversial and "inefficient" policies and projects, as if that has not been happening all along—in spite of almost half a century of scorn and advice by economists [18].

The second response, perhaps more serious, will be that the burden of developing a new evaluative paradigm lies with those with the impertinence to criticize received wisdom. And until such time as the critics come forward with a superior alternative—where the test of "superiority" will doubtless be made by those with a vested interest in the prevailing doctrine—high scholarship consists of continuing to practice the status quo, and to pass it along to our graduate students.[21]

[19]For comments on revealed preference theory as it relates to individual choices see Bromley [10] and Sen [41].

[20]There can be no better contemporary (late 1989) illustration of this issue than the controversy surrounding the use of bovine somatotropin (BST) injections to induce greater milk yields. Economists appeal to efficiency gains in the dairy industry, drug manufacturers appeal to evidence from the Food and Drug Administration that BST is a naturally occurring compound in milk and hence there is no health risk, and scientists in general (and Deans of Agriculture) appeal to the need to continue technological innovation (including genetic engineering) so as to remain "competitive." Consumers, meanwhile, remain unimpressed. A number of food processors and dairies have announced that they will not accept milk from cows that have been injected with BST. While economists and dairy scientists condemn the rise of neo-Luddism, consumers—seemingly—could care less. How this particular issue will be resolved is not clear. But it is clear that economists are not viewing the "benefits" and "costs" of BST in a manner that is consistent with perceptions by consumers "in their own terms." As long as this dissonance continues, the general population will simply ignore the "economic" analysis of BST. I suspect that other areas involving unfamiliar risks show a similar pattern.

[21]Indeed, one often encounters criticism because the full nature and scope of that alternative evaluative paradigm has not been presented. The refrain is familiar—"we (may) acknowledge that you are correct, but it is easy to criticize without offering a superior alternative. Until you can do that, we are free to pursue the conventional wisdom." This defense is disingenuous. To know that a critical aspect of economic thought is bogus and yet to swear fealty to it on the grounds that the burden of a new approach falls on those who expose its fallacies is irresponsible. Indeed, it borders on scholarly malfeasance to persist in passing off known fictions on the grounds that it is the problem of those who criticize also to create. On whose authority does the burden of building new theory fall solely on those who expose the vacuity of the old?

There are, it would seem, two quite distinct alternatives open to economists in the matter of public policy analysis—what I here call policy science. The first is to hunker down, to press ahead with the current intellectual agenda, and to become ever more shrill about the inscrutability of the political process. On this tack we would continue to explore the wondrous world of alternative surplus measures, and to insist that the potential Pareto test represents an objective truth rule regarding what the public sector should be doing. The other tack would be to admit, after some 40-odd years, that the collective interest transcends the reductionist Pareto rule. Once this threshold has been crossed, we would be free to harness the impressive intellectual heritage of economic analysis to the task of designing an evaluative approach that reflects the concerns of public decision makers as opposed to one that reflects what we *think ought to concern them*. This task of building an alternative—and intellectually legitimate—paradigm does not belong only to the critics of received wisdom. It is a shared burden made more compelling by the simple rules of intellectual honesty.

But change never comes easily. The economist concerned to make a contribution to policy science faces an awkward problem. There remains a persistent belief that adherence to efficiency, variously defined, constitutes the necessary condition for an objective and value-free approach to policy science. This means, among other things, that policy analysis that does not emphasize efficiency will run the risk of being regarded as unworthy of serious economic notice. In western society, where there is *a priori* political support for market-like processes, the social and economic processes and outcomes of that framework are thought to be, for the most part, beyond question. However, to deny the existence of an objective truth rule in science is not to preclude scientists from operating in an exemplary and well-intentioned manner.

The implications of this will vary depending upon the nature of activity being pursued. In economics, it seems reasonable to consider this realization within two broad classes of research. I call the first of these *theory science* and the second *policy science*. Those engaged in theory science work between the real world and received theoretical wisdom. Some are more concerned with one direction than the other, but the essence of this activity is to pursue a closer correspondence between the postulates and conclusions of orthodoxy and its ability to characterize the world. Some economists are less interested than others in modifying or adding to theory, but most are still concerned with this problem of correspondence between the real world and our mental abstraction of it (a model or theory). The problems of individual objectivity and replicability are central here since it is important that "the world" be perceived and interpreted in a way that independent researchers might duplicate each other's work. Of course different individuals will choose different segments of reality to study, but the work is ultimately prescriptive in that one is prescribing modifications in theory (received wisdom or orthodoxy) to ensure that it more closely accord with reality. Those doing theory science want to be neutral and unpremediated in order that the growth of science will reflect that reality. *Theory science in economics is about discovering what existing theory needs in order that it might more accurately model human interactions*. The objectivity of the scientist lies in the extent to which independent investigators can reach similar conclusions about the correspondence of theory and reality.

On the other hand, *policy science in economics is about discovering what individuals and groups want (or need) such that they might more easily fulfill their goals and*

objectives. The theory scientist wants to adopt a research program that will maximize the probability that the end product (a theory) is the best possible abstract representation of what goes on in daily life. The policy scientist, on the other hand, wants to adopt a research program that will maximize the probability that the policy recommendation to result from the exercise corresponds exactly to what the individuals affected by the policy problem want to achieve. This view of policy science is a departure from policy analysis as currently practiced within economics.

Language and Concepts

It seems appropriate here to comment on an issue of language and concepts in policy analysis. Many economists will insist, in all sincerity, that they do not advocate any particular policy but merely indicate to the decision maker(s) what would be "efficient" to do. If the decision maker then decides to do otherwise, then it is obviously a "political" choice in which distributional issues dominate and the economist has done her/his job as an honest and objective scientist. This subtle delusion is without logical support. To suggest to a decision maker the course of action that would be "efficient" is to load the debate in an unsavory way. No one, not even the much maligned public decision maker, knowingly wishes to be "inefficient"; the problems arise in defining efficiency. Welfare economists ought to be the first to understand that any particular distribution of endowments (including property entitlements) under competitive equilibrium carries with it a unique efficient outcome. This is, after all, the second of two fundamental theorems of welfare economics. The public decision maker is generally seeking an efficient way to modify the status quo. The economist, on the other hand, counsels efficiency as the best thing to do, and feels content to indicate the magnitude of "efficiency costs" should the decision maker choose otherwise. The problem is in comprehending what "efficiency" means to the two parties.

Decision makers, and politicians, understand that most public policy is about either reallocating economic opportunities, or redistributing economic advantage —a distinction that I have argued for elsewhere [10].[22] When the economist suggests that something would be "efficient," it is likely understood by the decision maker to be that policy change which will effect a certain reallocation of opportunity or advantage in an *efficient* manner. The economist, of course, means something quite different by efficiency—that is, it would be either "wise" or "unwise" to adopt the new policy. For the economist to suggest the "efficient" path, and to demur on the other dimensions of the mooted policy choice, is to abdicate full responsibility. Hicks has commented on this stance by the economist

[22] In essence, a policy change that *reallocates economic opportunity* is one that realigns institutional arrangements in accordance with emerging social norms, while a *redistribution of economic advantage* realigns institutional arrangements in the absence of emerging social norms. For instance, new, and less permissive, legislation and court decisions regarding toxic chemicals is an example of reallocating economic opportunity between those who manufacture and use such chemical compounds and those who bear the real and psychic costs of their use. New legislation at the urging of domestic manufacturers to restrict the importation of cheap Japanese or Korean computer equipment is an example of redistributing economic advantage [10]. In a public policy analogue of incentive compatibility, a reallocation of economic opportunity is *norm compatible* while a redistribution of economic advantage is not.

who is allowed—even encouraged—to argue that if he:

> ... has shown that a particular course of action is to be recommended, *for economic reasons*, he has done his job ... if he limits his functions in that manner, he does not rise to his responsibilities. It is impossible to make "economic" proposals that do not have "non-economic" aspects, as the Welfarist would call them; when the economist makes a recommendation, he is responsible for it in the round; all aspects of that recommendation, whether he chooses to label them economic or not, are his concern. [25, pp. x–xi]

In theory science, the economist is being both normative and positive. That is, the economist engaged in theory science is attempting to observe and describe reality in an unbiased manner (being positive) and then to prescribe how theory *ought to be* structured (being normative) in order to reflect that observed reality. In policy science the economist would be positive, but only *conditionally normative*. That is, in policy science the economist must first ask (or determine) the goals and objectives of those affected by a policy—an activity that requires the greatest possible level of objectivity—and then objectively draw on theory to propose which avenues will maximize the chances of attaining those objectives. Objectivity in policy science is concerned with independent researchers reaching similar conclusions with respect to what the target population says it wants to accomplish. Note that it is *not* the science—nor the conclusions—that are objective but rather the economist who stands between theory and the individual(s) who must make a decision with economic content and implications. This critical difference between the objectivity of the *scientist* and the *science* has been muddled in much of the literature on research philosophy in economics. Glenn Johnson comments on this unfortunate confusion by noting that

> Two kinds of objectivity can be distinguished—the objectivity of *propositions or concepts* and objectivity of *investigators*. A *proposition or concept can be regarded as objective* in a particular context if it has been subjected to and has not failed tests of coherence, correspondence, and clarity sufficient for the purposes at hand ... A *researcher or investigator can be defined as objective* in a particular context if he is willing to subject his statements to tests of coherence, correspondence, and clarity sufficient for the purposes at hand and to abide by the results. [29, p. 51]

Of course the policy scientist is dependent upon the success of the theory scientist, for the very essence of policy science is the received orthodoxy that is the domain of theory science. But the policy scientist is not an apologist, nor an advocate, for the dictates of theory science. That is, the objective policy scientist should be the last to denigrate those objectives of the citizenry that do not happen to accord with the economist's view that people should do what is "efficient." After all, if economics is serious about the sanctity and autonomy of the individual then it does seem somewhat inconsistent to disregard the wishes of those affected by collective choice as unscientific and to advocate, instead, the Pareto rule. Simply put, it is logically inconsistent to venerate individual preferences as expressed through volitional choice in markets, but to denigrate and to discount individual preferences as expressed through collective action.[23] The economist as

[23]Some will object that at least markets force individuals to reveal their "true" preferences since they will have to pay for what they receive, while in the public arena people can demand what they may not have to pay for. It is, of course, a value judgment to say that "true" preferences are revealed through markets—they are only "true" as constrained by the current distribution of income. Additionally, measures now exist (i.e. Groves mechanisms) for insuring that choices unmodulated by unit prices can be reliable indicators of "true" preferences.

policy scientist is concerned with problem solving and helping to do what is desired by those affected by the particular event under consideration, not with advocating what is said to be right by the postulates of welfare economics.

Substance and Process

This proposed view of policy science should not be confused with the triumph of process over substance. The policy process is still *end-result oriented*, in the terminology of Lawrence Tribe [48], but the end results pursued are not necessarily (nor restricted to) present-valued net benefits via the Pareto test to the exclusion of other results. Rather, the end results to be pursued are those defined as important by individuals involved in the process. Hutchison comments that the majority of economists are not necessarily

> completely devoted to exclusively materialist goals but rather that they are inevitably tempted to focus on measurable, quantitative objectives rather than qualitative nonmeasurable ones, and measurable goals inevitably tend to be somewhat materialistically conceived. As is well known, qualitative elements... largely elude indices of production or consumption. [27, p. 155]

The tradition in benefit–cost analysis is to maintain that the objectives to be pursued are not the proper domain of either the decision maker or the analyst. Rather, it is said that the proper objectives are given by the conceptual foundation of welfare economics and the criterion of a potential Pareto improvement. In this approach the economist rejects the view that a decision maker has the right to determine what constitutes social welfare. The norm is for economists to admit the difficulty in determining universal ethical propositions that will guide investment programs and thus to settle for the one that permits them to reach a decision on only one dimension—that of economic efficiency. Those effects that happen not to have the aura of scientific respectability are disregarded in a process that commits the fallacy of misplaced concreteness, or what Laurence Tribe calls the "rendering irrelevant of extra-paradigmatic concepts." Viner has recognized another logical fallacy in this regard:

> ... to reach final conclusions upon the basis of consideration of a single value, or of a very limited set of values, is liable to result in what has been called "the fallacy of the unexplored remainder." [49, p. 230]

The evaluative stance advocated here would see the role of the economist as centrally concerned to assist the decision maker in selecting choices that are consistent with the latter's objectives. The decision maker, by providing the policy objective that will guide the analysis of a particular collective choice, also "... provides the value judgements upon which a particular cost–benefit analysis is constructed" [47, p. 236]. This approach substitutes the value judgments of the decision maker for those of the economist—an event not without suspicion among many economists. Here, it is not the economist's place to challenge the objectives of the decision maker(s). The economist adopts the following position: "given that your objectives are this, here is the best thing to do." As in the earlier example of the firm, the economist is engineer cum accountant. The decision maker(s) implicitly decides what course of action to follow when the objectives are stated, and it then becomes the economist's task to develop the implications of this particular path. As pointed out by Sugden and Williams [47], once the decision maker's objectives are paramount in the evaluation process, all other valuations

are irrelevant. This means that notions of costs and benefits will have meaning only with respect to the objective function of the decision maker, a point discussed previously.

Consider these differences in more detail. Under the traditional approach there is only one objective—economic efficiency. It is usually reckoned in two different ways. Sometimes efficiency will be in terms of the potential increase in net national income from a proposed change. Or, if nonmarketed goods and services are involved, efficiency will be reckoned as a potential Pareto improvement. For mixed undertakings, both conditions will be used. A particular project—or portfolio of projects—is "economically acceptable" only if there is a surplus of benefits over costs when both are converted to a present-value basis.[24] If economics is to be relevant to the policy process, it seems more appropriate to approach policy analysis in a manner such that the objective(s) of the undertaking can be whatever the decision makers want it (them) to be. Then "benefits" derive their definition from the stated objective(s). This latter approach has been called the "decision-making approach" by Sugden and Williams. While the conventional view of benefit–cost analysis has the appearance of scientific objectivity—and the decision-making approach appears to be subjective—it should now be obvious that these claims are ill-founded. The value judgments in the conventional approach are several, although now so much a part of the convention of economics that their ethical content is easily overlooked.[25]

IV. A NEW EVALUATION PROGRAM

I have argued here that efficiency via the potential Pareto test fails the test of consistency and coherence within economic theory, and that it fails to accord with what the citizenry asks of economic analysis applied to the policy arena. On this evidence, its claim as an "objective truth rule" is undermined on two counts. The remaining question concerns the nature of the legitimate role for economics in policy science. Before I address that, let me note that economists adopted logical positivism just as it had been discredited by philosophers of science. The positivist's dream of a clear demarcation between the meaningful and the metaphysical was soon to be regarded as a false dichotomy. The idea of an objective *scientist*, as opposed to an objective *science*, however, can still be regarded as pertinent to economic theory and economic policy. Economics should require no less than principled adherence to high standards of observation, interpretation, and synthesis. But the persistent belief that economists who advocate efficiency are being objective scientists is simply wrong. If one seriously believes in consumers' sovereignty then it follows that the analyst must become concerned with the goals and objectives of individuals and groups, even when those goals and objectives are expressed in terms other than that of the Pareto test, or of improving the net social dividend as measured in monetary terms.

[24]This would include a positive surplus in the case of the potential Pareto improvement test.

[25]An example of a value judgment is: I believe that Alpha should be made better off at the expense of Beta. An example of an untestable proposition that is *not* a value judgment is: I believe that this program will make Alpha better off at the expense of Beta. Ng [36] and Sen [43, 44] regard these as examples of, respectively, nonbasic value judgments, and subjective judgments of fact.

This concern for objectivity in assessing the relationship between theory and reality will require that more attention be paid to the nature of cost and benefit incidence of the status quo; it is, after all, the bearing of unwanted costs, or the perceived opportunity for individual gain, that animates most individuals in their daily lives. Progress—or the lack thereof—on air and water pollution turns critically on the distribution (incidence) of different kinds of benefits and costs, not just by income class, but by job category, by location of residence, by education level, and by a number of other variables rarely pondered in economic analysis.[26] Once freed from the false belief that to worry about the incidence of benefits and costs—or the distribution of income—is to abandon the rigors and purity of the detached and objective analyst, economists are then liberated to address the pressing problems of collective action and public policy with renewed interest, and with justified intellectual legitimacy. That inquiry into collective action, and the process of helping to decide what is best to do, will necessarily proceed from a clearer understanding of the way in which the status quo magnitude and incidence of costs and benefits is an artifact of the prevailing institutional arrangements. It is these rules and conventions that determine what is a cost, who must bear those costs, and who will gain from an alteration in the institutional arrangements that define individual and group choice sets [10].

The economist as policy analyst will continue to face a difficult task. It is not always easy to maintain a sharp distinction between policy objectives and policy instruments. To the extent that this distinction seems to offer a safe haven for the policy scientist to choose instruments while avoiding objectives, we may be misled. This distinction presumes that decision makers first choose policy objectives, and only then begin to search for policy instruments to achieve those objectives. Blaug reminds us that decision makers often will start with existing activities and gradually define and formulate objectives in view of experience with policies. That is,

> ... decision makers do not try to get what they want; rather they learn to want by appraising what they get. Means and ends are indissolubly related, and evaluation of past decisions, or technical advice about future decisions, searches in vain for a social preference function that is not there. [6, p. 151]

The feasible thing for the policy analyst, it would seem, is to become involved in the policy process in a way that will facilitate the dialectical evolution of both policy objectives and policy instruments. In some instances productive efficiency will be the objective, while in other settings economic opportunity will be purposely reallocated. Yet other situations will see conscious efforts to redistribute income. An objective scientist can further the cause of economic rationality given the evolved policy objectives of the collective and the decision makers therein. This neither suggests, nor requires, that false notions of scientific objectivity hamper or delude the economist.

I suggest that collective choice situations are most properly modeled as situations in which individuals and groups of individuals have interests in particular outcomes. Those interests can be manifest in a variety of ways, but the essence of

[26] Boadway [8] has made an interesting attempt in this regard. His work departs from the convention of weighting the gains and losses according to the groups that experience them. Rather, he uses a "distribution characteristic" from Feldstein [19] to attach distributional weights to goods and factors instead of to groups of persons.

collective action is that individuals will attempt to have their interests translated into claims on some new economic opportunity or situation of economic advantage, and then ultimately transformed into recognized entitlements by the state. It is this process, whereby interests become transformed into entitlements, that is the essence of collective action and institutional change [10]. By *interests* I mean that someone (or a group of individuals) has some strong feeling about a particular situation—they have a *stake* in the situation at hand. That interest could be about the plans of the government to store spent nuclear fuel in the vicinity, it could be about the polluted river that serves as a sewer for an unfettered paper manufacturing industry, or it could be about the inability to compete against Brazilian soybean producers. These interests are often dismissed as the selfish actions of a few "influential special interests."

But the reality of policy analysis resides precisely in these very circumstances. We can either undertake to design an evaluation paradigm that recognizes and contributes to this reality, or we can persist in hiding behind a bogus and quite irrelevant facade that makes us feel good—and look bad.

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