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# Critical realism and the Austrian paradox

# Adam Martin\*

Austrian economics provokes mixed reactions among critical realists. It preaches methodological individualism, marginalism, and rational choice while embracing emergence, open processes, and error. The Austrian school stands paradoxically with one foot each in the mainstream marginalist tradition and heterodox social theory. I argue that this paradox can be disentangled by appeal to the fundamental distinction between the logic of choice and the logic of action. I then extend the analysis of the logic of action to the critical realist account of the basic ontology of social structures, arguing that successful retroduction of social structures depends on marginalist insights.

Key words: Austrian Economics, Critical realism, Social ontology, Heterodox economics

JEL classifications: B41, B50, B53

#### 1. Introduction

Critical realism posits social ontology as a means of sifting wheat from chaff and putting a derailed economics profession back on course. By ignoring ontological considerations, the critique goes, mainstream economics unthinkingly adopts an implicit ontology illsuited to its object. Economists inquire into phenomena widely regarded as 'social': exchange, markets, firms, money, business cycles, etc. But perpetual advance in mathematical and statistical sophistication has been bought at the price of wholesale omission of the most salient facets of social reality. Social ontology, at its most general level, seeks to understand what general features phenomena have by virtue of their being social.

Post-Keynesians have led the critical realist charge, but it garners interest and support from the whole sweep of heterodox traditions in economics (c.f. Lewis, 2004A). From venerable traditions such as (old) institutionalism to nascent fields like evolutionary economics, critical realism has found willing partners in dialogue and debate. But of all heterodox schools, the Austrian approach has probably had the most bipolar reception among the realists. Beyond a doubt, the Austrian and critical realist critiques of

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mainstream economics share much in common (e.g., Boettke, 2002B; Lawson, 1994, 1997, ch. 1). Commonalities are frequently cited from both camps (Beaulier and Boettke, 2004; Lewis, 2004, 2005; Runde, 2001). But tensions endure. Tony Lawson's seminal *Economic and Reality*, for example, contains two whole chapters dedicated to distancing his approach from that of Austrian luminaries Menger and Hayek (Lawson, 1997, ch. 9, 10; see also C. Lawson, 1996; Lewis, 2004, 2005).

Of course, the same might be said of the relationship between Austrian and mainstream economics. Aside from the Keynes–Hicks influence in macroeconomics, Austrians can rightly claim to be the closest of all heterodox approaches to the mainstream. Flipping open a mainstream or Austrian principles text reveals extremely similar language: choice, rationality, marginal utility, supply and demand, methodological individualism, economic law, etc. At the same time, Austrian texts offer frequent and vociferous critiques of the mainstream's formalistic methodology and its theoretical progeny, including the mainstream use of equilibrium, impoverished understanding of competition, and utility theory (e.g., Rothbard, 1997).

The present essay endeavours to shed light on this bipolar set of observations by explicating and then disentangling what I call the Austrian paradox. The paradox is that Austrian economics embraces the central tenets of marginalism without abandoning a conception of social reality as open, structured and intrinsically dynamic (cf. Lawson, 1997, ch. 7, 2003, ch. 12; Lewis, 2004C). The paper is organised as follows: Section 2 outlines the objections raised by critical realists to the implicit ontology of mainstream economics. Section 3 spells out the Austrian paradox. Section 4 resolves the paradox by appeal to the basic Austrian theoretical distinction between the logic of choice and the logic of action. Section 5 pushes the argument a bit further: I make the case that universal marginalism in the Austrian vein is indispensable for any social scientific discipline on critical realism's own terms. The realist conception of social structures presupposes incentive compatibility, the articulation of which requires the marginalist logic of choice. Section 6 concludes with observations on the potential fecundity of the Austrian take on critical realism.

Throughout the essay, I focus my attention on matters of substantive disagreement. It is not sufficient to merely point out that Austrians and critical realists alike are less mathematical than mainstream economists. Rather, the use of mathematics is only an issue to the extent that it involves ontological commitments at odds with the nature of social order. The focus is thus on the substantive differences in economic analysis rather than whether they are expressed mathematically or verbally. Likewise, I do not offer a detailed response to Lawson's criticisms of Menger and Hayek. Not only are those criticisms bound up with interpretations of the two thinkers that I do not share, but they also target the methodological writings of Austrians without understanding them in turns of the substantive economic propositions that Austrians put forward. Rather than interpreting methodological writings in a vacuum, they should be understood in terms of the economic theories of their authors. In actuality, Lawson's critique of Lionel Robbins is far closer to a substantive dispute with Austrian economics, to which Section 5 responds (Lawson, 2003, ch. 6).

# 2. The impoverished ontology of the mathematical mainstream

Any scientific method presupposes an ontology. The most basic features of an object of inquiry will determine, at least in part, the potential success of various methods of study. Ontological theorising 'underlabours' for individual sciences, helping to sift through appropriate and inappropriate modes of inquiry. No scientific endeavour, as practiced, is non-ontological; the only question is whether the underlying ontology is explicit and defended or implicit and undefended. Mainstream economics, by insisting on mathematical formalism and econometric verification (or falsification), follows the dominant scientific epistemology inspired by Hume. This epistemological stance assumes a closed social world populated by atomistic calculators rather than an open and structured world populated by interrelated agents.

Humean epistemology leads most economists on a wild goose chase after constant event conjunctions: propositions of the form 'whenever x, then y'. However tacitly, the insistence on mathematical modelling and econometric testing commits one to the search for actualised quantitative relationships between observed variables. What could be, is. What is observed must be the unique, exact outcome. Granting such inquiries exclusive rights to the mantle of science only makes sense in a closed universe. In such a reality, constant event conjunctions make quantitative prediction the sine qua non of any scientific endeavour. By contrast, the social world we actually inhabit is open. Countervailing forces pose a real threat to the actualisation of any potential relationship. Causal mechanisms thus operate transfactually: even where present, the outcome they tend to produce may be disrupted by other causal mechanisms, so that even necessary causal relationships may not be apparent or even actualised (see Lawson, 1997, p. 23). Even when their effects are not actualised and thus empirically unobserved, their operation cannot be ruled out.<sup>1</sup> The classic realist example is the leaf blown over a rooftop. Its physicality necessitates that it be subject to gravity, but countervailing causal forces may lead to quite contrary results without undermining our belief in the reality of gravitational pulls. Elucidating these causes, however invisible, becomes a central scientific task in an open universe.

The closed universe of constant conjunctions permits a radical form of reductionism, treating agency as atomistic and isolated (Lawson, 2003, pp. 13-16). Tractable equations need independent and dependent variables. Interdependence is anathema. Filling models with infinite agents or falling back on Nash equilibria ensures the absence of meaningful interaction between agents (Mirowski, 2002, pp. 331-49).<sup>2</sup> Firms are reduced to given production functions (i.e., conjunctions between inputs and outputs). Abstract mathematical and statistical testing once again come together, for observations must be independent of one another. These methods are appropriate to a world of atomistic agents: given the behaviour of other agents, the full consequences of their mechanistic responses can be treated in isolation. Any social phenomenon can be reduced to the movements of these atoms. But the real social world is populated by emergent structures whose causal powers are irreducible to the actions of their constituent parts. Moreover, many of these structures create positions that agents occupy that are 'internally related' (Lawson, 1997, p. 164); the role of a teacher cannot be understood apart from that of a student, and vice versa. Agents interact morphologically-like chemicals producing a distinct compound rather than atoms bouncing off one another-generating emergent social structures rather than mere vector additions in some predefined space. These

<sup>&</sup>lt;sup>1</sup> In the words of Roy Bhaskar, the leading critical realist philosopher of science: 'Once we allow for open systems then laws can only be universal if they are interpreted in a non-empirical (trans-factual) way, i.e., as designating the activity of generative mechanisms and structures independently of any particular sequence or pattern of events' (Bhaskar, 1978 [2008], p. 14).

<sup>&</sup>lt;sup>2</sup> Lawson (2005) has pointed out that individual optimising behaviour does not universally characterise modern mainstream economics, which often treats groups in game theoretic environments. Regardless of the level on which agency is located, however, the mathematical methods of the mainstream still treat it atomistically.

structures in turn recursively exert causal influence on agents and shape the way agents influence one another (Lewis, 2004C; Runde, 2001, p. 5). Agency and structure thus constitute a 'duality' (Lawson, 1997, pp. 169–70).

Having reduced all social phenomena to agent atoms, asserting the universal relevance of calculative rationality is but a small step to take for mainstream analysis. With social structures divested of any reality whatsoever, the burden falls on individual agents' cognitive ability to pre-coordinate patterns of social interaction. When it comes time to link such rationality with econometrics, the modelling solution should be obvious; make the agents' cognitive processes isomorphic to the very econometric techniques used to capture constant event conjunctions (Mirowski, 2002, pp. 274-86). With the behavioural assumptions thus loaded, any situation transforms into a market equilibrium. Barter and indirect exchange are identical, so money is a mere veil. 'False trades' would alter the resultant pattern and so error must be excised. Where real prices are not observed, 'shadow prices' will do. This, of course, opens up new vistas for economic modelling to explore. The more powerful economic agents have become, the more universal has been the application of calculative rationality and the logic of individual choice. Agents smart enough to clear markets are dropped into alternative 'institutions' after the reality of those institutions has been assumed away. The result is a flattening of institutional differences in which every social process is treated isomorphically to a market.

Contrariwise, real world agency is embedded in institutional structures that shape (though not determine) it: the family is not a firm, a football game not a market. The human mind is not econometric software; so much of agency involves habitual rule-following and mistakes are often made. While mathematical modelling may serve many useful purposes, it is a poor master. The rigid insistence on its universal applicability and exhaustive explanatory power has blinded economists to these fundamental features of social reality.

# 3. The Austrian paradox

The triumphal march of mathematical economics begins in earnest with the onset of marginalism, culminating in the demand for universal formalism. This trend also leads to the identification of economics with the sphere of economising activity and an insistence on the universality of rational agency and choice. But not all marginalists are mathematical, raising the motivating concern of this paper, what I dub the 'Austrian paradox'. Modern Austrian economics, while offering a critique of mainstream economics that shares much in common with critical realism, adheres firmly to marginalist principles and uses much of the same terminology. It accepts the centrality of rational action, and claims of universality abound in Austrian texts. In these and other ways the school appears schizophrenic, especially when the full range of such paradoxical contrastives is laid bare.

Mechanistic conjunctive thinking may go back to Ricardo or earlier, but the radical mathematisation of the discipline begins with the marginal revolution. With marginalism comes the calculus and the ability to formally emulate energy physics (Mirowski, 1989). Marginal utility and marginal productivity map cleanly onto derivatives. Equimarginal thinking furnishes convincing equilibria of astronomical stability. Walras and Jevons both set out with the express intention of creating a social physics (Beinhocker, 2006, pp. 29–36). But one branch of the marginal revolution consistently grows ever more divergent from the others.

Menger's marginalism stands apart from the physics envy of Walras and Jevons (c.f. Jaffé, 1976). All utility is marginal utility, making value theory about discrete objects of

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choice in time rather than slopes at some point along a function. A close look at Menger's hypothetical illustrations reveals closures to be local and contextual (e.g., the horse market in Menger, 1871 [1994], ch. 5). An object in one location physically identical to a consumer good at another is understood as capital, which can be turned into the relevant consumer good in combination with transportation and time (Mises, 1912 [1981], pp. 97–8). Various observable goods are thus related structurally and through time, meaning that the system remains open rather than grinding to a halt. Nonetheless, the horse market clears: Austrians are still committed to the basic theory of supply and demand. Openness is thus juxtaposed with closure, however local.

Building on this foundation, Austrian catallactics takes both a conjunctive and a causal tone. Rather than a quest for exact relationships between observable variables, Austrians see economic reasoning as drawing out distinct chains of causality that underly and contribute to (not determine) observed phenomena (Kirzner, 1960, pp. 1–2, 165). Rothbard's price theory text references a distinction picked up from conversation with Mises that, aside from some semantic differences, could have come straight out of a contemporary critical realist text:

It will be noted that we have avoided using the very fashionable term 'model' to apply to the analyses in this book. The term 'model' is an example of an unfortunate bias in favor of the methodology of physics and engineering, as applied to the sciences of human action... The 'model' of engineering ... is a mechanical construction in miniature, *all parts of which* can and must coexist in reality. The engineering model portrays in itself all the elements and the relations among them that will coexist in reality. (Rothbard, 2004, p. 576, note 15; emphases in original)

This passage captures the Austrian animus against understanding the economy as a closed system of constant conjunctions. The proper method, by contrast, is to 'draw out ... the tendencies and causal relations of the real world' (Rothbard, 2004, p.576, note 15). Austrians understand a demand curve as a graphical heuristic capturing the transfactual law of demand, not as a claim about a conjunctive relationship between price and quantity. As a result, Austrians are even more committed to the proposition that demand curves *always* slope down, for a demand curve is nothing but a representation of a single causal relationship derived from the law of diminishing marginal utility (see below). With this transfactual understanding of demand, an observed conjunction of a higher price and higher quantity traded would be properly understood as the result of a countervailing force. But while these laws imply far from constant relationships, Austrians do not hesitate to discuss conjunctive regularities shaped by those underlying laws:

Economics shows that there prevails in the succession and interdependence of market phenomena an inescapable regularity that man must take into full account if he wants to attain ends aimed at. Even the most mighty government, operating with the utmost severity, cannot succeed in endeavors that are contrary to what has been called 'economic law'. (Mises, 1960, p. vii)

Austrians see no contradiction in asserting a universally valid formal logic of action, while at the same time maintaining its institutional embeddedness. Mises and Hayek, over the course of the socialist calculation debate, articulate the importance of property institutions in shaping agency. Mises (1920 [1935]) asserts a categorical difference between socialism and capitalism, going so far as to argue that socialism implies the absence of 'economy' entirely. In the ensuing controversy over market socialism, mainstream marginalists—loading the explanatory power of their models into behavioural rather than institutional assumptions—assert the formal similarity of market and market socialist equilibria (Boettke *et al.*, forthcoming). Hayek's reply insists that mathematical

Austrian analysis is	but also		
Universal	Institutional		
Individualist	Emergent, intersubjective		
Marginalist	Open, process-oriented		
Rational choice theoretic	Admits error, rule-following		
Conjunctive	Causal		
Conjunctive	Causal		

<b>Table 1.</b> The Austrian parado	Table	1.	The	Austrian	parado
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formalism clouds the issue by concentrating on an equilibrium state in which, by definition, plans are precoordinated (Hayek, 1937). Only by omitting the importance of private property institutions and freedom of entrepreneurial entry could the market socialists make their case (Kirzner, 1992, p. 39). Nonetheless, Austrians have consistently insisted that the formal logic of action always obtains, going so far as to name it the super-science of which economics is but a part. "[P]raxeology ... claims for its theorems, within the sphere precisely defined by the underlying assumptions, universal validity for all human action' (Mises, 1996, p. 36).

Hand in hand with the centrality of action goes the Austrian insistence on individualism, but not of any atomistic sort (Lewis, 2004B, pp. 368–9). There has always been implicit recognition of the causal efficacy of social structures, such as private property. Sometimes it is explicit: 'A collective whole is a particular aspect of the actions of various individuals and as such a real thing determining the course of events' (Mises, 1996, p. 43). Menger famously explains the development of money as emerging from exchange relations between a multitude of individuals through time (Menger, 1871 [1994], ch. 8). Mises (1912) ascribes to this institution powers that are truly *emergent*, that is, irreducible to those of individual action or agents, for money prices enable economic calculation in a way that non-priced cost-benefit analysis does not. 'Money has, in fact, played a role in economic activity, not merely as a passive tool, but also an active force' (Kirzner, 1960, p. 107). But recognising the emergent powers of social structures in no way dilutes Austrian belief in methodological individualism:

Methodological individualism, far from contesting the significance of such collective wholes, considers it as one of its main tasks to describe and to analyze their becoming and their disappearing, their changing structures, and their operation. And it chooses the *only method* fitted to solve this problem satisfactorily. (Mises, 1996, p. 42, emphasis added).

Also concomitant with the universality of the logic of action is the universality of rationality, but not of the narrowly computational sort. Error and rule-following—ruled out by the lightning calculators inhabiting mainstream models—play important roles for Austrians. Rationality indicates simply conscious purposiveness; even actions based on beliefs wildly off the mark thus qualify as rational (Mises, 1996, pp. 19–22). Qualitative error figures crucially in the market process, rather than the random distribution of errors around a real parameter value (Kirzner, 1997, pp. 12–15). Hayek pioneered the concept of rule-following in modern economics as well, arguing that ignorance means that rules can frame choices as well as overcome problems of indistinguishable cases. Moreover, rationality does not flatten institutional differences: some institutional forms are preconditions for some kinds of action. Rational calculation is impossible under socialism. Nonetheless, 'Austrians are firmly within the rational choice camp of social science' (Boettke, 1994, p. 603). Rationality

may manifest differently in different institutional settings, but it is always manifest in action. 'Action and reason are congeneric and homogenous'. (Mises, 1996, p. 39).

Austrian economics stands with one foot each in the mainstream and heterodox traditions (Table 1). The school invokes marginalism, universality, individualism and rational choice. Paradoxically, it has simultaneously been a standard bearer in the wider profession for attentiveness to institutional embeddedness, emergence, error, rules and diachronic processes. To mainstream and heterodox economists alike, the school must appear schizophrenic: markets clear, but errors abound; beliefs and knowledge are central, but rational choice applies universally.

In making this claim, a crucial distinction must be drawn between universal and exhaustive explanations of social phenomena. A universal explanation applies across the whole range of social reality. Whatever social phenomenon is at stake, it is relevant in *some* measure (see Section 4 below). Alternatively, an explanation may exhaust any of a range of social phenomena, leaving nothing to be accounted for, but not necessarily touch on others. This latter mode has steadily come to dominate economics, led by the search for constant event conjunctions and Robbinsian maximisation.

With a given framework of ranked goals sought, and of scarce resources available to be deployed, rationality (in the narrow sense of consistency of behaviour with the relevant given ranking of ends) assures a unique pattern of resource allocation; decision making can be fully understood in the light of the given means-ends framework. There is no part of the decision that cannot be accounted for. (Kirzner, 1982, p. 143)

Economists have progressively applied their theories to one arena of social life after another, even the preferences underlying choices (Stigler and Becker, 1977). The phrase 'inferring intentions from outcomes' aptly captures the exhaustiveness of this endeavour (Wagner, 1989, p. 47). By contrast, Austrians eschew exhaustiveness on two fronts: the instrumentally rational choice is not the whole of action, nor does the logic of action exhaustively describe any social phenomenon, even markets (Kirzner, 1960, p. 87; Rothbard, 1997, pp. 38–9).

Marginalist logic by itself has no room for openness, internal relations or recursive social structures. Critical realists and Austrians agree on the importance of these facets of social reality, and that human purposiveness defines the boundaries of what is 'social' (Lawson, 1997, pp. 30–2; Hayek, 1957 [1969], p. 241). Social structures, not to be reified, only exist *in* action (Lawson, 1997, p. 169; Mises, 1996, pp. 41–3). Therefore, there must be some entry point for these facets of social reality in purposiveness itself. Two ways forward present themselves. If the universality of choice is abandoned, there must be alternative modes of purposiveness. If it is to apply universally, there must be a part of purposiveness not captured by the logic of choice yet connected to it. The critical realists take the former approach (Heap, 2004, p. 159; Lawson, 1997, pp. 177–80). The Austrians take the latter.

#### 4. The logic of choice versus the logic of action

The key distinction between Austrian economics and other marginalist schools of thought is aptly captured by Israel Kirzner's distinction between the logic of action and bare Robbinsian maximisation (Kirzner, 1960, ch. 7). The logic of action, or praxeology, includes not only choice but also the subjective formation of opportunity sets over which choice occurs (Kirzner, 1982, pp. 143–8). Agency involves both defining and ranking objects of choice. Ergo, praxeology investigates not only choice, but also entrepreneurship, 'the department within human action in which the very framework for calculative

economising activity is, in an open-ended, uncertain world, selected as being relevant' (Kirzner, 1982, 148).

Mainstream economic theory pits man against a single foe: scarcity. Hence the dominance of the Robbinsian definition of economics as the study of maximising (economising) activity. Austrian theory, on the other hand, confronts agents with scarcity *and* (Knightian) uncertainty. This second problem of agency has been variously discussed by Austrians under the headings of 'sheer' or 'unknown' ignorance (Kirzner, 1992, p. 47), 'real time' (O'Driscoll and Rizzo, 1996, pp. 3–4), or knowledge problems (rather than mere information; Boettke, 2002A). But the upshot for understanding action is always the same: opportunity sets—the means and ends of action—are neither *given* nor *fixed*. Agents always confront a problem of scarcity, but, on account of uncertainty, the structure of that problem must be subjectively discerned (Langlois, 1994).

Folding uncertainty into the logic of action renders agency as a causal force embedded in its environment. For uncertain agents, the setting of action not only provides external constraints but also influences the opportunity sets over which choice is made. Environmental factors freely enter the analysis as material content of beliefs and choices (Runde, 2001). Thus, even though the importance of choice is universalised, social phenomena are not reduced to aggregated choices. 'Representative agents' are *not* isomorphic to individual choice. Admitting such influences makes praxeology causal rather than strictly conjunctive, as evidenced by the Austrian attitude towards prediction:

[P]rediction can never imply anything regarding quantitative matters  $\dots$  The fundamental deficiency implied in every quantitative approach to economic problems consists in the neglect of the fact that there are no constant relations between what are called economic dimensions. (Mises, 1996, pp. 137–8)<sup>1</sup>

Of course, the travails of uncertainty that plague the forecaster also plague agents more generally. When opportunity sets are not fixed and given, agency breaks into an open universe and becomes liable to error. Economic processes driven merely by marginalist engines inevitably grind to a halt. The tautological logic of costs and benefits inexorably dissipates rents, leading to an equilibrium condition. Not denying man's conscious purposiveness, the only method open to marginalists for depicting open-ended processes is some form of uncertainty (Knight, 1921 [2006], p. 197): opportunity sets must not be given and fixed. If they are, agents will learn, mastering their environment and reaching some form of steady state. Relaxing the givenness of opportunity sets creates the possibility of error, as opportunities can be missed (Kirzner, 1978). Relaxing their fixity allows agents to be truly creative, resulting in open-ended processes that unfold in real time (O'Driscoll and Rizzo, 1996, pp. 3–4; Lewis and Runde, 2002, p. 203).

Uncertain agents need institutions and rules. In order to carry out plans successfully, some measure of stability in interaction with others is necessary. Absent uncertainty, atomistic probability calculations (for generating mixed-strategy Nash equilibria) will do. With an open possibility space, however, interaction is greatly facilitated by socially converged upon 'rights' and 'powers'. Legal rules, social norms, rules of thumb and

<sup>&</sup>lt;sup>1</sup> Lawson critiques Robbins not merely to distance himself from universal marginalism, but also to open up the sphere of economic inquiry to older considerations such as production and distribution (Lawson, 2003, ch. 6). Marginalism naturally tends towards an 'economics as the study of exchange' paradigm. Austrian marginalists are no exception. But I am not concerned with the exact sphere of economics as such. More fundamental is the universality of marginalist explanations in social science more broadly. Whether the range of social phenomena considered 'economic' is defined in terms of exchange, wealth, or production and distribution is a subsidiary issue.

socially defined roles alike provide a more stable foundation for the formation of individual opportunity sets that facilitates successful interaction by furnishing inter-subjective meanings (Lachmann, 1971, ch.2; Lewis, 2004B; Lewis and Runde, 2007). Though always manifested *through* human behaviour, the causal powers of institutions and rules are irreducible to human behaviours themselves. If opportunity sets are given, all that is left for agents to do is atomically allocate given means among given ends. Uncertainty is the entry point by which inter-subjective social structures exert their causal influence on human activity.

Positing a dvadic structure of action that treats both scarcity and uncertainty distances Austrian theory from exhaustivist temptations while bolstering its universality. For example, a significant share of praxeology's explanatory power derives from the law of diminishing marginal utility. Mainstream economists ground this law in psychological assumptions about utility functions with negative second differentials in order to secure determinate point predictions regarding human behaviour. Since Menger, by contrast, recognising the importance of subjective beliefs in *defining* objects of choice has made diminishing marginal utility part of the formal logic of action (Prychitko, 1994, p. 80). In brief: action involves choice, which implies ranking of ends. Ranked ends mean that substitutable means (including first and foremost the time it takes to act) will be apportioned to the most highly valued ends first. No psychological assumptions enter the analysis because the goal is to uncover causal connections rather than make point predictions. Austrian economics takes as its foundation only the formal fact *that* choice is made, making no assumptions about its content. Consequently, the law holds transfactually and universally regardless of the actualised content of choice: operating at a 'deeper level', '[t]he praxeological approach ... does not necessarily require a clearly recognizable pattern of allocation' (Kirzner, 1960, p. 162). Uncertainty necessitates that the very objects of choice be subjectively defined, thereby actually bolstering the universality of this praxeological reasoning:

[I]t is in this subjectivism that the objectivity of our science lies. Because it is subjectivistic and takes the value judgments of acting man as ultimate data not open to any further critical examination, it is itself above all strife of parties and factions, it is indifferent to the conflicts of all schools of dogmatism and ethical doctrines, it is free from valuations and preconceived ideas and judgments, it is universally valid and absolutely and plainly human. (Mises, 1996, p. 22)

### 5. The importance of being marginal

While Austrians uphold the universal relevance of choice, some critical realists instead take the alternative route, asserting multiple modes of purposiveness. Tony Lawson, for instance, argues that rational choice is a power that can either be exercised or not, and so its applicability to explaining any social phenomenon is a matter to be empirically assessed rather than a theoretical *sine qua non* (Lawson, 1997, pp. 186–7).<sup>1</sup> Sometimes man chooses, but sometimes he follows routine or unconscious impulse (Lawson, 1997, pp. 177–80). I argue here that Austrians have the better of this disagreement, on critical realism's own terms. The critical realist ontology of social structure bolsters, rather than undermines, the universal relevance of marginalism.

Lawson posits an account of social structures—rules, relations and positions—as 'reproduced inter-dependencies' (Lawson, 1997, ch. 12). He establishes the intransitive

<sup>1</sup> Caldwell (2004) argues that there is no real difference between what Hayek meant by 'pattern predictions' and what Lawson means by 'demi-regularities'.

reality of structures by pointing out that they serve as a means of both coordinating activity and signaling dissent (Lawson, 1997, p. 160). Rather than just a continually generated pattern reducible to individual activity, structures are a material cause of human action. However, they never exist independently, but are only ever revealed in acting. Hence, structures must be continually reproduced. 'Inter-dependency' derives from the internally related features of many social structures, as opposed to external (accidental) relations. As mentioned above, the activities of a teacher and student are mutually inter-dependent, or internally related: they constitute the very relation in question. The powers and responsibilities of teachers and students, which will shape the activities of the individuals occupying those positions, are defined in terms of one another. Likewise, the efficacy of driving on the right side of the road as a means of avoiding accidents depends on whether other drivers follow the rule. Social structures and human agency thus constitute a causal duality. Agents utilise structures to achieve their ends, and in so doing reproduce and/or transform them.

Social structures, in order to exert material causality on action, must have some measure of endurance (Lawson, 1994, p. 11; Lewis, 2005, p. 97). Reproduced inter-dependencies presuppose reproducibility. Reproducibility presupposes incentive compatibility. Structures exist *in* purposive action; if they systematically produce avoidable failures to achieve sought-after ends they will be abandoned or modified. Neither reproduction, nor transformation, nor dissolution of social structures requires conscious alteration, but they must facilitate *some* conscious purpose since they only exist in such purposive acting. This Austrian approach has never been based on a constructivist rationality that assumes all facets of action are conscious:

Most of a man's daily behavior is simple routine. He performs certain acts without paying special attention to them. He does many things because he was trained in his childhood to do them, because other people behave in the same way, and because it is customary in his environment. He acquires habits, he develops automatic reactions. But he indulges in these habits only because he welcomes their effects. As soon as he discovers that the pursuit of the habitual way may hinder the attainment of ends considered as more desirable, he changes his attitude  $\dots$  The fact that an action is in the regular course of affairs performed spontaneously, as it were, does not mean that it is not due to a conscious volition and to a deliberate choice. Indulgence in a routine which possibly could be changed is action. (Mises, 1996, pp. 46–7)

'Acting, in the praxeological sense, consists in selecting a *pattern* of behavior designed to further the actor's purposes' (Kirzner, 1960, p. 161, emphasis added). Agent behaviour may be routine or unconscious, but is always part of a larger pattern, or plan, that is chosen to serve some end. Even routines, such as driving a car over familiar terrain (Lawson, 1997, pp. 177–8), are part of a more encompassing purposive plan, giving the social scientist a powerful methodological point of entry. 'The praxeological method ... rests on the parallelism between action and plan' (Lachmann, 1971, p. 49). Whenever a routine fails to serve its purpose, there is an incentive to change the routine. This fundamental 'constraint' of purposiveness gives praxeology its point of departure (Kirzner 1960, p. 153).

Social structures—even when highly routinised—are no different, except that they are interpersonal. Reproducibility is a causal power of structures that depends on their ability to align incentives. No retroduction of a social structure is complete without accounting for the incentive compatibility of its internal relations. Even to make sense of rebellious and transformational activity, the social scientist must understand the purposive coherence of the structure being rebelled against. 'How did this structure facilitate human action in a way worth reproducing?' The marginalist logic of choice is simply the consistently worked out logic of this minimal requirement. Marginalism does not exhaust the account of any social structure, but it is universally applicable: any account of social reality dependent on systemic incentive *in*compatibility falls short.

The foregoing argument bears relevance on several persistent sources of tension between Austrians and realists. Austrian insistence on methodological individualism has been a constant target of realist critique, which argues that it is at odds with the concepts of intransitivity and emergence (Lawson, 1997, p. 159; Lewis, 2004B, 2005). Of course, any careful analysis reveals that the substance of Austrian arguments consistently accords with critical realists' proffered ontology (Beaulier and Boettke, 2004; Runde, 2001). The Austrian paradox extends to methodological disquisitions as well; mainstream terminology does not imply mainstream ideas. 'Methodological individualism' entails a commitment to the universal, not exhaustive, relevance of the logic of action. It is not a denial of the reality of social wholes, but an indispensable method for explaining them (Mises, 1996, pp. 41–4).

A subtle but important asymmetry pervades Austrian methodology. Structure and agency are an explanatory duo, but structure exists only in action, not vice versa. Certain types of action require certain social structures (e.g., economic calculation). But the formal nature of acting is in no way dependent on social structure. Structures have a recursive effect on the content of action, but do not alter its fundamental nature, which includes purposiveness. Certainly agency draws on existing social structures but, while their emergent powers are irreducible to action, their existence must pass the test of incentive compatibility. The formal logic of action is the narrow gate through which any social scientific account must ultimately pass.

'Subjectivism' has come under similar attack, as has Hayek's 'compositive method', whereby the investigation of social structures involves their mental reconstruction (Caldwell, 2004, pp. 430-8; Hayek, 1952 [1979], pp. 61-77; Lawson, 1997, ch. 10). When the universal significance of praxeology is recognised, this controversy, too, dissipates into semantics. Havek's argument is certainly not that every facet of emergent phenomena is reducible to individual ideas, for the importance of 'unintended consequences' has been recognised all along (Runde, 2001). This accusation implies the possibility of constructivist accounts of social institutions, chaffing against deeply held Austrian sensibilities. Hayek clearly has in mind something like Menger's account of the development of money, which is rendered in terms of individual purposiveness at each (reproductive or transformational) step. Money must make sense to individual minds in order to continue in use (Hayek, 1952 [1979], p. 53), but its powers are by no means limited to those perceived by the agents that use it. 'Meaning' is a necessary condition of social structures, not an exhaustive description, and so provides a reliable point of entry for the social scientist (Beaulier and Boettke, 2004). Unseen effects (including environmental changes and habit formation) can change the outcomes of human activity, but changes in activity itself cannot contravene the purposive character of acting. Subjectivism simply asserts that any explanation of human activity should be compatible with the omnipresence of individual plans, beliefs and expectations.

#### 6. Conclusion and prospectus

Austrian economics stands simultaneously in two traditions, the marginalist and the heterodox. To the extent that it is marginalist, it overlaps with mainstream analysis. On one orthodox hand, it emphasises individual choice and rationality. With the other heterodox hand, it balances that emphasis with a focus on open processes and emergence.

Praxeology—the logic of action—recognises the fundamental importance of incentives while leaving agency embedded in causally efficacious social structures. Not bound by the straightjacket of predictive benchmarks, it has consistently posited the sorts of transfactual laws that social ontology seeks to uncover. Recognising the importance of marginalism reduces the remaining distance between Austrian and critical realist approaches to one of largely, if not entirely, semantics.

But even if my arguments have been largely convincing, mere concordance is no substitute for fecundity. Lawson critiques the Robbinsian economising definition of economics precisely for the reason that its fruits—the broad generalisations of supply and demand already command wide acknowledgment, even in Robbins' own time (Lawson, 2003, ch. 6). Economics becomes a set of calcified doctrines, with nothing for economists to do. Critical realism instead has in sight a progressive research paradigm that provides fertile ground for a wide array of questions and approaches, from local narratives to broad statistical inquiries. Austrians certainly share a belief in the basic marginalist principles of Robbins. Would extending marginalism to other social sciences likewise render them barren? Are economists consigned to a merely didactic role propagating well-known generalities?

Such warnings surely contain a germ of truth, and should be carefully heeded. However, the arguments above suggest several reasons to be optimistic about the potential fruits of continuing research along Austrian lines. First, recall that the formal logic obtains universally, not exhaustively. With agency embedded firmly in its environment, praxeological inquiries are limited only by the number of historical and potential social structures and transitions between them. The Austrian approach to the logic of choice suggests that 'thick' empirical work has an important role to play in applying well-known generalities. Furthermore, when considering any given structure, mere marginalism will not suffice. Unintended consequences—ecological, psychological and social—also play a central role in any social scientific inquiry.

Second, even a widely accepted theory has an important role to play in research. Lawson discusses 'contrastive demi-regularities' as important motivators for research questions (Lawson, 1997, pp. 206–10). He points to synchronic, diachronic and ideologically motivated comparisons as sources of new inquiries (Lawson, 1997, pp. 206–10, 2003, ch. 9). But theory can produce interesting contrastives as well, when history defies what logic dictates. Anomalous empirical findings can lead to amendments, expansions or new applications of existing theories, or themselves be overturned by the weight of the evidence.

Third, even accepting the basic thrust of marginalist economics does not condemn one to theoretical sterility. Setting aside epistemological differences, Mises' praxeological approach clarifies and extends, rather than rejects, Menger's understanding of choice. Kirzner likewise articulates a more precise, dyadic vision of praxeology. It is certainly possible to work within a theoretical tradition and to acknowledge its (implicit and explicit) blind spots.

Finally, Austrian economics can provide an important avenue for advancing the critical realist project. As Caldwell (2004, p. 330) has pointed out, Austrians and mainstream economists largely agree on the level of 'basic economic reasoning', from supply and demand analysis to opportunity cost reasoning. Austrians and mainstream economists might teach a principles course in the same way, but part company on where to go from there. Since Austrian economics shares marginalist principles with the mainstream, it has an important point of contact by which to bring considerations of social structure to bear. Such theoretical commonalities are important for a process of immanent critique such as that pursued by realists. For these reasons, critical realists should take a closer look at Austrian economics and its marginalist principles.

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