

Cultivating the Economic Imagination with Atlas Shrugged

*Emily Chamlee-Wright*¹

Abstract

This paper describes my use of Ayn Rand's *Atlas Shrugged* in an undergraduate comparative systems course. I argue that the novel is the ideal vehicle for cultivating the "economic imagination," i.e., the ability to see the systematic outcomes that emerge under different political economic rules of the game. I argue that the novel is particularly well-suited to animate discussions of essential comparative systems topics, including Marxism, phenomena associated with the soviet-type economy, and fascism. Finally, drawing upon student writing, I argue that the tensions between Rand's epistemology and Austrian economics are productive in conveying Austrian insights regarding the extended order.

great debate. There is no way to understand the 20th century, and thus no way to understand where we are now, I assert, without understanding the appeal of Marxism and the historical events that unfolded under its influence. These assertions are generally met with affirming nods from my students.

The door is then open for me to offer a few more reasons for studying comparative economic systems that students are less likely to grasp on their own. Though the Soviet Union is no longer with us, the soviet-type economy and the pervasive rent seeking society it fosters is still very much a part of the daily experience of much of the developing world. And even many of the political economy dynamics we see in western liberal democracies become clearer if we understand the systematic outcomes that emerge in soviet-type economies.

And then I return to that bit of personal history as the final rationale. The reason why comparative economic systems was the course that made me fall in love with the discipline is that this course made me understand how important economics is to the human condition. My professor, the late Don Lavoie, posed the following challenge to his students. He would ask, “How is it that the same civilization that gave us Bach and Mozart and some of the world’s greatest philosophers and artists could systematically murder six million of its own people?” He would ask, “Why is it that societies claiming the mantle of human emancipation under the banner of Marxist socialism so predictably lead to the state violence perpetrated under Stalin, Mao, Pol Pot, Mengistu, and others?”² He would then say, “Understanding how and why these atrocities happen is a critical question for any student of the social order. More importantly for us, if there is any systematic connection between these atrocities and the economic policies that were pursued in the name of socialism and National Socialism, it is our *duty* as economists to understand these connections.” These were the questions and the call to duty that made me recognize the importance and meaning of being a good economist.

In the many times I have taught this course I have never strayed from this introduction. But the means by which I attempt to help students make these essential connections have varied. One particularly important innovation has been the assignment of Ayn Rand’s *Atlas Shrugged* as a required part of the course. For many years I resisted including the novel. The book’s length can be intimidating to students and necessarily displaces other readings important to the subject. Further I feared that Rand’s uncompromising and often over-the-top ideological stance may leave some students with the impression that the intent of the course is ideological indoctrination. And while it was not an overriding concern, I did wonder if Rand’s view of reason would shroud some of the more Austrian-oriented lessons I hope to convey in the course, such as Hayek’s critique of constructivist rationality. But having experimented with the text for several years I have become increasingly convinced of its value for accomplishing the most important goal of an undergraduate economics curriculum, and that is to cultivate in students what I call the “economic imagination.”

In his 1959 book of the same name, C. Wright Mills coined the phrase “the sociological imagination,” by which he meant the capacity to identify the systematic ways in which social forces shape individual choice and action. The implication is that the essential connections that form the core of the sociological discipline are often hard to recognize—that the good sociologist is one who acquires the appropriate mental maps needed to navigate complex social environments and the appropriate tools to more easily identify that which might otherwise be hidden from the casual observer. The phrase should resonate with economists, as this is similar to what we do as scholars and teachers. Think, for example, of Frederic Bastiat’s (1995 [1848]) essay “What is Seen and What is Not Seen.” Bastiat argues that the good economist is one who identifies not only the intended positive outcomes of some policy intervention (that are often easily recognized) but also the costs and the unintended negative consequences that are often much harder to track. Bastiat’s position is helpful in defining what we might call the “economic imagination,” the capacity to anticipate and recognize the systematic (though often unintended) economic effects of social change, political change, or a change in the underlying rules of the game upon which society rests. When we are teaching at our best, we are cultivating the economic imagination in our students.

In the following section I discuss how storytelling (in general) and *Atlas Shrugged* in particular play an essential role in sparking and developing the economic imagination. I then discuss the ways in which the novel’s plotlines shed light on subject areas central to the study of comparative economic systems, including Marxism, the soviet-type economy, and the economics of fascism. In the penultimate section, I examine the ways in which the novel is in tension with key Austrian themes and, drawing upon student

² See Courtois et al. (1999).

essays,³ I illustrate how these tensions can be leveraged toward a fuller understanding of what Hayek calls the “extended order.” The final section offers some concluding remarks.

The Importance of Narrative in Cultivating the Economic Imagination

Narrative plays a critical role in developing the economic imagination. Notice that I did not say that “narrative *can* play a critical role,” as in “it is a good idea to include narrative as part of an effective pedagogy.” Rather, my claim here is that narrative *is always* playing a role in our attempts to cultivate the economic imagination in our students. When we explain the unintended consequences of rent control, for example, we perform the appropriate graphical analysis, and as McCloskey (1998) reminds us, even *this* is storytelling. But, and as McCloskey also points out, the graphical or mathematical analysis that is sufficient to get the point across to a trained economist is insufficient if it is to persuade the novice. The novice needs to hear a fuller story of what happens and why. What are the incentives facing property owners to perform regular maintenance, for example? Adding some vivid detail, such as the long wait and high search costs of finding an apartment, and some surprising developments in plot, like the fact that many of the rent controlled apartments in San Francisco are occupied by successful business professionals, help cultivate the student’s imagination so that they can see the connection between policy and less-than-obvious unintended consequences.

While it is clear that we all tell stories in our teaching, when considering a commitment as significant as assigning a 1,168-page novel, it is worth asking what it is *exactly* that storytelling does for us. Clearly storytelling animates the economic lesson with drama, intrigue, and character and plot development. But beyond making the class more entertaining, is there some pedagogical advantage?

In my experience teaching *Atlas Shrugged* I have identified at least three—there are likely more—pedagogical advantages that are particularly relevant for cultivating the economic imagination. First, character and plot development can serve as a substitute for experience.⁴ While a seasoned professional might be likely to anticipate the effects a regulatory control might have on their industry, the typical undergraduate lacks the experience required to make these connections. Rand’s plot developments, such as the Equalization of Opportunity Bill designed to help (i.e., funnel rents to) the “little guy” in business at the expense of productive industrialists like Hank Rearden enable the reader to see the debilitating effects such interventions present. Further, and particularly important if student sentiment tends to default toward the “little guys” of the world, Rand’s character development creates an affinity between reader and character. The student not only comes to understand the effects the regulatory controls have on Rearden, because they develop a fondness for the Rearden character, they are more likely to experience something akin to moral repugnance when he is forced to sell his iron ore mines to the politically connected Paul Larkin. But even if the development of Hank Rearden’s character never moves the reader to feel morally outraged on his behalf, or if they assume that figures like Rearden (real or fictional) can withstand the burden, Rearden’s story teaches students something about the unintended and widespread negative consequences that can emerge when the state abridges economic freedom. The significant detail connecting the regulatory constraints on Rearden and the hardships these constraints create for average people cautions students against naively concluding that regulatory controls only hurt the rich. Part of the challenge of cultivating the economic imagination is being able to imagine *who* it is that is being harmed by economic policy that targets the wealthy. *Atlas Shrugged* offers the reader a detailed tour of the various ways such interventions harm the average person.

A second pedagogical advantage of fictional storytelling is the way in which it can complement the storytelling we do based upon non-fictional historical accounts. The economic histories of the Russian revolution, Soviet-bloc countries, and National Socialism in Europe are the ground in which I situate the lessons of comparative systems analysis. But as a practical matter, to the extent that students will know anything about the political and economic histories of Soviet Socialism and National Socialism, there will be no consistent core narrative that the professor can assume her students possess coming into her course. I do of course include scholarly treatments of pertinent historical periods, but there is only so much historical

³ All materials excerpted from student essays are used here with permission of the authors.

⁴ My student Katherine Bigott made this point in her final essay on Rand and cites Nussbaum’s (1990) *Love’s Knowledge*, “We have never lived enough. Our experience is, without fiction, too confined and too parochial. Literature extends it, making us reflect and feel about what might otherwise be too distant for feeling.”

ground that can be covered well in a semester-long course. Fiction, on the other hand, allows the professor and her students to wrap their arms around the entire “universe” that the author creates. If that universe is rich with economic lessons the capacity of the entire class to grasp the whole of it together can be tremendously useful in identifying systemic consequences, such as economic collapse, of perverse policy interventions.

A well-developed economic imagination not only identifies cause and effect, it is capable of anticipating outcomes that are systematic and expected along the lines of sound economic theory, but not otherwise obvious. As Boettke (2005) argues, it is on this point that *Atlas Shrugged* shines particularly bright. For example, the rent seeking storyline established early on in *Atlas Shrugged* not only pegs the behavior as unfair and morally reprehensible, it also sets a course for understanding the political and economic logic that flows from it. Most students recognize the rent seeking born of political privilege as lamentable and unfair, particularly when its beneficiaries are industrialists like James Taggart, but students often see this kind of activity as a variation of (not in contrast to) profit seeking in the market. Rand’s storyline challenges the intellectual habit that collapses one into the other and clearly marks the difference by tracking the outcomes of market-based profit seeking and politically-based rent seeking.

Rand’s narrative captures the unintended and far-flung benefits of profit seeking in her description of how an advance in one industry, such as more efficient rail transport, drives down the costs and enhances productivity in countless other industries from manufacturing to agriculture. Rand contrasts these systemic benefits of profit seeking by tracking the unintended and far-flung negative consequences of rent seeking.⁵ For example, as political criteria increasingly replace market criteria for the allocation of scarce resources, the economic lifeblood is drained from the productive firms and regions of the country. And when the novel is read alongside scholarly works on the failures of socialism, students begin to see key events in the narrative as illustrations of systemic outcomes, and not just the fanciful storytelling of the author. For example, one of my comparative systems students analyzed the fictional disaster in the Taggart Tunnel as part of a predictable pattern of what is likely to happen when government controls the distribution of resources and when political pull trumps good judgment. She then went on to compare the fictional disaster to those experienced throughout Soviet history. For this student, *Atlas Shrugged* helped to cultivate the economic imagination by bringing into view connections that are systemic but not always easily seen.

When teaching the principles of political economy, my ambition is help students get to the point that they can anticipate the ways in which an economic intervention aimed at supporting a particular group tends to lead to perverse outcomes, which lead to further intervention, which leads to further inefficiencies, and so on, ultimately leading to overall economic decay. Unless students have considerable background knowledge of the historical context from which this lesson is to be learned, it can be difficult to convey. Rand’s narrative, however, puts this lesson in closer reach. The efficiency of Dagny Taggart’s railroad line made of Rearden Metal represents a significant advantage for Taggart Transcontinental, Hank Rearden, and the business interests the line served, such as Ellis Wyatt’s oil field operation in Colorado. Fearing the competition this greater efficiency posed to other railroads, union interests lobbied the government to pass laws limiting train traffic to sixty miles per hour (far below what the rails made of Rearden Metal would allow) and the length of all trains to sixty railcars. Neighboring states demanded that the number of trains run in Colorado not exceed the number run in their states. Rearden’s competitor Orren Boyle petitioned to have the Preservation of Livelihood Law passed which would limit the production of Rearden Metal to what other steel companies of equal capacity could produce. Eastern states pushed for the Public Stability Law, prohibiting businesses from relocating to Colorado. A group of manufacturers lobbied for the Fair Share Law which would require Rearden to supply an equal share of Rearden Metal to any manufacturer who demanded it.

At the end of Part I of the novel, all of the aforementioned proposals are approved by Wesley Mouch, the Top Coordinator of the Bureau of Economic Planning and National Resources. To gain the cooperation of James Taggart, Mouch simultaneously placed a moratorium on the repayment of railroad bonds for five years. The costs of implementing these directives were to be covered by a special tax on business interests in Colorado. Part II of the novel describes in meticulous detail the inefficiencies and economic decay that follows, not only in the railroad industry, but in all industries; not only in Colorado, but in all regions of the country. As the decline hastens and becomes more severe, Wesley Mouch repeatedly asserts the need for broader powers, which he eventually secures in the form of Directive 10-289. In the name of counteracting further economic decline Directive 10-289 freezes all employment at their current wages, disallows firms

⁵ For a discussion of how *Atlas Shrugged* illustrates themes central to the study of public choice, see Caplan (2007).

or employees from exiting their current position, turns all patents, copyrights and inventions over to the state, disallows further innovation or any changes in production, and grants broad powers to the Unification Board to adjudicate all matters related to Directive 10-289. In short, interventions designed to protect particular interests from market competition predictably evolve into greater state control of the economy.

Dystopian literature like *Atlas Shrugged* is particularly well-suited to tease out the unintended negative consequences that tend to emerge when social engineers attempt to design the social order from the top-down. While the goal may be the crafting of an ideal society, designed social orders necessarily curtail individual freedom. Consider, for example, George Orwell's *Animal Farm* and *1984*. Other dystopian novels, such as Lois Lowry's *The Giver* begin by depicting an apparent utopia in which people are relieved from ever having to make choices for themselves, only to reveal the dystopian consequences through the course of the novel. As is common with other dystopian fiction, the encroachment on civil and personal freedoms and the centralization of power in *Atlas Shrugged* begin modestly and get progressively worse.⁶ But unlike most dystopian literature, Rand's storytelling connects in economic freedom as an essential part of this logic.

In making the case for storytelling as a useful (even necessary) pedagogical tool, I should point out that it is a particular *kind* of story that economists need. Political economy patterns that emerge from a shift in the rule structure or a policy intervention are systemic in nature, so in order to teach political economy lessons the storyline must be predictable in the sense that they are plausible from the perspective of economic theory. Stories filled with fanciful plot twists of fairies, magical spells, and potions may be the source of wonderful storytelling, but not particularly good for cultivating the economic imagination. On the other hand, good economic stories need not be (nor should be) predictable in every detail. The fact that real world unintended consequences are not algorithmic makes them hard to identify, and makes the cultivation of the economic imagination so important. Thus, the kinds of stories that are most helpful in cultivating the economic imagination are those that tell a plausible story—plausible in terms of what economic theory would predict—but make connections between the intervention and the associated unintended consequence that are not otherwise obvious. *Atlas Shrugged* meets both these essential criteria for good economic storytelling.

Exploring Comparative Economic Systems through *Atlas Shrugged*

I structure the comparative systems course around four principal themes: Marx's case favoring central economic planning, mainstream and Austrian critiques of socialism, the economic history and systemic features of soviet-type socialism, and the economics of fascism.⁷ *Atlas Shrugged* plays a key role in each of these areas of inquiry. Even discussions of Marx's writings can be informed by the novel's characters and plotlines. If critiques of Marxism are to be taken seriously, and if students are to successfully develop their skills of critical thinking, it is essential that students' understandings of key Marxist ideas, such as the alienation critique of capitalism, are not straw man versions. Inviting students to critique *Atlas Shrugged* from a Marxian perspective can be helpful in focusing their attention on the most salient themes in Marx. But interestingly, in the course of their analysis, students also find ways in which Marx and Rand intersect. For example, both Marx (2000 [1844]) and Rand see productive work as a natural extension of what it means to be human. And both see the institutional context in which work takes place as critical to the question of whether man's work is a mere chore or a life-affirming act. Exploring some of these points of connection helps students see more clearly how each thinker is identifying a social system that connects institutional context with patterned outcomes.

Most students enter the comparative systems course equipped with some version of the mainstream critique of socialism. They understand either intuitively or perhaps from previous economics or political sciences courses that Marxist socialism tends to be plagued with incentives problems that result in a lack of productivity and persistent inefficiency. But an advanced understanding of this critique reaches beyond the immediate incentives problems. A critical lesson to be learned from a comparative systems course is how impersonal mechanisms of market exchange drive key features of the wider social order. A pattern of

⁶ Also see Rand's (1999) novella *Anthem*.

⁷ Because Marx's arguments feature so prominently in the economic events and economic discourse of the 20th century, I devote considerable attention to Marx's own writings, as it helps to dispel mistaken views students (on the political Left and Right) often associate with Marx.

economic prosperity is one system-wide outcome, but so are patterns of social cooperation, the growth of civil society, and the development of social norms such as generalized trust and reciprocity. *Atlas Shrugged* illustrates these connection especially well in the events related to the Twentieth Century Motor Company.

Under the leadership of Jed Starnes the Twentieth Century Motor Company was a thriving and innovative firm. The company was the lifeblood of Starnesville, WI, the town in which it was set. By the time protagonists Dagny Taggart and Hank Rearden visit the factory, it had long since ceased operations. The motor that Dagny and Rearden find in the abandoned factory inspires Dagny's search for its inventor (the man who created and also stopped the motor of the world). But along the way, Dagny also learns what it was that killed this once thriving enterprise. Upon inheriting the company, the three Starnes heirs introduced a new organizational ideology in which workers were expected to contribute according to their abilities and were to be paid in accordance with their need. Within four years of initiating the plan, the company was bankrupt.

It is in Dagny's meeting with Jeff Allen, a former lathe operator at the Twentieth Century Motor Company that Rand identifies for the reader the ways in which broader patterns of social life are connected to the impersonal mechanisms of market exchange. Now a transient in search of work, Allen has sneaked aboard the rails of Taggart Transcontinental. Dagny offers to share a meal with Allen. In the course of their conversation Allen tells her of the company's decline and of the *social* decay that followed once the company abandoned the impersonal mechanisms of market exchange in favor of the supposedly more humane rule of "from each according to his ability, to each according to his need."

Allen describes, for example, that the factory workers had once celebrated the birth of a child and had passed the hat for someone who was sick or had fallen upon misfortune. But once workers' needs represented a claim on each other's income, new children, new illness, and newly arrived relatives in need were the source of bitterness and conflict. Allen describes the loss of moral integrity that comes when one's efforts are disconnected from reward. Allen tells the story of an elderly woman, once a favorite among the workers, who was likely killed by one of them once it was clear that her medical bills would represent a significant cut in their income. Allen also tells the story of a man who had once spent all of his disposable income on phonograph records. The man was no longer permitted such luxury items once it was determined that another family's need, in this case for a child's braces, was far greater than his desire for music. Allen describes how, without the pleasures of his music, the man turned to drink and in a drunken fit of rage knocked out the teeth of the girl whose braces had supposedly justified his sacrifice.

Allen's account helps students see that the impersonal rules of exchange, general rules that govern interactions rather than aim at particular outcomes, are the source of widespread social cooperation and a healthy civil society. Policies that intentionally direct resources toward achieving particular ends, far from fostering a more humane society, unintentionally create conflict and discord.

Further, Allen's account of Ivy Starnes reveals what is perhaps the most horrifying unintended consequence of leaving to others the responsibility of meeting one's needs, namely, the control such an ideology takes away from individuals and conveys to those with the power to distribute resources. Allen observes,

[W]hen the people are six thousand howling voices, trying to decide without yardstick, rhyme or reason, when there are no rules to the game and each can demand anything, but has a right to nothing, when everybody holds power over everybody's life except his own—then it turns out, as it did, that the voice of the people is Ivy Starnes... Nobody can divide a factory's income among thousands of people, without some sort of gauge to measure people's value. Her gauge was bootlicking (Rand 1999 [1957], p. 667).

When the impersonal rules of exchange are replaced with personalistic determination, people like Ivy Starnes loom large in determining who is worthy of more resources and what circumstances qualify as need. As Hayek (2007 [1944]) observes in *The Road to Serfdom*, centrally planned economies do not avoid the need to choose. Rather, individuals merely cede the choosing (and the commensurate control this implies) to a central authority.

A primary goal in my comparative systems course is to convey to students the nature of the soviet-type economy as it was practiced in the course of Soviet history. To that end, I assign Peter Boettke's *The Political Economy of Soviet Socialism* and classic articles on the unintended consequences of the soviet

type economy.⁸ These readings help students identify the connection between soviet-style economic planning and the unintended but systematic consequences of a shortage economy (including the emergence of black market trading), principal/agent problems that engender widespread inefficiency, and credible commitment problems such as soft budget constraints within the official economy. One challenge in learning these lessons is that it is difficult for most students to imagine what life is like in such a context. The economic decay depicted in *Atlas Shrugged* helps to fill this gap by describing in vivid detail the difficulties of finding resources and consumer goods that were once commonplace, the necessity of dealing in the black market, and the hardships suffered within a shortage economy.

Further, *Atlas Shrugged* cultivates the economic imagination by artfully linking the growing bureaucratization of the economy with the growth of the rent seeking society, a central feature of the soviet-type economy (Boettke 2001). Above I describe the course of events that lead to Directive 10-289 in which the economy is rigidly bureaucratized by the state. With market signals no longer serving as a rationing mechanism, political pull becomes the only currency that matters. The farmers in Minnesota, the last productive agricultural region in the country, have no access to railcars to deliver their wheat to markets across the country, but “Ma” Chalmers uses her influence to redirect any remaining railcars to the delivery of her soybeans to her friends in California (only to spoil, as the soy beans were harvested too early). Hank Rearden has to deal on the black market to get the iron ore he requires, but the inefficient and well-connected Orren Boyle has all the raw materials he needs. The top floors of New York City’s office buildings are shut down for lack of electricity, but the Washington Men still had grapefruit for breakfast because the Smather Brother’s Florida grapefruit operation had “transportation pull.” Toward the end of the novel, even the Washington Men see that soon there will no longer be any rents left to loot, as their policies have eliminated any scope for productive action.

Though Rand’s primary target in *Atlas Shrugged* is socialism, she also manages to offer a critique of fascism along the way. For example, the political economic context of the United States in *Atlas Shrugged* is more national socialist than socialist. Reminiscent of fascist leaders, Mr. Thompson, the Head of State in the novel, insists that he believes in private enterprise, but that private enterprise must be under the direction of the state. And the private sector power structure of James Taggart (representing railroads), Orren Boyle (representing steel), and Fred Kinnan (representing labor) more closely resembles the political industrial categories of European National Socialism than the political economy structure of Soviet socialism.

Other political economy phenomena associated with National Socialism are also well illustrated within *Atlas Shrugged*, in particular, the militarization of the economy and the militarization of science.⁹ While the state is incapable of directing productive and scientific achievement toward economically efficient ends in a complex economy, it *is* capable of directing such resources toward a single end, such as militarization. The relationship between Dr. Robert Stadler and Dr. Floyd Ferris epitomizes this dynamic with the intellectual achievement of the former being gradually transferred to the military ambitions of the latter. Further, Dr. Ferris’ Project X (which can destroy entire cities with sound-wave technology) and Project F (which allows the men of influence to torture their captives without killing them) reflects the growing importance the state is likely to place upon maintaining control through violence once economic conditions worsen. By weaving a critique of fascism into her critique of socialism, Rand underscores the Hayekian (2007 [1944]) insight that all forms of state collectivism reach more or less the same end.¹⁰

Examining the Extended Order through *Atlas Shrugged*

Despite the pedagogical benefits of *Atlas Shrugged* outlined above, Austrian economists are often reluctant to assign the novel because the view of reason and epistemology Rand advances stand in stark

⁸ See for example Grossman (1983) on the second economy, Grossman (1977) on the roles of the soviet plant manager and party officials in the rationing of resources, and Powell (1977) on the inefficiencies of soviet planning.

⁹ One critical element of National Socialism that is not well-illustrated by *Atlas Shrugged* is the important role played by deficit financing.

¹⁰ The rent seeking themes explored in *Atlas Shrugged* similarly illustrate the use of political pull under National Socialism. The rent seeking phenomenon is so pervasive in each system that this concept serves as an intellectual link between the two. I often have students view the film *Schindler’s List* to complete an essay assignment that asks the student to interpret the events of the film through the lens of the rent seeking society.

contrast to the view of reason and epistemology advanced within the Austrian school. Austrians generally adhere to what Sowell (2007) calls the “constrained view” of reason—that man’s reason is fundamentally limited in terms of the complexity it can design and control. This is not to suggest an upper bound on what human society can achieve. Rather, the point is that human achievement is driven more by the rules we adopt (often unconsciously) than the power of man’s intentional reason.

The constrained view of reason reaches far back into the classical liberal tradition. The familiar “invisible hand” imagery in Smith’s (1991 [1776]) *Wealth of Nations* points to his emphasis on the spontaneous nature of economic coordination; how economic advancement does not rely upon a superior guiding intelligence, but is instead self-regulated. In his earlier book *The Theory of Moral Sentiments* Smith (2000 [1759]) warns of the dangers of attempting to orchestrate the social order according to intentional will. “The man of system,” Smith cautions, “...is apt to be very wise in his own conceit; and is often so enamoured with the supposed beauty of his own ideal plan of government, that he cannot suffer the smallest deviation from any part of it” (Smith 2000 [1759], vol. I, chapter ii). In his *Essay on the History of Civil Society*, Adam Ferguson (1782, part III, section 2) similarly directed our attention to the general social order that emerges by virtue of individual human action, but not by virtue of superior human design.

“Every step and every movement of the multitude, even in what are termed enlightened ages, are made with equal blindness to the future; and nations stumble upon establishments, which are indeed the result of human action, but not the execution of any human design.”

According to the constrained view of reason, a clear understanding of the social order requires us to understand the limitations of human reason to design and control it.

Austrian economists advanced this theme in the Socialist Calculation Debate (Mises 1981 [1922], Hayek 1984 [1937], 1984 [1948], see also Lavoie 1985a, 1985b, 1986, 1990). Two critical insights form the core of the Austrian contribution to the debate, the first of which is that market prices emerging from competitive bidding over privately owned resources serve a cognitive function in the market. Market prices guide economic behavior such that resources are directed to their highest valued use. Profits and losses based on market prices are the essential feedback mechanism that allows us to discover whether our judgments were right or wrong and whether our efforts have generated, on net, greater value (Mises 1981 [1922]).

The second critical Austrian contribution to the debate is a better understanding of the nature of economic knowledge. While standard critiques of socialism emphasize the incentive problems inherent within Marxist and other forms of socialism, Austrian economists, Hayek in particular, focused on the socialist planner’s inability to tap, consolidate, and make appropriate use of the dispersed, local, and often tacit knowledge possessed by countless participants in the economy (Hayek 1984 [1935], 1984 [1937], 1984 [1940], 1984 [1948]). The dispersed nature of economic knowledge and the limited capacity of human reason to direct and control complex social processes are the core of the Austrian argument against centralized economic planning (Mises 1981 [1922], 1949, Hayek 1984 [1948], 1988).

In his later work, Hayek (1973, 1978, 1988) further explored the sources of the extended market order, and like Smith and Ferguson, emphasized the importance of general rules such as private property rights and enforceable contracts in advancing widespread social coordination. Such rules were part of the broader moral order that provides the scaffolding by which knowledge is cultivated and transmitted. The development of what Hayek (1988) called the “extended order” refers to the coordination that emerges when the rules of the social order evolve in a way that allows us to move beyond intended face-to-face cooperation and beneficence to create increasing layers of unintended and impersonal forms of cooperation and beneficence. It is in the extended order that people can make use of knowledge they do not possess directly and can cooperate with far-flung unknown others.

But Hayek is clear that the development of and adherence to the rules that underlie the extended order is a cultural evolutionary process, not the outcome of rational intention.

“[I]t is important to avoid, right from the start, a notion that stems from what I call the ‘fatal conceit’: the idea that the ability to acquire skills stems from reason. For it is the other way around: our reason is as much the result of an evolutionary selection process as is our morality. It stems however from a somewhat separate development, so that one should never suppose that our reason is in the higher critical position and that only those moral rules are valid that reason endorses” (Hayek 1988, p. 21).

Thus, the benefits we associate with the extended order are not the outcome of human reason, but instead rest upon the largely unconscious transmission of and adherence to general rules. Here again, Hayek's critique of constructivist rationalism is central to the Austrian argument against socialism. It is the overestimation of man's ability to use reason to direct complex economic and social processes that leads us to think that socialist direction is possible, and in Hayek's view, is the fatal conceit that leads us down the road to serfdom.

One implication here is that Rand, in stressing the power of man's reason as the driving force behind human progress, has set a trap for herself. Constructivist rationality, Austrians argue, even when accompanied by an ideological endorsement of market capitalism, can unwittingly be used to justify conscious direction of the economic order.

Students who read Hayek alongside Rand recognize this tension. After quoting Hayek's (1984) essay "Individualism True and False," student Mashail Malik observes that the strike of the mind central to the plot of *Atlas Shrugged* is problematic, as it identifies human genius as the source of social order. She observes further,

In Hayek's [view] a company would not collapse at the disappearance of the main director, and nor does this director have to be a genius (the way Dagny and Rearden are made out to be). Someone else who has similarly learned the rules of the game can step in as long as the institutional framework is in place... Hayek correctly points out that if we were to try and make every choice on the basis of 'reason', or through checking observable facts in order to draw a 'rational' conclusion, we would constantly be stuck in indecision or would move at a snail's pace and get nothing done. The evolved rules and the institutions make such 'rational' decision-making an unnecessary ordeal, and tell us the patterns of behavior to follow in order to receive expected results. We rely on these rules in part because of *faith* in these rules – they have worked in the past, we have no real need to know how they work, and they are in no way a consequence of our reason or rational discovery.

Malik goes on to discuss the implications of this tension for development economics. If we adopt Rand's view, Malik argues, we have no understanding of why a genius mind in, say, a sub-Saharan African country, cannot create significant wealth. It is not for the lack of intelligence that such a mind cannot create wealth, Malik argues, but because even a genius mind, once cut off from the extended order, cannot benefit from the knowledge embedded within and dispersed throughout the extended order (see Chamlee-Wright and Myers 2008).

As Malik and other students have pointed out, there are moments in the narrative of *Atlas Shrugged* that Rand opens herself up to the Austrian critique. For example, Rand's heroes always rely on direct knowledge before making their decisions. Dagny Taggart is liberated from the effects of uninformed public opinion because her engineering degree allows her to know directly that Rearden Metal is sound. Francisco D'Anconia is justified in leading investors to ruin because they were basing their decisions upon his reputation as a successful industrialist and not upon their direct knowledge of his operations. And the brilliant industrialists living in their isolated valley seem to have no trouble providing for themselves, despite the fact that the span of their market is extremely limited. The final scene depicting the industrialists planning their return to the outside world suggests that their brilliance is enough to reverse the almost complete collapse of the social order.

On the other hand, a more sympathetic reading would acknowledge that clearly Rand does consider the rules of the game as essential. The systematic dismantling of property rights and the rule of law are central events that cause the social and economic degradation. Further, there are moments when Rand appears to acknowledge that her brilliant industrialists are indeed limited in their cognitive abilities. Though Dagny can run a railroad, she cannot solve the mystery of what makes the motor work. For this she turns to Quentin Daniels. And it is to Dagny that Galt and D'Anconia turn when they discuss the possibilities of a more efficient rail system within the valley.

But beyond this more sympathetic reading, some elements within the novel describe the social order in ways that align with the Austrian view of the extended order. For example, there are some indications that Rand recognizes that the knowledge required to run a company, even if possessed by a superior mind, is fundamentally different from the knowledge required to direct an entire economy. On this point, student Jennifer Connelly points to the interaction between John Galt and his captors toward the end of the novel.

The looters offer Galt the position of Top Coordinator of the Bureau of Economic Planning and National Resources, insisting that he can run the economy any way he wished, so long as the state still maintains the political power to intervene as necessary. Clearly, Rand is intending to point to the ridiculousness of the request. Connelly adds,

[N]either Hayek... nor [Rand] indicate that one human mind can be omnipotent. Even the cool control that Rand's heroes exercise over companies and industries is bound by the constraints of expertise. Although to many, Dagny "[is] the railroad," (Rand 1999 [1957], p. 653) it is impossible to extrapolate the techniques of industry planning [at the firm-level] to the planning of a large, complex society. No planner can rely on "what is fair and reasonable" (Hayek 2007 [1944], p. 115) when s/he must "choose between [...] more milk for children and better wages for agricultural workers, or between employment for the unemployed or better wages for those already employed" (Ibid, p.116).

Rand's focus is on the planner's inability to construct a morally just outcome, which we can view as a particular aspect of the general knowledge problem Hayek describes—that there is no scale of value to judge the best allocation of resources, whether the goal is productive efficiency or moral fairness. Further, Rand clearly indicates in her description of Galt's Gulch that it is common rules and not conscious direction that creates the context for a well-functioning social order.

A critical feature of the extended order is that productive market activity has massive positive spillover effects and that the benefits of productive activity extend far beyond their originator. Unintentional beneficence in the extended order is not the exception, but the rule. Scattered throughout the novel, Rearden Metal is held up as an example of an innovation that creates benefits far beyond what Rearden intended, imagined, or captured in the form of profits. In his famous radio speech, John Galt refers to the pyramid of labor and intellect in which the man of intelligence creates the lion's share of value, for which he receives only a partial share.

"In proportion to the mental energy he spent, the man who creates a new invention receives but a small percentage of his value in terms of material payment, no matter what fortune he makes, no matter what millions he earns. But the man who works as a janitor in the factory producing that invention, receives an enormous payment in proportion to the mental effort that his job requires of *him*. And the same is true of all men between, on all levels of ambition and ability. The man at the top of the intellectual pyramid contributes the most to all those below him, but gets nothing except his material payment, receiving no intellectual bonus from others to add to the value of his time. The man at the bottom who, left to himself, would starve in his hopeless ineptitude, contributes nothing to those above him, but receives the bonus of all of their brains" (Rand 1957 [1999], p. 1065).

While it might be objected that Rand is simply being elitist in her admiration of the "man at the top," a subtler reading recognizes a Hayekian theme (intended or not)—that ordinary market participants achieve remarkable levels of productivity and consumption because we benefit from the productive achievement of others. Unlike Rand, Hayek would credit the "man at the bottom" for also being the source of unintended beneficence. Ordinary market participants provide divided and specialized labor, savings and investment, and a market sufficiently large such that the "man at the top" can exercise whatever genius he may have to offer. Nonetheless, Rand's point that productive people unintentionally benefit others far beyond their own immediate sphere aligns well with Hayek's arguments regarding the widespread unintentional patterns of beneficence that emerge out of impersonal mechanisms of exchange.¹¹

One of the best illustrations of the nature of the extended order is seen toward the end of the novel when the Taggart Bridge, the last link connecting the eastern and western United States, has been destroyed. Dagny Taggart's faithful associate Eddie Willers is left stranded in the desert with a broken locomotive and will presumably die. Student Michael Williams asks,

¹¹ Rand would likely object to my defense of markets along these lines. To Rand, the justification of capitalism is not the positive social outcomes associated with market coordination. Rather, the principal justification of capitalism is that it is the only system that serves man's highest purpose, which is his own happiness, and is therefore the only moral system (see Rand and Peikoff 1991).

What might Hayek say about the death of Eddie Willers? Hayek's answer is simple. Eddie ended up on a train with a broken engine because he was ...cut off from what Hayek calls the extended order. A mind is just a mind, no matter how gifted, when it is cut off from other minds. No single person has the knowledge necessary to run the modern world. There are very real limits to what a single mind can accomplish.

One might interpret Rand's abandonment of the Willers character as a statement about how inept he was to save himself—that Dagny and the other great minds would have been able to save themselves. But in a manner similar to Williams, Connelly illustrates that the lesson to be learned might well be a Hayekian one.

In the desert, Eddie's life *does* "depen[d] upon [his] mind," (Rand 1999 [1957], p. 1058) and his nonexistent knowledge of motor mechanics leaves him stranded. But in the systemic utopia of Galt's Gulch, Eddie would not have to understand a train's motor in order to use it. There, all individuals are free to pursue Hayek's ideal—to "develop their own individual gifts and bents." (Hayek 2007 [1944], p. 68) ...[A]lthough [Rand] insists that "[e]very act of man's life has to be willed," (Ibid, p. 1057) her utopia, like Hayek's extended order, "show[s] how solution[s] are produced by interactions of people each of whom possesses only partial knowledge" (Hayek 1988 [1948], p. 91). Both Hayek and Rand agree on one thing: the best society rests on the productive achievements of individuals among whom knowledge—and freedom to choose and think—is widely dispersed.

My point is not to settle which of these interpretations is correct. Both Malik, who sees a fundamental conflict between Hayek and Rand, and Williams and Connelly, who identify an underlying commonality between the two, make salient arguments. My point, rather, is to demonstrate that *Atlas Shrugged* is an excellent vehicle (as either foil or helpmate) for training students to identify key Austrian insights regarding the nature and sources of the extended order.

Conclusion

Suppose we economists were to wander over to the English Department at our respective colleges or universities to find the most prolific fiction writer on campus. Supposed we offer to commission a novel that will illustrate the economic and social perils of central economic planning, the political economy of a rent seeking society, the unintended consequences of the soviet-type economy, the dangers associated with unchecked rent seeking in the context of a western democracy, and the economics of fascism. The descriptions and events that unfold must conform to patterns that economic theory would predict, and the connections have to be clear enough that the narrative helps readers cultivate the economic imagination. And for good measure, we ask our would-be novelist to craft a narrative that examines the meaning of living a life of integrity and to ensure that the final outcome is exciting to read. If our English Department colleague has any sense at all, she would kick us out of her office. And yet, with *Atlas Shrugged*, Rand has met what would otherwise be considered our impossible demands.

Arguably, developing the economic imagination is the most important contribution we make to the liberal education of our students. Critical thinking requires that students possess the cognitive tools they need to track cause and effect even when the causal links are not easily recognized; even when the outcomes are not any part of man's intention; and especially when political rhetoric aims to direct our attention away from identifying those causal links. But developing this dimension of critical thinking can be among the most difficult challenges students face in their study of economics. The difference between the students who "thinks like an economist" and the student who never seems to "get it" is not defined by their comfort with formal theory or their quantitative skills. The difference is in their ability to see beyond their direct experience and to imagine with the discipline of a trained mind the unintended economic outcomes a change in the rules of the game might create.

An undergraduate course in comparative economic systems plays a particularly valuable role in developing the capacity for this brand of critical thinking, as it invites the student to consider and compare radically different rules of the social order. And *Atlas Shrugged* can play a central role, as both helpmate and foil, in advancing the goals of such a course by sparking and cultivating the economic imagination.

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