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The Pareto Principle and Policy Analysis

*A Response to Warren Samuels' "The Pareto Principle: Another View" (Analyse & Kritik 1/81)**

Abstract: Warren Samuels has suggested that the Pareto Principle, when being used in policy analysis, is (1) limited, (2) selective, and (3) displays a conservative bias. In contrast to this view, in this note it is argued that the Pareto Principle is much less limited than was initially perceived (e.g. by Pareto himself) or is generally believed to be the case, that it tends to emphasize inclusiveness instead of selectivity, and that it is more likely to have an innovative instead of a conservative bias.

Introduction

In replying to my earlier article on "The Pareto Principle" (Backhaus 1980a) Warren Samuels essentially puts forth three propositions:

I. The Pareto Principle is limited.
II. The Pareto Principle is selective.
III. The Pareto Principle displays a conservative bias.

These propositions refer to both the Principle's "nature" and its use. In the article which had prompted his dissenting view, I had tried to give as detached as possible a statement of what the Pareto Principle means. This statement was informed by an analysis of the history of thought on the Pareto Principle. In that statement neither have I tried to evaluate the Principle, e.g. with respect to other principles, nor have I attemped an analysis of the costs and benefits of using the Pareto Principle. In the present remarks, it is not, of course, possible to do either of these. An analysis of the costs and benefits of using the Pareto Principle in terms of (a) determining whether its use may be called "limited", "selective", and "conservatively biased"; and (b) whether with respect to any of these three criteria or other criteria which one might invoke, the Pareto Principle fares better or worse than any other principle which someone may propose is a monumentous task indeed. The other objective, i.e. to render a comparative analysis of the Pareto Principle and other principles which might be proposed in terms of the three criteria of limitations, selectivity and conservative bias as well as other criteria possibly considered to be important on a theoretical and a priori basis (irrespective of the use or misuse) without considering the actual use or practice of any of these principles, would constitute an even more ambitious program.

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Since the Pareto Principle is so much in the center of contemporary economic analysis and its applications, it would be difficult to find any other principle the use of which could be as extensively documented, let alone analyzed. Therefore, even pointing out biases in its use, limitations, and selectiveness is of little use in itself. If an evaluation of any principle is aspired, this can only be done in terms of comparing it, either a priori or in terms of its practical use, to all manner of other principles that might be relevant competitors.

Since neither of these various objectives can be presently achieved, I want to embrace, again, a much more modest aim. In what follows I should like to point out that in my judgment, the Pareto Principle is much less limited than was initially perceived (e.g. by Pareto himself) or is generally believed to be the case; that it tends to emphasize inclusiveness instead of selectivity; and that it is more likely to have an innovative instead of a conservative bias. Accordingly, the paper is divided into three parts, addressing in turn limitations, selectivity, and conservative bias of the Pareto Principle. In discussing these issues, I limit myself exclusively to a consideration of Professor Samuels' arguments, which I have listed for this purpose in seventeen sections. The basic difference between Professor Samuels and myself consists in that he attributes a normative status to the Principle, for either including normative presuppositions which he finds objectionable or excluding normative considerations which he finds important enough to be considered. To the contrary, I find the normative content of the Principle minimal, if not essentially non-existent.

I. Limitations?

What are limitations of the Pareto Principle?

(1) "As a principle fo policy analysis, the Pareto Principle is severely limited," since "there is no unique Pareto optimal result or solution" (Samuels 1981, 125). Although Pareto optimal points or states cannot be compared among each other in terms of the Principle itself, its strength for policy analysis resides in its ability to single out those states which cannot be improved upon and are, in this sense, efficient. This is quite important, since given a particular status quo to begin with and a particular social and political structure as well as a particular policy problem, in general there will not be many competing efficient solutions. To have reduced the choice set to those alternatives which are efficient (in the sense defined above) and among which to decide is then an inherently political task, is the strength of policy analysis guided by the Pareto Principle.

(2) Another limitation was asserted in terms of the reciprocal nature of rights: "If Alpha can affect Beta, preventing Alpha's affect on Beta constitutes imposition of an affect on Alpha" (Samuels 1981, 126). A policy to internalize externalities, e.g. in environment protection, has two components. If legal means can be defined

by which the internalization of externalities can be accomplished in such a way that the costs of accomplishing this, i.e. the costs of transactions, do not outweigh the benefits, then this is an efficient move. There is, however, also an element of redistribution involved. Therefore, the program will likely have difficulties if it inflicts uncompensated losses, the status quo serving as the point of reference. The strength of the Pareto Principle, in terms of policy analysis, lies in identifying those policies which provide for compensation of the losers. These programs stand better chances of being implemented, since any program which inflicts losses of, say, x dollars will face opposition, the prospective losers investing up to x dollars into the political process in order to prevent losses from being inflicted upon them through the program. In this sense, the Pareto Principle, if employed in policy analysis, may improve upon expediency and efficiency of political action informed by such analysis.

(3) Another limitation of the Pareto Principle for policy analysis was seen in "the frequently asserted conflict between efficiency and equity" which "is misleading if not false" (Samuels 1981, 126). This points to the analytical capacity of analysis on the basis of the Pareto Principle to single out efficient states, among which, by invoking extraeconomic criteria, political choices can be made.

(4) As a principle of policy analysis, the Pareto Principle cannot be invoked in order to recommend any particular outcome; a particular status quo and a respective outcome have to be recommended. In this context it is also asserted that the Pareto Principle "gives effect to the pattern of consent or veto built into the actual or assumed power structure" (Samuels 1981, 126). This statement is a little misleading since a status quo cannot be recommended. It is by necessity found to exist. It is the starting point of any relevant political action and hence policy analysis (finally interested in some political action). Here we deal not with a limitation of the Principle, but with a "limitation" of the world itself. If on the basis of a Paretian analysis some particular policy is recommended, this is not a recommendation to the effect that the status quo, from which the political action takes its start, be regarded as good, legitimate, justified, etc. The Pareto Principle cannot be invoked for this type of evaluative conclusion. The statement would have some merits if the Pareto Principle were a choice rule or decision rule, stipulating unanimous consent and the (strategically important) power to veto. This, however, would be an institutional reification of the Principle, and a very particular one, indeed. It would have to be based on some political choice, in turn not justifiable with the Principle.

This issue is related to a widespread though erroneous interpretation of Wicksell's Principle of Just Taxation as a principle of unanimous agreement. There is always a difference between a principle of consensus and its particular institutional realization. (On this see in more detail Hennipman 1980, 1981, and Backhaus 1980b).

(5) Often, according to Professor Samuels, the Pareto Principle is invoked in order to propose a change on the basis of assuming or proposing a power structure different from the existing one (Samuels 1981, 126). To this, one might respond that if, erroneously, a social state and social structure is assumed to exist which differs from the status quo, this does not reveal limitations of the Pareto Principle as an analytical instrument for policy analysis, but limitations on the part of the analyst. The research based on such erroneous institutional assumptions can only turn out, upon closer inspection, to be speculative and even irrelevant.

(6) Referring to Gordon (1980, 202 and passim; 54), Professor Samuels criticizes that the Pareto Principle neglects, and therefore is limited by, considerations of freedom. Scott Gordon criticizes the Pareto Principle for lack of taking "freedom" into account. He begins this argument by stating that the Pareto Principle is almost irrelevant, since "the orbit of legitimate state interference is restricted nearly to *zero*, for there is hardly any action that harms *no one*" (Gordon 1980, 202). He continues by saying that "the compensation principle helps to meet this difficulty but, as economists have pointed out, it is necessary not only to show the benefit cost calculation that demonstrates that full compensation of those harmed would have positive net benefits, but also to describe a practical procedure by which that compensation could be paid, and this is very difficult" (Gordon 1980, 202). It is quite true that state action, as a matter of fact under current circumstances, and given the institutions we have grown used to living with and take for granted, is very rarely based on a broad consensus. The phenomenon of non-consensual state action is so ubiquitous that Pareto himself felt that the political sector could not be made the object of economic analysis, which had developed its tools through an analysis of market activities. Even public finance, Pareto felt, was an inappropriate application of economic analysis to a subject functioning according to different principles than could be readily grasped by economic analysis. This attitude might, however, have been undue skepticism. To give an example, Wicksell at least showed in his New Principle of Just Taxation that institutional arragements could indeed be found in the state sector which were based on consensual actions. This was not "armchair speculation" or political Utopia, but a model based on his interpretation of the history of public financial institutions in Sweden, a subject which he had extensively taught and the analysis of which he published together with his New Principle. The New Principle, then, is the theoretical product of his historical institutional analysis.

In this respect, political action on the part of the state that harms no one and at the same time benefits some is not really such a rare bird as Gordon would have us believe. It is, however, true that the political system displays very little in the way of incentives to bring forth such action. That this same political structure, however, can be claimed to be enhancing freedom by foregoing consensual state action seems to be almost impossible to show.

The argument concerning freedom, then, is put forward by Gordon in a somewhat cryptic way. To quote again: "Restricted by the prohibition against inter-

personal comparisons, Paretianism has reference only to that primary social good which we have called welfare ... there is still a primary social good out of the calculation: freedom. Only by regarding personal freedom purely as instrumental, as a means to the achievement of wealth and justice, and not as a value in itself, can Paretianism make any case at all" (Gordon 1980, 202).

The definition of welfare alluded to is given in a strictly Paretian framwork: "The welfare of an individual person is considered to be increased whenever he is enabled to move from one state of affairs to another which, in his own private judgment, he prefers. The welfare of any social group is considered to increase whenever at least one member of that group is enabled to move to a preferred state without this entailing that any other member must move to a less preferred state" (Gordon 1980, 54).

This conception, which Pareto called *ophelimité* instead of welfare, is criticized afterwards for the very reasons which prompted Pareto to introduce the distinction. For example, some people may postulate, as Coleridge did, that society is an organic entity in itself, not merely an aggregation of persons, and hence, social welfare may be quite different from the welfare of the members of society. This is why in the political sector, if such conceptions of welfare are taken into account, the technical term *ophelimité* has an unambiguous meaning. This was, of course, Pareto's reason for introducing this technical term as opposed to his various classifications of utility referred to in the earlier article (Backhaus 1980 a, Table 1).

This question quite obviously lies outside the realm of Paretian economics, and it is difficult to see to what extent economic analysis can better contribute to an understanding of these issues except, if that could prove to be helpful, by pointing out that "freedom" as understood by Gordon, in some respects has the properties of a public good, and therefore may be in short supply if and as long as the political institutions organized for its production have not been set up in order to take into account this (technical) property.

This, at least, is my way of understanding Gordon's ensuing remark that "a legitimate complaint against the modern state is that it typically neglects freedom costs of its actions, focussing too exclusively on welfare and justice, a practice which is supported by Paretianism ... " (Gordon 1980, 202). The practice is, however, by no means supported by an application of the Pareto Principle, since this Principle does not support the exclusive definition of welfare which Gordon adopted. The Principle can never be invoked whenever a value is to be justified which did not emerge from and was not revealed by consensual action.

What is a "legitimate" complaint, finally, may be a matter of (non-economic) dispute, too.

(7) In this context belongs Professsor Samuels' related remark that "the Pareto Principle, in limiting consideration of justice to justice in exchange, neglects and is limited by consideration of other justice" (Samuels 1981, 128). The observation, although a little misleading since it focuses on "exchange" instead of "consensus", is, it would seem, otherwise correct. If non-consensual justice is made a part of wel-

fare, this again is a very strong value judgment and needs to stand on its own feet; the Pareto Principle doesn't support this. The strength of the Principle, not so much limitation, lies in making this very clear.

II. Selectivity?

The second string of arguments proposed by Professor Samuels emphasizes what he calls the "selectivity" of the Principle. The following six sections address this point.

(8) Here, the first proposition asserts that Paretians, on a priori grounds, favor market decision-making processes over political decision processes (Samuels 1981, 129). Voluntary exchange is, however, only a subset of movements fulfilling the Pareto Principle. Market transactions, in turn, can be assumed to be consensual decisions only if no market failure was present when the decision was taken. The concept of voluntary exchange captures the concept of market failure only very loosely, and plays down its importance, since some people might be led to believe that in any market transaction coercion is absent and hence any market exchange must have been voluntary.

A related problem stems from the dichotomization of change into market change and political action. If political action is narrowly defined as "government action", i.e. interventionism, the two categories are not exhaustive. There is a wide range of activity in institutions other than the market or government, e.g. in the courts, in the families, the corporations, the non-government state institutions, the churches, etc.

(9) The reality of political interaction is largely made up of non-Paretian processes. Many an outcome of these processes is of a redistributive kind, and these redistributions are actually like the fuel for the political engine. Hence the theory of rent seeking as an outgrowth of public choice theories (Tullock 1981).

If it can be shown that some features of these processes, e.g. regulations, have quite inefficient outcomes, this cannot in itself be taken as a proposal to abolish them. Not only the result of political action has to be shown to be efficient, but this has to apply for the change between institutional arrangements as well. Such a process of institutional change, like the process of deregulation, is redistributive in itself. This lies at the heart of the explanation why some arrangements can be shown to be inefficient while they still persist.

(10) For this reason, in political practice "the notion of compensation raised under the rubric of the Pareto Principle is illusory," provided we were under the impression (illusion) that any political process, including redistributive processes, could be explained as conforming to the Pareto Principle. Pointing out that Pareto optimal redistribution does or may exist is not the same as pointing out that any redistribution conforms to the Pareto Principle.

(11) The invocation of the Pareto Principle, Professor Samuels states, in policy analysis legitimizes non-Pareto optimal changes by selectively focusing on Pareto optimal changes. Despite the Coase rule (Sic!) invoked by Paretians, externalities are ubiquitous. This would be why the world of the Paretian could be both Utopian and illusory (Samuels 1981, 127).

The Coase theorem highlights the problem of externalities by pointing to the possibility of Pareto superior moves in the absence of transactions costs. Thus the paradigm is the cornerstone of politico-economic analysis which focusses on an understanding of institutions, which in turn determine extent and incidence of transactions costs. The (counter-factual) assumption of zero transactions costs renders the control case which helps us to properly understand the problem of externalities as one determined by the structure of transactions costs; and, possibly, enables us to propose (Pareto superior) moves to overcome pitfalls of legal structures which by causing high transactions costs force persistent externalities upon us. Thus, the counterfactual assumption, instead of being selective, actually serves to be inclusive in that it helps us to adequately deal with the thorny problem of transactions costs, costs the presence of which impedes Pareto superior moves.

(12) When conducting policy analysis, the Paretian according to Professor Samuels selectively gives effect to government by permitting constitutional action and not permitting statutory and judicial action, where all of these actions constitute legal change (Samuels 1981, 127). Thus it looks as if a distinction had been introduced rather selectively, in order to bring about a particular policy result. This and the preceding argument look a little odd in that they seem to assume that the criterion could be invoked as a rule which permits some action and bans other action. The Principle, however, is not a rule. It has never been passed by any legal authority, and it has never been universally agreed upon as a decision rule. It serves rather to distinguish between those changes which can be positively analyzed in terms of economic theory and other changes which are not susceptible to such analysis. In these (latter) cases, ethical arguments will have to be invoked if an evaluative decision were to be taken.

(13) The Pareto Principle is further criticized (Samuels 1981, 127-128) for providing little help in understanding and explaining actual government decision, which in turn is characterized as not consisting of consensual action and as constituting attempts at changing the status quo, which, in turn, is not taken as *given*. The status quo is always given, though, in the sense that this is the starting point for any change. It is the starting point irrespective of whether the change will meet the standards of the Pareto Principle or not. Obviously, the starting point is not given in the sense that it couldn't be changed. The status quo has no particular legitimacy to it, other than that it is the only starting point of anything, be this analysis or action.

III. Conservative Bias?

Finally, Professor Samuels asserts that the Pareto Principle displays a conservative bias, at least when used as a principle guiding policy analysis. This is the subject of the final four sections.

To begin with, it is very hard to see how a Principle could have any bias at all, conservative or otherwise. There seems to be an underlying notion to look upon the Principle as a decision rule. There are, however, many decision rules and institutional arrangements compatible with the Principle. The most extreme of these rules, the unanimity rule, can – it would seem – furthermore be shown to be so cumbersome in arriving at consensual decisions that, if imposed and being made part of the status quo, it would be used only once: to arrive at the unanimous decision to do away with such a rule and take recourse to a different consensus building decision process.

(14) The Pareto Principle is supposed to be fundamentally conservative, since "it provides the already established or powerful a veto power to prevent change" (Samuels 1981, 129). As was pointed out above, the Pareto Principle is not a rule of unanimous decision making. It is not a decision rule at all. The Principle is either an equilibrium condition (when it is fulfilled), or an invitation to change, when a move can be shown to benefit some without harming others. Economists who are used to working with the Principle are continuously looking for such moves, which can, of course, become very comprehensive and intricate patterns of moves woven into each other – in order to meet the compensation requirement. For this reason, a discipline which works on the basis of such a criterion produces a continuous stream of input into the political system, pressuring for change. This change is all the more likely to occur since due to the nature of the criterion such changes are preferably proposed which meet the standards of the Pareto Principle, i.e. benefit some without harming others, or else providing for a compensation. In this way, the Principle is not a decision rule, instead it is a necessary and sufficient condition for consensual change.

(15) Professor Samuels seems to imply that the non-singularity of Pareto optima requires government to make hard choices among these optima. These "hard choices" do, of course, impose on some while probably benefitting others. These "grands coups d'autorité", at the stage of inception of economics as a discipline, had already been shown to be quite counter-productive to both economic growth and equitable change for the many and the poor (Hirschmann 1977). To assume that the existence of several (possible) Pareto optima amounts to an invitation to governments to choose between them is quite a strong proposition. The Principle is, of course, again silent on this matter. From the non-singularity of Pareto optima one can neither infer that government has to make "hard choices", nor that government should refrain from making these choices. Many people will feel very differently about this matter, which can hardly be settled in principle; people's preferences

will to a large extent depend on who benefits from governments' "hard choices", and who loses from them.

In a positive way it can be said that people in a society which does not grant government the authority to make hard choices, i.e. take away from some and re-distribute to others, will behave differently from people in a society which grants government this right. The extent to which the right is granted will, in the same manner, influence people's behavior and choices. For instance, capital formation and growth should be expected to be larger in the first society than in the second, provided that hard choices are expected to be made at the expense of accumulated capital.

This latter argument is, of course, quite obvious and explains why societies, in general, have constitutions which make these hard choices more predictable.

(16) The Pareto Principle is also supposed to be conservative, since "it has been used as a strategy against a legal change" (Samuels 1981, 129) and "functions to divert attention from the world of social relations" (ibidem). Singling out changes which meet the standards of the Pareto Principle neither implies that other changes not meeting the standard of the Principle should not be allowed to happen; nor does it imply that they should be allowed to take place. The Principle is silent on other changes not meeting its standards. Therefore, the Principle can neither be used as a strategy to prevent those other changes, nor can it be an impediment to those changes in any other way.

(17) Finally I should like to address myself to the question: is the Principle a positive or a normative one? Professor Samuels distinguishes between positive, conditionally positive, and normative analysis. He puts policy analysis guided by the Principle, depending on the approach in particular, into the categories of either positive analysis or conditionally positive analysis. Thus analysis on the basis of the Pareto Principle would show "what is *necessary* or *instrumentally useful*, given what ought to be the case" (Samuels 1981, 131). The underlying idea is that the Pareto Principle could serve as a guide for economic policy, as the normative basis, or as a normative precondition for policy analysis. This is, however, more than the Principle really amounts to. Since the Principle is an equilibrium condition, it predicts what will happen. If some change benefits some people without harming others, and if the transactions costs associated with that change do not outweigh the benefits, and if the structure and incidence of these transactions costs is such that at least some people will benefit, then this change can be safely predicted to come about irrespective of whether the government intervenes or not. Thus, as soon as such a possibility for a change has been discovered, its implementation becomes very likely. In this respect, the normative content of the Pareto Principle is minimal indeed. Any positive analysis, when relevant at all, will change the status quo by adding to the existing stock of knowledge. In this sense, since research becomes "action" upon producing a result, even strictly positive research will have some – minimal – normative content.

In the area of political economy, when research along the lines of the Pareto Principle is fruitfully being carried out, this applies as well and turns out to pose a continuous challenge of the status quo and an element of change.

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