

Spontaneous Order, Liberty, and Austrian Economics

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I was both surprised and gratified when Virgil Storr told me that he wanted to use *Studies in Emergent Order* to host this symposium on *Mind, Society, and Human Action*. It's gratifying to find the book to have attracted sufficient interest to warrant a symposium. It's also surprising, as the book originated not as an effort to develop some new line of argument but as an effort to explore some thoughts with a group of students. Upon Karen Vaughn's retirement, Pete Boettke asked if I would replace her in teaching the first semester of the two-semester sequence in Austrian economics. I accepted because teaching the course would allow me to explore my thoughts about Austrian and neoclassical orientations toward economic theory. I started that teaching with an interest in much but not all of the Austrian tradition, while at the same time being comfortable with much but not all of the neoclassical tradition. For instance, I was and remain comfortable with equality of marginal rates of return as an equilibrium condition without believing that equilibrium characterizes actuality, and yet never finding anything wrong with holding both beliefs. Indeed, I believe that the massive growth of government over the 20th century can be explained as a product of the never-ending entrepreneurial search for profit, as suggested in Wagner (2007) and as made explicit in Wagner (2012).

So I organized the course in the Buchananesque fashion I experienced as a graduate student. During my first year in Charlottesville, 1963-64, I took James Buchanan's public finance sequence. It was there that I experienced Buchanan's use of graduate classes as opportunities to think through one's uneasiness with established thought.¹ During the fall semester, the primary class activity was working through early draft material that a few years later became *Public Finance in Democratic Process* (Buchanan 1967). During that semester, a few weeks were also dedicated to working through several versions of what became the well-cited paper in *Economica* on the theory of clubs (Buchanan 1965). This pattern continued during the spring semester, where most of the classroom activity entailed explorations in how to construct a theory of collective catallaxy

that would complement ordinary market theory, and which became *The Demand and Supply of Public Goods* (Buchanan 1968). All of these classroom activities were mutual and participatory. Buchanan would give us draft material which we would discuss in class, after which we would prepare commentaries and offer reactions that we presented and discussed the next week. Sometimes Buchanan offered a revised draft for further examination, while other times he broached a new topic. Either way, class activity was directed at pursuing a research agenda in a collaborative environment. For the first half of the fall 1964 semester, moreover, Buchanan replaced Warren Nutter in teaching the advanced micro theory course while Nutter was busy traveling with Barry Goldwater's presidential campaign. That portion of the semester was devoted to mutual exploration of the mistreatment of cost by economists because of their general failure to realize that cost pertains to present projections about some anticipated future and not to some past experience. That initial exploration set in motion what became *Cost and Choice* (Buchanan 1969).

The production of *Mind, Society, and Human Action* was thus a product of a Buchananesque approach to graduate teaching, which I acknowledge with admiration and gratitude. The organization of my response to these essays has a logic that commended itself to me once I decided to start with Adam Martin's essay. My reason for starting with Adam is that he is the only one of the five essayists who participated in one of those classes. After deciding to start with Martin's essay on the catallactical point of view, an order for the remaining responses suddenly commended itself: Boettke-Koppl-Lewis-Benson. Boettke identifies two snares that the catallactical orientation must face, Koppl considers how modern physics has wrestled with similar snares, Lewis explores how grounding social theorizing on emergence and spontaneous order might avoid those snares, and Benson examines regulatory processes from within the catallactical orientation to exemplify those snares and their avoidance.

Adam Martin: Catallactics as Genuine Social Science

Theoretical frameworks allow a theorist to pose questions, but while doing this they also channel a theorist's thought in a particular direction. Yet some other direction might lead to more fruitful thought. Recognition of this two-sided property of theoretical frameworks counsels a theorist to take care in selecting frameworks because that selection will influence the subsequent path of the theorist's journey. Theories based on a presumption that observations pertain to equilibrium states necessarily brings resource allocation into the analytical foreground because there is nothing else to put there. Economic theory conceived in equilibrium terms renders economic theory a set of

exercises about choices among objects, and with society being but a placid background against which those choices are made.

In contrast, what Martin describes as the catallactical point of view entails a set of theoretical presumptions that seeks to make economics a genuine social science. Society is assimilated to an organism and not a machine. Society is not a sentient creature, to be sure, and yet societies possess emergent qualities that are not possessed by the individuals who constitute the society. A society is not simply a scaled up version of individual actions. Society is not Robinson Crusoe writ large, for societies possess emergent qualities that are not possessed by any single member of that society. No individual can make a pencil and yet pencils are produced within societies, as Leonard Read (1958) explains. The ability to produce pencils is a quality of a societal nexus and is not a quality of any individual within that society. Crusoe forms plans and chooses how to implement those plans, and so is engaged in allocating resources. He does not, however, interact with other people. Thymology pertains to Crusoe, but social science does not. The material of social science arises when Crusoe encounters other people with whom he must interact. While praxeology pertains to all human action, the material of social science arises only through interaction among people, as represented by Martin's catallactical point of view.

As I use the term, catallactical refers to conflict as well as exchange. Conflict, after all, is as much a social activity as is exchange. Crusoe experiences no conflict, just as he experiences no trade. We know from observation that societies entail plenty of both conflict and trade, and the challenge for a catallactical point of view is, among other things, to learn about what might govern or influence the mix between the two types of activity. That learning, however, cannot be advanced by imposing equilibrium presumptions because that imposition replaces an explanation with an assumption. In other words, to impose equilibrium as an analytical point of departure is to parade ignorance as knowledge, much as probability calculations parade unknowledge as knowledge (Shackle 1972).

In pursuing this explanatory task, Martin is right to note that a presumption of homogeneity is a snare to be avoided. A presumption of equilibrium, however, makes this snare almost impossible to avoid. It is readily evident, for instance, that people differ greatly in how they evaluate the various qualities that might be built into cars. What is surely particularly notable about cars is their enormous variety with respect to a wide range of qualities. With a presumption of equilibrium, it is a simple arithmetical matter to use hedonics to treat cars and people as homogenous, by transforming myriad distinct qualities into a homogenous quantity. A car thus becomes just a package of dollars of a

particular magnitude, with people differing only in how expensive a car they want. If a Chevrolet of a particular type sells for \$20,000 and a Ferrari sells for \$100,000, a Ferrari is reduced hedonically to five Chevrolets.

This hedonic exercise might have reasonable uses within the context of an openly competitive market where different valuations of product qualities are reflected in cars with different characteristics and prices. While hedonically, five Chevrolets might be equivalent to a Ferrari, we may be sure that the owner of a Ferrari does not regard the two options as equivalent. Open markets allow both expression and reflection of qualitative differences; it is the presence of an open market process that renders reasonable the hedonic evaluation of qualities. We can draw hedonic demand curves for a generic automobile where the quantity axis is defined hedonically as some standardized quality unit because the market process incorporates all of the qualitative differences for which people seek expression through market interaction.

While it is reasonable to speak generically of the demand for a good when people are able to select among product qualities through market processes, it is not reasonable to extend this framework to collective choice because the relationship of more-to-less that defines an economic good is no longer meaningful. Yet such an extension is a common activity. It is done whenever someone draws a set of individual demands for some collective activity and advances some claim about an efficient amount of collective output. Increased spending on elementary education, for instance, can be evaluated positively by some people and negatively by others, due to differences in valuations placed on the qualities that accompany that increased spending. The bussing of children over long distances entails increased spending on education, and yet a good number of people regard this as a decrease in the value of education. One can draw a generic demand curve for automobiles precisely because people are able to choose among automobiles of differing qualities that are made available through market competition. One could not do that if the supply of automobiles was administered collectively and with the qualities of those cars generated through public administration and not through market competition.

Peter Boettke: Close-ended Theorizing Negates Genuine Dynamics

Boettke (2007) distinguishes between mainline and mainstream branches of economic theory. The mainline branch includes the scholastics, Adam Smith, and Carl Menger, and works with open ended theories that contain multiple exits. The mainline stands in contrast with the mainstream which was

set in motion by David Ricardo, given neoclassical shape by Léon Walras, and to this day continues as the central framework for economic theory. While the mainline has had an enduring presence in economic theory, for about a century the mainstream has served as the central situs of economic theory.

The catallactical orientation resides within the mainline and runs contrary to the mainstream presumption that economic theories should be close-ended and have single-exits. Theories of this form entail the presumption that our experiences or observations pertain to states of systemic or general equilibrium. The twin pillars of mainstream economic theory, that people optimize and that markets clear, have proven to be fruitful for the generation of economic research within the mainstream, as Melvin Reder (1982) explains. So why seek to return to the mainline of economic theory? It is certainly not out of a desire to replace unrealistic theories with realistic theories, for any theory must be unrealistic in the sense of being an abstraction from reality. Yet theories differ in what they set before our attention, so any theoretical framework highlights some phenomena while concealing other phenomena. While the mainstream allows a theorist to address certain categories of question, it also prevents other categories of question from being pursued. To pursue those other categories requires a return to the mainline of economic theory.

It is perhaps worth noting in this respect that Léon Walras (1954: 380-81) briefly expressed dissatisfaction with the placid quality of his theoretical construction which entailed a model where economic activities were coordinated in advance of any activity actually being undertaken. Put differently, Walras assimilated a society to a parade while expressing a wish to assimilate it to something resembling the frenzied rush of pedestrians through a busy piazza. The contrast between a parade and a piazza is an image that I have used on several occasions. Walras's actual image was of a lake: his theory presented the lake as calm, but he averred that it would be nice to theorize in the context of a lake with turbulence. But he abandoned this insight into what he called a "continuous market" for the calmness of his construction of an "annual market" because it allowed him to work with closed models and single exits.

Walras wanted to give definitive answers to questions about resource allocation, so he required a framework that would yield such answers. But presenting answers to such questions doesn't exhaust the analytical agenda for economic theory. Embracing the catallactical point of view and getting away from close-ended models with single exits expands the analytical agenda of economic theory. Prices and quantities are still present in the mainline agenda,

only they are now recognized as emergent products of catallactical interaction. The emergent character of prices and quantities brings into the analytical foreground the processes of interaction through which those prices and quantities form and change. With an annual market with pre-reconciliation of activity, there are no failures of plans. While simple observation tells us that the absence of failure is not realistic, adoption of a continuous market model is not commended as a movement toward realism. It is commended as a way of illuminating more fully and clearly just how it is that societies operate once it is recognized that there is no locus of authority where societies are directed. Yes, Paris gets fed, but no one is there to ensure that it gets fed. Indeed, we may be confident that if such an office were established shortages of food would result.

A failure of a plan leaves assets, whether in the form of capital equipment or contractual and organizational relationships, that will no longer be employed according to the plan by which they were assembled. Those assets, however, have owners, and the interests of those owners will lead them to seek to deploy those assets in alternative uses. Among other things, institutional arrangements and also business organizations will arise in response to the desire to liquidate plans. Limited and divided knowledge is thus not a source of so-called market failure but is rather part of the background against which to understand the emergent quality of numerous organizations and institutional arrangements. There are, for instance, a good number of construction firms that specialize not in primary construction but in remodeling construction that was originally built according to a plan that later was abandoned.

Within mainstream theory, change can only arrive as an exogenous shock to an equilibrated system that exists outside of time. In contrast, mainline theory treats change as something that is generated internally within an economy as today becomes tomorrow. To accomplish this requires abandonment of any pre-coordination of plans and the adoption of some type of kaleidic orientation, as illustrated by O'Driscoll and Rizzo (1985) and Shackle (1972, 1974). It is within the mainline of economic theory that one must travel to explore the genuine dynamics of societal transformation, and with such emergent dynamics contrasting with the faux-dynamics of differential equations wherein variables are qualitatively invariant through time.

Roger Koppl: Analogies from Physics, Yes; Social Physics, No

Koppl is right to note that analogies from physics play a significant role in *Mind, Society, and Human Action*. Economics has much to learn from physics in reflecting on how physics treats such topics as complementarity and entanglement. At the same time, economics, of the mainstream type anyway,

would be well served by jettisoning the effort to construct a social physics based on 19th century physics, as Mirowski (1989) explains. Just as light can be treated as a particle or as a wave, only not simultaneously, so can societies be treated in terms of states of existence or in terms of processes of motion—only not simultaneously. There are phenomena for which ideas based on state or structure can offer useful illumination, for there are eternal verities that pertain to societies and which are invariant across space and time. People have wants, people engage in activities to supply those wants, and quarrels arise among people, as do procedures to contain those quarrels even if quarrels themselves are never extinguished.

There are also features of societies that manifest themselves uniquely at particular times and places and those features continually experience evolutionary selection. Invariant features are susceptible to closed-form modeling with single exits. But unique manifestations of those invariant forms require the mainline analytical framework which allows for exploration, experimentation, motion, and kaleidics. Experimentation arises at particular nodes within a societal nexus, and the speed with which the products of that experimentation spread depends on such things as qualitative features of those products and institutional arrangements within the society. For instance, taxation of successful experimentation will depress the incentive to experiment, as can regulation that removes experimentation from the domain of private ordering. Experimentation in the abstract is one of those eternal verities across time and place, but it is also a quality that is subject to historical variability, the appropriate analysis of which requires a mainline theoretical framework that accommodates action through time.

The use of an inappropriate framework can generate fictional and imaginary problems resulting from the effort to force a model onto phenomena for which the model is inappropriate. The continuing controversy over Ricardian equivalence and public debt illustrates how this can happen. Most theorizing about public debt operates within a framework of aggregate equilibrium and asks whether government bonds are net worth. The only sensible answer to this question is negative because there is no option within the conventions of double-entry accounting applied to any aggregate entity. When aggregated, the debt issued today must equal in present value the future taxes that will be imposed tomorrow to amortize that debt. What this mainstream framework shows is the inaptness of using a timeless and asocial framework to think about a social process that operates through time.

To theorize reasonably about public debt requires recognition that societies are not single entities but are complex entities that are composed of

numerous members who almost surely have different thoughts and opinions about taxation and public debt, and with public debt being a product of catalactical interaction that is supported by some people and opposed by others. Public debt arises through a complex transactional structure that extends through time. There are people who buy bonds and who thereby are financing collective activities now in exchange for payments later. Those later payments are liabilities of taxpayers. Some of those taxpayers doubtlessly supported the debt-financed expenditure, but others of them would surely have opposed the expenditure. The debt operation thus benefits some people while burdening other people. At some future moment, those who oppose the debt-imposed taxation might gain political dominance and repudiate the debt. In any case, public debt, as public budgeting generally, affects people in different ways within a society, and with those differences operating to influence patterns of individual net worth within societies regardless of what some aggregate measure might show.

It is here where Koppl's treatment of entanglement comes into play. Conventional thought posits the separate entities we denote as polity and economy. Within this framework, polity is construed as acting on economy much as a cue ball acts on a billiard ball. Entanglement leads thought in a different direction. We are no longer dealing with entities that can be reduced to some point mass like billiard balls. We are rather dealing with networks of interacting entities, and with different principles of motion pertaining to different categories of entity. Returning to Walras's brief speculation about turbulence on a lake, the source of that turbulence would reside in interaction among the entities. For instance, credit transactions are never between borrower and lender alone. In the US, for instance, there are regulatory requirements about loan portfolios that establish tied packages in which the expected value of subsets of loans is negative. The presence of public ordering changes the credit patterns and qualities from what would have arisen through private ordering alone.

How to think about this entangled world is a challenge for future scholarship, about which Koppl advances some good suggestions. In this vein, Jane Jacobs (1992) claimed that the architecture of entanglement was significant. One part of her claim was that all societies operated with an architecture that entailed both commercial and guardian activity. This was one of those eternal, structural verities. The other part of her claim was that actual patterns of entanglement were capable of evolving in different directions with different qualitative effects, with the result in some cases being what she described as "monstrous moral hybrids." When the analogies from physics that Koppl commends are inserted into the mainline framework of social economy, we recognize that societal level patterns are unintended products of interactions

among intentional agents and so belong to the realm of emergent rather than chosen phenomena.

Paul Lewis: Varieties of emergence in relation to spontaneous order

Emergent entities have properties that are not possessed by the individual entities through which they are constituted. Lewis's treatment of how water has properties that are not qualities of either hydrogen or oxygen illustrates this point nicely. While I use emergence and spontaneous order more or less interchangeably in *Mind, Society, and Human Action*, I recognize that emergence refers to a broader domain of phenomena than does spontaneous order. There are numerous products of intentional choice that entail emergent phenomena. A business firm is one such example, as a firm will exhibit capacities that are not some aggregate of the capacities of the individual members of the firm. It's hard to imagine teams of any type that don't exhibit emergent qualities. Emergent properties arise in constructed organizations as well as in spontaneous orders.

My interchangeable use of spontaneous order and emergence stemmed from what I was trying to accomplish, which was to set forth an alternative framework for economic theory that took no resort to equilibrium constructions, that took time and ignorance seriously and substantively, and which located the object of economics as society and not as some imagined, idealized, or representative individual within that society. The method of equilibrium theory is "comparative statics," so I needed a contrasting term to complement my non-equilibrium framework. "Emergent dynamics" was the result of my linguistic search. Emergent dynamics combines two features that are central to the Mengerian alternative I was trying to set forth. First, the social phenomena of interest that I wanted to explore are not products of choice but are emergent qualities of interaction among individuals. The production of pencils, especially when contrasted with a one-good macro model that could be designated descriptively as a pencil economy, illustrates both emergence and spontaneous order that I wanted to set in opposition to the Walrasian presumptions. Second, within mainstream economics where time is notional and not substantive, dynamics is instantiated through differential equations and the calculus of variations. In contrast, my notion of dynamics was a product of taking time seriously and the continual learning that occurs through time. Hence, emergent dynamics became for the Mengerian program what comparative statics was for the Walrasian program.

Overwhelmingly, mainstream economists treat societies as organizations. They do this even when they don't intend to. Presumptions that observations pertain to states of equilibrium abet this treatment, with the path to avoiding this treatment leading one into the mainline branch of economic theory. In the presence of equilibrium presumptions along with the absence of entanglement, a so-called "policy maker" is cast as a mechanic who intervenes into a system that is distinct from the policy maker. Policy and change in policy is still a meaningful activity once it is recognized that society is an order that is constituted through interaction among myriad organizations, only now there are multiple sources of policy action, no one of which acts on society as an entity. To the contrary, policies are inserted at particular places within societies, with the subsequent consequences dependent upon how those policy measures are received at various places within the society.

Various policy actions by governments can influence rates of growth. So too can actions by commercial enterprises. There is no such thing as action on an economy as an entity; action always starts in particular locations and spreads, and at various speeds and to various extents. The extent and manner of that spread depends on the willingness of people to embrace the initial action. Cell phones were injected at particular nodes in the economic nexus and spread quickly because there was universal support for their spread. In contrast, drug prohibition, whether a century ago or now, has encountered much resistance so that the society can in no manner be declared drug-free despite huge policy efforts to make it so. The central distinction is between policy measures that facilitate people's efforts to accomplish their plans and policy measures that seek to provide advantage for some people at the expense of other people. Cell phones illustrate the former; drug prohibition the latter.

The relationship between structure and agency is worth extended treatment that I can't undertake here but which I am glad to see Lewis raise. Interaction at the micro level generates macro-level formations; this direction describes macro phenomena as emerging out of micro-level interaction. But macro-level formation can also influence micro-level action as an illustration of downward causation, which is a topic that is worth fuller examination. There is surely no doubt that a desire to live at other people's expense is one source of demand for collective activity. Downward causation holds out the possibility that patterns of collective activity can influence what we describe as demands by influencing what people regard as normal or reasonable. The support for public activity as a means of getting someone else to pay represents what Madison described as the violence of faction. Faction in its various forms has been at the forefront of scholarship in public choice. The operation of faction or majority tyranny or rent seeking is a form of movement from micro to macro levels.

Downward causation is illustrated by what Vincent Ostrom (1997) describes as democratic despotism or sickness of the people. If majority tyranny refers to a taking of power, democratic despotism or sickness of the people refers to a ceding of power, setting in motion a process by which people perhaps become content with becoming sheep to be tended by governmental shepherds. One famous aphorism exclaims that “eternal vigilance is the price of liberty.” How much vigilance will be exercised will depend on the willingness of people to pay the price. If the price increases or if the willingness of pay weakens, monstrous moral hybrids as described by Jacobs (1992) may arise as an emergent quality of democratic processes.

Bruce Benson: Regulatory processes and spontaneous ordering

Economic activity is, of course, always regulated. Regulation is a feature of any spontaneous order because each participant must continually adjust to the actions of other participants. All economic activity is regulated by the openly competitive processes that are inherent within a market order. There is no genuine position of monopoly within such an order; indeed, it is doubtful that monopoly is even a meaningful concept. In contrast, rent is a meaningful concept. Someone who develops a product that many people regard as superior to existing products will earn rents, at least until yet other products are created that compete away the rents. Rents are transitory within a framework of open competition, but this transitory quality does not mean that such rents are insignificant. With a ten percent rate of discount, for instance, a rent that endures for seven years has about half the present value of a rent that would endure forever. And half of forever is surely a long time by anyone’s reckoning.

When economists speak of regulation, however, they refer not to the regulation of open competition within a spontaneously generated order. Instead, they refer to regulation imposed on market participants by political entities. Such regulations are acts of Power, and this use of power is always rationalized with the argument that it is necessary to promote some greater good. To be sure, it’s hard to know how else someone would justify the use of power other than by taking recourse to promoting some greater good. Even Adolf Hitler and Joseph Stalin did this. The only way to avoid succumbing to such cheap talk is to look to what political regulation does or has the competence to accomplish. As Benson explains, when this is done it becomes clear that political regulation confers advantages on some people by imposing disabilities on others.

Consider the regulation of credit transactions in light of the continuing concerns about financial stability that have intensified over the past several years. Credit transactions are rental contracts, wherein a lender gives temporary custody of an asset to a borrower. With all rental contracts, the lender is concerned about asset conversion by the borrower and so understandably seeks assurance against that possibility. Within a setting of open competition, that assurance would be supplied through several market-based processes. Some of these would be evident in the terms of contract, as illustrated by interest rates, provisions for collateral, and procedures regarding repossession. Other forms of assurance would arise through the efforts of entrepreneurs to insert new businesses into the credit market, perhaps as illustrated by firms that collect and supply information about potential borrowers or by firms that specialize in tracking down borrowers who have disappeared. “Credit market” would refer to all of the credit transactions along with the associated organizations that participate in the supply of credit, always organized through private property and freedom of contract. In such a market setting, we would expect various organizations being established to facilitate transactions. Some of these would supply information about the credibility of borrowers. Others would provide mutual support in the event of liquidity problems, as illustrated by clearinghouses once upon a time.

In any case, the credit market so described would be constituted through a network of dyadic transactions, the central feature of which is that a decision to extend credit or not to do so is a matter to be resolved between the borrower and lender alone. The structure of actual credit relationships in this setting would emerge within an institutional framework of private ordering. Contemporary credit relationships, however, are not dyadic and are not governed by private ordering. Those relationships have a triadic character and are governed by an admixture of private and public ordering. Public ordering shifts the pattern of credit transactions from what would have resulted under private ordering, and does so in a particular direction. With private ordering, each transaction conforms to *ex ante* Ricardian equivalence, for the absence of Ricardian equivalence would denote either charity or theft and not a genuine credit transaction.

While Power will always claim to promote the greater good, as Power must do to maintain itself, whatever Power accomplishes will be accomplished by shifting the pattern of credit transactions from what that pattern would otherwise have been. Consequently, loans will be extended that would not have been extended under private ordering, which in turn implies a failure to extend some loans that would have been extended under private ordering. This change in the structure of transactions means that some potentially profitable

transactions will not be made along with some non-profitable transactions being made through the compulsion exerted through public ordering.

Public triads, moreover, are not equivalent to market dyads. Market dyads trade with their own capital on their own accounts; they are residual claimants to their actions. Public triads operate with capital extracted from other people and are not residual claimants to the value of their activities because public triads are not subject to transferable ownership. The economic calculus of public triads differs from that of market dyads, and that difference works to expand credit in non-profitable directions by creating a tied sale by which the extension of business in non-profitable directions is a cost of doing profitable business. To be sure, this extension creates internal contradictions that will create further justifications for yet more regulation, as Ikeda (1997) explains. For instance, the use of power through central banking and associated regulation to expand credit beyond what would be supported through private ordering will insert loci of discoordination into the ecology of plans that a society contains, leading thereby to yet further calls for the deployment of Power.

Going Forward: Spontaneous Order and the Economics of Liberty

Mainstream economics reflects an economics of control through its repeated illustrations of how policy measures can be used to shift economic variables to achieve alternative equilibrium positions. This is the economics of planned orders, and could well adopt Abba Lerner's (1944) *Economics of Control* as its poster child. Closed form modeling is perfectly suited to seeking a seat beside Power. To the extent the course of political competition requires rhetoric based on giving definitive answers to whatever problems gain salience on some public agenda, single exit modeling will surely have superior selection qualities to open models with multiple exits. Policy engineering has a hard time with open models because such models do not allow definite claims to be made about the consequences of many policy actions. In the progressivist-dominated era of the past century or so, mainstream economic thought has been in the forefront of advocating the use of state power as instruments of economic control, even if to some extent that advocacy has been unintentional.

In contrast, the mainline of economics is centered on the economics of liberty. It explains how it is liberty more than policy that promotes the flourishing of humanity. To be sure, the preceding sentence excludes that small portion of policy that supports liberty, mostly by getting out of the way of

private property and freedom of contract and association. The Austrian style of economic theory that entered the mainline in 1871 represents a continuation of the mainline that had formed centuries earlier, only with new modes of thought. The mainline tradition faces many analytical challenges that must be addressed if it is once again to become the mainstream of economic scholarship. The five authors of these essays have given by their examples reason to be optimistic about the future of mainline economic scholarship.

Notes

¹ Boettke (2011) presents a masterful exposition of Buchanan's approach to teaching in the context of economics as a science whose content is of public interest.

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