# Austrian Economics: Methodology, Concepts, and Implications for Economic Education

Joshua C. Hall<sup>1</sup> and Adam G. Martin<sup>2</sup>

## **Abstract**

This essay has two purposes. First, we hope to give the reader a flavor of what is generally meant by "Austrian economics." Second, we want to draw attention to the ways in which an understanding of Austrian economics can improve not only our understanding of social phenomena but also the practice of economic education. In addition, we hope to provide readers of the *Journal of Economics and Finance Education* who are unfamiliar with Austrian economics sufficient context to understand and enjoy the articles contained in this special issue.

## Introduction

This essay has two purposes. First, we hope to give the reader a flavor of what is generally meant by "Austrian economics." Second, we want to draw attention to the ways in which an understanding of Austrian economics can improve not only our understanding of social phenomena but also the practice of economic education. In pursuing these two goals, we are not suggesting that the Austrian school of economics is a monolithic entity that strictly adheres to all of the concepts we discuss. Rather, we view our essay as a point of launch for readers interested in learning more about Austrian economics. In addition, we hope to provide readers of the *Journal of Economics and Finance Education* who are unfamiliar with Austrian economics sufficient context to appreciate and use the articles contained in this symposium.

## "Austrian" Economics?

Modern Austrian economics has little to do with Austria. The school's origins can be traced back to the 1871 publication of Carl Menger's ([1871] 1976) *Principles of Economics*. Menger had two primary goals in mind. The first was to correct the cost of production theory of value that had plagued classical economics since Adam Smith. Menger worked as an economic journalist in Vienna and set out to explain the real fluctuations in commodity prices he observed. Rather than the labor that goes into them, the value of commodities derives from their marginal contribution to satisfying individuals' desires. The second primary goal was to show that this explanation of price formation is both general and abstract. This point was also meant as a corrective to the German Historical School. The Historical School held that there are

<sup>&</sup>lt;sup>1</sup> Assistant Professor of Economics, Beloit College, 700 College Street, Beloit WI, 53511, email: halljc@beloit.edu. He would like acknowledge the financial support of the Sanger Scholar program at Beloit College.

<sup>&</sup>lt;sup>2</sup> Post-Doctoral Fellow, Development Research Institute, New York University, New York NY, 10012, email: adammartin@nyu.edu.

<sup>&</sup>lt;sup>3</sup> This insight places Menger alongside Jevons and Walras in inaugurating the "marginal revolution" in economics. For a detailed analysis of how different Menger was from his fellow revolutionaries, see Jaffé (1976). In particular, Jaffé (1976: 521) calls Menger's economic man "a bumbling, erring, ill-informed creature, plagued with uncertainty, forever hovering between alluring hopes and haunting fears...."

no universal economic laws that held across different nations, cultures, and times; they rebelled against the "Manchester School's" insistence on worldwide free trade in light of the universal applicability of comparative advantage. Menger, while appreciative of the historicists' rich empirical research, argued that the properties of economic goods were subject to general theoretical investigation. He even dedicated *Principles* to Wilhelm Roscher, a leading older historicist. The younger members of the Historical School did not take kindly to Menger's argument. It was in the ensuing debate—dubbed the *methodenstreit*, or dispute over methods—that the historicists began derisively referring to Menger and his students as the "Austrian School," indicating their inferiority to the genuinely German approach (Mises 1969; Bostaph 1994; Caldwell 2004). The name stuck.

While the Historical School held substantial influence in German universities into the 20<sup>th</sup> century, it is the Austrian School's insights that made an impression on the rest of the profession in other countries. Menger's discussions of scarcity, diminishing marginal utility, and Robinson Crusoe economies were folded naturally into the emerging marginalist consensus.<sup>5</sup> His students Eugen Bohm-Bawerk and Friedrich Wieser likewise made important contributions to mainstream thought, Bohm-Bawerk for his pioneering discussion of time preference and Wieser for coining the term "opportunity cost." There were differences between the Austrians and others, especially when Marshall reintroduced the cost of production as one blade of a pair of scissors determining price (the other blade being marginal utility). But these were minor points of dispute within a broader consensus. By the time Ludwig von Mises and F.A. Hayek made their international reputations they were simply economists. No "Austrian" label was necessary, even though both learned and worked in the tradition of Menger. At this point, "Austrian School" was a term of merely historical interest. But unification with the mainstream of the profession did not last.

The socialist calculation debate revealed the deep, underlying gulf separating the Austrians from the neoclassical orthodoxy. It began in 1920 with the publication of Mises's ([1920, 1935) "Economic Calculation in the Socialist Commonwealth." Mises argues that without money prices, socialist planners would lack a common denominator by which to evaluate the usefulness of alternative uses of resources and so could not engage in rational economic calculation. Socialist economists responded with the theory of "market socialism," the idea that socialist planners could use centrally administered accounting prices and systems of equations as a substitute for market exchange. This argument, though not unknown on the Continent, took off after Hayek published an English translation of Mises's 1920 essay in a collection titled Collectivist Economic Planning in 1935. Mises and Hayek responded that the market socialists fundamentally misunderstood the problem, but to no avail. Professional economists, whether politically socialist or not, largely sided with the theoretical claims of the market socialists. The substance of this argument is discussed in more detail below, but the professional results were disastrous for Mises and Hayek. A second major blow came in the form of the Keynesian revolution in macroeconomics. Before the publication of the General Theory, Hayek made his international reputation by elaborating on and articulating Mises's theory of the trade cycle. Again the profession veered away from the Austrian position and embraced Keynes's approach.

Mises and Hayek spent the next several decades trying to understand and articulate why their counter-arguments against the Keynesians and market socialists failed to gain traction. Much of this work was methodological, making explicit the underlying assumptions that led them to different conclusions than their colleagues on substantive theoretical points (Hayek 1948, 1952; Mises [1949] 1966). Gradually, a number of professional economists—primarily in the United States—discovered these writings and became convinced by them. The Mises-Hayek perspective, which grew out of Menger's old Austrian school, offered an alternative to Paul Samuelson's dominant "neoclassical synthesis" of Marshall's microeconomics and Keynes's macroeconomics. Eventually these students began finding each other and formed a self-conscious network of like-minded scholars, a network that took on a life of its own when they met for a conference in South Royalton, Vermont in June 1974. Later that year, Hayek received the Nobel Prize for his work on business cycle theory. These two events in particular mark the beginning of the

<sup>&</sup>lt;sup>4</sup> For more on the German Historical School and its relationship to the development of Austrian economics, see Mises (1969).

<sup>&</sup>lt;sup>5</sup> This is not to say that Menger was the sole originator of any of these ideas.

<sup>&</sup>lt;sup>6</sup> For more on Bohm-Bawerk and Wieser see chapter 3 of White ([1977] 2003).

<sup>&</sup>lt;sup>7</sup> The proceedings of the South Royalton conference are collected in Dolan (1976).

"Austrian revival." By the late 1960's these scholars began referring to "Austrian" economics in its modern connotation, and the label was explicitly adopted at South Royalton to identify a modern research program. As a prominent survey article (Rizzo 2009) has recently recounted, the Austrian School has grown steadily since its revival and is making important contributions to the economics of knowledge, applied political economy, development economics, macroeconomics, monetary theory, and law and economics.

#### **Microfoundations of Austrian Economics**

Like neoclassical microeconomists, Austrians argue that methodological individualism is the proper approach to understanding social phenomena. Broader social patterns are best explained with reference to individual actions. Austrian economics also belongs to the broadly rational choice camp of social science. Individuals have various goals but face a scarcity of means for achieving them, with all that entails: tradeoffs, economizing, incentives, etc. There are, however, a few subtle differences in the implicit model of the individual utilized by Austrians. In particular, Austrians have a much thinner conception of what is meant by saying that individuals act rationally. Mises and those following him argue that rationality involves nothing more than the conscious striving after ends or purposes. It does not entail epistemic rationality (i.e., correct appraisals of the consequences of action), narrow self-interest, or any particular psychology. The possible disadvantage to this approach is that it lacks its own-derived predictive content: any conscious action counts as rational. The possible advantage is that, as Menger understood, it is generally applicable across all times and places. Because this definition of rationality involves so little, it allows more room for recognizing ecological or institutional factors influencing human activity.

Abstracting from epistemic rationality is the most radical departure Austrians make from neoclassical microfoundations. In fact, insisting that individuals confront a radical form of ignorance is arguably the defining feature of the Austrian approach. The paradigmatic statement of the mainstream approach to ignorance is George Stigler's (1961) search theory. Stigler argues that individuals will search for new information exactly to the extent that the benefits equal or exceed the costs. Neoclassical agents know what they don't know, and know how to find the answer. Specifically, they might be ignorant of the real parameter value of a variable of interest. The cost of information and the expected payoff from getting a more precise estimate than their uninformed guess determine whether they will expend resources searching for more information.

Austrians have differed in how they express the inadequacy of this account, but they all point in the similar direction. Kirzner argues that individuals are subject to a wide range of "sheer ignorance," in which they don't know what they don't know; in order to know to search for a given piece of information, one must be aware that the information might be out there (Kirzner 1997). O'Driscoll and Rizzo (1996) go so far as to argue that Austrian economics is essentially "the economics of time and ignorance." They distinguish between Newtonian time, which is a dimension along with other variables can vary, and Bergsonian time, which allows the emergence of genuinely novel phenomenon. Individuals exist in Bergsonian time, and so can be subject to radical and real surprise. Neoclassical models, by contrast, treat time as a variable in the same manner that classical (Newtonian) models of mechanics and motion do: time only allows variables to change, not the emergence of genuine novelty. Finally, some Austrians pinpoint Frank Knight's concept of uncertainty as a distinguishing characteristic of their approach (Langlois and Cosgel 1993, Langlois 1994, Martin 2009). Whereas the standard economic approach to ignorance treats agents only as unaware of the parameter values of variables, uncertainty treats agents as unaware of which variables are relevant. The nature of the problem confronting the actor has to be discovered.

The most important feature that these approaches share is a form of ignorance that is *prior* to choice; they are all ignorance of the opportunities an agent has to act on, not of the relative value of those opportunities. Its remedy is thus not to be found in economizing on information costs. Since opportunities can be missed genuine errors do happen. These errors would violate the epistemic rationality standard of neoclassical economics, but would still be rational in the thinner Austrian sense. Individuals choose

<sup>&</sup>lt;sup>8</sup> Mario Rizzo, a participant at South Royalton, supplied this detail.

<sup>&</sup>lt;sup>9</sup> For example, see Chamlee-Wright's (2010) research on post-Katrina reconstruction.

rationally among the opportunities they are aware of, but that awareness is both limited (they are not aware of all possible options) and subject to change.

These departures from the neoclassical definition of rationality can be summed up by the Austrian commitment to a radical form of subjectivism. All mainstream economists, of course, recognize that values are subjective. By "subjective" they primarily mean that individuals attach different weights to the arguments in their utility functions. Austrians accept this but go beyond it. Costs and benefits exist *only* in the mind of the individual actor at the moment of choice (Buchanan [1969] 1999). Put differently, costs and benefits are not just borne but also *defined* by the agent. All costs are opportunity costs to the agent in question. Note that this radical stance follows from abstracting from psychological considerations and modeling the individual's available opportunities as a product of his own mind. If agents define their own opportunity sets, then they must define their own costs as well. This idea is abstract but has consequences for how one analyzes the economy. Austrians reject Marshall's post-marginalist reintroduction of objective costs of production; supply and demand do indeed determine prices, but both blades of the scissors are subjective in their origins. This rejection likewise plays into the Austrian emphasis on entrepreneurship rather than technical production functions in explaining the supply side of the economy.

## **Economic Calculation and Dispersed Knowledge**

The socialist calculation debate is the pivotal moment in the history of the Austrian school, not only for revealing fundamental differences in the microfoundations of Austrian and neoclassical economics but also for giving birth to the school's most famous insight: dispersed knowledge (Hayek 1945, Lavoie 1985). Mises's original argument was targeted at socialists that argued for the collectivization (or state ownership) of the means of production. Contrary to the public choice school that would come later, he begins by assuming away the incentive problems of socialism, hoping to demonstrate that socialism is not merely bad "in practice" but also in theory. He likewise assumes that consumption markets will exist, believing that the planning authorities would see the foolishness of rationing. Only the private ownership over the means of production would be abolished. Private ownership allows for exchange, which in turn leads to relative prices for productive factors. Prices enable entrepreneurs to engage in profit and loss calculations that reflect the valuations consumers place on other goods that can be produced by various possible methods of production. Bidding between different producers means that consumer goods tend to be produced in the manner that uses the means of production least valued for other uses.

By outlawing exchange in productive factors, socialist planners would lack prices and thus profit and loss signals. The impossibility of monetary calculation means that planners would lack a common unit by which to evaluate *either* different uses of the same resources *or* different methods of producing the same finished consumer good. Should ten tons of steel be used to construct medical facilities or automobiles? Should electrical wiring be made of copper or gold? Socialist planners would lack a way of evaluating across incommensurable types of projects. Mises went so far as to claim that this made sustaining an advanced division of labor under socialism *impossible*. Specializing in a particular task—the heart of the division of labor—is only feasible if one can rely on others to produce goods necessary for survival. Furthermore, this process will only lead to prosperity if society can produce more of something by giving up less of something else. That requires knowledge of the relative scarcities of productive factors. Solving these coordination problems requires money prices and profit and loss signals (Boettke 1990, 1993, 2001).

Mises's argument had enough force that socialist economists were forced to concede it, attempting for the next several decades to create workarounds (e.g., Leontief, 1951). The first and most obvious proposal was "market socialism," in which planners themselves would use "accounting" prices. It is the fact that prices create a common denominator that allows for profit and loss accounting. These profits would exist merely on paper and not be tied to anyone's income; market socialists were all too happy to grant the assumption of no incentive problems. Production plant managers would be instructed to bid on resources *as* 

<sup>&</sup>lt;sup>10</sup> For an Austrian perspective of the firm, see, for example, Klein (1996), Foss (1997), Klein (1999), Foss (1999), Dulbecco and Garrouste (1999), Lewin and Phelan (2000), Foss and Foss (2002), Foss and Klein (2002), Foss et al. (2007), and Klein (2008).

<sup>&</sup>lt;sup>11</sup> See Buchanan (1979[1999]) and (2005) for discussions of public choice theory and socialism.

if they were maximizing profits in pursuit of meeting their production quotas. State planners would then collect data on production shortages and surpluses and use general equilibrium theory to calculate market-clearing prices and quantities with which to adjust production targets. Essentially, the neoclassical theory of markets would be used as a substitute for actual buying and selling. The question the Austrians had to thus answer was: why can centrally administered prices not serve as an effective substitute for market prices?

Hayek thus set out to explain a grave omission in the neoclassical theory of price, producing his most famous argument about "The Use of Knowledge in Society." He argues that the knowledge of conditions relevant to coordinating the division of labor is dispersed, local, often tacit, and beyond the capacity of one or a few minds to grasp (Hayek 1945). Knowledge concerning concrete details that affect the relative scarcities of various productive factors—including, for example, the technical requirements of various particular lines of production or alternative methods of production—is *dispersed* across the whole of an advanced economy. Those details reflect *local* conditions of time and place including weather, transportation costs, and the quantity of available reserves of different resources. Especially when it is local, such knowledge is often *tacit*, or unable to be expressed verbally. Tacit knowledge might involve knowing the idiosyncracies of particular capital goods or trading networks. No matter how good a central planning bureaus data collection techniques, tacit knowledge remains beyond its grasp. All these factors together, together with the sheer quantity of knowledge utilized in an advanced economy, mean that a central planning board would face an insoluble "knowledge problem" in attempting to run an entire economy. <sup>12</sup>

But the free market price system solves this problem of immense, dispersed, local, and tacit knowledge spontaneously, without central direction. While the relevant knowledge cannot be collected, prices act as knowledge "surrogates." If there is some new and valuable use for tin, an entrepreneur making tin cans need not know the details about it in order to adjust the quantity of tin he uses. He merely needs to observe the upward movement in the price of tin to know to cut back or switch to a different material. The price rises as those who know about the new and valuable use bid resources away from other lines of production. Prices allow producers to coordinate their activities with other producers *without* having access to their local or tacit knowledge. As long as property rights are secure and free entry is protected, anyone that has an idea about a better way to use resources can potentially contribute their knowledge to the system (Kirzner 1988). By contrast, a market socialist economy would be limited to the knowledge of existing plant managers and central planners. Such elites might have sound technical and scientific knowledge, but would lack immense knowledge of time and place that is aggregated into a useful form by market prices.

## **Entrepreneurship, the Market Process, and the Trade Cycle**

If Hayek's story about the markets is right, buyers and sellers rely on existing market prices without being pure price takers. The price system is not magic. A price comes to reflect information about new conditions only through the actions of some individual or individuals buying and selling the good in question. Such individuals necessarily resemble those described by the Austrian microfoundations laid out above: they must face opportunity sets that are both limited and subject to change. Sheer or radical ignorance of opportunities is a bedrock assumption for this theory. Without it, there is no knowledge problem to be solved (Hayek 1937). But the knowledge problem must be solved to some extent, for we do observe an advanced division of labor in modern market society. Ergo, there must be some mechanism by which individuals learn bits and pieces of the knowledge required for this decentralized system to function. Individuals must be able to discover opportunities for better coordinating dispersed and voluminous economic activity. Those individuals are entrepreneurs. It is in the field of entrepreneurship that Austrians have perhaps had their greatest contribution in recent years (Douhan et al. 2007)

Economics is fundamentally about choices between options. The theory of entrepreneurship is about where those options come from. Entrepreneurship is the response to radical ignorance in the same way that choice is the response to scarcity: an individual confronted with virtually limitless possibilities for action can only imagine a few (Kirzner 1982). Entrepreneurship thus extends beyond markets to politics

<sup>&</sup>lt;sup>12</sup> A classic application of Hayek's insight to applied policy issues can be found in Sowell (1980). For a more recent example, see Sobel and Leeson (2007).

(DiLorenzo 1988; Holcombe 2002), culture (Chamlee-Wright 1997), institutions, and all other walks of life (Chamlee-Wright and Myers 2008). But the theory is most well developed in relation to markets, where it is the vital missing piece from the mainstream approach. Israel Kirzner's body of work is the foundation of the modern Austrian approach to the topic. Kirzner's theory can be summed up as: Misesian entrepreneurs solve Hayekian knowledge problems. For Mises, the entrepreneur is "the first to understand that there is a discrepancy between what is done and what could be done" (Mises [1949] 1966, p. 336). Entrepreneurs are speculators who earn either profits or losses by betting that productive factors will earn a higher return satisfying one consumer desire rather than another.

Kirzner connects the ideas of Mises and Hayek by pointing out that, in markets, discoordination of the sort Hayek was worried about manifests as an arbitrage opportunity. An arbitrage opportunity occurs when identical goods have different prices in two or more different markets and the total per-unit cost of moving them from one market to another is less than that price discrepancy. Entrepreneurship in markets is arbitrage. This may seem like a narrow definition of entrepreneurship, but it covers quite a bit of ground when one takes into account that markets can be separated not only by space, but also by time (Mises's speculators) or—in the case of factors of production—the consumer goods into which they are inputs. Speculation and production are forms of arbitrage. A businessman making a new product, whether it's a new kind of product or not, attempts to arbitrage between the value of the inputs in their current uses an their value as inputs into the new product. This is why entrepreneurship connects to radical ignorance: the "other market" is always an imagined opportunity, not an experienced one. Whether the imagined opportunity will bear fruit depends, for Kirzner, on the entrepreneur's alertness to genuine possibilities for profit. Alertness, in turn, is a function of the local and tacit knowledge that Hayek was so concerned about. By the arbitrage activities of alert entrepreneurs, that knowledge of time and place becomes embedded in market prices and an input into the profit and loss calculations of other entrepreneurs.

Competition leashes entrepreneurial discoveries to the desires of consumers. Profits can be competed away through both imitation and innovation (Holcombe 2007). Provided there exist sound property rights and monetary institutions—securing freedom of entry and enabling economic calculation—competition generates a systematic process of entrepreneurial discovery. The *market process*, as Austrians usually refer to it, is not just about aligning the incentives of producers to the preferences of consumers but also channeling producers' entrepreneurial alertness. Competition is constitutive of the market process because, on account of radical or sheer ignorance, it is impossible to know *ex ante* whose local knowledge is relevant to best solving a problem or satisfying a desire (Hayek 1968). Free entry is thus the characteristic feature of competition. The chance of someone finding a better solution is maximized when anyone willing to take on the risk and responsibility of failure is free to challenge the current way of doing things. This condition need not entail the existence of multiple firms offering a given product, but only the threat of entry. Austrians thus reject the neoclassical model of competition as a state of affairs characterized by price-taking behavior, making most skeptical of the antitrust laws erected on that theory (Kirzner 1973; Armentano 1982).

Market process theory so understood explains why Austrians are typically critical of government regulation of or intervention into economic activity. Even well intentioned interventions displace the local knowledge of entrepreneurs with the judgment of bureaucrats, usually far removed from the situation "on the ground" (Hayek 1945). This is relatively obvious for government attempts to set prices, but applies more broadly. Without engaging in the relevant exchanges, bureaucrats also lack the ability to engage in economic calculation, usually operating without relevant prices by which to judge tradeoffs (how many spotted owls are worth one bald eagle?) and always without profit and loss to gauge success (Mises 1944). These limitations make not only the wisdom of the interventions themselves suspect, but also raises the question of whether the effects of a given intervention could be achieved more cheaply or effectively by some other means. Moreover, given that competition operates as a discovery procedure, cost-benefit calculations of government programs must be suspect. In reality, where government decision making displaces market processes it is impossible to know what would have been discovered had the market run its course (Kirzner [1979] 1985). Government intervention essentially faces the knowledge problem in miniature.

<sup>&</sup>lt;sup>13</sup> One measure of these institutions can be found in Gwartney et al. (2010).

<sup>&</sup>lt;sup>14</sup> Bureaucrats are needed because policies must be implemented.

Austrian Business Cycle Theory (ABCT) is the most detailed account of what can go wrong with government intervention into the economy. Recall that sound monetary institutions play an important role in the competitive process by enabling entrepreneurs to engage in economic calculation. Entrepreneurs rely on the accuracy of price signals to reveal genuinely profitable arbitrage opportunities. Even when the good that does not yet exist—whether in kind or in time—a successful entrepreneur needs prices to gauge the cost of bringing it to market. That will involve the prices of complementary factors of production. And even a good that does not exist yet will have some substitutes available; Henry Ford could look at the price of horses to get *some* idea of what consumers would be willing to pay for an automobile. ABCT describes one possible outcome of impairing the ability of prices to communicate relative scarcities: the boom and bust of the business cycle.

The boom phase of the cycle gets underway when the money supply expands beyond individuals' demand to hold money balances. Often such an imbalance results from monetary policy. Monetary authorities confront a knowledge problem when attempting to determine the appropriate money supply. Owing to various political considerations, errors are usually inflationary rather than deflationary (Buchanan and Wagner [1977] 1999). A critical point in the Austrian story is that new money enters the economy at specific injection points, not evenly over the whole economy. As it does so, it alters the relative prices on which entrepreneurs rely, loosening the feedback between prices and consumer preferences. Inflation makes prices into liars. Consumer preferences have not changed, but the signal sent by relative prices has. Interest rates are one such set of relative prices, and an especially critical one. Interest rates function as relative prices between present consumption and future consumption, or savings. When interest rates go down, the cost to previously extra-marginal entrepreneurs of bringing a good to market by way of credit falls. Such entrepreneurs borrow to invest in bringing future goods to market at a greater rate. This leads to an expansion in the number of business projects undertaken, or the boom phase of the business cycle.

The bust phase of the cycle—possibly large enough to constitute a depression or recession—occurs when entrepreneurs realize that their projects are unprofitable and close up shop. This can occur when they bring their goods to market only to discover that the prices they acted on did not reflect consumer preferences, or at a later stage of the production process when other entrepreneurs—responding to some mix of false and reliable signals—bid up the inputs needed to finish the job. Once the misled entrepreneurs do close up shop, the productive factors they employed can eventually be reallocated to lines of production more in line with consumer preferences. The Austrian story is unique for identifying the boom as a cluster of errors and the bust as the corrective adjustment. Adjustments can be painful and slow. But since the fundamental problem is that the coordinating function of prices has been abrogated, government stimulus policies—which, as noted above, usually operate with less knowledge of the relevant circumstances than private agents—are unlikely to quicken the recovery. <sup>16</sup>

## **Spontaneous Orders**

The impossibility of centrally planning an advanced economy has a profound implication on how one understands society more broadly: no one is in charge. Market outcomes—the overall mix of goods and services produced and sold under the price system—are not the intention of anyone. Intentions, plans, and purposes exist at the level of individuals making decisions to exchange a particular product, but a thousand distinct intentions do not add up to a coherent plan. The market is *non-teleological* or *spontaneous*, having no purpose of its own but allowing individuals who act within it to pursue various and frequently contradictory purposes. Vegetarian restaurants exist side by side with butcher shops. Nonetheless, market activity is orderly. Individuals in modern economies engage in extremely specialized forms of work, counting on others to perform complementary tasks so that the range of human needs and desires can be satisfied. They succeed in such specialization despite the lack of a conscious coordinator who tells them

<sup>&</sup>lt;sup>15</sup> It is not that entrepreneurs are systematically "fooled." Even if they know that changes in prices or profits are due partly to inflation, they can't observe the true underlying scarcity and thus face a signal extraction problem.

<sup>&</sup>lt;sup>16</sup> This does not imply that every recession is a correction. Deflationary recessions without a corresponding boom can also happen. But even in this case the essence of the phenomenon, as with an inflationary boom, is a coordination failure caused by a monetary disturbance.

what to specialize in (such as within a firm). To paraphrase Bastiat (1850 [1996]) in his essay "Natural and Artificial Social Order", "Paris gets fed," even though no one is in charge. <sup>17</sup> Hayek thus refers to the market as a "spontaneous order."

Hayek developed his thoughts on spontaneous order in the decades following the Austrians' apparent defeat by the market socialists. In doing so, he identified and drew extensively on the tradition of the Scottish Enlightenment, including Adam Ferguson ([1767] 1782), David Hume ([1739] 1896), and Adam Smith ([1776] 1981). Hayek borrowed Ferguson's formulation to describe spontaneous order as "the results of human action but not of human design." Obviously the most prominent account of spontaneous order in the Scottish tradition is Smith's invisible hand of the market. For Austrians, the chief power of the invisible hand is *not* to turn selfish intentions into beneficent outcomes—though that is important as well—but rather the ability to coordinate the actions of dispersed multitudes. The distinguishing characteristic of spontaneous order is not necessarily beneficence but coordinated interaction between individuals without an explicit coordinator. It is bottom-up rather than top-down. Spontaneous order is likewise not relegated to markets, but characterizes any widespread social phenomenon. Menger ([1871] 1976) offers a classic account of the spontaneous development of money from barter. Language and cultural norms are obviously the spontaneous outgrowth of human interaction, as well as facilitating further interaction (Adelstein 1996). Hayek (1960, 1973) argues that the common law is a spontaneous order embodying more accumulated wisdom than a centrally designed civil code.

A spontaneous order approach to understanding the social world is arguably the main punch line of Austrian microfoundations and the recognition of dispersed knowledge. Most of the post-revival advances in Austrian economics have followed this trajectory. Two fields in particular merit singling out: political economy and analytical anarchism. In political economy, Austrians have argued that political outcomes are subject to the same sorts of bottom-up forces as market outcomes. Even if the state is fruitfully conceived of as an organization, political outcomes are also influenced by other organizations such as political parties, lobbying groups, media, firms, etc. Policies are the result of a complex interplay of activities such as lobbying and vote trading. To understand these processes concepts like rent-seeking, political exchange, and political entrepreneurship are more help than voting models where policy is an object of direct collective choice. And unlike market institutions, political institutions lack an invisible hand leading to beneficent outcomes. Here modern Austrians draw heavily on both the Virginia School of public choice (Buchanan and Tullock [1962] 1999) as well as the Bloomington School of institutional analysis created by Elinor and Vincent Ostrom.<sup>20</sup> Both these schools likewise draw heavily on the work of older Austrians such as Mises and Hayek, and can be understood as part of the same tradition (Boettke and Aligica 2009, Boettke 2008, Wagner (2004). In particular, authors such as DiLorenzo (1988), Benson (2002), Lopez (2002), Holcombe (2002), Sobel et al. (2007) and Simmons et al. (2011) have done important applied research on special interests and political entrepreneurship. Wagner (2007) pushes these insights the furthest, arguing that polities, like markets, should be understood as ecology of enterprises rather than purposive organizations.

Over the past decade, a more radical stream of research from younger Austrians has explored the analytics of anarchism, or stateless orders. This research investigates the limits and possibilities of rules developing in the absence of a central state authority. Whereas most who recognize the importance of spontaneous order for explaining the social world—including Hayek himself—think of it as operating within a legal framework consciously designed by the state, Austrians usually recognize at least some (if not very extensive) scope for the spontaneous development of rules that can effectively govern an extensive social order. This research is primarily comparative and historical, examining how private individuals discover and establish rules, especially those that allow them to exploit the gains from trade. The purpose of investigating such systems is to illuminate the spontaneously ordering forces at work both outside of and

<sup>&</sup>lt;sup>17</sup> More precisely, one might say "because no one is in charge." The market is able to utilize the knowledge of so many precisely because it need not be assembled under the rubric of a single plan or authority.

<sup>&</sup>lt;sup>18</sup> Martin and Storr (2008) explore perverse spontaneous orders.

<sup>&</sup>lt;sup>19</sup> This is even true in some respect of social phenomena characterized as purposive organizations. While particular instances of firms, families, clubs, churches, and the like are clearly intentional human creations, the general forms that they take and draw on in order to coordinate the expectations of their members are the result of long, spontaneous evolution.

<sup>&</sup>lt;sup>20</sup> For an excellent overview of the Bloomington School see Aligica and Boettke (2009).

within states (Boettke 2005). Some of the key work in this area is by Coyne (2003, 2008), Leeson (2007a, 2007b, 2007c, 2007d, 2008a, 2008b), Leeson and Williamson (2009), Powell and Wilson (2008), Powell and Stringham (2009), Powell et al. (2009), Skarbek (2009), and Stringham (2002, 2003, 2005, 2007).

## Conclusion

The Austrian school of economics has a long history of contributions to economics that are impossible to summarize in such a short essay. We hope, however, that we have provided sufficient information that readers can better appreciate the insights of the other articles in this issue. For individuals interested in learning more about the Austrian economics and its approach to different topics in economics we suggest beginning with Boettke (1994) and the other essays in *The Elgar Companion to Austrian Economics*. In addition, the papers contained in Boettke (2010) looks at how the Austrian School is contributing to both the discipline of economics and social science in general.

## References

Adelstein, Richard. 1996. "Language Orders." Constitutional Political Economy 7: 221-238.

Aligica Paul D. and Peter J. Boettke. 2009. *Challenging Institutional Analysis and Development: The Bloomington School*. New York: Routledge.

Armentano, Dominick T. 1982. Antitrust and Monopoly: Anatomy of a Policy Failure. New York: John Wiley.

Beaulier, Scott, and Joshua Hall. 2009. "The Production and Proliferation of Economists: The Austrian and Public Choice Schools as Academic Enterprises." *Journal of Private Enterprise* 24: 137-156.

Bastiat, Frédéric. [1850] 1996. *Economic Harmonies*. Irvington-on-Hudson, NY: Foundation for Economic Education, Inc.

Benson, Bruce L. 2002. "Regulatory Disequilibrium and Inefficiency: The Case of Interstate Trucking." *The Review of Austrian Economics* 15: 229-255.

Boettke, Peter. 1990. *The Political Economy of Soviet Socialism: The Formative Years, 1918-1928*. Boston: Kluwer Academic Publishers.

Boettke, Peter. 1993. Why Perestroika Failed: The Politics and Economics of Socialist Transformation. London: Routledge.

Boettke, Peter. 2001. Calculation and Coordination: Essays on Socialism and Transitional Political Economy. London: Routledge.

Boettke, Peter J. 1994. "Introduction." In *The Elgar Companion to Austrian Economics*, edited by Peter J. Boettke. Northampton: Edward Elgar.

Boettke, Peter J. 2005. "Anarchism as a Progressive Research Program in Political Economy." In *Anarchy, State and Public Choice*, edited by Edward P. Stringham. Northampton: Edward Elgar.

Boettke, Peter J. 2008. "Maximizing Behavior & Market Forces: The Microfoundations of Spontaneous Order Theorizing in Gordon Tullock's Contributions to Smithian Political Economy. *Public Choice* 135: 3-10.

Boettke, Peter J., ed. 2010. Handbook on Contemporary Austrian Economics. Northampton: Edward Elgar.

Boettke, Peter J., and Peter T. Leeson. 2003. "The Austrian School of Economics: 1950-2000." In *A Companion to the History of Economic Thought*, edited by Warren Samuels, Jeff Biddle and John Davis. Oxford: Blackwell Publishing Ltd., 2003.

Bostaph, Samuel. 1994. "Methodenstreit." In *The Elgar Companion to Austrian Economics*, edited by Peter J. Boettke. Northampton: Edward Elgar.

Buchanan, James. [1969] 1999. Cost and Choice: An Inquiry into Economic Theory. Indianapolis: Liberty Fund.

Buchanan, James M., and Gordon Tullock. [1962] 1999. *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. Indianapolis: Liberty Fund.

Buchanan, James M., and Richard E. Wagner. [1977] 1999. Democracy in Deficit: The Political Legacy of Lord Keynes. Indianapolis: Liberty Fund.

Buchanan, James M. [1979] 1999. "Politics Without Romance: A Sketch of Positive Public Choice Theory and its Normative Implications," *The Complete Works of James M. Buchanan* 1: 45-59, Indianapolis: Liberty Fund.

Buchanan, James M. (2005) "Afraid to be Free: Dependency as Desideratum," Public Choice 124: 19-31.

Caldwell, Bruce, editor. 1995. *The Collected Works of F. A. Hayek: Contra Keynes and Cambridge*. Chicago: University of Chicago Press.

Caldwell, Bruce. 2004. *Hayek's Challenge: An Intellectual Biography of F.A. Hayek*. Chicago: University of Chicago Press.

Chamlee-Wright, Emily. 1997. The Cultural Foundations of Economic Development: Urban Female Entrepreneurship in Ghana. New York: Routledge.

Chamlee-Wright, Emily. 2010. The Cultural and Political Economy of Recovery: Social Learning in a Post-Disaster Environment. New York: Routledge.

Chamlee-Wright, Emily, and Justus Myers. 2008. "Discovery and Social Learning in Non-priced Environments: An Austrian View of Social Network Theory." *Review of Austrian Economics* 21: 151-166.

Coyne, Christopher J. 2003. "Order in the Jungle: Social Interaction without the State." *The Independent Review* 7: 557-566.

Coyne, Christopher J. 2008. *After War: The Political Economy of Exporting Democracy*. Stanford: Stanford University Press.

Cowan, Robin, and Mario Rizzo. 1996. "The Casual Genetic Moment in Economics," Kyklos 49 (3), 273-316.

DiLorenzo, Thomas J. 1988. "Competition and Political Entrepreneurship: Austrian Insights into Public Choice Theory." *Review of Austrian Economics* 2: 59-71.

Dolan, Edwin G., editor. 1976. The Foundations of Modern Austrian Economics. Kansas City: Sheed and Ward.

Douhan, Robin, Gunnar Eliasson and Magnus Henrekson. 2007. "Israel M. Kirzner: An Outstanding Austrian Contributor to the Economics of Entrepreneurship." *Small Business Economics* 29: 213-223.

Dulbecco, Philippe, and Pierre Garrouste. 1999. "Towards an Austrian Theory of the Firm." Review of Austrian Economics 12: 43-64.

Evans, Kelly. 2010. "Spreading Hayek, Spurning Keynes: Professor Leads an Austrian Revival." Wall Street Journal, 28 August.

Ferguson, Adam. [1767] 1782. An Essay on the History of Civil Society, 5th ed. London: T. Cadell. Accessed from http://oll.libertyfund.org/title/1428 on 2010-08-26.

Foss, Nicolai J. 1997 "Austrian Insights and the Theory of the Firm." *Advances in Austrian Economics* 4: 175-98.

Foss, Nicolai J. 1999. "The Use of Knowledge in Firms." *Journal of Institutional and Theoretical Economics* 155: 458-86.

Foss, Kirsten and Nicolai J. Foss. 2002. "Organizing Economic Experiments: Property Rights and Firm Organization." *Review of Austrian Economics* 15: 297-312.

Foss, Nicolai J., and Peter G. Klein, editors. 2002. *Entrepreneurship and the Firm: Austrian Perspectives on Economic Organization*. Aldershott: Edward Elgar.

Foss, Kirsten, Nicolai J. Foss, and Peter G. Klein. 2007. "Original and Derived Judgment: An Entrepreneurial Theory of Economic Organization." *Organization Studies* 28: 1893-1912.

Garrison, Roger. 2000. Time and Money. New York: Routledge.

Gwartney, James, Joshua C. Hall, and Robert A. Lawson. 2010. *Economic Freedom of the World: 2010 Annual Report*. Vancouver: Fraser Institute.

Hall, Joshua, and Peter T. Leeson. "Good for the Goose, Bad for the Gander: International Labor Standards and Comparative Development." *Journal of Labor Research* 28: 658-676.

Hall, Joshua, Russell S. Sobel and George Crowley. 2010. "Institutions, Capital, and Growth." *Southern Economic Journal* 77: 385-405.

Hayek, F. A. 1937. "Economics and Knowledge." Economica 4: 33-54.

Hayek, F. A. 1945. "The Use of Knowledge in Society." American Economic Review 35: 519-30.

Hayek, F. A. 1948. Individualism and Economic Order. Chicago: University of Chicago Press.

Hayek, F.A. 1952. The Counter-Revolution of Science: Studies on the Abuse of Reason. Glencoe: The Free Press.

Hayek, F.A. 1968. "Competition as a Discovery Procedure." In *New Studies in Philosophy, Politics, Economics and the History of Ideas*, F.A. Hayek. Chicago, University of Chicago Press.

Holcombe, Randall G. 2002. "Political Entrepreneurship and the Democratic Allocation of Resources." *Review of Austrian Economics* 15: 143-159.

Holcombe, Randall G. 2007. Entrepreneurship and Economic Progress. New York: Routledge.

Horwitz, Steven. 2000. Microfoundations and Macroeconomics. New York: Routledge.

Hume, David. [1739] 1896. A Treatise of Human Nature. Oxford: Clarendon Press. Accessed from http://oll.libertyfund.org/title/342 on 2010-08-26.

Jaffé, William. 1976. "Menger, Jevons and Walras De-Homogenized." Economic Inquiry 14: 511-24.

Kirzner, Israel. 1973. Competition and Entrepreneurship. Chicago: University of Chicago Press.

Kirzner, Israel. [1979] 1985. "The Perils of Regulation: A Market-Process Approach." In *Discovery and the Capitalist Process*, edited by Israel Kirzner. Chicago: University of Chicago Press.

Kirzner, Israel. 1982. "Uncertainty, Discovery, and Human Action: A Study of the Entrepreneurial Profile in the Misesian System." In *Method, Process, and Austrian Economics*, edited by Israel Kirzner. Lexington: D. C. Heath and Company.

Kirzner, Israel. 1988. "The Economic Calculation Debate: Lessons for Austrians." *Review of Austrian Economics* 2: 1-18.

Kirzner, Israel. 1997. "Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach." *Journal of Economic Literature* 35: 60-85.

Klein, Peter G. 1996. "Economic Calculation and the Limits of Organization." *Review of Austrian Economics* 9: 3-28.

Klein, Peter G. 1999. "Entrepreneurship and Corporate Governance." *Quarterly Journal of Austrian Economics* 2: 19-42.

Klein, Peter G. 2008. "Opportunity Discovery, Entrepreneurial Action, and Economic Organization." *Strategic Entrepreneurship Journal* 2: 175-90.

Langlois, Richard N. 1994. "Uncertainty." In *The Elgar Companion to Austrian Economics*, edited by Peter J. Boettke. Cheltenham: Edward Elgar.

Langlois, Richard N., and Metin M. Cosgel. 1993. "Frank Knight on Risk, Uncertainty, and the Firm: A New Interpretation." *Economic Inquiry* 31: 456-465.

Lavoie, Don. 1985. Rivalry and Central Planning. New York: Cambridge University Press.

Leontief, Wassily W. 1951. "Input-Output Economics." Scientific American October: 15.

Leeson, Peter T. 2007a. "Trading with Bandits." Journal of Law & Economics 50: 303-321.

Leeson, Peter T. 2007b. "An-arrgh-chy: The Law and Economics of Pirate Organization." *Journal of Political Economy* 115: 1049-1094.

Leeson, Peter T. 2007c. "Better off Stateless: Somalia Before and After Government Collapse." *Journal of Comparative Economics* 35: 689-710.

Leeson, Peter T. 2007d. "Efficient Anarchy." Public Choice 130: 41-53.

Leeson, Peter T. 2008a. "Social Distance and Self-Enforcing Exchange." *Journal of Legal Studies* 37: 161-188.

Leeson, Peter T. 2008b. "How Important is State Enforcement for Trade?" *American Law and Economics Review* 10: 61-89.

Leeson, Peter T., and Claudia Williamson. 2009. "Anarchy and Development: An Application of the Theory of Second Best." *Law and Development Review* 2: 77-96.

Lewin, Peter. 1998. Capital in Disequilibrium. New York: Routledge.

Lewin, Peter, and Steven Phelan. 2000. "An Austrian Theory of the Firm." *Review of Austrian Economics* 13: 59-79.

Lopez, Edward J. 2002. "The Legislator as Political Entrepreneur," *The Review of Austrian Economics* 15: 211-228.

Machlup, Fritz. 1982. "Austrian Economics," Encyclopedia of Economics. New York: McGraw-Hill.

Martin, Adam. 2009. "Critical Realism and the Austrian Paradox." *Cambridge Journal of Economics* 33: 517-531.

Martin, Nona P., and Virgil H. Storr. 2008. "On Perverse Emergent Orders." *Studies in Emergent Order* 1: 73-91.

Menger, Carl. [1871] 1976. Principles of Economics. New York: New York University Press.

Mises, Ludwig von. [1920] 1935. "Economic Calculation in the Socialist Commonwealth." In *Collectivist Economic Planning*, edited by F.A. Hayek. London: George Routledge & Sons.

Mises, L. 1933 [1981]. Epistemological Problems in Economics. New York: New York University Press.

Mises, L. [1949] 1966. Human Action: A Treatise on Economics. Chicago: Henry Regnery.

Mises, Ludwig von. 1969. *The Historical Setting of the Austrian School of Economics*. New Rochelle: Arlington House.

O'Driscoll, Gerald. 1977. Economics as a Coordination Problem. Kansas City: Sheed and McMeel.

O'Driscoll, Gerald, and Mario Rizzo. 1985. The Economic of Time and Ignorance. Oxford: Basil Blackwell.

Owens, Mark. 2008. "The Search for an Economics Job with a Teaching Focus." *Journal for Economic Educators* 8: 7-27.

Powell, Benjamin, and Bart Wilson. 2008. "An Experimental Investigation of Hobbesian Jungles." *Journal of Economic Behavior & Organization* 66: 669-686.

Powell, Benjamin, and Edward P. Stringham. 2009. "Public Choice and the Economic Analysis of Anarchy: A Survey." *Public Choice* 140: 503-538.

Powell, Benjamin, Ryan Ford, and Alex Nowrasteh. 2008. "Somalia after State Collapse: Chaos or Improvement?" *Journal of Economic Behavior & Organization* 67: 657-670.

Prychitko, David. 1991. Marxism and Workers' Self-Management. Westport: Greenwood.

Rizzo, Mario J. 2009. "Austrian Economics: Recent Work." In *The New Palgrave Dictionary of Economics Online*, edited by Steven N. Durlauf and Lawrence E. Blume. Online: Palgrave Macmillan.

Rothbard, Murray. 1962. Man, Economy and State. Princeton: Van Nostrand.

Simmons, Randy T., Ryan M. Yonk, and Diana W. Thomas. 2010. "Bootleggers, Baptists and Political Entrepreneurs: Key Players in the Rational Game and Morality Play of Regulatory Politics." *The Independent Review* 15: 367-381.

Skarbek, David. 2010. "Self-Governance in San Pedro Prison." The Independent Review 14: 569-585.

Smith, Adam. [1776] 1981. An Inquiry Into the Nature and Causes of the Wealth of Nations. Indianapolis: Liberty Fund.

Sobel, Russell S. and Peter T. Leeson. 2007. "The Use of Knowledge in Natural Disaster Relief Management." *The Independent Review* 11: 519-532.

Sobel, Russell S., J.R. Clark, and Dwight R. Lee. 2007. "Freedom, Barriers to Entry, Entrepreneurship, and Economic Progress." *Review of Austrian Economics* 20: 221-236.

Sowell, Thomas. 1980. Knowledge and Decisions. New York: Basic Books.

Stigler, George J. 1961. "The Economics of Information." Journal of Political Economy 69: 213-225.

Stringham, Edward P. 2002. "The Emergence of the London Stock Exchange as a Self- Policing Club." *Journal of Private Enterprise* 17: 1-19.

Stringham, Edward P. 2003. "The Extralegal Development of Securities Trading in Seventeenth-century Amsterdam." *Quarterly Review of Economics and Finance* 43: 321-344.

Stringham, Edward P., editor. 2005. Anarchy, State, and Public Choice. Cheltenham: Edward Elgar Publishing.

Stringham, Edward P. 2006. "Overlapping Jurisdictions, Proprietary Communities, and Competition in the Realm of Law." *Journal of Institutional and Theoretical Economics* 162: 516-534.

Stringham, Edward P., editor. 2007. *Anarchy and the Law: The Political Economy of Choice*. Somerset: Transaction Publishers.

Wagner, Richard E. 2004. "Public Choice as an Academic Enterprise: Charlottesville, Blacksburg, and Fairfax Retrospectively Viewed." *American Journal of Economics & Sociology* 63: 55-74.

Wagner, Richard E. 2007. Fiscal Sociology and the Theory of Public Finance: An Exploratory Essay. Northampton: Edward Elgar.

White, Lawrence H. [1977] 2003. The Methodology of the Austrian School Economists. Auburn: Ludwig von Mises Institute.

White, Lawrence H. 1984. Free Banking in Britain. New York: Cambridge University Press.

White, Lawrence H., and George Selgin. 1994. "How Would the Invisible Hand Handle Money?" *Journal of Economic Literature* 32: 1718-1749.

Vaughn, Karen. 1994. Austrian Economics in America. New York: Cambridge University Press.

Williamson, Claudia R. 2008. "Foreign Aid and Human Development: The Impact of Foreign Aid to the Health Sector." *Southern Economic Journal* 75: 188-207.

Williamson, Claudia R. 2009. "Informal Institutions Rule: Institutional Arrangements and Economic Performance." *Public Choice* 139: 371-387.

Williamson, Claudia R. 2010. "Exploring the Failure of Foreign Aid: The Role of Incentives and Information." *Review of Austrian Economics* 23: 17-33.

Williamson, Claudia R., and Carrie B. Kerekes. Forthcoming. "Securing Private Property: Formal versus Informal Institutions." *Journal of Law and Economics*.