

The endogenous public choice theorist*

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Abstract. Public choice theory has effectively explored defects in collective action and political processes. However, little attention has been given to the fact that any recommendations as to how to improve the situation can only be realized on the basis of precisely those defective institutions. What turns up here can be identified as a problem of self-reference. Normative contributions by Buchanan and Hayek may serve as an example. In order to clear up the seemingly paradoxical situation, "endogenization" of the public choice theorist within an extended theory is suggested. A straight-forward extension is briefly outlined.

1. Introduction

Public choice theory has produced an impressive body of results over the last few decades which have enhanced the understanding of those political and judicial systems on which the economic processes of producing, allocating, and consuming are based. In particular, the often naive presupposition that political agents, unlike economic ones, are unselfish has been dropped. The result has been new insights into how particular interests are pursued at the political level, given current constitutional and judicial constraints (see Breton and Wintrobe, 1982; Hardin, 1982; Tollison, 1982; Frey, 1983; Schneider and Frey, 1988; Mueller, 1989 for just a sample of different aspects). As a natural consequence, these insights induce a critical attitude towards interventionist, mercantilist, and constructivist interpretations of the role of government. Such interpretations are characteristic of many earlier contributions to political economy and public finance.¹

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Accordingly, where many such contributions, correctly, indicate that markets fail to spontaneously achieve certain goals and then go on to argue that government should take over, public choice theory has drawn attention to the fact that the political process may be no less defective in reaching those goals. Complex and at times inescapable social dilemmas may be involved in the attempt to stimulate collective action on the political level in cases where the market fails. Furthermore, constitutional arrangements, voting rules, judicial practices may turn out, on a closer analysis, to have complex, unintended implications which are sometimes even inconsistent with stated constitutional values and norms.

The problem to be addressed in this paper emerges once the various defects in collective action and political processes have been identified: the question of whether and how this knowledge could be used to improve the situation given the fact that any proposal for removing the shortcomings or undesirable developments must take as its starting point precisely those defective actions and processes. Imagine, for instance, certain constitutional arrangements, voting rules, or judicial practices which have been recognized to be harmful to the polity when politicians and/or judiciary are self-interested. How can a public choice theorist's recommendations as to how to prevent or overcome abuse make sense, if these recommendations have to be carried out by the very politicians/judiciary of whom self-seeking behavior has been suspected?

The seemingly paradoxical situation occurs whenever public choice theorists, or political economists in general, who go normative, leave it open how, as a result of their normative plea for change and reform, forces other than those that cause the criticized development can be activated. The paradox resolves once the role of the normative theorist in the system to which (s)he refers is properly understood. This is an example of what, in more general terms, has been called the problem of self-reference. Even where normative theory is of greatest importance as, for example, in the constitutional criticism of expanding government activity, of growing "Leviathan," and in the discussion of appropriate constitutional choices, comparatively little attention has been given to this problem.

The present paper is devoted to the discussion of the problem. In order to illustrate it in more detail, a short examination of the views of Buchanan and Hayek, two of the most influential normative writers, is presented in Section 2. Section 3 discusses how the problem may be solved by 'endogenizing' the public choice theorist within an extended theory, and some basic ideas of such a theory are briefly outlined. The role of the normative theorist according to this interpretation is discussed in Section 4 and an abstract example of what (s)he has to achieve is given in Section 5. Section 6 offers some concluding remarks.

2. Self-reference unrecognized: Two prominent examples

As examples for the problem of self-reference consider the contributions by the two Nobel-prize winners Buchanan and Hayek. In his writings Buchanan has consistently rejected the notion that any advice on rules to be chosen or political/economic action to be taken on behalf of the polity can be based on notions of collective social maximization, e.g., on the basis of a social welfare function (see, e.g., Buchanan, 1975 for a survey of his earlier work). The contractarian paradigm advocated instead builds on the idea of "normative individualism" (Buchanan 1988): the consent of each member of the polity, whether individually maximizing or not, is the basis for any proposal to be evaluated. Such a voluntary agreement would only be reached if everybody is made better or at least no worse off so that a proposal for change that passes the test of contractual consent is one that increases welfare and, thus, unequivocally means improvement for the polity.

However, there is something left open under the contractarian construction. Buchanan (1977a) explicitly urges the public choice theorist to suggest ways and means by which improvements may be made by agreement among all parties. But, as Buchanan admits, it is unclear how proposals on social rearrangements, developed by the theoretician on the basis of normative individualism, will be launched into the actual political process and thus exposed to the required test.²

Which role is the political economist supposed to play in the polity? How can (s)he hope to attract public interest when even professional politicians may find it difficult to get the polity's attention? Moreover, many of the conditions criticized by public choice theory are, in reality, due to a constitutional environment that is characterized by complicated procedures demanding political professionalism. According to a public choice approach what would be expected to happen to proposals for changing that environment? How can the proposals be protected against possible watering down by self-interested political actors?³

Self-reference is also a missing, or at least not thoroughly investigated, issue under Hayek's evolutionary approach. Hayek (1960, 1967a, 1967b, 1973, 1978a, 1988) has taken pains to explain that cultural evolution has generated a set of abstract rules which individual behavior obeys. As a result, order, i.e., an effective coordination of the various activities chosen according to the individuals' aims, is "spontaneously" achieved on the societal level. The evolution in which the norms, mores, and other general rules of conduct emerge in a kind of societal trail-and-error-process over generations displays three significant features (Hayek, 1967b, 1973: Ch. 2, 1988). First, individual variation of established modes of behavior and behavioral innovation constitute a source of permanent change on the individual level. Second, imitation of individual

varied behavior and learning at the group level produces a replication effect which shapes differing groups. Third, selection among differing groups according to the 'fitness' of their respective rules works through differential growth and supersession in the inter-group competition of scarce resources.

Thus, neither the evolution of the rules nor the resulting spontaneous order is an outcome of intention or deliberate planning. Consequently, the idea of "constructivist rationalism," that the social and economic institutions and rules should or could be remade and reshaped following one single political mind or plan, is rejected (Hayek, 1975, 1988). Any attempt in that direction, Hayek (1978b) submits, would simply have to fail because of the bottleneck in information processing that the central coordinating agency creates. Moreover, a loss in individual freedom would have to be feared, and the experience and wisdom of generations contained in rules that have resulted from evolution might be sacrificed in a "fatal conceit" (Hayek, 1988) to opinions and views of some single planners. Yet, as Hayek (1944) himself argued quite early, precisely this "constructivist error" seems to have grown over decades with increasing impact on politics and the expanding activity of government in modern societies in various countries. This must certainly be interpreted as but another episode in, and thus no less part of, the process of societal evolution described.

However, does it then make any sense to contribute a "public policy pamphlet" (Hayek, 1944) or develop detailed suggestions for constitutional reorganization as Hayek has done (e.g., Hayek, 1979: Ch. 17)? Apparently, these activities are assumed to somehow intervene in the societal process of evolution. Thus, the process presented as being self-contained seems to include the political economist's activities. As in the case of Buchanan's contributions, this phenomenon of self-reference is not sufficiently acknowledged. The prospects for implementing the normative recommendations, and even Hayek's own role, paradoxically seem to contrast with the actual processes as diagnosed by the underlying positive theory.

It may thus be concluded that what is missing in both cases, and what is necessary to solve the problem of self-reference, is an expansion of the theory so that the effect which the political economist may have on the societal process is "endogenized." Such a theory has to explain the way in which normative statements might affect opinions and preferences within the polity. The evolutionary paradigm adopted by Hayek may be more akin to such an extension than Buchanan's contractarian or exchange paradigm. The reason is that the former implicitly presupposes notions of how action knowledge within groups develops and can be influenced while the latter, in the more orthodox economic tradition, starts from given individual values and opinions (cf., e.g., Buchanan, 1977a).

3. Evolution of active knowledge – The missing link

The problem of self-reference has not been sufficiently acknowledged in the prominent normative contributions to political economy referred to in the previous section. However, in more general terms, the problem has been addressed in the sciences and occasionally even in economics. For instance, the theory of rational expectations in economics can be viewed as a solution to a self-reference problem, albeit a very specific one: the objects of analysis, the economic agents, refer to the theoretical information that has been generated in the analysis of the agents' actions. In science the notion of self-reference addresses the fact that living systems create change out of their own, internal structure (Maturana and Varela, 1980). Thus, a significant feature of the evolution of such systems is that, in transforming themselves, i.e., in creating and selectively implementing novelty, they may refer to their own mode of collecting, interpreting, and utilizing information.

This more general insight supports the idea that the missing explanation of the normative theorist's impact on the system to which (s)he refers may indeed be related to the societal processes of the creation and shaping of knowledge. In these processes the normative political economist has to play a role, among many other voices and influences, and it is probably a role similar to that of prophets, preachers, and propagandists in earlier times. In order to set out the basic argument of such an evolutionary, individualistically founded, interpretation a brief outline must suffice here (for more details cf. Witt, 1991: Ch. 3).

The underlying premise is that at each moment in time each member of the polity has a limited active knowledge which informs his/her evaluations and actions. This is so simply because individual memory is limited and the capacity to process the information, in principle abundantly available at any point of time, is severely constrained. However, from one moment of time to another, individual active knowledge may change because of learning, i.e., processing additional information, and forgetting. The crucial question then arises of what information, out of the vast amount accessible in principle, is actually taken up, and what is forgotten, given the memory constraints on active knowledge. What kind of regularity governs the selection and retention of knowledge?

Selection of the information being processed is guided by attentional processes. These filter out information offered to the constrained capacity of the sensory system by external sources (the environment) or internal sources (new ideas, insights). On the one hand attention is allocated according to the intensity and frequency of the signal. On the other hand, information gains successively increased attention according to the strength of the emotive value associated with the information, i.e., the individual's (dis-)taste for it or the current state of individual preferences. At the same time, however, the continued attention given to the same issue induces learning effects: refinements

of perceived details, reflection and changes in interpretations, increases in perceived importance. All that is known about systematic changes in preferences indicates that processes like these tend to shape tastes in favor of items obtaining continued attention – an effect that is addressed in economics as habit formation (see, e.g., Pollak, 1978; Wickström, 1979). Because of the impact of the current state of preferences on the attentional processes, a recursive relationship thus exists between perception and preferences.

The recursive process of the individual level has a social background: all individuals are integrated into interpersonal communication networks which not only provide information in a one-sided transfer, but typically also involve social interaction and exchange. New information, originating on the level of the individual, is diffused through the networks. Repeated presentation of, or repeated conversations about, certain information may tend to continually focus attention on the issue, inducing the learning effects described above. Since information processing capacity is scarce relative to existing information, various suppliers of information compete for individual attention. As a consequence, groups or circles with highly intensified internal communication (i.e., 'discriminating' against outside suppliers of information) may develop 'sub-cultural' patterns of tastes and refinements of perception. By growing they may be able to spread their subcultural patterns in society.

Obviously, there is an immense variety of information networks within the polity. Differences in the individuals participating in these well mean that the agents are not all equally influential in affecting the information which attracts collective attention. They are neither equally creative in generating new information nor equally powerful in presenting arguments that attract attention. As the evolution of active knowledge is the outcome of a competitive process between various suppliers of information, it is likely that a specialization and division of labor according to comparative advantages in communication skills and creativity will take place, if there is an advantage in being able to supply information. Precisely this is part of the suggested explanation of the role of normative political economists (or of prophets, preachers, and propagandists) who, usually starting from within some subcultural circle, are more or less successful depending on whether and to what extent the subcultural ideas, views, and evaluations they propagate spread out into the entire polity.

4. The normative public choice theorist as agent of collective action

In the previous section normative political economists' activities have been related to the vast number of information supplies competing for attention within the multitude of communication networks and individuals' information processing. What remains to be discussed is why there should be incentives for

an attempt to influence the information set other people direct their attention to, in particular incentives that may also be relevant to the political economist's activities.⁴

It has been argued that the information which people process enters their limited active knowledge and is going to inform their individual choices. The choices of an individual or a collection of individuals – party A – in turn, affect the possibilities for action and the opportunity costs of some other individual or collection of individuals – party B. The latter may therefore have more or less strong incentive to influence A's selective attentional processes so that information which is more likely to induce choices that are favorable to party B is entered. Preaching, persuasion, propaganda (or advertising) as well as defamation and, of course, banning and censoring are but a sample of the measures that can serve this purpose. Indeed, it is an old truism that getting in control of information flows is an effective way of getting power over people.⁵ However, as long as exclusive control is prevented, the power of some party B over some party A is limited to being that of one of potentially many interest groups, competing for the limited attention and a place in the scarce memory of the people.

In order to assess the political economist's role in this light consider the debate on one of the key issues of public choice theory, the question of how to provide a (pure) public good. As is well-known, a free riding problem is involved here, and if the costs of provision exceed marginal willingness to pay for each individual, the public good will not be provided privately. The textbook solution to the problem is either that the members of the polity should be forced by a higher authority to participate in the provision of the public good or, where feasible, that an appropriate preference revealing mechanism should be implemented and enforced by higher authority (cf., e.g., Blümel, Pethig, and Hagen, 1986). However, can public choice theory really expect the invoked higher authority to be motivated to use its authority in the desired way? Suspecting that other motives may gain predominance the public choice theorist may feel challenged to go normative and to raise his/her voice in an attempt to press for the authority's proper performance.

In principle, then, the situation is not much different from that of the parties A and B above. The choices of a collection of individuals, party A, is contingent on the individuals' active knowledge. If the outcome of individual choices deviates from what would be collectively desirable, some agent or group of agent, party B, may try to modify the information basic to party A's decision making. By shifting attention using the above mentioned means, it may be possible to induce choices that allow a collectively desirable solution to be achieved. No longer surprisingly, the hypothesis suggested here is that the normative public choice theorist takes the role of agent B, perhaps supporting, or being supported by, political activists.

Note, however, that the individual benefit to party B was given above as the

prime aim of intervention, whereas now the aim is to achieve the collectively desirable solution. Since this is not, straightforwardly, consistent with the assumption of self-interested individual behavior which normally underlies public choice theory, some reflections on the motivation of the normative public choice theorist are necessary. The problem has very clearly been set out by Buchanan (1977b: 298):

Why should a single person make the investment of time and effort required in evaluating alternative proposals for constitutional change, in discussing these alternatives with his fellows, and in arranging for some means of collective choice among alternatives? It is easy to become extremely pessimistic about prospects for effective constitutional revolution when such questions are raised. But economists tend to overlook the interests of men that extend beyond the narrow confines of homo oeconomicus. Men who are excited by the grand design of the new constitutional order that is possible may, in fact, be willing to overcome the public-goods threshold noted above. That some men will do this may be admitted. But will these same persons be willing to design and to propose rules changes that are not aimed to further their own interests or those of their social group?

No doubt, in order to be successful in shaping public beliefs and opinions in a concrete constitutional or other issue of collective action, the effort demanded from the normative public choice theorist may be immense, possibly a life time of crusading and debating, and success may be highly uncertain; no doubt also only the most devoted and most skilled will have any significant chance of success and will therefore be inclined to specialize in this role, as was argued in the previous section. It may be that attributes like these tend to be associated with a kind of particular passion or unusual preference and certainly demand for a capacity to wait a long time before the efforts eventually become successful. But it is not necessary to presuppose an individual preference for the provision of a public good on the part of the normative public choice theorist. Crusading for collective action in order to overcome the "public-good threshold" may be no less compatible with self-interest than political action pursued by the politician according to the public choice perspective.

The solution, it is submitted here, is that the normative public choice theorist actually adopts part of the function of or, at least, prepares the ground for an agent of collective action. The intervention of such agents frequently plays a crucial role in history as has long been recognized (cf., e.g., North, 1971). If successful, they usually do get substantial rewards in terms of honor, power, and wealth. Thus, if successful, agents of collective action can *privately* internalize some of the benefits that accrue to the polity by achieving a collectively desirable solution through their activities. Even though the likelihood of suc-

cess may be small, the rewards the polity is ready to grant if collective action is achieved may be so extraordinary that the venture is tempting. To the extent that the normative political economist is involved here by effectively working on the information the polity processes, the same may hold true with respect to the explanation of his/her individual motivation.

5. The task to be achieved: Promoting constitutional change

The normative public choice theorist's role in the system, to which his/her suggestions and charges refer and within which (s)he tries to affect attentional processes by being persuasive, usually starts within some subcultural "conversation circles" (Hutter, 1986) as, e.g., academic or political ones. Within comparatively small groups like these, the cost-benefit ratio for agitative activities is more favorable than within larger groups: it is easier to attract attention, to persuade, and to gain support. (Moreover these circles are often influential in filling the positions from which a living can be made.) Since all members of such circles are also usually integrated into broader communication networks, the normative theoretician's ideas are more likely to be diffused further by the members of the original circle the more persuasive these ideas have been. This means that the normative political economist is more likely to be successful in shaping the views held within the polity the more his/her persuasive effort is transmitted and multiplied by a growing number of followers.

Obviously, a development like this is a complicated process with a vast number of historical causes and contingencies so that it can hardly be expected to be predictable. Moreover, it is not clear to which extent success in obtaining attention and in generating concern also means successfully changing choice behavior within the polity. It may be that political institutions are such that the growing concern has no effect unless it is somehow taken up by (self-interested) politicians in appropriate legislative or administrative activities. If this is the case, the role of the agent of collective action is, in fact, filled by a kind of division of tasks between two institutionally differing agents: the normative thinker and the political activist. Otherwise the public choice theorist will have to carry out both tasks implied by the role of the agent of collective action himself, if (s)he is really going to have an impact on the system referred to.

In order to give a more formal notion of what has to be achieved consider the simplest case in which the normative public choice theorist advocates the reform of a convention. Imagine a polity with members indexed $i = 1, \dots, n$ where all n members follow a behavior x in their interactions. Enter public choice theorists who, in academic discussions, identify an alternative behavior y which, if adopted by all individuals, leads to a Pareto-superior situation. In order to be more specific assume that interactions in the polity are pairwise,

one-shot interactions which take place at random. Furthermore, let individual i 's utility u_i obtained from an interaction with some agent $j \neq i$ depend on which kind of behavior is being met. If y is not simultaneously adopted by both interacting agents, the previous consensus on convention x is being paralysed. It is likely that this generates losses from insufficient coordination of interactions and, thus, a situation which is Pareto-inferior to the original one.

Hence suppose,

$$u_i(y_i y_j) \geq u_i(x_i x_j) \geq u_i(x_i y_j) \text{ and } u_i(y_i x_j) \quad (1)$$

for all $i = 1, \dots, n$ and the strict inequality being satisfied for at least one i . For simplicity assume $u_i(x_i y_j) = u_i(y_i x_j)$.

Once the new proposal has gained attention, each of the n members of the polity has the choice of either keeping to x or adopting y . Since the utility which member i can expect to realize by choosing y over x depends on what the interacting member j has decided, the relative share of members adopting y , given by $p(y) = 1 - p(x)$, plays a crucial role. Assuming that the u_i can be measured on a constant ratio scale we obtain for the expected values:

$$E(u_i(y) \mid p(y)) = p(y) u_i(y_i y_j) + (1 - p(y)) u_i(y_i x_j), \quad (2)$$

if behavior y is chosen and otherwise

$$E(u_i(x) \mid p(y)) = (1 - p(y)) u_i(x_i x_j) + p(y) u_i(x_i y_j). \quad (3)$$

If, for convenience, risk-neutrality is presupposed, utility maximization implies

$$E(u_i(y) \mid p(y)) - E(u_i(x) \mid p(y)) > 0 \quad (4)$$

as a necessary and sufficient condition for the individual adoption of the proposed new convention. Solving for p , y can be expected to be chosen with probability 0 by each member i as long as $p \leq p^*$ and with probability 1 otherwise, where

$$0 < p^* = (u_i(x_i x_j) - u_i(y_i x_j)) / (u_i(x_i x_j) + u_i(y_i y_j) - 2u_i(y_i x_j)) < 1/2 \quad (5)$$

Hence, even though convention y is Pareto-superior if chosen collectively, nobody would want to carry out the proposed switch from x to y unless a substantial share of members have already adopted y .

The threshold p^* represents a critical mass.⁶ It decreases as $u_i(y_i y_j)$ increases, however with decreasing rate. Once p^* is exceeded a discontinuity occurs:

everybody would now like to switch from x to y . The task of the agent of collective action is to organize arrangements, alliances, collusions, etc. so that the critical mass is exceeded. That is, the desire for and the belief in the ability to overcome all obstacles and in the ultimate success of the venture has to be induced by persistent, persuasive crusading so that a sufficient number of the members of the polity eventually expect $p(y)$ to take values such that (4) is satisfied. Once this has been achieved, the belief becomes a self-fulfilling one. Thus, in order to really affect something in the system to which the public choice theorist's suggestions for change refer more has to be done than figuring out and proposing a new and better mode of behaving collectively. A critical mass has to be brought about. The public choice theorist may feel inclined to go normative and to enter the sphere of political activism for to make sure that his/her plea for change does not remain unheard.

6. Conclusions

An attempt has been made in this paper to outline how the problem of self-reference, implicit in normative political economy and public choice theory, might be explicitly dealt with in an appropriately extended theory. For that purpose an approach has been suggested which starts by inquiring into the role of limited individual information processing capacity. Mediated by a network of communication channels, active knowledge evolves which informs the individuals' choices. The normative public choice theorist aims at influencing the individually, selectively processed, information. The intention, it is usually claimed, is to induce individual choices that allow a collectively preferred solution to be achieved as has been exemplified in Section 5 for the stylized situation of a simple coordination game.

It should finally be mentioned, however, that other aims may also be pursued. A different situation emerges, for instance, where the action which the normative political economist tries to induce is actually not to everyone's advantage or where, in order to yield Pareto-improvement, it would require complicated compensation arrangements unlikely to be realized. If, in such cases, some members of the polity may lose even though many, or possibly most, may gain from the normative theorist's activity, his/her affiliation with the political process, persuasion and crusading, etc. may then, perhaps unintentionally, end up as a matter of ordinary interest struggle, partisanship, and political power play. In order to deal with these cases, the theory of information processing outlined in this paper suggests that the polity allows for and even encourages competition of ideas and political argument.

Notes

1. A case in point is the Keynesian deficit-spending and demand management notion heavily criticized, e.g., by Buchanan and Wagner (1977). Similarly the idea of 'planning' economic welfare and growth has been continually attacked by Hayek (e.g., 1975, 1988).
2. Quite obviously, the hypothetical construction of constitutional choice being made behind a "veil of ignorance," which figures prominently in the contractarian analysis of constitutional problems, does not solve the problem. As emphasized recently by Vanberg and Buchanan (1989) this construction, as well as the partly competing notion of a constitutional dialogue which the authors bring into play, aims at providing criteria for judging the legitimacy of certain constitutional principles.
3. The seemingly paradoxical situation, alluded to above, of a theoretician trying to avert defective political developments by suggesting changes to political institutions that have fostered these developments is also met with where more concrete issues such as tax reform and the burden of public debt are discussed, see, e.g., Brennan and Buchanan (1980), in particular Chapter 10.
4. A similar problem has earlier been addressed by Gäfgen (1983) and Frey (1984).
5. For this reason, many ideologies and many forms of despotism try to discredit and/or suppress forms and sources of information other than the official and controlled ones. And for the same reason liberalism and the ideal of a democratic constitution strongly insist on the freedom of speech and on the individual right to choose the sources of information (Hayek, 1979).
6. For a nice summary of the formal properties cf. Wärneryd (1990: Ch. 1); a model with similar critical mass features has been used in a different context by Kuran (1989).

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