What Is Neoclassical Economics? The three axioms responsible for its theoretical oeuvre, practical irrelevance and, thus, discursive power*

Christian Arnsperger and Yanis Varoufakis*

Summary: This paper offers a precise definition of neoclassical economics based on three axioms which lie at the latter's foundations. This definition is all inclusive in that it applies as much to the neoclassical economic models of the late 19th century as it does to today's more flexible and 'inclusive' models. The paper argues that these axioms, simultaneously, (a) provide the foundation for neoclassicism's discursive success within the social sciences and (b) are the deep cause of its theoretical failure. Moreover, (a) and (b) reinforce one another as neoclassicism's discursive power (which is largely due to the hidden nature of its three foundational axioms) makes it *even less likely* that it will conduct an open, pluralist debate on its theoretical foundations (i.e. the three axioms which underpin it).

Key words: Neoclassical economics, Methodological individualism, Methodological instrumentalism, Methodological equilibration.

JEL classification: A11, A14, B13, B41

1. Introduction

There is nothing more frustrating for critics of neoclassical economics than the argument that neoclassical economics is a figment of their imagination; that, simply, there is scientific economics and there is speculative hand-waiving (by those who have never really grasped the finer points of mainstream economic theory). In this sense, neoclassicism resembles racism: while ever present and dominant, no one claims to be guided by it. Critics must find a clear definition of neoclassicism if only in order to liberate neoclassical economists from the temp-

* The paper is republished from Post-autistic Economics Review, issue No. 38, with the author's permission.

^{*} University of Louvain, Belgium; E-mail: arnsperger@etes.ucl.ac.be (Christian Arnsperger), University of Athens, Greece; E-mail: yanisv@econ.uoa.gr (Yanis Varoufakis)

tation to barricade themselves behind infantile arguments viz. the non-existence of their school of thought. Then, the good debate may begin.

In this chapter, we offer a definition of neoclassical economics which turns on three crucial axioms and which, in conjunction with one another, as we shall claim, underpin *all* (and *only*) neoclassical theory. Later, we argue that these very axioms are simultaneously responsible for: (a) the difficulty mainstream economics faces when it comes to illuminating economic and social reality, and (b) the discursive success of neoclassical economics which gives it an effective (politically driven) stranglehold over alternative modes of economic reasoning.

We think our definition of neoclassical economics is important because critics are often caught off-guard by sophisticated neoclassicists (see Dasgupta, 2002) who take advantage of gaps in existing definitions in order to turn criticisms on their head. In short, the critique of neoclassical economics is bound to be as effective as sophisticated is its definition of the opposition. For instance, criticism that neoclassical economics necessarily posits hyper-rational bargain-hunters, never able to resist an act which brings them the tiniest increase in expected net returns, is apt but not telling. There are plenty of neoclassical models featuring boundedly rational agents; even utterly irrational ones (e.g. evolutionary game theory; for a critical review in the spirit of this chapter, see Hargreaves-Heap and Varoufakis, 2004). Similarly with criticism focussed on 'neoclassical features' like market-clearing, *selfish* individualism or Pareto optimality. None of these cut ice because, though these features are usually present in neoclassical modelling, they are not *necessary* features of some neoclassical model.

Thus, as long as critics' slings and arrows are directed against features of neoclassical economics that the latter can shed strategically, like a threatened lizard 'loses' its tail, they shall miss their target. Nevertheless, we do believe that there are at least three features of neoclassical economics that cannot be so shed; and, therefore, if the critics concentrate on them they shall, at the very least, force neoclassicists to engage in a fruitful dialogue. The single most promising prize from such a development ought to be the clarification of the origin and nature of the greatest paradox in social science: that *mainstream economics is as dominant as it is unappetising* (even to some of its own practitioners).

In this sense, our axiomatic definition of neoclassicism, rather than being an idle methodological exercise, aims at exposing the root-cause of mainstream economics' failure to say much that is helpful about the contemporary economic world. And it throws useful light on the reasons why such failure, instead of weakening neoclassicism, has reinforced its hold over the imagination of both

¹ See Aspromourgos, 1986, for a history of the term 'neoclassical economics'.

the elites and the public at large. However, this is a longer argument which we shall only touch upon here (see Arnsperger and Varoufakis, 2005, for more).

Once upon a time, it could be argued that neoclassical economics is typified by a familiar melange of theoretical practices: positing an equilibrium in the labour market, the habitual recourse to Say's Law, the assumption that the interest rate will adjust automatically so as to equalise investment and savings, the depiction of capitalist growth *a la* Robert Solow and company, the imposition of Cobb-Doublas or CES production and utility functions etc. Nowadays, any attempt to define neoclassicism by reference to these practices is music to the neoclassical ear: For there is an endless list of mainstream models which distance themselves from some, if not all, of the above. One of two conclusions appear in front of us: Either the mainstream has moved on from neoclassicism (as neoclassical economists claim) or the definition of neoclassicism needs to be re-thought and abstracted from a list of neoclassical practices like the one above. We choose and latter. So, the remainder of this chapter concentrates primarily on the three axioms which we think lie at the heart of neoclassical economic theory, old and new alike.

2. The first axiom of neoclassical economics: methodological individualism

Unsophisticated critics often identify economic neoclassicism with models in which all agents are perfectly informed. Or fully instrumentally rational. Or excruciatingly selfish. Defining neoclassicism in this manner would perhaps be apt in the 1950s but, nowadays, it leaves almost all of modern neoclassical theory out of the definition, therefore strengthening the mainstream's rejoinders. Indeed, the last thirty years of neoclassical economics have been marked by an explosion of models in which economic actors are imperfectly informed, some times other-regarding, frequently irrational (or boundedly rational, as the current jargon would have it) etc. In short, *Homo Economicus* has evolved to resemble us more.

None of these brilliant theoretical advances have, however, dislodged the neoclassical vessel from its methodological anchorage. Neoclassical theory retains its roots firmly within liberal individualist social science. The method is still unbendingly of the analytic-synthetic type: the socio-economic phenomenon under scrutiny is to be analysed by focusing on the individuals whose actions brought it about; understanding *fully* their 'workings' *at the individual level*; and, finally, synthesising the knowledge derived at the individual level in order to understand the complex social phenomenon at hand. In short, neoclassical theory follows the watchmaker's method who, faced with a strange watch, studies its function by focusing on understanding, initially, the function of each of its

cogs and wheels. To the neoclassical economist, the latter are the individual agents who are to be studied, like the watchmaker' cogs and wheels, independently of the social whole their actions help bring about.

So, the first feature of the 'body of theory' we think of as neoclassical is its *methodological individualism*: the idea that socio-economic explanation must be sought at the level of the individual agent. Note two things: First, this was not the method of classical economists like Adam Smith and David Ricardo. Or, indeed, of Keynes. Or Hayek. Secondly, this proclivity is fully in tune with the mid-19th Century angloceltic liberal individualism (though the opposite does not hold) as it imposes axiomatically a strict separation of structure from agency, insisting that socio-economic explanation, at any point in time, must move from agency to structure, with the latter being understood as the crystallisation of agents' past acts. We shall argue later that this strict separation is central in not only defining but also undermining the most recent claims of neoclassicism.

It is, we think, indisputable that all the new manifestations of what we term neoclassicism still subscribe to methodological individualism. While it is true that mainstream economists have, during the last few decades, acknowledged that the agent is a creature of her social context, and thus that social structure and individual agency are messily intertwined, their models retain the distinction and place the burden of explanation on the individual. Individual worker effort is nowadays often modelled as a function of sectoral unemployment (e.g. efficiency wage models), and the firms' micro-strategies reflect the macroeconomic environment. Nevertheless, and despite these interesting linkages between the micro-agent and the macro-phenomenon, the explanatory trajectory remains one that begins from the agent and maps, unidirectionally, onto the social structure.

3. The second axiom of neoclassical economics: methodological instrumentalism

We label the second feature of neoclassical economics *methodological instru-mentalism*: all behaviour is preference-driven or, more precisely, it is to be understood as a means for maximising preference-satisfaction.² Preference is given, current, fully determining, and strictly separate from both belief (which simply helps the agent predict uncertain future outcomes) and from the means employed. Everything we do and say is instrumental to preference-satisfaction so much so that there is no longer any philosophical room for questioning whether the agent will act on her preferences. In effect, neoclassical theory is a

² Not to be confused with actual, psychological satisfaction. In this sense, homo economicus may maximise his preference satisfaction while feeling suicidal.

narrow version of consequentialism in which the only consequence that matters is the extent to which an homogeneous index of preference-satisfaction is maximised.³

Methodological instrumentalism's roots are traceable in David Hume's Treatise of Human Nature (1739/40) in which the Scottish philosopher famously divided the human decision making process in three distinct modules: Passions. Belief and Reason. Passions provide the destination, Reason slavishly steers a course that attempts to get us there, drawing upon a given set of Beliefs regarding the external constraints and the likely consequences of alternative actions. It is not difficult to see the lineage with standard microeconomics: the person is defined as a bundle of preferences, her beliefs reduce to a set of subjective probability density functions, which help convert her preferences into expected utilities, and, lastly, her Reason is the cold-hearted optimiser whose authority does not extend beyond maximising these uilities. However, it is a mistake to think that Hume would have approved. For his Passions are too unruly to fit neatly in some ordinal or expected utility function. It took the combined efforts of Jeremy Bentham and the late 19th Century neoclassicists to tame the Passions sufficiently before they could initially be reduced to a unidimensional index of pleasure before turning into smooth, double differentiable utility functions.

During the tumultuous 20th Century, neoclassicists invested greatly in bleaching all psychology out of the rational agent's decision making process. All hints of a philosophical discussion regarding the rationality of *homo economicus* were thus removed. People could, and 'should', be modelled *as if* they possessed consistent preferences which guide their behaviour automatically. The question of whether all rational women and men are condemned to maximise some utility function all the time became...nonsensical. Thus, instrumentalism lost its connection to the philosophies of Hume, Bentham or Mill and became a technical move that economists made instinctively with the same nonchalance as that of an accomplished artist preparing his oils and canvass before getting down to business.

However, it is false to claim that this state of affairs, even though ubiquitous in economics departments the world over, is *essential* for neoclassical economics. The first signs that it need not be came with the literature on endogenous preferences. Neoclassical economists increasingly sought to distance themselves from the assumption that preferences are fixed and exogenous. During the

³ Once upon a time, we could have instead talked of *methodological rationalism* as the dominant narrative centred on agents acting rationally. But since ordinal utilitarianism took over, there is no sense in narrating behaviour in terms of agents acting rationally. Instead, rationality is reduced to the consistency of one's preference ordering which, by definition, determines that which agents will do.

past twenty five years or so, *homo economicus* has developed a capacity to adapt his preferences in response to past outcomes (see Bowles, 1998). However, while the assumption that current preferences are exogenous was dropped, they remained fully determining. Thus, instrumentalism was preserved albeit in a dynamic context.

A more recent development has taken neoclassicism, and *homo economicus*, onto higher levels of sophistication. The advent of psychological game theory (see Rabin, 1993, and Hargreaves-Heap and Varoufakis, 2004, Ch. 7) has brought on a reconsideration of the standard assumption that agents' current preferences are separate from the structure of the interaction in which they are involved. Suddenly, what one wants hinged on what she thought others expected she would do. And when these second order beliefs (her beliefs about the expectations of others) came to depend on the social structure in which the decision is embedded, the agent's very preferences could not be linked just with outcomes: they depended on the structure and history of the interaction as well.

In view of the above, there is no future in criticisms of neoclassicism based on the charge that the latter must take for granted preferences which are either exogenous or independent of the agents' socio-economic relationships. Critics toeing that line will be met with the scornful rejoinder that they criticise out of ignorance. However, our point that neoclassicism is still rooted in methodological instrumentalism cannot be so dismissed. For even in the latest reincarnation provided by endogenous preferences and psychological game theory, *homo economicus* is still exclusively motivated by a fierce means-ends instrumentalism. He may have difficulty defining his ends, without firm beliefs of what means others expect him to deploy, but he remains irreversibly ends-driven.

4. The third axiom of neoclassical economics: methodological equilibration

The third feature of neoclassical economics is, on our account, the *axiomatic imposition of equilibrium*. The point here is that, even after methodological individualism turned into methodological instrumentalism, prediction at the macro (or social) level was seldom forthcoming. Determinacy required something more: it required that agents' instrumental behaviour is coordinated in a manner that aggregate behaviour becomes sufficiently regular to give rise to solid predictions. Thus, neoclassical theoretical exercises begin by postulating the agents' utility functions, specifying their constraints, and stating their 'information' or 'belief'. Then, and here is the crux, they pose the standard question: "What behaviour should we expect *in equilibrium*?" The question of whether an equilibrium is likely, let alone probable, or how it might materialise, is treated as an optional extra; one that is never central to the neoclassical project.

The reason for the axiomatic imposition of equilibrium is simple: *it could not be otherwise*! By this we mean that neoclassicism cannot demonstrate that equilibrium would emerge as a natural consequence of agents' instrumentally rational choices. Thus, the second best methodological alternative for the neoclassical theorist is to *presume* that behaviour hovers around some analytically-discovered equilibrium and then ask questions on the likelihood that, once at that equilibrium, the 'system' has a propensity to stick around or drift away (what is known as 'stability analysis').

It is quite remarkable that the above has been with us since the very beginning. When A.A. Cournot constructed the first model of (oligopolistic) competition in 1838, he immediately noticed a lacuna in his explanation regarding the emergence of an equilibrium. Rather cunningly, instead of discussing this difficulty, he studied what happens when we begin from that equilibrium. Would the system have a tendency to move away from it or was the equilibrium stable? The proof of its stability secured his place in the pantheon of economic theory. Moreover, it established this interesting practice: First, one discovers an equilibrium. Second, one assumes (axiomatically) that agents (or their behaviour) will find themselves at that equilibrium. Lastly, one demonstrates that, once at that equilibrium, any small perturbations are incapable of creating centrifugal forces able to dislodge self-interested behaviour from the discovered equilibrium. This three-step theoretical move is tantamount to what we, here, describe as *methodological equilibration*.

Note that *methodological equilibration* is equivalent to avoiding (axiomatically) what ought to be the behaviourist's central question: <u>Will rational agents behave according to the theory's equilibrium prediction</u>? Instead, the question becomes: <u>If rational agents are behaving according to the theory's equilibrium prediction</u>, will they have cause to stop doing so? Note also that methodological equilibration has remained intact since 1838 and Cournot's first use of it. To see this, consider the two great success stories to have come out of neoclassical economics since WW2: General Equilibrium Theory and Game Theory. In neither case does the equilibrium solution spring naturally from the models' assumptions.

In *General Equilibrium Theory* its best practitioners state it quite categorically: convergence to some general equilibrium can only be proven in highly restrictive special cases. More generally, it is not just *difficult* to demonstrate that a system of theoretical markets will generate an equilibrium in each market, on the basis of rational acts on behalf of buyers and sellers; rather, it is *impossible*! (See Mantel, 1973, and Sonnenschein, 1973,1974.) In *Game Theory* the same result obtains: in the most interesting socio-economic interactions (or games) common knowledge that all players are instrumentally rational seldom

yields one of the interaction's Nash equilibria. Something more is required to bring on an equilibrium. That something comes in the form of an axiom that the beliefs of all players are *consistently aligned at each stage of every game* (see Hargreaves-Heap and Varoufakis, 2004, Chapters 2&3). This assumption is, of course, yet another reincarnation of *methodological equilibration*: for once we *assume* that agents' beliefs are systematically and consistently aligned, they are *assumed* to be in a state of (Nash) equilibrium. Yet again, equilibrium is imposed axiomatically before stability analysis can test its susceptibility to perturbations. Cournot's spirit lives on...

5. Three axioms, one neoclassical economics

It is hard to imagine how any standardly trained economist could deny that her theoretical practices digress from the three methodological moves mentioned above: *Methodological individualism, methodological instrumentalism and methodological equilibration*. For simplicity we shall henceforth refer to them as *the neoclassical meta-axioms*. Whether it is general equilibrium theory, evolutionary game theory, non-Walrasian equilibrium theory, social choice theory, industrial economics, economic geography, new political economy, analytical Marxism, public choice economics etc., all mainstream approaches in these fields remain loyal to the three meta-axioms above.

In fact, the meta-axioms are beginning to develop much closer, almost symbiotic, links with one another than was the case until fairly recently. Take for instance, the attempts by psychological game theorists to create a sophisticated model of men and women, capable of drawing utility not only from socioeconomic outcomes but also from the means that bring them about. When homo *economicus* learns that the ends do not necessarily justify the means, he develops a welcome capacity to ponder, prior to acting, what others expect of him so that he can decide how much he values the various alternative outcomes.

For example, when deciding on whether to act bravely in defence of someone in need, his second order beliefs (i.e. his beliefs regarding what others expect of him) influence his estimate of the (psychological) cost of acting selfishly. To put it simply, his utility function cannot be defined independently of (a) the *structure* of the strategic interaction and (b) the beliefs that all participants would have *in equilibrium*. In this sense, *methodological equilibration* is no longer <u>prior</u> to *methodological instrumentalism* (as is the case in standard consumer or game theory): the axiomatic imposition of equilibrium is not only necessary in order to predict the interaction's outcome but it is also essential in order to define the instrumentally rational agents' preferences! (See Hargreaves-Heap and Varoufakis, 2004, Ch. 7 and Fehr and Gächter, 2000)

It is, therefore, uncontroversial to state that every aggregate phenomenon scrutinised by neoclassical minds is explained increasingly and exclusively as some axiomatically imposed equilibrium emerging from the interaction of instrumentally rational individuals who are either optimising consciously (as in rational choice or game theory) or are drawn to such behaviour through a process of 'natural selection' (as in, for instance, evolutionary game theory). The bottom line, then, is clear: despite all denials, there is such a thing as a body of social theory that subscribes to the three meta-axioms above and which we can legitimately, for want of a better term, label *neoclassical*.

At this juncture, there is one move open to neoclassical economists who still insist that what they are doing ought not be labelled as anything other than scientific economics: they need to persuade us that the neoclassical method, i.e. models based on the three meta-axioms, is the only proper method; which obviously implies that there is no distinctly neoclassical method after all, even once that method has been characterised as above.

Effectively, they would have to adopt a rather extremist defensive posture: to claim that the combination of the three meta-axioms above is indispensable to any economic theory worth its salt; that the neoclassical method, as founded on the triptych of individualism, instrumentalism and equilibration, is not just one possible analytical strategy but that it is somehow *uniquely and ontologically grounded in social reality*. It would amount to a claim to the effect that all other economic approaches, including for instance Adam Smith's, is not in the same scientific league as their own. Undoubtedly, many neoclassical economists think that (although few would state it in polite conversation.)

Nonetheless, the truth status of that defence must be an empirical matter rather than a methodological one, and the defender of neoclassisism has to provide hard evidence concerning the actual, material processes of (a) how preference orderings determine actions uniquely, and (b) how their reasoning skills, or social/natural selection, slice through indeterminacy to bring about an equilibrium. Needless to say, such extreme naturalism has no chance of being empirically supported. Even sophisticated empiricists like Karl Popper rejected the idea that the joint hypothesis of individualism and equilibrium can be tested empirically; they are, he rightly claimed, *preconditions for* knowledge rather than *objects of* knowledge. Hence there is no such thing as a 'natural method'. The very thrust of the Enlightenment project rules it out of court.

The last resort of the mainstream economist, who wants to defend the presumption that the three neoclassical meta-axioms are essential to any scientific analysis of the social economy, is to argue that the neoclassical method of explanation, while not being a 'natural method', has nevertheless *evolved* historically as the *most adequate* method for studying a society of free, enlightened individuals. That it is, in short, the only non-contradictory embodiment of the Enlightenment project itself. That, just as representative liberal democracy is a bad system of government but remains the best one available, neoclassicism has evolved as the best economic analysis that is consistent with the liberal human condition.

However, such a rhetorical strategy can only work if it is accompanied with a sound evolutionary argument depicting the three meta-axioms as the unique 'attractor' of liberal social science. Unfortunately, no such argument seems to be forthcoming. Instead, mainstream economics is perpetually reproducing itself through a series of metamorphoses that Ovid would have been jealous of. The resulting models gain in complexity, expand in scope, and move into areas hitherto untainted by the economist' inquiring gaze. Nonetheless, all these models, in all their multiplying guises, share a well hidden, and almost completely unspoken of, foundation: the three meta-axioms above. The radical absence of a debate about them is, we shall argue below, essential to the discursive power of neoclassical economics. As for the latter's aversion to pluralism, it is a natural by-product of this dance of veils whose purpose is to maintain neoclassicism's discursive edge by keeping our eyes off the theory's meta-axioms.

6. Some thoughts on neoclassicism's discursive power and its aversion to pluralism

What does an intelligently dispassionate observer of neoclassical economics see? She sees an ever expanding technical literature, most of which she cannot comprehend. She sees an almost infinite series of mathematical models that explain diverse socio-economic phenomena as part of some equilibrium scenario which posits autonomous actors bringing on the phenomenon under study, often supraintentionally, through choices that are rational given everyone's beliefs (even when the actions are self-defeating). She sees a series of career paths that are made generously available to those who participate in this global research project. She sees economists the world over being taken seriously only to the extent that they speak this particular 'language'. She sees the powers-that-be speak this very 'language'. Finally, she sees enterprising academics in other social sciences adopting this 'language', in a transparent bid to share into neoclassicism's discursive success. In short, the onlooker sees, correctly, power oozing out of the mainstream economists' theoretical practices. There is only one thing she does *not* see: the three meta-axioms, none of which are visible to the naked eye.

Note how instrumental to the discursive power of neoclassicism is the fact that its three foundational axioms are hidden from our onlooker's view. For if they

were evident, she might start asking difficult questions for which, as we argued above, neoclassicism has no real answers (except to re-phrase its axioms). This helps explain, in more than one ways, the authoritarian dynamics and the disdain shown toward pluralism of Economics Departments which have either managed to rank highly within mainstream economics or are striving to do so.

We suggest that there are two equally important types of explanation of neoclassicism's evolution into an authoritarian research project that discourages pluralism: One is a type of intentional explanation while the second is a functional explanation. The intentional explanation is simple enough and runs as follows: When an inquisitive graduate student, or academic, who has mastered neoclassical technique but has started developing doubts, starts questioning the meta-axioms, she is effectively questioning the hegemony of her profession. At best, her queries and arguments are met with sympathetic nods, at worst with a great wall of dogmatic put down lines and an avalanche of advice to the effect that these are matters that she ought to worry about after retirement. Publishing in the 'good' journals is hard enough. Publishing articles which question the meta-axioms is even harder. Indeed, it takes a foolhardy young soul to jeopardise a hard-earned career path in pursuit of the truth-status of one or more of the meta-axioms which allow the profession to flood the journals with mathematical models that are so highly regarded and so little discussed. And as is so often the case with dominant paradigms, self-censorship is the predominant vehicle for neoclassicism's unimpeded march.

The functional explanation adds an interesting twist to the same tale of intellectual authoritarianism. If phenomenon X is functionally to explain the occurrence of phenomenon Y, this explanation has merit if and only if the following four conditions are met (see Elster, 1982): (1) Y must be beneficial for some group of agents Z. (2) Members of group Z must be responsible for the practices that cause X but must not intend to bring Y about through practices that result in X; indeed, Z members must remain innocent of the causal link between X and Y. Lastly, (3) phenomenon Y, which is caused by X, must be shown to reinforce X through a feedback mechanism involving, unintentionally, members of group Z.

In our case, Y is the discursive power of neoclassical economics, X are the practices which keep neoclassicism's meta-axioms hidden, and Z is the set of neoclassical economists. Can a convincing functionalist explanation of how X causes Y be built along the lines sketched above? If it can, then we shall have an interesting (and possibly correct) explanation of why pluralism is absent from Economics Departments: its radical absence, which is guaranteed when an eerie silence engulfs the three neoclassical meta-axioms, emerges as a *prerequisite* for neoclassicism's dominance. Let us now put together the basic elements of such an explanation.

Before we proceed further, it is important to note that the merit of this functional explanation is that it is entirely consistent with a distaste for conspiracy theories. As it will transpire shortly, the offered explanation does not presume neoclassical economists in cynical pursuit of discursive power; no theorists are imagined who silence subversive voices within the profession so as to preserve the power vested in them by their models [see part (2) of the argument above which rules out such intentional cynicism]. In fact, our explanation works better when most neoclassical economists would have been (honestly) appalled at the thought that we suspect their practices as driven by anything other than scientific rigour. From experience, we can confirm that most neoclassicists believe strongly in the theoretical superiority of their models and may even have a moral commitment to pluralism. Nevertheless, even if we accept that these fine sentiments are all pervasive in the economics profession, our argument still stands.

To render coherent the functional explanation of neoclassicism's discursive power as the result of a general 'silence' regarding the three meta-axioms at the bottom of all neoclassical theory, we needed three arguments: The first [see (1) above] is that neoclassicism's power is beneficial for neoclassical economists (this is self evident). The second [see (2)] is that neoclassical economists are innocent of the charge that they are keeping quite on the three meta-axioms intentionally, so as to enhance their method's discursive power (we accept, therefore, their own denials that they would have conceivably done such a thing). The third piece of the jigsaw [see (3)] is the crucial one: we must now demonstrate that "phenomenon Y, which is caused by X, reinforces X through a feedback mechanism involving, unintentionally, members of group Z".

In other words, it must be argued convincingly that the enhancement of neoclassicism's discursive power, which is largely due to the hidden nature of its three meta-axioms, makes it *even less likely* that neoclassical economists will be open to a pluralist debate on their meta-axioms. Anyone who has worked in an Economics Department has surely experienced such a feedback mechanism. Research funding in economics is vast compared to the trickle that finds its way to the 'other' social sciences. It would not be forthcoming if economists regularly experienced philosophical angst regarding the axiomatic foundations of their wares. Naturally, the bulk of the profession's funding goes to practitioners who do not indulge in methodological debates; who simply 'get on with the job'. No one wants to keep quite on the meta-axioms. They are just too busy building magnificent edifices on top of them, and being magnificently rewarded for it.

Nobel laureate Vernon Smith almost apologised, in a recent article (see Smith, 2002), for entering into a methodological discussion of the work he devoted an extremely productive life to. This is typical of the fear of methodological discussion instilled in the best and even the most liberal minds in the eco-

nomics profession. By whom? By no one is the honest answer. The death of pluralism in economics is a crime without a criminal. It died long ago as a result of a particular dynamic within the profession which, operating behind the backs of even neoclassical economists, encourages them to produce all sorts of models (even of altruism and revolution, see Roemer, 1985) but surreptitiously penalises any deviation from, or even explicit discussion of, the three meta-axioms.

Of course, the pressing question is: Why are public and private funds so uncritically lavished upon what turns out to be no more than a religion with equations? Alas, this is a question that the present chapter cannot answer within a purely methodological context. For such an explanation we need to venture into political economy (see Arnsperger and Varoufakis, 2005, for an attempt).

Epilogue

Neoclassical economics, despite its incessant metamorphoses, is well defined in terms of the same three meta-axioms on which *all* neoclassical analyses have been founded since the second quarter of the 19th Century. Moreover, its status within the social sciences, and its capacity to draw research funding and institutional prominence, is explained largely by its success in keeping these three meta-axioms well hidden. The radical lack of pluralism in mainstream economics is, on this account, not to be blamed on illiberally minded practitioners. Rather, it is to be explained in evolutionary terms, as the result of practices which reinforce the profession's considerable success through diverting attention from the models' axiomatic foundations to their technical complexity and diverse predictions. A pluralist economics will remain impossible as long as the social economy rewards economists in proportion to their success in keeping their models' foundations opaque.

References

- Arnsperger, C. and Y. Varoufakis (2005) A Most Peculiar Failure: How neoclassical economics turns theoretical failure into academic and political power. *Erkenntnis*, 59, 157-188.
- Aspromourgos, T. (1986) On the Origins of the Term Neoclassical, *Cambridge Journal of Economics*. 10:3, 265-70.
- Bowles, S. (1998) Endogenous Preferences: The cultural consequences of markets and other economic institutions. *Journal of Economic Literature*, 36, 75-111.
- Cournot, A.A. (1960) Researches in the Mathematical Principles of the Theory of Wealth. New York: Macmillan, pp. 79-89 (originally published in French in 1838 under the title Recherches sue les principes mathématiques de la théorie des richesses, Paris: Hachette).

- Dasgupta, P. (2002) Modern Economics and its Critics, in U. Mäki (ed.) Fact and Fiction in Economics: Models, Realism and Social Construction. Cambridge: Cambridge University Press.
- Elster, J. (1982) Marxism, Functionalism and Game Theory. *Theory and Society*, 11, 453-82.
- Fehr, E. and S. Gächter (2000) Fairness and Retaliation: The economics of reciprocity. *Journal of Economic Perspectives*, 14, 159-81.
- Hargreaves-Heap, S. and Y. Varoufakis (2004) *Game Theory: A critical text*. London and New York: Routledge.
- Hume, D. (1739/40,1888) A Treatise of Human Nature: being an attempt to introduce the experimental method of reasoning into moral subjects, (1888 edition edited by L.A. Selby-Bigge). Oxford: Oxford University Press.
- Mantel R., (1974) On the Characterization of Aggregate Excess Demand. *Journal of Economic Theory*, 7, 348-353.
- Rabin, M (1993) Incorporating Fairness into Economics and Game Theory. *American Economic Review*, 83, 1281-302.
- Roemer, J. (1985) Rationalising Revolutionary Ideology. Econometrica, 53, 85-108.
- Smith, V. (2002) Method in Experiment: Rhetoric and Reality. *Experimental Economics*, 5, 91-110.
- Sonnenschein, H. (1973) Do Walras' Identity and Continuity Characterize the Class of Community Excess Demand Functions? *Journal of Economic Theory*, 6, 345-354.
- Sonnenschein, H. (1974) Market Excess Demand Functions. *Econometrica*, 40, 549-563.
- Varoufakis, Y. (1998) Foundations of Economics: A beginner's companion. London and New York: Routledge

Šta je neoklasična ekonomija? Tri aksioma odgovorna za teorijsko dostignuće, praktičnu irelevantnost i posledično, diskursivni potencijal

Rezime: Rad nudi preciznu definiciju neoklasične ekonomije, temeljenu na tri aksioma koji čine njenu osnovu. Ova definicija je sveobuhvatna u smislu da uključuje kako neoklasične ekonomske modele sa kraja XIX veka, tako i današnje, znatno fleksibilnije i obuhvatnije modele. Rad potvrđuje da ovi aksiomi istovremeno (a) obezbeđuju osnove za uspeh neoklasičnog diskursa unutar društvenih nauka i (b) da su duboko uslovljeni svojim teorijskih ogradama. Štaviše, (a) i (b) međusobno se pojačavaju, s obzirom da neoklasični diskursivni potencijal (koji je i nastao najvećim delom usled prikrivene prirode ova tri osnovna aksioma) čini manje verovatnom vođenje otvorene, pluralističke rasprave o sopstvenim teorijskim osnovama (odnosno, o tri aksioma koji ga podupiru).

Ključne reči: Neoklasična ekonomija, Metodološki individualizam, Metodološki instrumentalizam, Metodološki ekvilibrijum

JEL: A11, A14, B13, B41