

## *Rational Choice As If The Choosers Were Human*

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### **Abstract**

This book chapter demonstrates that there has been from Adam Smith to Vernon Smith a tradition of economic scholarship that is grounded in the decision calculus of individuals, or what F.A. Hayek referred to as the logic of choice, which requires neither the heroic assumptions of omniscience, nor that individuals are interacting with each other in frictionless environments. Instead, they see man as pursuing their varied purposes and caught as they often are between alluring hopes and haunting fears, and interacting in institutional environments that are constituted by vaguely and imperfectly understood rules that are often poorly enforced, and yet through the filtering mechanisms of this institutional environment are guided to act in ways that coordinate their activities with those of others to realize the mutual gains from social cooperation. In fact, it is precisely because these scholars emphasize the open-endedness of choice that they can identify the role that even imperfect institutions play in coordinating economic affairs through time.

**Key Words:** Rational Choice, Homo Economicus, Mainline Economists

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## I. Introduction

In a recent paper entitled “Principles of (Behavioral) Economics,” economists David Laibson and John List claim that “behavioral economics is a series of amendments to, not a rejection of, traditional economics” (2015, p. 385), which studies “how people *try* to pick the best feasible option, including the cases in which people, despite their best efforts, make mistakes” (2015, p. 389). For a classroom of undergraduates they would summarize the principles of (behavioral) economics in this way:

If you want to boil behavioral economics down for a classroom summary you might say that most people are located somewhere between Mr. Spock and Mr. Simpson (aka Homer). Like Mr. Spock, Mr. Simpson is also an optimizer—he tries to choose the best feasible option. He’s just not good at it. We need to study and model all optimizers: the good, the bad, and those in between (2015, p. 389).

Oddly enough, these statements made by Laibson and List about human decision-making parallel strongly with the following statement made by Ludwig von Mises, one of the strongest proponents of rationality in the history of economic thought:

It is a fact that human reason is not infallible and that man very often errs in selecting and applying the means. An action unsuited to the end sought falls short of expectation. It is contrary to purpose, but it is rational, i.e., the outcome of a reasonable – although faulty – deliberation and an attempt – although an ineffectual attempt – to attain a definite goal. The doctors who a hundred years ago employed certain methods for the treatment of cancer which our contemporary doctors reject were – from the point of view of present-day pathology – badly instructed and therefore inefficient. But they did not act irrationally; they did their best (Mises [1949] 2007, p. 44).

From the quotes stated above, both Laibson and List and Mises seem to be depicting rational choosers as if they were human. However, if traditional economics does indeed need to be amended by behavioral economics, as Laibson and List argue, then the question is what notion of man has occupied “traditional” economics? Implicitly, it would seem that

the notion of man they have in mind for traditional economic analysis is none other than *homo economicus*.

The concept of economic man, or *homo economicus*, has been under assault throughout much of the history of the discipline. It has often been a criticism intimately tied to an effort to discount the lessons that can be learned from economics for the practical understanding of public policy. Since economics as a discipline stresses scarcity and thus choice within constraints, the debate often turns on how competent people are in making choices, and how binding those constraints are. In an idealized world, the argument goes, individuals are fully informed and perfectly rational in making their decisions, and the constraints they face are hard and unyielding. Thus, correct decisions will not just ‘tend’ to be made, but will inevitably be made. And since this applies equally to all in the economy, the equilibrium that results will exhibit exchange efficiency, production efficiency, and product-mix efficiency. In short, all the gains from trade will be exhausted, all the gains from technological improvement will be incorporated into production, and the array of products that buyers are willing to pay for would be available on the market. Perfectly rational actors interacting freely in a frictionless environment produce an efficient outcome.

With that narrative in the background, then consider the argumentative strategy of those who wanted to critique the free market system – they can go after the notion of the rational actor, they can go after the frictionless environment, and they can challenge the ethical status of the efficiency standard. Throughout the history of the discipline, all three intellectual strategies have been pursued. And the easiest target has been the bogeyman of *homo economicus*. Economic man is a bogeyman in two ways --- the claim that the concept

implies that economic ends, or monetary motives, enter the decision calculus, and that the model implies that the decision makers are imbued with omniscience with respect to all the relevant factors to the decision. “The hedonistic conception of man” Veblen wrote, “is that of a lightning calculator of pleasures and pain, who oscillates like a homogenous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact” (1898, p. 389). Or consider how Keynes in his rhetorical brilliance was able to link both perfect rationality and perfect markets together and dismiss both claims in “The End of Laissez Faire.” As he put it:

Let us clear from the ground the metaphysical or general principles upon which, from time to time, *laissez-faire* has been founded. ... The world is *not* so governed from above that private and social interests always coincide. It is *not* so managed here below that in practice they coincide. It is *not* a correct deduction from the principles of economics that enlightened self-interest always operates in the public interest. Nor is it true that self-interest generally *is* enlightened; more often individuals acting separately to promote their own ends are too ignorant or too weak to attain even these (*italics original*, Keynes [1926] 1978, pp. 277-278).

Human actors to Keynes are not rational as the “model” presumes, and the market system does not function as smoothly as the “model” suggests assuring that private and public interests align. The choice Keynes provides is binary – either perfect actors and perfect markets and thus laissez-faire, or imperfect actors and imperfect markets and thus activist government policy as a corrective. There simply is no way in his intellectual schematic that imperfect actors operating in an imperfect world could be stumbling upon coping mechanisms for the complex reality in which they find themselves, enabling them to realize the productive gains from specialization and peaceful cooperation without the activist hand of enlightened government. Keynes brilliantly identified the “dark forces of

time and ignorance” ([1936] 1964, p. 155) in *The General Theory*, but in his depiction human actors are unable to navigate in that world.

The debates over individual rationality and system-level efficiency have proceeded along these lines ever since. By modelling the actor as a close-ended decision-maker and the economy as exhibiting a single exit, our result is the deterministic model of rational “choice” depicted in a standard economics textbook, one in which the human actor is devoid of any cognitive ability. If we then introduce some form of imperfection either with the actor (say informational asymmetries) or in the market structure (say monopolistic competition) and the welfare conclusions derived from the determinant solution shifts. The government as a corrective either at the actor level to provide the requisite information, or at the structural level to provide the requisite regulatory measures, seems to follow naturally from the model. But the strict binary intellectual choice that a Veblen or Keynes imposed on the economic conversation need not be followed. And this is true for the contemporary discussion of behavioral economics, renewed calls for paternalism, and the entire practice of nudges.

In this chapter, we contribute to the theme of this book by evaluating how rational *human* choosers are in fact ‘smart’ in the decision-making process once we have taken into account the particular institutional context within they are evaluating the costs and benefits of their choices. As Morris Altman states, “conventional economics assumes that people’s choices are made in a vacuum,” (2012, p. 4) which is not only institutional, but also also historical and cultural in nature as well. What we hope to demonstrate is that there has been from Adam Smith to Vernon Smith a tradition of economic scholarship that is grounded in the decision calculus of individuals, but requires neither the heroic assumptions of

omniscience, nor that the individuals are interacting with others in frictionless environments. Instead, they see man as pursuing their varied purposes and caught as they often are between alluring hopes and haunting fears, and interacting in institutional environments that are constituted by vaguely and imperfectly understood rules that are often poorly enforced and path-dependent to the imprint of culture and history. Yet through the filtering mechanisms of this institutional environment are guided to act in ways that coordinate their activities with those of others to realize the mutual gains from social cooperation. In fact, it is precisely because these scholars emphasize the open-endedness of choice that they can identify the role that even imperfect institutions play in coordinating economic affairs through time.

Section II will provide a survey of economic thinkers who rejected the caricature of *homo economicus* that critics claimed was in fact held by classical and neoclassical economists, but who nevertheless defend the rational choice perspective in the social sciences, and economics in particular. These will include figures such as Frank Knight, Ludwig von Mises, F. A. Hayek, James Buchanan, Douglass North, Vernon Smith and Elinor Ostrom. Section III will focus on how Hayek, Buchanan and Ostrom develop the argument to move to the rules level of analysis in human decision making and human interaction. Section IV will discuss the concept of path dependency and imperfect institutions as developed by North and Ostrom. Section V will conclude.

## **II. Methodological Individualists Who Reject *Homo Economicus* But Embrace Rational Choice**

In his *Epistemological Problems of Economics*, Ludwig von Mises, writing before the rise of the Keynesian revolution in macroeconomics and the growing emphasis on

mathematical formalism and equilibrium analysis in microeconomics, claimed that there had been a consolidation of certain core propositions from different strands of economic thought that had emerged from the Marginal Revolution of 1871. These developments in neoclassical economics, according to Coase (1992, p. 713), were rooted in filling “the gaps in Adam Smith's system, to correct his errors, and to make his analysis vastly more exact”. Choice within constraints had been a staple of economic analysis since at least the 18<sup>th</sup> century, but the Marginal Revolution led to a deeper understanding of the subjective nature of utility, the unit of analysis being the individual, and the choice calculation on the margin of decision. With the intellectual revolution in value theory, any Ricardian notion that long run costs of production determined value and price was to be jettisoned, and fallible yet competent human decision makers became the focal point of economic analysis. As Mises argued:

Within modern subjectivist economics it has become customary to distinguish several schools. We usually speak of the Austrian and the Anglo-American Schools and the School of Lausanne.... these three schools of thought differ only in their mode of expressing the same fundamental idea and that they are divided more by their terminology and by peculiarities of presentation than by the substance of their teachings...Today we have only one theory for the solution of the problems of catallactics, even if it makes use of several forms of expression and appears in different guises ([1933] 1960, pp. 214-215).

The “one theory” for the analysis of catallactics that Mises had emphasized constituted a set of positive propositions that led to the further development of “mainline” economics (see Boettke 2012). These propositions, which were held in common by economists from classical political economists such as Adam Smith to modern experimental economists such as Vernon Smith, explained the emergence of social order based on invisible hand theorizing that reconciled a broad notion of self-interest (i.e. purposive action) with the public interest via institutional analysis. Figure 1 illustrates this point. Rational individuals,

though imperfect in their cognitive capabilities, yet guided by the institutional prerequisites of private property, money prices, and profit/loss, will nonetheless coordinate their subjective plans through the unintended design of the invisible hand, yielding a social order.

**Figure 1: Sequence of Causation in Mainline Economics**

Self-interest → Institutional Filter → Invisible Hand → Social Order (i.e. Public Interest)

**Figure 2: Sequence of Causation in Mainstream Economics**

Perfectly Rational Self-Interest → Perfect Market Structure → Social Order

Irrational Self-Interest → Imperfect Market Structure → Social Disorder

These mainline economists did not explain social order or disorder by collapsing self-interest onto the public interest or by assuming the super-human cognitive capabilities, or lack thereof, upon individuals. But in textbook presentations of mid-20<sup>th</sup> century microeconomics (and unfortunately true till this day) the argument is that social order results if, and only if, actors are fully informed and perfectly rational, and the market structure is perfectly competitive. Otherwise, decision making and system-wide efficiency will be lacking, and in need of correction.<sup>1</sup> These two views of what has become “mainstream” economics are illustrated in Figure 2. Rather than utilizing a *behaviorally contingent* explanation, their analysis was based on an *institutionally contingent* process of reconciliation via exchange between fallible but capable individuals within a context of private property, freedom of contract, and the rule of law.

All the developments that we are talking about are, as we quoted Coase above as saying, were seen as filling in the gaps of Adam Smith's scientific system, but as the mainstream of economics deviated significantly from the mainline of economics as developed by the classical political economists and early neoclassical economists, acts of scientific entrepreneurship were initiated to try to place the individual once again at the center of economic analysis, and to resurrect institutional analysis as critical in explaining observed patterns of social order (disorder). It is in these acts of scientific entrepreneurship that we see "schools of thought" playing out their function – in our narrative this includes the "Austrian School", the "property rights school", the "public choice school", and the "New Institutional school" of contemporary economic thought.

For Mises and the Austrians of the 1930's, the major opponents of this mainline notion of economic theorizing were perceived "not as being the followers of Walras or of Marshall, but as being the historical and institutionalist writers" (Kirzner 1988, p. 9) who had criticized mainline reasoning by presuming that catallactics was *behaviorally dependent* on a notion of *homo economicus*. For example, Institutional economist Thorstein Veblen criticized neoclassical economists for basing economic theory upon "a faulty conception of human nature," which he rejected as a "hedonistic" conception of man as a lightning calculator of pleasure and pains, namely because "under hedonism the economic interest is not conceived in terms of action" (1898, p. 394). Remarking on such renditions made by Institutionalists and Historicists during the *Methodenstreit*, Mises asserted that:

It was a fundamental mistake of the Historical School...in Germany and of Institutionalism in America to interpret economics as the characterization of the behavior of an ideal type, the *homo oeconomicus*...Such a being does not have and never did have a counterpart in reality; it is a phantom of a spurious

armchair philosophy. No man is exclusively motivated by the desire to become as rich as possible; many are not at all influenced by this lean craving. It is vain to refer to such an illusory homunculus in dealing with life and history. Even if this really were the meaning of classical economics, the homo oeconomicus would certainly not be an ideal type. The ideal type is not an embodiment of one side or aspect of man's various aims and desires. It is always the representation of complex phenomena of reality, either men, of institutions, or of ideologies. The classical economists sought to explain the formation of prices. They were fully aware of the fact that prices are not a product of the activities of a special group of people, but the result of an interplay of all members of the market society (Mises [1949] 2007, p. 62).

Indeed, just like the classical economists, neoclassical economists of the twentieth century also were preoccupied with explaining the formation of prices, but they were also increasingly occupied with conceptualizing price determination along Walrasian and Marshallian lines, both of which take cost curves to be objective and therefore measurable. It is from this backdrop that a debate emerged over the use of marginal analysis, one in which the criticisms of Institutionalist economists against the principles of neoclassical economics would resurface. As Robert Prasch has argued, “this episode, now remembered as the ‘Marginal Cost Controversy,’ presents us with something of an American *Methodenstreit*” (2007, p. 815).

During the 1940s, economist Richard Lester challenged the empirical reality of economic actors engaging in marginal decision making. According to Lester, survey data of labor markets demonstrated that actors had no clue about weighing marginal benefits and marginal costs. For Lester, like the Institutionalists, economic generalizations could be inferred without theory from generalizations that could be verified empirically. Moreover, when “analytical concepts, including the competitiveness of the market, the nature of economic rationality, or the structure of a firm’s costs, are assumed or asserted without

reference to widely understood and accepted facts, then that theory lacked genuinely scientific foundation” (Prasch 2007, p. 814).

Although Lester was rejecting marginalist principles, the premise of Lester’s argument rested implicitly on the notion that cost curves were objective in the sense that they were measurable by an outside observer. In this respect, Austrian economist Fritz Machlup responded that cost curves were subjective, and therefore his conclusions were invalid. Machlup’s position is consistent with that of Hayek’s presentation in "Economics and Knowledge" (1937), where the marginal conditions are not assumptions going into an analysis, but by-products out of decision making “discovered anew” within the process of market competition itself. Too often Machlup’s contribution is captured under the heading of “as if” modeling. While Machlup often used the instrumentalist language of his day to try to communicate his point, a careful reader will note that he always makes subtle shifts in the language which were understood by those at the time as qualifiers, but which have failed to travel through time with him. Such a classic case is his shift in the debate over verification in economic science where he switches the claim about “predictability” to one focused on “intelligibility” (Machlup 1955; see also Boettke 2015 and Zanotti and Cachanosky 2015). A similar subtle switch occurs when Machlup in the science wars argues that economics is as scientific as the natural sciences are, but it is just that in the sciences of man “matter can talk”, changing the epistemological problems that must be confronted in the practicing of the science.

A comprehensive review of the Marginal Cost Controversy is beyond the scope of this chapter (see also Lavoie 1990). What is important for our analysis of rational choice, one in which economic actors are fallible, but capable human beings and neither

mechanistic automatons nor hopelessly disoriented actors, is that many textbook presentations of the Lester-Machlup debate present Machlup as the winner, but present his argument in the "as if" tradition of thinking championed by Milton Friedman (1953). Individuals act "as if" they balance marginal benefits and costs even if they don't explicitly do so in their own minds. However, this misses the point in the sense that the debate has been understood in terms of *behavioral* assumptions of whether or not individuals are profit maximizing or not. What was lost in the exchange was an analysis of the institutional conditions within which individuals are enabled to or inhibited from pursuing maximum profits, not only pecuniary but also non-pecuniary. The marginal conditions have little or nothing to do with how individuals actually make decisions. Rather, the marginal conditions *emerge* as a by-product of the market process within an institutional context of private property, prices, and profit/loss accounting.

We don't have direct access to motivations of individuals. What we can study is the systemic effect of different institutional arrangements on the incentives that actors face. But we cannot detail what motivates individuals. As the renowned Chicago economist Frank Knight has argued:

We really know very little about human motives, and still oversimplify them disastrously in nearly all discussion...The larger problem is to arrange things so that people will find their lives interesting and will grow into such personalities that they can respect themselves, admire others and enjoy their society, appreciate thought and beauty, and in general look upon creation and call it good (1919, p. 806).

Among those institutional arrangements, Knight not only emphasized the formal constraints such as private property, freedom of contract, and the rule of law, but he also understood that such formal institutions dependent on informal norms that are conducive

to self-interest “rightly understood” as the harmony or dovetailing of individual ends among members of society:

From the falsity of the atomistic-individualistic view of human nature and human desires it is an easy inference that any mechanical theory of social organization is subject to narrow limitations. The most potent agency of social control, even today, in spite of all the obstacles thrown in its way by an antiquated and wooden system of association, is the moral control of the individual’s sense of decency and the pressure of the opinions of his fellows. (Knight [1920] 2011, p. 87).

Moreover, market interactions are not defined solely by monetary exchanges, but also encompass and depend upon a realm on voluntary, non-monetary associations, which Coase recognized are prohibitively costly to effect through monetary exchange because of the costs of defining separate contracts (Coase 1937). Because of these transactions costs, not only firms but also other institutions such as marriage and families emerge to avoid the costliness of pricing non-monetary attributes, such as love amongst marriage partners and parental devotion towards children:

The great advantage of the market is that it is able to use the strength of self-interest to offset the weakness and partiality of benevolence, so that those who are unknown, unattractive, or unimportant, will have their wants served. But this should not lead us to ignore the part which benevolence and moral sentiments do play in making possible a market system. Consider, for example, the care and training of the young, largely carried out within the family and sustained by parental devotion. If love were absent and the task of training the young was therefore placed on other institutions, run presumably by people following their own self-interest, it seems likely that this task, on which the successful working of human societies depends, would be worse performed (Coase 1976, p. 544).

Returning to Veblen’s critique of neoclassical economics, rational choice does not depend on “mechanical” or “hedonistic” responses to objective cost and profit functions. To counter Veblen, economics is in fact an evolutionary science, but one that is firmly grounded in an open-ended notion of rational choice that embraces both discovery under

uncertainty. Alluding to the marginal cost controversy described above, Armen Alchian states the following in his classic article "Uncertainty, Evolution, and Economic Theory":

While it is true that the economist can define a profit maximization behavior by assuming specific cost and revenue conditions, is there any assurance that the conditions and conclusions so derivable are not too perfect and absolute? If profit maximization (certainty) is not ascertainable, the confidence about the predicted effects of changes, e.g., higher taxes or minimum wages, will be dependent upon how close the formerly existing arrangement was to the formerly "optimal" (certainty) situation. What really counts is the various actions actually tried, for it is from these that "success" is selected, not from some set of perfect actions. The economist may be pushing his luck too far in arguing that actions in response to changes in environment and changes in satisfaction with the existing state of affairs will converge as a result of adaptation or adoption toward the optimum action that should have been selected, if foresight had been perfect (Alchian 1950, p. 220)

What Alchian is arguing is that neither the behavioral assumption of profit maximization nor perfect foresight of cost curves is necessarily required *ex-ante* for human rationality.

What is sufficient is awareness of the institutional conditions within which human rationality manifests itself *ex-post*:

Even if each and every individual acted in a haphazard and nonmotivated manner, it is possible that the variety of actions would be so great that the resulting collective set would contain actions that are best, in the sense of perfect foresight...The essential point is that individual motivation and foresight, while sufficient, are not necessary. Of course, it is not argued here that therefore it is absent. All that is needed by economists is their own awareness of the survival conditions and criteria of the economic system and a group of participants who submit various combinations and organizations for the system's selection and adoption (Alchian 1950, pp. 215-217).

Regardless of the behavioral assumptions, given the ubiquitous presence of scarcity, rational human action (i.e. the continuous application of *discovered* means to individual aims) will generate the contextual knowledge, manifested through the price system, for the pursuit of maximum profits given the particular institutional context (Boettke and Candela

2015). The science of economics analyzes how fallible, but capable individuals do their best under particular institutional constraints. The art of economics, however, is uncovering those institutional constraints for *understanding* how in each particular case individuals attempt to do their best:

Even if environmental conditions cannot be forecast, the economist can compare for given alternative potential situations the types of behavior that would have higher probability of viability or adoption. If explanation of past results rather than prediction is the task, the economist can diagnose the particular attributes which were critical in facilitating survival, even though individual participants were not aware of them (Alchian 1950, p. 216).

The outside observer of human behavior who assesses some particular action as “irrational” makes his or her evaluation based on either a value judgement of the ends pursued or narrowly defining the actor’s utility function to fit a close-ended model of choice. Criticisms of *homo economicus* have been based both on the former, namely by challenging efficiency as an ethical benchmark, as well as the latter by subjecting the model to narrowly defined monetary motives. As Elinor Ostrom states, this “thin model of rationality needs to be viewed...as the limiting case of bounded or incomplete rationality” (Ostrom 1998, p. 9), one that emerges only after all the gains from trade and specialization have been exhausted. But “as we move away from these conditions we must explore not only the immediate consequences in terms of choices but particularly the kinds of institutions that will evolve in such contexts to structure human interaction” (North 1993, p. 161).

Rational action understood amongst mainline economists refers to the *discovery* of the means applied towards the fulfillment of a particular end; it does not necessarily depend on all our preferences and means being given or specified in one’s utility function. “Consistent with all models of rational choice is a general theory of human behavior that views all humans as complex, fallible learners who seek to do as well as they can given the

constraints that they face and who are able to learn heuristics, norms, rules, and how to craft rules to improve achieved outcomes” (Ostrom 1998, p. 9). It encompasses learning from our errors through time, without which institutions would not matter (North 1994). Thus, the innumerable manifestations of rationality depend on the institutional context within which learning through time takes place. Therefore, as Vernon Smith explains, what seems to be “irrational” to the outside observer of human behavior is no more than a *misunderstanding* of the institutional context:

Thus, if people in certain contexts make choices that contradict our formal theory of rationality, rather than conclude that they are irrational, some ask why, reexamine maintained hypotheses including all aspects of the experiments – procedures, payoffs, context, instructions, etc. – and inquire as to what new concepts and experimental designs can help us to better understand the behavior (Smith 2003, p. 471).

Moreover, institutional analysis does not imply that rules will always be perfectly specified or that individuals respond passively to the institutional reward structure. Rather, because of the cost of defining all of the possible actions that may be prohibited or sanctioned by the institutional framework, entrepreneurial discovery by individuals will generate endogenous institutional solutions to problems that are institutional in nature, resulting in gradual changes to the institutional framework. In the next section, we will elaborate on the insights of Hayek, Buchanan and Ostrom in shifting to the rule level of analysis in analyzing human decision making and human interaction.

### **III. Development of These Insights to the Rule Level of Analysis**

We have previously argued that exposition of economic phenomena in terms of competitive equilibrium as a description of reality rather than using equilibrium analysis as a heuristic tool had rendered institutional analysis of little concern to economists. By

extending the pure logic of rational choice to closed-form solutions, real-world markets act “as if” they were in competitive equilibrium, not only purging the analysis of institutional derivations of the logic of choice, but also resulting in economic analysis becoming increasingly reliant on behavioral assumptions characterized as *homo economicus*, around which advocates and critics of the market order would base their arguments.<sup>2</sup> By collapsing the gap between economic models and economic reality, the behavioral intentions of economic actors correspond one-to-one with the outcomes “predicted” within the model (Boettke and Candela 2014).

What Buchanan, Hayek, and Ostrom acknowledged was that a richer notion of economic theory included institutional analysis and that incorporating institutional analysis enabled economic analysis to explain a broader notion of rational choice as if choosers were human. Moreover, what distinguished them from earlier classical as well as neo-classical economists was their application of rational choice to the rule level of analysis as well. Unlike the behavioral and physical laws of nature, which they took as given, what they explicitly drew attention to was that “rules are interesting variables precisely because they are potentially subject to change. That rules can be changed by humans is one of their key characteristics” (Ostrom 1986, p. 5).

Hayek as early as 1937 in “Economics and Knowledge” recognized that rational choice analysis, or what he referred to as the pure logic of choice, was a necessary, though not a sufficient condition for equilibrium analysis. What was sufficient for the derivation of equilibrating tendencies within the market order, however, was a shift to the rule level of analysis, or comparative institutional analysis.

Fundamentally, the importance of rules to Hayek was to provide a framework of predictable guidelines within which individuals could adapt to unforeseen circumstances.

As he states:

We can produce the conditions for the formation of an order in society, but we cannot arrange the manner in which its elements will order themselves under appropriate conditions. In this sense the task of the lawgiver is not to set up a particular order but merely to create conditions in which an orderly arrangement can establish and ever renew itself. As in nature, to induce the establishment of such an order does not require that we be able to predict the behavior of the individual atom – that will depend on the unknown particular circumstances in which it finds itself. All that is required is a limited regularity in its behavior; and the purpose of the human laws we enforce is to secure such limited regularity as will make the formation of an order possible (Hayek 1960, p. 161)

Ostrom as well acknowledged that rules “are the result of implicit or explicit efforts by a set of individuals to achieve order and predictability within defined situations” (1986, p. 5). More so than Buchanan and Ostrom, Hayek emphasized that rules emerged from a spontaneous order based on human action, though not of human design. However, like Buchanan and Ostrom, he also acknowledged that rules that have evolved spontaneously can also be improved upon by marginal deliberative choices on the level of rules to facilitate different patterns of interactions within those rules:

At the moment our concern must be to make clear that while the rules on which spontaneous order rests, may also be of spontaneous origin, this need not always be the case. Although undoubtedly an order originally formed itself spontaneously because the individuals followed rules which had not been deliberately made but had arisen spontaneously, people gradually learned to improve those rules; and it is at least conceivable that the formation of a spontaneous order relies entirely on rules that were deliberately made (Hayek 1973, p. 45).

The rule level of analysis requires neither that rational agents are homogenous in their objectives, nor does it imply that share only pecuniary aims, such as that attributed to *homo economicus*. As Buchanan states:

The central rationality precept states only that the individual choose more rather than less of goods, and less rather than more of bads. There is no requirement that rationality dictates choice in accordance with the individual's economic interest, as this might be measured by some outside observer of behavior. The individualistic postulate allows the interests or preferences of individuals to differ, one from another. And the rationality postulate does not restrict these interests beyond the classificatory step noted. *Homo economicus*, the individual who populates the models of empirical economics may, but need not, describe the individual whose choice calculus is analyzed in constitutional political economy (Buchanan 1990, pp. 14-15).

Buchanan argued that economists could analyze the derivation of that framework separately through the tools of rational choice political philosophy, namely social contract theory, but differently from Hayek and Ostrom, argued that institutions were provided exogenously in the first place. Ostrom, building more from Hayek in this regard, saw the framework itself as an endogenous set of rules that emerge from the bottom-up through the individual and group striving to minimize conflicts and realize gains from cooperation. It is the notion of “constitutional craftsmanship” that is foundational to the work of Ostrom that provides the conciliatory link between the dual spontaneous order analysis argued for here and the restriction of spontaneous order analysis to the market process, argued notably by Buchanan.

Yet the common thread uniting their shift to the rule level of analysis was that the ability for individuals to coordinate their actions fell within a paradigm of exchange behavior to achieve a more preferred arrangement of rules in order to facilitate outcomes conducive to cooperation through a division of labor. What they did not share was that a vision of political economy through an “allocation paradigm” (Buchanan 1964), one in which rational agents choosers were purged of any human deliberation as well as confined

to perfectly defined constraints not subject to change and improvements by human rational choosers themselves.

#### **IV. The Institutional Imprint, Rational Choice, and Path Dependency**

The fundamental task that has plagued economists since Adam Smith, both mainline and mainstream, has been to inquire into the nature and causes of the wealth of nations. Particularly since the collapse of communist regimes in Central and Eastern Europe after 1989, this inquiry has been increasingly marked by a dovetailing of the mainline and mainstream though its emphasis on comparative institutional analysis and institutional path dependency in understanding the lag in economic development not only amongst countries emerging from communism, but also in Asia, Africa, and Latin America as well.

The plain fact is that the ultimate source of poor economic performance in third-world countries is the polity that specifies and enforces the economic rules of the game. As yet the study of third-world polities is as underdeveloped as their polities themselves. But one thing is for sure: not much progress is going to be made in modeling such polities without taking into account the limits of rational choice and the importance of ideologies (North 1993, pp. 160-161).

The point that North makes in this quote is that not only do the formal rules of the game matter for the economic performance of a country, but also that informal constraints provide path dependency in cultural attitudes towards trade and exchange. As Douglass North argues, “once a development path is set on a particular course, the network externalities, the learning process of organizations, and the historically derived subjective modeling of the issues reinforce the course” (North 1990, p. 99).

In this respect, neoclassical economics could not underpin the reform of centrally planned economies for two particular reasons. First, the theoretical model of perfect

competition operates as a *behavioral* filter of the limiting conditions that apply to individuals after all the gains from trade and specialization have been exploited. It illustrates an idealized world in which individuals are fully informed and perfectly rational in making their decisions, and that the constraints they face, such as prices and income, are taken as given. However, lacking any *institutional* filter of the structure of incentives that generates tendencies towards such limiting conditions, deviations from this behavioral model can only lead the economist to conclude that individuals are behaving “irrationally” and that the economy is prone to “market failure,” characterized by the prevalence of asymmetric information, externalities, and monopoly power. As Ronald Coase argued, “These ex-communist countries are advised to move to a market economy, and their leaders wish to do so, but without the appropriate institutions no market economy of any significance is possible. If we knew more about our own economy, we would be in a better position to advise them” (1992, p. 714).

Secondly, as Coase alluded to above, without understanding the “tacit presuppositions” (Buchanan 1997) that are embodied in the underlying norms, customs, and behavioral attitudes of individuals that reinforce the prevailing institutions of society, it would be unclear whether the institutional designs of economic reformers would have the intended effect on the economic performance of a country. James Buchanan clearly makes this point:

In Western regimes, markets work tolerably well, within the political-legal framework of widely dispersed property rights, when the workings of ordinary politics do not interfere excessively. They do so because they have evolved through a long history which has been interpreted and understood by experts in such fashion as to reinforce the behavioral attitudes necessary to make such institutions function. In failed socialist regimes, markets have neither the history nor the interpretation-understanding that informs behavioral attitudes. It seems naïve in the extreme to assume that the market

order is ‘natural’ to the extent that it can emerge full blown without history, without institutional construction and, most importantly, without understanding (1997, p. 106).

It is not just that institutions matter, but history and ideas matter for understanding the feasible institutional opportunity set within which the economist is able to propose reforms. Furthermore, Buchanan makes a distinction between an “exchange culture” and a “command culture” to distinguish the underlying behavioral attitudes in Western and post-socialist economies, respectively. To understand this point, Buchanan is neither denying that individuals are choosing rationally, nor is relying on any notion of *homo economicus*. Rather, it is the underlying informal norms prevalent throughout members of society that motivate the degree of toleration and acknowledgement of the mutually beneficial nature of trade under anonymity, which fundamentally extends the limit of the market, and widens the scope for rational self-interest to encompass activity beyond the behavioral confines of *homo economicus*. In Western countries, Buchanan argues the following:

The attitude of reciprocity in the market relationships remains relatively pervasive in Western economies, even in those settings where, in a behavioural sense and, there remains little or no rational foundations for such attitude. The salesclerk in the Sheraton Hotel in Houston, Texas, offers me a postcard *as if* she, personally, even when both of us know that her wage as an interest in my purchase, even when both of us know that her wage or position depends only in some extremely remotely sense on her behaviour in our exchange relationship. The exchange relationship tends to foster the attitude of reciprocity, even in *as if* settings, and behavior reflecting such an attitude tends in itself to promote a mutuality of expectations that becomes reinforcing (italics original, 1997, p. 97).

In those countries that have failed to emerge successfully, in terms of economic growth, from the failures of socialism, the underlying informal norms of society are conducive to a command culture, one that “describes an idealization of collective reality, as this reality is interpreted by those who experience it.” It reinforces the idea that the “exertion of effort

creates no claim to share in product. Effort is directed toward *common* purposes, and linkage between effort and reward becomes the source of envy rather than emulation” (italics original, Buchanan 1997, p. 101). From this cultural context, it would therefore seem rational for individuals to regard the market order with suspicion, especially when viewed in the zero-sum terms of a command culture. Extending Buchanan’s point, Pejovich elaborates:

In many parts of the region, gains from trade are seen as a redistribution of income rather than as rewards to innovators for creating new wealth. State authorities are more likely to impose price controls on producers and/or merchants who earn large profits than to seek ways to create incentives for others to emulate such individuals in competitive markets. The cultural heritage in [Central and Eastern European] supports an activist state. Historical development and nationalism are major reasons for cultural differences within the region...By feeding on the conviction that the community’s common good transcends the private ends of its members, nationalism in many [Central and Eastern European] countries has reinforced the culture of collectivism (Pejovich 2003, p. 351).

Although our discussion thus far has emphasized a comparative institutional analysis between Western economies and the economies of Central and Eastern Europe, our observations have broader implications for income differences across time as well.

Not only do the formal institutions matter for economic growth, but perhaps more importantly, that fact that customary practice dictates the legitimacy of formal institutions is because informal rules “are not a policy variable,” (Pejovich 2003, p. 348) and therefore formal institutions must be crafted to be congruent, or “stick” to the underlying informal rules of society. Although economic reformers may succeed in designing institutions that exhibit “institutional stickiness” (Boettke, Coyne, and Leeson 2008) to informal institutions, this is by no means sufficient for generating economic growth:

There is no guarantee that beliefs and institutions that evolve through time will produce economic growth.... In fact, most societies throughout history

got “stuck” in an institutional matrix that did not evolve into the impersonal exchange essential to capturing the productivity gains that came from the specialization and the division of labor that have produced the Wealth of Nations (North 1994, p. 363-364).

With respect to the logic of rational choice, societies that exhibit path dependency towards economic stagnation does not imply irrationality on the part of economic actors within that society. Rationality must be understood as entirely individually subjective and forward looking; an individual’s perception of costs of benefits are shaped by the institutional payoffs:

In every system of exchange, economic actors have an incentive to invest their time, resources, and energy in knowledge and skills that will improve their material status. But in some primitive institutional settings, the kind of knowledge and skills that will pay off will not result in institutional evolution towards more productive economies (North 1991, p. 102).

As Douglass North elaborates on how institutional path dependence can be self-sustaining:

In the case of economic growth, an adaptively efficient path...allows for a maximum of choices under uncertainty, for the pursuit of various trial methods of undertaking activities, and for an efficient feedback mechanism to identify choices that are relatively inefficient and to eliminate them...But so, too, can unproductive paths persist. The increasing returns characteristic of an initial set of institutions that provide disincentives to productive activity will create organizations and interest groups with a stake in the existing constraints. They will shape the polity in their interests. Such institutions provide incentives that may encourage military domination of the polity and economy, religious fanaticism, or plain, simple redistributive organizations, but they provide few rewards from increases in the stock and dissemination of economically useful knowledge. The subjective mental constructs of the participants will evolve an ideology that not only rationalizes the society’s structure but accounts for its poor performance. As a result the economy will evolve policies that reinforce the existing incentives and organizations (North 1990, p. 99).

However, the observation that certain societies are locked into an institutional path uncondusive to economic growth does not necessarily imply that intervention from reformers external to the particular institutional context will resolve the situation, namely

by establishing private property rights or transplanting other formal institutions that evolved within the historical context of Western economic development. As Ostrom has argued:

When analysts perceive the human beings they model as being trapped inside perverse situations, they then assume that other human beings external to those involved – scholars and public officials – are able to analyze the situation, ascertain why counterproductive outcomes are reached, and posit what changes in the rules-in-use will enable participants to improve outcomes. Then, external officials are expected to impose an optimal set of rules on those individuals involved. It is assumed that the momentum for change must come from outside the situation rather than from the self-reflection and creativity of those within a situation to restructure their own patterns of interaction (2010, p. 648).

Ostrom recognized that when the definition and enforcement of property rights are devised from the bottom-up rather than from the top-down, individuals will have a greater incentive to conserve on resources used in the process than when that process is imposed exogenously, not only because they exhibit greater residual claimancy over their actions, but also because they are able to utilize their contextual knowledge not often available to external reformers. The ability of individuals to craft rules that are effective within their own communities hinges upon the mutually agreed-upon rules of governance that then establish reliable expectations among the community. Elinor Ostrom emphasized the legitimacy of rules as essential to minimizing the enforcement and monitoring costs of rules (Ostrom 1990, p. 205). If rules are developed internally, by actors with local legitimacy and knowledge of the community's history, then monitoring can be a "natural by-product" of the system of rules (Ostrom 1990, p. 96). In addition, because of the path dependent nature of bottom-up institutional solutions, formal enforcement of rules cannot run contrary to how individuals perceive and understand them:

Without individuals viewing rules as appropriate mechanisms to enhance reciprocal relationships, no police force and court system on earth can monitor and enforce all the needed rules on its own. Nor would most of us want to live in a society in which police were really the thin blue line enforcing all rules (Ostrom 1998, p. 16).

A summary of the core argument of this section can be restated as follows (Boettke 2001, p. 251-259):

1. People respond rationally to incentives as they perceive them.
2. Incentives and therefore economic performance are a function of the rules of the game, both formal and informal.
3. Rules are only RULES if customary practice dictates.

## **V. Conclusion**

In this book chapter, we have argued that the caricature of economic man as *homo economicus* has been an invalid and unwarranted characterization of the individual in their interactions with other individuals within the market order. From Adam Smith to Vernon Smith there has a common thread that has united their thought on man's epistemic and behavioral capacity, one that rests on institutional analysis and the emergence of customs, norms, and monetary prices to guide their interactions towards social order. F.A. Hayek best summarizes this common lineage in mainline economic thought:

Perhaps the best illustration of the current misperceptions of the individualism of Adam Smith and his group is the common belief that they had invented the bogey of "economic man" and that their conclusions are vitiated by their assumption of a strictly rational behavior or generally by a false rationalistic psychology. They were, of course, very far from assuming anything of the kind. It would be nearer to the truth to say that in their view man was by nature lazy and indolent, improvident and wasteful, and that it was only by the force of circumstances that he could be made to behave economically or carefully to adjust his means to his ends...The main point about which there can be little doubt is that Smith's chief concern was not so much with what man might occasionally achieve when he was at his best but that he should have as little opportunity as possible to do harm when he was at his worst. It would be scarcely too much to claim that the main merit of the individualism which he and his contemporaries advocated is that it is a system under which bad men

can do least harm. It is a social system which does not depend for its functioning on our finding good men for running it, or on all men becoming better than they now are, but which makes use of men in all their given variety and complexity, sometimes good and sometimes bad, sometimes intelligent and more often stupid (1948, p. 11-12).

The excessive preoccupation with the behavioral characteristics of man in economic analysis from the late 19<sup>th</sup> through the mid-20<sup>th</sup> century resulted not only from misunderstandings about the role of theory and history (Mises 1957) in economic analysis, but also from depicting economic phenomena in terms of competitive equilibrium. Because facts are theory-laden, the purpose of economy theory is to engage in historical explanation of facts. To argue that man is rational – i.e. that he or she evaluates the marginal costs and benefits of undertaking an activity towards the fulfillment of a particular goal – does grant that individual infallibility or omniscience. This is the realm of price theory, consistent with the understanding of mainline economists discussed in this chapter. Rather, such decision-making and the manifestations of rationality must be evaluated within its particular institutional context. This is the realm of history. The modern analytical narrative approach employed by Bates, Greif, Levi, Rosenthal, Weingast (1998) embodies this distinction between theory and history that Mises specified:

The process of deciding the appropriate individuals, their preferences, and the structure of the environment that is, the right game to use – is an inductive process much like that used in modern comparative politics, by historical institutionalists, and by historians. Once that induction is complete, we can use the deductive methods to study behavior within the context of the game. (Bates, Greif, Levi, Rosenthal, and Weingast 2000, p. 697).

However, when economic theory becomes dependent on behavioral assumptions, not only does this tend to crowd out institutional analysis, collapsing human intentions onto outcomes, but it also leads to misleading characterizations of human “irrationality” when

historical events, such as the Great Depression or more recently the Great Recession, are not “predicted” by theory or do not correspond to some particular efficiency benchmark. As a result, arguments about the success of comparative economic systems, even those in defense of the market order, will hinge upon the *behavioral* capabilities of man. The predictive power of mainstream theorizing in macroeconomics, both Keynesian as well as New Classical, no less depended on whether individuals are hopelessly irrational or perfectly rational, respectively.

With the resulting disconnect of theory from history, new emphasis was drawn to the rule level of analysis, which had not only been emphasized by Adam Smith and Frank Knight, but was reincarnated as new insights manifesting itself as Public Choice of James Buchanan, New Institutional Economics of Armen Alchian, Ronald Coase, and Elinor Ostrom, the market process of modern Austrian Economics developed by Mises and Hayek, the Experimental Economics of Vernon Smith, and the New Economic History of Douglass North. Each of these scholars, while rejecting the notion of *homo economicus*, did not throw rational choice by the waist side either. Instead, their contributions to economics were built upon “Adam Smith’s view of man” as “he actually is--dominated, it is true, by self-love but not without some concern for others, able to reason but not necessarily in such a way as to reach the right conclusion, seeing the outcomes of his actions but through a veil of self-delusion” (Coase 1976, pp. 545-546). While we do not deny that “Adam Smith frequently wrote about the psychology of decision-making” (Laibson and List 2015, p. 385), accepting this view of man, who is a fallible but capable individual, will draw the economist’s attention, whether mainline or mainstream, behavioral or traditional, to the realization that man’s capacity to foster social order and

capture the gains from exchange and innovation depends not on his reason or lack of reason per se, but on rules that are discovered and crafted to marshal individual reasoning dispersed among individuals throughout society.

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## Notes

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<sup>1</sup> In a recently written article by economist Mark Thoma, he goes so far as to say "I believe in markets as much as anyone. But for markets to work well the conditions for perfect competition must be approximated." The notion that markets only "work" after all the gains from trade and exchange of goods and services (including information) have been exploited (i.e. perfect competition) is a description of the end result of market competition, not an analysis of the economic forces *at* work. Moreover, this characterization of the market "working well" not only commits the Nirvana Fallacy (see Demsetz 1969) of comparing imperfect markets to an perfectly efficient benchmark, but more importantly, it also lacks comparative institutional analysis of market forces under different conditions.

<sup>2</sup> During the Socialist Calculation Debate between the 1920's and 1940's, market socialists arguing against Mises's claim that rational calculation was impossible under socialism utilized neoclassical equilibrium analysis to establish the invalidity of Mises's claim. Mises's as well as Hayek's fundamental argument during the debate held that, absent the institutional prerequisites of private property, central planners would be precluded from the prices and contextual knowledge required to engage in economic calculation. However, presuming the conditions of equilibrium and that perfect knowledge was available to central planners, market socialist Oskar Lange argued that central planners would be able to calculate the opportunity costs of resources, just as the market supposedly does, through a trial and error process. Surprisingly, Frank Knight and Joseph Schumpeter, both market-oriented economists of a Marshallian and Walrasian stripe, respectively, also agreed with Lange's analytical assessment. Knight's argument was that there was no economic problem of socialism because economic science is limited to applying marginalist principles to economic decision-making in circumstances of perfect knowledge and perfect competition (see Boettke and Vaughn 2002: 159). Schumpeter's argument was that, assuming the conditions of general competitive equilibrium, the valuation of the factors of production can be logically imputed "ipso facto" directly from the valuation of consumers' goods (see Hayek 1945: 529-530).

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