

## **A Most Peculiar Failure**

***On the Essence of Neoclassical Economics, its Response to Criticism, and its Remarkable Capacity to Turn Explanatory Failure into Theoretical Triumph***

by

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## 1. Introduction

There is a paradox hanging over the economics profession. As its practices are becoming increasingly consistent and self-assured, a chorus of critical voices amplifies daily from within. Bashing mainstream economics has become something of an academic cottage industry of recent and, perhaps surprisingly, the cacophony is often led by well respected, practising economists.<sup>1</sup> Meanwhile, graduate economics students have risen up (first in France, and then elsewhere) against their discipline<sup>2</sup> while undergraduates are voting with their feet all over the world, abandoning degrees in economics for new-fangled departments and old-fashioned disciplines alike. This paper attempts to dissolve the above paradox by claiming that the very same theoretical failures which conjure up the criticisms waged against mainstream economics are the cause of its theoretical unassailability and cultural dominance.

At the heart of most critics' stand against economics is the conviction that a large price has been paid in the quest for methodological consistency. That one particularly narrow-minded method, known as *neoclassical*, has taken over the economics profession, has lent it considerable oeuvre, has helped it race ahead of competing social sciences but, in the end, has delivered a Pyrrhic victory and a form of economics which is, ultimately, unappetising and consists of techniques devoid of all meaning. On the fence's other side, mainstream economists are puzzled by the intensity of the criticisms. Their defence of neoclassical economics is both interesting and sophisticated. Unfortunately, they rarely speak the same language as their critics or meet with them in some forum where the good debate can ensue. One side howls abuse and the other meets it with lofty condescension.

The first purpose of this paper is to simulate (and possibly stimulate) a civilised debate that never really happened – at least not in an open forum. As the reader will soon realise we fall squarely on the critics' side. Nonetheless, not all of our fellow critics would side with us on the paper's second purpose: to demonstrate that *mainstream economics' theoretical failures are its strength because of the socio-economic structures in which economic theory is embedded* (namely, contemporary capitalism).

The paper is structured around four neoclassical rejoinders which we often hear neoclassical colleagues articulate in private conversations, often over drinks following a seminar presentation. Of course, there are many more rejoinders that we could have included (see Dasgupta 2002). But we stick to these four for brevity and also because we feel they present a serious challenge to critics at two levels: Is the content of their criticism coherent or is it based on a misunderstanding of mainstream economics? And, at the second level, if neoclassical economics is the disaster critics make it out to be, how come it maintains its hold on the mainstream, while the critics languish in the professions' margins?

We presume that the reader is already familiar with some basic criticisms waged against neoclassical economics. For instance, that neoclassical economics posits hyper-rational bargain hunters never able to resist an act which brings them the tiniest increase in expected net returns. Or that neoclassical economics is inherently biased in favour of neoliberal policies in general and privatisation, a smaller state, abolition of trade tariffs etc. in

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<sup>1</sup> A sample of three quotes gives the reader a whiff of the disdain felt by some leading economists viz. their discipline: Joseph Stiglitz writes that “[Economics as taught] in America's graduate schools... bears testimony to a triumph of ideology over science.” Mark Blaug adds: “Modern economics is sick. Economics has increasingly become an intellectual game played for its own sake and not for its practical consequences for understanding the economic world. Economists have converted the subject into a sort of social mathematics in which analytical rigour is everything and practical relevance is nothing.” And finally Nobel laureate Ronald Coase: “The new theoretical apparatus had the advantage that one could cover the blackboard with diagrams and fill the hour in one's lectures without the need to find out anything about what happened in the real world.” For a recent guide on economics' mounting discontents see Fullbrook (2004).

<sup>2</sup> See [www.paecon.net](http://www.paecon.net) for all the documents pertaining to that 'revolt'.

particular. In this sense, we spare the reader a catalogue of criticisms facing neoclassicism (see our first two footnotes below) and give our paper a simple structure: Each of the four sections that follow begin with one rejoinder to critics of mainstream economics couched in terms which we think mainstream economists would approve. And then we set out to pursue the line foreshadowed in the paper's subtitle. Before looking at each of the four fictitious rejoinders in detail, here is a summary of them:

- *There is no such thing as neoclassical economics.* (Quite simply, there is scientific economics and there is speculative hand-waiving.)
- *What critics refer to as 'neoclassical economics' is just a language that economists developed since the 1860s in which to formulate economic models in order to study economic phenomena rigorously.* (Those who do not understand this language well have every right to dislike it. But not to presume that they know what is said, or *can* be said, in it.)
- *Economics, as practised today in most top Universities, suffers from no political bias (neoliberal or otherwise).* (Although individual economists may well be ideological, all sorts of different political perspectives and economic institutions far removed from market ideology can be expressed in the language of mainstream economics.)
- *The charge that mainstream economics reflects the logic of capitalism misses the point: For there is really no such thing as capitalism any more.* (In post-industrial societies, capitalism can no longer be well defined. Modern societies ought to be understood as networks of power which are best analysed by mainstream economics, especially game theory.)

## 2. *The First Rejoinder: “There is no such thing as neoclassical economics!”*

**There is no such thing as a ‘neoclassical body’ of theory, or even of theories. You are artificially putting a unifying tag on something which has neither an intentional, *ex ante* unity nor a *de facto, ex post* one. These days, calling something or someone ‘neoclassical’ is a type of name-calling; you simply label ‘neoclassical’ the papers written in journals that you dislike either because you do not understand them or because they will not publish your articles!**

Etymologically, it is true that the first neoclassical economists did not call themselves neoclassical.<sup>3</sup> It is also true that a large number of practising mainstream economists today do not like to be called neoclassical. But this is neither here nor there. Nineteenth century Britons did not call themselves Victorian. The Byzantine Empire never really existed either and the Byzantines thought of themselves as subjects of the Eastern Roman Empire. Nevertheless, modern historians found epithets such as Victorian or Byzantine useful in order to draw helpful distinctions. Similarly, although neither Alfred Marshall nor Gary Becker may have thought of their models as neoclassical, it is still be useful for us to coin an epithet that captures some common theoretical practises which set them apart from economists such as, for instance, David Ricardo, Thorstein Veblen, J.M. Keynes etc.

If neoclassical economists would like us to call them something else, we should be happy to oblige. The term is not important. What *is* important is whether there exists a methodologically consistent body of theory which can be identified and within which the practices of mainstream economics can be legitimately nested. Judging by the rejoinder above, neoclassicists have understood this well and are now disputing not just the term ‘neoclassical’ but, more importantly, the existence of a body of theory to which the epithet ‘neoclassical’ can be attached.

So, what is the ‘body of theory’ that critics of neoclassical economics identify with neoclassicism? And are mainstream economists right to argue that such a body of theory neither exists in reality nor describes *their* theories? 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 rejoinder above. Indeed, the last thirty years of neoclassical economic theory 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 of neoclassicism has, however, muddied the methodological waters so much that a proper definition of neoclassical theory is difficult to procure. 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,

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<sup>3</sup> For the history of the term ‘neoclassical’ see Aspromourgos (1986). It should not be confused with the related term ‘neoclassical synthesis’ employed by Don Patenting and Paul Samuelson to describe a reinterpretation (some would say, vulgarisation) of Keynes.

synthesising the knowledge derived at the individual level in order to understand the phenomenon at hand. In short, neoclassical theory follows the watchmaker's method who, faced with a strange watch, tries to understand its function by focusing on understanding first 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's 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 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 while the latter must be 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.

The second feature of neoclassical economics is that which we label *methodological instrumentalism*: the idea here is that all behaviour is preference-driven or that it is to be understood as a means for maximising preference-satisfaction.<sup>4</sup> 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 narrow version of consequentialism in which the only consequence that matters is the extent to which given preferences are satisfied.<sup>5</sup>

The third feature of neoclassical economics is 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' (preference) maximands, specifying their constraints, stating their 'information' or 'belief' before, and here is the crux, asking 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, became an optional extra; one that was never really central in any neoclassical study.

Returning to the rejoinder (namely that there is really no body of theory that can be termed neoclassical), it is hard to imagine how any standardly trained economist could deny that what she is doing as an economist digresses from the three methodological moves mentioned above: *Methodological individualism, methodological instrumentalism and axiomatic*

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<sup>4</sup> Not to be confused with actual, psychological satisfaction. In this sense, homo economicus may maximise his preference satisfaction while feeling suicidal.

<sup>5</sup> 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.

*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 economics etc., all mainstream approaches in these fields remain loyal to the three meta-axioms. Every aggregate phenomenon under scrutiny is explained exclusively as some equilibrium emerging from the interaction of 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 mainstream 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 characterized as above.

Effectively they would have to adopt a rather extremist defensive posture: to claim that the combination of our three features above is indispensable to any economic theory worth its salt; that the neoclassical method as founded on the triptych of individualism, instrumentalism and equilibrium is not just one possible analytical strategy but that it is somehow *uniquely ontologically grounded in social reality*. It would amount to a claim to the effect that all other economic approaches, including for instant 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 neoclassicism 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 such as 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 vociferously denies the neoclassical label, together with all labels attaching to theories adopting the three meta-axioms, is a form of anti-naturalistic moral philosophy. It is to argue that the neoclassical method of explanation, while not being naturally and spontaneously ‘adequate to’ reality, has nevertheless evolved historically as the *uniquely 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 democracy is a bad system of government but remains the best one available, neoclassicism is uniquely defensible on moral, even political, grounds. Why?

Since absolute individual freedom is an aberration (everyone perceives some constraints, whether built into her own mind and body or emerging from her interaction with other individuals), relative individual freedom means the opportunity to maximise the degree of fulfilment of one's interests while acknowledging that all others are to have analogous opportunities. That this does not do away *per se* with all issues of power asymmetry and distributive injustice is too evident to mention even. However, an ethical constraint is imposed on the theorist and on the explanatory method she is to use: the social phenomena under study *are to be seen* as having emerged 'freely' from the decentralised pursuit by everyone of their own interests; lest a method be devised in which social phenomena acquire a life of their own (a pre-Enlightenment regression to holistic animism!) or, alternatively, acquire a tendency to flow from the designing minds of a minority (possibly a one-member minority...). This is an ethical constraint on theory, the underlying idea of which is that only such a method will avoid the confiscation of the theory by organised interests or individuals with totalitarian tendencies. In short, we model the world in the image of a liberal society, cognisant of the power of theory (which is, after all a form of prophesy).

We do not wish to dismiss the notion that theory not only analyses but also comes with propaganda (even coercive) power which must be deployed with care. We agree that the Enlightenment project needs a helping hand from progressive social science so as to promote a society of free individuals. However, where we part ways with this particular take on the first neoclassical rejoinder is the implicit claim that the triptych of meta-axioms (individualism, instrumentalism and axiomatic equilibration) is the only way to build such progressive meta-narratives. Indeed, we doubt very much whether any of the three neoclassical meta-axioms are even *consistent* with progressive social theory. Indeed, we shall go as far as to argue that these features in fact undermine the construction of a theoretical model helpful to those who are trying to bring into being a better society, one in which individual agents genuinely develop their capacities and choose their partners freely. Though this is not the place to present such arguments fully, we are convinced that alternative non-neoclassical methodological stances are better suited for the Enlightenment project itself.

### ***3. The second rejoinder: “Neoclassical economics is just a neutral language to be utilised by social theory, just as mathematics is utilised by physics”***

**If anything at all can characterise neoclassical economics, it’s the fact that it simply provides a neutral, methodological formal *language* in which to express debates and to evaluate disagreements. It therefore carries no *intrinsic* normative or ideological weight, and any theory (whether classical, Marxist, or Austrian) or any topical issue (from exploitation to exchange rate management) can be expressed in what you call ‘neoclassical’ formalism. The ensuing limitations are of the same nature as for any language game, but they have nothing to do with an ideology. (Is English more ideological than ancient Greek or algebra?).**

Since we have already shown that there is indeed such a thing as a ‘neoclassical method’, the second rejoinder above seems to us the natural escape route for the neoclassicist who wishes to pursue further her claim that the neoclassical label is neither here nor there: “A neoclassical method? Yes. An ideology? No way.” After the linguistic turn in philosophy, inaugurated by Wittgenstein and pragmatism more generally, we know that if ideologies are the *subjects* and/or the *objects* of debates, these debates in turn are phrased in *languages* which cannot themselves be ideologies, lest they be part of the subjects or the objects, rather than being part of the medium.<sup>6</sup> By claiming that the neoclassical method is a ‘neutral language’, the theorist is able to abstract it from the arena of subjects/objects of debate, and to present it as a precondition for *any* possible debate.

Before we tackle this second rejoinder, we need to understand it in depth first. And this is where the problems start for neoclassicists. How exactly do *they* understand their own method? What do they mean by the idea that a method reliant on individual optimisation in equilibrium is to be understood as a language? At the most basic level, surely they intend to convey that, just as English is an *instrument* for communication between those who share a competence in it, the neoclassical method is an *instrument* for debating and sharing meanings regarding the functioning of the socio-economic world among those who share a competence in it.

Although this entails a questionable philosophy of language (most linguists would disagree that language is exclusively, or even mainly, a technology for the production and consumption of messages), we can accept it for the time being; but is the analogy correct? In each case we have an instrument and in each case a ‘community of the competent’; but in the case of English, the goal is communication of contents with a pretence to meaning, while in the case of the neoclassical method it is explanation with a pretence to relevance.

Unless “relevance” is simply made synonymous to ‘logical truth-value’ (i.e., unless the neoclassical method becomes a completely formal axiomatic) it cannot be evaluated except by reaching back to English and checking whether the formal results and propositions are relevant to the common-sense concerns which lie behind the theory to begin with. Indeed, the ‘meaning’ of a sentence in English is to a large extent separate from the fact that the sentence was formulated in English – as evidenced by the fact that, in response to the sentence, I can say in English, “I see what you mean” or “I didn’t understand what you meant”, thus signalling that the meaning *itself* is not dependent on the idiom. So the least one can say is

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<sup>6</sup> Apart from a language, the medium of a debate also contains various other conventions, as well as various temporal and spatial parameters, determining when, where and how the debate takes place.



that the initial analogy between the neoclassical method and a language is not straightforward.

However, this difficulty transcends such doubtful analogies and renders them largely irrelevant. That's because the neoclassical method (as outlined in response to the first rejoinder) is first and foremost a set of *meta-axioms*, rather than a language complete with a grammar and a syntax.<sup>7</sup> It is these meta-axioms which, in turn, are formulated using a motley mix of English and mathematics. So the upshot is this: methodological individualism, methodological instrumentalism and methodological equilibrism may make up an axiomatic system, but they do *not* make up a linguistic system. They are *objects* of debate in a sense in which English can never be – we debate *in* English *about* the use of these axioms, their content, their relevance, their legitimacy as a precondition for knowledge, and so on. Or we compare them with other meta-axioms *using* the mathematical idiom. But they only become the *medium* of debate if we strip them of their (language-based) axiomatic character and allow them to become dogmatically self-referential.

There are two points of note here: First, portraying the three foundational meta-axioms of neoclassical economics (methodological individualism, instrumentalism and equilibrism) as a language requires a philosophically shady operation, one that can only come about by sleight of hand. Secondly, even if it could be pulled off successfully, it would fail to naturalise neoclassicism's meta-axioms into a language. At best it would turn them into no more than what they are: conversation-stopping commandments which, like all dogmas, are *ultimately* enforceable (given the plasticity of language itself and the ease with which a dogma can be verbally denied, questioned or reformulated) only by sheer (institutional) power and force.

The above helps explain, we think, the authoritarian dynamics within Economics Departments which have either achieved high status within mainstream economics or are striving to do so. When an inquisitive graduate student, or academic, who has mastered neoclassical technique but has not been entirely convinced by it, starts questioning the 'self-evident' hegemony of the neoclassical method, she often finds herself treated as a apostate. At best, her queries and arguments are met 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. In short, the second rejoinder under scrutiny here reflects a twofold process entirely consistent with the recurring theme of power politics: first, transform axioms into dogmas and, secondly, push for the dogmas to become invisible as they become part of the dominant language itself...

Once we reject the linguistic turn of neoclassical rejoinders as a rhetorical artefact of little substance, neoclassicism shines through for what it is (that is, a set of relative, hence debatable, axioms). Then we can address the more interesting neoclassical claim that their meta-axioms can serve to 'translate' all economic and social theory into a common idiom. To bring it all under the common roof of the house of neoclassicism and try to make sense of the important debates within social science.

According to this view, one could use the threefold neoclassical methodological base (individualism/ instrumentalism/ equilibrism) to express *without any loss of relevance* all the

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<sup>7</sup> By 'meta-axioms' we mean the highest 'layer' of axioms of the theory. At lower layers we find numerous other sub-systems of axioms (such as the system of axioms structuring the neoclassical theory of preferences), but they are all inscribed into the set of three meta-axioms, in the sense that none of the axioms at lower 'layers' contradicts any of the meta-axioms.

key ideas and results of such diverse social theorists as Marx, Walras, Keynes, Hayek, Weber and Schumpeter. Before we know it, neoclassicists go further: They assert that a good test of the usefulness and consistency of these theoretical perspectives is whether they can be thus 'translated' in the neoclassical idiom. To coin two well known examples, (a) neoclassicists put their copy of Keynes' *General Theory* away, turning instead for enlightenment on what the great man had to say about capitalism to the neoclassical take on Keynesian economics – the so-called 'neoclassical synthesis'; and (b) Marxism remained in the domain of mainstream economics so far as Marx's arguments about capitalism's dynamics were 'rationalised' by means of explicitly neoclassical models (see, for instance, Roemer's attempt to 'rationalise revolutionary ideology' in Roemer, 1985, or the efforts of the self-labelled school of 'analytical marxism', see Roemer, 1986). In summary, the arguments of Keynes, Hayek, Marx or, for that matter, neoclassicists of renown (like Arrow) are dismissed out of hand as falling outside the 'rational core' of these writers' own theory *if they cannot be re-written in the 'language' of neoclassicism's three meta-axioms!*

As we have demonstrated, such intellectual arrogance can be defended in one of only two ways: (A) By sticking to the idea of the three neoclassical meta-axioms as a linguistic medium of debate rather than as a set of methodological postulates; an untenable, we argued, position. Or (B) By reaching back to the politico-historical idea which we discussed in section 2 above; namely, that the three meta-axioms are in fact the uniquely legitimate contemporary translation of what enlightened rationality demands (another argument which we have already shown to be inconsistent within its own terms of reference). Consequently, we surmise that the neoclassical method cannot shoulder its purported role either as a universal language or as a otherwise universal medium of 'theory translation'. Moreover, to argue that the aspects of Marx, Keynes and Hayek that cannot be 'neoclassicised' lay outside the scope of scientific discourse is no more than hubris; a hubris that, to be maintained, neoclassicists need to keep pushing their Sisyphean methodological rock up a steep hill. If the only arguments that mattered were intellectual, it would be time to call it a day; to recognise that optimal strategy is to stop pushing. To acknowledge that which ought to be uncontroversial: The neoclassical method is well defined in terms of *a set of meta-axioms which are, and ought to be, an object of debate, using the languages of English and mathematics*. However, the power of neoclassicism, like that of any established religion (especially one with equations), trumps intellectual arguments.

#### 4. *The third rejoinder: “Neoclassical method is politically neutral”*

**It is not true that mainstream economic formalism in any way *necessarily* condones either capitalism as a system or the ‘neoliberal’ view of society according to which all social exchange is reducible to market exchange. In fact, many mainstream theorists have used economic theory (especially game theory) to: (a) model non-market settings (e.g. labor-managed firms or Soviet-type cooperatives), (b) study non-capitalistic systems (e.g. gift exchange societies or market socialism), and (c) promote non-neoliberal causes such as social-security reform, collective (wage) bargaining and, more generally, redistribution in pursuit of social justice.**

The essence of the third rejoinder is that neoclassicism’s political neutrality is evidenced by its frequent application to non-market institutions as well as by its utilisation in the pursuit of various left-of-centre causes. Although we recognise the neoclassical method’s admirable flexibility, and its capacity to model anything humans do, our view is exactly the opposite: Our reading of the application of neoclassical tools to non-neoliberal projects is that it subverts the analyst’s intentions almost imperceptibly and *in a manner functional to neoliberalism*.<sup>8</sup>

Our reason for arguing this is basic: True, there always exists an objective function whose maximisation will yield observed human behaviour. Equally true, the neoclassical calculus of preference satisfaction can be made consistent with all sorts of non-neoliberal political projects (from demonstrating that increased trades union power boosts employment, to showing that socialist property rights are superior to capitalist ones). So far so good. No social theorist would deny, in their right minds, that social phenomena must be ultimately explainable in terms of the actions of individual agents. Our difference from neoclassicists is that we disagree that individually rational behaviour can be understood by focusing exclusively at the level of the individual. In this sense, Keynesians, Marxists, Hayekians etc. would agree that people have reasons for action which lead to the social phenomena that ‘write’ history. And that neoclassicists can devise maximands consistent with any observed history; including a Keynesian or a Marxist one.

However, neoclassicists need to do much more than this: they need to start with information exclusively derived at the level of individual agency and then *come up with determinate ‘solutions’* to the games of social life. For they understand that the power of their theory stems from being able to predict what will happen. This amounts to narrowing down sufficiently the set of all viable socio-economic equilibria that correspond to given circumstances. They understand, in other words, that a theory which predicts that anything is possible as a result of individual optimisation is a theory that explains absolutely nothing!

So, neoclassical models, whether they are applied to the standard problems for which they were devised (e.g. the theory of oligopoly) or to non-standard left-of-centre agendas, must be

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<sup>8</sup> By invoking a functionalist argument we wish to dissociate ourselves from any conspiracy theory on the part of neoliberals or of neoclassicists. The point here is that neoliberalism is strengthened by the adoption of neoclassicism by its foes (without any neoliberal even needing to be aware of that fact) while, in a never ending cycle, neoclassicism grows stronger (at the level of the sociology of knowledge) in an environment where neoliberalism dominates (again, irrespectively of whether neoclassicists know or care about this). Of course whether this is a legitimate functionalist argument or not is another matter. To show that it is we would need to demonstrate the feedback mechanism that links the two. Although we shall allude to such a mechanism below, this task lies beyond the scope of the present paper.

calibrated in a manner that defeats such indeterminacy. The larger the set of equilibria consistent with the given data the weaker the neoclassical theory's power. Unfortunately, to defeat indeterminacy neoclassical models have to be stripped of all their nice accessories.<sup>9</sup> So, even though it is perfectly possible to accommodate within *Homo Economicus* other-regarding preferences, psychological utility derived from treating others in a manner analogous to their intentions, preferences that are endogenously formed, the influence of endogenous social norms etc., all these features (which civilise *Homo Economicus* and make him socially grounded) have to be shed if the model is to be shown to have meaningful (and not unboundedly large) equilibria.

The point here is that a certain dishonesty is at work when neoclassicists claim that their method can be used to 'rationalise' anything under the sun. This claim is right and proper in the context of neoclassicism's first two meta-axioms: Methodological individualism and instrumentalism. Indeed, all behaviour and non-market phenomena can be modelled as the result of complexly motivated yet fully instrumentally rational people 'doing their thing'. However, and this is the dishonesty's locus, the neoclassical method needs to 'close' its explanatory system; to achieve the kind of closure which demands specific predictions in the form of a set of potential equilibria which is as small as possible. But to generate the latter, neoclassical method must do two things: (a) Simplify the agents' motivation by shedding *Homo Economicus*' social character, and (b) Axiomatically impose on him beliefs that are consistent with the theoretical task of equilibrium selection.

In other words, neoclassical models can indeed simulate real human beings operating within a social context that is irreducible to market exchanges. In this sense, all sorts of discussions regarding social justice, identity, the true meaning of being free in a social context, non-capitalist institutions etc. can be accommodated within a neoclassical framework. All this happens while the models stick to the first two neoclassical meta-axioms (methodological individualism and instrumentalism). However, nothing can stop a self-respecting neoclassicist from ushering in the third meta-axiom: the imposition of equilibrium which, after all, gives neoclassicism its incontestable power within social science. But the moment this happens, we are back at a model of men and women who cannot populate anything other than a boring market in which all social life is reduced to instantaneous exchanges of apples and oranges (or labour and capital 'units' for that matter).<sup>10</sup>

The important point here is that neoclassicism sets a trap for those who wish to use its power in order to do the 'right thing'; to press it into the service of a broad-minded social science agenda. It lures them in on the basis of the flexibility of the first two meta-axioms based on promises such as 'anything goes' and 'there is no limit to the sophistication of *Homo Economicus*'. However, once they are committed to this type of modelling, it tells them in no uncertain terms (often using journal editors as interlocutors) that their model is next to useless unless it boils down to determinate predictions; to a small number of equilibria. Only then does the well meaning theorist realise what the price for generating the latter is: The return of her *Homo Economicus* to strict isolation from his brethren, the demise of meaningful social norms, the loss of social and historical contingency. In brief, the return to a model that was devised for pure exchange economies. It takes a brave theorist to admit this and call it quits

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<sup>9</sup> For example, psychological game theory needs to impose equilibrium before the preferences of agents are well-defined. See chapter 7 of Hargreaves-Heap and Varoufakis (2004).

<sup>10</sup> Another example comes from our own work on defining solidarity (see Arnsperger and Varoufakis, 2003). The latter can be made sense of at the level of the individual as long as neoclassical 'closure' is not imposed. The moment equilibrium is introduced in the usual neoclassical manner, the notion of solidarity disappears.

once she has invested huge intellectual energy into coming that far down the gardenpath of neoclassical exegesis.

We started this section with the rejoinder that neoclassical method is politically neutral because of its flexibility. In the preceding paragraphs we argued that this flexibility is good and true as long as the analysis sticks to two of the method's three meta-axioms. These two meta-axioms gave neoclassicism its 'imperialistic impetus' within social science; it allowed it to spread its wings to many different fields (from anthropology to moral philosophy). There is nothing wrong with that. The problem kicks in, however, when the third meta-axiom is introduced due to the inexorable quest for theoretical 'closure'.

At that point, the terrain resembles an abandoned copper mine. The flora and the fauna of the area under study is decimated and the cunning proprietors have left for greener pastures which they in turn exploit for more examples of their wares' 'flexibility'. Masses of mental energy are expended in this way before discontent sets in and social theorists realise that the neoclassical method came and went like an irresponsible procurer of false theoretical hopes. But the show goes on as long as there are more green theoretical fields to plough and unsuspecting minds to impress. The greater the spread of neoclassicism the more it gathers pace but, and this is the crux, the greater the discontent that it leaves in its wake.

Let us now turn to some specific examples of neoclassicism at work in the realm of non-market interactions. As the work of Gary Becker, James Coleman and various other so-called rational-choice sociologists has demonstrated, there is indeed scope for neoclassical explanations of non-market 'social exchanges' such as the division of authority between a father and a mother in relation to their children, the decision of a revolutionary group to refrain from blowing up a railroad bridge, the allocation of time to religious ceremonies within farming communities, and so on.

When extended to the formation of social institutions, the neoclassical method turns to the theory of repeated (non-cooperative) games which can, for instance, provide highly engaging accounts of the persistence of the social norms which sustain gift exchange in traditional societies, but also maintain it within certain enclaves of modern industrial societies (as for instance on the shop floor where higher productive effort is exchanged for higher wages in a manner not specified by some explicit contract – see Akerlof, 1982 and Fehr and Gächter, 2000). So there can be no question as to whether neoclassical models of non-market phenomena are *possible*. However, this 'possibility' is severely circumscribed.

Yes, we can introduce gift exchange norms in people's utility functions; we can even model them (among other non-market institutions) as *some* equilibrium of a repeated game among  $N$  self-interested agents (whose concept of self may well be generous enough to include an interest for fairness, solidarity etc.). *However, we can only pinpoint the actual equilibrium that might emerge with any degree of accuracy if we sneak in axioms that assume away all that is theoretically interesting.* The reason is that, when games are repeated, the number of equilibria tends to infinity even when the model of agents is stripped of all social complexity. Only by force of some *ad hoc* axiom utterly unanchored in social reality can the model achieve 'closure'.

The resulting theory is, naturally, methodologically consistent (viz. neoclassicism's three meta-axioms). But it is also well and truly *anthropologically inconsistent*. Why? Take the family example: The special bonds that complexly tie up child and parents have to be ditched

before the neoclassical model can say anything specific about the distribution of labour and roles within the family unit. Now take the second case, the group whose members are united by a common cause (e.g. a revolutionary organisation, or a trades union, or an NGO): Once the complexity of their relation is done away with in the interests of the third meta-axiom (i.e. of imposing a small set of equilibria), their behaviour can be at best described as collusive, in a manner that is ontologically identical to that of colluding duopolists. In short, the subtleties of collective action and solidarity are lost forever. Finally, in the case of ‘traditional’ societies, religious ceremonies and the networks of gift exchange are reduced, again for the benefit of the third meta-axiom, static equilibria of  $N$ -person insurance games.

In all these examples, therefore, the price for extending the neoclassical method to non-market settings is the loss of that which makes these settings distinct from pure market exchanges! All sociologically, philosophically and anthropologically important special symbols and meanings are jettisoned. Relationships and commitments are retained within the neoclassical theory which supposedly tries to model them *only to the extent that they be made compatible with the neoclassical meta-axioms*. If this is right, the extension of neoclassical models to non-market realms is to social theory what European Imperialism was to the colonised: a well organised, yet also spontaneous, lethal threat to its very existence. Neoclassical models of family life, collective action, gift exchange, solidarity etc. succeed only to the extent that they ‘homogenise’ these social processes and bleach them of anything that is inconsistent with a simplistic version of *Homo Economicus* transacting for narrowly defined private benefit.

Should we be surprised by this? We think not. Neoclassicism’s meta-axioms emerged historically in the context of a very precise question: how can it be shown that market competition harmonises individual interests which would otherwise be in blatant conflict? In other words, the neoclassical meta-axioms were designed to investigate social order in a post-traditional, de-symbolized pure exchange society populated by bundles of preferences (rather than by real, socialised people) in which special relationships and commitments between persons are not so much absent as non-sensical; that is, in a society stripped of all capacities to achieve order except through market-driven equilibration. Is it any wonder that, when these meta-axioms are exported to non-market phenomena, they turn the latter into instances of exchange?

We conclude, therefore, that the writing has always been on the wall and that it requires only a cursory understanding of the history of economic thought to read it aloud and clearly. The neoclassical method boils down to an endeavour to explain all social phenomena, including non-market ones, with the help of three meta-axioms rooted in historical efforts to explain and ethically vindicate market phenomena, *while denying they are so rooted*. It is now clear why we think that neoclassicism is politically and ideologically charged: The battlefield between the Right and the Left has drawn traditionally crossed through the heart of momentous questions such as: *Can socio-economic life be adequately captured as a series of pure exchanges between isolated selves? Is freedom reducible to negative liberty? Is labour just another commodity to be traded for money like apples are traded for oranges? Is capital a factor of production whose value is well defined in terms of its productivity and whose return is its reward, just like the wage is labour’s?*

In short, is capitalism a ‘natural’ system of organising society? Those who answer the above questions in the affirmative fall on one side of the two century old political fracas. And those who tend to answer ‘no’ fall on the other. The reason why, we claim, neoclassicism is

politically and philosophically wedged within the right-wing political spectrum is that its three foundational meta-axioms cause (even left-leaning) analysts who adopt them to generate analyses which, ultimately, answer all of the above questions in the affirmative.

***5. The fourth rejoinder: “Only those who misunderstand modern market societies may still think of mainstream economics as capitalism’s theoretical esprit.”***

**We often hear that mainstream economics is somehow betrothed to the ‘logic of capitalism’. This is an antiquated view which harks back to the Cold War, ignoring the historical fact that the past’s binary oppositions are... passé! Once upon a time neoclassical theory was indeed associated with the liberal defence of Western capitalism and was pitted against strands of non-neoclassical economic theory (e.g. Marxist Economics, Comparative Economic Systems, Planning Economics etc.) which have hitherto subsided under the weight of the unravelling socialist experiments. In this day and age it is absurd to speak of ‘capitalism as a system’ and of neoclassicism as its theoretical cloak. Modern market societies are typified by diversity, flux, asymmetrical and immaterial sources of power and wealth. All there is in reality is a complicated network of interactions between differently endowed and informed agents. Whether all of these interactions somehow ‘add up’ to a ‘system’, or has a ‘logic’, is a second-degree question the answer to which will presumably depend on certain characteristics of the interaction. In any case, it can’t be presupposed before the analysis. And mainstream economics indeed doesn’t presuppose it. Instead, it employs the modern tools of game theory, information economics, mechanism design and advanced microeconometrics to analyse and understand an increasingly complex, globalised world.**

Most mainstream economists, even those proudly declaring their rightwing ideas, are highly sensitive to the charge of rightwing, pro-capitalist, bias. The reason, of course, is that they reject the notion that neoclassical economics is ideological (see the previous sections). In recent years this aversion to the idea of economics as a sympathiser of capitalism has taken a radical turn: Neoclassicism cannot possibly be guilty of pro-capitalist bias for the simple reason that capitalism itself has withered.

We begin by noting the symmetry between the first and the last of our four neoclassical ‘rejoinders’: The first one asserted that there is no such thing as ‘the neoclassical method’. The fourth ascertains that there is no such thing, at least nowadays, as a ‘capitalist system’. Taken together, a joint rejoinder arises, one that denies the possibility that neoclassicism projects the theoretical spirit of capitalism on the canvass of abstract economic theory. If our reply to the first rejoinder (see sections 2&3) was apt, we have one remaining task: to argue that, despite the great post-1991 transformation of the global economy, it is still meaningful to speak of our societies as manifestations of some capitalist ‘system’. And to claim that neoclassicism is a theoretical idealisation of capitalism.

One fascinating feature of this rejoinder is the absence of an empirical dimension. Whether capitalism has transformed itself out of existence, or not, should surely be, at least in large part, an empirical question. Economists should make this claim backed up by oodles of data and research regarding circumstances on the ground. However, the delicious paradox here is that *the economists most likely to argue that capitalism has withered* (and, therefore, that neoclassicism is not its reflection) *are the ones who are least likely to have studied capitalism*

*in action*. This is not an accident, we feel. There is a clear pattern in mainstream economics of what Sugden (2001) refers to (in his critique of how Darwinian natural selection was adopted by game theorists) as the mainstream's 'slash-and-burn' strategy: Transplant into neoclassical economics ideas and concepts which were developed elsewhere (e.g. evolutionary biology) on the basis of hard empirical work, and then apply it to embellish the latter *without any interest whatsoever in the empirical work which would have made the transplantation intellectually viable*.

In the remainder of this section we raise three points:

- (a) That at the empirical level the idea of a 'capitalist system' captures the essence of contemporary society more than it has ever done in the past.
- (b) That the neoclassical method's methodological impasse (i.e. its models' radical indeterminacy) is mightier than ever despite the incontestable fact that there are now more diverse sources of power and authority than in the past, and that the latest reincarnation of neoclassical theory (game theory, mechanism design etc.) seems more in tune with this reality than its earlier guises.
- (c) That this theoretical Waterloo, paradoxically, strengthens neoclassicism's entanglement with the 'spirit of capitalism'.

Let us begin with the claim that it is no longer useful to refer to a 'capitalist system'. Few would deny that we live in capitalist societies in which 'the means of production, distribution and exchange' are privately owned. The question is: Should we think of capitalism as a 'system'? To give a pointed example, we also live in a world where most people fall in love at some point in their lives, or cook meals which they then share with others. But that is no reason for describing contemporary society as a 'love system' or a 'food-sharing system'. There must be something specific about capitalist property rights and the way capital grows which give our societies their historically unique flavour and which we can then identify as the product of a 'capitalist system'.

Moreover, the latter must be shown to be much more than a network of markets; otherwise why not simply refer to a market-system? A 'capitalist system' must *encompass* the market system and depict it as merely one of the many loci at which capital acquires a logic of its own as it strives to enhance its value. Next, we need to show that this dynamic produces an *historically realised ideology* just as surely as it generates colourful industrial products, designer labels and numerous gizmos. And that neoclassicism *is* this ideology's highest theoretical incarnation.

*(a) Capitalism is more of a system than ever before!*

Adherents of the fourth rejoinder argue that the term 'capitalist system' no longer makes analytical sense (especially after the tumultuous 1991). Perhaps, they add, a capitalist system *did* make sense when production was Fordist, social classes were well defined, and a political alliance between state and capital was acting as the organising force of productive relations.<sup>11</sup> But now? What is the meaning of a capitalist system when the economy is de-materialising,

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<sup>11</sup> The reader will note that neoclassicists who take this position effectively admit that neoclassical theory was ill-equipped to analyse capitalism prior to 1991. Clearly, the neoclassical models of yesteryear (e.g. parametric marginalism or Walrasian general-equilibrium) were ill equipped to shed light on the economic role of social classes, the dynamic of capital accumulation, and the political economy of the state. It seems that past theoretical failures have been atoned (in the mind of committed neoclassicists) by the hypothesis that capitalism and neoclassical theory have evolved jointly in such a way that the latter more readily reflects the former.



the proletariat is shrinking inexorably, the nation-state dwindles in front of our eyes, and almost anyone with access to the Internet also enjoys access to capital goods?

The argument goes that, as the economic foundation of society shifted during the 19<sup>th</sup> century from agriculture to heavy industry, it has shifted again towards the end of the 20<sup>th</sup> century. On the one hand, the collapse of the USSR and its satellites opened up the whole world to globalisation viz. goods but also, more importantly, to unhindered capital and information transfers. And on the other hand, commodity production tilted against heavy industry toward the ‘information’ or the ‘knowledge’ economy in which weightless goods (such as computer software) account for a galloping share of aggregate exchange value. With these shifts, the social composition changed in a manner that the very term ‘capitalist system’ lost all meaning: The proletariat shrank rapidly and physical capital lost out to the stock of ‘knowledge’, intellectual prowess and information. The traditional nexus of capital and labour, so vividly analysed by Marx in a bygone era, thus broke down. Today, the argument continues, almost everyone can afford to purchase access to ultra-modern capital goods without having to go through a capitalist. Whether in an affluent suburb, a depressed working class area or even in the Third World, a standard PC with an Internet connection is accessible to almost anyone. We are, therefore, all graced with sufficient access to the means of production so as to render passé past definitions of capitalism.

In the ensuing post-capitalist society, political struggle is centred upon not the control of ‘means of production, distribution and exchange’ but, instead, revolve around the distribution of knowledge production and accumulation. In this brave new society, all we have is networks of inter-dependent social power. It may not be a fair world but it is not one that can be made more intelligible by sticking to the antiquated notion of ‘capitalist systems’. In fact, this argument concludes triumphantly, the causes of social justice, equity etc. are best served by a theoretical perspective which can make sense of this new social reality which cries out for a scientific investigation of power, inter-play and interaction. Mainstream economics is (courtesy of game theory and its offshoots) the best show in town.

Our reaction to the above is that it makes interesting reading but is short on empirical support. In fact, the whole argument is founded on three pivotal ‘misunderstandings’ viz. the *facts* of contemporary societies. We call them ‘lies’.

Let us begin with the first lie: *That the economy and capital are de-materialising*. Although there is no doubt that the relative value of weightless products (e.g. software) is increasing fast, they are no less material in their nature than locomotives or steel. Ideas remain bereft of all economic value in the New Economy (even if they are great ideas) unless they take the form of a privately traded commodity; one that can be packaged individually and sold to a subset of those who want it in a manner that prevents the rest from getting their hands on it without paying. Whether the commodity in question is a computer program comprising billions of electrons or the blend of steel, plastic and glass we call a car, it is still a material commodity. Thus all claims that we are moving towards a Platonic realm where ideas are taking over from material output can be safely laughed at. The stock exchanges of the world have already had their laugh, reflecting the fact that the bulk of funds gambled in the late nineties on the New Economy were generated in the good Old Economy (oil, cars, steel, mining, transport, and of course banking). The recent price hikes of material commodities, the worldwide renaissance of the steel industry, the rise of the price of oil – in short the rise and rise of Chinese industry – have put paid to turn-of-millennium messianic narratives on the supposed displacement of material goods.

The second lie is *that both the working and the capitalist classes are vanishing*: Yes, it is true that the proportion of blue-collar workers is diminishing in the ‘first’ world. And that specs of capital are reaching, via pension funds, information technology (IT) etc., countless people who could not sensibly be called capitalists. However, at the same time, the worldwide proportion of waged workers (who enjoy neither any significant unearned income nor access to productive means of their own) is rising fast while control of large businesses is being more and more concentrated in the hands of fewer and fewer people.

The third lie is *that the new technologies are dissolving the traditional separation of capital and labour*. Does the New Economy workforce *really* differ from their blue collar mothers and fathers to such an extent that they can no longer be thought of as parts of a ‘capitalist system’? IT has made it possible for them to work anywhere (even from home) using affordable machines. Their skilled labour is the primary raw material with which they manufacture products of great commercial value. So, have we done away with the capitalist? Of course not. However skilled they may be, they lack the capital which is necessary to set up a viable competitor to, say, Microsoft. Like all profitable sectors in the capitalist ‘past’ (e.g. the steel industry), the New Economy is also characterised by increasing returns to scale the result of which is high ownership concentration (i.e. oligopolist capitalist property rights) and continuing reliance on wage labour. Even a passing glance at the financial press gives the open minded reader a strong impression of a process of capital formation that has its own logic; a logic that goes well beyond that of the individual entrepreneurs pulling the strings daily.

Not wishing to show the same disrespect to empirical work as mainstream economists, we shall not claim that our assertions above capture the truth about the world we live in. We *do* suspect that capitalism is becoming more evident (rather than less) in every part of the world but we shall restrain ourselves here and simply note that the argument that capitalism’s main strands [i.e. the triptych of (a) privately appropriated material production, (b) social stratification between capital-less workers and non-labouring capitalists, and (c) a logic of capital that transcends individual endeavours] have dissolved and become part of the past, is unproven and highly contestable.

*(b) Neoclassicism’s latest tools (e.g. game theory) are as theoretically ‘distant’ from reality today as ever*

Neoclassical economists revel in the new bells and whistles of their models, courtesy primarily of game theory and information economics. Economics and the real world seem to them to have converged. On the one hand the world features more diverse sources of power and authority than in the past and, on the other, economics seems better equipped to explain these than ever before. So, why do we claim that mainstream economics’ theoretical impasse has worsened? To illustrate our position we shall focus on neoclassicism’s greatest success story so far: Game theory.

Game theory has been hailed by economists and non-economists as a potential foundation of a unified science of society; one that has its roots in neoclassical theory but has managed to outgrow the latter, become genuinely open-minded, and overcome the narrowness of neoclassical theory. Game theory is thus presented as what happened when neoclassicism matured sufficiently to leap from a static world of equilibrium prices and quantities (which reflect marginal productivities) to a general theory of social interaction. When this view is

endorsed by an assortment of sociologists, political scientists, self-proclaimed Marxists, even philosophers, critics of economics must take notice.

And take notice we have! Elsewhere (Hargreaves-Heap and Varoufakis, 2004) we demonstrate that game theory provides an example of a fascinating, heroic theoretical failure! Why? The simple answer is: *Indeterminacy*; the failure to explain what ‘rational’ agents would, or should, do in simple yet important social interactions (e.g. simple conflict or co-ordination games as well as the so-called bargaining problem).<sup>12</sup> The root-cause of this failure<sup>13</sup> are the three familiar meta-axioms which game theory has inherited intact from neoclassicism (methodological individualism, instrumentalism and equilibrium). To put it plainly, on the one hand people appear to be more complexly motivated than game theory’s neoclassical foundations permit while, on the other, a part of that greater complexity comes from their social location. The more entangled the web of social relations in which agents are caught, the more their motives, beliefs and actions obey a systematic logic that the neoclassical model of preference-driven, instrumental behaviour has no real capacity to capture. Arguably, there is no web of social relations more intricate and difficult to disentangle than the one history has weaved by the beginning of the second millennium.

Recent developments in evolutionary game theory, the study of psychological games, and some clever laboratory experiments, have all combined nicely to illuminate *the dialectical relationship between action and structure*; the very type of relationship that conventional game theory (following neoclassicism) assumes away, to its detriment. So, we conclude, game theory’s grand claims on behalf of neoclassicism must be rejected. But that is not to argue that game theory’s contribution is insignificant. Quite the contrary, our conclusions stand as a challenge to the three neoclassical meta-axioms which have had a free rein in the development of game theory. Our point is that, either the social complexity must be coherently incorporated in an analytical framework which focuses on a macro-motivated individual (see Arnspenger and Varoufakis, 2003, for an example), or the methodological foundations will have to shift away altogether from methodological individualism, instrumentalism and equilibrium. In either case, neoclassicism (at least as defined here) will have to be abandoned.

Turning to the question of how well game theory, information economics, mechanism design (in short, neoclassicism’s latest ‘clothes’) approximate contemporary capitalism, there are some success stories; for example, the design of auctions (despite some miserable failures – e.g. the sale of mobile phone frequencies in New Zealand). Nevertheless, these applications succeed only in partial equilibrium terms; that is, in markets where a design is required for the distribution of given values (e.g. the privatisation of given assets). When it comes to forming a general theory of capital and value accumulation, as well as of behavioural codes of differently situated people, neoclassical theory is more distant from social reality than it was at the time of A. Marshall or J.R. Hicks. For at least those scholars of yesteryear, unlike today’s mainstream academic contingent, had a healthy respect for history and real empirical evidence (as opposed to endless regressions).

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<sup>12</sup> Note that this is a failure on game theory’s own methodological individualist terms. Neither Marx nor Keynes would have considered it a failure of their theories if the latter had no capacity to explain individual behaviour. But game theory, being inherently neoclassical (see our definition in section 2), puts all its eggs in the basket of explaining individually rational acts and beliefs about these acts. If it cannot account for the latter, it has failed on its own terms.

<sup>13</sup> A failure acknowledged by many renowned game theorists (e.g. David Kreps, Roger Myerson, Ken Binmore).

Mainstream economic seminars (when not consumed by financial econometrics bereft of *all* economic theory) often concentrate these days on what might be termed the New Political Economy: Valiant attempts to capture by neoclassical means the links between state and private interests with a view to (a) overcome the analysis' chronic indeterminacy and (b) understand the power relations making up contemporary capitalism. The first task is, we think, impossible. And so is, for entirely different reasons, the second task; the reason being that these models lack the basic prerequisite that would give them a chance to allude to real, existing capitalism: *a sense of capitalism as a system with a logic irreducible to isolated preferences*. The result is a large set of models which attempt to *talk about* and *formalise* aspects of contemporary capitalism without having adapted their meta-axioms to the *actual content* of capitalism. Just like we previously encountered meta-axioms designed to account for market behaviour attempting to account for non-market phenomena (see section 4), here the same meta-axioms pretend to account for the working of capitalism. Thus we end up with neoclassical studies of 'the economy' which, to us, appear as *diversions* from the real task of studying capitalism. Moreover, the more coherent and globalised capitalism becomes the less willing and able modern neoclassicism is to explain it.<sup>14</sup> And as time goes by, this unwillingness acquires an ideological fervour that often manifests itself whenever an economist (young or established, as in the case of Joseph Stiglitz) decides to set neoclassicism aside and focus instead on the capitalist reality in which actual people live.

Note that this ideological move is quite fragile. For instance, evolutionary game theory (one of neoclassicism's recent 'trophies') can generate intuitions that come quite close to the idea of a systemic logic. 'Evolutionary traps' can be generated within 'neoclassical' contexts that can only make sense if we recognise some 'systemic logic'. The only prerequisite is that the social interactions involve agents who differ between them in some arbitrary way (e.g. they are tall, fair, male, left-handed). Then systematic patterns of discrimination (that have nothing to do with the persons' preferences, character, intelligence, power or application) emerge both in theory and in experiments. Hargreaves-Heap and Varoufakis (2002) demonstrate experimentally how discrimination of this type can evolve among almost identical agents. If a systemic logic *irreducible to individual data* can be created within 60 minutes in the laboratory, then it is not controversial to argue that, contrary to the neoclassical 'party' line we live in a web of interweaving 'systemic logics'.

The best neoclassical retort here is that while *some* form of systemic logic may be rationalisable in the context of the neoclassical meta-axioms, there is no reason why it ought to be the logic of the *capitalist system*. That 'system', it could be claimed, is a figment of the imagination of left-wing thinkers who resent the course that modern societies have embarked on taken since 1991. Note, however, the twist: Neoclassicists claim this as a last ditch defence of methodological individualism and a last stand against historically situated modes of consciousness. Had they not denied the logic of capital, the simple evolutionary dynamics that now generate within a neoclassical framework the *stylised, ahistorical 'traps'* mentioned above would appear as only a distant echo of the *powerful historical trends* that have propelled the capitalist system and its predecessors for centuries. The bottom line is this: neoclassicism can be proud of some simple dynamic/evolutionary models (e.g. evolutionary game theory) which illustrate analytically (an experimentally) some primitive features of actual historical trends. However, that is as far as they can go. History cannot be reduced to evolutionary dynamics. More worryingly for neoclassicists, the evolutionary and experimental variants of neoclassicism whet practitioners' appetites for more real history. In

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<sup>14</sup> Caught up as it is in (a) its original meta-axioms and (b) game theory's struggle with indeterminacy

a manner that Habermas would appreciate, this is an appetite that neoclassicism can create but never satisfy. For it has its meta-axioms to safeguard even if it means straying further and further away from any meaningful account of the socio-economic system around (but also ‘inside’ of) us.

(c) *Neoclassicism’s theoretical failure is **functional** to both its dominance of the economics discipline and its legitimacy crisis at large!*

“If you are right about neoclassicism’s theoretical failure”, we are often asked, “how come it remains at the heart of the mainstream, while you and your ‘critical’ friends are firmly lodged in the margins?” One answer is that neoclassicism is like democracy: Terrible on the one hand but the best available alternative on the other. This is not our answer. Our answer is that neoclassicism has managed brilliantly to weave a web of interlocking explanations of all sorts of phenomena and to market that web effectively *because* (rather than in spite) *of its theoretical weaknesses*. Professional economists have long stopped caring about the truth-status of their theories. What they do care about is that their theories continue to evolve within the professions; that they help their careers; and, to a lesser extent, that they are *seen* by others (eg. the government, the public, business etc.) to hold water. In the words of economist Alan Kirman, mainstream economists do not care enough about the seaworthiness of their vessel (i.e. of their theory).

Why is this? The simple answer is that economists are like most people. They care about success and their success is best understood in sociological, or perhaps anthropological, terms.<sup>15</sup> The difference with naval engineers is that their vessel will only sink if other people like them (i.e. other economists) think it will; that is, their meta-axioms are not subject to empirical scrutiny. Econometrics is not a means of testing neoclassicism’s meta-axioms (for they are not empirically falsifiable) but, rather, a laborious search for reduced forms that fit the data and, at the same time, are consistent with *some* model founded on the meta-axioms. The well-known anthropologist E.E. Evans-Pritchard analysed the social success of the priesthood within the Azande society, as well as their continuing dominance, in spite of the fact that the priests and the oracles failed to predict or avert disasters. His explanation of the Azande's unshakeable belief in witchcraft, oracles and magic goes like this:

“Azande see as well as we that the failure of their oracle to prophesy truly calls for explanation, but so entangled are they in mystical notions that they must make use of them to account for failure. The contradiction between experience and one mystical notion is explained by reference to other mystical notions.” Evans-Pritchard in his *Witchcraft, Oracles and Magic among the Azande*, 1937

Mainstream economics is not much different. Whenever it fails to predict properly some economic phenomenon (which is more often than not), that failure is accounted for by appealing to the same mystical economic notions which failed in the first place. Never does it question its meta-axioms! Occasionally new notions are created in order to account for the failure of the earlier ones. For instance, the notion of *natural* unemployment was created in order to explain the failure of the market to engender full employment and of economics to

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<sup>15</sup> This did not apply to an earlier generation of economists who had been sensitised by the Great Depression to think of economics as a vocation.

explain that failure. More generally, unemployment and excess demand (or supply) is ‘proof’ of insufficient competition which is to be fought by the magic of deregulation. If deregulation does not work, more privatisation will do the trick. If this fails, it must have been the fault of the labour market which is not sufficiently liberated from the spell of unions and government social security benefits. And so on. What is never questioned is the methodological foundation of neoclassicism or its ironclad commitment to stay away from any discussion of the logic of capital.

In conclusion, the success of neoclassical economics, just like the success of the Azande's priesthood, is *in one part* due to the fact that it offers full explanations of its failures. A capacity of the mainstream to maintain its position of monopoly on economic witchcraft ensures that only neoclassical models are permitted in the journals that ‘matter’. Naturally, those who want to become economists by definition wish to join the priesthood and must therefore adopt without acknowledgement, or trepidation, the three meta-axioms.<sup>16</sup> Thus the evolutionary fitness of the mainstream is shored up.

There is, however, a *second part* to the explanation regarding neoclassicism’s dominance: its functional link with the workings of that which it does *not* portray: the logic of capitalism. For centuries now, capitalism’s apologists have been claiming that it is a natural system of socio-economic organisation; one toward which human history has been tending for aeons as its absorbing equilibrium.<sup>17</sup> Most recently, as we argued above, this naturalism has taken on a new form in becoming the cleverest defence of capitalism yet: the notion that capitalism no longer exists as it transformed itself gradually out of existence.<sup>18</sup>

Our first point here is that the ‘capitalism-has-disappeared’ line of argument is functional both to capitalism *and* to the dominance of neoclassical economics. It is functional to capitalism because it helps it remain invisible, shielding it from systematic criticism and therefore stabilising it politically. Think about it: Hordes of young people around the world are currently trying to make sense of globalising capitalism but none of them, courtesy of neoclassicism, are studying capitalism! The latter is, therefore, invisible and beyond critical scrutiny. It appears in the eyes of our students as a complex system no less natural than the physical universe which is to be studied by physicists, tamed by engineers and only scrutinised by a few weird philosophers of science. Given the dominance of neoclassicism, it has become as meaningless to debate alternative ways of organising economic and social relations as it is pointless to discuss alternative laws of physics. All the energy of the young is, consequently, challenged in how either to ‘fit into’ this natural system (as entrepreneurs of sorts) or to analyse it using neoclassical tools based on the three meta-axioms. Nothing could protect capitalism better from the dangerous idea that there might be something un-natural, or irrational, about capitalism.

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<sup>16</sup> Non-neoclassical (or anti-neoclassical) books and articles will either not get published (since publishers find that the market value of their products is positively linked to their neoclassical content) or will be assigned a lowly notional value by the profession. Why? Because if, as an economist, you are agonising about how you will manage to write and publish in the neoclassical genre, reading an anti-mainstream piece does not help. What you need is some neoclassical text which will give you ideas about how to alter *your* neoclassical model so as to make it more marketable. Thus the demand for non-neoclassical work is low. There is nothing like low demand to reduce quantity and economic value. In the end the non-neoclassical voices are silenced without ever being persecuted.

<sup>17</sup> Indeed, the Left can be usefully defined as those who opposed this naturalistic interpretation of capitalism.

<sup>18</sup> And all we have now is interlocking global markets and networks of dispersed power which are best made sense of by the latest theoretical tools founded on neoclassicism’s meta-axioms.

At the same time, capitalism's unchecked march into the far reaches of China and the deepest level of our anatomy is functional to neoclassicism's dominance. For, if the view that capitalism is as natural as the laws of gravity, there is no logic of capital, no social classes that can be given a useful analytical role, no socio-economic dynamic that is irreducible to the study of isolated agents acting on given and current preferences. All there is is a melange of individuals 'doing their thing' in strategic settings (markets, political institutions etc.) where game theory and neoclassicism's latest tools rule theoretically supreme.

Our second point is that neoclassicism's theoretical failure is its strength! We believe that the functional mutual reinforcement between capitalism as a 'system' and neoclassicism as a 'religion-with-equations' gathers pace and power as a result of neoclassicism's theoretical failures. Earlier, we referred to *indeterminacy* as the price neoclassicism paid for making its models more open-minded and strategic. Here we add that, although indeterminacy counts as a failure *on neoclassicism's own terms*, it is a failure that helps it increase its dominance within the economics profession. It is a remarkable gift, indeed, to be able to salvage a triumph from the jaws of a grand defeat! How does neoclassicism accomplish that? Our answer: Through theoretical mutations in response to these failures that, nonetheless, do not threaten the foundational meta-axioms. Let us explain.

When general equilibrium theory reached its limits some time in the 1960s, game theory took over and occupied mainstream economists for at least twenty years, giving them in the process much ammunition to use against their critics. By the 1980s, as game theory was running out of steam, plagued by indeterminacy, the new evolutionary turn saved the day. More recently, a combination of experimental work and mechanism design are giving neoclassicism its new wind. These are some of the mutations that help keep neoclassicism fresh and dominant. None of them threaten its three meta-axioms. They are exciting theoretical developments which encourage practitioners to apply their creativity and intelligence as long as they keep away from any investigation of the capitalist dynamic which has generated the phenomena under study. The key question is: How is the capitalist dynamic shielded from the inquisitiveness of these, arguably, great minds?

The answer is twofold: On the one hand, there is the method itself and its meta-axioms which ensure that, once structure and agency are assumed separate, capitalism remains theoretically invisible. When the brilliant theorist tries to breach the structure-agency separation, the models explode in her face with more equilibria than she can count. Indeterminacy worsens and the hapless economist must admit defeat, forfeiting in the process the claim that she does not need the rest of the social sciences to do her work. It is not merely a matter of pride that stops economists from coming to terms with the consequences of relaxing the structure-agency apartheid. It is also a matter of a large amount of money; of the sizeable research funds that come economists' way exclusively because of the pretence that they have the sole key that unlocks the economy's chest of secrets. So, the choice the economist is left with is stark: Retreat behind the fence of the meta-axioms, continuing to build her career and help her department expand, or risk being cast out of the profession.

The second fold to our answer transcends the political economy of the economics profession and touches upon the aesthetic-cum-ideological correspondence between the latest incarnation of bourgeois liberalism and neoclassicism's meta-axioms. Whereas in decades past neoclassicists of renown (the names of Paul Samuelson and J.R. Hicks come readily to mind) held firm ideas about the importance of liberal socio-economic engineering, today's

neoclassicists live and work in an academic free-for-all in which a new ethos of liberalism prevails, one which is intolerant of so-called emancipatory (or progressive) meta-narratives. The *Postmodern Turn*, as is often called, may have lost pace since its pinnacle in the 90s but it has, nonetheless, left us with a creeping disdain for any theory of society aiming at improving our lot in ways not already inscribed inside people's heads. Such theories are automatically discredited as 'arrogant', 'condescending' and, ultimately, as oppressive.

Elsewhere we have argued that neoclassicism's highest form (i.e. general equilibrium and game theory) is the asymptotic limit of postmodern liberalism (see Varoufakis, 2002). So, in our eyes at least, it seems that neoclassicism's radical indeterminacy sits nicely with the postmodern view of a fragmented world in flux; a social world that cannot be double-guessed, planned, or indeed understood as part of some overarching meta-narrative. In short, a world made up of social interplay, voluntarism, tolerance and exchange; a society not dissimilar to a playground where *ex ante* defined individuals act and where discussions about the logic of capitalism, of the General Will, of exploitation, and even of developmental freedom, make no sense.

Both neoclassicism and postmodernity espouse a radical egalitarianism which is founded on the rejection of any standard or value by which either individual action or the institutions of late capitalism (e.g. the labour and capital markets) can be subjected to rational criticism. From its inception, neoclassicism excluded any notion of objective value in a bid to divert attention from the impersonal logic of accumulation (that David Ricardo and Karl Marx focussed on) and vest individual preferences with all explanatory power. The current theoretical impasse facing neoclassicism is a direct result of that methodological move. However, it comes at a postmodern time when it is 'cool' and exquisitely liberal to have no view of the world.

Meanwhile, in the 'real world', the methodological radical egalitarianism shared equally between neoclassicism and postmodernity equips the IMF with models that help it dictate its policies to hapless Third World countries, legitimises the inexorable devaluation of political goods, expedites the vulgar commodification of human bodies and values, promotes the impossibility of conceptualising freedom-from-the-market, depicts Central Banks as 'independent' only when under the thumb of financial capital, confuses liberty with the freedom of capital to move about the globe at any cost to the economies which it visits or abandons, and, above all else, portrays coercion and exploitation of living human beings as *tâtonnement* between free agents.

In conclusion, neoclassicism's theoretical Waterloos have no impact on its domination of the mainstream. Indeed, they shore it up. Indeterminacy unwittingly blows fresh wind in the sails of neoclassicism, the undisputed champion of the deconstructed, postmodern human agent. Models of incredible complexity, yet utterly disjointed from capitalist reality, proliferate and help promote, at the level of Econ101 courses upwards, a view of the world in which capitalism is a meaningless term and markets are the epitome of freedom-in-action. Of course, to maintain this consensus neoclassicism must defend itself from those that question its meta-axioms. While welcoming anyone who wants to embed subversive ideas in its models, its automatic defence mechanisms come down ruthlessly on anyone who dares challenge its meta-axioms. This postmodern form of authoritarianism helps neoclassicism stay in full control of the mainstream but at a high price: the best and the brightest young people, sensing the impossibility of a free and open debate of mainstream economics'



founding axioms, abandon ship. Neoclassicism is already resembling a grand cathedral with a dwindling flock.

## 6. Conclusion

This paper turns on two fundamental arguments. First, that neoclassical economics is well-defined by reference to three meta-axioms: *methodological individualism*, *methodological instrumentalism* and the *axiomatic imposition of equilibrium*. Secondly, that neoclassical economics is neither a neutral language nor politically neutral. Instead, the neoclassical content of mainstream economics is functionally linked to the logic of capitalism that it tries so valiantly to assume away. This link is what accounts for the ‘most peculiar failure’ of our subtitle: Neoclassical economics maintains its control over mainstream economic theory *because*, rather than in spite, *of its problem with indeterminacy*. A rich theoretical mosaic comprising complex indeterminate models finds itself in a symbiotic, mutually reinforcing, relation with a socio-economic system whose success at replicating and spreading into alien realms (e.g. in the microcosm of genetic engineering or China’s capital markets) depends on remaining theoretically indeterminate (or, even better, invisible).

We also tried to reverse the argument that neoclassical theory’s open-mindedness is evidenced by its capacity to model non-market behaviour and non-capitalist institutions. Neoclassicism’s imperialistic sojourns within the whole gamut of social theory are consistent with a surreptitious eagerness theoretically to infuse the market ethos into social realms that capitalism has not as yet managed to penetrate. Modelling non-market relations (e.g. family life, artistic production, drug abuse, pre-capitalist economic history) in terms of pure (albeit non-monetary) exchanges is an attempt axiomatically to introduce (through the back door) the presumption that all social activity is to be understood in terms of a strict separation of structure from agency, with the latter being reducible to autonomous self-interested action and the former being a mere crystallisation of previous actions. In short, neoclassical imperialism assumes that converting all values into exchange values and all relations into exchanges of sorts is somehow the ‘natural’ thing for social scientists to do. So, neoclassicism effectively heralds the triumph of capitalism’s verve in realms in which capitalism has not triumphed yet!

The standard neoclassical reply to arguments like ours is that the onus is on critics to present any theory we may fancy in terms of rational individual action. Otherwise, we are told, we fail to treat the subjects of our theory with due respect (imposing on them theories on what they want and do which only work assuming that they, the subjects, are oblivious to these theories). If this is what we are doing, we would deserve all the contempt neoclassicists can muster. But it is not. Our argument is that in order to understand individual agency without being patronising toward individual agents, social theorists (including of course economists) have a duty to locate individual agency in a theoretical framework capable of identifying the ways in which our contemporary capitalist reality differs *fundamentally* from that of hunter-gatherer or feudal societies.

So, no one wishes to argue that economic explanation must occur at a level removed from that of individual agency. Neoclassicists are right to think that all macro phenomena boil down to an observable complex network of personal interactions under various asymmetries. But they are wrong to think that they will grasp the aggregate effect of these interactions by assuming that the individual agent is well defined at the individual level; it is indeed theoretically catastrophic to presume that

interactions between persons are *not* embedded in a systemic logic that makes them what they are. In brief, the question is whether historical and institutional knowledge is to be derived from a clean slate on which only individual preferences are admissible.

Historical knowledge differs from analytical-synthetic knowledge in that it does *not* rely on clean-slate reconstruction in order to establish its judgments as to the relevance of an explanation. If classes or types of individuals are interacting within certain systemic constraints, and under certain systemic biases, and if there is sufficient evidence for the underlying patterns to be empirically credible, then this systemic character can be taken as a fact and be considered as an integral part of individual agency which is, nonetheless, theoretically inaccessible by analytic-synthetic reduction. Then the task becomes one of working out at each historical juncture which web of beliefs and private motives are consistent with which type of economic relations.

It is often forgotten that the aim of social theories, especially ones which deny this, is not explanation *per se*; it is socio-economic engineering! Whether we start from historically socialised modes of consciousness or bundles of ordinal preferences, the end result is prescription. The early political economists, whether conservative or leftwing, set out to create a better social world; to help us overcome systemic constraints and biases through the creation of a society that comes closer than before to the ideal of a collectivity of free and enlightened individuals. Neoclassicism has long ago cornered itself in a methodological *cul de sac* where it extracts professional privileges by distancing itself increasingly from both current socio-economic reality and, naturally, from any vision of a better society. This is precisely why it is both successful at maintaining its hold over the mainstream *and* scorned by bright young people who, once upon a time, would have been drawn to economics.

Today's moment in history is that of globalising capital. While higher barriers are being erected to prevent people from moving to where wealth is accumulating, political change is paving the way for capital's absolute freedom to move unimpeded. The 'rights' of capital are even being enshrined in the new European Constitution! The moment of free agents in a borderless world, of a classless society in which people differ only in terms of (mostly human capital) endowments, rather than in terms of which class they were born into, is currently a socialist utopia that has almost vanished from our collective imagination but lives on in neoclassical models as a depiction of today's market societies. By imposing their meta-axioms as preconditions for relevant diagnoses of how to organise modern societies, neoclassicists are in effect analysing the current moment in history with a method suited, *at best*, only for a non-capitalist moment that is far from having yet emerged.

To conclude, mainstream economics is superimposing a grid of analysis on the actual systemic logic of capitalism which obscures all essential features of that logic. When this is pointed out by critics, the neoclassical retort is that they would be happy to model any 'systemic' logic if it could be done in the context of their own meta-axioms. Of course, such magnanimity comes cheaply since their meta-axioms are designed to preclude this (for the reasons we outlined in section 4). So, effectively, neoclassicism's motivated 'failure' to make room for a systemic logic of capitalism is a built-in feature which helps it succeed within academia. This it does by

manufacturing the appearance of a ‘dispassionate’ study of a ‘natural’ system: neoclassicism’s ‘objectivity’ and capitalism’s ‘naturalism’ therefore form a mighty alliance from which they both benefit.

Unfortunately, critics of mainstream economics are often sidetracked from the one issue that matters: *neoclassicism’s axiomatic refusal to delve into capitalism’s systemic logic*. The powerful nexus between neoclassicism’s long sequence of theoretical failures and its astonishing evolutionary fitness will persist unless this axiomatic refusal is exposed for what it is: a species of gross intellectual dishonesty. The mutually reinforcing socio-theoretical feedback between neoclassical theoretical failure and capital’s logic will not be dented by criticisms of the suspect morality of *Homo Economicus* or the weakness of its theory of unemployment. Critics will only manage to dent neoclassicism’s dominance if they expose the functional link between (a) the three neoclassical meta-axioms, (b) the view that capitalism is no longer (at a time when it is spreading like a bushfire), and (c) capital’s own distinct logic.

It seems almost indelicate to point out that neoclassicism draws its immense narrative power from an audaciously circular, purely ideological stance: faithful to its three pristine meta-axioms, neoclassicism refuses to engage with a capitalist systemic logic because these meta-axioms were designed to preclude making sense of such a logic. Thus, in a never ending circle, the neoclassical method ensures that contemporary economic reality and mainstream economics will remain strangers who reinforce each other’s dominance *as long as mainstream economics remains innocent of the logic of capitalism and the logic of capital obeys laws that economics obscures axiomatically*. It is quite possible that humanity’s intellectual history has never before fashioned an ideological triumph of this magnitude out of a sequence of sorry theoretical failures.

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