

# What is this ‘school’ called neoclassical economics?

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What is this school called neoclassical economics? Does it exist? Should it? Where does the term ‘neoclassical economics’ come from, and is there any connection between any of the current interpretations of the term and its original meaning? How do we make sense of competing current interpretations? Is there a sustainable formulation? These and related questions are raised and answered in an attempt to bring clarity to ongoing economic discussion and debate, thereby to under-labour for a more relevant academic economics discipline.

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## 1. Introductory observations

More than a century ago, Thorstein Veblen introduced the term ‘neoclassical’ into economics *prima facie* to characterise a particular ‘school’. The latter quotation marks were provided by Veblen himself, suggesting that there may be a sense, however, in which the object of focus was not really a school of thought at all. Even so, Veblen certainly had in mind the nature of the output of a set of contributors, as we shall see.

Currently, the term ‘neoclassical’ pervades the discourse of academic economics, being employed to denote a range of substantive theories and policy stances. It does not take too much research or reflection, however, to realise that not only is the Veblenian heritage typically not acknowledged (and conceivably not always appreciated) but the term is invariably employed rather loosely and somewhat inconsistently across different contributors.

For many the act of describing an economic contribution as neoclassical is considered a form of criticism, though usually when the term is so used it is so without explanation

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or elaboration; it mostly signals dissent.<sup>1</sup> In similar fashion those who accept the term for their own output seem very often, and again mostly without definition or explanation, to suppose that any contribution they make is neoclassical in nature.

There are numerous more careful or systematic interpreters of the term, found typically (though not exclusively) amongst methodologists and/or historians of thought, who do seek to elaborate its meaning rather more cautiously. Here two strategies dominate.

First, there are those who suppose that intrinsic to the notion of neoclassical is a sense of both continuity and difference with something called classical economics. Certainly, if the category neoclassical economics is to be maintained it does seem *prima facie* reasonable to expect this to be the case. Yet those historians of thought and others who focus on this expectation<sup>2</sup> typically conclude that the criterion is not met and, most especially, that contributions classified as neoclassical fail to reveal meaningful *continuity* with any conception of classical economics.<sup>3</sup>

Second, there are those interpreters of the term who prioritise internal coherence (rather than continuity with some classical tradition) and instead seek to systematise any analytical features that are common to, or generative of, those contributions most widely accepted as somehow quintessentially neoclassical.

The conceptions developed by the latter set of interpreters do have significant features in common. Perhaps the most notable is the highly abstract nature of the characterisations advanced, very often taking the form of a set of ‘axioms’ or ‘meta-axioms’ or

<sup>1</sup> Not infrequently those who use the label to designate others are in turn often so labelled themselves by their opponents. Thus Paul Krugman (2009) refers to ‘monetarist’ and ‘freshwater economist’ opponents as neoclassical, whilst he in turn is criticised by Steve Keen (2012) as being neoclassical; and so on.

<sup>2</sup> Almost universally amongst those who seek to uncover a significant element of continuity between neoclassical and classical economics, neoclassical economics is interpreted as a set of ‘marginalist’ theories and classical economics is used to designate whatever came before it. Unfortunately, however, the term ‘marginalism’ is itself variably interpreted. Some commentators use the category for Alfred Marshall’s contributions; others for the contributions of William Stanley Jevons, Carl Menger and Léon Walras; and still other others for marginalism in general, including the writings of John Hicks and Paul Samuelson, and especially the latter’s (Hicks-inspired) supposed ‘grand neoclassical synthesis’. For a brief but systematic coverage of the various interpretations of marginalist economics, see especially Antonietta Campus (1987). For a discussion of marginalism in relation to interpretations of neoclassical specifically, see Tony Aspromourgos (1986).

<sup>3</sup> Certainly this is the view of most scrutinisers of claims to continuity. Thus Maurice Dobb (1973, p. 248), for example, examines Joan Robinson’s description of marginalist theories of distribution as neo-classical and finds it so unlike (his conception of) classical economics that he suggests that *counter-classical* would be a better designation. In similar fashion Joseph Schumpeter (1954) examines the ‘habit, which has developed especially in the United States, of describing the “marginalist” theories as neo-classic’, but concludes (focussing on the ‘pure-theory’ aspect in particular) that ‘there is no more sense in calling the Jevons-Menger-Walras theory neoclassic than there would be calling the Einstein theory neo-Newtonian’ (1954, p. 919). Milan Zafirovski defends at length the thesis ‘that this neoclassical nomenclature for marginalism was problematic to the extent that marginalism, especially its early version in Walras, Menger, and especially Jevons, was a non- and even counter- or “anti-classical” rather than “newly” classical, as the term neoclassical would suggest’ (Zafirovski, 1999, p. 46). And Aspromourgos (1986) finds that it was ‘only with Hicks and Stigler, in the 1930s and 1940s, that the term was extended to embrace marginalism in general’ finding however that ‘Neither of them offered any substantial notion of continuity between classics and marginalists’ (p. 266). This literature is usefully summarised by Aspromourgos (1986), who himself does notably turn to Veblen to locate the origin of the term ‘neoclassical’, suggesting that for Veblen, the ‘central figure in this neoclassical school is Marshall’ (1986, p. 266). Searching for continuity of neoclassical with the classical school at the level of substantive content, however, Aspromourgos concludes that Veblen fails to provide it in the essay in which the term ‘neoclassical’ is coined; instead ‘Only in a later essay does Veblen suggest some substantive content for the continuity he perceived’ (Aspromourgos, 1986, p. 266); even this Aspromourgos seems to find unsatisfactory (see especially Aspromourgos, 1986, p. 269). Finally, I note too that Sanan Fayamanesh (1998) focuses almost exclusively on Veblen and examines three possible interpretations of what continuity may have meant for him, but concludes that ‘none [. . .] presents a clear and viable argument in support of the continuity of economic ideas’ (Fayamanesh, 1998, p. 90).

perhaps a 'meta-theory'. Additional commonalities are that the axioms identified tend to make reference to individuals as the units of analysis and indicate something of the states of knowledge and/or forms of typical behaviour of these individuals. In addition it is often the case that certain supposed (typically equilibrium) states of the economic system get a mention.

Thereafter, however, agreement is harder to find and significant variety creeps in. Sometimes individual knowledge is assumed to be in some sense 'perfect' or 'complete', sometimes systematically limited, and very often knowledge specifications do not figure explicitly at all. Behaviour is often treated as rational in some technical sense, though not always, and where it is, there is significant variety in the particular specifications. Further, there is wide disparity over whether equilibrium states are part of the essential framework of neoclassicism, and, where they are accepted as so, disagreement as to whether such states are held axiomatically always to prevail, or whether their possible existence is a matter of study, or something else; and so on. In short there is significant variety of interpretation of the term 'neoclassical economics' even across the more cautious interpreters.<sup>4</sup>

<sup>4</sup> Consider first the view of Frank Hahn, someone who identifies with the label 'neoclassical'. Although not always consistent (compare Hahn, 1982, p. 354, with specifications found in Hahn, 1984, 1985), Hahn (1984, 1985) identifies the following restricted set of features of the 'neoclassical' economic theory project as essential: (1) an individualistic perspective, a requirement that explanations be couched solely in terms of individuals; (2) an acceptance of some rationality axiom; and (3) a commitment to the study of equilibrium states. Here the category equilibrium is explicitly referenced, though noticeably there is no presumption that an equilibrium state 'holds' or 'exists' in any sense. Rather, for Hahn, the task of determining whether an equilibrium state exists in some model is precisely the sort of activity intended by a commitment to the study of such states. Turning to a view from the history of economic thought, Roy Weintraub (2002) rather suggestively concludes that 'we are all neoclassical now'. The reason for this assessment, it seems, is that supposedly all academic economists teach neoclassical economics to students; for this is the substantive content of modern economic textbooks that all economic teachers use. This content, we are informed, is, or conforms to, a meta-theory, meaning 'a set of implicit rules or understandings for constructing satisfactory economic theories', and any substantive theory consistent with this meta-theory qualifies as neoclassical. The particular set of understandings or 'fundamental assumptions' that render a theory neoclassical are: '1. People have rational preferences among outcomes. 2. Individuals maximize utility and firms maximize profits. 3. People act independently on the basis of full and relevant information. Theories based on, or guided by, these assumptions are neoclassical theories' (Weintraub, 2002). Notably, and in contrast to Hahn, Weintraub nowhere in his definition makes reference to the study of equilibrium states. A second difference is the insistence by Weintraub that individuals possess 'full and relevant information'. Turning next to a view from economic methodology, Christian Arnsperger and Yanis Varoufakis (2006) take the view that the essence of neoclassical economics reduces to three meta-axioms: 'It is hard to imagine how any standardly trained economist could deny that her theoretical practices digress from the three methodological moves mentioned above: *Methodological individualism*, *methodological instrumentalism* and *methodological equilibration*. For simplicity we shall henceforth refer to them as *the neoclassical meta-axioms*.' Notice that the third meta-axiom is simply 'the axiomatic imposition of equilibrium'. In their analyses, Arnsperger and Varoufakis, in agreement with those already noted, conclude that any axioms about individual behaviour are unable to guarantee equilibrium states, but, believing such states to be essential to neoclassical theorising, make the fact of equilibrium states an axiomatic assumption. No claim about individual possessing full information is seemingly included. Turning finally to some views from the heterodox traditions, Geoffrey Hodgson, who has contributed much to institutionalist economics, offers the following interpretation drawing on the observations of Gary Becker: 'Let us attempt to identify the key characteristics of neoclassical economics; the type of economics that has dominated the twentieth century. One of its exponents, Gary Becker (1976, p. 5) identified its essence when he described "the combined assumptions of maximizing behavior, market equilibrium, and stable preferences, used relentlessly and unflinchingly." Accordingly, neoclassical economics may be conveniently defined as an approach which: (1) assumes rational, maximizing behaviour by agents with given and stable preference functions, (2) focuses on attained, or movements towards, equilibrium states, and (3) is marked by an absence of chronic information problems' (Hodgson, 1999, p. 29). In contrast, the Marxian economist Ben Fine insists that neoclassical economics is not couched in terms of rationality or equilibrium specifications or indeed any specifications regarding features of 'agents' or states of the economy.

No less significant is the observation that the various substantive categories (rationality, equilibrium) which frequently occur across the conceptions of these more cautious interpreters seem to be in declining use in modern economics discourse, and despite the continuing prevalence of the category neoclassical economics. Others have noted the same developments. Thus David Colander *et al.* (2004), for example, insist that modern ‘economics is moving away from strict adherence to the holy trinity—rationality, selfishness, and equilibrium—to a more eclectic position of purposeful behaviour, enlightened self-interest and sustainability’ (Colander *et al.*, 2004, p. 485); an assessment shared by John Davis (2005), amongst others.

If current use of the term ‘neoclassical’ has lost touch with its original meaning, does not live up to its billing of signalling continuity with a classical school and is not consistently or usefully interpreted even by those who seek internal coherence, it seems to be additionally the case that there is no real need for such a term anyway, at least not for capturing major developments and/or approaches within the modern economics academy.

The reason for so concluding is that the major research groupings or divisions of study of modern economics are more than adequately characterised without employing the term. Certainly the contemporary discipline is dominated by a mainstream tradition. But whilst the concrete substantive content, focus and policy orientations of the latter are highly heterogeneous and continually changing,<sup>5</sup> the project itself is adequately characterised in terms of its enduring reliance, indeed, unceasing insistence, upon methods of *mathematical modelling*. In effect it is a form of *mathematical deductivism* in the context of economics.<sup>6</sup> Deductivism is just the doctrine that all explanation be expressed in terms of ‘laws’ or ‘uniformities’ interpreted as (actual or ‘hypothetical’) correlations or event regularities (see later discussion and Lawson, 2003).

Moreover if the contemporary mainstream project is appropriately characterised as one of mathematical modelling in economics, a form of mathematical deductivism, each of the various academic heterodox traditions that stand opposed to this hugely dominant mainstream project has its own self-identifying label, including post-Keynesianism, feminist economics, (old) institutionalism, Marxian economics,

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Rather it is essentially: ‘the technical apparatus or architecture established by the mainstream from the marginalist revolution onwards. Most fundamental is the use of utility and production functions, with accompanying assumptions to allow the theory to proceed regardless of any other considerations—methodology, realism, other theory, empirical evidence *and* mathematics—to the contrary’ (Fine, 2006, p. 2). Clearly, each of these conceptions, though sharing some features with a selection of others, is unique in various ways. There is no consensus on interpretation, nor *prima facie* is there any obvious basis for choosing between them; in particular there is not an interpretation provided that seems to generalise or generate the others. Of course all I offer here is an indicative selection of assessments for purpose of illustration.

<sup>5</sup> On all this see especially Lawson (2012b). Others have emphasised the same features. For example, Colander *et al.* (2004) emphasise the ‘changing face of mainstream economics’ and criticise heterodox economists for failing to notice such ongoing developments. Specifically, these authors criticise heterodox contributors for adopting an overly ‘static view of the profession’ (p. 486); for simplistically referring to the current mainstream as neoclassical; and for missing the ‘diversity that exists within the profession, and the many new ideas that are being tried out’ (p. 487). In fact, Colander *et al.* insist that ‘Mainstream economics is a complex system of evolving ideas’ (2004, p. 489), and refer to the ‘multiple dimensionalities that we see in the mainstream profession’ (p. 489). They acknowledge though that the mainstream is tied to its mathematical modelling methodology.

<sup>6</sup> Interestingly, none of those who seek seriously and systematically to characterise neoclassical economics appear to do so according to the use of mathematical modelling *per se* (see note 5, for example); of course it was long after Veblen was writing that such modelling practices became dominant in economics.

Austrian economics, social economics and numerous others. It is thus *prima facie* unclear that the designation 'neoclassical economics' is anywhere required.

### 1.1 *Why it matters*

But so what? Does any of this matter? After all, it might be argued, in all spheres of human activity many categories are seemingly used rather loosely and without agreement, but appear to do little harm; this, it might thereby be supposed, is the case with the use of term 'neoclassical' in modern economics.

I suspect that in most contexts of human interaction more clarity is preferable to less. Of course, (lexical) ambiguity can sometimes be useful (for example, when an author does not want to reveal too much early on in a text) as can ambivalence (when a contributor is unable to weigh up the arguments and seeks to avoid making a commitment prematurely)<sup>7</sup>; I doubt that either are ever entirely avoidable whatever a contributor's intentions. In addition the meanings of many (if not most) categories do evolve to an extent over time, and in any case may, in part at least, be determined (and so revealed only) in use. Certainly there is no desire here to reify or underplay nuance or performativity and so forth. However in the current situation the manner in which, and wide disparity in the ways, the term 'neoclassical' is applied is not only productive of severe obfuscation, and seemingly increasingly so, it is also, or so I shall argue, positively debilitating of the discipline not least through hindering effective critique. Indeed, a major motivation of this article is precisely an assessment that the looseness with which this central term is interpreted (along with the toleration of this looseness) is a major factor inhibiting progress in economic understanding.

Not only is the economy in crisis but, as is now widely recognised, so is the discipline of economics itself. Yet the debate over the nature of the latter's problems, weaknesses and limitations has so far been mostly fairly superficial; indeed, it is apparent that within the academy there has been very little if any significant progress. A major reason for this, I will be arguing, is that loose and varying interpretations of neoclassical theorising, especially when standing in as forms of criticism and dismissal, actually serve to distract sustained reflective attention from the real, or more systematic, causes of the discipline's failings.

If I am correct in my assessment here that the term is not only without obvious use but also debilitating (the latter, as I say, being a contention defended later), a seemingly reasonable reaction is to suggest jettisoning the category neoclassical economics altogether, as indeed has been the recourse of a few commentators (for varying reasons) previously.<sup>8</sup>

This in effect has tended to be my own previous orientation; I have rarely if ever employed the term in previous writings. But I have often been criticised for this, not least because a stance of non-recognition or non-engagement through avoidance is taken to be, if not itself confusing then insufficiently critical (Fine, 2004; Bernard Guerrien, 2004), or even accommodating, of results maintained under the neoclassical head. Perhaps, too, the non-appearance (rather than an explication) of the term 'neoclassical' in analyses seeking to identify and illuminate the causes of problems of

<sup>7</sup> Or a contributor may have something to hide.

<sup>8</sup> See, for example, Hicks (1983, pp. xiii–xiv), Aspromourgos (1986, p. 296), Colander (2000, p. 127), or Fayazmanesh (1998, p. 75).

the discipline has in itself encouraged some to treat the latter analyses less seriously. Although I shall argue that theorising and policy stances labelled neoclassical are not the primary causes of the discipline's problems, I accept (below) they may often be manifestations of it; so that determining the relation of at least the seemingly most coherent account of neoclassical to the real causes of the discipline's problems, will hopefully provide practical insight. Moreover I am aware that there is interest in, and I suspect there may be value to determining, how a conception of the contemporary mainstream economics as a form of mathematical deductivism, a conception I have long advanced, relates to at least the seemingly most sustainable conception of neoclassical economics. Furthermore, there is simply a repeatedly observed questioning of the nature of neoclassical thinking.

For various reasons, then, I take the opportunity here to elaborate that interpretation of the term that I believe to be the most sustainable. Let me stress at the outset that I do actually believe that a coherent construal is possible. I might also add that I am sympathetic to the idea that elaborating a coherent interpretation of such a pervasive term is an interesting intellectual project in itself. I also think it an intrinsically interesting exercise to systematically re-examine Veblen's purposes in formulating the term. But primarily, and more practically, the reason for seeking a coherent conception here is to facilitate clarity in the hope and expectation that, one way or another, this can contribute to advancing the discipline. If merely avoiding the use of the term is considered unhelpful and misleading for the reasons just given, then seeking as coherent an account as is feasible seems the obvious alternative recourse. Either way (if not through discarding the term altogether then through rendering it coherent), my aim is to help remove certain significant obstacles that obstruct the path of seriously addressing those factors that are the more fundamental causes of the modern discipline's increasingly widely recognised and indeed very widespread problems.

There is little point, of course, in my merely asserting a novel or alternative conception of neoclassical economics. Rather, any interpretation worth maintaining must fit at least the criteria implicit in criticising current uses above. The conception I advance does so. In particular I argue for an interpretation that is (developmentally<sup>9</sup>) consistent with the historical origins of the meaning of the term given it by Veblen; is both continuous with, as well as different from, a meaningful conception of classical economics; is not only consistent with but in a sense encompasses seemingly all the explicit modern interpretations, not least those put forward by the more careful/cautious contributors and indeed, makes sense of and explains the latter; renders equally intelligible the contradictions of the wider, looser literature; possesses a clear referent, one that is currently without a category name; and is useful in at least (through all the foregoing) bringing clarity to academic discussion.

Obviously, I cannot, any more than anyone else, stipulate that a specific interpretation of the term be accepted, but I can hope to persuade that a particular version is more adequate than others, at least in terms of its ability to satisfy all of the various criteria of coherence already elaborated. Indeed, in terms of satisfying the noted criteria I suspect that the conception defended here may be as good as it gets. Whether this

<sup>9</sup> As already noted, few categories remain entirely fixed in their meaning over time. However there is a sense in which those that prove helpful evolve systematically in the light of new understandings, changing conditions and evolving related needs. This is a case of (the broader notion of) developmental consistency (see Lawson 1997, 2003 for a discussion of this notion).

is ultimately good enough for the purposes laid out, and indeed whether the fact of a coherent interpretation of the term renders it worth persevering with, are matters that I also examine in due course.

In presenting and defending the interpretation I have in mind, Veblen's initial conception is an obvious starting point. Unfortunately, Veblen's conception needs a fair bit of elaboration to convey its essential meaning. This in part, I suspect, explains why it seems rarely to be seriously discussed or even acknowledged. I believe, though, that there are significant rewards to treating Veblen's analysis on these matters explicitly and systematically, to recovering his basic message. This I attempt to accomplish eventually below (where I find that in the few cases Veblen is referenced on the matters before us, standard interpretations of his intentions are not quite right). Before I turn to such matters, however, I want first to expand a little on a central claim made in the introductory overview, concerning the real causes of the discipline's problems. The issues involved are likely not overly familiar to everyone; some of them require argumentation; many of them, as we eventually see, are highly relevant at some level for understanding Veblen's own conception of the neoclassical 'school'.

## 2. *The real source of the discipline's problems*

I have suggested that a widespread loose usage of the phrase 'neoclassical economics' or 'neoclassical theorising', especially in criticism, has tended to deflect from the real source of the discipline's problems, so I had better indicate here what the latter is and how the slack use of the category neoclassical economics hinders effective critique.

The source (as opposed to immediate manifestations) of the problems of the discipline of modern economics lies not at the level of substantive theorising at all but at the level of methodology and social ontology (the study, or a theory, of the nature of social reality). Modern economics, as has already been noted, is dominated by a mainstream tradition that insists on the repeated application of methods of mathematical modelling. The models actually employed, like all tools, are useful in some conditions and not in others. As it happens the sorts of conditions under which the modelling methods economists have employed would be useful are found to be rather uncommon, and indeed unlikely, occurrences in the social realm. Alternatively put, the ontological presuppositions of the heavy emphasis on mathematical modelling do not match the nature of the 'stuff' of the social realm. The heavy use of these tools in conditions for which they are found to be inappropriate both explains the repeated explanatory failings of the discipline as well as why formulations are of a nature that are typically recognised by almost everyone as rather unrealistic. That, in summary, is the real cause of the discipline's problems.<sup>10</sup>

Let me briefly elaborate some of the detail of the argument. It can be noted first that mathematical methods and techniques of the sort employed by economists (use of functions, calculus and so forth) presuppose regularities at the level of events. Whether the latter are *a priori* hypothesised or *a posteriori* 'detected', the successful application of economist's mathematical tools require event regularities or correlations. Systems in which such event regularities occur can be called *closed*. Deductivism, as already noted, is just the doctrine that all explanation be couched in terms of such (closed systems of) event regularities. Modern mainstream economics, if to repeat, is just a form of mathematical deductivism.

<sup>10</sup> On all this, see especially Lawson (1997, 2003, 2012b).

A social ontology or worldview that guarantees such event regularities is a world of isolated atoms. The term ‘atom’ here refers to anything that (if triggered) has the same independent effect whatever the context. Formulations couched in terms of atomistic factors allow the deduction and/or prediction of events. Or rather, they do so if nothing is allowed to interfere with the actions of the atoms. So to guarantee that at the theory level outcomes are truly predictable and/or deducible, the atoms must be assumed to act in isolation from any countervailing factors that could interfere with the outcomes.

This is the usual implicit ontology of mainstream mathematical modellers: a system of isolated atoms; indeed, a ubiquity of such systems. Very often specific substantive constructions employed take the form of conceptions of optimising (atomistic) individuals isolated in ‘worlds’ that each contains a unique optima, whereby the outcomes of agent interactions can be deduced. However, the latter type of set-up is not compulsory. Assumptions to the effect that individuals follow fixed rules are common, as are (or including) the algorithmic constructions of agent-based modelling and such like. But in almost all cases, the concrete theoretical specifications of economic mathematical modellers are implicitly in terms of—and so constrained to be formulations of—worlds of isolated atoms.

If there are exceptions to the latter sorts of formulations, these arise in the few exercises where the emphasis on mathematical modelling is retained but the modellers seek to avoid the usual unrealistic (atomistic and isolationist) conceptions by downgrading the role of theorising almost entirely. In such cases attempts are usually made to avoid theorising in terms of causal factors altogether as the emphasis is placed more on data information than theorising, as or where faith is placed, as with some modern approaches to econometrics, in more or less simply uncovering event regularities.<sup>11</sup>

Once, however, we change tack and give primary attention not to mathematical modelling but to studying more directly the actual nature of social reality, a quite different and clearly more explanatorily powerful or superior conception emerges. According to this alternative social ontology, causality always matters, and a more complex, processual account tends to dominate.

The conception of social ontology I have in mind is processual in that social reality, which itself is an emergent<sup>12</sup> phenomenon of human interaction, is recognised as being (not at all atomistic in the sense just noted but rather) highly transient, being reproduced and/or transformed through practice; social reality is in process, essentially a process of cumulative causation (see Lawson, 2012a). Furthermore, social reality is found to be composed of emergent phenomena that (far from being isolatable) are actually constituted in relation (that is, are internally related) to other things, and ultimately to everything else (for example, students and teachers, *qua* students and

<sup>11</sup> For a good discussion of this sort of (de-privileging of theory) approach to econometrics, see Katerina Juselius (2010)

<sup>12</sup> ‘Emergence’ is a term that expresses the appearance of novelty or something previously absent or unprecedented. Emergent causal properties are often the primary focus of the philosophy-leaning literature that employs the category, though where they exist they must be the properties of something, an emergent entity or some such. An emergent entity, where addressed, is usually found, or anyway held, to be composed out of elements deemed to be situated at a different (lower) level of reality to itself, but which have (perhaps through being modified) become organised as components of the emergent (higher level) entity or causal totality. ‘Emergence’, then, as widely interpreted is ultimately a compositional term and involves components being organised rather than aggregated. Elsewhere I argue that social phenomena, though emergent from and always dependent on non-social natural phenomena are causally and ontologically irreducible to the latter (see especially Lawson, 2013b, but also 1997, 2012a, 2013a).

teachers, are constituted in relation to each other; so are employers and employees, landlords/ladies and tenants, creditors and debtors and so forth;<sup>13</sup> so, too, money, markets, firms and so forth are internally related under capitalism, and inherently transient). Constitutive social relations in short are a fundamental feature of social reality. So, social reality consists of emergent phenomena, constituting highly internally related causal processes.<sup>14</sup> For ease of exposition in what follows I often simply refer to this alternative worldview as a causal-processual or causal-historical ontology or some such.

Even this sketch, though unavoidably brief, is sufficient to indicate that from the perspective of the latter alternative ontology, the closed-system atomist and isolationist requirements of economic modelling are everywhere violated. In fact, the alternative ontology in question is more complex still, for the social world is additionally characterised by meaning, value and so on.

This latter conception, as I demonstrate elsewhere (see especially Lawson, 2003, chapter 2), is, if to repeat, significantly explanatorily superior as an account of the nature of social reality to the implicit worldview of systems of isolated atoms presupposed by the mainstream emphasis on certain techniques of mathematical modelling. It follows, accepting the alternative conception, that the failings of the discipline arise just because economists everywhere are seeking to provide analyses of a social system that is, amongst other things, open (in the sense of not consisting in event regularities), processual and highly internally related, in terms of formulations that require that the social realm be treated as if made of closed systems of isolated atoms. So, in summary, the real source of the discipline's problems is the very emphasis on mathematical modelling that defines the mainstream, an emphasis that usually results in formulations implicitly constrained to be consistent with a deficient social ontology.

### 2.1 *The mainstream/heterodox contrast and the category neoclassical economics*

I noted in the introductory overview that if the mainstream project is usefully characterised as a form of mathematical deductivism, the heterodox traditions are already self-identifying without employment of the term 'neoclassical'. Matters would be analytically neat if the mainstream/heterodox differentiation coincided with the contrasting ontological conceptions already sketched and that it was recognised as doing so. Unfortunately, at least in terms of recognition, matters are not quite so straightforward. Let me elaborate a little, for the issues involved, we eventually see, also bear significantly on Veblen's conception of neoclassical economics.

Although the heterodox traditions of modern economics do, on grounds of pluralism at least, oppose the noted mainstream insistence on methods of mathematical modelling, this opposition to the mathematical emphasis is not always viewed as a sufficient basis, or even sometimes as any basis, for identifying heterodoxy *qua* heterodoxy, just because the ontological implications of this mathematical emphasis are not always recognised.

Rather, on the surface at least, the heterodox antagonism to mainstream contributions is typically manifested not in terms of ontology at all but as a reaction to the

<sup>13</sup> All such constitutive relations are relations of power couched in terms of differing rights and obligations (see Lawson, 2012a, 2013a).

<sup>14</sup> For a comprehensive account, again see for example Lawson (2003, chapter 2; 2012a, 2013a). For discussions of the causal and ontological irreducibility of emergent social processes see especially Lawson (2012a, 2013a, 2013b).

project's substantive theoretical and policy claims. These of course are easily seen to be unrealistic and lacking explanatory power. But then so are the substantive theories accompanying more or less all mathematical modelling endeavours of modern economics. Although various commentators often suggest otherwise, the academic discipline of economics has been characterised by explanatory failure along with clearly unrealistic formulations for rather a long time now.<sup>15</sup> In this context the term 'neoclassical' plays a role, in distracting from the nature of the limitations of modelling *per se*. With more or less all theories attached to models being necessarily unrealistic in significant ways (due to the isolationist atomistic underpinnings), it is all too easy for any contributor to dismiss any particular set of results or claims that clashes with his or her own beliefs as neoclassical (or perhaps as insufficiently neoclassical) and quickly run up alternative (equally unrealistic) formulations that generate preferred conclusions.

Such activity serves to convince hardly anyone to change their minds on anything, of course. Yet it pervades the modern discipline. In this way much if not most academic economic debate remains extraordinarily superficial, certainly insufficiently radical, not least at the level of policy analysis. The practices of labelling varying sets of theories neoclassical helps sustain this superficiality precisely through encouraging the impression that the source of all problems lie at the level of substantive theories, with questionable claims and hypotheses reflecting no more than their formulator's erroneous beliefs about economic behaviour. In this way, any critical observer is encouraged in the view that there is no need to get beyond the level of substantive theorising and model building. In consequence, the more basic problems at the level of ontology remain insufficiently examined and indeed mostly neglected, so the emphasis on mathematical modelling remains largely unquestioned.<sup>16</sup>

Yet there is something of a paradox in all this. Although debates and critiques within modern economics do in this way tend to remain overly superficial, on closer examination it is also apparent that the more sustainable causal ontology of openness, process, significant internal relationality and so on is nevertheless regularly, if often only implicitly, recognised, most especially by heterodox practitioners (see Lawson, 2006a). Or at least this alternative social ontology is often acknowledged in some manner within heterodox pronouncements and more general forms of reasoning. Indeed, specific heterodox traditions have tended to emphasise, or focus centrally and repeatedly on, different aspects of it; or rather, they have systematically focussed on features that clearly presuppose it. Thus post-Keynesians effectively recognise the all prevailing openness

<sup>15</sup> The discipline has been in such a state for more than half a century indeed (see, e.g., Lawson, 2003, chapter 1).

<sup>16</sup> Thus we find the same old mistakes being repeated even in projects like the setting up of the Institute for New Economic Thinking (INET), an organisation whose stated intention is precisely to transform the discipline of economics in the light of its failings to provide much understanding of the ongoing crisis. Although George Soros, the founder of the institute, does reveal an awareness that the reliance on mathematics may at least be something to question (see, e.g., Soros, 2009; Lawson, 2010), for most of his close associates the idea that there might be something problematic about the emphasis on forms of mathematical technique does not appear even to cross their minds. This is easily seen, for example, from a quick scan of the numerous presentations made at the inaugural (2010) conference, held at Kings College Cambridge (all the numerous contributions are posted on the INET website or can be found on YouTube. See, for example, <http://ineteconomics.org/initiatives/conferences/kings-college> or <http://www.youtube.com/watch?v=SdZgD1DCNq4>). Almost all presentations focus on modelling methods and details. The one issue that is rarely even hinted at is that we might also question the very emphasis on mathematical modelling itself; the discussion throughout is only and continually about how economists should go about finding 'better' mathematical models (for a discussion of the 2010 INET presentations, see Lawson, 2012b).

(or the rarity of closed systems) in their significant and enduring concern with uncertainty; feminist economists highlight relationality especially, not least in their concern with theorising issues of care, discrimination and oppression; institutionalists continually interest themselves in systematically studying both change and stability in social life, not least through their emphasis on technology and institutions; Marxian economists concentrate especially on elaborating the nature of the specific emergent internally related totality in motion that is capitalism; and so on (on all this see [Lawson, 2003](#), chapter 7; [2006a](#)).

In fact, a good deal of sustained heterodox research is couched in conceptual frameworks consistent with the sort of causal-processual ontological conception just described. All too often, however, this goes hand in hand with a lack of realisation that methods of mathematical modelling require formulations that are in severe tension with this ontology. This lack of realisation both underpins a misapprehension of the source of the unrealistic nature of many competing claims, as well as the recourse of many heterodox economists to using mathematical modelling methods in seeking to advance insights obtained by other means (see [Lawson, 2009a, 2009b](#)).

Reinforcing the confusion of this whole situation are frequently repeated accompanying assertions to the effect that a reliance on mathematical methods is somehow analytically neutral, that mathematics is no more than a language, or mathematical models are heuristic devices or some such—none of which withstand critical scrutiny (see [Lawson, 2009c](#)).

Of course, because heterodox economists typically prioritise the search for relevance rather than mathematical prowess *per se*, a result is that those heterodox economists who engage in mathematical modelling are, unlike their mainstream counterparts, usually very willing to acknowledge as legitimate (i.e., do not reject as unscientific or not 'proper' economics) the various insightful analyses by others that are not mathematical in any way. The defining feature of the mainstream is the *insistence* on methods of mathematical modelling.

In large part, however, heterodox economists who resort to forms of mathematical modelling fail to appreciate the tension between the ontological presuppositions of this activity and the sort of worldview they otherwise tend to acknowledge. Or where within heterodoxy, a continuing faith in, and/or resources allocated to, exercises in mathematical modelling are not accounted for by an inattention to ontological preconceptions of methods, the explanation is seemingly that the individuals in question entertain hopes of identifying certain contexts in which local closures (facilitating the appropriate use of mathematical methods) do, temporarily, obtain. Either way, the more fundamental problems of the discipline are usually sidestepped with the result that the inappropriate emphasis on mathematical modelling methods remains largely unchallenged.

So, to take stock, both the fundamental failings and the main divisions of modern economics can at some level be expressed in terms of ontological orientations. Or at least this is the real basis for the heterodox opposition to mainstream contributions. However, the picture is muddled by the fact that seemingly not all heterodox economists appreciate that methods of mathematical modelling carry ontological presuppositions, let alone presuppositions (closed systems of isolated atoms) that are inconsistent with worldviews broadly professed. A result is that the picture, if reasonably coherent at the level of ontological distinctions and grounding, is far less so in terms of actual practice. Whether or not the latter identified tension is a weakness of the conception maintained, it represents a theme to which I return in due course and suggest a critical re-evaluation.

A factor that contributes to the preservation of this confused situation is a constant if uncritical repetition of the refrain, at least within heterodoxy, that neoclassical (substantive) theorising is the cause of the problems, even though there is the noted lack of clarity over the meaning of such a term. This activity serves to focus attention on conflicts at the level of substantive theorising and policy formulation, and thereby away from the deeper fundamental tensions at the level of ontology that inhibit systematic progress on all sides of modern debate.

It is thus against the backdrop of this situation that I seek to elaborate a coherent conception of the term ‘neoclassical economics’, indicating how it relates to the various strands of the discipline. This later task seems at least an appropriate and useful—and perhaps a necessary—undertaking if, as here, the goal is to help facilitate more effective critique within the current context, and thereby at least a possibility of progress in understanding.

I turn, then, to develop a conception of neoclassical economics that meets the criteria of coherence laid out in the introductory overview and can be viewed, in that sense at least, as more sustainable than the alternatives so far considered. To motivate the interpretation of neoclassical economics I have in mind, I focus specifically on the analysis originally provided by Veblen. I do so not merely to emphasise historical lineage but also because Veblen’s analysis and concerns prove extremely useful to achieving an interpretation that retains current relevance as well as overall coherence, as we will see.

### 3. Veblen’s project

Those individuals or groups who formulate novel categories do so, of course, for purposes of drawing out similarities and differences that they regard as significant within a body of phenomena they are concerned to examine. A first objective here is to identify Veblen’s larger purpose in coining the term ‘neoclassical’, to uncover the sorts of concerns that interested him and relative to which he felt it advantageous to draw certain distinctions.

This is a topic rarely addressed at any length. Those who acknowledge Veblen as the originator of the term mostly report that he introduces it to distinguish Marshall’s marginalism, or at least to distinguish a marginalist tradition for which Marshall is a central or typical proponent. For these observers, the emphasis tends to be on Marshall’s intention of continuing a form of economics that Veblen labels classical, justifying the formulation neoclassical.<sup>17</sup> However, as already noted, these same observers mostly

<sup>17</sup> For example, Aspromourgos takes the view that ‘The term was coined by Veblen in 1900, and subsequently employed by others, in order to characterise the Marshallian version of marginalism. This is a “satisfying” result, to the extent that Marshall, more than any of the other marginalist founders, sought to present his theory as having a substantial continuity with classical economic’ (1986, p. 266). After a few paragraphs Aspromourgos adds, ‘After Veblen, a number of other early instances of the term [neoclassical] amount to a broad acceptance of Veblen’s view and therefore need not detain us in detail. They all place Marshall at the centre of a neoclassical economics and there is ample evidence that they derived from Veblen’ (1986, pp. 266–67). Aspromourgos mentions in particular that on this matter ‘Hamilton (1923), Homan (1928, pp. 262, 387, 401) and Mitchell (1967, vol. ii, pp. 208, 215, 217–218, 220) evidently followed Veblen’s lead’ (1986, p. 267). Fayazmanesh (1998) advances a different interpretation to that of Aspromourgos but is still of the view that ‘The term “neoclassical” was coined by Veblen apparently based on the assumption that the marginal school is a continuation of the ‘classical school’ (p. 92).

conclude that no significant commonality between the two projects actually exists.<sup>18</sup> Other contributors emphasise instead that the point of introducing the term 'neoclassical' is not merely to express commonality but also to differentiate, specifically to differentiate economists like Marshall from those whom Veblen labels Austrian.<sup>19</sup>

There is some insight to all of this. However, a close examination of the original text, I shall argue, reveals that Veblen holds neither that Marshall typifies the neoclassical contribution nor that Marshall and/or those grouped with him are the only continuers of the classical tradition in question, nor even that it is Marshall's marginalism *per se* that determines his neoclassical credentials. I also argue that Veblen does after all establish a coherent and sustainable account of continuity between the contributions of those he labels neoclassical and those he interprets as classical; and that in so doing, Veblen is indeed also very concerned to establish distinctions between projects, albeit not especially with drawing a distinction between the line of thinking designated neoclassical and Austrian contributions. In fact, to emphasise this latter distinction before others is to miss almost the entire point of Veblen's analysis.

Clearly I need to substantiate these introductory remarks as well as provide grounds for an alternative assessment. In seeking to do so I start by elaborating the nature of Veblen's broader project. That is, before turning to Veblen's actual introduction and use of the term 'neoclassical', I examine at some length the issues that motivate his analysis including the sorts of distinctions he seeks to draw.

### 3.1 *Metaphysical preconceptions*

In the 1900 paper in which the category neoclassical is first introduced, Veblen's ongoing relevant concerns are actually signalled by the paper's title: 'Preconceptions of Economic Science'. The sorts of preconceptions Veblen has in mind here are precisely those already discussed above, namely, the ontological presuppositions held by contributors to economic science. Veblen here (and in other papers written at the time, including his famous 'evolutionary essay' [1898] as well as two earlier papers also titled the 'Preconceptions of Economic Science' [1899a, 1899b]) uses the term 'metaphysics' rather than 'ontology', seeking to tease out the 'underlying metaphysics of scientific research and purpose' (1900, p. 241); but his meaning of metaphysics is the same as that of ontology as used here. Throughout these papers Veblen's primary focus is not substantive theory but, as these titles suggest, the metaphysical preconceptions underpinning economic theorising.

Veblen's specific concern is to identify or distinguish competing 'grounds of finality' of economic contributions, meaning the conceptions of scientific formulations held as proper and providing the standard whereby analyses that conform might be regarded as potentially complete.

<sup>18</sup> One of the more positive assessors is Asprougourgos, who allows a part of what he takes to be Veblen's basis of commonality to be correct 'to an extent': 'Veblen conceived Marshallian economics to be "neoclassical" because it had in common with the classics a utilitarian approach and employed a hedonistic psychology. To an extent this argument was correct, at least with regard to the utilitarianism'.

<sup>19</sup> Although frequently heard, I am not sure this is a view often sustained by serious historians of thought. Nevertheless it is regularly found in 'popular' or easy access sources. For example, at the time of writing an initial draft of this article (July 2012) the Wikipedia entry on 'Neoclassical Economics' informs us that 'The term was originally introduced by Thorstein Veblen in 1900, in his article "Preconceptions of Economic Science", to distinguish marginalists in the tradition of Alfred Marshall from those in the Austrian School'. See [http://en.wikipedia.org/wiki/Neoclassical\\_economics](http://en.wikipedia.org/wiki/Neoclassical_economics). Moreover, if this sentence found in Wikipedia is in turn entered in quotation marks into Google, we find it repeated identically in several thousand additional sources.

In the course of the three ‘preconceptions’ papers, Veblen at length traces out how ‘changes which have supervened in the preconceptions of the earlier economists constitute a somewhat orderly succession’ (Veblen, 1900, p. 240), the most interesting feature of which has been a gradual change overtime in the received ‘grounds of finality’ presupposed in economics:

The feature of chief interest in this development has been a gradual change in the received grounds of finality to which the successive generations of economists have brought their theoretical output, on which they have been content to rest their conclusions, and beyond which they have not been moved to push their analysis of events or their scrutiny of phenomena. There has been a fairly unbroken sequence of development in what may be called the canons of economic reality; or, to put it in other words, there has been a precession of the point of view from which facts have been handled and valued for the purpose of economic science. (Veblen, 1900, p. 240)

Motivating this analysis, however, is a concern to distinguish and contrast two specific and basic ‘grounds of finality for science’ especially. These relate to conceptions of science that Veblen usually terms ‘taxonomic’ and ‘evolutionary’ science, with the former taxonomic conception being ‘the economics handed down by the great writers of a past generation’ (Veblen, 1899a, p. 121) and the latter evolutionary conception described as ‘modern’.

Put simply, for Veblen a taxonomic science is a science of normalities or of the normal case. It presupposes normality in or underpinning and grounding the course of events.<sup>20</sup> This contrasts with, and indeed can be said to be the antithesis<sup>21</sup> of, a historical or evolutionary or ‘matter of fact’ orientation to science that presupposes nothing more than cumulative causal sequence. In the latter case any outcome or event is always caused by something that went before it, but is not in conformity with some pre-ordained pattern or regularity, nor in a manner serving some normative or laudable purpose and so forth.

Veblen notes in this regard that the evolutionary scientist ‘is unwilling to depart from the test of causal relation or quantitative sequence’ (1898, p. 377), inquiring of everything only ‘why?’, and seeking an answer in terms of cause and effect. For the taxonomic economist, in contrast, ‘this ground of cause and effect is not definitive’ (1898, p. 378). Rather, the ultimate term in the systematisation of knowledge is something like a ‘natural law’, or an association of phenomena, an empirical generalisation,

<sup>20</sup> Of course, Veblen is quite aware that all sciences deal to some degree in taxonomy meaning classification, his own contributions included. He is critical, though, of taxonomy for the sake of taxonomy: ‘There is no intention here to decry taxonomy, of course. Definition and classification are as much needed in economics as they are in those other sciences which have already left the exclusively taxonomic standpoint behind. The point of criticism, on this head, is that this class of economic theory differs from the modern sciences in being substantially nothing but definition and classification. Taxonomy for taxonomy’s sake, definition and classification for the sake of definition and classification, meets no need of modern science. Work of this class has no value and no claims to consideration except so far as it is of use to the science in its endeavor to know and explain the processes of life’ (Veblen, 1908a, pp. 112–13). In a later passage where he discusses hedonistic science, it is clear that by a ‘system of taxonomic science’ specifically, he means: ‘a science of normalities. Its office is the definition and classification of “normal” phenomena, or, perhaps better, phenomena as they occur in the normal case. And in this normal case, when and so far as the laws of nature work out their ends unvitiated, nature does all things well. This is also according to the ancient and authentic canons of taxonomic science’ (Veblen, 1908a, p. 122).

<sup>21</sup> Veblen notes of himself that ‘In speaking of this matter-of-fact character of the modern sciences it has been broadly characterized as “evolutionary”; and the evolutionary method and the evolutionary ideals have been placed in antithesis to the taxonomic methods and ideals of pre-evolutionary days’ (Veblen, 1899a, p. 123).

or possibly a correlation regarded as 'natural' or 'normal' or a 'consistent propensity' with any exceptions regarded as mere disturbing factors.

Veblen interprets all lines of economics up until the time he is writing, including those systematised as classical, as being essentially taxonomic in this sense. He has two related concerns in producing the set of three papers titled the 'Preconceptions of Economic Science' as well as his 'evolutionary essay'. The first is to trace how preconceptions of normality and regularity have changed and been rationalised in different periods, culminating with the classical economists of recent standing. The second and more important purpose is to examine how conceptions of normality in economics have fared in the face of the influence of the wider modern evolutionary sciences. In regard to the latter objective his concern is with understanding whether the taxonomic emphasis will continue to shape the methods of economic science:

The question of interest is how this preconception of normality has fared at the hands of modern science, and how it has come to be superseded in the intellectual primacy by the latter day preconception of a non-spiritual sequence. This question is of interest because its answer may throw light on the question as to what chance there is for the indefinite persistence of this archaic habit of thought in the methods of economic science. (Veblen, 1898, p. 379)

In the endeavour of tracing out earlier preconceptions of normality and regularity, Veblen first notes how the 'more archaic metaphysics of the science, [. . .] saw in the orderly correlation and sequence of events a constraining guidance of an extra-causal, teleological kind' (1900, p. 255). That is, the order that was experienced in social life was in effect interpreted as pre-ordained and external to the events unfolding. Starting from an analysis of this 'archaic metaphysics', Veblen at length traces out gradual changes in the underlying ontological preconceptions, running through those of the Physiocrats, Adam Smith, the utilitarian economists (especially Jeremy Bentham), and culminating in the more recent British contributors such as John Stuart Mill and especially John Elliott Cairnes.

A notable feature of the changing metaphysics throughout the period Veblen discusses is a continuous dissolution of 'animistic' preconceptions, a giving up of the idea that there is a spiritual force directing or guiding all developments including those classed as economics:

The history of the science shows a long and devious course of disintegrating animism,—from the days of the scholastic writers, who discussed usury from the point of view of its relation to the divine suzerainty, to the Physiocrats, who rested their case on an 'ordre naturel' and a 'loi naturelle' that decides what is substantially true and, in a general way, guides the course of events by the constraint of logical congruence. There has been something of a change from Adam Smith, whose recourse in perplexity was to the guidance of 'an unseen hand,' to Mill and Cairnes, who formulated the laws of 'natural' wages and 'normal' value. (Veblen, 1898, p. 381)

As my intention here is to elaborate Veblen's notion of neoclassical economics and indicate its continuity with (as well as departure from) a classical economics, the segment of this history of metaphysics on which I mostly focus concerns precisely those developments in economics that Veblen systematises as classical.

It can be immediately noted that Veblen's use of this latter term is non-standard or anyway non-universal. As is well known, Karl Marx coined the term, or rather the category, 'classical political economy' in his *Contribution to the Critique of Political Economy* (Marx, 1977). Marx used it to denote that strand of economics, originating in France with Pierre le Pesant, sieur de Boisguilbert (1646–1714), running through William

Petty (1772–1823) and reaching its high point with the contributions of Adam Smith and David Ricardo (1772–1823), where the focus is on the deeper structures of capitalism and in particular social relations, including relations of production. In coining the term, Marx sought to emphasise a contrast with the ‘vulgar economy’ that followed thereafter which puts aside any interest in real relations of production and focuses instead on superficial appearances.<sup>22</sup>

It is this latter set of contributions, Marx’s vulgar economy, which Veblen essentially identifies as classical economics (as more or less did John Maynard Keynes and others later on). More specifically, for Veblen, the classical school consists in those British economists that came after, but were influenced by, Adam Smith and culminated with those contributors that were to precede Marshall, most notably Mill and Cairnes.

Given that I explore Veblen’s thinking and quote various passages by him, I take it as given in the discussion of the next two sub-sections that the referent of the term ‘classical’ conforms to Veblen’s usage, although in due course I briefly return to the issue of these differing conceptions of classical and any bearing the fact of the difference has on a viable interpretation of the category neoclassical economics.

### 3.2 *Veblen’s classical economics*

Thus interpreted, classical economics, to now use Veblen’s rather than Marx’s characterisations of the different strands of thought, is differentiated from its forerunners at a substantive level in that its focus is primarily no longer on production but on the ‘pecuniary side of life’ constituting ‘a theory of a process of valuation’ (Veblen, 1898, p. 424).

However, it is the metaphysical preconceptions of contributors to classical economics that most characterises the latter for Veblen, and he primarily focusses on them. These do develop somewhat over time, starting with ‘remnants of natural rights and of the order of nature’ but becoming ‘infused with that peculiarly mechanical natural theology that made its way into popular vogue on British ground during the eighteenth century and was reduced to a neutral tone by the British penchant for the commonplace—stronger at this time than at any earlier period’ (Veblen, 1899b, p. 424).

Thus Veblen is explicit in regarding the significant difference between the early classical economics in the form of the utilitarianism and the contributions of Adam Smith, its forerunner, to lie neither in any attachment to a utilitarian viewpoint *per se* nor in any substantive conclusions or policies but in metaphysical preconceptions (Veblen, 1899b, pp. 411–12). For Smith the ultimate ground of economic reality is the design of God; the economic order is divinely instituted, and human beings are suitably deferential. For contributors to classical economics, the ultimate grounds are human nature and processes of valuation. For the utilitarian version of classical economics specifically, the ultimate ground lies in a simplistic hedonistic conception of the nature of human beings conceived essentially in terms of maximising pleasure and minimising pain:

<sup>22</sup> Or as Marx (1974) writes: ‘Once for all I may here state, that by Classical Political Economy, I understand that economy which, since the time of W. Petty, has investigated the real relations of production in bourgeois society in contradistinction to vulgar economy, which deals with appearances only, ruminates without ceasing on the materials long since provided by scientific economy, and there seeks plausible explanations of the most obtrusive phenomena, for bourgeois daily use, but for the rest, confines itself to systematizing in a pedantic way, and proclaiming for everlasting truths, the trite ideas held by the self-complacent bourgeoisie with regard to their own world, to them the best of all possible worlds’ (1974, chapter 1, note 33).

After Adam Smith's day, economics fell into profane hands [. . .] the next generation do not approach their subject from the point of view of a divinely instituted order; nor do they discuss human interests with that gently optimistic spirit of submission that belongs to the economist who goes to his work with the fear of God before his eyes [. . .].

With Adam Smith the ultimate ground of economic reality is the design of God, the teleological order; and his utilitarian generalizations, as well as the hedonistic character of his economic man, are but methods of the working out of this natural order, not the substantial and self-legitimizing ground. [. . .] Of the utilitarians proper the converse is true, [. . .]. The substantial economic ground is pleasure and pain: the teleological order (even the design of God, where that is admitted) is the method of its working out. (Veblen, 1899b, pp. 411–12)

In the course of the development of classical economics, as Veblen conceives it, the spiritual or 'animistic preconception was not lost, but it lost tone' and 'partly fell into abeyance'. It was mostly evident in 'the unavowed readiness of the classical writers to accept as imminent and definitive any possible outcome which the writer's habit or temperament inclined him to accept as right and good.' Veblen thus writes of 'the visible inclination of classical economists to a doctrine of the harmony of interests' and their readiness to 'state their generalizations in terms of what ought to happen' (1899b, pp. 424–25).

An operative term here is 'generalisations'. These are fundamental to the classical contributions as Veblen views them. However, uncovering these generalisations is not a straightforward matter. In discussing how they are derived, Veblen draws attention to a norm of procedure especially important to the later classical economics. Although the approach is heavily empirical, it involved not the direct observation of event regularities but their careful construction via interpreting the evidence at hand. Let me elaborate this assessment a bit.

In fact, Veblen is of the clear view that later 'avowedly classical economists', notably Cairnes and J S Mill, are essentially empiricists, who, in seeking their (empirical) correlations or laws, exclude all ideas of teleology or even causal continuity. Thus Veblen (1900, p. 251) writes of 'the abiding faith which these empiricists had in the sole efficacy of empirical generalization' in which all notions of organic connection or causal continuity are to be avoided. Rather, they construe 'causal sequence to mean a uniformity of co-existences and successions simply' (Veblen, 1900, p. 252).<sup>23</sup>

However, such empirical regularities, then as now, were nowhere in evidence. The novelty of the contributors of this period is to interpret regularities as the product of laborious interpretation:

But, since a strict uniformity is nowhere to be observed at first hand in the phenomena with which the investigator is occupied, it has to be found by a laborious interpretation of the

<sup>23</sup> According to Veblen: 'Nothing of the nature of a personal element was to be admitted into these fundamental empirical generalizations; and nothing, therefore, of the nature of a discretionary or teleological movement was to be comprised in the generalizations to be accepted as "natural laws." Natural laws must in no degree be imbued with personality, must say nothing of an ulterior end; but for all that they remained "laws" of the sequences subsumed under them. So far is the reduction to colorless terms carried by Mill, for instance, that he formulates the natural laws as empirically ascertained sequences simply, even excluding or avoiding all imputation of causal continuity, as that term is commonly understood by the unsophisticated. In Mill's ideal no more of organic connection or continuity between the members of a sequence is implied in subsuming them under a law of causal relationship than is given by the ampersand. He is busied with dynamic sequences, but he persistently confines himself to static terms. Under the guidance of the associational psychology, therefore, the extreme of discontinuity in the deliverances of inductive research is aimed at by those economists—Mill and Cairnes being taken as typical—whose names have been associated with deductive methods in modern science. With a fine sense of truth they saw that the notion of causal continuity, as a premise of scientific generalization, is an essentially metaphysical postulate; and they avoided its treacherous ground by denying it, and construing causal sequence to mean a uniformity of co-existences and successions simply' (Veblen, 1900, p. 252).

phenomena and a diligent abstraction and allowance for disturbing circumstances, whatever may be the meaning of a disturbing circumstance where causal continuity is denied. (Veblen, 1900, pp. 252–53)

The perspective or set of preconceptions that ground this interpretive activity is summed up by the idea that all things ultimately tend towards (even if they are temporarily disturbed from) ends or patterns that the common sense of any era holds to be valuable or worthy. This, says Veblen, is the ‘standpoint of the classical economists in their higher or definitive syntheses and generalizations’ (1898, p. 382). It is described as a standpoint of ‘ceremonial adequacy’, not least because the ‘ultimate laws and principles which they formulated were laws of the normal or the natural, according to preconception regarding the ends to which, in the nature of things, all things tend’; the latter in turn being ends that ‘the instructed common sense of the time accepts as the adequate or worthy end of human effort’ (1898, p. 382).

Veblen’s assessment of the later avowedly classical economists, then, is that their scientific preconceptions of normality took the form essentially of correlations or event regularities, albeit regularities about the normal or natural, understood as that which common sense determines as desirable. However, these had to be carefully read into actual economic outcomes. This is a method of analysis, peculiar to these classical economists, that, according to Veblen, renders them a ‘deductive school’, and their science taxonomic:

What is peculiar to the classical economists in this respect is their particular norm of procedure in the work of interpretation. And, by virtue of having achieved a standpoint of absolute economic normality, they became a ‘deductive’ school, so called, in spite of the patent fact that they were pretty consistently employed with an inquiry into the causal sequence of economic phenomena. The generalization of observed facts becomes a normalization of them, a statement of the phenomena in terms of their coincidence with, or divergence from, that normal tendency that makes for the actualization of the absolute economic reality. This absolute or definitive ground of economic legitimacy lies beyond the causal sequence in which the observed phenomena are conceived to be interlinked. It is related to the concrete facts neither as cause nor as effect in any such way that the causal relation may be traced in a concrete instance. It has little causally to do either with the ‘mental’ or with the ‘physical’ data with which the classical economist is avowedly employed. Its relation to the process under discussion is that of an extraneous—that is to say, a ceremonial—legitimation. The body of knowledge gained by its help and under its guidance is, therefore, a taxonomic science. (Veblen, 1899b, p. 425)

The preconceptions of normality that underpin the analysis, to repeat, are that economic developments conform to correlations, albeit correlations that express features that common sense determines as desirable and can be apprehended only through significantly reinterpreting the evidence. As Veblen had earlier observed in his ‘evolutionary essay’:

The ways and means and the mechanical structure of industry are formulated in a conventionalised nomenclature, and the observed motions of this mechanical apparatus are then reduced to a normalised scheme of relations. [ . . . ] With this normalised scheme as a guide, the permutations of a given segment of the apparatus are worked out according to the values assigned the several items and features comprised in the calculation; and a ceremonially consistent formula is constructed to cover that much of the industrial field. This is the deductive method. The formula is then tested by comparison with observed permutations, by the polariscopic use of the ‘normal case’; and the results arrived at are thus authenticated by induction. Features of the process that do not lend themselves to interpretation in the terms of the formula are abnormal cases and are due to disturbing causes. In all this the agencies or forces causally at work in the economic life

process are neatly avoided. The outcome of the method, at its best, is a body of logically consistent propositions concerning the normal relations of things—a system of economic taxonomy. (Veblen, 1898, p. 383–84)

Laws, then, are but laws of the normal case, sometimes interpreted as hypothetical or abstract, and this science, to repeat, is taxonomic.

The laws of the science, that which makes up the economist's theoretical knowledge, are laws of the normal case. The normal case does not occur in concrete fact. These laws are, therefore, in Cairnes's terminology, 'hypothetical' truths; and the science is a 'hypothetical' science. They apply to concrete facts only as the facts are interpreted and abstracted from, in the light of the underlying postulates. The science is, therefore, a theory of the normal case, a discussion of the concrete facts of life in respect of their degree of approximation to the normal case. That is to say, it is a taxonomic science. (Veblen, 1900, pp. 254–55)

Given this concern with the non-empirical normal or natural, it is unsurprising that a central category for describing economic states should be that of equilibrium. Thus Veblen in total traces the interpretations of normality from extra-causal teleological guidance of the ancients to the modern-day search for correlations and suchlike, as well as theories concerning conditions of economic equilibrium:

The earlier, more archaic metaphysics of the science, which saw in the orderly correlation and sequence of events a constraining guidance of an extra-causal, teleological kind, in this way becomes a metaphysics of normality which asserts no extra-causal constraint over events, but contents itself with establishing correlations, equivalencies, homologies, and theories concerning the conditions of an economic equilibrium. (Veblen, 1900, p. 255)

Importantly for the issues before us, Veblen assesses that at the time he is writing, economics is experiencing change and moving in the direction of an evolutionary science. However, the degree of change achieved is regarded by Veblen as not yet sufficient for economic science to qualify as evolutionary, with hallmarks of taxonomic thinking remaining dominant:

The process of change in the point of view, or in the terms of definitive formulation of knowledge, is a gradual one; and all the sciences have shared, though in an unequal degree, in the change that is going forward. Economics is not an exception to the rule, but it still shows too many reminiscences of the 'natural' and the 'normal,' of 'verities' and 'tendencies,' of 'controlling principles' and 'disturbing causes' to be classed as an evolutionary science. (Veblen, 1898, p. 381)

### 3.3 *Veblen's conception of neoclassical economics*

All that has been said on Veblen's concerns to this point, of course, has been motivated by a need to set the scene for a discussion of what Veblen might mean by the category 'neoclassical'. As we shall see, Veblen also refers to the same project intermittently as modernised or even quasi-classical economics.

Fundamental to Veblen's use of the term 'neoclassical' are precisely the metaphysical or ontological grounds of finality of science that form the focus of the three 'preconceptions' papers, and in particular the contrasting preconceptions associated with taxonomic science on the one hand and with causal-historical or evolutionary science on the other. It is important to recall that Veblen believed himself to be writing at a time of transition in relation to the matters that concerned him (see Lawson, 2003, chapter 8). Although, as we have seen, Veblen motivates his preconceptions papers by enquiring into the possible persistence of the taxonomic approach, and certainly concludes that

an adequate basis in evolutionary thinking has yet to be achieved, he elsewhere basically expresses the view that an evolutionary orientation to economics, and indeed to all social and political science, is ultimately unavoidable; specifically, ‘The social and political sciences must follow the drift [towards becoming evolutionary sciences], for they are already caught in it.’<sup>24</sup>

In this assessment, Veblen has so far been proven to be quite wrong. When introducing the term ‘neoclassical economics’, Veblen is uncertain as to which of various projects that coexisted at that time will most endure, or, as he puts it, survive the processes of ‘natural selection’. Nor is he clear as to which of the various contending contributors will be most involved in ‘continuing the main current of economic speculation and inquiry’. Nor even is he intending to give any relative evaluation of the specific claims of the two or three main ‘schools’ of theory; or at least, he intends not to do so beyond noting one obvious comparative ‘finding’. However, it is in the context of noting this obvious finding that the term ‘neoclassical’ first appears. The relevant passage runs as follows:

With respect to writers of the present or the more recent past the work of natural selection, as between variants of scientific aim and animus and between more or less divergent points of view, has not yet taken effect; and it would be over-hazardous to attempt an anticipation of the results of the selection that lies in great part yet in the future. As regards the directions of theoretical work suggested by the names of Professor Marshall, Mr. Cannan, Professor Clark, Mr. Pierson, Austrian Professor Loria, Professor Schmoller, the group,—no off-hand decision is admissible as between these candidates for the honor, or, better, for the work, of continuing the main current of economic speculation and inquiry. No attempt will here be made even to pass a verdict on the relative claims of the recognised two or three main ‘schools’ of theory, beyond the somewhat obvious finding that, for the purpose in hand, the so-called Austrian school is scarcely distinguishable from the neo-classical, unless it be in the different distribution of emphasis. (Veblen, 1900, pp. 260–61)

So Veblen does indeed introduce the term ‘neoclassical’ in a passage that indicates a ‘school’ that it is not the same as the Austrian. He does so, however, only to point out that for ‘the purpose in hand’ the neoclassical and Austrian school are actually ‘scarcely distinguishable’.

What is this ‘purpose in hand’? It is, as it has been throughout the three preconception essays, to determine the accepted ‘grounds of finality’ or the ontological preconceptions of science, of groups of economists. In particular, Veblen is concerned to examine if and how the taxonomic orientation is giving way to evolutionary thinking or science. In the passage that immediately continues that just noted, he substitutes ‘modernised’ for ‘neo’ in qualifying classical, indicating that he regards the terms as equivalent, and makes it very clear that with regard to this ‘purpose in hand’ the interesting and significant contrast (to neoclassical economics) is provided *not* by the Austrians but by the ‘historical and Marxist schools’:

<sup>24</sup> In fact Veblen concludes his evolutionary essay as follows: ‘The later method of apprehending and assimilating facts and handling them for the purposes of knowledge may be better or worse, more or less worthy or adequate, than the earlier; it may be of greater or less ceremonial or aesthetic effect; we may be moved to regret the incursion of underbred habits of thought into the scholar’s domain. But all that is beside the present point. Under the stress of modern technological exigencies, men’s every-day habits of thought are falling into the lines that in the sciences constitute the evolutionary method; and knowledge which proceeds on a higher, more archaic plane is becoming alien and meaningless to them. The social and political sciences must follow the drift, for they are already caught in it’ (1898, pp. 396–97).

The divergence between the modernised classical views, on the one hand, and the historical and Marxist schools, on the other hand, is wider,—so much so, indeed, as to bar out a consideration of the postulates of the latter under the same head of inquiry with the former. The inquiry, therefore, confines itself to the one line standing most obviously in unbroken continuity with that body of classical economics whose life history has been traced in outline above. And, even for this phase of modernised classical economics, it seems necessary to limit discussion, for the present, to a single strain, selected as standing peculiarly close to the classical source, at the same time that it shows unmistakable adaptation to the later habits of thought and methods of knowledge. (Veblen, 1900, p. 261)

Whatever else neoclassical economics is, then, it is clearly not on par with the historical or Marxist schools. But if neoclassical economics and the 'modernised classical school' are the same project, it is equally apparent (from the final sentence of the last noted passage) that Veblen is intending to limit discussion not to neoclassical thinking as a whole but to a single 'strain' of it. It is in consideration of this single strain or subset of neoclassical thinking, we will see, that Marshall enters the picture.

What is the nature of this 'strain'? According to Veblen, although the producers of neo- or modernised classical economics stand 'peculiarly close to the classical source' they are differentiated from their classical predecessors in being aware of and positively oriented to evolutionary thinking. The strain or subgroup on which Veblen focuses includes those who best exemplify this positive orientation. This is his meaning in observing of this 'strain' that 'it shows unmistakable adaptation to the later habits of thought and methods of knowledge'.

### 3.4 Marshall and Keynes

In identifying this specific strain (which shows unmistakable adaptation to the historical or evolutionary approach) Veblen proceeds merely by illustrating it with reference to two of its developers. One is the philosopher of science John Neville Keynes (the father of John Maynard Keynes), the other is the economist (and Keynes family friend) Alfred Marshall:

For this later development in the classical line of political economy, Mr. Keynes's book may fairly be taken as the maturest exposition of the aims and ideals of the science; while Professor Marshall excellently exemplifies the best work that is being done under the guidance of the classical antecedents. (Veblen, 1900, pp. 261–62)

So Marshall's contributions do not so much *typify* neoclassical economics as represent a specific strand of it that represents the best work done within that line of thinking, in effect moving it further away from its taxonomic classical heritage. The contributions of both Keynes and Marshall are presumably singled out because, under the principle of charity, if a line of thinking is to be criticised for its fundamental nature, and this indeed is Veblen's intention, it is always better to illustrate with the best of work in that line.

Veblen certainly discusses these noted contributors at some length. But his main point throughout is that no matter how ready they are to acknowledge causal processes, and in particular causal histories of structures like institutions in line with causal-processual ontology underpinning historical and evolutionary science, even Keynes and Marshall are unable in practice to break with the taxonomic ideal of science, particularly at the level of method, and this prevents the achievement of a meaningful account of the genesis and developmental continuity of such phenomena.

Veblen is clearly positively disposed towards aspects of the stances adopted by both Keynes and Marshall. He acknowledges of Keynes, for example, that not only does he interpret the aims of modern economic science as having 'less of the 'hypothetical'

character assigned it by Cairnes (that is, as dealing less closely with the ascertainment of the normal case), he also takes ‘fuller account of the genesis and developmental continuity of all features of modern economic life’ giving ‘more and closer attention to institutions and their history’.

Nevertheless a break with taxonomy is not achieved in practice. Rather,

There is a curious reminiscence of the perfect taxonomic day in Mr. Keynes’s characterisation of political economy as a “positive science,” the sole province of which is to establish economic uniformities. (Veblen, 1900, p. 264)

Moreover, observes Veblen,

in this resort to the associationist expedient of defining a natural law as a “uniformity,” Mr. Keynes is also borne out by Professor Marshall. (Veblen, 1900, p. 265)

So the taxonomic approach that typifies the classical school survives even in the writings of Keynes and Marshall, albeit the case that notions of normality no longer express economic developments considered desirable but rather those situations, now considered to exist at the level of the actual course of events, that conform to empirical regularities or economic uniformities. This, of course, is all quite inconsistent with Veblen’s conception of evolutionary thinking.

Indeed, although (or perhaps because) Marshall is apparently more adapted to modern science than most economists, he is interpreted by Veblen as being especially inconsistent on these matters. For, despite observing that Marshall occupies himself with investigating the nature of institutions and is positively disposed to incorporating insights of evolutionary thinking, Veblen also observes that throughout this work the ‘taxonomic bearing is, after all, the dominant feature’ (Veblen, 1900, p. 263)

This is not to say that Marshall is not considered to make a substantial contribution. Indeed, Veblen even suggests that despite ‘survivals of the taxonomic terminology, or even of the taxonomic canons of procedure’ the latter ‘do not hinder the economists of the modern school from doing effective work of a character that must be rated as genetic rather than taxonomic’ (Veblen, 1900, p. 265).<sup>25</sup> The problem, though, according to Veblen, is that the evolutionary thinking is in the end rather superficial; in particular there is little attempt to fashion relevant methods of analysis. The special ‘strain’ of neoclassical thinking represented by Keynes and Marshall is singled out precisely to illustrate that even this most adapted and aware strain (which ‘exemplifies the best work that is being done under the guidance of the classical antecedents’) fails to get beyond taxonomic science at the level of method.

In short, a feature of contributions of both Keynes and Marshall that is significant with regard to the sorts of issues that interest Veblen is a tension bordering upon inconsistency. It is a tension between method and ontology/metaphysics (or more accurately between the ontological presuppositions of taxonomic method and a causal-processual social ontology).

<sup>25</sup> More expansively, Veblen writes: ‘But this and other survivals of the taxonomic terminology, or even of the taxonomic canons of procedure, do not hinder the economists of the modern school from doing effective work of a character that must be rated as genetic rather than taxonomic. [. . .] Professor Marshall shows an aspiration to treat economic life as a development; and, at least superficially, much of his work bears the appearance of being a discussion of this kind. In this endeavor his work is typical of what is aimed at by many of the later economists. The aim shows itself with a persistent recurrence in his Principles. His chosen maxim is, “Natura non facit saltum,” [nature takes no leaps]—a maxim that might well serve to designate the prevailing attitude of modern economists towards questions of economic development as well as towards questions of classification or of economic policy. His insistence on the continuity of development and of the economic structure of communities is a characteristic of the best work along the later line of classical political economy’ (Veblen, 1900, p. 265).

Certainly Veblen finds in these contributors a greater awareness (than is revealed by the earlier classical economists) of issues that are central to the historical evolutionary approach of the sort he favoured, but taxonomy in terms of method remains dominant.

It is precisely this tension, which is first illustrated using the contributions of Keynes and Marshall that I take to be the essence of neoclassical economics, according to Veblen. In other words, the defining feature of all neoclassical economics is basically an inconsistent blend of the old and the new; it is in effect an awareness of the newer metaphysics of processual cumulative or unfolding causation, combined with a failure to break away from methods of the older taxonomic view of science that are in tension with this modern ontology.

Neoclassical economists are classical in their acceptance of a taxonomic orientation to science that does not rely on the design of God, albeit a taxonomic stance now primarily revealed at the level of method. But at that level of explicit ontological or metaphysical preconception, neoclassical economists reveal unmistakable adaptation to the viewpoints of the evolutionary sciences, warranting the qualifier 'neo'.

### *3.5 Neoclassical economics more generally*

Within neoclassicism, it is the strain or subset of neoclassical thinking represented by Marshall and Keynes that in Veblen's assessment is the more adapted to evolutionary thinking. As such Marshall and Keynes are viewed as the more scientifically advanced contributors to, rather than as typifying, neoclassical economics, though even these do not escape the classical taxonomic heritage. Equally, however, Veblen is clear that an air of evolutionism does characterise all neoclassical output, allowing it in fact to be associated at least superficially with work of the early generation of Darwinians. Hence the tension or inconsistency revealed to be present in Keynes and Marshall does characterise all of neoclassical argumentation. Specifically neoclassical economists have done little to develop or to apply methods of analysis that are appropriate to evolutionary preconceptions:

All this gives an air of evolutionism to the work. Indeed, the work of the neo-classical economics might be compared, probably without offending any of its adepts, with that of the early generation of Darwinians, though such a comparison might somewhat shrewdly have to avoid any but superficial features. Economists of the present day are commonly evolutionists, in a general way. They commonly accept, as other men do, the general results of the evolutionary speculation in those directions in which the evolutionary method has made its way. But the habit of handling by evolutionist methods the facts with which their own science is concerned has made its way among the economists to but a very uncertain degree.

The prime postulate of evolutionary science, the preconception constantly underlying the inquiry, is the notion of a cumulative causal sequence; and writers on economics are in the habit of recognising that the phenomena with which they are occupied are subject to such a law of development. Expressions of assent to this proposition abound. But the economists have not worked out or hit upon a method by which the inquiry in economics may consistently be conducted under the guidance of this postulate. (Veblen, 1900, pp. 265–66)

At best neoclassical economists have limited their analyses to aspects of the social world that appear least unpromising for handling with taxonomic methods. This, on occasion at least, is how Veblen describes Marshall specifically, that is, as merely limiting the scope of economics to the few situations where the conditions of such a taxonomic approach may conceivably prevail. In particular, where some innovation has occurred the taxonomic approach of this sort, with its 'statements of uniformities', may be able to say something of the conditions of survival of the innovation, though even here Veblen remains sceptical:

Taking Professor Marshall as exponent, it appears that, while the formulations of economic theory are not conceived to be arrived at by way of an inquiry into the developmental variation of economic institutions and the like, the theorems arrived at are held, and no doubt legitimately, to apply to the past, and with due reserve also to the future, phases of the development. But these theorems apply to the various phases of the development not as accounting for the developmental sequence, but as limiting the range of variation. They say little, if anything, as to the order of succession, as to the derivation and the outcome of any given phase, or as to the causal relation of one phase of any given economic convention or scheme of relations to any other. They indicate the conditions of survival to which any innovation is subject, supposing the innovation to have taken place, not the conditions of variational growth. The economic laws, the 'statements of uniformity,' are therefore, when construed in an evolutionary bearing, theorems concerning the superior or the inferior limit of persistent innovations, as the case may be. It is only in this negative, selective bearing that the current economic laws are held to be laws of developmental continuity; and it should be added that they have hitherto found but relatively scant application at the hands of the economists, even for this purpose. (Veblen, 1898, p. 266)<sup>26</sup>

Finally, it is not merely Keynes and Marshall who abandon the idea that correlations carry some kind of normative appeal; it is a feature of neoclassical economics more generally. Economics remains taxonomic for neoclassical economists essentially because of the presumed form of its results, as presupposed by its methods of correlation analysis. Only now the correlations or uniformities that are produced or sought-after are interpreted (if ultimately somewhat mysteriously) as laws of everyday conduct:

In consonance with this quasi-evolutionary tone of the neo-classical political economy, or as an expression of it, comes the further clarified sense that nowadays attaches to the terms 'normal' and economic 'laws.' The laws have gained in colorlessness, until it can no longer be said that the concept of normality implies approval of the phenomena to which it is applied. They are in an increasing degree laws of conduct, though they still continue to formulate conduct in hedonistic terms; that is to say, conduct is construed in terms of its sensuous effect, not in terms of its teleological content. The light of the science is a drier light than it was, but it continues to be shed upon the accessories of human action rather than upon the process itself. The categories employed for the purpose of knowing this economic conduct with which the scientists occupy themselves are not the categories under which the men at whose hands the action takes place themselves apprehend their own action at the instant of acting. Therefore, economic conduct still continues to be somewhat

<sup>26</sup> Without mentioning, and perhaps unaware of, Veblen's earlier critique, Stephen Pratten (1998) provides a thesis on Marshall that is highly consistent with Veblen's assessment. Veblen, as noted, takes the view that by adhering to taxonomic methods Marshall is forced to concentrate at best on areas or topics, if any, where taxonomic analysis seems less unreasonable. Pratten argues this same thesis at length and in detail. Most fundamentally, Pratten notes that on publishing his *Principles* in 1890, Marshall anticipates that a second volume will follow, an anticipation still in place a decade later when Marshall is explicitly conceiving of this project as involving a 'biological perspective' (in place of the mechanical stance of the earlier analysis). The second volume never appeared, of course, and the reasons for this have been much debated in the history of economic thought. Pratten's contribution is to explain this puzzle in terms of the inconsistency between Marshall's ontology and method. Specifically, noting how Marshall's project of achieving a 'biological perspective' entailed taking seriously the sort of causal-processual ontology discussed here, Pratten demonstrates that the feature that was 'preventing Marshall from realizing his planned program of research lay in his conception of the nature of science—a conception that was simply inadequate to his chosen project' (Pratten, 1998, p. 122). Thus Pratten traces how Marshall's commitment to a taxonomic (constant conjunction or correlation seeking) conception of science 'feeds into characteristic trajectories in certain parts of his substantive analyses' (where the method seems least unpromising) but 'systematically diverts [Marshall] from more fruitful paths'. The result is that those 'aspects of Marshall's work that are not propelled by this standard perspective are not systematically developed' (Pratten, 1998, p. 123). Pratten concludes: 'Marshall's continuing commitment to the standard constant conjunction view [of the form of scientific results] represents one obvious constraint blocking his analysis of economic change, organic development, and so forth. More specifically, I have argued that Marshall's project of promoting, within a proposed second volume of the *Principles*, an economics more sensitive to the nature of its subject matter is frustrated by his inability to shrug off this inherited conception of science' (1998, pp. 158–59).

mysterious to the economists; and they are forced to content themselves with adumbrations whenever the discussion touches this central, substantial fact. (Veblen, 1900, pp. 267–68)

In summary, I am suggesting that Veblen introduces the term 'neoclassical' to distinguish a line of thinking that is ultimately characterised by possessing a degree of ontological awareness whilst persevering with a methodology inconsistent with this awareness; it is a line of thinking identified precisely by this ontological/methodological tension or inconsistency. Its practitioners recognise that social reality is a historical process of cumulative causation, but nevertheless continue to rely upon methods that require of reality that it conforms to given correlations, that render the science as still taxonomic.

As I noted earlier, deductivism is the term used to designate any explanatory reliance on methods that presuppose event correlations. Veblen's neoclassical economists, then, can be characterised as acknowledging the social world everywhere as historical, as processual, but nevertheless simultaneously treating it using taxonomic and specifically deductivist methods that presuppose that social reality is anything but.

It warrants emphasis that, so interpreted, Veblen's neoclassical economics is neither identical to nor subsumes marginalist economics under its head. Of course all versions of marginalist economics are taxonomic. But not all contributors to marginal economics, at least 100 years ago, adopt or reveal adherence to the sort of causal-processual ontology that Veblen attributes to the neoclassicals. Veblen's main focus in discussing theorising under the marginalist head is John Bates Clark. But Clark's position is interpreted as basically classical, or at least a near derivative that is *not* distinguished by some revealed support for a causal-processual metaphysics.<sup>27</sup>

<sup>27</sup> Thus, in a paper titled 'The Limitations of Marginal Utility', notably published nine years after the final preconceptions paper, Veblen notes of this version of marginalism in particular:

The limitations of the marginal-utility economics are sharp and characteristic. It is from first to last a doctrine of value, and in point of form and method it is a theory of valuation. The whole system, therefore, lies within the theoretical field of distribution [ . . . ].

Within this limited range marginal utility theory is of a wholly static character. It offers no theory of a movement of any kind, being occupied with the adjustment of values to a given situation. Of this, again, no more convincing illustration need be had than is afforded by the work of Mr. Clark, which is not excelled in point of earnestness, perseverance, or insight. For all their use of the term "dynamic", neither Mr. Clark nor any of his associates in this line of research have yet contributed anything at all appreciable to a theory of genesis, growth, sequence, change, process, or the like, in economic life [ . . . ]. They have had something to say as to the bearing which given economic changes, accepted as premises, may have on economic valuation, and so on distribution; but as to the causes of change or the unfolding sequence of the phenomena of economic life they have had nothing to say hitherto; nor can they, since their theory is not drawn in causal terms but in terms of teleology.

In all this the marginal utility school is substantially at one with the classical economics of the nineteenth century, the difference between the two being that the former is confined within narrower limits and sticks more consistently to its teleological premises. Both are teleological, and neither can consistently admit arguments from cause to effect in the formulation of their main articles of theory [ . . . ].

The infirmity of this theoretical scheme lies in its postulates which confine the inquiry to generalisations of the teleological or "deductive" order. These postulates, together with the point of view and logical method that follow from them, the marginal utility school shares with other economists of the classical line—for this school is but a branch or derivative of the English classical economists of the nineteenth century. The substantial difference between this school and the generality of classical economists lies mainly in the fact that in the marginal utility economics the common postulates are more consistently adhered to at the same time that they are more neatly defined and their limitations are more adequately realized' (Veblen, 1909, pp. 620–22).

In the final paragraph, Veblen clearly does allow of the marginal utility school that it may be derivative (rather than a branch) of the English classical economists of the nineteenth century. But as I say, if there is a difference it is not that marginalists are thought to reveal acceptance of a causal processual ontology. Rather it reflects the marginalists' greater consistency in treatment of common postulates.

In short, neoclassical economists approach the analysis of social reality armed with inappropriate tools, with the result that they fail to illuminate, or at best they limit the scope of economics to those few cases, if any, where localised stabilities or uniformities may occur. Whatever else it may be, neoclassical economics, according to Veblen, is a line of thinking that falls short of determining methods that are appropriate to addressing the causal-processual nature of social reality that its practitioners nevertheless, at some level, widely recognise.

Although recognition of a causal-processual ontology is regarded by Veblen as an advance of neoclassical over classical thinking, the persistence with taxonomy (in the form of deductivism) is the dominating feature that determines the form of the research findings. That is why it makes sense for Veblen to have characterised the project or strand of thinking in question not, say, as post- or counter-classical, but as modernised or neoclassical, signalling that it constitutes a continuation of the same basic taxonomic project, at least at the level of method, even if its ‘adepts’ at some level hold to a worldview ultimately inconsistent with such a taxonomic orientation.

Parenthetically, the interpretation of the term ‘neoclassical’ that I am advancing here may remain coherent even if or where, instead of Veblen’s interpretation of classical economics, Marx’s alternative and original interpretation of classical is preferred.<sup>28</sup> For on both interpretations, the term ‘neoclassical’ expresses a tension between method and ontology, and in both cases neoclassical is seen to be both a continuation of, as well as a departure from, classical thinking. The difference is that on Veblen’s interpretation it is the adherence to taxonomic method that expresses the continuity of the later neoclassical economists with classical thinking, whereas on Marx’s interpretation it is the recognition of a causal-processual ontology that plays this role. Alternatively put, for Veblen the causal-processual ontological commitments account for the prefix ‘neo-’ in neoclassical, whilst from the point of view of Marx’s interpretation the overly taxonomic (deductivist) orientation to method might be said to legitimise its use. Either way, as I say, the label ‘neoclassical economics’ seems not entirely inappropriate.<sup>29</sup>

<sup>28</sup> I am grateful to Nuno Martins for drawing this to my attention.

<sup>29</sup> Of course the ontological orientation (found to be inconsistent with deductivism) that Veblen finds some awareness of in his neoclassical economists is that which grounds evolutionary economics and so is regarded by Veblen as non-taxonomic. This contrasts with the ontological orientation (inconsistent with deductivism) that is found in the classical (political) economy of the likes of Adam Smith, which is still regarded as overly taxonomic not only by Veblen but also in effect by Marx himself in his critique of classical political economy (Marx repeatedly rejects attempts to naturalise the political economy of capitalism or to represent generalities of capitalism by appeal to universalities of natural law. Marx’s own understanding of capitalism, as I interpret it, is, at least in large part, an inherently historical system-in-process that is anarchic, crisis prone, and subject to a non-predetermined trajectory of development, and so is essentially non-[certainly non-overly] teleological in Veblen’s sense—though it must be noted that Veblen mostly seems to interpret it as effectively otherwise, or anyway as non- or insufficiently Darwinian; see especially Veblen, 1906). But Marx identifies ‘classical political economy’ as a contrast to ‘vulgar economy’ to stress the former’s concern with underlying causal structures and especially social relations in opposition to the *superficiality* (not taxonomic emphasis *per se*) of vulgar economy’s preoccupation with mere appearances and correlations. Whether we adopt the perspective of Veblen or Marx it remains the case that the ontological/methodological tension found in writers such as Marshall is such that one or other side of this latter tension/opposition can coherently be regarded as classical from each perspective, according to that perspective’s own terms and interpretations, with the totality reasonably employing the adjunct ‘neo-’. Of course, where numerous later interpreters of Marx proceed by understanding Marx not as merely critically transforming but also developing, and so himself as working *within*, the classical political economy tradition (see, e.g., Kurz, 2010; Martins, 2012, forthcoming), then any overly teleological elements in earlier contributors such as Adam Smith might in consequence (arguably) be interpreted as contingent, non-necessary features of that classical political economy tradition anyway.

#### 4. The rise of mathematical modelling in economics

In viewing neoclassical economics as founded on inconsistency, Veblen expected it ultimately to prove unsustainable. Indeed, as already noted, he thought that the social and political sciences were already caught up in processes leading to the inexorable rise of evolutionary science, or anyway of science grounded in an ontology of causal processes (Veblen, 1898, pp. 396–97; Lawson, 2003, chapter 8), a development that would have entailed the relative demise of all overly taxonomic (including deductivist) approaches. What Veblen could not foresee is that taxonomy in the form of deductivism specifically was later to acquire a new lease of life by way of unprecedented developments in the field of mathematics.

Ever since the Enlightenment various economists had been seeking to mathematise the study of the economy. In this, at least prior to the early years of the twentieth century, economists keen to mathematise their discipline felt constrained in numerous ways, and not least by pressures by (non-social) natural scientists and influential peers to conform to the 'standards' and procedures of (non-social) natural science, and thereby abandon any idea of constructing an autonomous tradition of mathematical economics. Especially influential, in due course, was the classical reductionist programme, the idea that all mathematical disciplines should be reduced to or based on the model of physics, in particular on the strictly deterministic approach of mechanics, with its emphasis on methods of infinitesimal calculus. Moreover, the intellectual context throughout was one in which, amongst these scientists and mathematicians in particular, there was an enduring belief that mathematical methods were unlikely to be of relevance to the analysis of society (on all this, see Lawson, 2003, chapter 10).

However, in the early part of the twentieth century changes occurred in the interpretation of the very nature of mathematics, changes that caused the classical reductionist programme itself to fall into disarray. With the development of relativity theory and especially quantum theory, the image of nature as continuous came to be re-examined in particular, and the role of infinitesimal calculus, which had previously been regarded as having almost ubiquitous relevance within physics, came to be re-examined even within that domain.

The outcome, in effect, was a switch away from the long-standing emphasis on mathematics as an attempt to apply the physics model, and specifically the mechanics metaphor, to an emphasis on mathematics for its own sake.

Mathematics, especially through the work of David Hilbert, became increasingly viewed as a discipline properly concerned with providing a pool of frameworks for *possible realities*. No longer was mathematics seen as the language of (non-social) nature, abstracted from the study of the latter. Rather, it was conceived as a practice concerned with formulating systems comprising sets of axioms and their deductive consequences, with these systems in effect taking on a life of their own. The task of finding applications was henceforth regarded as being of secondary importance at best, and not of immediate concern.

This emergence of the axiomatic method removed at a stroke various hitherto insurmountable constraints facing those who would mathematise the discipline of economics. Researchers involved with mathematical projects in economics could, for the time being at least, postpone the day of interpreting their preferred axioms and assumptions. There was no longer any need to seek the blessing of mathematicians and physicists or of other economists who might insist that the relevance of metaphors and analogies

be established at the outset. In particular it was no longer regarded as necessary, or even relevant, to economic model construction to consider the nature of social reality, at least for the time being. Nor, it seemed, was it possible for anyone to insist with any legitimacy that the formulations of economists conform to any specific model already found to be successful elsewhere (such as the mechanics model in physics). Indeed, the very idea of fixed metaphors or even interpretations, came to be rejected by some economic ‘modellers’ (albeit never in any really plausible manner).<sup>30</sup>

The result was that in due course deductivism in economics, through morphing into mathematical deductivism on the back of developments within the discipline of mathematics, came to acquire a new lease of life, with practitioners (once more) potentially oblivious to any inconsistency between the ontological presuppositions of adopting a mathematical modelling emphasis and the nature of social reality. The consequent rise of mathematical deductivism has culminated in the situation we find today.

### 5. Implications for the contemporary situation

It will no doubt be apparent by now where I am headed with all this. I am suggesting that central to Veblen’s characterisation of neoclassical economics is a particular tension or inconsistency—specifically, a tension of ontological perspective and method (or the latter’s ontological presuppositions) that, as I noted at the outset, is a prevalent feature of much economics produced today. Certainly the interpretation of the term in this manner is useful in that it picks out the practices of a prominent group of modern economics. Moreover, it picks out a group and a set of practices that are so far unidentified by any label and yet arguably warrant being so identified to draw attention to the inconsistencies of the positions taken.

Somewhat ironically, then, albeit particularly advantageously, if the suggested interpretation of the term ‘neoclassical’ is accepted, usage of the category would serve to draw attention to precisely that inconsistency (of preconceptions of certain modelling practices with otherwise revealed ontological commitments) which the manner of its current usage helps obfuscate. The effect, in short, would be to reverse the term’s current role in the discipline; its usage would contribute to identifying, revealing and/or

<sup>30</sup> It is worth noting that Veblen was never oblivious to how a desire on the part of some to employ mathematical methods tended to preserve the taxonomic (specifically deductivist) emphasis. Indeed (writing eight years after the preconceptions papers but prior to the developments within the field of mathematics), Veblen observes that the main argument against the causalist ontology of evolutionary thinking (and so its implications for method) is that causal forces cannot be directly observed (they are merely ‘metaphysical’ postulates) and so should be discounted. He is aware that such a stance is apparent even amongst some ‘modern scientists’. But Veblen observes that it is especially evident amongst those disposed to employing mathematical functions. Thus although he regards as established the characterisation of reality as a process of consecutive causal change, he acknowledges that it ‘is by no means unusual for modern scientists to deny the truth of this characterization, so far as regards this alleged recourse to the concept of causation’ (1908b, p. 33) and ‘even deny the substantial continuity of the sequence of changes that excite their scientific attention’. Notably:

This attitude seems particularly to commend itself to those who by preference attend to the mathematical formulations of theory and who are chiefly occupied with proving up and working out details of the system of theory which have previously been left unsettled or uncovered. The concept of causation is recognized to be a metaphysical postulate, a matter of imputation, not of observation; whereas it is claimed that scientific inquiry neither does nor can legitimately, nor, indeed, currently, make use of a postulate more metaphysical than the concept of an idle concomitance of variation, such as is adequately expressed in terms of mathematical function. (Veblen, 1908b, p. 33)

Veblen actually sets about demonstrating that such arguments are untenable, that we all implicitly or explicitly must invoke notions of causal powers and continuity (again, see Lawson, 2003, chapter 8).

signalling the tension in question, rather than, as at present, serving to mask or otherwise divert attention from it.

I do not suggest that the content of the taxonomic endeavour of Veblen's time matches the content of modern taxonomic endeavour or even that the latter is at all uniform or consistent. Nor do I pretend that Veblen possessed anything like the developed account of the causal-processual social ontology outlined earlier and defended elsewhere. He only rarely mentions social relations for example; nor does he advance a systematic theory of an emergent social reality. He does, though, recognise that social reality is not well characterised by conceptions of normality at the level of or underpinning actual events and indeed observes that actual social events advance typically in causal sequence only. Nor, as already noted, do I suggest that Veblen anticipated that taxonomic science would persist in economics in the form of mathematical deductivism. But the tension he identifies remains evident and still warrants attention. As such, it is not unreasonable to hold that there is usefulness, in addition to any historical legitimacy, to employing the term 'neoclassical economics' to express this particular tension.

There are clearly many currently who both adhere to taxonomic and specifically deductivist methods and yet at some level also acknowledge the open causal-processual nature of social reality. The central difference between the current situation and that which Veblen addresses is that deductivism today, the production of formulations couched in terms of event-level uniformities, is, to repeat once more, more pervasively bound up with the drive to mathematise the discipline; it takes the form of methods of mathematical modelling.

### *5.1 The coherence of the conception of neoclassical*

So is it really the case that I am suggesting that all mathematical modellers in modern economics who at some level appear to subscribe to the causal-processual worldview, including those who self-identify as heterodox, are appropriately characterised as (modern-day) neoclassical economists? I re-emphasise that the group under focus here is not the set of mathematical deductivist modellers *per se*, but that subset of the latter who at some level simultaneously accept a historical or causal-processual ontology.

I certainly think this is the most coherent rendering of the category of neoclassical economics in that it constitutes a strategy, and seemingly the only one, that allows the term to be interpreted in a manner that meets all the criteria earlier set out. Let me briefly elaborate how it does so.

The interpretation provided is clearly developmentally consistent with historical lineage, as we have seen; indeed, I suggest that it is effectively Veblen's conception. Moreover it expresses a strand of thinking that is both continuous with and a departure from a position that has been prominently characterised as classical. It also possesses a meaningful referent or object of analysis, namely, that group of economists who at some level accept the causal-processual ontology yet for some reason feel unable, unwilling or unmoved to abandon deductivism. It is *prima facie* useful just in that it picks out and identifies a group of economists that are prominent and significant in their impact on the contemporary discipline and economy but currently have no alternative identifying label. Finally the interpretation I am proposing not only generalises all the loose attributions of neoclassical, as well the alternative contending systematic conceptions, revealing them to be in effect special cases of deductivism, of the taxonomic approach to economics, but can make sense of the form of the latter more cautious systematisations as well. Let me now elaborate the latter claim a little.

From the perspective of the conception set out, the explanation of the nature and variety, as well as the limitations, of the accounts of the term advanced by the more cautious/careful interpreters is that the latter have resulted from attempts to uncover the most general, core or generative features of contributions widely regarded as neo-classical whilst their formulators were mistakenly working under the apprehension that these features must be stated in substantive economic terms.

I suggest that the core feature of neoclassical economics is adherence not to any particular substantive features but to deductivism itself in a situation where the general open-processual nature of social reality is widely recognised at some level. Certainly Veblen's central focus and concern in using the term is preconceptions (of economics) rather than conceptions (of economics). Thus from the perspective of this understanding the presumption that the core features must lie at the level of substantive-economic specification, even if it takes a highly abstract form, is, as I say, mistaken. The result is that these more cautious interpreters of neoclassical economics have come as close to the interpretation I propose as seems feasible whilst sticking to the self-imposed constraint of interpreting neoclassical economics only in substantive economic terms.

I re-emphasise that deductivism entails reliance on correlations. The desire to theorise in a manner that produces results taking the form of correlations or event regularities in turn encourages the treatment of economics in terms of systems of isolated atoms. At the same time, the traditional view of the object of economics is in terms of consumption (demand) and production (supply). Thus I am suggesting that the varying conceptions of neoclassical economics outlined earlier (in Section 1) are explained as attempts to steer as close as possible to the above features, namely, correlations involving closed systems of isolated atoms, whilst maintaining a concern with consumption and production, that is, whilst acting under the erroneous constraint of characterising neoclassical economics in terms of substantive economic categories.

The point here of course is that although the deductivist orientation encourages substantive formulations that are implicitly in terms of isolated atoms, there is no unique way of generating them. This explains the sorts of conceptions held, and/or conclusions reached, both by those who have sought to establish commonalities between Veblen's classical and neoclassical economics and by those who have sought to draw out general or generative features of prominent (if often recent) accounts widely regarded as neoclassical.

Thus, turning first to those in the former group, we can see that they have failed to find continuity in Veblen's conceptions of classical and neoclassical just because continuity has been sought at the level of the 'substantive content' ([Aspromourgos 1986](#), p. 269) of theories (whether in economics or psychology) or of 'economic ideas' ([Fayazmanesh, 1998](#), p. 90), but not at the level of accepted preconceptions of science. In this Veblen's focus on the continuing taxonomic emphasis with its implicit ontological presuppositions is overlooked. Yet it is precisely an adherence to the latter by Marshall and others that constitutes the features that render the latter contributors continuous with the classical tradition.

If we turn to the second group, namely, those that have sought to categorise neoclassical economics through seeking generalities across prominent contributions, we can just as equally make sense of, and indeed explain, the sorts results produced here. Commonalities arise because these interpreters, in seeking generality across numerous contributions, have formulated their conceptions in highly abstract terms, whereby, given the ontological constraints of the reliance on methods of mathematical modelling

on the contributors on which they focus, these abstract accounts have tended to take the form of varying versions of isolated human individuals—as-atoms, with specifications concerning knowledge and behaviour serving precisely to constrain conceptions of human beings so as to render them atomistic. Yet significant variation is nevertheless equally found across the versions of neoclassical economics so determined just because there is no unique way to generate substantive formulations consistent with the taxonomic and specifically deductivist orientation, that is, that presuppose closed systems of isolated atoms.

The atomistic condition for a closure requires only that the (atomistic) factors in question have the same separate and independent effect whatever the context. Rendering formulations of human individuals so that they are atomistic in this sense is the purpose of and mostly achieved via the rationality assumption/axiom, of course. But there are various versions even of the latter. In some cases the specification of this (rationality) constraint is absurdly unrealistic (as when individuals are assumed to be continuous calculative optimisers); in other cases it is overly simplistic (as when individuals are assumed to be merely fixed-rule followers). The feature in all this that warrants emphasis (and tends to be overlooked) is that the primary purpose of any rationality axiom is just to fix individual behaviour in some way to render it atomistic and so tractable. The precise (set of) assumption(s) whereby this is done is secondary to this requirement.

This is why some the more careful interpreters of neoclassical economics have recognised that all that is needed in this regard is 'an acceptance of some rationality axiom' (see, for examples, [Hahn 1984, 1985](#)). Alternative interpretations of neoclassical economics that have individuals continually following maximising behaviour in the name of rationality no doubt capture a good deal of the actual literature, but stipulations do not need to be this specific. We can now also see why others have been (even) more cautiously abstract, for only fixity of response to stimuli is actually required in the process of satisfying conditions of closure (i.e., in which event regularities can be derived). Of course there are numerous different specifications that will achieve this.

We can further explain the widely varying assessments of and uncertainty concerning the need to include some notion of equilibrium theorising in the characterisation of neoclassical economics. For although theorising in terms of this category is usually of a sort that can be regarded as taxonomic in Veblen's sense, and is a practice pursued by Marshall and since figured widely in the economics literature, a concern with equilibrium theorising is not in and of itself an integral part of any modern mathematical deductivist framework. Rather, in the context of modern economics especially, equilibrium is basically a solution concept, given a system of equations. Where such a system is generated under deductivist thinking, a question that can in some contexts be meaningfully addressed is whether the resulting set of equations are mutually consistent. Is there a vector of values consistent with them all? The solution concept, especially where prices are involved, is often called an equilibrium state; when economists enquire whether an equilibrium state exists, they are merely inquiring as to whether a set of equations has a solution (see [Lawson, 2005, 2006b](#)). In this manner we can understand why, at least from a mathematical point of view, such a concern may be of interest, and thereby we can explain the (former) high frequency of appearance of the category equilibrium in the economics literature. However the set of steps involved in examining whether there exists a solution to a set of equations is not *per se* a requirement of adhering to deductivism and is notably absent from many contributions widely

perceived as neoclassical. So we can easily understand why some of the more cautious interpreters never mention equilibrium in their definition of neoclassical economics (for example, [Weintraub, 2002](#)), whilst others accept no more than a qualified ‘commitment to study equilibrium states’ (for example, [Hahn, 1984, 1985](#)).

From the perspective set out, all other looser interpretations of neoclassical economics can equally be rendered intelligible, including those that seek to tie the category to laissez-faire ideology, or to competing claims about the functioning of markets, or use it to promote notions of efficiency and so on. In contemporary economics, all designations are applied to substantive claims and policy proposals formulated in accordance with the constraints of taxonomic, essentially mathematical modelling exercises, so that where commitment to a social system as being causal processual in nature are is at some level implied, all are appropriately characterised as neoclassical according to the conception I am advancing.

Perhaps the interpreter of neoclassical economics that comes closest to the conception defended here is [Fine \(2006\)](#). Consistent with deductivism being the problem, Fine does not interpret neoclassical in terms of the particular specifications of human beings or states of the economy or whatever that have been adopted to guarantee that event regularities can be derived; rather, he interprets neoclassical economics in terms of the regularities themselves, or at least in terms of functions expressing them. Thus for Fine the defining feature is the ‘technical apparatus or architecture’ the ‘most fundamental’ of which is ‘the use of utility and production functions’. From this perspective, Fine is able to recognise that additional common objects of focus like equilibrium states are encouraged but not necessary:

Enduring commitment to this technical apparatus explains the persistence but not the necessity of equilibrium, efficiency, laissez-faire ideology, the optimising individual and so on. To a large extent, even those approaches on the edge within the mainstream take this technical apparatus at least as point of departure, adding other forms of behaviour or modifying technical assumptions or, because institutions, history, path dependence, aggregation now matter, glorifying previous inconveniences as the way forward to add wrinkle or complexity. ([Fine, 2006](#), p. 3)

Where Fine’s analysis proves deficient is that his emphasis on utility and production functions forces him to interpret other manifestations of deductivism as merely ‘wrinkles or complexity’. In truth modern mathematical economists have gone way beyond resting their attention on demand and supply conditions in the economy as a whole. Yet still the deductivism remains, generating, as always, unrealistic formulations. These are readily dismissed by heterodox critics, very often as being neoclassical. Now, at least where recognition of causal-processual ontology is at some level revealed, this designation can be rendered coherent.

## 6. Taking stock and reassessment

In short, I am suggesting that there are three basic divisions of modern economics that can be discerned in the actual practices of modern economists. These are:

- 1) those who both (i) adopt an overly taxonomic approach to science, a group dominated in modern times by those that accept mathematical deductivism as an orientation to science for us all, and (ii) effectively regard any stance that questions this approach, whatever the basis, as inevitably misguided;

- 2) those who are aware that social reality is of a causal-processual nature as elaborated above, who prioritise the goal of being realistic, and who fashion methods in the light of this ontological understanding and thereby recognise the limited scope for any taxonomic science, not least any that relies on methods of mathematical deductive modelling; and
- 3) those who are aware (at some level) that social reality is of a causal-processual nature as elaborated above, who prioritise the goal of being realistic, and yet who fail themselves fully to recognise or to accept the limited scope for any overly-taxonomic approach including, in particular, one that makes significant use of methods of mathematical deductive modelling.<sup>31</sup>

If members of group 1 not only include but (with the pervasive modern dogmatic insistence on methods of mathematical modelling) more or less reduce to the contemporary mainstream; and those in group 2 constitute the coherent core of modern heterodoxy; it is members of group 3, again mostly made up by those that utilise mathematical methods, that most qualify as modern neoclassical economists. Groups 1 and 3 are both overly taxonomic in Veblen's sense whilst only members of group 2 are coherently engaged in Veblen's idea of historical or often broadly evolutionary or modern science.

### *6.1 What to do with the category of neoclassical economics?*

To return to a question already posed but not really answered, am I seriously suggesting that we employ the term 'neoclassical' to refer to the third of the identified groups of economists, which will clearly include many who self-identify as heterodox? I repeat that I am certainly suggesting that to use the term 'neoclassical' in this fashion is the most appropriate, and a coherent, use of the category for the reasons already given; although a better categorisation might be non-dogmatic taxonomists or non-dogmatic deductivists, in contrast with the dogmatic (mathematical) taxonomists/deductivists that are the mainstream.

If used in this way, then as noted, the term would serve no longer to mask but to bring repeatedly to the fore a basic tension that lies at the core of the discipline's problems. It is a tension that a consideration of Veblen's analysis reveals has long been in play. Using the term in this manner may encourage thereby a somewhat more critical orientation or greater reflexivity on the part of those unreasonably enamoured of any overly taxonomic emphasis at the substantive level, including especially any form of deductivism. So there are certainly grounds for doing so.

All things considered, however, in the end I do not really think it reasonable to distinguish or identify any group on the grounds of a shared fundamental inconsistency. My aim here, in reporting my findings, is, in the end partly rhetorical, namely, to point out that if coherence in use is required, then according to the seemingly most sustainable conception, many of those who use the term 'neoclassical' as an ill-defined term of abuse can be viewed ultimately as engaged in unwitting self-critique. But I am hoping, more fundamentally, that it is enough in this manner to communicate (in a yet further way) that in modern economics there prevails largely unrecognised a basic tension between ontology and method, one that hinders serious attempts to overcoming the real problems of the discipline.

<sup>31</sup> Edward Fullbrook (2009, pp. 6–7) lists some possible strategies for those who recognise the relevance of the ontology in question but are resistant to adapting methods appropriately.

My suggestion, then, is that rather than distinguish/identify a group on the grounds of a fundamental inconsistency in (ontological) theory and (methodological) practice, the term 'neoclassical economics' should be dropped from the literature, as a few others have already suggested. In other words, I return to my previously held position, albeit now re-evaluated in the light of possessing a seemingly (and perhaps the only) coherent notion of the category of neoclassical economics. All the various questions or lines of reasoning that served to motivate the quest for a coherent interpretation are effectively answered or otherwise already addressed. But once addressed there seems to me to be emergent further grounds, now, to abandon the term. Given that the term as interpreted here signals intrinsic inconsistency, or at best severe tension, it is more reasonable, and significantly less uncharitable, to focus on displaying the latter as a seemingly genuine if long-lasting error than to apply a label with negative connotations to those who implicitly make it, as if implying that they consciously choose to be permanently in error. I doubt that many knowingly wish to build a school on the foundation of an inconsistency.

In this I also suspect that I am continuing in the spirit of Veblen. When Veblen uses the term, as we have seen, it was not intended to denote a school of thought at all; he merely wished to focus, in one specific paper, on one line of thinking (which he expected to be highly transient) that had come out of classical reasoning (as he interpreted it), was open to ongoing (broadly evolutionary) scientific developments of his day but had not yet adjusted scientific method accordingly. The prefix 'neo-' is employed by Veblen just as a serviceable adjective for this discussion and was interchanged with qualifiers like 'modernised', 'quasi' and perhaps others.

Certainly I am not aware that Veblen uses the term 'neoclassical' outside the preconceptions paper in which it is introduced, and I suspect that he would be astounded at the widespread use of the term throughout the discipline today. Veblen's point when coining the term was simply to bring to prominence the limitations for economics of persevering with the taxonomic ideal in science and in particular with adopting a taxonomic science in the form of seeking uniformities at the level of events. That there are problems with adopting any overly taxonomic approach was a central message found in various of his numerous methodological essays, not least in the preconceptions paper in which the term 'neoclassical' is coined; whatever the fate of the category neoclassical, it is a message that is certainly no less relevant today.

## 7. Conclusion

Throughout his methodological writings, Veblen is acutely aware that all scientific undertakings carry within them metaphysical preconceptions regarding the 'grounds of finality' to which results must conform to be regarded as potentially satisfactory. Two basic approaches are distinguished: the (overly) taxonomic and the (broadly) evolutionary. The difference between them is 'a difference of spiritual attitude or point of view'; 'it is a difference in the basis of valuation of the facts for the scientific purpose, or in the interest from which the facts are appreciated' (Veblen, 1898, p. 377). The only preconception of the modern, broadly evolutionary historical scientist is that events unfold in causal sequence. Thus the 'modern scientist is unwilling to depart from the test of causal relation or quantitative sequence', and in responses to all questions of economics the modern scientist 'insists on an answer in terms of cause and effect'. In contrast the taxonomic scientist insists on (or holds preconceptions of science

requiring) something more, whether that something extra takes the form of outcomes regarded as natural or normal or laudable, tendencies to these outcomes, ameliorative trends, or simply correlations at the level of events. Mathematical deductivism is just the very dominant contemporary form.

I have suggested, drawing on Veblen, that the most coherent interpretation of neoclassical economics is of an inconsistent stance of 1) recognising the historical processual ontology of unfolding causal sequence at the level of events, whilst simultaneously 2) seeking to combine this recognition with a taxonomic orientation in the form of deductivism at the level of method that is inappropriate to it. That is, I suggest that interpreted most coherently, the category designates a deep tension, the very one that the currently loose usage of the term serves to mask.

Even if the foregoing does identify a coherent interpretation of neoclassical economics, I suggest further that it is likely better, on balance, to abandon the category. Though others have reached a similar conclusion, they are often quick to stress that in dropping the term they do not wish to imply criticism of any content the term may be used to express.<sup>32</sup> In contrast, I suggest that the reason to discard the term (or otherwise to employ a coherent interpretation) is precisely to facilitate more appropriate and telling criticism, than hitherto in evidence, of the content of modern economics including any expressed through the term itself. This indeed is the point of this exercise of attempted clarification.

The contemporary discipline of economics, most now agree, has lost its way. It is easy enough to demonstrate that this is due largely to the widespread contemporary persistence with methods of mathematical modelling (whether through mainstream insistence or through heterodox confusion/optimism) in conditions where this persistence is unwarranted. The ultimate solution, and, as Veblen clearly saw, basis for any relevant economics, lies first in uncovering the nature of social reality, and second, and certainly no less important, in taking seriously any ontological or metaphysical insights so uncovered in fashioning the methods of economic science. It is to understand the nature of society and then to ensure that research methods are appropriate to that nature. It is to render actual a situation that Veblen long ago thought inevitable. More concretely, it is to replace the current, yet long outlived fixation on seeking or constructing accounts of event correlations with a serious concern to develop an ontologically grounded causal-explanatory social science.

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<sup>32</sup> Colander (2000), for example, takes steps to 'declare the term neoclassical economics dead', but immediately adds: 'Let me be clear about what I am sentencing to death—it is not the content of neoclassical economics' (p. 1469).

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