# SCIENCE AND SOCIAL RESPONSIBILITY THE '*BUREAUCRATIC WARS*' FROM PUBLIC CHOICE THEORY

## Mihai Ungureanu[*]

*National School of Political and Administrative Studies, 6 Povernei St., Bucharest 010643 Romania*

## Abstract

In this paper I address two issues: the first deals with the social scientists' social responsibility and the role of Social sciences in policy prescription; the second discusses the impact that Public Choice Theory's (PCT) research strategy and its policy prescriptions might have had on the weakening of the state. My strategy goes in four steps: first, I treat PCT as an instance of neoclassical economics imperialism in political science's traditional domain; second, I deal with the problem of the unrealisticness of assumptions and their role in the model world; third, I present a case from the '*war against the state*' theories, Niskanen's bureaucracy model; fourth I analyze this case and relate it to the problem of the social responsibility of political scientists. My central argument is that in the '*war against bureaucracy*' case, the conditions for policy prescriptions were not met. In cases like this, political scientists should profess their social responsibility and abstain from policy prescriptions.

*Keywords:* neoclassical economics, public choice theory, rationality, economics imperialism, uniformity assumptions

## 1. Introduction

A question we should answer, as scientists, is how much trust we should put in our scientific theories. An established answer is to trust those theories which survived to a long series of tests. We trust, for example, Newton's gravitational theory. We know when it works and when it doesn't. But what if testing is not costless? What if we cannot observe facts without high costs for us? What if experimental testing is not possible and available to us is only testing by using the theory? In order to underline the degree of trust one is willing to put in his statement, it is customable to ask an old question: "*would you put your life on it?*". So, as a social scientist, are you willing to put your life, your national economy, social order, welfare etc., on theories that cannot be experimentally tested? (Or that have not been experimentally tested even when such testing was possible). In this paper I argue that social theories have a great

---

[*] E-mail: mihai.ungureanu@snspa.ro, telephone/fax: 004 021 318 0858

social impact and that social scientists are socially responsible for their results. In this argument I use a case from the general class of state failure theories developed by public choice theory scholars, the case of bureaucratic inefficiency. These theories developed themselves into a veritable war against the state (bureaucracy, regulation and so on) fought by American republicans and British conservatives (and others). Regardless of what we think about this war (if it was a just war or not) we should acknowledge that the impact that social theories have had has been great. Starting from this idea, my main contention is that for policy use, a theory has to be experimentally tested or piloted in a way which can offer a good degree of trust in it. This conclusion is even more imperative in the case of theories which use lots of uniformity/negligibility assumptions.

## 2. Economics imperialism in political science

"*So Economics is an imperial science*" [1]. This is the verdict given, in 1984, by George Stigler, one of the most praised neoclassical economists. To have a broad picture of economics imperialism, it is, by now, a classic move to cite Robbins' definition of his discipline. Robbins wrote: "*Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses*" [2]. As Hirshleifer noted [3], this definition opened the door of Economics expansion into other disciplines traditional domains. Indeed, as Stigler [1] points out, through that door Economics entered, as an imperator, "*aggressive(ly) […] addressing central problems in a considerable number of neighboring social disciplines, and without any invitation*" [1, p.311]. Clarifying this broad picture, Mäki [4] defined economics imperialism as „*a form of economics expansionism where the new type of explanandum phenomena are located in territories that are occupied by disciplines other than economics, and where economics presents itself hegemonically as being in possession of superior theories and methods, thereby excluding rival theories and approaches from consideration*" [4, p.374]. From this, economics imperialism refers to the use of neoclassical economics methodology into the domain of other Social sciences, with the claim of superior performance. In principle, using neoclassical economics methodology means at least three things: a commitment to methodological individualism, a commitment to deductive reasoning and a commitment to the behavioural postulate of maximization. In addition, most of the neoclassical economics models have operationalized the maximization assumption in the form of homo economicus. If Economics is an imperial science, then it exported these three methodological core principles.

In the seminal paper cited above, Stigler [1] described four kinds of economics' imperial strikes: the economics of law, the new economic history, the economic analysis of social structure and behaviour, and the economic analysis of politics. Many important public choice scholars offered definitions of their discipline in terms of neoclassical economics methodology. Brennan and

Buchanan defined public choice theory "as the application of the method and analytic apparatus of modern economics to the study of political processes" [5]. Another statement of this idea could be found in Black [6]: "Political science and Economic science […] make use of the same language, the same mode of abstraction, the same instruments of thought and the same method of reasoning" [6]. Shugart and Razzolini wrote that: "Public choice is frequently defined as the application of economics to the study of politics" [7, p. xxii]. In this paper I will only discuss the Economics imperialism from Political science, public choice theory.

## 3. Assumptions and their truth

If public choice theory is neoclassical economics' imperial offspring into Political science's domain, then we should expect it to display the same virtues and weaknesses as the mother discipline. Here I will focus on the weaknesses. One of the main accusations was that many of the assumptions used in neoclassical (economics and politics) models were plainly false; therefore they could not be explanatory or predictive of the real world.

The (neo) classical answer to this issue is what now is being known as the *F-twist*. In 1953, Friedman wrote "*The methodology of positive economics*", one of the most cited methodological papers of economics methodology. Its main message was that the realisticness of assumptions is not an issue at all. *„The relevant question to ask about the 'assumptions' of a theory is not whether they are descriptively 'realistic', for they never are, but whether they are sufficiently good approximations for the purpose in hand. And this question can be answered only by seeing whether the theory works, which means whether it yields sufficiently accurate predictions*". [8] This position about the realisticness of assumptions was quickly adopted by many economists in defence of their work. If successful prediction was the only relevant test of a theory, then the entire criticism of the lack of realisticness off assumption was misguided and easily discarded.

Of course, the *F-twist* did not remain unchallenged. An important challenger to Friedman's [8] vision was the Musgrave-Maki-Hindriks typology of assumptions. Musgrave argued that not all assumptions are of the same type and that Friedman was wrong in not seeing this. Musgrave operated a distinction between three classes of assumptions: negligibility assumptions, domain assumptions and heuristic assumptions. Negligibility assumptions specify no-effect factors that could be unharmfully neglected (e.g. the no air-resistance assumption of Galilei's model). Domain assumptions specify the domain of a theory: "*What begins as a negligibility assumption, when it gets refuted, turns into a domain assumption*" [9, p. 381]. Heuristic assumptions, designates a two stage approach: *„in the first stage he takes no account of factor F, or assumes that it is negligible; in the second stage he takes account of it and says what difference it makes to his results*". [9, p. 382, 383]. Musgrave argued that these three types of assumptions *„had better be true*". If a factor *F* is not really

negligible then the theory would be false. If a domain assumption is always false then the theory containing it cannot be applied to any real situation. If a heuristic assumption is false, then its status is the same as that of a false negligibility assumption. Musgrave concluded that Friedman's thesis, "*the more unrealistic the assumption, the more significant a theory*" [8, p. 14] did not hold.

Mäki improved Musgrave's taxonomy of assumptions. First, he argued that Musgrave's formulation of negligibility assumptions exhibits only a detectability dimension and lacks the alleged negligibility dimension. Mäki maintains, though, Musgrave's conclusion: „*It is good for the theory – including its predictive abilities – if they (the negligibility assumptions) are true*" [10, p. 322]. Second, Mäki argues that Musgrave's domain assumptions need a meta-statement about the actual domain of applicability. Musgrave's example of domain assumption „*The government has a balanced budget*" is not sufficient to determine the appropriate domain of the theory. It needs a meta-statement in the form of '*the theory applies where budget imbalance is absent*'. Finally, Mäki relabelled Musgrave's heuristic assumptions as early step assumptions. As domain assumptions, early step assumptions must be supplemented with a meta-statement, or a promise, that the first assumptions will be later relaxed. So we will have the same statement about reality and a meta-statement that the first statement „*is an element in an early formulation of the theory and will be removed as the theory is developed*" [10, p. 326]. Mäki critically argued that even though the first two kinds of assumptions „*had better be true*", in the case of early step assumptions, Musgrave's conclusion does not hold. This is because the falsity can be removed later only if it is a falsity to be removed in the first form of the model.

Hindriks [11-13] amended the Musgrave-Mäki typology of assumptions. The first step is to generalize Mäki's [10] distinction between assumptions and meta-assumptions, and relabel it as a first order – second order typology of assumptions. A first order assumption, in Hidriks' terms, states „*the absence or lack of effect of some factor F*" [12, p. 407]. A second order assumption „*explicates the purpose for which or the reason why an* (a first order) *assumption is imposed.*" [12, p. 407]. From this, Hindriks defines negligibility assumptions as meta-statements in the form of: "*The factor F mentioned in first-order assumption A has a negligible effect on the phenomenon under investigation relative to the purpose for which the theory is used*" [12, p. 407]. So we now have a first order assumption defined in a rather restrained form and three second order assumptions. The second step of Hindriks' approach is to replace Musgrave's heuristic assumptions and Mäki's early step assumptions with the new class of tractability assumptions: „*Tractability is a matter of solubility or of the efficiency of a solution. [...] A problem is more tractable with a certain assumption than without it if it can be solved more easily or efficiently in that case*". [11, p. 392]. Hindriks's conclusion is that the *F-twist* must be untwisted in the case of negligibility and applicability assumptions but not in the case of tractability assumptions, which are, by definition, forced falsities and cannot be true.

From the above considerations, the use of unrealistic assumptions is legitimate only if they are true a*) negligibility assumptions, b*) domain/applicability assumptions; or if they are (false by definition) c*) tractability assumptions or d*) early step assumptions. There are though some problems with these allegations. First, the scientific practice usually lacks explicit (Maki-Hindriks) second order assumptions. This leaves us with á la Musgrave guessing about assumptions' role in the model world. Second the Musgrave-Maki-Hindriks typology seems to allow only single minded assumptions (i.e. having a single role in the model world). In fact an assumption could have more than one role in the model world. For example we could employ an assumption for tractability reasons but in the same time, the same assumption could have a negligibility role. Third assumptions could have a uniformity effect in the model world. This effect is usually useful for tractability reasons. From the two later points, for example, a sentence like '*bureaucrats are budget maximizers*' is in fact a uniformity/negligibility assumption made for tractability reasons that could be read as '*all behavioural alternatives, other than budget maximizing, could be neglected*'. If this is correct, then not all assumptions made for tractability reasons are permitted to be false. If they imply the neglecting of a factor, then they have to be true in the same way pure negligibility assumptions have to be. So what we need is a modified c**) clause, one that takes into account the above argument.

The discussion about the permitted falsity of assumptions is important in the following sense: first, it introduces a procedural way of looking at assumptions; second, it offers a new way of analyzing neoclassical economics methodology. I will focus here on the second problem. As I mentioned in the first section of this paper, in the core of the neoclassical economics methodology we find at least three methodological constants: methodological individualism, a commitment to deductive reasoning and a commitment to the behavioural postulate of maximization. As Cartwright [14] argued, the main problem of economics methodology is that deductivity was achieved by simplifying unrealistic structural and behavioural assumptions. Public choice theory is no exception to this rule. The use of unrealistic behavioural and structural assumptions is pervasive. In what follows, I discuss the problem of a case of what I called '*war against the state*' theories, the problem of inefficiency of bureaucracy models. I argue that the assumptions used in these models violate the a), b), c**), d) clauses above stated.

## 4. The case of *war against the state* theories: bureaucracy and inefficiency

From the sixth decade of the 20$^{th}$ century, PCT scholars have been producing an impressive number of theories about government failure. The government size theories, the inefficiency of bureaucracy theories, the rent seeking theories etc. were all about how governments fail and how market-like institutions will solve the alleged problems. In this section I will deal only with the inefficiency of bureaucracy theories.

The discussion about bureaucracy usually starts with Max Weber's *Economy and Society,* the first systematic study of bureaucracy and the representative of the classic view on bureaucracy. According to Weber [15] a bureaucratic organization is a rational-functional organization, a rule-based organization, a hierarchical organization, a permanent organization, a competitive job offerer, and a meritocratic organization. M. Ungureanu and D. Iancu offered a longer discussion about these attributes [16]. Grouped together, these attributes lead to the two most important characteristics of Weberian bureaucracy, efficiency and impartiality. These two characteristics were repeatedly attacked by public choice scholars.

Public choice theory accused Weber (and other historical institutionalists) of being atheoretical, descriptive and optimistic. The public choice of bureaucratic organization began with the work of Downs whose objective was to "*describe a bureaucratic decision making aimed at achieving [...] predictability*" [17]. This theory is founded on the assumption that "*bureaucratic officials, like all other agents in society, [...] are utility maximizers*" [17, p. 441] "*motivated by their own self-interest*" [17] The homo economicus assumption above quoted is, according to Downs [17, p. 442], true no matter the institutional settings (democratic, totalitarian, monarchical and so on). From this, Downs formulated several hypotheses which I won't review here. In the same year (1965), Tullock published *The politics of bureaucracy* [18]. Starting from Downs's [17] premises, Tullock argued that the incentives for efficiency are lower in public organizations (than in private ones). The reason for this result resides (partly) in the limited salaries of the top management positions in public bureaucracies, and (partly) in the difficulty in measuring bureaus' output. Downs [17] and Tullock [18] represented a first stage of public choice research in the field of bureaucratic organizations. The next, and the most important one, was taken by the budget maximizing model and the Leviathan model. Brennan and Buchanan described a fused monopolist of power formed by politicians and bureaus [19]. This monolithic monopolist exploits its power over the citizens mostly because of the rational ignorance of voters, the uncertainties owed to majority rule cycling and collusion among politicians [19, p. 17-24]. Here, I focus on the budget maximizing model.

The budget maximizing model was introduced by Niskanen in [20-22]. In what follows I break Niskanen's model into pieces, namely a mixture of the original [20] and models [21] and the later model [22]. This procedure will facilitate the analysis in the next section.

### 4.1. Behavioural assumptions

a1) the behavioural (formal) assumption: "*every agent of the model maximizes utility"* [21, p. 36];
a2) the behavioural (operationalized) assumption: every agent of the model "*maximize(s) his personal utility*" [21, p. 36-37]. This is equivalent to employing the neoclassical homo economicus assumption.

a3)  the behavioural (further operationalized) assumption: bureaucrats maximize the budget [21, p. 38-41] politicians maximize votes [22];

a4)  additional 'motivational' assumption: "*bureaucrats maximize the total budget of their bureau […] subject to the constraint that the budget must be equal or greater than the minimum total costs of supplying the output expected by the bureau's sponsor*" [21, p. 42]

### 4.2. The bilateral monopoly assumption

"*This bureau supplies one service, which is exchanged with a single sponsor for one budget*" [21, p. 45].

b1)  the monopsony assumption: "*[…] bureaus are financed by a single or dominant collective organization*" [21, p. 24];

b2)  the monopoly assumption: "*the sponsoring organization is usually dependent on a specific bureau to supply a given service*" [21, p. 24].

### 4.3. The bargaining power assumptions

c1)  the informational asymmetry assumption: the bureau chief knows more than the sponsor about the real level of the needed budget [22];

c2)  the default assumption: the bargaining situation is of the "take it or leave it type".

### 4.4. Less visible assumptions

d1)  the one item supply-demand assumption: "*A bureau offers a promised set of activities and the expected output(s) of these activities for a budget*" [21, p. 25];

d2)  the control assumption: the sponsor "*approve(s) the appointment of the bureau head*" [21, p. 24].

### 4.5. Hidden (implied but not specified) assumptions

e1)  the independence assumption: there is no collusion between the bureau chief and the sponsor;

e2)  the homogenous structure assumption: all bureaus have the same structure;

e3)  the no society assumption: there are no direct or indirect social and political relations between the bureau chief and the sponsor;

e4)  the monolithic actor assumption: both the sponsor and the bureau chief are treated like unitary actors.

e5)  the no free rider assumption: bureaucrats evade collective goods problems. They are able to act in their interest (budget maximizing)

From these assumptions, Niskanen derives his five well-known hypotheses: h1: '*the overspending hypotheses*', h2: '*the production inefficiency hypothesis*', h3: '*the oversupply hypotheses*', h4: '*the overcapitalization*

*hypotheses*', h5: '*the bureaucratic structure hypothesis*' [22]. Summing these hypotheses, bureaucratic production is inefficient.

## 5. Realisticness of assumptions in Niskanen's model

In the second section of this paper I argued that the use of maximization assumptions and any other assumptions is legitimate only in they fulfil the a*), b*), c**), d*) clauses. My first step here is to discuss Niskanen's assumptions role in the model world. The first obvious effect of all of these assumptions is their uniformity effect. All agents are the same (a1-a4, e4)), all bureaus are the same (e2), all bureaus and all sponsors are in the same relation with each other (b1, b2, c1, c2, d1, d2, e1, e3). The result is a uniform, mathematically tractable model world. This uniformity is achieved though by neglecting many different factors. The behavioural assumptions a1-a4 could be translated as: *any factor other than budget maximizing can be neglected*. The bilateral monopoly assumption could be translated as '*any other sellers or buyers of public services are to be neglected*'. The bargaining power assumptions may be translated as: '*the sponsor has no alternative sources of information about the bureau's real budget*" and „*any alternative default possibility may be neglected*'. In the same way, the other assumptions could be translated as: '*there are no intra-actors divisions*' (e4), '*there are no social networks*' (e3), '*any collusion between sponsor and the bureau chief may be neglected*' (e1) and so on. As it is easy to notice, uniformity (for tractability reasons) is achieved at the expense of lots of neglected factors. In the second section of this paper I argued that uniformity/negligibility assumptions „*had better be true*". Unfortunately for Niskanen's model, some of its assumptions violate not only the '*whole truth*' clause but the '*nothing but the truth*' clause also.

First of all, the maximization assumption (formal definition) was vigorously criticized by Tversky and Kahneman [23, 24]. From the experiments they organized (and later on from behavioural economics research) people rarely maximize. Second, the behavioural/motivational assumptions are late manifestations of what, in organizational studies, was called scientific/ mechanical management, as in [25] where Pollitt proposed the label 'Neo-Taylorism'. Of course, people are interested in material benefits; but completely neglecting, for example, intrinsic motivations, organizational culture and so on, is a liability of any model of organizational behaviour [26-28]. Moreover, in [29] Dunleavy argues that the bureaus' uniformity assumption doesn't hold. He identifies several different kinds of bureaucratic organizations and this is contrary to Niskanen's assumption. Another problem is with the '*no free rider*' assumption. This assumption denies one of the most cited (and tested) results of public choice theory, that in the presence of public and common goods (ceteris paribus) we should expect free riding behaviours. Starting from these observations, the difficulty in testing Niskanen's theory and the false negligibility/uniformity assumptions are enough warnings, if not to reject the theory, at least to induce caution in policy prescription.

## 6. Conclusions: Science and social responsibility

Niskanen's (and other PCT scholars) conclusions were converted by politicians into a real war against bureaucracy. As Peters and Savoie noted: „*the political leadership that came into office in the 1980s in many Anglo-American style democracies sought to perform radical surgery on the civil service. [...] The(ir) rhetoric [...] took of full flight when speaking about the civil service. [...] the civil service was found lacking on two fronts: it lacked the ability to concentrate on clients and manage operations efficiently and to provide sound and unbiased policy advice.*" [30]. Indeed, these accusations transformed themselves into what was called '*the civil service reform*'. This reform consisted in drastically reducing civil service, starting the turnaround management process and the politicization of civil service. No matter what we think about the consequences of the '*war against bureaucracy*' (if they were good or bad), what can be acknowledged is that a) it had great social impact and b) its roots began from public choice theory research.

So turning back to the first question of this paper, how much trust we should put in a theory when its results depends on lots of unrealistic assumptions that '*had better be true*'? An answer for this question could be derived from a comparison with a natural science, Seismology. Lay and Wallace defined the goal of their discipline: "*One of the most important societal goals of seismologists is the prediction of earthquakes*" [31]. Predictions are not, though, valuable in themselves. They are „*inherently a social exercise, and it is important not to couch predictions as a purely scientific endeavor. Consider the social consequences of any prediction: it may lead to reduction in property value, business losses, and general economic depression. This puts extraordinary pressure on the seismologist to be correct in a field that is intrinsically imprecise, but it also focuses attention on the social importance of seismology.*" [31]. So, Seismology has social consequences and seismologists should be socially responsible. My contention is that so should the political scientists be. As Seismology, Political science's predictions are not just scientific practice. They also are '*inherently a social exercise*'. They '*may lead to reduction in property value, business losses, general economic depression*', and even at hot and cold wars.

The war against bureaucracy was nested in PCT laboratories and fought mainly by neoliberal/conservative governments. It resulted, as Peters and Savoie noted, [30] in politicization, in lowering of the morale of the civil servants, in reducing the policy advisory role of the bureaucracy and in a reduction of the capacity of the state to cope with complex problems. This effect was magnified in the last years by the incapacity of the states to deal with the global economic crisis. All these events advise us to be aware of our research's social impact.

# References

[1]  G. Stigler, The Scandinavian Journal of Economics, **86** (1984) 301.
[2]  L. Robbins, *An Essay on the Nature and Significance of Economic Science*, 2nd edn., Macmillan, London, 1935, 16.
[3]  J. Hirshleifer, The American Economic Review, **75** (1985) 53.
[4]  U. Mäki, Philosophy of the Social Sciences, **39** (2009) 351.
[5]  G. Brennan and J.M. Buchanan, *The Collected Works of James M. Buchanan volume 10 - The Reason of Rules: Constitutional Political Economy*. Liberty Fund, Inc edition, Indianapolis, 2000, 185.
[6]  D. Black, *The Unity of Political and Economic Science*, in *The Theory of Committees and Elections and Committee Decisions with Complementary Valuation,* I. McLean, A. McMillan and B. Monroe (eds.), Kluwer Academic Publishers, Dordrecht, 1998, 354.
[7]  W.F. Shughart II and L. Razzolini, *The Elgar Companion to Public Choice*, Edward Elgar, Bodmin, Cornwall, 2001, xxii.
[8]  M. Friedman, *The Methodology of Positive Economics*, in *Essays In Positive Economics,* M. Friedman (ed.), University of Chicago Press, Chicago, 1966, 15.
[9]  A. Musgrave, Kyklos, **34(3)** (1981) 377.
[10] U. Mäki, Kyklos, **53(3)** (2000) 317.
[11] F. Hindriks, Journal of Economic Methodology **12(3)** (2005) 383.
[12] F. Hindriks, Journal of Economic Methodology, **13(4)** (2006) 401.
[13] F. Hindriks, Philosophy of the Social Sciences, **38** (2008) 334.
[14] N. Cartwright, *The Vanity of Rigour in Economics: Theoretical Models and Galilean Experiments'* in *The Experiment in the History of Economics*, P. Fontaine, R. Leonard (eds.), Routledge, New York, 2005, 119.
[15] M. Weber, *Economy and Society: an outline of interpretive Sociology*, University of California Press, Berkely, 1978, 1643, 956-1005.
[16] M. Ungureanu and D. Iancu, Research in Social Change, **2(2)** (2011) 65.
[17] A. Downs, The American Economic Review, **55(1/2)** (1965) 439.
[18] G. Tullock, *The politics of bureaucracy*, Public Affairs Press, Washington DC, 1965.
[19] G. Brennan and J. Buchanan, *The Power to Tax: Analytical Foundations of a Fiscal Constitution*, Cambridge University Press, Cambridge, 1980.
[20] W.A. Niskanen, The American Economic Review, **58(2)** (1968) 293.
[21] W.A. Niskanen, *Bureaucracy and Representative Government*, Aldine-Atherton, Chicago, 1971.
[22] W.A. Niskanen, Journal of Law and Economics, **18(3)** (1975) 617.
[23] D. Kahneman, A. Tversky, Econometrica, **47** (1979) 263.
[24] D. Kahneman and A. Tversky, The Journal of Business, **59(4)** (1986) S251.
[25] C.Pollitt, *Managerialism and the Public Services: The Anglo-American Experience*. Basil Blackwell, London, 1985.
[26] B. Staw and G. Salancik (eds.), *New Directions in Organizational Behavior*, St. Clair Press, Chicago, 1977.
[27] J. Ross, Journal of Personality and Social Psychology, **32** (1975) 245.
[28] E. Deci*, Intrinsic Motivation*, Plenum, New York, 1975.
[29] P. Dunleavy, British Journal of Political Science, **15(3)** (1985) 299.
[30] G. Peters and D. Savoie, Public Administration Review, **54(5)** (1994) 418.
[31] L. Thorne and T. Wallace, *Modern Global Seismology*, Academic Press, San Diego, 1995, 483.