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Egoism, Altruism, and Market Illusions: The Limits of Law and Economics

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EGOISM, ALTRUISM, AND MARKET ILLUSIONS: THE LIMITS OF LAW AND ECONOMICS

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Rastafarians,[1] members of a primarily Jamaican religious and political movement, use the expression "I and I" instead of "I," "me," or "my" in daily discourse.[2] "I 'n' I," as it is pronounced, signifies the unity of the speaker with God and with other men.[3] "I 'n' I" seems very far from the concept of "self" implicit in neoclassical economics which assumes man is a "rational maximizer of self-interest."[4] The question is: What is the relevant "self" for explaining behavior? Is it a narrow self, as in selfish; a self that encompasses others based on genetic closeness;[5] a self based on

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1. It is not possible to describe the Rastafarian movement in a footnote of reasonable length. Materials to be consulted include L. BARRETT, THE RASTAFARIANS (1977); E. CASHMORE, RASTAMAN, THE RASTAFARIAN MOVEMENT IN ENGLAND (1983); T. NICHOLAS, RASTAFARI: A WAY OF LIFE (1979); Note, *Soul Rebels: The Rastafarians and the Free Exercise Clause*, 72 GEO. L.J. 1605 (1984).

2. *See* L. BARRETT, *supra* note 1, at 143–45; J. OWENS, DREAD: THE RASTAFARIANS OF JAMAICA 64–68 (1976).

3. *See* E. CASHMORE, *supra* note 1, at 135–36; T. NICHOLAS, *supra* note 1, at 38–40.

4. The assumption includes two components: rationality *and* self-interest. *See* Frolich & Oppenheimer, *Beyond Economic Man: Altruism, Egalitarianism and Difference Maximizing*, 28 J. CONFLICT RESOLUTION 3 (1984). The two parts of this assumption are discussed more extensively *infra* text accompanying notes 25–30.

5. *See, e.g.*, R. DAWKINS, THE SELFISH GENE 1–12 (1976); E. WILSON, SOCIOBIOLOGY 37–63 (1980).

group solidarity;[6] or something with a mystical quality like the "I 'n' I" self?

The enigmatic character of the "self" and the difficulty of accurately gauging individual preferences are two problems to which economists respond by making assumptions. Because economic analysis is widely applied to questions of law and public policy, these assumptions merit careful analysis.[7] This Article examines whether the economist's assumption of "self-interest" conforms to the range of interests that actually influence human behavior.[8] Next, it questions the assumption that individuals' choices reliably

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6. *See generally* E. DURKHEIM, THE DIVISION OF LABOR IN SOCIETY 111–229 (1933); Hart, *Social Solidarity and the Enforcement of Morality*, 35 U. CHI. L. REV. 1 (1967).

7. Commentators have noted the importance of implicit behavioral assumptions in the economic analysis of law. *See* Kelman, *Misunderstanding Social Life: A Critique of the Core Premises of "Law and Economics,"* 33 J. LEGAL EDUC. 274, 274–77 (1983) [hereinafter cited as Kelman, *Misunderstanding*]; Kornhouser, *The Great Image of Authority*, 36 STAN. L. REV. 349, 358–64 (1984); Kornhouser, *A Guide to the Perplexed Claims of Efficiency in the Law*, 8 HOFSTRA L. REV. 591, 635–37 (1980). Discussions of these behavioral bases have been infrequent, but insightful. *See, e.g.*, Gjerdingen, *The Coase Theorem and the Psychology of Common-Law Thought*, 56 S. CAL. L. REV. 711 (1983); Kelman, *Choices and Utility*, 1979 WIS. L. REV. 769; Kelman, *Consumption Theory, Production Theory, and Ideology in the Coase Theorem*, 52 S. CAL. L. REV. 669 (1979) [hereinafter cited as Kelman, *Consumption Theory*]. For an important examination of contract law in the context of the assumptions of neoclassical economics, see Farber, *Contract Law and Modern Economic Theory*, 78 NW. U.L. REV. 303 (1983). Four instructive nonlegal sources are: J. ELSTER, ULYSSES AND THE SIRENS (1979); M. LUTZ & K. LUX, THE CHALLENGE OF HUMANISTIC ECONOMICS (1979); H. MARGOLIS, SELFISHNESS, ALTRUISM AND MORALITY (1982); Sen, *Rational Fools: A Critique of the Behavioral Foundations of Economic Theory*, 6 PHIL. & PUB. AFF. 317 (1977) [hereinafter cited as Sen, *Rational Fools*].

8. *See infra* text accompanying notes 25–211.

I do not specifically consider whether the "rational maximizer" component of the assumption is valid. As a general matter, sufficient rationality concepts exist to encompass most behavior. *See* March, *Bounded Rationality, Ambiguity, and the Engineering of Choice*, 9 BELL J. ECON. 587, 591–93 (1978). A particularly interesting body of literature addresses the concepts of "bounded rationality," *see, e.g.*, H. SIMON, MODELS OF MAN (1957); March, *supra;* Pottinger, *Explanation, Rationality, and Microeconomic Theory*, 28 BEHAV. SCI. 109 (1983), and "selective rationality," *see, e.g.*, H. LEIBENSTEIN, BEYOND ECONOMIC MAN (1975); De Alessi, *Property Rights, Transaction Costs, and X-Efficiency: An Essay in Economic Theory*, 73 AM. ECON. REV. 64 (1983), as alternatives to the traditional rational maximizer concept. For an analysis of alternative rationality concepts in the context of commercial law, see Gillette, *Commercial Rationality and the Duty to Adjust Long-Term Contract*, 69 MINN. L. REV. 521 (1985). On rationality issues generally, see M. GODELIER, RATIONALITY AND IRRATIONALITY IN ECONOMICS (1972); M. HOLLIS & E. NELL, RATIONAL ECONOMIC MAN (1975); RATIONAL MAN AND IRRATIONAL SOCIETY 2 (B. Barry & R. Hardin eds. 1982); Russell & Thaler, *The Relevance of Quasi Rationality in Competitive Markets*, 75 AM. ECON. REV. 1071 (1985).

reflect their preferences.[9] It concludes that the economic analysis of law is founded on overly confining assumptions about human motivation and on possibly naive expectations about the link between choice and preference.

Economists customarily respond to the difficulty of defining "self" by adopting one of two approaches.[10] The first is based on the theory of egoism and holds that all decisions, unless mistaken, are by definition self-interested.[11] All choices, no matter how bizarre, altruistic, or self-destructive, are designed to maximize personal utility. This behavioral assumption, with its possibly ideological underpinnings,[12] is impossible to disprove.

The second approach is less rigid than egoism, and is more consistent with the express or implied assumption of most individuals who apply economic analysis to law.[13] This model concedes that people have a broad range of interests. For the sake of economic analysis, however, it asks us to view people "as if"[14] self-interest is narrowly confined to selfishness.[15] Because the narrow self-interest assumption is inher-

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9. *See infra* text accompanying notes 212–59.

10. *See* H. MARGOLIS, *supra* note 7, at 7; H. LEIBENSTEIN, *supra* note 8, at 8; Coleman, *Individual Interests and Collective Action*, in PAPERS ON NON-MARKET DECISION MAKING 49, 55 (G. Tullock ed. 1966); Seabright, *In Excess of Egotism*, London Times, Literary Supplement, Dec. 10, 1982, at 1354, col. 1.

11. *See* M. LUTZ & K. LUX, *supra* note 7, at 80–81; T. NAGEL, THE POSSIBILITY OF ALTRUISM 84–87 (1970); Leff, *Economic Analysis of Law: Some Realism About Nominalism*, 60 VA. L. REV. 451, 457–58 (1974); Michelman, *Reflection on Professional Education, Legal Scholarship, and the Law-and-Economics Movement*, 33 J. LEGAL EDUC. 197, 198–99 (1983); Sen, *Rational Fools*, *supra* note 7, at 322–23.

12. Some commentators have alleged that this behavioral assumption is part of the general assumption of "capitalist rationality." *See* Kelman, *Misunderstanding*, *supra* note 7; Roemer, *Neoclassicism, Marxism, and Collective Action*, 12 J. ECON. ISSUES 147 (1978); Note, *A Comment on Collective Action, Marxism and the Prisoner's Dilemma*, 13 J. ECON. ISSUES 761 (1979); Note, *Mass Action is Not Individually Rational: A Reply*, 13 J. ECON. ISSUES 763, 765–67 (1979) [hereinafter cited as Note, *Mass Action*]; Note, *A Note on Collective Action, Marxism, and the Prisoner's Dilemma*, 13 J. ECON. ISSUES 751 (1979).

13. *See infra* text accompanying notes 55–79.

14. *See generally* H. VAIHINGER, THE PHILOSOPHY OF "AS IF" (C.K. Ogden trans. 2d ed. 1935).

15. For purposes of this Article, "selfish" behavior is behavior that is triggered by a perceived direct personal benefit. Selfish behavior does not include: (1) adherence to principles as a matter of lexicographical ordering, *see infra* text accompanying notes 96–118; (2) giving to or sharing with others, or incorporating the gains or losses of others into one's own decision-making processes out of a sense of duty; or (3) behavior listed in (2) resulting in a sense of sacrifice. Selfishness does include the kind of "altruism" in which a person, with no sense of sacrifice, attempts to increase his or her own immediate pleasure by enhancing the

ently ambiguous and frequently inaccurate, we should regard with caution the conclusions that follow from it.

Whether the correct behavioral assumption is egoism or narrow self-interest, economic analysis depends on market behavior as a medium for communicating preferences.[16] Although the definition of a "market" in law and economics is more flexible than the one employed in conventional economics, market behavior is relied upon for the same purpose. In either discipline one encounters difficulties when attempting to ascertain preferences. For example, decision-makers may conceal their preferences, or may respond to the way in which a choice is presented or "framed" rather than to the actual substance of the choice.[17] The economists' use of "value" as the measure of the intensity of preferences creates its own special problems.[18] In short, the decision-making process frequently distorts our perception of preferences.[19]

The two assumptions I examine are central to the two areas of study and controversy sparked by the joining of law and economics. Most of the recent literature in the field addresses the morality of "efficient" resource allocation.[20]

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pleasure of others. In those cases, altruism is little more than the use of surrogate consumers, typically members of one's own household. This sort of altruism is what Harold Margolis appropriately calls "egoistic altruism." H. MARGOLIS, *supra* note 7, at 98, 103; *see also* D. COLLARD, ALTRUISM AND ECONOMY 18–30 (1978); Coleman, *supra* note 10; Margolis, *A New Model of Rational Choice*, 91 ETHICS 265, 266 n.4; Sen, *Behavior and the Concept of Preference*, 40 ECONOMICA 241, 256 (1973) [hereinafter cited as Sen, *Behavior*]; *cf.* E. FROMM, ESCAPE FROM FREEDOM 133–38 (1941); R. POSNER, ECONOMIC ANALYSIS OF LAW 3 (2d ed. 1977).

16. *See, e.g.*, Samuelson, *Consumption Theory in Terms of Revealed Preference*, 15 ECONOMICA (n.s.) 243 (1948) [hereinafter cited as Samuelson, *Consumption Theory*]; Samuelson, *A Note on the Pure Theory of Consumer's Behaviour*, 5 ECONOMICA (n.s.) 61 (1938) [hereinafter cited as Samuelson, *Pure Theory*]; *see also* Sen, *Behavior*, *supra* note 15.

17. *See, e.g.*, Kahneman & Tversky, *Choices, Values and Frames*, 39 AM. PSYCHOLOGIST 341 (1984); Kahneman & Tversky, *The Psychology of Preferences*, SCI. AM., Jan. 1982, at 160; *see infra* text accompanying notes 222–37.

18. The wealth effect is one of the more frequently discussed problems. *See infra* text accompanying notes 238–47; *see also* C. GOETZ, LAW AND ECONOMICS 53 (1984); A. POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 124–25 (1983); Baker, *The Ideology of the Economic Analysis of Law*, 5 PHIL. & PUB. AFF. 3 (1975); Kelman, *Consumption Theory*, *supra* note 7; Kennedy, *Cost-Benefit Analysis of Entitlement Problems: A Critique*, 33 STAN. L. REV. 387 (1981).

19. *See infra* text accompanying notes 212–65; *see also* Sen, *Behavior*, *supra* note 15.

20. *See, e.g.*, R. POSNER, THE ECONOMICS OF JUSTICE (1981); Baker, *supra* note 18; Coleman, *Economics and the Law: A Critical Review of the Foundations of the Eco-*

This normative question, though, rests on the existence of a reliable means of determining preferences. Similarly, the inquiry into the design of efficient substantive rules and remedies[21] is misguided if it assumes that people are narrowly self-interested, when, in fact, they respond to the well-being of others.

This discussion does not directly question the bases of economic analysis in its traditional applications. For example, the narrow self-interest behavioral assumption may be consistent with observable impersonal market decisions. Economics may explain why a trip to the supermarket results in the purchase of one quantity of potatoes instead of another, or why the price of wheat is higher this year than last. But, when the supermarket shelves present choices labeled "contract breach," "theft," or "rescue," we have no reason to believe that the same assumption is appropriate. These decisions are extraordinarily complex. They are heavily influenced by social norms and notions of right, duty, and fairness. They may also have specifically identifiable external effects. Thus, the fact that the "price" on contract breach is marked "expectancy" may be a single, possibly minor, factor in an intricate decision-making process. Very simply, the premises of the impersonal market model may not be transferable to the highly personal and value-laden "markets" of law and economics.[22] Consequently, predictions and policies based on these premises may turn out to be *non sequiturs.*

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nomic Approach to Law, 94 ETHICS 649 (1984); Dworkin, *Is Wealth a Value?,* 9 J. LEGAL STUD. 191 (1980); Dworkin, *Why Efficiency?,* 8 HOFSTRA L. REV. 563 (1980); Kennedy, *supra* note 18; Kronman, *Wealth Maximization as a Normative Principle,* 9 J. LEGAL STUD. 227 (1980); Posner, *The Ethical and Political Basis of the Efficiency Norm in Common Law Adjudication,* 8 HOFSTRA L. REV. 487 (1980).

21. *See, e.g.,* C. GOETZ, *supra* note 18; Goetz & Scott, *Liquidated Damages, Penalties and the Just Compensation Principle: Some Notes on an Enforcement Model and a Theory of Efficient Breach,* 77 COLUM. L. REV. 554 (1977); Goetz & Scott, *Measuring Sellers' Damages: The Lost Profits Puzzle,* 31 STAN L. REV. 323 (1979); Harrison, *The "New" Terminable-at-Will Employment Contract: An Interest and Cost Incidence Analysis,* 69 IOWA L. REV. 327 (1984); Kronman, *Mistake, Disclosure, Information and the Law of Contracts,* 7 J. LEGAL STUD. 1 (1978); Macneil, *Efficient Breach of Contract: Circles in the Sky,* 68 VA. L. REV. 947 (1982); Posner & Rosenfeld, *Impossibility and Related Doctrines in Contract Law: An Economic Analysis,* 6 J. LEGAL STUD. 83 (1977).

An interesting and related question is whether efficient common-law rules have already evolved. *See* R. POSNER, *supra* note 15; Epstein, *The Social Consequences of Common Law Rules,* 95 HARV. L. REV. 1717 (1982); Hovenkamp, *The Economics of Legal History,* 67 MINN. L. REV. 645 (1983).

22. *But see* R. POSNER, *supra* note 20, at 1–2.

My primary objective is to question assumptions[23] in order to show that the conventional economic approach to law and public policy is of limited value. My arguments are founded on empirical evidence drawn from many fields of study. An underlying theme is that the current application of economic analysis to law should be regarded as an interim step toward the integration of law with the behavioral, natural, and social sciences.[24]

In Part I, I describe the two forms of the self-interest assumption more completely. This examination reveals that economics and the separate study of law and economics are caught in a dilemma, unable to embrace completely either of the two versions of the self-interest assumption. Egoism is an empty concept, and narrow self-interest asks us to ignore higher order preferences and altruism. In Part II, I focus on the narrow self-interest assumption and illustrate why its application to law is inappropriate. In Part III, I examine the problems of relying on choices, including market choices, as indicators of preference.

I. THE RATIONAL MAXIMIZER OF SELF-INTEREST

A. *Rationality and Self-Interest*

It is possible to adopt the view that rationality and self-

23. Questioning assumptions, as a mode of critical analysis, has formidable detractors. Richard Posner, echoing Milton Friedman, M. FRIEDMAN, ESSAYS IN POSITIVE ECONOMICS 3–43 (1953), has observed that to "criticize a theory on the grounds that its assumptions are unrealistic is to commit a fundamental methodological error," R. POSNER, *supra* note 15, at 13; *cf.* R. UNGER, LAW IN MODERN SOCIETY 11–13 (1976). Posner's point is that abstraction is a necessary element of scientific inquiry. In the Friedman-Posner view, the real test of a theory is how predicted results conform to reality; independent consideration of assumptions is of little consequence. M. FRIEDMAN, *supra*, at 14–15; R. POSNER, *supra* note 15, at 13; *cf.* Nagel, *Assumptions in Economic Theory*, 53 AM. ECON. REV. 211 (1963). This view of economic methodology, though, is unsatisfactory when it is difficult to test the theory by comparison to reality. *See* Simon, *Problems of Methodology—Discussion*, 53 AM. ECON. REV. 229, 229–31 (1963) (comments of H. Simon).

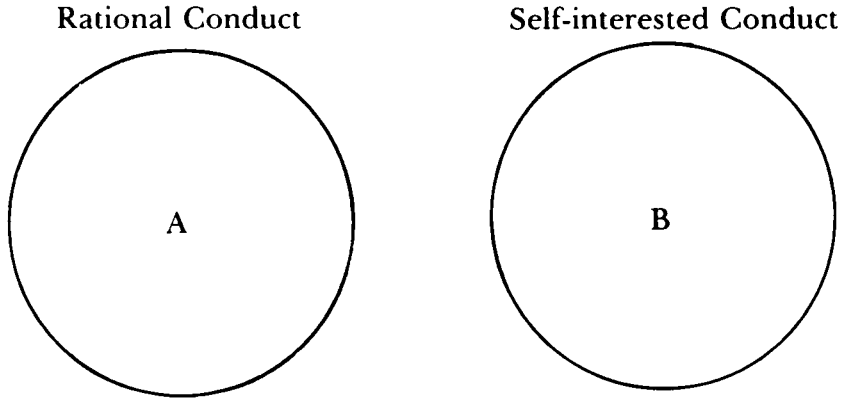
More importantly, even when empirical verification is possible, one is tempted to believe that the assumptions underlying the theory are valid because the predicted results did occur. This, of course, is illogical. If I assume *A* and therefore predict *B* will occur, and then *B* does occur, I will not have proven that my initial assumption was valid. The greater danger is that I may begin to construct new theories on the basis of newly "verified" assumptions. *Id.* at 229 (comments of H. Simon), 232–34 (comments of P. Samuelson).

24. *Cf.* Leff, *supra* note 11, at 469–77.

interest are not distinct:[25] To act rationally means to act in one's own interest. It is more common, and more productive, to view rationality as consistency within a system of beliefs.[26] Under this view, rationality and self-interest, though perhaps functionally indistinguishable, are at least conceptually distinct. Thus, in theory, it is possible for individuals to pursue purely altruistic goals in a manner characterized by consistent action. Rationality, in effect, concerns methodology; self-interest describes the object or substance of the methodology.

The primary difference in the two versions of the rational maximizer of self-interest assumption is the relationship between rationality and self-interest. Venn diagrams conveniently illustrate this difference.[27] In Figure I, *A* repre-

FIGURE I



sents the universe of rational activity. This is all activity that is consistent with an individual's belief system or systems. These actions further some goal of the individual. In the

25. *See* Frohlich & Oppenheimer, *supra* note 4, at 3; Sen, *Rational Fools*, *supra* note 7, at 342.

26. *See, e.g.*, M. MOORE, LAW AND PSYCHIATRY 102–03 (1984); Arrow, *Current Developments in the Theory of Social Choice*, in RATIONAL MAN AND IRRATIONAL SOCIETY? 252, 254 (B. Barry & R. Hardin eds. 1982); Frolich & Oppenheimer, *supra* note 4, at 3–4; Kahneman & Tversky, *Choices, Values and Frames*, *supra* note 17, at 343; Tversky, *Intransitivity of Preferences*, 76 PSYCHOLOGICAL REV. 31, 31–32 (1969); Weyrauch, *Taboo and Magic in Law*, 25 STAN. L. REV. 782, 800 (1973). The central concept of rationality is dominance or transitivity. That is, if *A* is preferred to *B*, and *B* is preferred to *C*, then *A* is preferred to *C*.

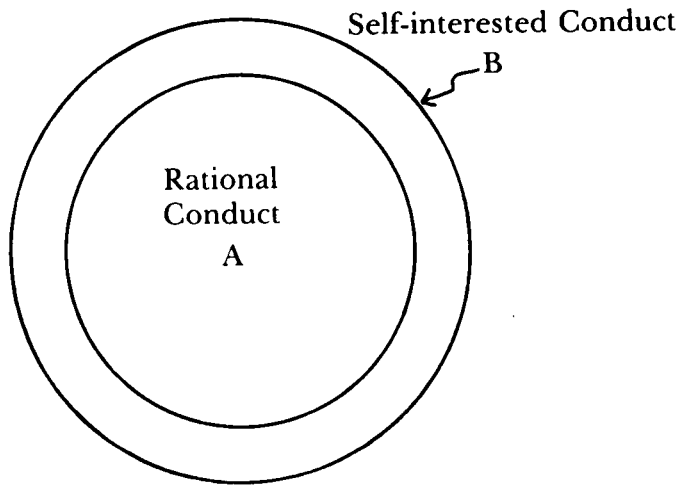
27. I am indebted to Hugo Bedau for suggesting Venn diagrams as a way to illustrate these relationships.

case of multiple goals, *A* includes several constellations of rational conduct. Circle *B*, on the other hand, represents the universe of all self-interested behavior. Its content is, therefore, substantive and goal-specific. Precisely what "self" connotes, as indicated earlier, is an important question to which I will return later.[28]

B. *Revealed Preferences and Egoism*

Figure II illustrates the assumption that all rational be-

FIGURE II



havior is self-interested. This assumption leaves open the possibility that some self-interested behavior lies outside the limits of rationality. Such actions would be motivated by self-interest, but, because of error, are inconsistent with it. Thus, from the standpoint of egoism, rational behavior is a subset of self-interested behavior. There is but one belief system—the self. Competing belief systems and actions consistent with those systems will not be recognized, and will likely be characterized as irrational.[29] In fact, because it is

28. *See infra* text accompanying notes 144–95.

29. *See* Weyrauch, *supra* note 26, at 800; *cf.* A. DOWNS, AN ECONOMIC THEORY OF DEMOCRACY 260–76 (1957). For an example of how the question of rationality is raised with regard to an issue of public policy, see Balch, *Abortion: A General Concern*, N.Y. Times, Sept. 20, 1984, at A31, col. 1; Callahan, *Restraint Serves Pluralism*, N.Y. Times, Sept. 20, 1984, at A31, col. 5.

essentially impossible not to be self-interested, the real assumption here is merely that people have a consistent ordering of preferences.[30]

In the modern era of economics, the egoistic[31] view of self-interest and rationality is bound up with what economists call "revealed preference theory," an area of study pioneered by Paul Samuelson nearly fifty years ago.[32] Samuelson proposed that the difficulties encountered in attempting to determine preferences by considering elusive measures of psychic well-being can be avoided by simply observing the market choices individuals make.[33] Despite its attempt to avoid the hazards of mind reading, the theory cannot escape all the mysteries of choice. As Amartya Sen has noted, the observer still must "peek into the head of the consumer" to determine the relationship between preference and choice.[34]

This problem aside for now,[35] the "proof" of egoism is not the content of one's choice but the fact of choice making.[36] If it is *my* choice, then by definition it is the choice that is most satisfying or comforting to me. Consequently, I have acted in my self-interest. Accordingly, all consistent choices are self-interested. Economists adopting the egoist behavioral assumption have applied economic models to altruism,[37] discrimination,[38] fertility,[39] love,[40] marriage,[41] and myriad human emotions and actions. Even irrationality has

30. For examples of reliance on the egoism assumption, see D. ALHADEFF, MICROECONOMICS AND HUMAN BEHAVIOR (1982); G. BECKER, THE ECONOMIC APPROACH TO HUMAN BEHAVIOR (1976); R. CROUCH, HUMAN BEHAVIOR AND ECONOMIC APPROACH (1979); De Alessi, *supra* note 8; Kitch, *The Intellectual Foundations of "Law and Economics,"* 33 J. LEGAL EDUC. 184, 187 (1983). *See generally* J. WALKER, THE PHILOSOPHY OF EGOISM (1905).

31. Egoism, of course, has roots far deeper than contemporary economics. It can be traced to the Epicurean notion of the pleasure principle and is welded to utilitarianism generally. *See* D. BAUMGARDT, BENTHAM AND THE ETHICS OF TODAY 416–26 (1966); D. LYONS, IN THE INTEREST OF THE GOVERNED 12, 13 (1973); H. SEDGWICK, THE ART OF HAPPINESS 14, 15 (1933).

32. *See* Samuelson, *Pure Theory, supra* note 16; Samuelson, *Consumption Theory, supra* note 16. *See generally* M. LUTZ & K. LUX, *supra* note 7, at 323–36; Sen, *Behavior, supra* note 15.

33. Samuelson, *Consumption Theory, supra* note 16, at 243.

34. Sen, *Behavior, supra* note 15, at 243.

35. For a discussion of the connection between choice and preference, see *infra* text accompanying notes 213–37.

36. *See* Sen, *Rational Fools, supra* note 7, at 322–23.

37. *See, e.g.*, Becker, *Altruism, Egoism, and Genetic Fitness: Economics and Sociobiology*, 14 J. ECON. LIT. 817, 818 (1976). *See generally* M. LUTZ & K. LUX, *supra* note

not escaped the graphs and equations of economic analysis.[42]

The revealed preference theory, as a means of detecting consumer preferences, has been the subject of a running debate since it was introduced in 1938.[43] It raises two questions. First, does the revealed preference theory support the assumption that preferences are inextricably wedded to self-interest? Second, can we really determine preferences, even if exclusively egoistic, by examining choices?

We can dispose of the first question rather quickly. As proof of the view that people are wholly self-interested, the revealed preference theory is tautological and, thus, no proof at all.[44] The theory is little more than a statement that the capacity to choose or to recognize our indifference to alternatives is proof that we are moved solely by self-interest. Because there is no method for testing this hypothesis, this view fails to prove that our choices are generally egoistic or to explain their content.[45]

Reliance on the theory of egoism frequently requires the invocation of "fillers" such as "psychic income"[46] or "social invisibles."[47] These are necessary to produce the ap-

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7, at 80–83; Hammond, *Charity: Altruism or Cooperative Egoism?*, in ALTRUISM, MORALITY AND ECONOMIC THEORY 115 (E. Phelps ed. 1975).

38. G. BECKER, THE ECONOMICS OF DISCRIMINATION (1957).

39. *See, e.g.*, R. CROUCH, *supra* note 30, at 171; Willis, *A New Approach to the Economic Theory of Fertility Behavior*, 81 J. POL. ECON. S14 (1973).

40. *See, e.g.*, R. CROUCH, *supra* note 30, at 153.

41. *See, e.g.*, Becker, *A Theory of Marriage, Part I*, 81 J. POL. ECON. 813 (1973); Becker, *A Theory of Marriage, Part II*, 82 J. POL. ECON. S11 (1974).

42. *See, e.g.*, Becker, *Irrational Behavior and Economic Theory*, 70 J. POL. ECON. 1 (1962).

43. For a short, nontechnical history of this debate, including citations, see M. LUTZ & K. LUX, *supra* note 7, at 323–26. *See generally* N. GEORGESCU-ROEGEN, ENERGY AND ECONOMIC MYTHS (1976); Georgescu-Roegen, *Choice and Revealed Preference*, 21 S. ECON. REV. 119 (1954); Georgescu-Roegen, *Choice, Expectations and Measurability*, 68 Q.J. ECON. 503 (1954) [hereinafter cited as Georgescu-Roegen, *Choice*]; Georgescu-Roegen, *The Pure Theory of Consumer's Behavior*, 50 Q.J. ECON. 545 (1936); Houthakker, *Revealed Preference and the Utility Function*, 17 ECONOMICA (n.s.) 159 (1950); Samuelson, *The Problem of Integrability in Utility Theory*, 17 ECONOMICA (n.s.) 355 (1950).

44. *See* M. LUTZ & K. LUX, *supra* note 7, at 80; Sen, *Rational Fools*, *supra* note 7, at 322–23; Note, *Mass Action*, *supra* note 12, at 766.

45. *Cf.* M. HOLLIS & E. NELL, *supra* note 8, at 53–56; H. LEIBENSTEIN, *supra* note 8, at 7–8. *See also* Michelman, *supra* note 11.

46. *See* H. MARGOLIS, *supra* note 7, at 59.

47. *See* F. PRYOR, THE ORIGINS OF THE ECONOMY 27–29 (1977); *see also* Kelman, *Misunderstanding*, *supra* note 7, at 275.

pearance of symmetry whenever observed behavior does not fit a readily understandable self-interest-based explanation. These fillers eliminate the possibility of altruism by supplying a fictionalized compensation for any seemingly altruistic transfer that might occur. All transfers are made to appear reciprocal. If I give a "gift" to someone it is for the "psychic income" I receive in return. The imbalance of gift giving is conveniently remedied, and self-interest is maintained as the sole motivating force.

"Psychic income" and "social invisibles" are invariably sufficient to balance even the most one-sided transfers, if one believes that all transfers must be balanced.[48] On the other hand, as economic anthropologist Frederick Pryor points out, for those less convinced of the inevitability of balancing, a sufficient amount of "psychic income" always exists to create an imbalance.[49] "Psychic income"—a wobbling crutch for egoism—explains little of substance about motivation.[50] Sen captures the "self-sealing"[51] quality of the theory: "[If] you are consistent, then no matter whether you are a single-minded egoist or a raving altruist or a class-conscious militant, you will appear to be maximizing your own utility in this enchanted world of definitions."[52]

The theory's lack of predictive capacity is only one of its shortcomings and not the most inimical. Because it does not recognize the possibility of non-self-interested behavior, it is an inescapable paradigm.[53] It shares this inhibiting quality with all tautological explanations. And yet, as Walter Weyrauch observes, the use of tautological explanations is best regarded as a signal of how little we have explained rather than how much.[54]

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48. F. PRYOR, *supra* note 47, at 39, 95 n.27.

49. *Id.* at 95 n.27.

50. *See* M. DOUGLAS & B. ISHERWOOD, THE WORLD OF GOODS 19–20 (1979); H. LEIBENSTEIN, *supra* note 8, at 7–8; H. MARGOLIS, *supra* note 7, at 87; F. PRYOR, *supra* note 47, at 28; Leff, *supra* note 11, at 457.

51. "Self-sealing" seems like a perfect characterization of tautological theories, for they are absolutely "puncture proof." Walter Weyrauch provided me with this phrase, but says he first heard it from Professor Leon Lipson.

52. Sen, *Rational Fools*, *supra* note 7, at 323.

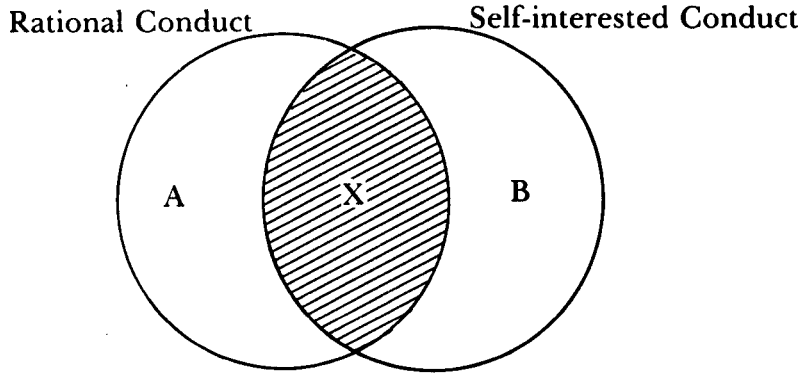
53. *See generally* T. KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTIONS (2d ed. enlarged 1970).

54. Weyrauch, *On Definitions, Tautologies, and Ethnocentrism in Regard to Universal Human Rights*, in HUMAN RIGHTS 198 (E. Pollack ed. 1971).

C. *The Narrow Self-Interest Assumption*

The possibility that rationality is not consumed by self-interest is illustrated by the Venn diagrams in Figure III. This version of the self-interested behavior assumption al-

FIGURE III



lows for self-interested behavior that may be irrational. More important, it recognizes the existence of rational behavior that is not self-interested. Thus, the narrow self-interest assumption is a method of simplifying the analysis by asking us to consider only that behavior represented by the shaded or intersecting portions of universes *A* and *B*, labeled *X*. The critical issue is how much behavior can be characterized as falling within *X*. Or, conversely, how much rational behavior—behavior that is consistent with respect to *some* belief system—is not self-interested?

My impression is that narrow self-interest—not egoism—is the behavioral assumption most commonly employed by those applying economic analysis to law. For example, in a recent article, Robert Cooter specified his behavioral assumption as denoting "[a] person who is rationally self-interested,"[55] and excluded from his model "[s]omeone who acts from duty and obeys the law out of respect."[56] Charles Goetz introduces his law and economics casebook with the following caution: "In some circumstances, arguments based on economic reasoning will have

55. Cooter, *Prices and Sanctions*, 84 COLUM. L. REV. 1523, 1527 (1984).
56. *Id.* at 1527 n.9.

undeniable relevance and potent persuasive force. In other situations, economic factors may be of rather trivial weight as compared to amorphous—yet perfectly valid—ethical, moral or even viscerally instinctive notions of what is right and just."[57]

Even Richard Posner seems to leave room for the possibility of non-self-interested behavior. He begins his seminal work, *The Economic Analysis of Law,* with the typical behavioral assumption that "man is a rational maximizer of his ends in life,"[58] and adds, in defense of his assumption, that "the assumptions of economic theory are to some extent oversimplified and unrealistic as descriptions of human behavior—especially as applied to such unconventional actors as the judge, the litigant, the parent, the rapist and others."[59] Later he observes that "clearly, moral principles often conflict with individual self-interest."[60]

Neither Cooter, nor Goetz, nor Posner[61] seem to suggest that rational behavior must always be self-interested. They appear to recognize the existence of belief systems or interests that compete with self-interest. The proof of this may be the fact that an assumption of self-interest must be made at all.[62] They ask us to simplify our analysis, by ignoring a great deal of human motivation, in order to make economic analysis more manageable. This is a common

57. C. GOETZ, *supra* note 18, at 4.

58. R. POSNER, *supra* note 15, at 3; *see also id.* at 20.

59. *Id.* at 12–13.

60. *Id.* at 186. Judge Posner also seems to recognize the possibility of rational behavior in the absence of "all expectation of any form of compensation," in Landes & Posner, *Salvors, Finders, Good Samaritans, and Other Rescuers: An Economic Study of Law and Altruism,* 7 J. LEGAL STUD. 83, 93–100 (1978) [hereinafter cited as Landes & Posner, *Salvors*]; *see also* Landes & Posner, *Altruism in Law and Economics,* 68 AM. ECON. REV.: PAPERS AND PROC. 417 (1978) [hereinafter cited as Landes & Posner, *Altruism*].

61. As I have implied, I may be wrong in my assertion that Judge Posner does not subscribe entirely to the egoist point of view. For example, he states specifically that "self-interest" should not be equated with selfishness. R. POSNER, *supra* note 15, at 3. He also makes psychic-income types of arguments. *See id.* at 132, 188. Finally, his discussions of altruism seem bound up with attempts to maximize individual utility. *See* Landes & Posner, *Salvors, supra* note 60, at 93–100. Still, his staunch defense of the use of assumptions in scientific inquiry, R. POSNER, *supra* note 15, at 12–14, 20, indicates that he is acutely aware that these assumptions ask us to ignore some categories of human behavior. In any case, it seems fair to infer that he does not feel these "residual" areas are very important. *See* R. POSNER, *supra* note 20, at 1–2.

62. An egoist would require only that behavior be consistent.

approach to scientific inquiry and is difficult to fault. It is important, though, to examine carefully the model of behavior this assumption asks us to consider: We are asked to assume that people are basically selfish; that is, that individuals are not guided by moral principles and are not responsive to the specific needs of others.[63]

A better understanding of this self-interest assumption can be gained by comparing the assumption with the patterns of moral reasoning initially explored by Jean Piaget,[64] and extensively researched more recently by psychologist-philosopher Lawrence Kohlberg.[65] Kohlberg's work verifying his hypothesis that individuals progress through stages of moral development is especially relevant.[66] His basic model includes three levels of moral development, each of which is divided into two stages.[67] The three levels are preconventional, conventional, and postconventional. At the preconventional level, the individual is responsive to "good and bad, right or wrong, but interprets these labels in terms of either the physical or hedonistic consequences of action (punishment, reward, exchange of favors) or in terms of the physical power of those who enunciate the rules and labels."[68] Reasoning at this level is highly individualistic. At the conventional level, "maintaining the expectations of the individual's family, group or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences."[69] At the postconventional level, "there is a clear effort to define moral values and principles that have validity and application apart from the authority of groups or people

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63. *See supra* note 15.

64. *See, e.g.*, J. PIAGET, THE MORAL JUDGMENT OF THE CHILD (1965); J. PIAGET, THE ORIGINS OF INTELLIGENCE IN CHILDREN (1936).

65. *See, e.g.*, A. COLBY, L. KOHLBERG, J. GIBBS & M. LIEBERMAN, A LONGITUDINAL STUDY OF MORAL JUDGMENT (Monograph of the Society for Research in Child Development vol. 48, nos. 1-2, 1983) [hereinafter cited as A. COLBY, LONGITUDINAL STUDY]; L. KOHLBERG, THE PHILOSOPHY OF MORAL DEVELOPMENT (1981); L. KOHLBERG, THE PSYCHOLOGY OF MORAL DEVELOPMENT (1984); Kohlberg, *Moral Stages and Moralization*, in MORAL DEVELOPMENT AND BEHAVIOR 31 (T. Lickona ed. 1976) [hereinafter cited as Kohlberg, *Moral Stages*]. For an important discussion of how moral development in women may differ from that posited by Kohlberg, see C. GILLIGAN, IN A DIFFERENT VOICE (1982).

66. Kohlberg, *Moral Stages*, *supra* note 65.

67. For a more complete description of the levels and stages, see A. COLBY, LONGITUDINAL STUDY, *supra* note 65, at 4-5.

68. L. KOHLBERG, THE PHILOSOPHY OF MORAL DEVELOPMENT 17.

69. *Id.* at 18.

holding these principles and apart from the individual's own identification with these groups."[70]

Kohlberg determines whether the reasoning of an individual is preconventional, conventional, or postconventional by examining the individual's responses to hypothetical dilemmas.[71] The core of this research is devoted to longitudinal[72] studies correlating age with level of moral reasoning. Probably the clearest and most consistent discovery is that, by the late teenage years, preconventional or Level I reasoning about moral issues is extremely rare.[73]

The self-interest assumption of law and economics is virtually identical to Kohlberg's preconventional reasoning. For example, consider the explanations one might expect from individuals, at each level of moral development, who have decided not to breach a contract.

Preconventional explanation: I did not breach the contract because I would probably lose in court and have to pay damages. Expected damages would more than offset the benefits of breaching.

Conventional explanation: I did not breach because to breach would be to break my promise. I did not want to break my promise because if everyone broke his promises the world would be chaotic.

Postconventional explanation: I did not break my promise be-

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70. *Id.*

71. A well-known example is the Heinz Dilemma:

> In Europe, a woman was near death from a very bad disease, a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could get together only about $1,000, which was half of what it cost. He told the druggist that his wife was dying and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it." Heinz got desperate and broke into the man's store to steal the drug for his wife.

L. KOHLBERG, THE PHILOSOPHY OF MORAL DEVELOPMENT 12.

72. Longitudinal studies examine the same participants over a period of time. *See* A. COLBY, LONGITUDINAL STUDY, *supra* note 65. Longitudinal studies devoted to examining the cultural universality of Kohlberg's stages of moral judgment have been conducted. *See* L. KOHLBERG, THE PSYCHOLOGY OF MORAL DEVELOPMENT, *supra* note 65, at 582–620.

73. *See* A. COLBY, LONGITUDINAL STUDY, *supra* note 65, at 46–50.

cause when someone has my promise it becomes his property. And to take someone else's property is to violate his rights.

Similarly, consider the reasoning of someone who has decided to install a device on his automobile that will reduce the likelihood of injuring others.

Preconventional explanation: I installed the device because the probability that I will be in an accident and be found liable multiplied by the damage caused by the accident is less than the cost of the device.

Conventional explanation: I installed the device because I think doing so is consistent with the respect people in our society should have for the property of others.

Postconventional explanation: I installed the device because it is wrong to harm the property of others if the harm can be avoided.

The *preconventional* explanations—modified only slightly from Kohlberg's own examples[74]—are, in fact, examples of the reasoning employed when economic analysis is applied to the decisions whether to breach a contract[75] and whether to take a safety precaution.[76] Apparently, the law and economics behavioral assumption is that adults reason in essentially the same manner as children.

This assumption may be appropriate in analyzing impersonal market transactions. Kohlberg's work on reasoning about moral dilemmas strongly suggests, however, that the assumption is inappropriate in precisely those "markets" that are the subject of the economic analysis of law. The importance of this suggestion cannot be overstated and is visualized in Figure II. The application of economic analysis to law begins with the assumption that all behavior takes place within the shaded area of the diagram. Kohlberg's re-

74. *See* Kohlberg, *Moral Stages, supra* note 65, at 36–37.

75. *See, e.g.*, A. POLINSKY, *supra* note 18, at 29–32; R. POSNER, *supra* note 15, at 16, 88–93; Birmingham, *Breach of Contract, Damage Measures and Economic Efficiency*, 24 RUTGERS L. REV. 273 (1970); Linzer, *On the Amorality of Contract Remedies—Efficiency, Equity, and the Second Restatement*, 81 COLUM. L. REV. 111 (1981).

Evidently, this is the view reflected in the Restatement (Second) of Contracts (1981). *See* Linzer, *supra*, at 111–12.

76. The preconventional explanation is, of course, the Hand Formula (balancing the magnitude of the risk and gravity of the harm against the utility of the conduct). *See* United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947); A. POLINSKY, *supra* note 18, at 38–40; Brown, *Toward an Economic Theory of Liability*, 2 J. LEGAL STUD. 323 (1973).

sults require us to question whether any of the behavior to which the economic analysis of law is devoted falls within this area.[77]

In spite of its limits, narrow self-interest is superior to egoism as a starting point for economic analysis. The reason for this lies in the approaches to research each permits. Egoism is a nonfalsifiable theory that discourages inquiry because it has an airtight and empty answer to all questions of economic behavior. Narrow self-interest, in contrast, concedes that some behavior cannot be explained by a behavioral model, and requires the theorist to specify the types of behavior to be excluded. Unfortunately, this specification process eliminates factors that are especially valuable in explaining behavior in law and economics "markets." Moreover, in the field of law, despite the warnings of those employing it,[78] the assumption seems to have been accepted as the end, not the beginning, of the inquiry.

The narrow self-interest model, however, can be incorporated into a more accurate portrayal of behavior.[79] The following section identifies how the narrow self-interest model falls short. Directly and by implication it suggests that socio-legal inquiry should explore more fully the importance of altruism in either of two forms.

II. THE TWO FACES OF ALTRUISM

The economic analysis of law is devoted to the study of decisions that are made in the lights and shadows of "right" and "wrong," and with full knowledge that the decisions will affect others. It is in this context that altruistic behavior is

77. A related and important issue is whether individuals actually behave in a manner that is consistent with their moral reasoning. Empirical results generally indicate a positive correlation between action and the level of moral development. *See* L. KOHLBERG, THE PSYCHOLOGY OF MORAL DEVELOPMENT 498–581; Blasi, *Bridging Moral Cognition and Moral Action: A Critical Review of the Literatures*, 88 PSYCHOLOGICAL BULL. 1 (1980); Kohlberg & Candee, *The Relationship of Moral Judgment to Moral Action*, in MORALITY, MORAL BEHAVIOR AND MORAL DEVELOPMENT 52 (W. Kurtines & J. Gewirtz eds. 1984).

78. *See, e.g., supra* text accompanying notes 55–57 (the statements of Robert Cooter and Charles Goetz).

79. More specifically, it expressly eschews the "self-sealing" quality found in egoism. The proof of this is in the testing that can and has been conducted. *See* materials cited *infra* note 157.

most likely to occur.[80] Two distinct types of behavior fall inside the ambit of altruism, and both have the capacity to strip the gears of conventional economic analysis.[81]

The first type of altruism is defined by philosopher Tom Nagel and economist Amartya Sen. According to Nagel, altruism is characterized as a "*direct* reason to promote the interest of another—a reason which does not depend on intermediate factors such as one's own interests or on antecedent sentiments of sympathy and benevolence."[82] The primary feature of Nagel's definition is that self-interest is not relevant to decision making. But it goes further than that: Altruistic actions not only are not designed to maximize one's own utility but also are not consciously directed to a specific beneficiary. Nagel's altruism is rigidly impartial and is founded on objective, not subjective, values. It is best exemplified by actions based on a sense of duty or moral obligation.

Sen distinguishes between "sympathy" and "commitment."[83] In a broad sense, sympathy can be viewed as grounded in self-interest because a person's "well-being is psychologically dependent on someone else's welfare."[84] Commitment, on the other hand, involves "choosing an act

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80. It is possible to view altruism as but one objective that competes with self-interest. *See* Frohlich & Oppenheimer, *supra* note 4.

81. The two forms I discuss below are similar to those found in D. COLLARD, *surpa* note 15, at 12–15; Arrow, *Gifts and Exchanges*, in ALTRUISM, MORALITY AND ECONOMIC THEORY, 13, 17–18 (E. Phelps ed. 1975); McKenzie, *The Economic Dimensions of Ethical Behavior*, 87 ETHICS 208, 212–16 (1977).

82. T. NAGEL, *supra* note 11, at 15–17 (emphasis in original). Nagel states that altruism does exist, and makes his position especially plausible by supplying the following account of a world in which others do not count:

> [I]t would have to show itself not only in the lack of a direct concern for others but also in an inability to regard one's own concerns as being of interest to anyone else, except instrumentally or contingently upon the operation of some sentiment. An egoist who needs help, before concluding that anyone else has reason to assist him, must be able to answer the question "What's it to him?" He is precluded from feeling resentment, which embodies the judgment that another is failing to act on reasons with which one's own needs provide him. No matter how extreme his own concern the egoist will not feel that this in itself need be of interest to anyone else. The pain which gives him a reason to remove his gouty toes from under another person's heel does not in itself give the other any reason to remove the heel, since it is not his pain.

Id. at 84–85; *see also* J. RAWLS, A THEORY OF JUSTICE 188–89 (1971).

83. Sen, *Rational Fools*, *supra* note 7, at 326–29.

84. *Id.* at 327.

that (one) believes will yield a lower level of personal welfare . . . than an alternative that is available."[85] For example, "if the knowledge of torture of others makes you sick, it is a case of sympathy; if it does not make you feel personally worse off, but you think it is wrong and you are ready to do something to stop it, it is a case of commitment."[86] Sen's notion of commitment is non-self-interested because it can involve "counterpreferential choice."[87] This is a distressing proposition for economic analysis because, as Sen so succinctly states, commitment "drives a wedge between personal choice and personal welfare."[88]

Sen's "commitment" is distinguishable from Nagel's "altruism" because it does not require impartiality.[89] Thus, the decision-maker may favor some groups over others and, supposedly, even some individuals over others.[90] The critical elements are that preferences are ordered and that these orderings of preferences are also ranked.[91] Commitment derives from the ability to rank some orderings at a different level from orderings that are strictly egoistic or based on sympathy. Like Nagel's altruism, these rankings do not reflect the personal preferences of the decision-maker.[92]

The second type of altruism is not impartial and does not require the ranking of others' interests above one's own. According to this view, individuals act to affect the welfare of specifically identifiable others to whose needs they are responsive.[93] The object of the altruism may be a family or

85. *Id.*

86. *Id.* at 326.

87. *Id.* at 328.

88. *Id.* at 329.

89. *Id.* at 336–37.

90. *Id.*; *cf.* Harsanyi, *Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparison of Utility*, 63 J. POL. ECON. 309 (1955), *discussed in* Sen, *Rational Fools*, *supra* note 7, at 336–37.

91. Sen, *Rational Fools*, *supra* note 7, at 337–41; *see also* Sen, *Choice, Orderings and Morality*, in CHOICE, WELFARE AND MEASUREMENT 74 (A. Sen ed. 1982) [hereinafter cited as Sen, *Choice*].

92. Nagel's altruism and Sen's notion of commitment provide us with ways of confronting the egoistic self-interest assumption. Whether this can be successfully done, of course, depends on how far one is willing to take the "psychic income" game. For present purposes, their definitions need not bear such a heavy burden. They are used here to support the view that, even if all choices are ultimately self-serving, there are categories or levels of preferences which cannot be merged.

93. *See infra* notes 144–60 and accompanying text.

group. The individual may or may not be a member of the group he or she seeks to benefit. The reason for weighing the impact of others may be a sense of duty or obligation. In this form of altruism, however, the decision-maker's interests are balanced against those of others. Others' needs are not afforded priority. Gift giving and contributing to charity are standard examples. The decision to vote, as I will explain below, may also be an example of this weaker form of altruism.[94]

A. *The Possibility of Preference Priorities*

1. Lexical Ordering

Suppose I have a friend who is a prostitute. I do not approve of his activity and I am deeply saddened by what I believe he should find a degrading lifestyle. My feelings are so strong that I devote a great deal of heartfelt effort to persuade him to choose an alternative profession. Assume that I also believe strongly in freedom of choice. Now suppose I am faced with the prospect of voting for a law that would legalize prostitution, and my friend has assured me he will stop being a prostitute if the ballot issue fails. Assume that I will not otherwise be affected by the outcome of the voting, no matter how the issue is resolved. Obviously I have conflicting feelings. But my desire that my friend give up prostitution will not influence my vote if I give priority to my belief that others should have the absolute right to determine their own actions. Thus, I may vote for the ballot issue because I believe that all people should be free to make their own decisions, regardless of how personally upsetting I may find my friend's decision.[95]

This example illustrates the possibility that some values—those afforded priority—simply are not interchangeable with others. When this is the case, these values are said to be subject to lexicographical ordering.[96] To understand

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94. *See infra* text accompanying notes 161–70.

95. The "personal" versus "political" views that people adopt regarding abortion provide a current example of this conflict. *See* Krauthammer, *The Church State Debate,* NEW REPUBLIC, Sept. 17 & 24, 1984, at 15; Balch, *supra* note 29; Callahan, *supra* note 29. *See generally* J.S. MILL, ON LIBERTY 9, 95–106 (1956 ed.).

96. *See generally* J. ELSTER, *supra* note 7, at 124–33; M. HOLLIS & E. NELL, *supra* note 8, at 203; M. LUTZ & K. LUX, *supra* note 7, at 68–75, 317–26; I. PEARCE, A CONTRIBUTION TO DEMAND ANALYSIS 22–27 (1964); J. RAWLS, *supra* note 82, at

why lexical ordering[97] presents problems for economic analysis,[98] consider the standard economic perspective. Suppose I have a bundle of six oranges, six pears, and two copies of Rawls' *A Theory of Justice* (TJ). I derive from these possessions a certain level of utility, well-being, contentment, or satisfaction. If the government takes one copy of TJ in order to distribute copies of the book more equitably, my level of utility will decline. But, under the traditional analysis, if the government compensates me with enough oranges or pears, I will eventually return to my original level of utility. In short, a number of combinations of copies of TJ, oranges, and pears will leave me feeling equally well-off. If, however, a lexical ordering is employed, no combination of oranges and pears with only one copy of TJ will leave me feeling as well-off as I would feel with two copies of the book.[99] There is no substitutability between my first level concern—copies of TJ—and those that satisfy other classes of needs.[100]

The possibility of lexical ordering has led to important criticisms of economic theory and applied economics. Conventional economic theory assumes that needs or wants are reducible. Essentially, there is some common denominator—utility—that can be used to compare all wants or needs. If all wants and needs are reduced to a single component,

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42–43 (1971); K. SHRADER-FRECHETTE, SCIENCE POLICY, ETHICS, AND ECONOMIC METHODOLOGY 268–78 (1985); Chipman, *The Foundations of Utility*, 28 ECONOMETRICA 193 (1960); Fried, *Difficulties in the Economic Analysis of Rights*, in MARKETS AND MORALS 175, 181–82 (G. Dworkin, G. Bermant & P. Brown eds. 1977); Georgescu-Roegen, *Choice*, *supra* note 43, at 510–18; Houthakker, *The Present State of Consumption Theory*, 29 ECONOMETRICA 704, 710–12 (1961); Pattanaik, *Group Choice with Lexicographic Individual Orderings*, 18 BEHAVIORAL SCI. 118 (1973); Tversky, *supra* note 26, at 32; Tribe, *Policy Science: Analysis or Ideology?*, 2 PHIL. & PUB. AFF. 66, 90–97 (1972) [hereinafter cited as Tribe, *Policy Science*]; Tribe, *Ways Not To Think About Plastic Trees: New Foundations for Environmental Law*, 83 YALE L.J. 1315, 1321 (1974) [hereinafter cited as Tribe, *Plastic Trees*].

97. I will follow the suggestion of J. Rawls that "lexicographical" be shortened to "lexical." *See* J. RAWLS, *supra* note 82, at 42–43.

98. *See* M. LUTZ & K. LUX, *supra* note 7, at 62–73; Georgescu-Roegen, *Choice*, *supra* note 43, at 510–18; Goldman, *Business Ethics: Profits, Utilities and Moral Rights*, 9 PHIL. & PUB. AFF. 260, 275–77 (1980); Tribe, *Policy Science*, *supra* note 96, at 89–98; Tribe, *Technology Assessment and the Fourth Discontinuity: The Limits of Instrumental Rationality*, 46 S. CAL. L. REV. 617, 625–33 (1973).

99. The analogy that is commonly made is that one's preferences are ordered like the words in a dictionary. *See* J. RAWLS, *supra* note 82, at 42 n.23; Tribe, *Policy Science*, *supra* note 96, at 90–91.

100. Georgescu-Roegen, *Choice*, *supra* note 43, at 513–16.

one can easily assume infinite interchangeability. The problem that critics bring to light is that many needs take on a lexical character and, therefore, are arranged in hierarchies.[101] Thus, someone with a substandard living cannot satisfy the need for water and food with tickets to the ballet.[102]

From the standpoint of applied economics, the possibility of lexical ordering raises doubts about the appropriateness of cost-benefit analysis in the making of public policy. Lawrence Tribe's eloquent and path-blazing critique of environmental policy illustrates the inadequacy of a unidimensional weighing of costs and benefits.[103] For example, when it comes to environmental issues—like the preservation of a species—the battle is often viewed as taking place between those willing and those unwilling to afford the existence of a species lexical priority.[104]

This is not meant to imply that lexical ordering is limited to moral issues. For example, in his important 1954 article, economist Nicholas Georgescu-Roegen argued against the tendency to reduce all human wants to a "common basis."[105] In 1979, Mark Lutz and Kenneth Lux[106] extended the work of Georgescu-Roegen and specifically noted the lexical quality of Abraham H. Maslow's hierarchy of needs.[107] Similarly, Amartya Sen's concept of "commitment" permits the lexical prioritization of groups and social classes.[108] All of these possibilities are extremely significant for the use of economic analysis generally. But when eco-

101. *Id. But see* Griffin, *Are There Incommensurable Values?*, 7 PHIL. & PUB. AFF. 39 (1977).

102. M. Lutz and K. Lux have merged the problem of lexical ordering, as described primarily by Georgescu-Roegen, with Abraham Maslow's "hierarchy of needs." *See* M. LUTZ & K. LUX, *supra* note 7.

103. *See* Tribe, *Plastic Trees*, *supra* note 96; *see also* Sagoff, *We Have Met the Enemy and He is Us or Conflict and Contradiction in Environmental Law*, 12 ENVTL. L. 283 (1982).

104. *See, e.g.*, Tribe, *Plastic Trees*, *supra* note 96, at 1317–22; Tribe, *Policy Science*, *supra* note 96, at 95; *see also* Belsky, *Environmental Policy Law in the 1980's: Shifting Back the Burden of Proof*, 12 ECOLOGY L.Q. 1, 18–20, 52–56 (1984).

105. Georgescu-Roegen, *Choice*, *supra* note 43, at 515. In this article, Georgescu-Roegen documents his view that a recognition of the irreducibility of wants has been a continuing subcurrent in economic thought. *Id.* at 513–18.

106. M. LUTZ & K. LUX, *supra* note 7.

107. *See* A. MASLOW, MOTIVATION AND PERSONALITY (1954), *discussed in* M. LUTZ & K. LUX, *supra* note 7, at 9–22.

108. *See* Sen, *Rational Fools*, *supra* note 7, at 336–37.

nomics is paired with law, lexical orderings founded on moral values are of particular consequence.

2. Law and Economics and Lexical Ordering

The narrow self-interest model asks us to assume that lexical priorities do not exist—that all things can be reduced to the concept of utility or its law and economics surrogate, "value."[109] Yet things that are likely to be subject to lexical ordering, such as rights and duties, are precisely the things about which the economic analysis of law is most concerned. For example, if I consider whether or not to break a promise, I am seen through the filter of economic analysis as being equally comfortable with keeping my word or breaking my promise and receiving a certain increase in my assets. Presumably, I will break the promise for any amount over that increase. Similarly, I can install a safety device on my automobile and reduce the risk of injuring another, or I can save the money and incur the risk that could be avoided. According to standard economic analysis, the device could be priced at a cost that will leave me indifferent between these options. If the device costs more than that amount, I will maximize my utility by not installing the device. Under the conventional model, these decisions involve a single-plane weighing of what are comparable values.[110]

Let us suppose that instead of the unidimensional cost-benefit approach of law and economics, I have two rules that I always observe in my dealings with others. First, I do not break promises.[111] Second, I do not endanger the life of another when I can avoid doing so. These principles are, in effect, lexically prior to most other things from which I derive satisfaction. They are not reducible to the same class of utility that I might derive from the goods and services purchased with the money I receive from breaking my promise or the money saved by not installing the safety device. As a consequence, the conventional efficiency-based incentives of law and economics fail to be incentives at all and the predictive capacity of the traditional model is undercut.

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109. *Cf.* Sagoff, *supra* note 103, at 289; Tribe, *Policy Science*, *supra* note 96, at 94–97.

110. *Cf.* Georgescu-Roegen, *Choice*, *supra* note 43, at 515; Tribe, *Policy Science*, *supra* note 96, at 94–97.

111. *See generally* C. FRIED, CONTRACT AS PROMISE (1981).

The lexical ordering possibility also has implications for the Coase Theorem, the backbone of law and economics.[112] The Theorem states that, in a world without transaction costs, rights will end up in the possession of those valuing them most, even if the rights are not initially assigned to those individuals.[113] For exchanges to take place, each party must attribute greater utility to what is gained than to what is given up. Of course, even exchanges that would leave both parties better-off may not occur, or may be delayed, if the parties adopt various bargaining strategies in an attempt to garner a greater share of the surplus created by the exchange.[114]

Another barrier to exchange stems from lexical ordering. For example, assume a situation in which an exchange would increase the utility of each party. I may see a hat for which I would pay up to fifteen dollars. In other words, I would derive more utility from the hat than from anything else available for fifteen dollars. Based on utility considerations, the seller would accept any amount above five dollars. An exchange would create a surplus, which would be allocated by the negotiated price. Any price between fifteen dollars and five dollars would result in a gain in utility for both of us.

But now that we have discovered the opportunity to divide the surplus, we must also agree on what constitutes an equitable division.[115] We bring to this problem our own

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112. Coase, *The Problem of Social Cost,* 3 J.L. & ECON. 1 (1960).

113. *Id.* at 2–15.

114. *See generally* Coleman, *supra* note 20; Cooter, *The Cost of Coase,* 11 J. LEGAL STUD. 1, 14–27 (1982); Cooter, Marks & Mnookin, *Bargaining in the Shadow of the Law: A Testable Model of Strategic Behavior,* 11 J. LEGAL STUD. 225 (1982).

115. The importance of equity seeking in exchange relationships has been confirmed by an area of study called "equity theory." *See* G. HOMANS, SOCIAL BEHAVIOR: ITS ELEMENTARY FORMS (1974); Adams, *Inequity in Social Exchange,* in ADVANCES IN EXPERIMENTAL SOCIAL PSYCHOLOGY 267 (L. Berkowitz ed. 1965); Adams, *Toward an Understanding of Inequity,* 67 J. ABNORMAL & SOC. PSYCHOLOGY 422 (1963); Adams & Rosenbaum, *The Relationship of Worker Productivity to Cognitive Dissonance About Wage Inequities,* 46 J. APPLIED PSYCHOLOGY 161 (1962); Cook & Parcel, *Equity Theory: Directions for Future Research,* 47 SOC. INQUIRY 75 (1977); Lane & Messe, *Equity and the Distribution of Rewards,* 20 J. PERSONALITY & SOC. PSYCHOLOGY 1 (1971); Lawler, *Equity Theory as a Predictor of Productivity and Work Quality,* 70 PSYCHOLOGICAL BULL. 596 (1968); Lawler, Koplin, Young & Fadem, *Inequity Reduction Over Time in an Induced Overpayment Situation,* 3 ORGANIZATIONAL BEHAVIOR AND HUMAN PERFORMANCE 253 (1968); Walster, Berscheid & Walster, *New Directions in Equity Research,* 25 J. PERSONALITY & SOC. PSYCHOLOGY 151 (1973); Walster & Wal-

subjective notions of equity. Even if we do not use any bargaining strategy and cooperate fully in our attempts to find a division that is fair, we may not succeed in agreeing on what constitutes a fair division. The exchange may still occur, but it may leave one or both of us feeling cheated.

On the other hand, if we both afford lexical priority to feeling that we have been treated fairly in the exchange, a transfer may not occur.[116] In this situation, increased utility is a necessary, but not sufficient, condition for exchange. If the "fair treatment" condition is not satisfied, the resources will not find their way to those who place the highest value on them in the traditional sense.[117]

The behavior of many people may fall between the strict lexical prioritization discussed here and the one-dimensional utility model of law and economics. For example, I might have an opportunity to breach a contract and, after paying damages, end up with an increase in wealth of $100. I could decline this opportunity, yet accept another that involves breaching the contract in order to increase my wealth by $500. While it would be inappropriate to say that I have consistently applied a strict lexical ordering, this does not revive the traditional law and economics model. Lexical or-

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ster, *Equity and Social Justice*, J. SOC. ISSUES, Summer 1975, at 21. I am indebted to Matthew Spitzer for introducing me to equity theory. *See also* E. FROMM, THE ART OF LOVING 129–33 (1956); Austin, Walster & Utne, *Equity and the Law: The Effect of a Harmdoer's "Suffering in the Act" on Liking and Assigned Punishment*, in ADVANCES IN EXPERIMENTAL PSYCHOLOGY 163 (L. Berkowitz & E. Walster eds. 1976); *cf.* Goffman, *On Cooling the Mark Out*, 15 PSYCHIATRY 451 (1952).

116. *Cf.* Adams, *Inequity in Social Exchanges*, *supra* note 115, at 292; Adams, *Toward an Understanding of Inequity*, *supra* note 115, at 428.

117. I do not mean to imply that "value" and "utility" are the same. The difference, however, does not affect this analysis.

Recently, Elizabeth Hoffman and Matthew Spitzer presented evidence suggesting that disagreements about what is an equitable division of the gains from trade are not likely to preclude an exchange. *See* Hoffman & Spitzer, *The Coase Theorem: Some Empirical Tests*, 25 J.L. ECON. 73 (1982) [hereinafter cited as Hoffman & Spitzer, *Coase*]; Hoffman & Spitzer, *Entitlements, Rights and Fairness: An Experimental Examination of Subjects' Concepts of Distributive Justice*, 14 J. LEGAL STUD. 259 (1985) [hereinafter cited as Hoffman & Spitzer, *Entitlement*]. Although the Hoffman-Spitzer studies strongly support the position that individuals are not wholly self-interested, *see infra* text accompanying notes 192–98, they are not as persuasive regarding whether negotiation can overcome disagreements about the equitable distribution of the surplus the exchange created. This is because the experimental subjects were given the same information about how power was allocated between the parties and their relative inputs. If the parties had been given different information on these points, it seems less likely that they would have agreed so readily on what constituted an equitable division.

dering produces an absolute incomparability. The more limited possibility is that certain values are weighted more heavily than others. This results in a partial incomparability or a discontinuity in the exchange function between contract breaching and monetary reward. Throughout this discontinuity—a range of rewards for breaching—the decision maker behaves in exactly the same fashion as the person with an absolute lexical priority, and the implications for the economic analysis of law are the same.[118]

3. Motivation and Moral Values

Is there any basis for expecting some values to be ranked above individual personal utility? There are powerful arguments that this is the case. The explanation for why rational men would afford lexical priority to the rights of others stems from Kant's Categorical Imperative:[119] Generally stated, if men are of equal moral worth, and rational men do not make distinctions among equals, then it is irrational to favor oneself over another.[120] Tom Nagel takes this Kantian idea and expands it into a full-blown argument in favor of expecting rational people to behave altruistically.[121] His argument is easier to understand if one first examines why he believes prudence—motivation "by the possibility of avertable future harm or accessible future benefits"[122]—is rational. Typically, prudence is connected to some present desire, like the desire for security or peace of mind.[123] Nagel rejects the present-desire explanation and posits that it is rational to be prudent without regard to present desires. The heart of his argument is that the rational person can view the present as simply one period among all possible time periods, and thus develop a "temporal neutrality."[124] According to Nagel, "prudential reasons arise . . . because if it is tense-

118. *See* Tribe, *Policy Science*, *supra* note 96, at 91–93.

119. I. KANT, FOUNDATIONS OF THE METAPHYSICS OF MORALS (L. Beck trans. 1959).

120. J. MURPHY, KANT: THE PHILOSOPHY OF RIGHT 75 (1970); *see also* Goldman, *Rights, Utilities and Contracts*, 3 CANADIAN J. PHIL. 121 (Supp. 1977); Sagoff, *At the Shrine of Our Lady of Fatima or Why Political Questions are Not All Economic*, 23 ARIZ. L. REV. 1283 (1981).

121. T. NAGEL, *supra* note 11.

122. *Id.* at 37.

123. *Id.* at 27–28.

124. *Id.* at 61–74.

lessly true that a reason-predicate applies independently to a certain event—present or future—then there is a prima facie reason to promote that event."[125]

Nagel extends his approach to prudence to explain why it is rational to be altruistic. As with the capacity to view the present as one time period among the panorama of time periods, it is possible to view oneself not simply in terms of " 'I' but as someone—an impersonally specifiable individual."[126] The consequence of this view is that personal desires are no more compelling reasons to act than are the desires of others. People begin to act, not in their own self-interest, but on the basis of objective reasons alone.

Additional arguments for expecting rational people to act in accordance with principles are found in Rawls' *Theory of Justice.*[127] Rawls initially uses the device of the rationally self-interested individual in the "original position" in order to derive the two "Principles of Justice."[128] When Rawls addresses why the Principles would be observed even though they may not coincide with the interests of the individual actor at any particular time, the self-interest model is not relevant.[129] Rawls depends instead on a progression of three psychological "laws" that account for the development of a "sense of justice":

> First law: given that family institutions are just, and that the parents love the child and manifestly express their love by caring for his good, then the child, recognizing their evident love of him, comes to love them.
>
> Second law: given that a person's capacity for fellow feeling has been realized by acquiring attachments in accordance with the first law, and given that a social arrangement is just and publicly known by all to be just, then this person develops ties of friendly feeling and trust toward others in the association as they with evident intention comply with their duties and obligations, and live up to the ideals of their station.
>
> Third law: given that a person's capacity for fellow feeling has been realized by his forming attachments in accordance with the first two laws, and given that a soci-

125. *Id.* at 49.

126. *Id.* at 19.

127. J. RAWLS, *supra* note 82. *See generally* Bates, *The Motivation to be Just*, 85 ETHICS 1 (1974).

128. J. RAWLS, *supra* note 82, at 118–22.

129. *See* Bates, *supra* note 127.

> ety's institutions are just and are publicly known by all to be just, then this person acquires the corresponding sense of justice as he recognizes that he and those for whom he cares are the beneficiaries of these arrangements.[130]

The Rawlsian moral development begins with the self-interest of the child in the first law. The progression culminates when "moral attitudes are no longer connected solely with the well-being and approval of particular individuals and groups, but are shaped by a conception of right chosen irrespective of those contingencies."[131]

For those requiring more direct evidence than that provided by logic and theory, the reasoning of Kant, Nagel, and Rawls may not lead to the conclusion that the limitations of the behavioral assumption of law and economics undermine the utility of that analysis. A wealth of casual observations and some relatively new empirical evidence do, however, confirm that people behave as though they afford some principles lexical priority, or that they at least have major discontinuities in their willingness to view wealth as a substitute for adherence to principles. For example, the discomfort many feel about the possibility that access to extraordinary medical procedures will be determined by market transactions suggests lexical ordering. Similarly, the rejection of cost-benefit standards in favor of feasibility standards for the exposure of workers to toxic chemicals seems founded in the lexical priority afforded human life.[132] The same sense of priority surely accounts for the public outcry following the disclosure that Ford's decision to install "exploding" gas tanks in its automobiles in the 1970's was a product of cost-benefit analysis.[133] Finally, decisions that certain things cannot be bought and sold—the right to vote, the right not to

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130. J. RAWLS, *supra* note 82, at 490–91.

131. *Id.* at 475.

132. *See, e.g.*, American Textile Mfrs. Inst. v. Donovan, 452 U.S. 490 (1981); *see also* Baram, *Cost-Benefit Analysis: An Inadequate Basis for Health, Safety, and Environmental Regulatory Decision-Making*, 8 ECOLOGY L.Q. 473 (1980); Sagoff, *supra* note 120; Sunstein, *Cost-Benefit Analysis and the Separation of Powers*, 23 ARIZ. L. REV. 1267 (1981). *See generally* Shaw & Wolfe, *A Legal and Ethical Critique of Using Cost-Benefit Analysis in Public Law*, 19 HOUS. L. REV. 899 (1982).

133. *See* W. KEETON, D. OWEN & J. MONTGOMERY, PRODUCTS LIABILITY AND SAFETY 422, 490–91 (1980), and materials cited therein; *see also* Goldman, *supra* note 98, at 276.

be subject to indentured service[134]—indicate lexical ordering by society generally.[135]

Lawrence Kohlberg offers empirical evidence that people, in the realm of moral dilemma, do not reason as though all values can be reduced to the same concept of utility. Earlier I noted that Kohlberg has found very little preconventional reasoning among adults.[136] The issue of lexical ordering requires closer consideration of the postconventional level of moral growth.[137] The first of the two stages that make up the postconventional level (stage five in the complete scheme) is characterized by the view that "right action tends to be defined in terms of individual rights and in terms of standards that have been critically examined and agreed upon by the whole society."[138] At the second stage of this level (stage six), "right action is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality and consistency."[139]

Stage six is obviously most in keeping with the Kantian-based arguments described above.[140] Kohlberg's experiments have uncovered only isolated instances of reasoning at this level.[141] Stage five, however, plays an important role in the reasoning of many adults.[142] That stage, while expressing a less-focused notion of universal values, has a clear lexical quality in that it includes reasoning based on the concept of basic values and the importance of rights and duties.

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134. *See, e.g.*, A. OKUN, EQUALITY AND EFFICIENCY: THE BIG TRADEOFF 15–22 (1975); *see also* Sagoff, *supra* note 103, at 306–08.

135. An argument can be made that constitutional issues are also analyzed from the standpoint of different priorities. *See* Ely, *Flag Desecration: A Case Study in the Roles of Categorization and Balancing in First Amendment Analysis*, 88 HARV. L. REV. 1482 (1975); *see also* Tribe, *Constitutional Calculus: Equal Justice or Economic Efficiency?*, 98 HARV. L. REV. 592 (1985).

136. *See supra* text accompanying notes 64–77.

137. *See supra* text accompanying note 70.

138. L. KOHLBERG, THE PHILOSOPHY OF MORAL DEVELOPMENT, *supra* note 65, at 18.

139. *Id.* at 19.

140. *Id.* at 157–68.

141. *See* L. KOHLBERG, THE PSYCHOLOGY OF MORAL DEVELOPMENT, *supra* note 65, at 270–74.

142. *See* A. COLBY, LONGITUDINAL STUDY, *supra* note 65. Approximately one-eighth to one-sixth of Kohlberg's subjects were classified as postconventional. *Id.* at 47. *But see* Liebert, *What Develops in Moral Development?*, in MORALITY, MORAL BEHAVIOR AND MORAL DEVELOPMENT 177 (W. Kurtines & J. Gewirtz eds. 1984).

These higher concerns are not readily traded for narrow, self-serving substitutes. If comparisons and weighing do take place, the balance is struck between laws, moral principles, duties, and contractual obligations;[143] the common denominator is not personal preference.

B. *Expanded Interests: From Kin to Class Selection*

The second form of altruism is grounded in a desire to benefit identifiable others. It is distinguishable from the first form of altruism in that it does not afford lexical priority to the interests of others. For example, although the costs and benefits to others resulting from my actions may play a role in my decision making, they are tradeable with my own more narrowly defined costs and benefits. There may still be a moral foundation for this form of altruism; the motivation for considering others may be based on what I think is right. This sense of duty or rightness, though, does not necessarily require that the interests of others supercede my own. In short, I act as though I have internalized the costs and benefits of others—individuals, groups, animals, or plants—at the same hierarchical level as my own.[144]

This form of altruism is not merely an indirect way of achieving my own personal goals. The emphasis is on the pursuit of group or collective goals, not as a means of satisfying a person's narrowly defined self-interest, but as an end in itself. For example, neither the person who contributes to a public broadcasting station because he believes the broadcasting will stop without the contribution,[145] nor the person who contributes to a blood bank in order to someday receive blood in return,[146] is altruistic in the sense that is meant here. In particular, the notion of "reciprocal altruism" is re-

143. *See* A. COLBY, LONGITUDINAL STUDY, *supra* note 65, at 4; L. KOHLBERG, THE PHILOSOPHY OF MORAL DEVELOPMENT, *supra* note 65, at 18, 152–57; Kohlberg, *Moral Stages*, *supra* note 65, at 33–41. For a consideration of whether reasoning and behavior are consistent, see *supra* note 77.

144. I want to distinguish the cases in which complete psychological internalization of costs and benefits occurs. In those instances, your pleasure or pain is really my pleasure or pain, and my response is hardly altruistic. *See* Sen, *Rational Fools*, *supra* note 7, at 327 (discussion of "sympathy"). I will, however, use the term "internalize," or some form of it, to refer to the consideration of the costs and benefits of others in an altruistic sense. *See also supra* note 17.

145. This example is suggested by H. MARGOLIS, *supra* note 7, at 12.

146. This example was inspired by R. TITMUSS, THE GIFT RELATIONSHIP (1971).

ally no more than a form of exhange without currency and, therefore, is contained within the conventional self-interest model.[147]

Determining the strength and breadth of altruistic motivations is beyond economists' present ability.[148] Most of the notable research into the existence and scope of altruism has been conducted in the fields of biology,[149] social psychology,[150] anthropology,[151] and coevolutionary analysis, an area which combines both genetic and environmental factors as determinants of altruistic behavior.[152] Theories range from "selfish gene" theories, which explain altruistic behavior as directly related to genetic closeness,[153] to sociological theories, which posit a culturally determined group or class motivational base.[154] These discussions seem to deal more with the breadth (kin, group, class) and the determinants of

147. *See* G. HARDIN, THE LIMITS OF ALTRUISM: AN ECOLOGIST'S VIEW OF SURVIVAL 12–15 (1977).

148. *But see* materials cited *infra* note 157.

149. *See, e.g.*, C. DARWIN, ORIGIN OF SPECIES (1859); R. DAWKINS, *supra* note 5; E. WILSON, *supra* note 5; V. WYNNE-EDWARDS, ANIMAL DISPERSION (1962); Trivers, *The Evolution of Reciprocal Altruism*, 46 Q. REV. BIOLOGY 35 (1971); *see also* R. ARDREY, THE SOCIAL CONTRACT (1970); G. HARDIN, THE LIMITS OF ALTRUISM (1977).

150. *See, e.g.*, Berkowitz & Daniels, *Affecting the Salience of the Social Responsibility Norm: Effect of Past Help on the Response to Dependent Relationships*, 68 J. ABNORMAL SOC. PSYCHOLOGY 275 (1964); Berkowitz & Daniels, *Responsibility and Dependency*, 66 J. ABNORMAL & SOC. PSYCHOLOGY 429 (1963); Bryan, *Why Children Help: A Review*, 28 J. SOC. ISSUES 87 (1972); Hoffman, *Empathy, Role Taking, Guilt, and Development of Altruistic Motives*, in MORAL DEVELOPMENT AND BEHAVIOR 124 (T. Lickona ed. 1976); Kelly, Condry, Dahlke & Hill, *Collective Behavior in a Simulated Panic Situation*, 1 J. EXPERIMENTAL & SOC. PSYCHOLOGY 20 (1965); Kohlberg, *Development of Moral Character and Moral Ideology*, in REVIEW OF CHILD DEVELOPMENT RESEARCH 383 (M. Hoffman ed. 1964); Saltzstein, *Social Influence and Moral Development*, in MORAL DEVELOPMENT AND BEHAVIOR, *supra*, at 253; Schwartz, *The Justice of Need and the Activation of Humanitarian Norms*, 31 J. SOC. ISSUES 111 (1975); Walster & Piliavin, *Equity and the Innocent Bystander*, 28 J. SOC. ISSUES 165 (1972); Yarrow, *Learning Concern for Others*, 8 DEVELOPMENTAL PSYCHOLOGY 240 (1973); *see also* E. DURKHEIM, *supra* note 6; L. TIGER, MEN IN GROUPS (1970).

151. *See, e.g.*, L. HYDE, THE GIFT (1979); F. PRYOR, *supra* note 47; M. SAHLINS, STONE AGE ECONOMICS (1972).

152. For an excellent collection of readings, see EVOLUTIONARY BIOLOGY AND HUMAN SOCIAL BEHAVIOR (N. Chagon & W. Irons eds. 1979).

153. *See, e.g.*, R. DAWKINS, *supra* note 5; *cf.* M. HARRIS, CULTURAL MATERIALISM 119–40 (1980).

154. *See, e.g.*, E. DURKHEIM, *supra* note 6; Booth, *Collective Action, Marx's Class Theory, and the Union Movement*, 12 J. ECON. ISSUES 163 (1978); Campbell, *On the Genetics of Altruism and the Counter-Hedonic Components in Human Culture*, 28 J. SOC. ISSUES 21 (1972); Cohen, *Altruism: Human, Cultural, or What?*, 28 J. SOC. ISSUES 39 (1972); *see also* P. KROPOTKIN, MUTUAL AID 223–29 (1904 ed.).

altruism (genetic or environmental) than with altruism's actual existence.

An increasing amount of economic literature incorporates altruism's existence, although usually not its determinants or intensity, into economic models.[155] Some of the most intriguing work points out the importance of altruism in the functioning of traditional markets.[156] This emphasis on altruism is necessitated by the vast amount of behavior that cannot be readily explained by the narrow self-interest model. Common behavior, ranging from a parent's sacrifice for a child to strikes and social movements, appears irrational if examined only from the perspective of the traditional self-interest assumption. The narrow self-interest assumption is further undercut by an increasing wealth of experimental evidence.[157] As a general matter, these day-to-day occurrences and experimental results show that "free-rider"[158] problems are not as pervasive as the narrow self-interest view would suggest.[159] Two frequently discussed examples of behavior that are especially difficult to fit within conventional economic models are examined here: voting and actions evincing group solidarity.[160]

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155. *See, e.g.*, D. COLLARD, *supra* note 15; ALTRUISM, MORALITY, AND ECONOMIC THEORY (E. Phelps ed. 1975); Frolich, *Self-interest or Altruism: What Difference*, 18 J. CONFLICT RESOLUTION 55 (1974); Kennett, *Altruism and Economic Behavior: II*, 39 AM. J. ECON. & SOC. 337 (1980); Kolm, *Altruism and Efficiency*, 94 ETHICS 18 (1983); Valavanis, *The Resolution of Conflict When Utilities Interact*, 2 J. CONFLICT RESOLUTION 156 (1958). *See generally* Landes & Posner, *Altruism*, *supra* note 60.

156. *See* Arrow, *supra* note 81; Kolm, *supra* note 155.

157. *See, e.g.*, Frolich & Oppenhiemer, *supra* note 4; Hoffman & Spitzer, *Coase*, *supra* note 117; Hoffman & Spitzer, *Entitlements*, *supra* note 117; Marwell & Ames, *Experiments on the Provision of Public Goods: Provision Points, Stakes, Experience and the Free-Rider Problem*, 85 AM. J. SOC. 926 (1980); Marwell & Ames, *Experiments on the Provision of Public Goods: Resources, Interest, Group Size, and the Free-rider Problem*, 84 AM. J. SOC. 1335 (1979); Morgan & Sawyer, *Bargaining, Expectations and the Preference for Equality over Equity*, 6 J. PERSONALITY & SOC. PSYCHOLOGY 139 (1967); *see also* Krebs, *Altruism: An Examination of the Concept and a Review of the Literature*, 73 PSYCHOLOGICAL BULL. 258 (1970); Wispe, *Positive Forms of Social Behavior: An Overview*, 28 J. SOC. ISSUES 1 (1972).

158. "Free-rider" problems occur when individuals attempt to enjoy the benefits resulting from purchases by others without making their own contribution. *See infra* note 221.

159. *See* the studies by Marwell and Ames cited *supra* note 157.

160. These two models need not be regarded as mutually exclusive. They are separated here for the convenience of discussion.

1. Voting, the Market, and Law and Economics

The belief that voting is irrational follows from analogizing the act of voting to the purchase of a good or service. In most instances, the marginal cost of casting one's vote exceeds the marginal benefit.[161] This is not to say the benefits of a particular outcome may not be enormous for a specific individual. The marginal individual benefit of one's vote, though, is the overall difference of one outcome over another multiplied by the probability that the individual's vote will determine the outcome. For example, even if the outcome of the presidential election will affect my personal fortune by $1,000,000, the probability that my vote will determine the outcome is so small that my expected benefit from voting will approach zero.[162] In any case, my expected benefit is certainly less than the value of the gasoline, parking expenses, and time actually consumed in voting. In short, using the conventional analysis, one must conclude that it is irrational to vote.

Since the groundbreaking work of Anthony Downs[163] illustrating that traditional economic models are simply inadequate to explain why people vote, social scientists have sought ways to explain voting behavior. Some attempts broaden the traditional analysis to include psychic income types of factors and preserve the theme of cost-benefit analysis.[164] Others suggest that a sense of duty transcends the usual cost-benefit analysis.[165] In other words, the act of voting or the issue voted upon are afforded lexical priority and are not weighed against conventional costs. Still others offer modified explanations of rationality that are consistent with the decision to vote.[166]

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161. *See* A. DOWNS, *supra* note 29, at 260–76; H. MARGOLIS, *supra* note 7, at 82–88; G. TULLOCK, TOWARD A MATHEMATICS OF POLITICS 110–12 (1967); *see also* Salkever, *Who Knows Whether It's Rational to Vote?*, 90 ETHICS 203, 204 (1980).

162. *See* H. MARGOLIS, *supra* note 7, at 84. Of course, winning and losing are not the only returns associated with voting. Margolis also discusses demonstrative benefits, consumption benefits, and psychic benefits.

163. A. DOWNS, *supra* note 29.

164. *See, e.g.*, Riker & Ordeshook, *A Theory of the Calculus of Voting*, 62 AM. POL. SCI. REV. 25 (1968); Strom, *On the Apparent Paradox of Participation: A New Proposal*, 69 AM. POL. SCI. REV. 908 (1975). *See generally* Salkever, *supra* note 161, at 205.

165. *See* Meehl, *The Selfish Voter Paradox and the Thrown-away Vote Argument*, 71 AM. POL. SCI. REV. 11 (1977). *See generally* Salkever, *supra* note 161, at 206–07.

166. *See, e.g.*, Ferejohn & Fiorina, *The Paradox of Not Voting: A Decision—Theoretic Analysis*, 68 AM. POL. SCI. REV. 525 (1974); Salkever, *supra* note 161.

Professor Harold Margolis offers a particularly promising explanation.[167] He asserts that voting, as well as a broad range of altruistic behavior, can be viewed as rational simply by expanding the breadth of the voter's interests. In particular, if the voter is viewed as allocating resources not merely for his or her own narrowly defined interests, but also for the interests of others, the calculation of expected marginal benefits from voting changes dramatically. For example, if the voter is interested in the plight of the poor or elderly, and votes for a candidate who will increase spending on social programs, the potential differences can range into billions of dollars. Although the probability that the individual's vote will determine the outcome remains miniscule, the expected marginal benefit increases markedly—quite possibly to the point at which it exceeds marginal cost.[168]

The decision to vote is analogous to a decision to buy a good or service. It involves a willingness to absorb a cost—pay a price—for taking a particular action.[169] Voting, however, forces us to seek explanations that lie outside of narrow self-interest. Is it possible that voting is merely an exception to an otherwise consistent pattern of self-interest-induced market and nonmarket transactions? This seems unlikely when a transaction, like voting, has the capacity to affect the fortunes of others, and is therefore likely to be influenced by one's values concerning how others should be treated. This is precisely why the narrow self-interest assumption is illogical in the context of the economic analysis of law. One individual's willingness or desire to affect the welfare of another, with or without the other's consent, is at the heart of a decision to take or forego action in the "markets" about which the economic analysis of law is concerned. These decisions, though perhaps market-like in form, are closer in substance to the "social choice" decisions of voting.[170]

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167. *See* H. MARGOLIS, *supra* note 7.

168. *Id.* at 88–95.

169. Whether voting or buying a traditional good, the buyer must decide to forego mutually exclusive opportunities. This is the "opportunity cost," and is the actual cost of any decision.

170. The decision of *whether* to vote is distinguishable from the decision of *how* to vote. The latter may be influenced by many factors not affecting market choices. *See generally* Buchanan, *Individual Choice and the Market*, 62 J. POL. ECON.

2. Solidarity and Group Dynamics

Behavior that is consistent with group goals often appears to be inconsistent with the personal welfare of the individual actor. Acts of heroism,[171] crowd behavior,[172] labor union strikes,[173] the formation of cooperatives[174] and communes,[175] and transactions in which the parties share the fruits of their exchange in a manner that does not reflect their relative power,[176] are examples of behavior that strain the narrow self-interest paradigm. One possibility is that the group's goals or values are lexically prior to the individual's self-serving goals. The question of lexical priority is raised with respect to a variety of solidarity concepts, including the Rastafarian notion of "I 'n' I,"[177] Durkheim's "conscious collective,"[178] Freud's "oceanic feeling,"[179] and the Japa-

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334 (1954). In particular, we may vote according to generalized "values" and make market choices on the basis of individual tastes. *See* K. ARROW, SOCIAL CHOICE AND INDIVIDUAL VALUES 18, 81–83 (1963); Buchanan, *supra*, at 336; Jeffrey, *Preferences Among Preferences*, 71 J. PHIL. 377 (1974). In actuality, the factors influencing how one votes also probably account for the decision to vote at all. Law and economics seems to occupy a middle ground in which market-type transactions involving fundamental values take place. The choices made, though market-like in character, are likely, therefore, to be influenced by broader values.

171. *See, e.g.*, J. BIERMAN, RIGHTEOUS GENTILE: THE STORY OF RAOUL WALLENBERG, MISSING HERO OF THE HOLOCAUST (1981); I. MORRIS, THE NOBILITY OF FAILURE: TRAGIC HEROES IN THE HISTORY OF JAPAN (1975); HEROES—U.S. MARINE CORPS. 1861–1955 (J. Blakeney ed. 1957).

172. *See, e.g.*, G. LE BON, THE CROWD: A STUDY OF THE POPULAR MIND (1897).

173. *See, e.g.*, B. KARSH, DIARY OF A STRIKE (1958); R. LUXEMBURG, THE MASS STRIKE (Torchbook ed. 1971); C. WRIGHT, THE BATTLES OF LABOR (1906). *See generally* Booth, *supra* note 154; Roemer, *supra* note 12.

174. *See* P. CASSELMAN, THE COOPERATIVE MOVEMENT AND SOME OF ITS PROBLEMS (1952); Bogardus, *Why Consumers Co-operate: Seventeen Points*, 26 SOC. & SOC. RESEARCH 352 (1942). *See generally* D. FUNK, GROUP DYNAMIC LAW 366–415 (1982).

175. For an economic analysis, see D. COLLARD, *supra* note 15, at 80–89. *See generally* P. ABRAMS, COMMUNES, SOCIOLOGY AND SOCIETY (1976); B. BERGER, THE SURVIVAL OF A COUNTERCULTURE (1981); R. FAIFIELD, COMMUNES, U.S.A. (1972); D. HAYDEN, SEVEN AMERICAN UTOPIAS (1976); Cornfield, *The Success of Urban Communes*, 45 J. MARRIAGE & FAMILY 115 (1983); Naitove & Nichols, *Special Section on Law Communes: The Simple Life Isn't that Simple*, 2 JURIS DOCTOR, Oct. 1972, at 38; Rothschild-Whitt, *The Collectivist Organization: An Alternative to Rational Bureaucratic Models*, 44 AM. SOC. REV. 509 (1979).

176. *See infra* text accompanying notes 190–97.

177. *See supra* text accompanying notes 1–2.

178. *See* E. DURKHEIM, *supra* note 6, at 79–82.

179. S. Freud, *Civilization and its Discontents*, in 21 THE COMPLETE PSYCHOLOGICAL WORKS OF SIGMUND FREUD 64–65 (J. Strachey ed. 1961).

nese phenomenon of *wa* or group harmony.[180]

When group interests are not lexically prior to self-interest, another issue arises: Is adherence to the goals of the group a *means* of achieving self-interested goals, or is group welfare itself an end?[181] This issue can be analyzed in the context of a familiar game theory construct, the prisoner's dilemma.[182] The dilemma involves two prisoners who are separated without communication and charged with a crime. They are each faced with a choice of confessing or not confessing. If both confess, they will each receive sentences of five years. If both refuse to confess, they will each receive sentences of one year. If one confesses and the other does not, the confessor will be freed and the other will receive a twenty-year sentence.[183]

The matrix in Figure IV illustrates the quandary. The numbers in the upper right of each cell reflect the outcomes for Prisoner *B* and the lower left foretells the fate of Prisoner *A*. From the standpoint of Prisoner *A:* if Prisoner *B* confesses, and *A* also confesses, prisoner *A* will be sentenced to five years; if *A* does not confess, he will be sentenced to twenty years; if *B* does not confess, and *A* does confess, *A* will be freed; if *A* does not confess he will receive a one-year sentence. Regardless of *A*'s assumption about *B*'s strategy, the strategy that minimizes his sentence is to confess. Confession is also *B*'s optimal choice, because he faces the same choices and outcomes as *A*. Consequently, both parties will confess, and each will receive a five-year sentence.

Is there a way around the prisoner's dilemma, so that both parties will refuse to confess, and therefore receive

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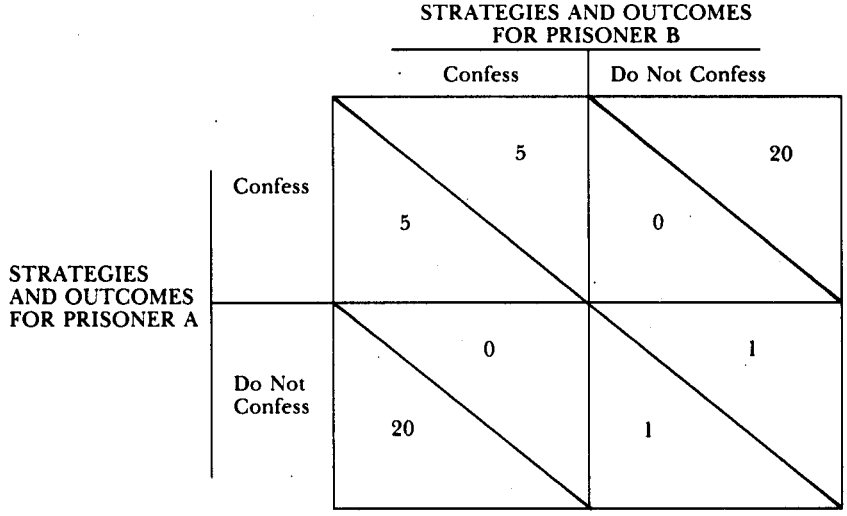
180. Wagatsuma & Rosett, *Cultural Attitudes Towards Contract Law: Japan and the United States Compared,* 2 PAC. BASIN L.J. 76, 85–86 (1983); *see also* Hiroshi, *Some Cultural Assumptions Among the Japanese,* 31 JAPAN Q. 371 (1984); Takeyoshi, *The Legal Consciousness of Contract in Japan,* 7 LAW JAPAN 1 (1974).

181. *Compare* M. OLSON, THE LOGIC OF COLLECTIVE ACTION (1965) *and* Note, *A Note on Collective Action, Marxism and the Prisoner's Dilemma, supra* note 12, *with* Roemer, *supra* note 12 *and* Note, *Mass Action, supra* note 12. *See also* R. UNGER, *supra* note 23, at 206–07.

182. *See generally* R. AXELROD, THE EVOLUTION OF COOPERATION (1984); C. GOETZ, *supra* note 18, at 12–17; R. LUCE & H. RAIFFA, GAMES AND DECISIONS (1957); A. RAPOPORT & A. CHAMMAH, PRISONER'S DILEMMA: A STUDY IN CONFLICT AND COOPERATION (1965); Harrison, *Strategy and Biology: The Continuing Interest in Self-Interest,* 86 COLUM. L. REV. 213 (1986).

183. These outcomes are similar to those found in Sen, *Behavior, supra* note 15, at 249–51.

FIGURE IV



one-year sentences? Actually, there are two possible avenues. The first, as explained by Amartya Sen, is learning to achieve individual goals by pretending not to be self-interested.[184] In terms of the game, this approach would require not confessing; one prisoner would appear to be helping the other. If both adopt this strategy, then each will receive a one-year sentence. Thus, they achieve their self-interested goals by acting altruistically. The other route to the same outcome demands no pretense. It requires the actual internalization of the group's goals,[185] the deliberate recognition of the costs and benefits to others resulting from one's own decision.

A great deal of experimental evidence supports the idea that people learn to adopt a non-self-interested stance in order to reach favorable outcomes.[186] Generally, experiments

184. *Id.* at 252–53.

185. *But see* Note, *A Note on Collective Action, Marxism and the Prisoner's Dilemma*, *supra* note 12. *See generally* Booth, *supra* note 154; Roemer, *supra* note 12; Note, *Mass Action*, *supra* note 12.

186. *See, e.g.*, R. AXELROD, *supra* note 182; A. RAPAPORT & A. CHAMMAH, *supra* note 182; Allman, *Nice Guys Finish First*, 5 SCIENCE 25 (1984); Hardin, *Collective Action as an Agreeable n-Prisoners' Dilemma*, 16 BEHAVIORAL SCI. 472 (1971); Lave, *An Empirical Approach to the Prisoners' Dilemma Game*, 76 Q.J. ECON. 424 (1962); Rapo-

in this area entail repeated plays of the prisoner's dilemma game and immediate rewards. The players eventually learn that cooperation is the best route to achieving their personal goals. Of course, the fact that self-interest-based goals are reached by consciously pretending not to be self-interested does not discredit the narrow self-interest assumption.

The critical question is whether *all* instances of cooperation are the result of "learning to play the game," or whether some instances involve a sense of solidarity and the actual internalization of group goals. Obviously, an answer either way in any particular case of group-oriented behavior is not likely to be empirically verifiable. There are, however, numerous individual actions, ranging from acts of heroism to participation in volunteer community programs, that are extremely difficult to justify on the basis of the immediate or eventual rewards which are likely to accrue to the individual actor. In particular, theories based on the possibility that individuals learn to act "as if" they are not self-interested, in order to achieve narrow individual goals, are unsatisfactory when conduct entails individual peril, is either the first or an isolated event of a particular kind, or when the individual knows the event will occur a predetermined number of times.[187] The internalization of group goals seems well-documented in social movements,[188] including the American labor movement.[189]

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port & Chammah, *Sex Differences in Factors Contributing to the Level of Cooperation in the Prisoner's Dilemma Game*, 2 J. PERSONALITY & SOC. PSYCHOLOGY 831 (1965); Wilson, *Reciprocation and Other Techniques for Inducing Cooperation in the Prisoner's Dilemma Game*, 15 J. CONFLICT RESOLUTION 167 (1971).

187. As noted earlier, *see supra* text accompanying note 186, under experimental conditions, actors in the prisoner's dilemma frequently learn to cooperate and achieve a state of reciprocal altruism. *See* R. AXELROD, *supra* note 182. These experiments typically include repeated interactions. Obviously, when the players encounter each other only once, they have no opportunity to develop a climate of reciprocity. In addition, if the players know how many times they will interact, the last encounter is like a single encounter and cooperation is unlikely. If the actors do not expect to cooperate on the final repetition, there is also little reason to cooperate on the next to last repetition and so on up the line. *Id.* at 92–93.

188. B. BROMMEL, EUGENE V. DEBS: SPOKESMAN FOR LABOR AND SOCIALISM (1978); M. DORMAN, WE SHALL OVERCOME (1964); L. GARA, THE LIBERTY LINE: THE LEGEND OF THE UNDERGROUND RAILROAD (1961); M. KING, STRIDE TOWARD FREEDOM: THE MONTGOMERY STORY (1958); E. PANKHURST, THE SUFFRAGETTE: THE HISTORY OF THE WOMEN'S MILITANT SUFFRAGE MOVEMENT (1970); O. SCOTT, THE SECRET SIX: JOHN BROWN AND THE ABOLITIONIST MOVEMENT (1979); Crozier, *Reflections on Violence*, 33 NATIONAL REV. 656 (1981).

189. *See, e.g.*, B. KARSH, *supra* note 173; A. LINDSEY, THE PULLMAN STRIKE: THE

Recent experimental results verify the allegiance individuals feel toward group goals. Professors Elizabeth Hoffman and Mathew Spitzer offer particularly interesting results in this regard.[190] In a series of experiments, they presented groups of two persons with several alternatives, each having varying payoffs for the individuals and for the group as a whole. During their experiments, they randomly selected one of the individuals involved, the "controller," to make the actual choice.[191] The alternative offering the highest payoff for this individual differed from the one that would maximize the payoff for the other group member or for the group as a whole. The nonchoosing individual was permitted to influence the choice of the controller through enforceable side-payment agreements.

Hoffman and Spitzer found that, approximately ninety percent of the time, the individuals were able to make an agreement that resulted in choosing the alternative that maximized the payoff for the group.[192] More surprising was the nature of the agreements made to achieve this outcome. One would expect self-interested controllers to demand individual outcomes that would at least equal their best individual payoff available among the choices. In fact, there was a far greater tendency for the controller to choose the group-maximizing alternative *and* to take a share of the total payoff that was less than that available from the other alternatives.[193] More recently, Hoffman and Spitzer varied the method of choosing the controller as well as the degree of the controller's apparent moral authority.[194] Although these changes in design affected the division of the group's income, two results persisted. First, the individuals consist-

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STORY OF A UNIQUE EXPERIMENT AND OF A GREAT LABOR UPHEAVAL (1964); C. WRIGHT, *supra* note 173; Booth, *supra* note 154; Lynd, *Communal Rights*, 62 TEX. L. REV. 1417, 1423–30 (1984); Note, *Mass Action*, *supra* note 12.

190. *See* materials cited *supra* note 117.

191. Hoffman & Spitzer, *Coase*, *supra* note 117, at 82. They conducted three-person experiments as well.

192. *Id.* at 91.

193. *Id.* at 91–93. Hoffman and Spitzer note the possibility that a feeling of kinship, stemming from the fact that their subjects were students, may be responsible for these results.

194. Hoffman & Spitzer, *Entitlements*, *supra* note 117. They chose the controller either randomly or through a game competition. They varied the controller's apparent moral authority by altering the wording that defined who was to be the controller. *Id.* at 267–72.

ently arrived at the group-maximizing outcome. Second, the division of the group payoff was typically inconsistent with what would be expected if the parties behaved in a purely self-interested manner.[195]

3. Expanded Interests and Efficiency

Whether for ideological reasons or otherwise, altruism has had little effect on the economic analysis of law.[196] This result seems paradoxical because the existence of a system of laws essentially designed to control and promote the sharing of power, "as if" people were altruistic, may be evidence of a collective aspiration to altruism.[197] Contract law's concern with limiting bargaining power is an especially good example of this.[198] More important, if we assume that man is narrowly self-interested, but he is, in truth, altruistic, attempts to design efficient laws are likely to go awry.

When individuals respond to the well-being of others in making their decisions, they act as though they are internalizing what economists call externalitites.[199] For example, in determining the desirability of my action or, more precisely, what I will pay in order to take that action, I may consider my own costs and benefits and the perceived impact of the action on others. An important complicating factor is that the costs and benefits to others may not be given as much weight as the costs and benefits to me. In other words, I may be influenced more by my personal gain than by altruism. Therefore, the influence of altruism on my decision depends on my perception of the impact of my action on

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195. *Id.* at 275–80. Hoffman and Spitzer conclude that the participants were Lockean in character because they seemed to be guided less by self-interest than by some notion of desert in dividing the group payoff. *Id.* at 280–84.

196. An important exception is Landes & Posner, *Salvors*, *supra* note 60.

197. Kennedy, *Form and Substance in Private Law Adjudication*, 89 HARV. L. REV. 1685, 1722 (1976); *see also* I. MACNEIL, THE NEW SOCIAL CONTRACT: AN INQUIRY INTO MODERN CONTRACTUAL RELATIONS 93 (1980).

198. I. MACNEIL, *supra* note 197, at 84–102; Kennedy, *supra* note 197, at 1719; *see also* Feinman, *Critical Approaches to Contract Law*, 30 UCLA L. REV. 829 (1983); Kronman, *Paternalism and the Law of Contracts*, 92 YALE L.J. 763 (1983).

199. The "internalization" I speak of here does not mean that your fortune or misfortune becomes *my* fortune or misfortune. I am able to separate my interests from yours, but I take yours into consideration in my decisionmaking. If I did not sense this separation, the narrow self-interest assumption would seem to hold. I believe this distinction is also made by Landes & Posner, *Salvors*, *supra* note 60, at 93–100.

others and on some measure of altruistic intensity.[200] Altruistic intensity is a measure of the degree of obligation I feel toward those affected by the particular action. It is likely to depend on cultural factors, genetic closeness, and a host of determinants of group cohesion.[201]

Altruism increases the difficulty of employing efficiency standards[202] in the development of public policy. One efficiency criterion that is particularly germane to public policy and especially vulnerable to problems raised by altruism is the Kaldor-Hicks formulation.[203] Under the Kaldor-Hicks standard, the gains to those benefiting from an involuntary transfer are compared with the losses of those who are injured.[204] The transfer is considered efficient if the gains are

200. *See* D. COLLARD, *supra* note 15, at 14; Kennedy, *supra* note 197, at 1718.

201. *See generally* H. BONNER, GROUP DYNAMICS 66–126 (1959); T. GURR, WHY MEN REBEL (1970); A. HARE, HANDBOOK OF SMALL GROUP RESEARCH (2d ed. 1976); GROUP DYNAMICS 401–43 (D. Cartwright & A. Zander eds. 1968); Berkowitz & Daniels, *Affecting the Salience of the Social Responsibility Norm: Effects of Past Help on the Response to Dependency Relationships*, 68 J. ABNORMAL & SOC. PSYCHOLOGY 275 (1964); Good & Nelson, *Effects of Person-Group and Intragroup Attitude Similarity on Perceived Group Attractiveness and Cohesiveness (pt. I)*, 25 PSYCHONOMIC SCI. 215 (1971); Good & Nelson, *Effects of Person-Group and Intragroup Attitude Similarity on Perceived Group Attractiveness and Cohesiveness (pt. II)*, 33 PSYCHOLOGICAL REP. 551 (1973); Lott, *Group Cohesiveness: A Learning Phenomenon*, 55 J. SOC. PSYCHOLOGY 275 (1961); O'Hara & Wood, *Patterns of Awareness: Consciousness and the Group Mind*, 6 GESTALT J. 103 (1983); Stokes, *Toward an Understanding of Cohesion in Personal Change Groups*, 33 INT'L J. GROUP PSYCHOTHERAPY 449 (1983); Tyerman & Spencer, *A Critical Test of the Sherifs' Robber's Cave Experiments: Intergroup Competition and Cooperation Between Groups of Well-Acquainted Individuals*, 14 SMALL GROUP BEHAVIOR 515 (1983).

202. *See generally* Dyke, *The Vices of Altruism*, 81 ETHICS 241 (1971).

203. *See* Hicks, *The Valuation of Social Income*, 7 ECONOMICA (n.s.) 105 (1940); Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 ECON. J. 549 (1939). *See generally* Coleman, *Efficiency, Exchange and Auction: Philosophic Aspects of the Economic Approach to Law*, 68 CALIF. L. REV. 221, 237–42 (1980); Coleman, *Efficiency, Utility, and Wealth Maximization*, 8 HOFSTRA L. REV. 509, 513–14 (1980).

204. The Kaldor-Hicks criterion provides a means of evaluating involuntary transfers. The competing "Pareto efficiency" criterion would not permit involuntary transfers, and thus is seriously limited as a policy tool. "Pareto efficiency" is, however, an important concept for private contract law. When altruism is involved, exchanges will include a pure exchange component and a gift component. If one adopts the view that altruism need not be the result of the interdependencies of utilities, then most gift-giving would be inefficient from a Pareto standpoint because it would involve a decision by the giver to accept a lesser position in order to benefit others.

If one adopts the egoist view that all gift-giving is explained by utility interdependencies, altruism still creates a question whether Pareto superior results will prevail. The primary problem is that the satisfaction I expect to derive from help-

sufficient to allow those benefiting to compensate those injured, whether or not compensation actually takes place.[205]

The complexity that altruism introduces can be illustrated by the classic case of externalities: environmental pollution. The Kaldor-Hicks approach could call for penalties that are equal to the social cost of discharging wastes into the air or water. This social cost might be measured by the decline in property values in the area surrounding the polluter. Assuming there are no other effects, it is "efficient" to discharge wastes if the costs of stopping the discharge exceed the decline in property values caused by the pollution. By assessing a penalty equal to the social cost, the policymaker could insure that only Kaldor-Hicks-efficient pollution takes place, whether or not the fine is distributed to those suffering the losses.[206]

Suppose I am faced with deciding whether or not to pollute. If altruism plays a role, my decision will be colored by a propensity—perhaps as a result of my membership in the Sierra Club, the presence of relatives in the area, the fact that the area is populated by a group for which I have a particular affinity, or the belief that I do not deserve the maximum gain—to defer to the interests of others. The effect will be to offset what I would be willing to pay on the basis of personal gain alone. Unless I am absolutely selfish, any rules designed to encourage efficient involuntary transfers will be superimposed over an internal, independent system of cost-benefit analysis that is a product of my sense of obligation to others.[207]

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ing another may be based on false information. *See* D. COLLARD, *supra* note 15, at 131; *cf.* Kelman, *Choices and Utility*, *supra* note 7, at 784–87.

205. This is only efficient in the sense of maximizing wealth. It does not mean that overall well-being or utility has been maximized. *See* Coleman, *Efficiency, Utility and Wealth Maximization*, *supra* note 203, at 518–20, 525–26.

206. The goal here is to insure that the right to pollute, or to be protected from pollution, ends up in the hands of the party valuing it the most. When that happens, those gaining would gain enough to compensate those losing. The actual fine in the Kaldor-Hicks case is irrelevant, except as a means for assuring that the "right" party does in fact "win."

207. In addition to responding to others' losses, I may have a general aversion to forcing others to make involuntary transfers, even if I have been assured that such an action is efficient from the standpoint of narrow self-interest. If I am assured that the calculated social cost is accurate and will be distributed to the "losers," the risk that this will not be the case, and my aversion to involuntary transfers, may still reduce the value I place on the activity.

The analysis is further complicated because the decision I make based on what I believe to be your well-being may be wrong simply because I am required to guess about what is in your interest. Moreover, I may rely to some extent on some outward manifestation of your preference, and your expression may be purposely misleading or influenced by your own altruism. Thus, there are layers of overlapping cost-benefit analyses involving individuals with different altruistic intensities and estimates of what is in the interest of the objects of their altruism.[208] Attempting to develop a system of "efficient" rules on the basis of minimal information is as futile as making a manual adjustment to a cooling system while unaware of the temperature.

The layering of cost-benefit analyses does not render economic analysis impotent, but it does magnify the risks of relying upon the narrow self-interest assumption. Economic models must incorporate altruism—including the critical feature of intensity—into their structures.[209] Even assuming some fixed level of nonselfish behavior for all analysis would be more realistic than assuming a complete absence of altruism across the board.[210] Without recognition of altruism, economic analysis of the socio-legal marketplace, especially by those who equate moral rightness with efficiency, seems dangerously primitive.[211]

III. MARKET ILLUSIONS

It is axiomatic that a normative theory based on efficiency or on the maximization of utility presupposes some reliable means of ascertaining preferences or, at least, of

208. The most extreme but unlikely possibility is the "after-you" problem, in which the world grinds to a halt as we all stand aside in order to allow others to express their self-interested preferences. *See* D. COLLARD, *supra* note 15, at 9; Dyke, *supra* note 202, at 252.

209. For some important recent work, see D. COLLARD, *supra* note 15; F. PRYOR, *supra* note 47; Arrow, *supra* note 81; Dyke, *supra* note 202; Kennet, *supra* note 155; Kolm, *supra* note 155; Radar, *The Second Theorem of Welfare Economics When Utilities are Interdependent*, 23 J. ECON. THEORY 420 (1980).

210. It is common in economics to include one's family in the concept of self. I would not consider this altruism, for the reasons discussed *supra* note 15.

211. Geneticists, anthropologists, and social psychologists have commented extensively on the strength of altruistic motivations. *See* citations *supra* notes 149–54. For an especially interesting proposal concerning the use of genetic information, see J. BECKSTROM, SOCIOBIOLOGY AND THE LAW: THE BIOLOGY OF ALTRUISM IN THE COURTROOM OF THE FUTURE (1985).

making reasonable inferences about them.[212] Economists generally offer a simple and seemingly "objective" means of satisfying this requirement. They determine preferences by observing the choices made—typically, market choices. The simplicity ends here. The market is clouded by illusions stemming from both general problems of equating choice with preference and specific problems of using value as a measure of preference.

A. *Choices and Preferences When Others Are Involved: The Prisoner's Dilemma Again*

In the prisoner's dilemma introduced earlier,[213] the rational strategy for both parties was to confess—a decision that resulted in five-year sentences for both prisoners. I indicated two ways of escaping the dilemma.[214] The more relevant prospect in the context of altruism is the internalization of group goals by the decision-makers. They will not confess and will recieve one-year sentences.

But what happens when individuals remain singlemindedly self-interested? If both parties seem to act irrationally and choose as if they were only interested in the welfare of each other, they again will not confess and will receive one-year sentences.[215] This bit of acting is not easy. In the prisoner's dilemma, a prisoner pretending not to be self-interested plays directly into the hands of the other prisoner.

Experimental evidence suggests that despite the risk and temptation involved, individuals are quite capable of learning to cooperate, even without direct communication or any kind of binding agreement, in order to achieve a superior outcome.[216] This does not mean the individuals are less self-interested. They do, however, learn to make choices that appear less self-interested as a means of achieving their self-interest based goals. Naturally, motivational orientation plays a role in developing the trust necessary to

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212. This is not meant to imply that maximizing total utility can be equated with maximizing wealth. *See* Coleman, *Efficiency, Exchange, and Auction: Philosophic Aspects of the Economic Approach to Law*, *supra* note 203, at 237–47.

213. *See supra* text accompanying notes 182–85.

214. *See supra* text accompanying notes 184–85.

215. This discussion relies on the work of Amartya Sen. *See* Sen, *Behavior*, *supra* note 15, at 249–53.

216. *See* studies cited *supra* note 186.

adopt the cooperative strategy while relying on one's "opponent" to do the same.[217] Thus, individuals who believe it is unnecessary to defeat their opponent in order to achieve their own goals are faster learners.[218]

For those attempting to determine preferences by observing choices, the inconsistency between motive and result is a discouraging phenomenon. The choice observed—in this case not confessing—does not appear to be the right choice for a rationally self-interested person whose preference is to receive the lightest sentence possible. Moreover, this seemingly irrational choice turns out to be far superior to the rationally self-interested choice of confessing. As Amartya Sen has noted, the rational participants pay for their rationality with extra years in prison.[219]

The prisoner's dilemma is only one example of a class of deceptions—those created from strategic behavior—that plays havoc with attempts to determine preferences by observing choices. More commonly known and perhaps more directly related to market decisions are the strategies and deceptions involved in bargaining. Anyone who has bargained over the price of an automobile knows that self-interested goals seem to be served best when as little as possible about actual preference is revealed. In fact, avoiding disclosure seems to be a fundamental tenet of bargaining.[220] The fact that a bargain is eventually struck tells us very little about preference. We merely know that one price is acceptable to both buyer and seller rather than how highly each actually values the subject matter of the transaction. A similar deception also plagues attempts to allocate expenditures for public goods on the basis of the amounts individuals say

217. *See* Deutsch, *The Effect of Motivational Orientation upon Trust and Suspicion*, 13 HUMAN RELATIONS 123 (1960); Deutsch, *Trust and Suspicion*, 2 J. CONFLICT RESOLUTION 265 (1958).

218. *Cf.* Deutsch, *Trust and Suspicion*, *supra* note 217, at 270–72. The success of nonadversarial forms of dispute resolution, in the context of existing relationships, can likely be explained by the existence of relatively high levels of trust. *See* Riskin, *Mediation and Lawyers*, 43 OHIO ST. L.J. 29, 32–34 (1982). This is not to say, however, that commercial contexts are incapable of fostering a similar cooperative attitude. *See* Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, *28* AM. SOC. REV. 55 (1963).

219. Sen, *Behavior*, *supra* note 15, at 250.

220. The importance of bluffing in the context of the "chicken game" is discussed in C. GOETZ, *supra* note 18, at 17–32.

they would be willing to pay.[221]

B. *Framing and Preference Reversals*

Recent discoveries in the field of cognitive psychology illustrate additional problems associated with relying on choices as preference indicators. A primary discovery is that people may reverse their expressions of preferences depending upon how an issue is presented to them.[222]

For example, subjects in one experiment were told to assume that a disease outbreak in the United States was expected to kill 600 people.[223] They were then asked to choose between two programs:

> If Program A is adopted, 200 people will be saved. If Program B is adopted, there is a one-third probability that 600 people will be saved, and a two-thirds probability that no people will be saved.

In the experiment, subjects preferred Program A by almost a three-to-one margin.[224] With the same introductory facts, the choices were then presented slightly differently:

> If Program C is adopted, 400 people will die. If Program D is adopted, there is a one-third probability that nobody will die, and a two-thirds probability that 600 people will die.

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221. Determining the proper supply of public goods is difficult, because people are often reluctant to reveal their preference when there is a possibility of being a "free rider." *See supra* note 158. Several writers have made proposals for methods that might induce revelation of preferences. *See, e.g.*, Clarke, *Multipact Pricing of Public Goods*, 11 PUBLIC CHOICE 17 (1971); Margolis, *A Thought Experiment on Demand-Revealing Mechanisms*, 38 PUBLIC CHOICE 87 (1982); Tideman & Tullock, *A New and Superior Process for Making Social Choice*, 84 J. POL. ECON. 1145 (1976). Regarding the pervasiveness of the free-rider problem, see articles by Marwell and Ames cited *supra* note 157.

222. *See, e.g.*, Fischhoff, Slovic & Lichtenstein, *Knowing What You Want: Measuring Labile Values*, in COGNITIVE PROCESSES IN CHOICE AND DECISION BEHAVIOR 117 (T. Wallsten ed. 1980); Kahneman & Tversky, *Choices, Values and Frames*, *supra* note 17; Kahneman & Tversky, *The Psychology of Preferences*, *supra* note 17; Knetsch & Sinden, *Willingness to Pay and Compensation Demanded: Experimental Evidence of an Unexpected Disparity in Measures of Value*, 99 Q.J. ECON. 507 (1984); Lindman, *Inconsistent Preferences Among Gambles*, 89 J. EXPERIMENTAL PSYCHOLOGY 390 (1971); Machina, *"Expected Utility" Analysis Without the Independence Axiom*, 50 ECONOMETRICA 277 (1982); Russell & Thaler, *supra* note 8; Slovic & Lichtenstein, *Preference Reversals: A Broader Perspective*, 73 AM. ECON. REV. 596; Thaler, *Illusions and Mirages in Public Policy*, 73 PUB. INTEREST 60 (1983) [hereinafter cited as Thaler, *Illusions*]; Tversky & Kahneman, *Framing of Decisions and the Psychology of Choice*, 211 SCIENCE 453 (1981) [hereinafter cited as Tversky & Kahneman, *Psychology of Choice*].

223. *See* Tversky & Kahneman, *Psychology of Choice*, *supra* note 222, at 453.

224. *Id.*

In this case, subjects preferred Program D by more than a three-to-one margin.[225] In both cases the choices were substantively identical. In Programs A and C, 200 people live and 400 people die. In Programs B and D, the expected survival rate is 200.

The preference reversal demonstrated in this particular experiment was a result of what psychologists call "framing."[226] Daniel Kahneman and Amos Tversky, pioneers in this field, explain that the framing here elicited a response that was consistent with the fact that people are generally more averse to risks involving gains than to risks involving losses.[227] In the disease hypothetical, the first two choices were framed in terms of gains—people saved; the second two choices were framed in terms of losses—people dying. And the results followed the expected pattern.[228]

Framing evokes different responses to objectively indistinguishable stimuli. For example, the holder of a losing lottery ticket that misses winning by one digit is likely to be more disappointed than the holder of a lottery ticket on which no numbers match the winning combination.[229] Similarly, missing an airplane flight by five minutes is more frustrating than missing a flight by an hour.[230] In both cases, individuals select a reference point—winning or losing the lottery, catching or missing the flight—and use that point as the basis for their response. Variations in feelings of frustration and regret follow even though the actual outcomes are identical.[231]

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225. *Id.*

226. *See* Kahneman & Tversky, *Choices, Values and Frames*, *supra* note 17, at 343–44; Kahneman & Tversky, *The Psychology of Preferences*, *supra* note 17, at 167; Tversky & Kahneman, *supra* note 222, at 456–57.

227. *See* Kahneman & Tversky, *Choices, Values and Frames*, *supra* note 17, at 341–43; Tversky & Kahneman, *Psychology of Choice*, *supra* note 222, at 453–55. *See generally* Friedman & Savage, *Utility Analysis of Choices Involving Risk*, 56 J. POL. ECON. 274 (1948).

228. *See* Kahneman & Tversky, *Choices, Values and Frames*, *supra* note 17, at 343; *see also* Arrow, *Risk Perception in Psychology and Economics*, 20 ECON. INQUIRY 1 (1982).

229. Kahneman & Tversky, *The Psychology of Preferences*, *supra* note 17, at 170.

230. *Id.*

231. *Id.*; *see also* Thaler, *Toward a Positive Theory of Consumer Choice*, 1 J. ECON. BEHAV. & ORGANIZATION 39, 51–54 (1980) [hereinafter cited as Thaler, *Positive Theory*]. Tversky and Kahneman compare the framing of choices to the dilemma of determining the relative heights of two mountains from various vantage points. As one's perspective changes, the apparent relative heights of the mountains may

An especially intriguing manifestation of changing perspective involves self-control and changes in preferences as the time frame is altered.[232] For example, my morning decision not to gorge myself on pastry that day may change when I walk by the pastry shop in the afternoon. Recognizing this, I may decide not to walk down the street where the pastry shop is located.[233] Richard Thaler suggests that this phenomenon reveals two sets of preferences: one as "planner" and one as "doer."[234] Framing exposes these dual preference structures and reveals the link between choices and the role played at a particular moment.

This important body of research forces one to question whether any efficiency-based public policy requiring the ascertainment of preferences can be more than guesswork.[235] One possible response is to discount preference reversals as irrational.[236] This response, however, saves the choices-re-

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appear to vary. *See* Tversky & Kahneman, *Psychology of Choice, supra* note 222, at 457.

In a particularly interesting and important study, patients' medical treatment preferences changed according to how the alternatives were framed. *See* McNeill, Pauker, Sox & Tversky, *On the Elicitation of Preferences for Alternative Therapies,* 306 NEW ENG. J. MED. 1259 (1982).

232. *See* J. ELSTER, *supra* note 7, at 36–111; Ainslie, *Specious Reward,* 82 PSYCHOLOGICAL BULL. 463 (1975); Strotz, *Myopia and Inconsistency in Dynamic Utility Maximization,* 23 REV. ECON. STUD. 165 (1955–56); Thaler, *Illusions, supra* note 222, at 66–71; Thaler, *Positive Theory, supra* note 231, at 54–57; Thaler & Shefrin, *An Economic Theory of Self-Control,* 89 J. POL. ECON. 392 (1981); Tversky & Kahneman, *Psychology of Choice, supra* note 222, at 457–58.

233. *See* Thaler, *Illusions, supra* note 222, at 66–67; Thaler, *Positive Theory, supra* note 231, at 55. The decision to avoid a future temptation is called precommitment. *See* Strotz, *supra* note 232, at 173; Thaler, *Positive Theory, supra* note 231, at 55. The example used by Strotz and others is based on Ulysses' attempts to prepare for the call of the Sirens in THE ODYSSEY. *See* Strotz, *supra* note 232, at 165; J. ELSTER, *supra* note 7, at 36; Thaler, *Positive Theory, supra* note 231, at 55; Tversky & Kahneman, *Psychology of Choice, supra* note 222, at 457.

234. Thaler, *Positive Theory, supra* note 231, at 55–56.

235. Economists are generally reluctant to accept the possibility that preference reversals are not minor short-term aberrations from "rational" decision processes. *See* Russell & Thaler, *supra* note 8; Slovic & Lichtenstein, *supra* note 222. The testing, however, has been rigorous, and the reversal phenomenon remains. *See* Grether & Ploh, *Economic Theory of Choice and the Preference Reversal Phenomenon,* 69 AM. ECON. REV. 623 (1979); Knetsch & Sinden, *supra* note 222; Pommerehne, Schneider & Zweifel, *Economic Theory of Choice and Preference Reversal Phenomenon: A Reexamination,* 72 AM. ECON. REV. 509 (1982); Reilly, *Preference Reversals: Further Evidence and Some Suggested Modifications in Experimental Design,* 72 AM. ECON. REV. 576 (1982).

236. In particular, preference reversals violate the condition of "invariance," which suggests that the ordering of preferences should not be a function of the

veal-preferences assumption only at the expense of the rationality assumption. Furthermore, calling this behavior irrational is inappropriate because some theories of rationality accommodate this type of behavior.[237] Moreover, whether irrational or rational by some standard, the problem remains the same: Observations of choice may tell us far less about preferences than the use of efficiency criteria requires us to know.

C. *The Wealth Effect*

The most commonly cited hazard of relying on expressions of value to ascertain the strength of an individual's preferences is the "wealth effect."[238] The wealth effect occurs when the amount I am willing to pay for something is a function of my wealth. In the economic analysis of law, the wealth effect is typically viewed in terms of how the possession or non-possession of a particular entitlement affects the value I attach to it. For example, suppose I have a panoramic view of the beach from my house, and, because of zoning or deed restrictions, I have a right to a continuing, unobstructed view. Assume I am approached and asked for what price I would be willing to sell my right to an unobstructed view, and my reply is "$20,000." Or suppose I do not have a right to the unobstructed view, but am given an opportunity to buy that right from my neighbor, who has the right to build a structure between my house and the beach. If the wealth effect is operating, the amount I am willing to pay for the right will be less than the amount for which I am willing to sell it. As Duncan Kennedy has aptly stated, there is an "offer-asking" problem.[239]

The wealth effect makes cost-benefit analysis especially treacherous. For example, what are the benefits of constructing a highway? Are they what motorists say they would be willing to pay to construct the highway, or are they what motorists would pay to keep the highway if its existence were

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manner in which the choices are described. *See* Kahneman & Tversky, *Choices, Values and Frames*, *supra* note 17, at 343.

237. *See* March, *supra* note 8, at 591–93.

238. *See* C. GOETZ, *supra* note 18, at 53; J. KRUTILLA & A. FISHER, THE ECONOMICS OF NATURAL ENVIRONMENTS 30–31 (1975); A. POLINSKY, *supra* note 18, at 124–25; Baker, *supra* note 18, at 13; Coleman, *supra* note 20, at 662–63; Kennedy, *supra* note 18.

239. *See* Kennedy, *supra* note 18, at 401.

threatened? The fact that the answers may differ has been empirically verified. For instance, researchers asked a group of hunters how much money they would have to be paid before they would relinquish their hunting rights.[240] The average response was an amount over $1000. When the hunters were asked the maximum they would be willing to pay before becoming "discouraged" from hunting, the average response was $247.[241] If you are the policymaker who must decide on the value of hunting, which question do you ask?

The wealth effect is also troublesome for the backbone of the economic analysis of law, the Coase Theorem.[242] The effect produces a systematic bias toward the conclusion that resources have found their way to their most valued uses.[243] The problem is that the subjective perception of the value of an asset is higher if one already possesses that asset. This bias reduces the number of instances in which state intervention, for the purpose of reallocating resources to those valuing them most, is regarded as appropriate.[244]

It is tempting to believe that the wealth effect is present only when the value of the asset at issue represents a large portion of total wealth.[245] At some point wealth limits one's ability to pay for a resource, but does not effect one's ability to be compensated.[246] However, the wealth effect is present even before the amount one is willing to pay is limited by one's wealth. In fact, recent research suggests that a phenomenon similar to the wealth effect is at work even in the absence of an impact on total assets.[247] In these cases, the value an individual attributes to an item seems to depend upon the overall composition of his assets.

D. *Endowment Effects and Mental Accounting*

The strong likelihood that a wealth-effect-type phenom-

240. *See* J. HAMMACK & G. BROWN, WATERFOWL AND WETLANDS: TOWARD BIOECONOMIC ANALYSIS 26–28 (1974).

241. *Id.*

242. *See supra* note 112 and accompanying text.

243. *See* Baker, *supra* note 18.

244. *Cf.* Kennedy, *supra* note 18, at 401.

245. The problem with this approach is pointed out in C. GOETZ, *supra* note 18, at 53.

246. *See, e.g.*, J. KRUTILLA & A. FISHER, *supra* note 238, at 30.

247. *See infra* text accompanying notes 248–53.

enon, called the "endowment effect,"[248] will occur, even when there is little or no change in wealth, has been verified in experiments involving actual transactions.[249] In one experiment, for example, students entering a room were given lottery tickets of different colors.[250] Those receiving tickets of one color were told they would have to pay two dollars in order to keep the tickets; those holding the other color were given the option of keeping the ticket or trading it for two dollars. Among those who had to pay to keep their tickets, exactly half did so. Among those who were permitted to cash in their tickets for two dollars, approximately one-fourth did so.[251] The first group was split evenly over whether the ticket was worth two dollars; the second group predominately acted as if the tickets were worth more than two dollars. Either wealth effects were active even at the two-dollar level, or inertia was generated simply by the form of the assets.

The latter possibility was confirmed in a similar experiment, in which members of one group were each given three dollars, and members of another were each given a ticket.[252] All were told that the tickets were for a lottery, and the terms of the lottery were explained. Then, those individuals possessing tickets were permitted to exchange them for three dollars, and those who had been given cash were given the opportunity to buy tickets. Eighty-two percent of those given tickets elected to keep them, and sixty-three percent of those given money elected not to exchange it for tickets.[253] The tickets were evidently worth more than three dollars to those who had initially received tickets, but less than three dollars to those who had initially received money.

Researchers theorize that the reluctance to trade is a result of a general tendency to undervalue opportunities when

248. I believe the name for this special type of framing was first supplied by Richard Thaler. *See* Thaler, *Positive Theory, supra* note 231, at 44. The problem arises when the decision-maker views opportunity costs and out-of-pocket costs of the same magnitude differently. *Id.*

249. *See* Knetsch & Sinden, *supra* note 222. *See generally* Kelman, *Consumption Theory, supra* note 7, at 682–85; Thaler, *Illusions, supra* note 222, at 61–66; Thaler, *Positive Theory, supra* note 231, at 43–47.

250. *See* Knetsch & Sinden, *supra* note 222, at 509–11.

251. The results were statistically significant at the .05 level. *Id.* at 511.

252. *See Id.* at 512–13. The actual distribution of tickets and money was determined by drawing.

253. The difference was statistically significant at the .01 level. *Id.* at 513.

they are compared to actual out-of-pocket expenses. In other words, assets that are part of one's endowment, and would be parted with in a transaction, are given greater weight than gains that are simply "available."[254] This imbalance may be fueled by a desire to avoid the risk of regret associated with having made an "incorrect" change.[255]

Regret and the tendency to keep different mental asset accounts[256] probably explain one final example. Subjects were asked to imagine that they had decided to see a play, and that the admission price was ten dollars.[257] Some of the subjects were told to assume that, upon arrival, they discovered they had lost ten dollars. When asked whether they would still buy a ticket for the play, eighty-eight percent responded affirmatively. Other subjects were told to assume that they had already bought the ticket, but discovered upon arrival that they had lost it. Only forty-six percent of this group indicated that they would buy a second ticket.[258] Kahneman and Tversky posit that the individuals who lost the tickets were more likely to see themselves as faced with the prospect of paying twenty dollars to see the play. Those losing the ten dollars, on the other hand, did not view the loss as offsetting whatever gain they had originally received in their exchange of ten dollars for a ticket.[259] In short, the

254. *See* Knetsch & Sinden, *supra* note 222, at 516; Thaler, *Positive Theory, supra* note 231, at 43–47. According to Thaler, "the opportunities available are likely to be viewed as gains while the out-of-pocket expenses are treated as losses. Thus, the results are consistent with the general tendency to be more averse to risk associated with gains than with losses." *Id.* at 44. *See generally* Kahneman & Tversky, *The Psychology of Preferences, supra* note 17, at 160–68. Of course, it is the framing of the question or the experiment that determines whether an action is viewed as involving a gain or loss.

255. *See* Kahneman & Tversky, *The Psychology of Preferences, supra* note 17, at 170–71; Kelman, *Consumption Theory, supra* note 7, at 688–89; Knetsch & Sinden, *supra* note 222, at 517. Although Thaler discusses fear of regret as an independent motivation for not choosing, his analysis suggests that he too would explain the imbalance of the endowment effect as a desire to avoid making a wrong move. *See* Thaler, *Positive Theory, supra* note 231, at 43–47, 51–54.

256. *See generally* Thaler, *Mental Accounting and Consumer Choice*, 4 MARKETING SCI. 199 (1985).

257. *See* Kahneman & Tversky, *Choices, Values, and Frames, supra* note 17, at 347–48.

258. *Id.* at 347.

259. *Id.* at 348. This example is reminiscent of another phenomenon called the "sunk cost effect." *See* Thaler, *Positive Theory, supra* note 231, at 47. This effect is exemplified by the person who pays for membership in a tennis club, is injured, and then plays in pain because he does not want to "waste" the money spent on

form, not the quantity, of the loss is critical in the decision.

E. *Dangerous Inferences*

Strategic behavior, framing, the wealth effect, and the endowment effect create illusions and undermine the link between choice and preference. When these distorted images of preference are used to guide an efficiency-based public policy, they create an obvious bias in favor of the status quo. Unfortunately, no simple prescription will bring actual preferences into focus.[260] Nor is there any assurance that knowledge of this bias and a desire to avoid its consequences will result in more effective approaches to public policy. For if one does not rely on others' choices in making policy decisions, one must rely on inferences as to what others' true preferences are. The guessing that takes place leads inevitably to the very difficult issues of how much weight, if any, one's preferences concerning the opportunities[261] and preferences of others[262] should be given.

As an example of the potential temptations, suppose I greatly enjoy both wine and mystery novels. Even though I sincerely wish I were not so fond of wine, given a choice between a twenty-five dollar bottle of wine and a similarly priced novel, I am indifferent.[263] I may, however, vote for subsidizing the distribution of reading material to the poor, but not for the distribution of wine. The most benign possibility is that I am simply making a good faith inference about poor people's preferences. Another possibility is that my inferences are driven by my paternalistic beliefs about what

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membership. The problem is that once the membership is purchased, the only relevant comparison is between the pleasure and pain of playing. "Sunk cost," the cost of membership, however, is not ignored. Mark Kelman offers the alternative explanation that consumers are motivated by a desire to close transactions. That is, they want to obtain value for value given. *See* Kelman, *Consumption Theory*, *supra* note 7, at 691–92.

260. *Cf.* Kennedy, *supra* note 18, at 401–19. *But see* Markovits, *Duncan's Do Nots: Cost-Benefit Analysis and the Determination of Legal Entitlements*, 36 STAN. L. REV. 1169, 1178–84 (1984).

261. *See, e.g.*, R. BRANDT, A THEORY OF THE GOOD AND THE RIGHT 138–48 (1979); R. DWORKIN, TAKING RIGHTS SERIOUSLY 232–39 (1977); Baker, *Counting Preferences in Collective Choice Situations*, 25 UCLA L. REV. 381 (1978); Ely, *Professor Dworkin's External/Personal Preference Distinction*, 1983 DUKE L.J. 959; Hart, *Between Utility and Rights*, 79 COLUM. L. REV. 828 (1979).

262. *See* Dyke, *supra* note 202, at 249.

263. This example is suggested by Kelman, *Choices and Utility*, *supra* note 7, at 783.

opportunities should be available or by my preferences for what the preferences of the poor should be. In short, I may require behavior from the poor that I do not require of myself. Market elitism is thus replaced by a substitute that is certainly no less elitist or insidious.

CONCLUSION

Eight years ago, Frank Michelman warned that the "vigorous weedy propensity" of economic analysis was a threat to the flowering of other approaches to the analysis of law.[264] The weeding and pruning in this Article go to the roots of the economic analysis of law. The tool I have used is a question: Can the underlying assumptions of economics support the huge normative weight that the discipline is asked to bear in its application to law? In particular, do people behave self-interestedly, and can we detect their preferences by observing the things they do?

One version of the self-interest assumption—egoism—cannot be verified. Moreover, even if egoism is a valid theoretical explanation, it does not pierce the psyche sufficiently to permit any meaningful analysis of our motivational bases. The narrow self-interest alternative recognizes motivational influences other than narrow self-interest, but asks us not to consider them. This approach, though it may work well in traditional, impersonal markets, is strikingly out of place in the analysis of law. Law explicitly deals with right and wrong and the external effects of our actions. Its existence is proof that we are driven by lexical orderings and the well-being of others. Any theory that purports to explain what law is or should be and begins by asking that these things be assumed away is fundamentally flawed.

The use of economic theory, in the form of cost-benefit or other efficiency-based analysis, requires some accurate account of preferences. But observation of market behavior can lead to inaccurate conclusions. Illusions are produced by conscious attempts to conceal and by valuation inconsistencies stemming from framing and wealth effects.

What is left of economics in the properly pruned garden? Economics should be admired for its descriptive

264. Michelman, *Norms and Normativity in the Economic Theory of Law*, 62 MINN. L. REV. 1015, 1028 (1978).

beauty. It supplies us with a variety of useful measuring devices, such as cross elasticities, market shares, concentration ratios, Herfindahl indices, average costs, rates of return on investment, and debt-equity ratios. To the reader who has been in a time warp for the last fifteen years, this is familiar territory.[265] It is what the economic analysis of law means when it is confined to its proper place. Economics also provides a way of thinking that is original in the context of law, but that is the source of the problem. It has become a particularly virulent form of crabgrass that too many measure by the ground it covers rather than by any genuine nurturing it provides. Before we abandon the legal field to economics, we had better measure more carefully the fertile thought of other disciplines.

265. Richard Posner calls this the "older" branch of the economic analysis of law. R. POSNER, *supra* note 20, at 3–4.