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Rationality in Economics: Constructivist and Ecological Forms

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PART ONE

RATIONALITY, MARKETS, AND INSTITUTIONS

Subsidiary awareness and focal awareness are mutually exclusive. If a pianist shifts his attention from the piece he is playing to the observation of what he is doing with his fingers while playing it, he gets confused and may have to stop. This happens generally if we shift our focal attention to particulars of which we had previously been aware only in their subsidiary role. . . . The arts of doing and knowing, the valuation and the understanding of meanings, are . . . only different aspects of extending our person into the subsidiary awareness of particulars which compose the whole.

Polanyi (1962, pp. 56, 65)

As we have no immediate experience of what other men feel, we can form no idea of the manner in which they are affected, but by conceiving what we ourselves would feel in a like situation.

Smith (1759; 1982, p. 9)

This division of labor . . . is not originally the effect of any human wisdom, which foresees and intends that general opulence to which it gives occasion. It is the necessary, though very slow and gradual, consequence of a certain propensity in human nature which has in view no such extensive utility; the propensity to truck, barter, and exchange one thing for another. . . . It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own self-interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages.

Smith (1776; 1981, pp. 25–7)

ONE

Rediscovering the Scottish Philosophers

. . . scientific discovery is notoriously guided by many unidentified clues, and so is to an important extent our ultimate decision of accepting the claims of a scientific discovery as valid.

Polanyi (1969, p. 184)

Exchange in Social and Economic Order

Historically, a recurrent theme in economics is that the values to which people respond are not confined to those one would expect based on the narrowly defined canons of rationality. These roots go back to Adam Smith, who examined the moral sympathies that characterize natural human sociality in *The Theory of Moral Sentiments* and the causal foundations of human economic welfare in *The Wealth of Nations.* Economists are largely untouched by Smith's first great work, which was eclipsed by *The Wealth of Nations.* It is telling that one of the economic profession's most highly respected historians of economic thought "found these two works in some measure basically inconsistent" (Viner, 1991, p. 250). But Viner's interpretation has been corrected by many reexaminations of Smith's work (see, for example, Montes, 2003; Meardon and Ortmann, 1996; Smith 1998).

These two works are not inconsistent if we recognize that a universal propensity for social exchange is a fundamental distinguishing feature of Homo sapiens, and that it finds expression in two distinct forms: personal exchange in small-group social transactions, and impersonal trade through markets. Thus, Smith was to some extent relying on one behavioral axiom, "the propensity to truck, barter, and exchange one thing for another," where the objects of trade are interpreted to include not only commercial goods and services but also gifts, assistance, and reciprocal favors

out of sympathy, as "Kindness is the parent of kindness" (Smith, 1759/1982, p. 225). By interpreting personal local interactions and market participation as different expressions of the universal human propensity for engaging in exchange, we bring a unity of meaning to otherwise apparently contradictory forms of behavior. Smith's treatment of sympathy includes the modern idea of "mind reading," and is remarkably insightful and penetrating. As can be seen in the ethnographic record, daily life, and laboratory experiments, whether it is goods or favors that are exchanged, they bestow gains from trade that humans seek relentlessly in all social interactions. Thus, Smith's single axiom, broadly interpreted to include the social exchange of goods and favors across time, as well as the simultaneous trade of goods for money or other goods, is sufficient to characterize a major portion of the human social and cultural enterprise. It explains why human nature as expressed in behavior appears to be simultaneously self-regarding and other-regarding without recourse to an arbitrary expansion in the arguments of individual utility functions. It may also provide an understanding of the origin and ultimate foundation of human rights to act – "property rights."

What is traditionally called a "property right" is a guarantee allowing actions to be chosen within the guidelines defined by the right. We automatically look to the state as the guarantor against reprisal when rights are exercised, but we also know that the state can often be as much a part of the problem of human rights violation as its solution. Who is to monitor the monitor? But property rights predate nation-states. This is because social exchange within stateless tribes, and trade between such tribes, predate the agricultural revolution a mere eleven to twelve thousand years ago – little more than an eye blink in the time scale for the emergence of humanity, and less than 10 percent of the period since the emergence of our immediate Homo sapiens ancestors. Both social exchange and trade implicitly recognize mutual consensual rights to act, which are conveyed in what we commonly refer to as "property rights."

In what sense are such rights "natural" or emergent? The answer, I think, is to be found in the universality, spontaneity, and evolutionary fitness value of reciprocity in social exchange. Reciprocity in human nature – and prominently in our closest primate relative, the chimpanzee, but also in other animals (de Waal, 1989, 1997, 2005) – is the foundation of our uniqueness as creatures of social exchange, which we extended to include trade with non-kin and nontribal members long – perhaps very long – before we adopted herder and farmer life styles.

Political activists sometimes juxtapose property rights and "human rights" as mutually exclusive phenomena. But "property" is that over which an individual human, or association of humans, exercises some specified priority of action with respect to other humans. Only humans (and perhaps a few other animal species, notably chimps), but not property, can be recognized as allowed to act without reprisal from others. The emotional appeal of the slogan, "human rights, not property rights," appears to stem predominantly from an egalitarian ethic that seeks to dispossess those who are "propertied." Yet the essence of property rights is the right to the product of one's own labor and to the further productive yield generated by the savings from that product.

Property rights mean that (1) if I plant corn, I have the right to harvest the yield of that corn, and therefore the right to prevent passersby from harvesting it; and (2) if I save some of the income from the sale of that harvest and invest in more land, then I have the right to plant and harvest from that additional land. To be "propertied" is to have the right to accumulate. To accumulate is *not* to consume all that my labor and previous savings investment has produced. This allows all my accumulation to remain at work in society at large and for all others to benefit from my capital investment. This is the basis for all endogenously sustainable (that is, devoid of perpetual external transfers) net wealth accumulation in society. *There can be no other basis.* If there is any abridgement of an individual's rights to so harvest and accumulate, then there is a direct abridgement of the rights of all others to share in these external benefits and achieve a corresponding improvement in their welfare – benefits unintended by the investor-saver who seeks only his own security.

Adam Smith understood that consumption by the rich has an insignificant effect on the welfare of the poor, because most of the income of the rich is invested in the tools and knowledge of production (or "improvements") that provides external benefits for every consumer: "The rich only select from the heap what is most precious and agreeable . . . though they mean only their own conveniency . . . [and] . . . the gratification of their own vain and insatiable desires, they divide with the poor the produce of all their improvements" (Smith, 1759/1982, p. 184).

This is of course one of the reasons why, as Bernard Mandeville (see the following section) humorously tells us that "the very Poor Liv'd better than the Rich Before. . . . "

"Property rights" in this sense are essential to self-sustaining economic development and the reduction of poverty. Self-sustaining reductions in poverty must depend not on enforced redistribution of the yield from individual effort, but in finding the means of empowering and motivating the self development of the skills and knowledge that allow every individual to discover and obtain compensation for the products and services that enables him or her to deliver value to others through exchange. Empowerment in this sense has significant positive psychological underpinnings in which giving has been accompanied by the pride of receiving that enables escape from a residual sense of one-way dependence that can destroy the exchange relationship.

Lessons from Scotland

Contrary to the outpouring of vulgar representations, in Smith's view, each individual defined and pursued his own interest in his own way, and this form of "individualism" has been mischaracterized by the metaphor of the selfish "economic man" (cf. Hayek, 1976; 1991, p. 120). This unhistorical scholarship fails to recognize the key proposition articulated by the Scottish philosophers: To do good for others does *not require* deliberate action to further the perceived interest of others. As Mandeville so succinctly put it, "The worst of all the multitude did something for the common good" (Mandeville, 1705/2005, Oxford edition, pp. 17–37).[1] Smith correctly and perceptively saw a much richer tapestry in human sociality than the vanity and hypocrisy satirically exposed by Mandeville. But there was incredible insight in Mandeville, whose idea that unintended good for others could flow from doing well for yourself, as well as that the division of labor served as an engine of wealth creation, influenced those who followed, including Smith, who might have conceded Mandeville greater poetic license. It is not evident that Smith had much of a sense of humor, at least not Mandeville's. Thus, we have the observation concerning Smith that:

> He was the most absent man in company that I ever saw.... Moving his Lips and talking to himself, and Smiling, in the midst of large Companys. If you awak'd him from his reverie, and made him attend to the Subject of Conversation, he immediately began a Harangue and never stop'd till he told you all he knew about it, with the utmost philosophical ingenuity. He knew nothing of characters (from Alexander Carlyle, *Autobiography*, quoted in Buchan, 2004, p. 134).[2]

[1] This is not to suggest that Smith was in agreement with Mandeville, whose system – Smith called it "pernicious" – satirically derived all acts of virtue from human vanity. See Smith, 1759/1982, section VII.ii.4, p. 313, for his critique of Mandeville and his qualification.

Mandeville's (1705; 2005) influential and brilliant satire[3] deserves a longer excerpt, since he articulated a pre-Smithian statement (by fifty-four years) of specialization and gains from trade:

> A Spacious Hive well stockt with Bees,
> That liv'd in Luxury and Ease, ...
> Vast Numbers throng'd the fruitful Hive;

[2] Buchan adds the comment that, "*The Theory of Moral Sentiments*, when it appeared in April 1759, showed precisely what Smith had been up to during his reveries. Never was there a more fascinated observer of his own mental state, and of the curiosities and customs of a provincial society." Further, such reveries led to his much more popular, but in significant ways less penetrating work, *The Wealth of Nations* in 1776. (Smith, judging from Carlyle's account, may have had some of the earmarks of high-functioning autism or Asperger's Syndrome.)

[3] In Mandeville's time there were two conceptions of virtue: ascetic transcendence of the corruptions of human nature and dispassionate reason that eschewed all emotional impulse. But in his poem there is no such virtue; no actions based on emotionless reason or that are free from narrow selfishness. Private vices yield public virtues. The original poem appeared in 1705 as a pamphlet, became an underground classic that was severely criticized, and was republished in 1714 with a prose explanation and defense, and again in 1723 along with two other essays by Mandeville. It was reprinted many times in the next century, and translated into French and German. Of particular interest for the themes of this book, in the preface to the 1714 edition, Mandeville significantly and meaningfully recognizes an inherent conflict of perception between our personal social exchange characteristics and the invisible benefits that human behavior generates through the external order of markets, for he explains to his humorless critics:

> ...the main Design of the Fable... is to shew the Impossibility of enjoying all the most elegant Comforts of Life that are to be met with in an industrious, wealthy and powerful Nation, and at the same time be bless'd with all the Virtue and Innocence that can be wish'd for in a Golden Age; from thence to expose the Unreasonableness and Folly of those, that desirous of being an opulent and flourishing People, and wonderfully greedy after all the Benefits they can receive as such, are yet always murmuring at and exclaiming against those Vices and Inconveniences, that from the Beginning of the World to this present Day, have been inseparable from all Kingdoms and States that ever were fam'd for Strength, Riches, and Politeness, at the same time... why I have done all this, cui bono? and what Good these Notions will produce? truly, besides the Reader's Diversion, I believe none at all; but if I was ask'd, what Naturally ought to be expected from 'em, I wou'd answer, That in the first Place the People, who continually find fault with others, by reading them, would be taught to look at home, and examining their own Consciences, be made asham'd of always railing at what they are more or less guilty of themselves; and that in the next, those who are so fond of the Ease and Comforts, and reap all the Benefits that are the Consequence of a great and flourishing Nation, would learn more patiently to submit to those Inconveniences, which no Government upon Earth can remedy, when they should see the Impossibility of enjoying any great share of the first, without partaking likewise of the latter" (Mandeville, 1705/2005, preface).

Yet those vast Numbers made 'em thrive,
Millions endeavoring to supply

Each other's Lust and Vanity...
Some with vast Stocks and little Pains
Jump'd into Business of great Gains...
And all those, that in Emnity,
With downright Working, cunningly
Convert to their own Use the Labour
Of their good-natur'd heedless Neigbour.
These were call'd Knaves, but bar the Name,
The grave Industrious were the same;
All Trades and Places knew some Cheat,
No Calling was without Deceit...
Thus every Part was full of Vice,
Yet the whole Mass a Paradise;...
Such were the Blessings of that State;
Their Crimes conspir'd to make them Great;
And Virtue, who from Politicks

Had learn'd a Thousand Cunning Tricks,
Was, by their happy Influence,
Made Friends with Vice: And ever since,
The worst of all the Multitude
Did something for the Common Good...
Thus Vice nurs'd Ingenuity,

Which join'd with Time and Industry,
Had carry'd Life's Conveniences,
It's reap Pleasures, Comforts, Ease,
To such a Height, the very Poor
Liv'd better than the Rich Before,
And nothing could be added more...
Without great Vices, is a vain
EUTOPIA seated in the brain,
Fraud, Luxury and Pride must live,
While we the benefits receive...

Bare Virtue can't make Nations live
In Splendor; they, that would revive
A Golden Age, must be as free,
For Acorns as for Honesty.

Many contemporary scholars and not only popular writers have reversed Mandeville's (and Smith's wealth-of-nations') proposition, and argued that the standard socioeconomic science model (hereafter, the SSSM; see Cosmides and Tooby, 1992) requires, justifies, and promotes selfish behavior. That A implies B in no sense allows the reverse statement. But why would people, including economists, confuse necessary with sufficient conditions?

The answer is provided in this book's title text quotation from Hume: No one can consistently apply rational logical principles to everything he or she does.[4] As theorists, we live by proving theorems, and when in this mode we rarely make such errors. If perchance we slip, another will be quick to correct us.

If enforceable rights can never cover every margin of decision, then – contrary to the notion that markets depend on selfishness, and to the clever poetry of Mandeville – opportunism in all relational contracting and exchange across time are *costs, not benefits*, in achieving long-term value from trade; an ideology of honesty[5] means that people play the game of "trade" rather than "steal," although crime may frequently pay the rational lawbreaker who routinely chooses dominant strategies. Nor does nonselfish behavior in conjunction and parallel with ordinary market transactions prevent those transactions from promoting specialization and creating wealth. There is no inherent contradiction between self-regarding and other-regarding behavior, and as we shall see, the latter well serves each individual under the common cultural norms of reciprocity sharing as it derives from repeat interaction – other-regarding behavior does not require other-regarding utility.

Cultures that have evolved markets have enormously expanded resource specialization, created commensurate gains from exchange, and are wealthier than those that have not (see Scully, 1988; Demmert and Klein, 2003; Gwartney and Lawson, 2003; and the numerous references they contain). This proposition says nothing about the necessity of human selfishness for the attainment of economic betterment – the increased wealth of particular individuals can be used by them for consumption and investment; payment of taxes; Macarthur Fellows; and gifts to the symphony, the Smithsonian, or the poor. Markets economize on the need for virtue, but do not eliminate it and indeed depend on it to avoid a crushing burden of monitoring and enforcement cost. If every explicit or implicit contract required external policing resources to ensure efficient performance, the efficiency gains from specialization and exchange would be in danger of being gobbled up by these support costs. In this sense, the informal property right rules or norms of moral social engagement – thou shalt not kill, steal, bear false witness, commit adultery, or covet the possessions

[4] Our powers of analysis fall short even at our best. A missing chapter in the study of bounded rationality is its application to understanding and accepting with a little humility the severe limitations it imposes on our own professional development of economic theory.

[5] North (1990; 2005) has emphasized the importance of ideology in promoting economic growth by lowering transactions and enforcement costs.

of thy neighbor – strongly support wealth creation through the increased specialization made possible by personal social exchange and the extended order of markets.

Research in economic psychology[6] has prominently reported examples where "fairness" and other considerations are said to contradict the rationality assumptions of the SSSM. But experimental economists have reported mixed results on subject conformance with "rational models." In achieving gains for themselves and others, people often are better, in concordance with, or worse than constructive rational analysis predicts:

- Better in many two-person anonymous interactions (see Part III)
- As predicted in rapidly convergent repetitive-flow supply-and-demand markets (see Part II)
- Worse in certain asset-trading markets, although these still slowly converge in time (Smith et al., 1988; Porter and Smith, 1994)

[6] I will use the term "economic psychology" generally to refer to cognitive psychology as it has been applied to economic questions, and to a third subfield of experimental methods in economics recently product-differentiated as "behavioral economics" (Mullainathan and Thaler, 2001), and further differentiated into "behavioral game theory" (Camerer, 2003). The original foundations were laid by Ward Edwards, Daniel Kahneman, Anatol Rappoport, Sidney Siegel, Paul Slovic, and Amos Tversky, to name only a few of the most prominent. Behavioral economists have made a cottage industry of showing that the SSSM assumptions seem to apply almost nowhere to decisions, hypothetical or real. This is because their research program has been a candidly deliberate search for "Identifying the ways in which behavior differs from the standard model ..." (Mullainathan and Thaler, 2001, p. 2), a search in what may be the tails of distributions. Lopes (1991), in a survey of the judgment and decision literature, suggests that it was after 1970 that the search for anomalies becomes evident. Others who have searched more generally in the distributions of behavior relative to model predictions have found both differences and confirmations; in some cases, the differences were accounted for by improved experiment or by refining the theory; in some cases the confirmations were not robust, in others quite robust; in still other cases the behavior could be said to be more "rational" than the models that were tested. Although this book is critical of much of standard theory and its conceptual foundations, it reports cases that both differ and are congruent with many traditional models. Even in the latter case there is usually plenty of room for improved understanding and in getting the details and dynamics right. I would wish that we could find solutions, not just fault, as there is more than enough of the latter to go around. Weber and Camerer (2006, p. 187) have sought to correct the "searching for anomalies" methodological stance of behavioral economics with a new definition based on "... using evidence and constructs from neighboring social sciences ...." Experimental economics from its inception has been importantly interdisciplinary and influenced by experimental psychologists, as is plain in the references in this book. It has long focused on individual, group, but also rule-governed (institutional) behavior. Behavioral economics is not yet about new and fundamental foundations, but about the particular questions and results emphasized.

Patterns in these contradictions and confirmations can provide important clues to the implicit rules or norms that people may follow, and can motivate new theoretical hypotheses for examination in both the field and the laboratory. The pattern of results greatly modifies the prevailing and misguided rational SSSM, and richly modernizes the unadulterated message of the Scottish philosophers.